POLICE IN KARNATAKA 1994

Sanctioned Strength of Police Force (as on 1-11-1994)

Category	ASP/DSP upto DCP	Inspector	Sub-Inspector	Asst. Sub-Inspector	H C	Constable	Total
Civil Police							
Men	340	813	1538	1884	8819	24324	37718
Women	–	16	33	12	87	398	546
Armed Police	41	86	264	412	2275	9878	12956
Wireless Police	7	12	92	185	421	306	1023
State Armed Reserve	46	92	231	78	1764	7299	9510
Total Police Force	434	1019	2158	2571	13366	42205	61753

No. of Police Districts : 20 ; Commissionerates-3 ; Ranges-6

No. of Police Stations : 742 (as on 1-11-94)

Ratio of PS to population : 1 : 64151

Ratio of Policeman to population : 1 : 771

No of Armed Police Battalions : 10

Total IPC Crimes reported

1990	1991	1992	1993	1994
1,00,740	1,05,420	1,07,931	1,06,967	97,331 (upto 1-11-94)

No. of Training Establishments : 10

Cost of Policing : Rs. 338.10 crore for 1994-95

Pay Scales (in Rs.)	Dy. Supdt. of Police	Inspector	Sub-Inspector	Asst. Sub-Inspector	Head Constable	Police Constable
	2375-4450	1900-3700	1720-3300	1280-2375	1130-2100	1040-1900
Total emoluments at the minimum & maximum of pay scales (in Rs.)			Min.			
	5443.00	4359.00	3983.00	2952.00	2640.00	2454.00
	9080.00	8130.00	Max. 7413.00	5438.00	4868.00	4351.00

Source of recruitment in each rank

DSP	33⅓ % direct, 66⅔ % by promotion with 8 years service in the rank of PI or 5 years if officers with 8 years service are not available.
Inspector	By promotion–from the rank of PSIs with 8 yrs. Service or 5 yrs. if no officers with 8 yrs. service are available.
PSI	60% direct, 30% by promotion; 10% for ASIs and HCs from the rank of ASIs with 3 years service or from the rank of HCs with 8 years service.
ASI	By promotion – From the rank of HCs with 3 yrs. service
HC	By promotion – From the rank of PCs with 8 yrs. service
Constable	Direct recruitment

Normal time taken for promotion : DSP to SP : 10 to 12 years; PI to DSP : 13 to 14 years; PSI to PI : 10 to 15 years; ASI to PSI : 8 to 10 years; HC to ASI : 8 to 10 years; PC to HC : 10 to 15 years.

Provision for time bound promotion : 10 years

Special promotion in the senior scale : 15 years

Provision for out of turn promotion : No provision

Associations :
i) Karntaka State Association (Ind/recognised) (All Non-IPS Ranks)
ii) Akhila Karnakata Police Maha Sangha (unrecognised/defunct)
iii) I.P.S. Officers' Association Karnataka Chepter

Organised protest action by police personnel (during the year) : Nil

Concessions enjoyed by the Personnel

In cash : Weekly-off remuneration; feeding charges while on duty; 15 days salary in lieu of gazetted holidays from PCs to PSIs; leave surrender benefit (30 days in 2 years); cash rewards to CM's medal winners; monetary compensation to those who sustain injuries; monetary relief from the B.F., & Group Insurance Scheme to constabulary.

In kind : About 41% of the personnel are provided with rent-free quarters; general welfare schemes to police personnel and their families, free ration from PCs to PSIs.

Outstanding demands : Reserve recruitment of PSIs to the children of retired Police personnel.

Special Units :

1 COD – Headed by an officer of the rank of Addl. Director General of Police
2 DCRE – Headed by an officer of the rank of Addl. Director General of Police
3 Intelligence – Headed by an officer of the rank of Addl. Director General of Police
4 SCRB – Headed by an officer of the rank of Superintendent of Police
5 Forest – Headed by an officer of the rank of Inspector General of Police
6 FPB – Headed by an officer of the rank of Superintendent of Police
7 FSL – Headed by an officer of the rank of Director

R. RAMALINGAM
Director General & Inspector General of Police
Karnataka State, Bangalore

Tasks : Awareness

1) Identify the target groups.
   (i) Location { Physical / Hierarchical
   (ii) strength (no)
   (iii) levels (in awareness/Edn.)
   (iv) Approach route

2) Work out strategies to reach them effectively.
   i) media Pr / El. / Post / ---
   ii) Official communication
   iii) Camps
   iv) Personal contact

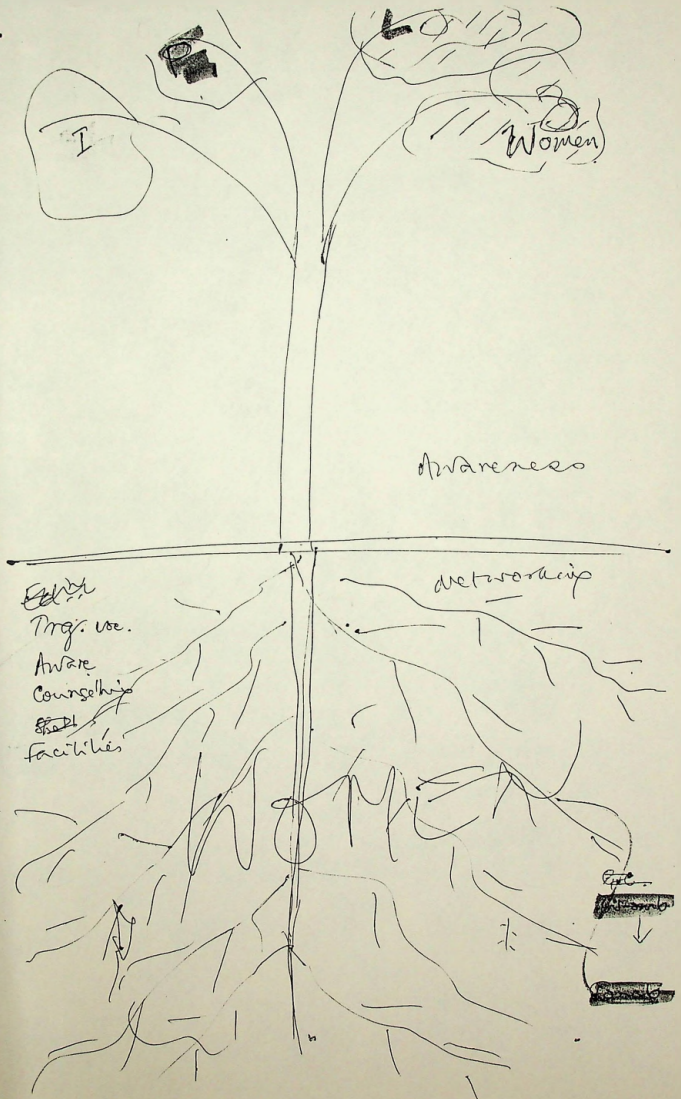
NERAUU

GOAL: ——— Empower/ Enrich Woman

4 Jan Objectives

I Awareness a) Laymen
b) Women
c) Policy makers
d) Implementers

II Networking with
a) NGOs
b) Institutions assistng
c) Govt bodies/Depts
d) Funding agencies
e) ~~Education~~ Academic centres


I
Women
Awareness
Prog. use.
Aware
Counselling
facilities

WOMEN'S GRIEVANCE REDRESSAL CELL

OR

CRISIS CENTRE

COMPONENTS :

- DIALLER SYSTEM ("HELPLINE")
- COUNSELLING CENTRE (FACE TO FACE COUNSELLING)
- SHELTER (INDEPENDENT/HOUSES)

... OPTIONAL:

- SECRETARIAT/RESEARCH CELL TO CO-ORDINATE WITH
  - (a) GOVT. DEPTS →
    - SW DEPT
    - POLICE DEPT
    - LAW DEPT
    - COLLEGES
    - HOSPITALS etc....
  - (b) NGO's AND VOLUNTEERS →
    - WOMEN'S ORGANISATIONS
    - SERVICE ORGANISATIONS
    - U.N./COMMON WEALTH AGENCIES
    - INDIVIDUAL VOLUNTEERS
    - PEOPLE'S REPRESENTATIVES
    - MEDIA PERSONS

ORGANISATIOAL LINK OF THE MULTI-DISCIPLINARY PROJECT

(MULTI-DEPARTMENT; MULTI-AGENCY)

1. WELFARE
   - DEPT OF WOMEN & CHILD DEVELOPMENT
   - DEPT. OF SOCIAL WELFARE
   - WOMENS DEVELOPMENT CORPORATION
2. POLICE
   - CORPS. OF DETECTIVES (DOWRY CELL)
   - WOMEN'S POLICE STATIONS
   - CITY POLICE
   - POLICE HEAD QUARTERS
3. LAW
   - LAW DEPT.
   - LEGAL AID BOARD
   - LAW YEARS
   - NATIONAL SCHOOL OF LAW
4. PSYCHOLOGICAL SUPPORT
   - NIMHANS
   - UTY DEPT.
   - CLINICAL PSYCHOLOGISTS
   - MARRIAGE COUNSELLERS
   - PRACTICING PSYCHOLOGISTS
5. NGOs
   - WOMEN'S ORGANIZATIONS
   - INDIVIDUAL VOLUNTEERS
   - GROUPS WORKING FOR WOMEN

STRUCTURE

(A) ADVISORY COUNCIL

(B) CORE GROUP (MONITORING BODY)

(C) RESOURCE PERSONNEL
(experts to analyse DATA and ADVISE/also for FACE TO FACE COUNSELLING)

(D) PRIMARY COUNSELLORS
(Trained volunteers to receive call and for I stage counselling)

INFRA STRUCTURE

- Telephones & cabins
- Counselling cubicles
- Record maintenance system
- Ambulance (or Link with Ambulance facility)
- Shelter (or link with facility for Shelter& Rehabilitation)

CONFRONTING DOMESTIC VIOLENCE (DOWRY RELATED & OTHERWISE)

STAGE AND NATURE OF INTERVENTION

CATEGORY- I WORST - POST INCIDENT
*POLICE INVESTIGATION OF CRIME CASE
(FACILITY ALREADY IN POLICE)

CATEGORY-II BAD - SOURED RELATIONSHIP
* INTERVENTION By Way of
i) COUNSELLING
ii) LEGAL AID
iii) SHELTER
IV) POLICE HELP

CATEGORY - III HOPEFUL - WOMAN UNDER EXTREME STRESS

(INTERVENTION - MOST BENEFICIAL PERHAPS LIFE SAVING) A
A SPONSORED CRISIS CENTRE
MULTI - DISCIPLINARY
MULTI - DEPARTMENT
MULTI - AGENCY PROJECT

~~HHH~~

HERBAL MEDICINES FOR GYNEACOLOGICAL PROBLEMS NH-5.1

COMMUNITY HEALTH CELL, BANGALORE

I MENSTRUATION:

1. Amenorrhoea-

* Grita Kumari (Aloe barbadensis)- Take the fleshy part of the lraves; wash it in water few times, mix with jaggery and eat in empty stomach in the morning for five days.
* Papaya (Carica Papaya)- Take papaya milk from the fruit; add 2-3 drops with misri (sugar candy-'kalla sakkare'). Consume it for seven days continuously twice daily.
* Jamun (Euginia; Jambolana)- Take the juice or decoction of Jamun bark after diluting with water twice daily for about seven days continuosly.
* ~~decoction of 20 grams~~ Cotton plant- Take a decoction of 20 grams each of flowers and leaves of the Cotton plant (500 ml. of water boiled to half its quantity) mixed with 20 grams of jaggery to induce menstrual flow.
* 125 grams of each of the following ingredients like sesame seeds, tender shoots of the cotton plant and tender shoots of bamboo plants and 220 grams of aged jaggery are to mixed with the powder and pea-sized pills are prepared. Take these pills one at a time with warm water every morning and evening .
* A good simple formula is shatavari and ashwagandha taken two parts each, and turmeric and ginger one part each, using one teaspoonful of the powder per cup of warm water.
* Neem- Drink 1 tola of the juice of the tender leaves of neem for about a month. A decoction of the bark is also useful.
* Onion- Eating the bulbs raw has been noticed to bring about a desirable regularity in menstruation among women. It is is a case where menstruation does not occur or is obstructed five

tolas of onion are cooked in one ser of water till the latter is reduced to about ten to twenty tolas. Then add 3 tolas of jaggery. This is to be made hot and drunk by the patient for a few days. Other reciepes are: three tolas of onion juice are made luke warm and drunk before going to bed at night. Or, ten tolas 1 of onion are cut into small pieces, garam masala is added to it and the whole is roasted in ghee and eaten. The obstructed menstruation will become rectified.

2. DYSMENORRHOEA:

* Kumari-asava which is given to the patient in a dose of 6 teaspoonfuls, twice daily after food with equal quantity of water.
* Rajah pravardhani which contains borax in bhasma form, asafoetida and kumari, is also an effective drug. Two tablet
* Add sufficient quantity of asafoetida to the food of the patient which can be given in powder form. For this it can be fried with ghee or butter in a big spoon over fire, this makes it brittle and powder can be made out of it conveniently. This powder should be taken in a dose of 1 teaspoonful twice daily along with food. It should be followed by hot water. Because of the pungent smell it emits, some people do not like to take it alone. It may be added with butter milk or vegetables or rice or bread and taken by the patient.
* Grind the leaves of bitter gourd with some pepper and garlic. Take this once a day for three days.
* Take the juice of 'karaila'or hagala kayi 1oz, once a day for 7 days.
* Make a decoction of somph, avala and jaggery of about 1/2 a cup twice a day for 30 days.
* Boild the leaves of Arusha(Adathoda Vasica) in a glass of water and reduce it to half. From the first day of menses drink in the morning in empty stomach for 5 days.
* Boil few leaves of Babul Tulsi('nayi tulsi') in a glass of water and drink thrice a day.
* Give the powder of the tneder leaves of tamarind 1 tsp with honey twice a day for 7 days.

3. MENORRHAGIA:

* Seeds of unripe mango fruit is cut into pieces, fried in ghee, mixed with sugar and the whole stuff is made into a pill mass. Several pills are made out later and these are given in stipulated doses. The kernel of the seed is powdered and given in stipulated doses of 20 to 30 grains with or without honey. Fluid extraction of the bark or an infusion of the bark is curative too.
* A drink of the juice of plantain flowers mixed with curds acts as a curative to young girls suffering from excessive bleeding.
* Burn some amount of coconut coir into ashes- Take a teaspoonful of the ash, mix it well in tender coconut water, add small quantity of sugar candy and administer this drug twice a day for young girls.
* Asoka and lodhra are popularly used for the treatment of this condition. Thepowder of the bark of these drugs, is given to the patient either separately or in a compound form in a dose of one teaspoonful four times a day, with cold water.
* The tender leaves of pomegranate along with seven grains of rice are made to a paste and given to the patient twice daily for a month. This works both as a preventive as well as curative medicine.
* Two grams of each of these ingredients are taken and ground together: dry (stone) ginger, gum from the bark of a nemm tree, ajwan seeds, tamal patra, and equal amounts of the five parts of the Tulsi plant. The powder so prepared is boiled in 100 grams of water till one-fourth of the water remains. The extract should be taken regularly. If excessive flow accompanies dizzinêss, Tulsi juice mixed with honey will give quick relief.

* Mix one teaspoonful of dhania powder in the water in which rice has been washed. Dose: 1 glass for a day.

* Diet: Old rice, wheat, moong dal, milk and ghee can be given. Sugarcane juice, grapes, jack fruit, banana, amalakki, pomegranate, are very useful. Hot & spicy things are to be strictly avoided.

4. LEUCORRHOEA:

* Douching with decoction of bark of the Banyan or fig tree keeps the tissues of the vaginal tract healthy.

* The person should chew betel nut after meals as it has curative effect.

* Cumin seeds ground in Tulsi juice and mixed with fresh milk of a cow have a beneficial effect in leucorrhoea, and they also improve the general health of the woman.

* 20 grams of Tulsi juice with rice water, meanwhile restricting the diet to rice and milk, & rice and ghee for the duration of the treatment.

* One teaspoonful of the powder of the banyan tree bark and fig tree bark should be boiled in one litre of water and reduced to half. The decoction is then filtered and the powder thrown away. When it is slightly warm, douching should be performed. This decoction keeps the tissue cells of this area healthy.

* When the outer skin of the leaf of kumari is removed, a fleshy pulp comes out which is used for the extraction of juice. One ounce of this is to be given to the patient twice daily with a little honey added to it, preferably on an empty stomach. This juice stimulates the lives, promotes digestion and regulates the bowels.

* Take the leaves of drum stick tree in any form as soup or saag or chatni.

* Boil few cut pieces of ginger and few flowers (better both) of ashuli (অশুলি-ফুল) - (Hibiscus rosa) in a glass of cow milk adding equal amount of water and reduce it to half. Strain and drink with sugar. Twice daily for 21 days.

* Fluid extraction of the bark or an infusion of the bark of mango tree is curative in leucorrhoea.

* Prepare a tincture or an alcoholic extract of the powder of betel nut and employ it but freely diluted with water - 1 drachm of the tincture in 4 ounces of water. This is used locally or as an injection to stop water discharge from the vagina and also in checking the hydrorrhoea of water rash of pregnancy. Here, a sudden flow of acid fluids from the stomach to mouth occurs and an outbreak of burning sensation (heart burn) in the gullet, as well.

5. OTHER PROBLEMS:

* Drinking of 1 tola of the juice of the tender leaves of neem is advised even in the absence of menstrual flow of the obstruction of such a flow because this is a good corrector of menstrual irregularities. This is also used in cleaning the uterus.

* The juice of the flowers of neem is given regularly upto 6 mashas (months) in dosage to be licked along with honey.

* Bitter gourd; 'hagala kayi' in Kannada; 'kakara, tellakakra' in Telugu is given internally to cure disorders of menstruation (freshly extracted juice).

* The seeds of raddish are regarded to be possessing emenagogue properties viz. they regulate menstrual cycle among women and are therefore used in the related disturbances. The external application of the seeds promotes menstruation. A teaspoonful of the seeds of raddish is to be ground into a smooth paste. This is to be mixed well with buttermilk and then drunk. This will commence menses that had become obstruct.

* Gingelly (sesame seeds - 'ellu') decoction is given to girls to bring about quick puberty. A pinch of saffron well crushed in a tablespoonful of milk is another useful prescription for underdeveloped girls. In adolescence saffron has an overall stimulating effect.

* It is a practice among certain communities in S. India to give the girl who has newly come of age a combination

of a teaspoonful of gingelly oil with a teaspoonful of overnight soaked urad dal, a few grains of whole Bengal gram & the yolk of one egg. This 'egg nog' helps in the full maturity of the girl.

* Chutney made with coriander leaves, curry leaves, mint or fenugreek leaves all help in the full growth of the adolescent girl. Anaemia is checked, regular periods come on. Mint in particular is supposed to cure painful pds. by acting as an uterine tonic.

* A tasty drink is made by mixing in milk egg yolk, four almonds crushed, a little gingelly powder & a teaspoonful of honey. Helpful for those with undue delay in the onset of periods in adolescence.

* Green unripe papaya emenaggie.

* Cumin & gingelly decoction sweetened with palm candy is supposed to help the onset of menses.

* Sweet rotis with jaggery, black cumin & dry turmeric powder — 1 or 2 a day to help onset of periods.

* Boil pieces of fig (athi) root in water & make a decoction. Filter & drink the decoction for a few weeks to set the cycle normal.

* Prepare the decoction of the barks of Jamun tree. Mango tree & Shimal tree (silk cotton tree) in 2 Hrs of water reducing it to half. Dose: 1 cup 2/day x 1 day.

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Duplicate EHT

WH - 5.1

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* Make a decoction of somph, avala and jaggery of about 1/2 a cup twice a day for 30 days.
* Boil the leaves of Arusha(Adathoda Vasica) in a glass of water and reduce it to half. From the first day of menses drink in the morning in empty stomach for 5 days.
* Boil few leaves of Babul Tulsi('nayi tulsi') in a glass of water and drink thrice a day.
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* A drink of the juice of plantain flowers mixed with curds acts as a curative to young girls suffering from excessive bleeding.
* Burn some amount of coconut coir into ashes- Take a teaspoonful of the ash, mix it well in tender coconut water, add small quantity of sugar candy and administer this drug twice a day for young girls.
* Asoka and lodhra are popularly used for the treatment of this condition. Thepowder of the bark of these drugs, is given to the patient either separately or in a compound form in a dose of one teaspoonful four times a day, with cold water.
* The tender leaves of pomegranate along with seven grains of rice are made to a paste and given to the patient twice daily for a month. This works both as a preventive as well as curative medicine.
* Two grams of each of these ingredients are taken and ground together: dry (stone) ginger, gum from the bark of a nemm tree, ajwan seeds, tamal patra, and equal amounts of the five parts of the Tulsi plant. The powder so prepared is boiled in 100 grams of water till one-fourth of the water remains. The extract should be taken regularly. If excessive flow accompanies dizziness, Tulsi juice mixed with honey will give quick relief.

* Mix one teaspoonful of dhania powder in the water in which rice has been washed - Intake : 1 glass for a day.

* Diet : Old rice, wheat, moong dal, milk and ghee can be given. Sapoccara juice, grapes, jack-fruit, banana, amalaki, pomegranate, are very useful. Hot & spicy things are to be strictly avoided.

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* The person should chew betel nut after meals as it has curative effect.

* Cumin seeds ground in tulsi juice and mixed with fresh milk of a cow have a beneficial effect in leucorrhoea, and they also improve the general health of the woman.

* 20 grams of tulsi juice with rice water, meanwhile restricting the diet to rice and milk, & rice and ghee for the duration of the treatment.

* One teaspoonful of the powder of the banyan tree Bark and fig tree Bark should be boiled in one litre of water and reduced to half. The decoction is then filtered and the powder thrown away. When it is slightly warm, douching should be performed. This decoction keeps the tissue cells of the area healthy.

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* Take the leaves of drum stick tree in any form as soup or sag or chatni.

* Boil few cut pieces of ginger and few flowers (better buds) of ashu ([illegible]) - (hibiscus Rosa) in a glass of cold milk adding equal amount of water and reduce it to half. Strain and drink with sugar. Twice daily for 21 days.

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5. OTHER PROBLEMS:

* Drinking of 1 tola of the juice of the tender leaves of neem is advised even in the absence of menstrual flow & the obstruction of such a flow because this is a good corrector of menstrual irregularities. This is also used in cleaning the uterus.

* The juice of the flowers of neem is given regularly upto 6 mashas in dosage to be licked along with honey. (months)

* Bitter gourd; 'hagala kayi' in Kannada; 'kakara, tellakakra' in Telugu is given internally to cure disorders of menstruation (freshly extracted juice).

* The seeds of raddish are regarded to be possessing emenagogue properties viz. they regulate menstrual cycle among women and are therefore used in the related disturbances. The external application of the seeds promotes menstruation. A teaspoonful of the seeds of raddish is to be ground into a smooth paste. This is to be mixed well with buttermilk and then drunk. This will commence menses that had become obstruct.

* Gingelly (sesame seeds - 'ellu') decoction is given to girls to bring about quick puberty. A pinch of saffron well crushed in a tablespoonful of milk is another useful prescription for underdeveloped girls. In adolescence saffron has an overall stimulating effect.

* It is a practice among certain communities in S. India to give the girl who has newly come of age a combination

of a teaspoonful of gingelly oil with a teaspoonful of overnight soaked urad dal, a few grains of whole Bengal gram & the yolk of one egg. This 'egg yog' helps in the full maturity of the girl.

* Chutney made with coriander leaves, curry leaves, mint or fenugreek leaves all help in the full growth of the adolescent girl. Anaemia is checked, regular periods come on. Mint in particular is supposed to cure painful pds. by acting as an uterine tonic.

* A tasty drink is made by mixing in milk egg yolk, four almonds crushed, a little gingelly powder & a teaspoonful of honey. Helpful for those with undue delay in the onset of periods in adolescence.

* Green unripe papaya emenaggie.

* Cumin & gingelly decoction sweetened with palm candy is supposed to help the onset of menses.

* Sweet rotti with jaggery, black cumin & dry turmeric powder — 1 or 2 a day to help onset of periods.

* Boil pieces of fig (attil) root in water & make a decoction. Filter & drink the decoction for a few weeks to set the cycle normal.

* Prepare the decoction of the barks of Jamun tree. Mango tree & Shimal tree (silk cotton tree) in 2 Ltrs of water reducing it to half. Dose: 1 cup 2/day x 1 day.

—X—

HERBAL MEDICINES FOR WOMEN— CHC, BANGALORE

I MENSTRUATION

1. Excessive Bleeding: Menorrhagia

* Amarantus Spinous(Kannada- 'mullu dantu', Telugu- 'attamullu goranta, nalla doggali') is used in checking excessive menstrual flow.
* Drinking of 1 tola of the juice of the tender leaves of neem are helpful.
* Fried Hibiscus ('dasavala' in Kannada) in ghee is helpful.
* Seeds of unripe mango fruit is cut into pieces, fried in ghee, mixed with sugar and the whole stuff is made into a pill mass. Several pills are made out later and these are given in stipulated doses. The kernel of the seed is powdered and given in stipulated doses of 20 to 30 grains with or without honey. Fluid extraction of the bark or an infusion of the bark is curative too.
* A drink of the juice of plantain flowers mixed with curds acts as a curative to young girls suffering from excessive bleeding.
* Burn some amount of coconut coir into ashes- Take a teaspoonful of the ash, mix it well in tender coconut water, add small quantity of sugar candy and administer this drug twice a day for young girls who suffer from excessive bleeding.
* 4½ mashas each of the gum and marking nut(geru)(Kikar or Gum Arabic, Acacia Arabica: jali, karijali, bauni in Kannada) should be given grinding them along with water.
* Asoka and lodhra are popularly used for the treatment of this condition. The powder of the bark of these drugs, is given to the patient either separately or in a compound form in a dose of one teaspoonful four times a day, with cold water. Asoka-arista and

Asoka-arista and lodrasava are given to the patient in a dose of one ounce twice daily after food with an equal quantity of water.

* The tender leaves of pomegranate along with seven grains of rmice are made to a paste and given to the patient twice daily for a month. This works both as a preventive as well as curative medicine.

* Pravala and mukta are used in acute attacks of this disease. They are given in a powder form which is called pisti. One grain of the powder of this drug is given to the patien four times a day.

* Diet: Old rice, wheat, moong dal, milk and ghee can be given. Sugarcane juice, grapes, jack-fruit, banana, amalaki, pomegranate, are very useful. Hot and spicy things are to be strictly avoided.

* Two grammes of each of these ingredients are taken and ground together: dry (stone) ginger, gum from the bark of a neem tree, ajwan seeds, tamal patra, and equal amounts of the five parts of the Tulsi plant. The powder so prepared is boiled in 100 grammes of water till one-fourth of the water remains. The extract should be taken regularly. If excessive flow accompanies dizziness, Tulsi juice mixed with honey will give quick relief.

* Equal weights of Pathani Lodh, Ochre(Ger) and Oak Galls(Mazu) should be finely powdered and four grams of it taken in the morning and evening with milk.

* Half ripe fruits of the country Fig tree(Gular) should be dried in the shade, powdered and mixed with an equal quantity of sugar. Six grams of the powder taken with milk in the morning and evening gives. Alternatively, three grams of Rasaut and an equal quantity of Shellac should be finely

ground together and made into two doses, one to be taken with milk in the morning and evening.

* Dry Amla should be soaked in juice of green Amla for three days and then ground into powder. Six grams of this powder taken with cow's milk for some days cures the condition. Other remedies recommended are: 10 grams each of Selkhari (Talk) and Geru(Red Ochre) ground together should be taken in three grams doses thrice daily. Multani Mitti(Bole Armeniac) steeped in water and the supernatant water drunk in the morning is also good for excessive bleeding from the womb. Five grams of bark of Kurchi and raw Sugar mixed together taken in the morning and evening is also an effective remedy.
* Grind together the leaves of Mehandi(Lawsonia alba), Bhumi avala(Phyllantus Niruri) and the rind of the anar fruit (Punica granatum) and make pills. Dose: 1 day in empty stomach in the morning. The juice or decoction of the same also can be used.
* Cut a ripe banana at the centre and put one small spoonful of alum powder and eat in empty stomach in the morning for 2-3 days.
* Half a cup of the Jamun Juice, to be taken twice daily for five to seven days.
* Mix one teaspoonful of dhania powder in the water in which rice has been washed. Dose: 1 glass for a day.

I ~~HERBAL~~ MENSTRUATION

2. DYSMENORRHOEA- Painful

* Fresh mint chutney or mint decoction is given to decrease menstrual cramps. For very severe dysmenorrhoea a decoction of 'Brahmamanduki' leaves is used in rural India. These leaves rich in Vellarin is a known sedative and anti-spasmodic. A fist-ful of the leaves boiled in a pint of water, and given as a decoction in doses of an ounce ~~a~~ thrice a day helps to relieve the discomfort in menses.

* Kumari-asava, which is an given to the patient in a dose of 6 teaspoonfuls, twice daily after food with equal quantity of water. Rajah pravardhani which contains borax in bhasma form, asafoetida and kumari, is also an effective drug. Two tablets of this medicine are given to the patient, twice a day for about 7 days, immedietly before the due date of menses. It relieves congestion in the pelvic organs, works as a laxative and thus keeps the patient free from any pain during menstruation.

* Add sufficient quantity of asafoetida to the food of the patient which can be given in powder form. For this it can be ~~given to the patient~~ fried with ghee or butter in a big spoon over fire, this makes it brittle and powder can be made out of it conveniently. This powder ~~is~~ should be taken in a dose of 1 teaspoonful, twice daily along ~~f~~ with food. It should be followed by hot water. Because of the pungent ~~smile~~ smell it emits, some people do not like to take it alone. It may be added with butter milk or vegetables or rice or bread and taken by the patient.

* Grind the leaves of bitter gourd with some pepper and garlic. Take this once a day for three days.

* One hundred grams of juice of green leaves of Bleak Night-shade(Mako) and leaves of Chicory (Kasni) should be placed on fire and when it coagulates, it should be strained and drunk after mixing 20 grams of Gur with it.

* Twenty grames of the leaves of the following eight herbs are boiled in water: ~~it~~

i) Sambhalu (Indian Wild Pepper);

ii)Sahinjana(Horse Radish);

iii) Bakayan (Indian Lilac);

iv)

iv) Kasni (Wild Chicory);
v) Mako (Black Nightshade);
vi) Khatmi (Marsh Mallow);
vii) Narma Kapas (Cotton Plant);
viii) Soya(Dil).

When the leaves are cooked and the water evaporated, they should be fried in Sesame Oil like any vegetable and tied to the lower abdomen like a pultice. It will deal effectively with inflammation.

* A decoction of root of Cotton Tree(18 grams), Telia Geru (6 grams), leaves lof Rose Bush (6 grams), Root of Chulai (6 grams), Gur (24 grams) boiled in 750 ml. of water till one eight is left. The decoction should be taken for three days continuously.
* Take the juice of 'karaila' 1oz 1/dayx7days.
* Make a decoction of somph, avala and jaggery. ½ cup 2/day x 30 days.
* Boil two leaves of Arusha (Adathoda Vasica) in a glass of water and reduce it to half. From the first day of menses drink in the morning in empty stomach for 5 days.
* Boil few leaves of Babul Tulsi (Occimum basilacum) in a glass of water and drink 3/day.
* Heat in mustard oil 5 tender leaves of Kujur (Malkanguni: Celastrus Paniculata). Take 1 tea sp ful 2/day for 21 days.
* Root decoction of Kapas (Gossypium Indicum) 4 oz. 3/day x 7 days.
* Take Kujur oil 3 drops in honey 1/day x 21 days.
* Give the powder of the tender leaves of imli (tamarind) 1 tsp with honey 2/day x 7 days.

I MENSTRUATION:

3. Amenorrhoea- Absence

*Grita Kumari (Aloe barbadensis); take the fleshy part of the leaves; wash it in water few times, mix with jaggery and eat in empty stomach in the morning for 5 days.

* Pappaya milk (Carica Pappaya) from the fruit 2-3 drops with misri (sugar candy) 2/day x 7 days.

* The juice or decoction of Jamun bark (Euginia; Jambolana) Juice after diluting with water 2/day x 7 days.

* Prepare a paste of the tuber of Kalihari (Gloriosa superba) and apply over the supra pubic region for two hours. Apply same paste on the forehead also for the whole night .

* Give the decoction of the seeds of gajer with jaggery 1 table sp ful 1/day x 7-15 days.

* The infusion or decoction of the root of Kapas (Gossypium Indicum) is given with honey or jaggery in the morning in empty stomach, and in the evening Dose: 2-4 oz.

* A week before theperiods of a woman are due, a decoction of six grams of Flax (linseed) Seeds (about 250 ml. of water reduced to half through boiling) mixed with 20 grams of jaggery and 20 grams of ghee should be taken daily. Alternatively, a decoction of ten grams of seeds of Carrots and jaggery should be taken for about a week. *Another remedy is to boil six grams of Baberang (Embelia Ribes), three grams of dry Ginger and 20 grams of Jaggery in 500 ml. of water till half of it is left. The decoction should be taken for some days before it shows its effect.

* A decoction of 20 grams each of flowers and leaves of the Cotton Plant (500 ml. of water boiled to half its quantity)

mixed with 20 grams of Gur is also effective in inducing the menstrual flow.

* Another remedy is to steep 10 grams of Black Sesame seeds and an equal quantity of small Caltrops (Gokhru) in 250 ml. of water and to grind them in the same water. It should be sweetened with sugar, and drunk.
* Treatment with the seeds of Tulsi ground and suspended in water for three days beginning from the first day of the menstrual flow will help the woman to conceive, as this treatment purifies the uterus. If this treatment is given to any infertile woman for a year, she is sure to conceive.
* One gramme of each of the following ingredients is taken: Tulsi seeds, naagkesar, ashwagandha, and palash peepal. These are then ground to a powder that is fine enough to pass through cloth. To this powder are added 10 grams of cow's milk and some sugar. Administration of this preparation will restore regularity of menstruation within two months, even in the case of a woman who has stopped menstruating for some reason.
* 125 grams of each of the following ingredients are seasame seeds, tender shoots of the cotton plant and tender shoots of bamboo plants. 220 grams of aged jaggery are mixed with the powder and pea-sized pills are prepared. These pills taken one at a time with warm water every morning and evening will also restore regularity of periods, even in cases of women with amenorrhoea.
* Myrrh by itself is often good for amenorrhoea, particularly taken as a tincture. An anti-Vata or tonifying diet is primarily indicated using dairy, meat, nuts, oils, whole grains and other nourishing

foods. Iron supplements or Ayurvedic iron ash preparations are important. Warm seasame oil can be applied to the ower abdomen or used as a douche. A mild laxative can be taken such as Triphala, aloe gel or castor oil in lower dosages.

* For amenorrhoea due to cold, many spicy herbs can be used- ginger, turmeric, black pepper, cinnamon, rosemary, or the formula Trikatu. Fresh ginger and pennyroyal in equal parts, ounce per pint of water, 1 cup three times a day, is good Western herbal treatment for this condition, ~~which~~
* Ayurvedic herbs for Vata type delayed menstruation include asafoetida, cyperus, myrrh, ashwagandha, shatavari, kapikacchu, black and white musali.
* A good simple formula is shatavari and ashwagandha two parts each, and turmeric and ginger one part each, using one teaspoonful of the powder per cup of warm water.
* Kapha (water) type delayed menstruation is die to congestion ~~and~~ sluggishness in the system. It can also be treated by strong warming spices-ginger, cinnamon, cayenne, black pepper- or Trikatu or Clove combination formulas.
* Pitta (fire) type delayed menstruation is usually mild and can be treated by turmeric or saffron in warm milk. Other good herbs are rose, cyperus, dandelion and other cooling emeenagogues.
* Drinking of 1 tola of the juice of the tender leaves of neem is effective. A decoction of the bark is also useful.
* Pumpkin: Kadu hire, nagadali bali in Kannada; adavibira in Telugu- their seeds correct the absence of menstrual flow.
* Apium Petroselinum or Parsley: Apiol a green liquid distilled from the root is much recommended in absent or disturbed menstrual flow: is given then in doses of 2-3 minims given in sugar or in capsules. In cases of arrested menstruation

accompanied with fever and malaria, pills made of 2 grains of quinine sulphate, 1/3rd grain of apiol, ½ a grain permanganate of potash are given beneficially.

* Onion: Eating the bulbs raw has been noticed to bring about a desirable regularity in menstruation among the ladies. If it is a case where menstruation does not occur or is obstructed five tolas of onion are cooked in one ser of water till the latter is reduced to about ten to twenty tolas. Then add 3 tolas of jaggery. This is to be made hot and drunk by the patient for a few days. Other recipes are: three tolas of onion juice are made luke warm and drunk before going to bed at night: Or, ten tolas of onion afe cut into small pieces, garam masala is added o to it and thewhole is roated in ghee and eaten. The obstructed menstruation will become rectified.

I MENSTRUATION:

1. Leucorrhoea - White discharge

* A regular douching of the genital tract with a decoction of the bark of the Banyan tree, or the potassium permaganate is indicated.
* Douching with decoction of bark of the Banyan or Gig tree keeps the tissues of the vaginal tract healthy.
* The dried and powdered bark of the Mulsari(Mimusops Elengi) tree mixed with an equal weight of raw Sugar should be taken in nien grams doses every morning with water. Alternatively, equal weights of the leaf-sghoots of Bastard Teak (Dhak) and Banyan tree should be tried and powdered. An equal quantity of raw sugar should be mixed with them and nine gram doses should be taken with 250 ml. of milk thrice daily. Theroot of the Silk Cotten tree (Sembhal) is another specific for this condition. Seven grams of its powder with an equal weight of raw Sugar should be taken with a glass of milk.
* Dry Amla and Liquorice in equal quantities and powdered and mixed with thrice the quantity of honey make an effective drug against the disease. Six grams of the linctus should be taken in the morning and evening with milk.
* The patient should chew betel nut after meals as it has curative effect.
* Cumin seeds ground in Tulsi juice and mixed with fresh milk of a cow have a beneficial effect in leucorrhoea, and they also improve the general health of the woman.
* 20 grammes of Tulsi juice with rice water, meanwhile restricting the diet to rice and milk, or rice and ghee for the duration of the treatment.
* One teaspoonful of the powder of the banyan tree and fig tree should be boiled in one litre of water and reduced to half. The decoction is then filtered and the powder thrown away, When it is slightly warm, douching should be performed. This

decoction keeps the tissue cells of this area healthy. ~~The~~ The

* popular medicine used by Ayurvedic physicians in this condition is 'pradarantaka lauha'. This drug contains some bhasmas of iron. For the preparation of this medicine, the ingredients are triturated with the juice of 'kumari'. Four grains of this drug is given to the patient three times a day, with honey.

* When the outer skin of the leaf of ~~this~~ kumari is removed, a fleshy pulp comes out which is used for the extraction of juice. One ounce of this is to be given to the patient twice daily with a littlxe honey added to it, preferably on an empty stomach. This juice stimulates the liver, promotes digestion and regulates the bowels.

* Lodhra is also used for the purpose of douching. The bark of this tree is used and the decoction of the bark is prepared on the lines suggested above. The medicine is also used in the form of lodhra asava.

* Tankana or alum is also used both externally and internally for the treatment of this condition. Alum is fried in a vessel over fire and then powdered. One teaspoonful of the powder is added to the decoctions described above and used for the purpose of douching.

* Two grains of this powder are mixed with two grains of pradarantaka lauha and given to the patient twice daily on an empty ~~xxxxx~~ stomach mixed with honey.

* Alongwith all the medicines described above tanduledaka (rice-wash) is given as a means to accelerate their action. Rice-wash alone is also useful for the cure of this disease.

* Take the leaves of Drum stick tree in any form as soup or sag~~e~~ or chatni.

* Take the juice of arhar (Cajanns Indicus) leaves. Dose: 1 cup with sandha namak (rock salt) 1/day x 30 days.

* Take the inner part of the leaves of Gritha Kumari with jaggery. 1/day in the morning in empty stomach x 5 days.
* Grind the tuber of 4 o'clock plant (Gulavas; Mirabilis jalpa) in empty stomach.

Mehandi seeds-1 kg. Triphala-250 grams each, grind all these together; add little bit of the powder of jira, ajwain, and somph. Make pills mixing with the syrup of jaggery. Dose: 1 each 3/day x 30 days.

* Grind and give a handful of Brahmi (Centella asiatica) 1/day x 30 days.
* Dry and powder separately raw banana, rice (ara rice, and Triphala). Mix all in equal amount and prepare lehyam in jaggery. Dose: 1-2 teaspoonful 2/day x 30 days.
* Grind the leaves of Kena grass anddrink with a glass of cow's milk. 1/day x 3-7 days.
* Boil few cut pieces of ginger and few flowers (better buds) of arhul (hibiscus Rosa) in a glass of cow milk adding equal amount of water and reduce it to half. Strain and drink with sugar. 2/day; morning and at bed time x 21 days.
* Fluid extraction of the bark or an infusion of the bark of mango tree is curative in leucorrhoea.
* Prepare a tincture or an alcoholic extract of the powder of betel nut and emplay it but freely diluted with water- 1 drachm of the tincture in 4 ounces of water. This is used locally or as an injection to stop water discharge from the vagina and also in checking the hydrosis of water rash of pregnancy. Here, a sudden flow of acid fluids from the stomch to mouth occurs and an outbreak of burning sensation (heart burn) in the gullet, as well.

I MENSTRUATION:

5. Other Problems:

* Drinking of 1 tola of the juice of the tender leavws neem is advised even in the absence of menstrual flow or the obstruction of such a flow because this is a good corrector of menstrual irregularities. This is also used in cleaning the uterus.
* The juice of the flowers is given regularly upto six mashas in dosage to be licked along with honey. ~~(neem)~~
* Bitter gourd; hagala kayi in Kannada; kakara, tellakakra in Telugu is given internally to cure disorders of menstruation (freshly extracted juice).
* The seeds of raddish are regarded to be possessing emenagoguic properties viz. they regulate menstrual cycle among women and are therefore used in the related disturbances. The external application of the seeds promotes menstruation. A teaspoonful of the seeds of raddish is to be ground into a smooth paste. This is to be mixed well with buttermilk and then drunk. This will commence menses that had become obstructed.
* If the flow is too little or is accompanied with pain, heat water, mix mustard powder with it andplace the patient in such a water upto the waist. Such a hip bath for an hour would render the flow to become normal and pain free.
* Betel nut is regarded as a nervine tonic and an emenagogue or that which brings about regulation in menstruation and its cycle.
* Gingelly decoction is given to girls to bring about quick puberty. A pinch of saffron well crushed in a tablespoonful of milk is another useful prescription for underdeveloped girls. In adolescence saffron has an overall stimulating effect.

* It is a practice among certain communities in South India to give the girl who has newly come of age a combination of a teaspoonful of gingelly oil with a teaspoonful of overnight soaked urad dal, a few grains of whole Bengal gram and the yolk of one egg. This 'egg nog' helps in the full maturity of the girl. In addition, chutney made with coriander leaves, curry leaves, mint or fenugreek leaves all help in the full growth of the adolscent girl. Anaemia is checked, regular periods come on. Mint in particular is supposed to cure painful periods ~~xxm~~ by acting as an uterine tonic.

* A tasty drink is made by mixing in milk egg yolk, four almonds crushed, a little gingelly powder and a teaspoonful of honey. This could be given for sexually underdeveloped girls as well as for those with undue delay in the onset of periods in adolscence.

* Green unripe papaya is considered to be a more effective emenagogue which brings on the periods quickly. It also increases the flow of periods. Pineapple has similar qualities too.

* Cumin and gingelly decoction sweetened with palm candy is supposed to help the onset of menses and the free flow of blood.

* A modification of the above is to make sweet rolls with jaggery black cumin and dry turmeric powder and take one or two a day to help onset of periods.

* Boil pieces of the fig root(Anjeer, Dumeer, Athi pazyam) in water and make a decoction. Filter and drink the decoction for a few weeks to set the cycle normal.

* One gramme of each of the following ingredients is taken: Tulsi seeds, naagkesar, ashwagandha, and palash peepal. These are then ground to a powder that is fine enough to pass through cloth. To this powder are added 10 grammes of cow's

milk and some sugar. Administration of this preparation will restore regularity, of menstruation within 2 months, even in the case of a woman who has stopped menstruating for some reason.

* Fry the kernel of the seeds of Neem in til oil and powder it. Dose: 1 tspfull with sugar candy 2/day in empty stomach x 3-5 days.
* Prepare the decoction of the barks of Jamun tree. Mango tree and Shimal tree (Bombax Malabaricum)-silk cotton tree in 2 ltrs of water reducing it to half. Dose: 1 cup 2/day x 1 day.

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HERBAL MEDICINES

1. AMARANTUS SPINOUS(Kannada-'mullu dantu', Telugu-'ettamullu goranta, nalla doggali)

Used in checking excessive mdnstrual blood flow and its consumption by ladies soon after chiłdbirth increases their milk content. The root is regarded as specially medicinal in gonorrhoea. In Madagascar the root is considered diuretic, laxatibe and galactagogue (promoting milk production in women) Its decotion is beneficial in curing urinary retention and gonorrhoea. The root ground in water is applied over chancres (the hard swellings that constitute the primary lesions in syphilis) that are also infected with fungi, in addition.

(LEAFY VEGETABLES-Traditional Family Medicine)

NEEM (TFM)

1. IN LABOUR PAIN:

In Maharashtra, neem is called balantnimb viz the after labour neem, the use of neem here is so much reputed. If the midwife administers fresh juice of leaves even before the labour, the contraction of the uterus is facilitated. The flow will be clear, the swellings of the uterus and the surroundings get lessened and the patient starts getting hunger.Faecal matter becomes clear, there will not be any fever and even if fever arises its violence is much less.

Drinking water in which neem bark has been boildd whenever she feels thirsty after the labour is over, will keep the patient healthy.

Washing the uterus with warm neem water will relieve the uterine pains due to delivery and also the morbid swellings if any. The wounds will heal and dry up and the orifice becomes clean and contracted. Formentation with the inner bark of old neem trees is highly recommended for all diseases following delivery.

The fresh juice of neem leaf is given for the first three days after the birth of the child. This is given before the principl meals. Such a measure improves the general health of the mother and also increases the milk yield. This is also given to the cows so as to increase the yield of milk.

2. LEAF PREPARATIONS:

Hysteria in Ladies- Taking fresh leaf juice or leaf decoction for three to four months will relieve such a hysteria which is due to the abnormalities of uterus.

If there is ixcess menstrual flow, a drinking of 1 tola of the juice of the tender leaves is resorted to. This is advised even in the absence of menstrual flow or the obstruction of such a flow because this is a good corrector of menstrual irregularities. This is also used in cleaning the uterus.

3. BARK PREPARATIONS:

Amenorrhoea(Absence of Menstrual Flow)- A decoction of the bark is given as a drink for ~~correction~~ the same.

4. FLOWER PREPARATIONS:

After Labour Pain- Flowers are ground and applied over the head or the stomach to relieve the pains at the head or the stomach following delivery.

Menstrual Irregularities- The juice of flowers is given regularly upto six mashas in dosage to be licked along with honey.

GOURDS AND PUMPKINS (TFM)

Sore kayi, halu kumbala (the milky pumpkin) in Kannada; alaburu, gubba kaya (a bloated vegetable), sorakaya in Telugu.-
The ~~w~~ sweet fruit variety is wholesome to the developing foetus and therefore well advised for the pregnant women, as a very salutary diet.

Kadu hire, nagadali balli in Kannada; adavibira in Telugu- their seeds correct the absence of menstrual flow in amenorrhoea.

Bitter Gourd; hagala kayi in Kannada; kakara, tellakakra in Telu is given internally to cure disorders of menstruation.(freashly extracted juice).

Kadavanchi in Marathi and Kannada are tubers used to procure abortion.

Bitter Apple; pavamekke kayi, tumati kayi in Kannada; pey ~~kkummuttixe~~ chittipapara, etipuccha in Telugu is useful in rectifying abnormal presemtation of foetus and also in atrophy (or non-development and growth) of foetus.

VEGETABLES(TFM)

CARROTS: The seeds of carrot are emenagoguic (regulating menstrual cycle), cleaning to uterus and abortifacient (i.e. causes abortion of the foetus).

RADDISH: The seeds of a raddish are regarded to be possessing emenagoguic properties viz. they regulate menstrual cycle among women and are therefore used in the related disturbances. The external application of the seeds is promotes menstruation. A teaspoonful of the seeds of radish is to be ground into a smooth paste. This is to be mixed well with buttermilk and then drunk. This will commence menses that had become obstructe

HIBISCUS ; dasaval in Kannada-are fried in ghee and given in menorrhagia or excessive menstrual flow.

FRUITS (TFM)

MANGO: Tind of unripe fruit is cut into pieces, fried in ghee, mixed withs sugar and the whole stuff is made intc a pill mass. Several pills are made out later and these are given in stipulated doses in case of menorrhagia or excessive memstrual flow. The kernel of the seed is powdered and given in doses of 20 to 30 grains with or without honey in many afflictions: like excess menstrual flow. For dysentry in pregnant women the kernel is fried in ghee and given for e ting. Fluid extraction of the bark or an infusion of the bark is curative in excessive menstrual flow, white discharge.

BANANA: Pregnant ladies will find consuming ripe banana fruits regularly would nourish their food well and will also pave way to a safe delivery. A drink of the juice of plantain flowers mixed with curds acts as a curative to young girls suffering from excessive haemorrhage during and after menses. The relief obtained is quite quick.

PAPAYA: The major use has been in correcting menstrual disorders or as an emenagogue. There is a popular quite strong particularly in Tamil Nadu that they may cause abortion. In central and South America, the seeds are used as anthelmintic and emmenagogue to normalise mensus troubles. Juice of the green fruit is applied in ringworm and as a sure remedy for scorpion locally as a pessary to uterus to induce abortion. However,

it is better tha t pregnant ladies avoid eating papaya, raw or ripened, till the third month. For, there would be a risk of abortion then. A fruit salad of honey, milk and papaya fruit is an excellant tonic-ideal for children, feeding mothers and pregnant ladies(after their third month).

SPICES(TSM)

PEPPER: In Kerala an infusion of the root is prescribed after childbirth to cause an expulsion of the placenta, almost as a regulare household remedy.

PIPER BETLE-Betel leaf vine in English; pan, tambuli in Kannada. Used for child bearing in Orissa. The slender roots with black pepper are used to cause sterility in women.

PEPPER; mennasu in Kannada- facilitiates menstruation.

CLOVE: lavanga in Kannada; lavangamu, karavappu in Telugu.- Take a masha of the powder of cloves, mix it with a syrup of sugar candy or pomegranate juice. This is to be taken by the pregnant by licking, to get rid of the repeated vomitings and the agitation thereof. An infusion of cloves also serves the same purpose bu t this should not be given if there is an accompaniment of fever along with vomiting.

CINNAMONUM TAMALA: dalchini, lavangada pattai, lavanga patri, kadu dalchini in Kannada; talisha patri in Telugu.
It is promotive of menstruation and a lactagogue-promoting milk secretion.

CINNAMOMUM MACROCARPUM: bhringa, dalchini, lavanga pattre in Kannada has a reputated application in menorrhagia and also in difficult labours that are due to defective uterine contractions. The distress of the labour pain after child birth will get greatly relieved by a drink of the cinnamon decotion. By consuming a pinch of cinnamon powder daily at night for a month altogether would postpone the reappearance of menstrual flow as much as possible.

CARDAMOMS: elakki in Kannada a can cause abortion. Chewing these grains well and gulping in, will ward off stomach upsets, dizziness of the head and oozing of water in the mouth as well as the tendency to vom itting. Another measure to overcome dizziness and avoid vomitting tendency is to take the cardomom powder in a glassful of lemon juice. Drop three to

four pinches of cardomom powder into a cupful of tender cocoanut juice, add two spoonfuls of honey to it and take in. This will stop vomitting. In case however, vomitting is too violent, adopt this measure thrice a day for two to three days.

SEASONING HERBS(TFM)

MUSTARD: sasive in Kannada; avalu in Telugu-
To expel dead foetus: 3 mashas of mustard and 4 rattis of fried hing are mixed with soury conjee or wine and given as a drink.
Menstrual flow: If the flow is too little or is accompanied with pain, heat water, mix mustard powder with it and place the patient in such a water upto the waist. Such a hip bath for an hour would render the flow to become normal and pain free.

CUMINUM: jeerige in Kannada; jeeraka in Telugu- For pregnant women, seeds are ground and mixed with lime juice and given in cases of bilious nausea. Intake of cumin seeds soon after child birth will increase milk secreation.

CORIANDER: kottambari, haveeza in Kannada; kotimiri in Telugu-
Take a teaspoonful of coriander seeds, powder, grind it smoothly in water, mix this paste homogeneously in water in which rice has been washed, add sugar and administer. This measure can be continued twice a day till, the vomitting tendency comes under full control.

APIUM PETROSELINUM OR PARSLEY:Apiol (a green liquid distilled from the root) is much recommended in absent or disturbed menstrual flow; it is given then in doses of 2-3 minims given in sugar or in capsules. In cases of arrested menstruation accompanied with fever and malaria, pills made of 2 grains of quinine sulphate, 1/3rd grain of apiol, 1/2 a grain permanganate of potash are given beneficially. When the leaves are applied several times a day to the breasts, it will arrest milk secfeation.

ASAFOETIDA OF HING: hingu or ingu in Kannada; inguva in Telugu-
Hing at the child birth stimulates uterine wall, render it clean and stops the terrible disease of makkalla characteristic of

child birth in many women.

To prevent abortion:Habitual abortion is treated in the foll-manner. Six grammes of hing are made into 60 pills (each, of 1 grain). Directly the pregnancy is suspected one such pill is given twice a day. The dose is then slowly increased to ten pills a day and then gradually reduced till confinement. Such a procedure has proved successful in cases having three to five abortions, or complications of premetritis (the infl-ammation of the outer layers of the uterus) or catarrhal endometritis(discharge from the inner walls of the uterus) and also in cases in which abortion at sixth month was threatning.

* Taking a teaspoonful of the decoction of clobe to which a little bit of hing is added and doing so thrice a day is bene-ficial to feeding mothers for this will ensure greater milk production.

* Keeping a bit of hing enclosed within a piece of cotton in the ears will ensure freedom from catching cold after child birth.

DILL-EUROPEAN AND INDIAN:sabbasige in Kannada; sompa in Telugu-The herb is particularly invaluable for women after child birth. Consuming its preparations regularly will promote rich secretion of milk and more importantly it also acts a good family planning measure. For, by this procedure, the interval between child birth and the next menses period gets greatly prolonged so that both the mother and the child can secure ample time for halthy and proper nourkshment.

* However as this stimulates abortion, it is better that the pregnant ladies should totally avoid eating it during the first three months.

* Sowa or the Indian Dillis useful otherwise too. Take fresh fruits of sowa, powder and keep in a fresh and greased vessel. One should get up in the early morning at Brahmi muhurta (3.30) and lick up 1,2 or 4 tolas of the powder along with ghee. Or, one can determine the quantity as per one's own digestive a ability and take that amount every day. After this is fully digested one should take a meal of milk and rice as much as desired. A person who thus consumes 400 tolas fof shatapushpa can get a progeny of whatever quality he desires. Even a barren woman can become fertile by this procedure.

COCONUT, BETEL NUT etc (TFM)

COCONUT: Abortion- Take fresh flowers, the fruit of gular (Ficus Glomerata) and nagar motha-all in equal parts. Prepare a decoction which can be given to reduce the chances of abortion
* If pregnant ladies find that there is an excruciating pain during urination, they are best advised to consume as much of tender coconut water and barley water as they desire. This always proves greatly relieving. Another simple recipe to get rid of the burning sensations during the passing of urine is to consume tender coconut water twice a day adding to it a little bit of jaggery and half a teaspoonful of coriander powder.
* Coconut oil is an ideal medium for massaging. In the 7th month of pregnancy, it is quite frequent to suffer from back pain. Massaging the back with coconut oil or castor oil and then taking bath in hot water will lessen this pain much.
* The coconut coir has been used medicinally. Burn some amt of this coir into ashes- Take a teaspoonful of the ash, mix it well in tender coconut water, add a small quantity of sugar candy and administer this drug twice a day for young girls who suffer from excessive discharge during menstruation.

BETEL NUT: Prepare a tincture or an alcoholic extract of the powder and employ it but freely diluted with water- 1 drachm of the tincture in 4 ounces of water. This is used locally or as an injection to stop water discharge from the vagina and also in checking the hydrosis or water rash of pregnancy. Here, a sudden flow of acid fluids from the stomach to mouth occurs and an outbreak of burning sensation (heart burn) in the gullet, as well.
* The nut is regarded as a nervine tonic and an emmenagogue or that which brings about regulation in menstruation and its cycle.
* The young green shoots are utilised to bring about abortion in early pregnancy.

KIKAR OR GUM ARABIC, ACACIA ARABICA: jali, karijali, bauni in Kannada- Gum of Babul-This is usually given to ladies after child birth. Its water removes the pains at the stomach and the intestines. In excessive menstruation 4-1/2 mashas each

~~of the gum and marking nut (geru)~~

of the gum and marking nut (geru) are given, grinding them and along with water.

KATHA,CATHA,KHAIR OR ACACIA CATECHU: Decotion of the heart-wood of khair is excellent to prevent excessive haemorrhage at child birth. For leucorrhoea due to uterine debility, bleeding and uterine laxedness, pills of kattha and myrrh in equal ~~ix~~ proportion are useful. A mixture of these two drugs is given for strenghthening after child birth and to increase milk secretion. An aqueous injection of kattha is given for lircorrhoea and the blood flow at the uterus and also in gonorrhoea. A tincture of kattha is an excellant application for suspected bed sores and also cracked nipples.

GINGER AND TURMERIC(TFM)

GINGER: To cure vaginismus or spasmodic contractions of the vagina, powdered dry ginger is well mixed with castor oil or castor root powder or paste and then applied to the painful part concerned.

TURMERIC: During labour and as long as the child is young and breast feeding, it is advised for the ladies that they should be regularly taking turmeric-for ex in milk. This is an excellent practice as this will stimulate the uterus and will also purify milk secretion.

CURCUMA ZEDOARIA ROSE: kachora in Kannada; kicchili gadda in Telugu- The root is an ingredient in some of the strengthening conserves taken by women so as to remove weakness after childbirth. It is given 3 times a day to women during the first two weeks following child birth.

ONION AND GARLIC(TFM)

ONION: Eating the bulbs raw has been noticed to bring about a desirable regularity in menstruation among the ladies. If it is a case where menstruation does not occur or is obstructed (amenorrhoea or ruddhartava), five tolas of onion are cooked in one ser of water till the latter is reduced to about ten to twenty tolas. Then add 3 tolas of jaggery. This is to be made

hot and drunk by the patient for a few days. Other recipes are: three tolas of onion juice are made luke warm and drunk before going to bed at night: Or, ten tolas of onion are cut int small pieces, garam masala is added to it and the whole is roasted in ghee and eaten. The obstructed menstruation will become rectified.

GARLIC: Useful in difficult menstruation.. In cases where much pain is felt at the loins during menstruation, garlic juice is given internally and crushed garlics are applied externally as a massaging material.

* In shooting pains at the loins: Proprietary garlic preparation called rasona paka helpful. Garlic and salt are to be ground together, made into a poultice and bound over the regions of injury, sprain, spasms, twisting pains and the like.

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1. MENSTRUATION.
   - → Excessive bleeding.
   - → Pains
   - → Scanty
   - → Frequent.
   - → Late.
   - → White discharge.

2. PREGNANCY.
   - → Eating habits
   - → Nutrition-iron.
   - → Exercise, Sleep

3. POST-NATAL CARE
   - → Placenta
   - → Bleeding.
   - → Infections.
   - → Unsafe practices.
   - → Diet, nutrition -

4. GYNAECOLOGICAL PROBLEMS.
   1. STDs.
   2. Anaemia.
   3. Nutrition.
   4.

1. Why gynaec probs?
2. What are the diff+ kinds?
3. The physiological -
4. Probs & remedies (5-10 remedies)

WH-S.4

Community Health

HIGH PREVALENCE OF GYNAECOLOGICAL DISEASES IN RURAL INDIAN WOMEN

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Summary A population-based cross-sectional study of gynaecological and sexual diseases in rural women was done in two Indian villages. Of 650 women who were studied, 55% had gynaecological complaints and 45% were symptom-free. 92% of all women were found to have one or more gynaecological or sexual diseases, and the average number of these diseases per woman was 3·6. Infections of the genital tract contributed half of this morbidity. Only 8% of the women had undergone gynaecological examination and treatment in the past. There was an association between presence of gynaecological diseases and use of female methods of contraception, but this could explain only a small fraction of the morbidity. In the rural areas of developing countries, gynaecological and sexual care should be part of primary health care.

INTRODUCTION

MATERNAL and child health care is one of the eight basic components of primary health care in the Declaration of Alma-Ata.[1] In some programmes, a more focused approach has been advocated and promoted—termed selective primary health care[2] or child survival revolution.[3] There is new concern about the health care of women during pregnancy and childbirth,[4] and prevention of maternal mortality has been identified as a priority.[5] By contrast, little attention has been given to the reproductive health of non-pregnant women. In third-world countries, such women tend to encounter the health care system only when they are the target of family planning programmes.[6]

The term gynaecological diseases is used in this paper to denote structural or functional disorders of the female genital tract other than abnormal pregnancy, delivery, or puerperium. One reason for the relative neglect of gynaecological care is a failure to appreciate the extent of unmet needs in rural areas. Most of the data are from hospitals or clinics and are highly selective; they give no idea of the rates in the population.[7,8] The few population-based studies have focused only on specific disorders—ie, cervical cancer[9-16] (chosen for study because of hospital experience), vaginal discharges,[17] and genital infections[18] (based on family planning clinic data). We are unaware of any population-based study of the whole range of gynaecological diseases in developing countries. An additional reason for lack of information on these disorders is the extreme scarcity of female doctors in the rural areas of developing countries. Traditionally women from these areas are very reluctant to talk to or be examined by male doctors for gynaecological or sexual disorders. Nurses and paramedical workers are not trained to deal with gynaecological diseases; so the result is near total absence of care.

In the present study we sought to determine: (1) the prevalence, types, and distribution of gynaecological diseases in rural women; (2) awareness and perceptions of the women about their gynaecological and sexual disorders; and (3) the proportion of women who have access to gynaecological care.

SUBJECTS AND METHODS

Study Area and Sample Population

Gynaecological inquiry and examination is a very sensitive matter for rural women in India. One cannot randomly select a few women from a large population and descend upon them. Hence it was decided to make villages the units of study.

The investigation was conducted in Gadchiroli district, a backward district of Maharashtra state. Two villages were selected on the following criteria: socioeconomic composition similar to that of the average village; leaders who could understand the nature of study and would persuade the women to participate; prevalence of gynaecological diseases not known to be atypical.

Village A had a population of 1400 and village B 2200. They were located 20 km from the district town and from each other. Both had perennial roads. A primary health centre with two male doctors was located in village B while a small mission hospital run by the nurses was located in village A. Thus both the villages had good access to primary health care, though the nearest gynaecologist was at the district town.

Female social workers, village leaders, and volunteers invited all females who were age 13 years and above or had reached menarche to participate in the study, whether or not they had symptoms.

Investigations

A field camp was set up in the village, first in A then in B, with facilities for interview in privacy and pelvic examination, pathology laboratory, and operating theatre. A base pathology and bacteriology laboratory was established at the project headquarters 20 km away. The study team (a female gynaecologist with 10 years' experience as consultant, a physician, a pathologist, a laboratory technician, a nurse, and female social workers) visited the field camp and conducted the study. The women who were found to have disease were offered treatment.

First, information was obtained on personal details, socioeconomic status, perceptions and practices as regards gynaecological symptoms, past experience of care, and obstetrical, gynaecological, and sexual history. The women then had a general physical examination including speculum examination and bimanual examination of the pelvis; unmarried girls with an intact hymen had rectal rather than vaginal examination. The following laboratory investigations were done (apart from vaginal specimens, omitted in the never married): urine and stool tests; haemoglobin (cyanmethaemoglobin method); peripheral smear for typing of anaemia and for parasites; VDRL test (slide flocculation test using antigen from Government serology laboratories with positive and negative controls for quality control); sickling test with 2% sodium metabisulphite; urine culture and antibiotic sensitivities when necessary; vaginal smear microscopy and gram staining; vaginal and cervical cytology with Papanicolaou stain (method of Hughes and Dodds[19]); culture and antimicrobial sensitivity of vaginal swab (after transport to base laboratory in nutrient broth, primary inoculation was done on McConkey and blood agar and growth was observed 24 h later; motility and gram staining were studied, with biochemical reactions; specimens were not incubated in carbon dioxide atmosphere for *Neisseria gonorrhoeae*, or for anaerobes); blood biochemistry, when necessary; husband's semen analysis, when indicated;[20] and cervical biopsy, dilatation and curettage, and radiological examination when indicated (all histopathology slides of biopsy or uterine curettage material and suspicious cytology slides were reviewed by senior pathologists at the nearest referral laboratories at Nagpur).

Diagnostic terms and entities were those in the International Classification of Diseases, 9th revision.[21] Vaginitis was diagnosed when the vaginal wall was visibly inflamed and the vaginal smear showed at least 5 pus cells per high-power field. When smear

TABLE I—COMMON GYNAECOLOGICAL AND SEXUAL COMPLAINTS (n = 650)

Complaint	Frequency	(%)
Vaginal discharge	88	13·5
Burning on micturition	60	9·2
Childlessness	36	5·5
Scanty periods	82	12·6
Irregular periods	15	6·9
Profuse periods	32	4·9
Amenorrhoea	132	20·3
Dysmenorrhoea	98	15·1
Dyspareunia	43	6·6
Other	63	9·7

microscopy, gram staining, or culture revealed no pathogenic organisms, it was labelled vaginitis of unknown origin. Syphilis was diagnosed when the VDRL test was positive in 1/8 dilution or more.[22] Pelvic inflammatory disease was diagnosed when adnexae were palpable and tender on vaginal examination, with or without restricted mobility of uterus. Jeffcoate's criteria[23] were used for various other gynaecological conditions.

Anaemia in females was defined as a haemoglobin of 11·5 g/dl or less.[24] Iron deficiency was diagnosed on the basis of hypochromia and microcytosis in peripheral smear. Vitamin A deficiency was diagnosed by identification of conjunctival xerosis or Bitot's spots. Sickle cell disease was diagnosed by the sickling test, but homozygous disease and trait could not be distinguished, in the absence of electrophoresis.

Because of the sensitive nature of the survey and the cultural norms of these traditional societies, we aimed conservatively at 50% coverage of the eligible women. In the event, 654 out of 1014 (59%) turned up to participate and the investigations were completed in all but 4. Although every effort was made to persuade both symptomatic and symptomless women to participate, selection might have arisen. We therefore visited a 25% random sample of non-participant women at home to record their personal, obstetrical, and contraceptive histories, presence or absence of gynaecological symptoms (vaginal discharge and menstrual disorders), and reasons for non-participation.

The data were analysed by use of the SPSS-PC package on a PC-XT computer.

RESULTS

The mean age of the 650 women was 32·11 years (SD 13·46). 92 (14%) were unmarried, 462 (71%) were married and living with husbands, 28 (4%) were separated, and 68 (11%) were widows. Thus 558 women were married at the time of study or had been in the past. 281 (44%) were farmers, 149 (23%) were landless labourers, 93 (14%) were housekeepers, 21 (3%) had regular jobs, 46 (7%) were students, and 55 (9%) were in other occupations. 436 (68%) were illiterate; 84 (13%) had schooling up to 4th standard, 52 (8%) up to 7th standard, and 65 (10%) up to 10th standard, and 8 (1%) had college education.

299 (46·0%) belonged to middle castes and 123 (18·9%) to lower castes; 138 (21·3%) were of tribal origin and 28 (4·3%) from nomadic tribes; and 62 (9·5%) were of other castes or non-Hindu.

28 (4%) of the subjects had not reached menarche, 468 (72%) were menstruating, and 154 (24%) had reached menopause. The mean gravidity was 3·99 (SD 2·77) and mean parity was 3·75 (SD 2·74). 48 women were pregnant at the time of study. Out of 462 women who were married and living with their husband, 254 (55%) were using one of the following contraceptive methods: condom 5, 'Copper-T' 7, withdrawal 2, safe period 2, pills 5, abdominal tubectomy 24, laparoscopic tubectomy 58, vasectomy 151; thus female contraceptive methods were used by 94 at the time of study and had been used by a further 29 in the past, total 123.

TABLE II—CHARACTERISTICS OF PARTICIPANTS COMPARED WITH 25% RANDOM SAMPLE OF NON-PARTICIPANTS

Characteristic	Participants (n = 650)	Non-participant sample (n = 105)
Mean age (yr)	32·11	34·3
Gravidity	3·99	3·84
Gynaecological symptoms		
Vaginal discharge	13·5%	8·25%
Scanty periods	12·6%	16·4%
Irregular periods	6·9%	14·9%
Profuse periods	4·9%	4·5%
Dysmenorrhoea	15·1%	13·4%
Bad obstetric history in ever-married	37·6%	51·1%
Current use of female contraception in ever-married	18·2%	11·36%

A total of 360 women (55·38%) had one or more gynaecological or sexual complaints (table I). In addition, many complained of two non-specific but related symptoms—low backache (197) and lower abdominal pain (86). The characteristics and symptoms of those who participated did not differ greatly from those of the random sample of non-participants (table II). The main reasons for non-participation were: no gynaecological complaints 27/105, "I am too old for such things" 17/105; frightened of gynaecological interview or examination 16/105; out of village at time of study 15/105; unmarried, so did not want to be examined 4/105.

The gynaecological and sexual diseases found in the survey are summarised in table III. The 650 women had a total of 2344 gynaecological diseases—ie, an average of 3·6

TABLE III—GYNAECOLOGICAL AND SEXUAL DISEASES (n = 650)

Diagnosis	No	%
Primary amenorrhoea	7	(1·07)
With mullerian duct aplasia	4	(0·61)
Without mullerian duct aplasia	3	(0·46)
Secondary amenorrhoea	22	(4·70)
Functional uterine haemorrhage	6	(1·28*)
Oligomenorrhoea/hypomenorrhoea	105	(22·44*)
Polymenorrhoea	4	(0·85*)
Menorrhagia	71	(15·17*)
Dysmenorrhoea	269	(57·48*)
Irregular periods	60	(12·82*)
Primary sterility	20	(3·07)
Secondary sterility	24	(3·69)
Frigidity	57	(12·34†)
Dyspareunia	43	(9·31†)
Vaginismus	47	(10·17†)
Senile vaginitis	20	(10·99‡)
Trichomonas vaginitis	78	(13·98§)
Candida vaginitis	190	(34·05§)
Bacterial vaginitis	147	(26·19§)
Vaginitis of unknown origin	23	(4·12§)
Cervical erosion	255	(45·70§)
Cervicitis	272	(48·74§)
Endocervicitis	67	(12·01§)
Pelvic inflammatory disease	157	(24·15)
Ovarian cyst	6	(00·92)
Cystic ovary	15	(02·30)
Cervical dysplasia	7	(01·07)
Cervical metaplasia	8	(01·23)
Cervical polyp	10	(01·53)
Syphilis	68	(10·50)
Leucorrhoea	22	(03·38)
Leucoplakia of vulva	4	(00·61)
Gonorrhoea	2	(00·30)
Cystocele	3	(00·46)
Vulvitis	2	(00·30)
Fibroid uterus	1	(00·15)
Carcinoma of cervix	0	—
Other gynaecological diseases	52	(08·00)

*Out of 468 menstruating; †out of 462 living with husbands; ‡out of 182 over 40 yr; §out of 558 ever married.

TABLE IV—PREVALENCE OF GYNAECOLOGICAL DISEASES AMONG WOMEN WITH AND WITHOUT GYNAECOLOGICAL SYMPTOMS (EXCLUDING PAIN IN LOWER ABDOMEN AND BACKACHE)

—	Symptomatic	Symptom-free	Total
With diseases	355	244	599
Without diseases	5	46	51
Total	360	290	650

TABLE V—SELECTED GYNAECOLOGICAL DISEASES VERSUS PAST OR PRESENT USE OF FEMALE CONTRACEPTIVE METHODS IN EVER-MARRIED (n = 558)

	Contraceptive history present (n = 123)	Contraceptive history absent (n = 435)		
Diagnostic groups	No. (%)	No. (%)	χ^2	p
Menstrual diseases	92 (74·8)	202 (46·4)	29·81	< 0·001
Sexual problems	16 (13·0)	28 (6·4)	4·83	< 0·05
Vaginal infections	120 (97·6)	352 (80·9)	19·11	< 0·001
Cervical diseases	102 (82·9)	202 (67·1)	10·78	< 0·01
Pelvic inflammatory disease	59 (48·0)	100 (23·0)	28·15	< 0·001

per woman. 559 (92·2%) had one or more gynaecological or sexual diseases.

Premarital sex among the unmarried was diagnosed when the hymen was torn and the vagina easily admitted two fingers (girls and women in this area do not use tampons). On this evidence 43 out of 92 (46·7%) of the unmarried girls had had sexual intercourse.

The most common non-gynaecological conditions found in the survey were anaemia (in 91%), iron deficiency anaemia (83%), sickle cell disease (7%), vitamin A deficiency (58%), filariasis (12%), pulmonary tuberculosis (2%), leprosy (10%), and urinary tract infection (4%).

History of gynaecological examination was used as an indicator of professional gynaecological care in the past. Only 51 (7·8%) had ever had such an examination.

Table IV gives the prevalence of gynaecological diseases in women with and without symptoms. As an indicator of gynaecological disease, a gynaecological symptom had a sensitivity of 59%, a specificity of 90%, positive predictive value 99%, negative predictive value 16%.

Table V indicates that gynaecological diseases were more frequent in women with a contraceptive history. Of the 82 who had had tubectomies, 54 (66%) attributed symptoms to this procedure compared with 16 of 151 blaming their husband's vasectomy. The numbers with intrauterine devices (7) were too small for comment.

DISCUSSION

In this cross-sectional survey, the prevalence of gynaecological or sexual diseases (92%) and the average number of such diseases per woman (3·6) were remarkably high. Infections constituted 50% of the burden—vaginitis, cervicitis, pelvic inflammatory disease—and the rates would doubtless have been even higher if we had used more refined tests. Menstrual disorders form another big group and infection of the genital tract may be a contributory cause here. Fibroid uterus was very rare, and not a single case of carcinoma was found.

The very high prevalences of iron deficiency anaemia (83%) and vitamin A deficiency (58%) were due to the poor economic status of this area in general and of women in particular. The area is endemic for filariasis and leprosy.

One noteworthy finding was that even symptomless women were very likely to have reproductive tract disease (table IV). Symptoms are thus an insensitive tool for screening, in the presence of a high prevalence rate. The negative predictive value is also very poor. The gynaecological complaints volunteered by women during history-taking were often underestimates—especially with regard to vaginal discharge and menstrual troubles—because of the concepts of normality. Thus only 98 women complained of excessive pain during menstruation, but on careful inquiry 269 were found to experience dysmenorrhoea.

There was some truth in the women's perception that contraception causes gynaecological troubles—there was a statistically significant association between certain gynaecological diseases and past or present female contraception. But this can explain only a small proportion of the morbidity since 78% of the ever-married women had never used any such contraception, yet had a high prevalence of disease.

Unfortunately the diseases that do not kill tend to be neglected. The non-neoplastic gynaecological diseases come in this category, but they could give rise to: difficulty in occupational and domestic work because of chronic backache (present in 30·3% women); fetal wastage due to abortions and stillbirths; neonatal infections from birth canal infections; anaemia due to menorrhagia; marital disharmony due to sterility and dyspareunia; anxiety and stress; and harm to the reputation of family planning methods due to aggravation of pre-existing gynaecological disease (this probably accounts for the very low use of intrauterine devices, despite intense promotion by the state government).

Nearly half the unmarried girls had had sexual intercourse. This rather unexpected finding in a traditional Hindu society indicates that there is a need to provide adolescent sexual health education and care even in the villages.

AIDS has not been reported from this part of India. But when the infection arrives, what will be the effect of high prevalence of vaginitis and cervical erosion on the transmission of infection? Will these lesions facilitate the entry of virus by the vaginal route? This aspect needs looking into.

Only 7·8% of the women had ever had a gynaecological examination in the past, even though 55% were aware of having gynaecological disorders. Obviously there is a large gap between the need and the care. Similar epidemiological studies are needed in other areas, with closer attention to aetiology and women's perceptions. Finally reproductive care to women needs to be broadened beyond maternity care and family planning.

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Occasional Survey

PATIENTS' PREFERENCE IN INDOMETHACIN TRIALS: AN OVERVIEW

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Summary Meta-analysis was used to study patients' preference in 37 crossover trials that compared indomethacin with newer non-steroidal, anti-inflammatory drugs (NSAIDs). 3 reports did not present numerical data. Patients who withdrew from the trial were included in the analysis. The difference between the proportion of patients who preferred the new drug and the proportion who preferred indomethacin (the therapeutic gain) was 14%. After exclusion of 2 unreliable studies the therapeutic gain was only 7%, and when 4 preliminary reports were also ignored, the gain was 5% (95% confidence interval 0 to 10%). In two additional analyses in which the 2 outlying results were excluded, the gain was also 5%. The findings do not support the trend to replace indomethacin with newer NSAIDs.

INTRODUCTION

INDOMETHACIN, marketed in 1963,[1] is still an important drug with which the newer non-steroidal, anti-inflammatory drugs (NSAIDs) are compared.[2] Superiority of the newer drugs is usually claimed, but I have demonstrated severe bias in the analysis and interpretation of these trials.[2] To study whether the newer NSAIDs are preferable to indomethacin, I have done a meta-analysis[3,4] of patients' preference in crossover trials.

METHODS

Details of the literature searches have been published.[2] I collected reports on crossover trials, said to be double-blind, that compared two or more of the seventeen NSAIDs marketed in Denmark with indomethacin. The trials had to be of tablets or capsules, given in repeated doses to patients with rheumatoid arthritis, and published before 1985 in any language. A 'MEDLINE' search covering 1966 and onwards was done in May, 1985, and the thirteen companies that marketed the proprietary products were contacted. The reference lists of the collected articles were scanned. In the case of repetitive publication, the most informative report was chosen.

The reports were searched for data on overall patients' preference for one of the drugs. When more than one NSAID had been compared with indomethacin, the newest was selected. Preference for drugs other than these two was recorded as "no preference".

The main author and the pharmaceutical company were contacted for clarification of uncertainties (eg, blinding and randomisation methods, patients who withdrew, and missing data). For reports without preferences I asked whether such data had been recorded but omitted from the report.

Under the null hypothesis of no difference between the drugs, an equal number of patients would be expected to discontinue therapy on the two drugs. If numbers are different, it is reasonable to give credit to the drug with fewest discontinuations.[5] Therefore, according to a protocol written beforehand, three analyses were done of which I considered "B" the most decisive:

(A) The preferences as stated in the reports were accepted (participants who withdrew were disregarded)

(B) Patients who withdrew were included as follows: (a) drug not stated = no preference; (b) discontinued trial drug = preference for other drug (unless this drug also discontinued, then = no preference); and (c) discontinued third drug or placebo or wash-out period = no preference (unless trial drug also discontinued, in which case [b] applied)

(C) To assess the sensitivity of the analysis to preferential reporting of the offending drug, patients who withdrew were included as above except for B(a), which was now construed as indomethacin preference.

The "therapeutic gain" was calculated as the difference between the proportion (P_n) preferring the new drug and the proportion (P_i) preferring indomethacin.[5] For example, if 35 of 100 patients preferred the new drug, 25 indomethacin, and 40 had no preference, the therapeutic gain would be 10% (35 − 25%). The variance of the gain was calculated as $(P_n + P_i - [P_n - P_i]^2) \div n$, where n = total number of patients in the analysis. The average gain was calculated by weighting the gains by the inverse of the variance (three additional weighting schemes are discussed in the results section). For estimation, 95% confidence intervals (CI) were used. The binomial distribution was used to calculate the probability of withdrawal.

RESULTS

50 reports were collected. Nine of ten companies and seventeen of fifty authors or their colleagues answered the requests for further information. Details of randomisation were requested for 47 reports and of blinding for 14. The answers were usually of little use, such as "the company did

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ಸುರಕ್ಷಿತ ತಾಯ್ತನ-
ಒಂದು ಮರೀಚಿಕೆ

ಈ ಕಂಪ್ಯೂಟರ್ ಯುಗದಲ್ಲೂ ಪ್ರತಿವರ್ಷ ಆರು ಲಕ್ಷ ಗರ್ಭಿಣಿ ಮಹಿಳೆಯರು ಸಾವಿಗೆ ಈಡಾಗುತ್ತಿದ್ದಾರೆ. ಇದರಲ್ಲಿ ಶೇಕಡ 99ರಷ್ಟು ಸಾವು ಅಭಿವೃದ್ಧಿಶೀಲ ದೇಶಗಳಲ್ಲೇ.

ಭಾರತ, ಬಾಂಗ್ಲಾದೇಶ, ಪಾಕಿಸ್ತಾನ ಮತ್ತು ಇಂಡೋನೇಷಿಯಾ ದೇಶಗಳಲ್ಲಿ 75,000 ಮಹಿಳೆಯರು ರಕ್ತಸ್ರಾವ-ಮುಣ್ಣು, ಗರ್ಭಪಾತವಿಂದ ಸಾಯುತ್ತಿದ್ದಾರೆ. ಈ ಒಬ್ಬೆಲೆಯಲ್ಲಿ ವಿಶ್ವ ಆರೋಗ್ಯ ಸಂಸ್ಥೆಯ ಸುರಕ್ಷಿತ ತಾಯ್ತನ ಹೇಗೆ ಸಾಧ್ಯ? ಹೊರ ದೇಶಗಳಿಂದ ಭಾರತಕ್ಕೆ ಯಥೇಚ್ಛವಾಗಿ ಹರಿಯುತ್ತಿರುವ ಆನೇಕ ಬಿಯ ಗರ್ಭ ನಿರೋಧಕಗಳು ಹೆಚ್ಚಾಗಿ ಗ್ರಾಮೀಣ ಮಹಿಳೆಯರ ಮೇಲೆ ಪ್ರಯೋಗ ಆಗುವುದು. ಇದರಿಂದ ಗರ್ಭಣಿ ಸ್ತ್ರೀಯ ಸಾವು ಮಾತ್ರವಲ್ಲ ಆರೋಗ್ಯವೂ ಕ್ಷೀಣಿಸುವುದುಂಟು.

ಶಿಶು ಜನನದ ಮುನ್ನಲೇ ಅಮಾಯಕ ಹೆಣ್ಣೊಬ್ಬಳು ತನ್ನದಲ್ಲದ ತಪ್ಪಿಗೆ ಬಲಿಯಾಗುತ್ತಿದ್ದಾಳೆ. ಗರ್ಭಣಿಯಾದ ಕೂಡಲೆ ಆಥವಾ ಗರ್ಭಣಿ ಆಗುವ ಮುನ್ನವೇ ಆಕೆಯ ವೈದ್ಯಕೀಯ ಕವಿಮಾಹಿಗೆ ಸಿಲುಚಿ ನಲಗುತ್ತಿದ್ದಾಳೆ. ಇದಕ್ಕಾರು ಹೊಣೆ?

ಸೂಕ್ಷ್ಮ ಆನ್ಯಾಯ

ಮಹಿಳೆ ಎಂದರೆ ಕೂಡಲೆ ಶೋಷಣೆ, ವರದಕ್ಷಿಣೆ ಸಾವು. ನೋವು. ಹೊಡೆತ ಬಡಿತ ಇತ್ಯಾದಿ ವೈಯಕ್ತಿಕ ಮಟ್ಟದ ಹಿಂಸೆಗಳೆ ಸಾಲುಗಟ್ಟಿ ನಿಲ್ಲುವುದು. ಆದರೆ, ಇದಕ್ಕೂ ಮೀರಿದಂತಹ ಕ್ರಮಬದ ಆನ್ಯಾಯವೊಂದು ಬಹುಸೂಕ್ಷ್ಮವಾಗಿ ಸಡೆಯುತ್ತಿದೆ. ಈ ಮಾರಣ ಹೋಮದ ಬಗ್ಗೆ ಆನೇಕರಿಗೆ ಏಚಿತ ಅಭಿಪ್ರಾಯವೂ ಇಲ್ಲ. ಕುಟುಂಬ ಕಲ್ಯಾಣ, ನಿಯಂತ್ರಣದ ಹೆಸರಲ್ಲಿ ನಡೆಯುತ್ತಿರುವ ಬರ್ಬರ ಕೃತ್ಯ ಗರ್ಭ ನಿರೋಧಕ ಕಾರ್ಯಕ್ರಮ ಯಾರನ್ನೂ ಬೆಚ್ಚಿ ಬೀಳಿಸುವಂತಹುದು.

ತಾಯ್ತನ, ಕ್ಷೇಮಹರ ಬಸಿರು, ಆರೋಗ್ಯವಂತ ಮಗುವಿನ ಜನನ ಇವೆಲ್ಲವೂ ಒಂದು ರಾಷ್ಟ್ರದ ಅಭಿವೃದ್ಧಿಯ ಕುರುಹು. ಆದರೆ, ಕುಟುಂಬ ನಿಯಂತ್ರಣದ ಹೆಸರಲ್ಲಿ ಸರ್ಕಾರ ಕಳವೆ, ಆಪಾಯಕಾರಿ ಗರ್ಭ ನಿರೋಧಕಗಳನ್ನು ಮಹಿಳೆಯರ ಮೇಲೆ ಪ್ರಯೋಗಿಸಿ, ಅವರನ್ನು ಕೊಲ್ಲುತ್ತಿದೆ ಎಂದರೂ ಆತಿಶಯವಾಗಲಾರದು.

ಇದೇ ಸರ್ಕಾರ ತನ್ನ ಸ್ವಾಮ್ಯದಲ್ಲಿರುವ ರೇಡಿಯೊ, ಟೆಲಿವಿಷನ್ ಮೂಲಕ ಗರ್ಭಣಿ ಸ್ತ್ರೀಯರ ಆರೋಗ್ಯದ ಬಗ್ಗೆ ಮಾಹಿತಿ ನೀಡುತ್ತಿಲೆ. ಆವರೆನ್ನು ತನ್ನ ಮೂರ್ಖ ನೀತಿಯಿಂದ ಕೊಲ್ಲುತ್ತಿರುವುದು ವಿಪರ್ಯಾಸ.

ದಿನಕ್ಕೆ ಸರಾಸರಿ 1600 ಮಹಿಳೆಯರು ಗರ್ಭಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ತೊಂದರೆಗಳಿಂದ ಸಾಯುತ್ತಿದ್ದಾರೆ. ಇದಕ್ಕೆ ಕಾರಣವಾದರೂ ಏನು?

ಶಮಂತ

ಈಗ, ಈ ಇಪ್ಪತ್ತೊಂದನೆ ಶತಮಾನದಲ್ಲಿ ಕಂಪ್ಯೂಟರ್ ಯುಗದಲ್ಲಿ ಪ್ರಪಂಚಾದ್ಯಂತ ಶೇಕಡ ನಲವತ್ತು ಮಂದಿ ಗರ್ಭಣಿ ಸ್ತ್ರೀಯರು ಸಾಯುತ್ತಿದ್ದಾರೆಂದರೆ ಆಶ್ಚರ್ಯವಾಗದೇ ಇರದು. ಒಂದು ವರದಿ ಪ್ರಕಾರ, ಪ್ರತಿ ವರ್ಷ ಆರು ಲಕ್ಷ ಮಹಿಳೆಯರ ಸಾವಿನಲ್ಲಿ 99ರಷ್ಟು ಸಾವು ಅಭಿವೃದ್ಧಿಶೀಲ ರಾಷ್ಟ್ರಗಳಲ್ಲಲ್ಲೇ. ಭಾರತ, ಬಾಂಗ್ಲಾದೇಶ, ಪಾಕಿಸ್ತಾನ ಮತ್ತು ಇಂಡೋನೇಷಿಯಾ ದೇಶಗಳಲ್ಲಿ 75,000 ಮಹಿಳೆಯರು ರಕ್ತಸ್ರಾವ ಮತ್ತು ಅವೈಜ್ಞಾನಿಕ ವಿಧಾನದ ಗರ್ಭಸ್ರಾವದಿಂದ ಸಾಯುತ್ತಿದ್ದಾರೆ. ಇನ್ನು 75,000 ಮಿದುಳು ಮತ್ತು ಕಿಡ್ನಿ ತೊಂದರೆಯಿಂದ, ಒಂದು ಲಕ್ಷ ಆಣಾಗರೂಕ ಹೆರಿಗೆಯಿಂದಾಗಿ, ಗರ್ಭಕೋಶದಲ್ಲೇ ಮಾಸು ಉಳಿದು, ಅದರ ಹುಣ್ಣಿನಿಂದ ಸಾಯುತ್ತಿದ್ದಾರೆ.

ವಿಜ್ಞಾನ, ತಂತ್ರಜ್ಞಾನದಲ್ಲಿ ಮುಂದುವರಿದ ವಿದ್ದರೂ ಸುಮಾರು ಮೂರು ಮಿಲಿಯನ್ ಯುವತಿಯರು ಗರ್ಭಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ತೊಂದರೆಗಳಿಂದ ಸತ್ತಿದ್ದಾರೆ. ಅಂದರೆ, ಬಹುಶಃ ದಿನಕ್ಕೆ ಸರಾಸರಿ 1,600ರಂತೆ ಈ ಮಹಿಳೆಯರು ಸಾಯುತ್ತಿರಬಹುದು. ಇವು ದೊಡೆತ ಅಂಕಿ, ಅಂಶಗಳ ವಿವರ. ಇನ್ನು ದೊಡಕದ ವಿವರಗಳೆಷ್ಟು ಹುದುಗಿದೆಯೋ...?!!

ಕಾರಣವೇನು?

ಇದಕ್ಕೆ ಕಾರಣವಾದರೂ ಏನು? 1930ಕ್ಕೆ ಮುನ್ನ ಬಸಿರು ಮತ್ತು ಹೆರಿಗೆ ಸಂಬಂಧಿಸಿದ ಮರಣ, ಸಮಸ್ಯೆಗಳು ಅಸಂಖ್ಯಾತವಾಗಿದ್ದವು. ಮಹಿಳೆಯೊಬ್ಬಳು ಹೆರಿಗೆಯಲ್ಲಿ ಬದುಕುಳಿದರೆ ಆವಳ ಪುಣ್ಯ. ಪುರ್ನಜನ್ಮ ಎಂಬಲ್ಲಿ ಹೇಳಲಾಗುತ್ತಿತ್ತು. ಆದರೆ, ಈಗಲೂ ಈ ಸಮಸ್ಯೆ ಜನಸಂಖ್ಯಾ ಸ್ಫೋಟದಿಂದ ವಿರುತ್ತಲಿದೆ ಎಂದರೆ ಆಶ್ಚರ್ಯಗುಂಡಂತಹುದು.

ಯಾವುದೇ ಸಮಸ್ಯೆಯಾಗಲಿ ಅದು ಕೇವಲ ಆರೋಗ್ಯ, ಆರ್ಥಿಕ, ಸಾಮಾಜಿಕ ಸಮಸ್ಯೆ ಎನ್ನಲಾಗದು. ಎಲ್ಲವೂ ಒಂದಕ್ಕೊಂದು ಬೆಸೆದುಕೊಂಡಿರುವಂತಹುದು. ಆಯಾ ಇಲಾಖೆ ಮತ್ತು ಸಂಬಂಧಿಸಿದವರು ತಾವು ಹಿಡಿದ ಕಾರ್ಯವನ್ನುಯೋಜನೆಯಂತಹ ಕಮಿಟ್‌ಮೆಂಟ್ ತೋರಿದಲ್ಲಿ ಗರ್ಭಣಿ ಸ್ತ್ರೀಯರ ಮರಣ ಸಂಖ್ಯೆ ತಕ್ಕಮಟ್ಟಿಗಾದರೂ ತಗ್ಗಿತು. ಉದಾಹರಣೆಗೆ, ಪುಟ್ಟ ಮಕ್ಕಳ ಲಸಿಕೆ ಕಾರ್ಯಕ್ರಮ ಭಾರತದಲ್ಲಿ ಸರ್ವಾರ್ಣ ಯಶಸ್ವಿಯಾಗಿ, ಮಗ್ಗು ಕಂದಮ್ಮಗಳು ತಮ್ಮ ಎರಡನೆ ಮೂರನೆ ಹುಟ್ಟಿದ ಹಬ್ಬ ಕಾಣುವಂತಾಗಿದೆ. ಈ ಬಗೆಯಲ್ಲಿ ಗರ್ಭಣಿ ಸ್ತ್ರೀಯರ ಮರಣ ನಿಲ್ಲಬೇಕೆಂಬುದು ವಿಶ್ವ ಆರೋಗ್ಯ ಸಂಸ್ಥೆಯ ಆದ್ಯತೆಯಾಗಿದೆ.

"ನಮ್ಮಲ್ಲಿ ಗರ್ಭಣಿ ಸ್ತ್ರೀಯರು ತಮಗೆ ತೊಂದರೆಯಾದಾಗ ಸಮೀಪದ ಆರೋಗ್ಯ ಕೇಂದ್ರ, ಆಥವಾ ವೈದ್ಯರ ಬಳಿ ಹೋಗುವಷ್ಟು ಜಾಗೃತಳಾಗಬೇಕು. ಕೇವಲ ಜನ ಜಾಗೃತಿ ಉಂಟಾದರೆ ಸಾಲದು. ನಮ್ಮ ಆರೋಗ್ಯ ಕೇಂದ್ರ, ಚಿಕಿತ್ಸಾಲಯಗಳೂ ಸಹ ಸಾಮಾನ್ಯ ಕಾಯಿಲೆಗೆ ನೀಡುವಂತಹ ಆದ್ಯತೆಯನ್ನು ಬಸಿರು, ಹೆರಿಗೆಗೆ ನೀಡಬೇಕು. ಒಂದು ಹಳ್ಳಿಯ ಆರೋಗ್ಯ ಕೇಂದ್ರ ಇವೆಲ್ಲವನ್ನು ಒಳಗೊಂಡಂಥ ಕೇಂದ್ರವಾದಾಗ ಮಾತ್ರ ಗರ್ಭಣಿ ಸ್ತ್ರೀಯರು ತೊಂದರೆಗೆ ಒಳಗಾಗುವುದು ತಪ್ಪಿಸಬಹುದು" ಎಂದು ಯೂನಿಸೆಫ್‌ನ ಡಾಕ್ಟರ್ ಚಿತುರ್ವೇದಿ ಅಭಿಪ್ರಾಯಪಟ್ಟಿದ್ದಾರೆ.

ಸ್ತ್ರೀವಾದಿಗಳ ದೃಷ್ಟಿಯಲ್ಲಿ

ಇದನ್ನು ಸ್ತ್ರೀವಾದಿ ದೃಷ್ಟಿಯಿಂದ ಗಮನಿಸುವ ಮಹಿಳಾ ಸಂಘ, ಸಂಸ್ಥೆಗಳು ಸರ್ಕಾರದ ಜೋಷಭದ್ರತೆಯ ಮತ್ತು ಇಲ್ಲಿಯ ಮಹಿಳೆಯರನ್ನು ಅಭಿವೃದ್ಧಿ ರಾಷ್ಟ್ರಗಳು ಬಳಸಿಕೊಳ್ಳುತ್ತಿರುವ ರೀತಿಯನ್ನು ಏಂದಿಸುತ್ತಾರೆ. ಜನಸಂಖ್ಯಾ ನಿಯಂತ್ರಣಕ್ಕೆಂದು ವಿವೇಚನೆಯಿಲ್ಲದೆ ಸರ್ಕಾರ ಶ್ರೀಮಂತ ರಾಷ್ಟ್ರಗಳಿಂದ ಅಮದಾಗುತ್ತಿರುವ ಆಪಾಯಕಾರಿ ಗರ್ಭ ನಿರೋಧಕ ಔಷಧಿ, ವಿಧಾನಗಳೇ ಗರ್ಭಣಿ ಸ್ತ್ರೀಯರಿಗೆ ಮಾರಕವಾಗಿವೆ ಎನ್ನುತ್ತಿದ್ದಾರೆ.

ಇದರೊಂದಿಗೆ, ನಮ್ಮ ದೇಶದ ಆಥವಾ ಯಾವುದೇ ಬಡ ದೇಶದ ಮಹಿಳೆಗೂ ಗರ್ಭಧಾರಣೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಆಯ್ಕೆ ಎನ್ನುವ ಪ್ರಶ್ನೆಯೇ ಲಭ್ಯವಿಚಿಚ್ಚಿದೆ.

ಗಂಡ ಮತ್ತು ಮನೆಯವರ ಇಚ್ಛೆಯಂತೆ ಆವಳು ಮಕ್ಕಳನ್ನು ಹೆರಬೇಕೇ ವಿನಾ ಆವಳ ಆರೋಗ್ಯ, ಆಭಿರುಚಿಯನ್ನು ಆರಿತಲ್ಲ. ಇದರ ಬಗ್ಗೆ ಯೋಚಿಸುವಷ್ಟು ಶಿಕ್ಷಣವಂತೆ, ಜ್ಞಾನವಲ್ಲಿದಿರುವುದರಿಂದಲೇ ಇಂದು ಆವಳು ಆಕಾಲಮೃತ್ಯುವಿಗೆ ಈಡಾಗುತ್ತಿರುವುದು. ಬಿಚ್ಚಿ ಜೀತವಾಗಿದಾ. ಎಷ್ಟಕ್ಕೆಷ್ಟು ಹಡೆಯುವ ಪ್ರವೃತ್ತಿ ದಿನೇ ದಿನೇ ಹೆಚ್ಚಾಗುತ್ತಿದೆ. ಇಚ್ಛೆಗೂ ಅಲ್ಲ. ಭಿಕ್ಷಾಟನೆಗಾಗಿಯೂ ಅಸಂಖ್ಯಾತ ಮಕ್ಕಳನ್ನು ಹೆರುವುದು ಸಾಮಾನ್ಯವಾಗಿಬಿಟ್ಟಿದೆ. ಇಂತಹ ಸಂದರ್ಭಗಳಲ್ಲಿ ಮಹಿಳೆಗೆ ಆಯ್ಕೆ ಎನ್ನುವುದಾದರೂ ಎಲ್ಲಿದೆ?

ಇನ್ನು ಗಂಡು ಮಗುವಿನ ಆಸೆಗಾಗಿ ಮಹಿಳೆಯನ್ನು ಬಲಾತ್ಕಾರಕ್ಕುತ್ತಿರುವುದೂ ಸಹ

ಬಸಿರಿಗೆ ಸಂಬಂಧಿಸಿದ ಸಮಸ್ಯೆಗಳಲ್ಲಿ ಪ್ರಮುಖ ಆಗಿವೆ. ಒಂದು ಪಕ್ಷ ಮಹಿಳೆ ಜಾಗೃತಳಾಗಿ ತನ್ನ ದೇಹ ಮತ್ತು ಮನಸ್ಸಿನ ಮೇಲೆ ನಿಯಂತ್ರಣ ಸಾಧಿಸಿದಾಗ ಮಾತ್ರ ಗರ್ಭಿಣಿ ಸ್ತ್ರೀಯ ಆರೋಗ್ಯ ಸುಧಾರಿಸೀತು ನ್ನುವ ಸಮಾಜ ವಿಜ್ಞಾನಿಗಳು ಇಲ್ಲದಿಲ್ಲ.

ಸಾಮಾಜಿಕ, ಆರ್ಥಿಕ ಕಾರಣಗಳು ಮಾತ್ರ ಅಲ್ಲದೆ, ಭಾವನಾತ್ಮಕ ಕಾರಣಗಳೂ ಸಹ ಮಕ್ಕಳ ಜನನಕ್ಕೆ ಕಾರಣವಾಗಿವೆ. ಬಡ, ಗ್ರಾಮೀಣ ಪ್ರದೇಶಗಳಲ್ಲಿ ಮಕ್ಕಳನ್ನು ಜೀತದಾಳುಗಳಿಗಾಗಿ ಬಳಸಿಕೊಳ್ಳುವ ಪ್ರವೃತ್ತಿಯಿಂದ ಬಡ ಮಹಿಳೆ ಬದುಕಿದ್ದೂ ಜೀವಚ್ಛವವೇ.

ಸರ್ಕಾರ ಅಮದು ಮಾಡಿಕೊಳ್ಳುವ ಗರ್ಭನಿರೋಧಕಗಳನ್ನು ಖಾಸಗಿ ವೈದ್ಯರಿಗಿಂತಲೂ ವ್ಯವಸ್ಥಿತವಾಗಿ ಸರ್ಕಾರಿ ವೈದ್ಯರು, ಆಸ್ಪತ್ರೆಗಳೇ ಬಳಸುತ್ತಿವೆ. ಇಂಡಿಯನ್ ಕೌನ್ಸಿಲ್ ಆಫ್ ಮೆಡಿಕಲ್ ರಿಸರ್ಚ್, ನ್ಯಾಷನಲ್ ಇನ್ಸ್‌ಟಿಟ್ಯೂಟ್ ಆಫ್ ಇಮ್ಯೂನಾಲಜಿ ಮತ್ತು ಸೆಂಟ್ರಲ್ ಡ್ರಗ್ ರಿಸರ್ಚ್ ಇನ್ಸ್‌ಟಿಟ್ಯೂಟ್‌ಗಳು ಗರ್ಭನಿರೋಧಕಗಳ ಬಗ್ಗೆ ಸಂಶೋಧನೆ ಸುತ್ತಿವೆ. ಈ ಸಂಸ್ಥೆಗಳು ವಿಶ್ವಬ್ಯಾಂಕ್, ಇಂಟರ್ ನ್ಯಾಷನಲ್ ಮಾನಿಟರಿ ಫಂಡ್, ಯು.ಎಸ್.ಎಫ್. ಮತ್ತಿತರ ರಾಷ್ಟ್ರಗಳಿಂದ ಧನ ಸಹಾಯ ಪಡೆಯುತ್ತಿರುವುದರಿಂದ ವಾಸ್ತವದಲ್ಲಿ ಗರ್ಭನಿರೋಧಕದ ಬಗ್ಗೆ ಈ ಸಂಸ್ಥೆಗಳ ನಿಲುವೇ ಭಿನ್ನವಾಗಿವೆ. ಇವರ ಸಂಶೋಧನೆಯ ಪ್ರಥಮ ಗುರಿ ಹೊಸ ರಾಷ್ಟ್ರಗಳ ಗರ್ಭನಿರೋಧಕ ವಸ್ತುಗಳ ಗುಣಮಟ್ಟವನ್ನು ಅರಿಯುವುದು. ಆದರೆ, ಈ ಸಂಸ್ಥೆಗಳೂ ತಮ್ಮ ಜವಾಬ್ದಾರಿ ಮರೆತು, ಇತರ ರಾಷ್ಟ್ರಗಳ ಹಣದಾಸೆಗಾಗಿ ಬಡ ಹೆಣ್ಣುಮಕ್ಕಳನ್ನು ಬಲಿಪಶುವಾಗಿಸಿದ್ದಾರೆಂದು ದೆಹಲಿಯ "ಸಹೇಲಿ" ಮಹಿಳಾ ಸಂಘಟನೆ ತನ್ನ ವರದಿಯಲ್ಲಿ ತಿಳಿಸಿದೆ.

ಬೇಲಿಯೇ ಎದ್ದು...

ಸರ್ಕಾರ ಮತ್ತು ವಿದೇಶಿ ಕಂಪನಿಗಳ ಪಟ್ಟಭದ್ರ ಹಿತಾಸಕ್ತಿಗಳಿಂದಾಗಿ ಎಂದೆಂದೂ ಕೇಳದಂತಹ ಅನೈತಿಕ ವ್ಯವಹಾರ ವೈದ್ಯರಿಂದಲೇ ನಡೆಯುತ್ತಿದೆ. ಪ್ರತಿ ವೈದ್ಯನೂ ತನ್ನ ರೋಗಿಯ ಆರೋಗ್ಯ, ಜೀವದ ಬಗ್ಗೆ ಚಿಂತಿಸುವುದರ ಬದಲು, ಜನಸಂಖ್ಯೆಯೇ ಒಂದು ಕುಟುಂಬ, ನತದೃಷ್ಟ ಮಹಿಳೆ ಜರ್ಜರಿತವಾಗುವಂತೆ ಮಾಡುತ್ತಿದ್ದಾರೆ. ಬಹು ಗೋಪ್ಯವಾಗಿ, ವೈದ್ಯ ಸಮೂಹ ಪ್ರತಿ ವರ್ಷ ಹದಿನೈದು ಮಿಲಿಯನ್ ಮಹಿಳೆಯರು ಗರ್ಭಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ತೊಂದರೆಗೆ ಸಿಲುಕುವಂತೆ ಮಾಡುತ್ತಿದ್ದಾರೆ.

ಒಬ್ಬ ಮಹಿಳೆಯ ಸಾವು, ಅನಾರೋಗ್ಯ, ಒಂದು ಮನೆಗೆ ಮಾತ್ರವಲ್ಲ ಒಟ್ಟು ಸಮಾಜಕ್ಕೆ ನಷ್ಟವುಂಟು ಮಾಡುವಂತಹುದು. ಸರ್ಕಾರ ಆ ಮಹಿಳೆಯ ಶಿಕ್ಷಣ, ಆರೋಗ್ಯಕ್ಕೆ ವಿನಿಯೋಗಿಸಿದ್ದ ಹಣ ಎಲ್ಲವೂ ದಂಡವಾದಂತೆ. ಒಂದು ಮನೆಯ ಆರ್ಥಿಕ ಆದಾಯವು ಇದರಿಂದ ಕುಗ್ಗಿದಂತೆ ಆಗುವುದು. ಇವೆಲ್ಲಕ್ಕಿಂತ ತೊಂದರೆ ಅಥವಾ ಸಾವಿಗೀಡಾದ ಮಹಿಳೆಯ ಮಕ್ಕಳು ಅಪಾರ ನಷ್ಟವನ್ನು ಅನುಭವಿಸುವರು.

ಗರ್ಭಿಣಿ ಸ್ತ್ರೀಯರ ಆರೋಗ್ಯಕ್ಕೆಂದು ವರ್ಷಕ್ಕೆ ಕೇವಲ ನೂರಿಪ್ಪತ್ತು ರೂಪಾಯಿ ಖರ್ಚು ಮಾಡಿದರೂ ಸಾಕು, ಅವಳ ಆರೋಗ್ಯ ಸುಧಾರಿಸುವುದಕ್ಕೆ. ಪ್ರಪಂಚಾದ್ಯಂತ ಬಸಿರಿಗೆ ಸಂಬಂಧಿಸಿದ ಸಮಸ್ಯೆ ಮತ್ತು ಸಾವು ಒತ್ತಡ, ರಕ್ತಸ್ರಾವ, ಸೋಂಕು, ಅವೈಜ್ಞಾನಿಕ ರೀತಿಯ ಗರ್ಭಪಾತ ಮತ್ತು ಹೆರಿಗೆ, ಇವುಗಳಿಂದ ಎಂದು ಸಂಶೋಧನೆ ತಿಳಿಸಿವೆ. ಬಡ ರಾಷ್ಟ್ರಗಳಲ್ಲಿ ಶೇಕಡ ಇಪ್ಪತ್ತರಷ್ಟು ರಕ್ತಹೀನತೆ, ಮಲೇರಿಯಾದಿಂದಾಗಿ ಗರ್ಭಿಣಿಯರ ಸಾವು ಸಂಭವಿಸುತ್ತಲಿದೆ.

ಗರ್ಭಿಣಿಯರ ಆರೋಗ್ಯ ಕೇವಲ ಆ ಗರ್ಭಿಣಿಗೆ ಸೀಮಿತವಾಗಿಲ್ಲ. ಅವಳಿಗೆ ಹುಟ್ಟುವ ಮಗುವಿನ ಮೇಲೂ ಸಹ ಪರಿಣಾಮ ಬೀರುವಂತಹುದು. ಬಡರಾಷ್ಟ್ರಗಳ ಸುಮಾರು ಎಂಟು ಮಿಲಿಯನ್ ಶಿಶುಗಳು ಒಂದು ವರ್ಷದೊಳಗೇ ಕಣ್ಮುಚ್ಚಿಕೊಳ್ಳುತ್ತಿವೆ. ಇನ್ನು ಎರಡನೆ ಒಂದು ಭಾಗ, ನವಜಾತ ಶಿಶುಗಳು ವಾರದೊಳಗೆ ಸಾಯುತ್ತಿವೆ. ಶುಚಿತ್ವದ ಕೊರತೆ, ವೈದ್ಯಕೀಯ ಸೌಲಭ್ಯಗಳ ಕೊರತೆ, ಹೆರಿಗೆಯ ವೇಳೆಯಲ್ಲಿ ಅಚಾಗರೂಕತೆ ಇವುಗಳಿಂದ ಶಿಶು ಮರಣ ಸಂಖ್ಯೆ ದ್ವಿಗುಣವಾಗುತ್ತಿದೆ.

ಮಾಲ್ಥಸ್ ಎಂಬ ಅರ್ಥಶಾಸ್ತ್ರಜ್ಞ ಜನನವನ್ನು ಎರಡು ಬಗೆಯಲ್ಲಿ ನಿಯಂತ್ರಿಸಬಹುದೆಂದಿದ್ದಾನೆ. ಪ್ರಕೃತಿಯ ಸಹಜ ನಿಯಂತ್ರಣ ಒಂದಾದರೆ, ಮಾನವ ರೂಪಿತ ಹಲವು ನಿಯಂತ್ರಣಗಳು. ಪ್ರಸ್ತುತ, ಸರ್ಕಾರದ ಧೋರಣೆ ಈ ಎರಡೂ ಥಿಯರಿಗಳ ನಡುವಿನಲ್ಲಿದೆ.

ಶ್ರೀಲಂಕಾ ಸಾಧನೆ

1997ರಲ್ಲಿ ಶ್ರೀಲಂಕಾದಲ್ಲಿ ಲ್ಯಾಟಿನ್ ಅಮೆರಿಕಾ, ಕ್ಯೂಬ, ಚೈನಾ, ಭಾರತ, ಮತ್ತು ಶ್ರೀಲಂಕಾ ರಾಷ್ಟ್ರಗಳು ಗರ್ಭಿಣಿಯರ ಸಾವು, ನೋವಿನ ನಿಯಂತ್ರಣ ಮತ್ತು ಗರ್ಭಿಣಿಯರ ಸುರಕ್ಷತತೆಗಾಗಿ ಒಂದು ವಿಶ್ವಶೃಂಗವನ್ನು ಏರ್ಪಡಿಸಿತ್ತು. 1990ರಲ್ಲಿ ಪ್ರಾರಂಭವಾಗಿದ್ದ ಯೋಜನೆಯ ಮಧ್ಯಂತರ ವರದಿ ಕುರಿತಂತೆ ಅಂದು ಚರ್ಚಿಸಲಾಗಿತ್ತು. 2000ದಲ್ಲಿ ಮುಗಿಯುವ ಈ ಯೋಜನೆಯಲ್ಲಿ ಮಹಿಳೆಗೆ ಸಾಮಾಜಿಕ ನ್ಯಾಯ, ಸುರಕ್ಷಿತ ತಾಯ್ತನ ಕುರಿತಂತೆ ಅಳವಡಿಸಿಕೊಳ್ಳಬೇಕಾದ ಅಂಶಗಳನ್ನು ಚರ್ಚಿಸಲಾಯಿತು.

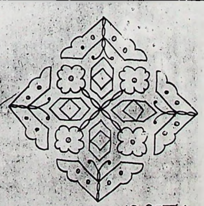
ಈ ಯೋಜನೆಗಳನ್ನು ಸಮರ್ಥವಾಗಿ ದೀರ್ಘಾವಧಿ ಮತ್ತು ಅಲ್ಪಾವಧಿ ವಿಧಾನದಲ್ಲಿ ನಲವತ್ತು ವರ್ಷದೊಳಗೆ ಕೆಲವು ದೇಶಗಳು ಸಾಧಿಸಿವೆ. ಉದಾಹರಣೆಗೆ ಶ್ರೀಲಂಕಾದಲ್ಲಿ 1950ರ ದಶಕದಲ್ಲಿ ಪ್ರತಿ ಲಕ್ಷ ಮಹಿಳೆಯರಲ್ಲಿ 555 ಮಂದಿ ಸಾವಿಗೀಡಾಗುತ್ತಿದ್ದು, ಅರವತ್ತರ ದಶಕದಲ್ಲಿ 239 ಮಂದಿ ಮತ್ತು ಎಂಬತ್ತರ ದಶಕದಲ್ಲಿ ಅವರ ಸಂಖ್ಯೆ 95ಕ್ಕೆ ಇಳಿದಿತ್ತು. ಈ ರಾಷ್ಟ್ರದಲ್ಲಿ ಅಲ್ಪಾವಧಿ ವಿಧಾನಗಳಾದ ಹೆರಿಗೆ ಮತ್ತು ಶುಶ್ರೂಷ ಆಸ್ಪತ್ರೆಗಳ ಕಾರ್ಯತತ್ಪರತೆ, ರಾಷ್ಟ್ರಮಟ್ಟದ ಆರೋಗ್ಯ ನೀತಿ, ಸಮುದಾಯಕ್ಕೆ ಆರೋಗ್ಯ ಇಲಾಖೆ ತಲೆಬಾಗುವಂತಹ ಕಾರ್ಯ ವಿಧಾನಗಳಿಂದಾಗಿ ಸುರಕ್ಷಿತ ತಾಯ್ತನ ಅಲ್ಲಿ ಜಾರಿಗೆ ಬಂದಿತು.

ಸಾಮಾನ್ಯ ತಿಳಿವಳಿಕೆ, ಶಿಕ್ಷಣ, ಅಕ್ಷರತೆಯೊಂದಿಗೆ ಪೌಷ್ಟಿಕ ಆಹಾರವನ್ನು ಬಡ ಮಹಿಳೆಯರಿಗೆ ಉಚಿತವಾಗಿ ನೀಡುವುದು; ಹೆರಿಗೆ ಆಸ್ಪತ್ರೆಗಳ ಸಂಖ್ಯೆಯನ್ನು ದ್ವಿಗುಣಗೊಳಿಸುವುದು; ಈ ಕುರಿತಂತೆ ಮಹಿಳೆಯರಿಗೆ ತಿಳಿವಳಿಕೆ ನೀಡುವುದು; ಮತ್ತು ಮಹಿಳೆಯರಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಆರ್ಥಿಕ, ಸಾಮಾಜಿಕ ನ್ಯಾಯ, ಸ್ಥಾನಮಾನವನ್ನು ಉತ್ತಮಗೊಳಿಸುವುದು. ಅವರು ಅನುಸರಿಸಿದ ವಿಧಾನಗಳು ಇಂತಹ ಅನೇಕ ಸಲಹೆಗಳನ್ನು ನೀಡುವುದೇನು ಕಷ್ಟವಲ್ಲ. ಆದರೆ, ನಮ್ಮ ಸರ್ಕಾರ, ರಾಜಕಾರಣಿಗಳಿಗೆ ದೂರದರ್ಶಿತ್ವದ ಕೊರತೆ, ಲಂಚಗುಳಿತನ, ದುರಾಸೆ, ಭ್ರಷ್ಟತನದಿಂದಾಗಿ ಎಲ್ಲಾ ಸಮಸ್ಯೆಗಳು ಸಮಸ್ಯೆಗಳಾಗಿಯೇ ಉಳಿದುಬಿಟ್ಟಿವೆ. ಇದೇ ರೀತಿಯೇ ಸುರಕ್ಷಿತ ತಾಯ್ತನದ ಸಮಸ್ಯೆಯೂ ಕೂಡ.

✤

ಎಲ್. ಕಲ್ಪನ

9ರಿಂದ 5



19 ರಿಂದ 1

49 Bryant, p.48.
50 Hirsch and Warden.
51 Winona La Duke, "The Struggle for Cultural Diversity," *Race, Poverty and the Environment* 1 no.2 (July 1990).
52 Hirsch and Warden.
53 Zeff, Love, and Stults, p.4.
54 Ibid.
55 Ibid.
56 Penny Newman. "Killing Legally with Toxic Waste: Women and the Environment in the USA" (Paper delivered at the conference, "Women and the Environment" India, 1992).
57 Ibid., p.24.
58 Penny Newman, *The Environment: An Issue of Health, Safety and Social Justice* 8, no.1 (Summer 1992), Action-Gram, Riverside County Department of Community Action.
59 Penny Newman, "Cancer Clusters Among Children: The Implications of McFarland," *Journal of Pesticide Reform* 9 no.3 (Fall 1989): pp.10-13
60 "Political Difficulties Facing Waste-to-Energy Conversion Plant Siting" (Los Angeles: Cerrell Associates, 1984).
61 See Cynthia Hamilton, "Women, Home and Community: The Struggle in an Urban Environment," in Diamond and Orenstein.
62 Ruth Perry, "Engendering Environmental Thinking" (Paper delivered at the University of California, Santa Cruz, Feb. 24, 1993).
63 Lee.
64 Bob Ostertag, "Rose Marie Augustine: School of Hard Toxics," *Mother Jones* (Jan./Feb. 1991): pp. 49-50.
65 Lee.
66 Alston, interview.
67 For discussions on the critical and constructive discourses of science and technology emerging from the environmental justice movement, see Adeline Levine, *Love Canal: Science, Politics and People* (Lexington, MA: Lexington Books, 1982); Susan Masterson-Allen and Phil Brown, *Public Reaction to Toxic Waste*, Will Collette and Lois Gibbs, "Experts: A Users Guide" (Falls Church, VA: CCHW Publication, 1985); S. Krimsky, "Beyond Technocracy: New routes for citizen involvement in social risk assessment," in *Citizen Participation in Science Policy*, ed. J. Peterson (Amherst, MA: University of Massachusetts Press, 1984.
68 Magdalena Avila, "David vs. Goliath," *Crossroads/forward motion* 11 no.2 (April 1992): pp. 13-15.

ROBERT GOTTLIEB

A QUESTION OF CLASS

the workplace experience

When Larry Davis was a boy, living in the unincorporated town of Wheeler, IN, population 400, he loved to go into the woods by an old farm near the edge of town. With his buddies, he'd play in the creek, wade through the marsh, and camp out under the stars in the summer. When he was in high school, he began noticing tanker trucks passing over the old road on the way to the farm, but didn't think much of it. It wasn't until later, after being laid off from Bethlehem Steel's Burns Harbor plant in northern Indiana that he had the opportunity to look into the matter of the old farm in Wheeler.

While laid off, Davis began to follow the growing scandal about the Midco sites in the city of Gary. Located in former dune and swale areas near Lake Michigan and the Grand Calumet River, the Midco dump was Indiana's version of the Love Canal. Problems at the site had first come to the community's attention in 1981, when hazardous wastes, already leaking from several thousand 55 gallon drums, had been spread through town by the floods from a major storm. During the next several days, kids who'd been playing in the puddles left by the storm received chemical burns, as did workers exposed to the flood waters. Local residents could also smell chemical odors drifting through their neighborhoods. As a result, residents formed a new antitoxics group and their protests ultimately forced the Environmental Protection Agency

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Indicators: Women speak out on the challenges of national grassroots leadership,"

26 Alston, interview.

27 Alston, "Transforming a Movement," p.31.

28 Alston, interview.

29 Ibid.

30 Gibbs.

31 Lee.

32 Alston, interview.

33 See Larry Wilson, "Moving Toward A Movement," *Social Policy* 19 (Summer 1989): pp. 53-57.

34 Alston, interview.

35 See Karen Stultz, "Women Movers: Reflections on a movement by some of its leaders," *Social Policy* 20 (Winter 1990): pp. 36-37; Barbara Israel et.al., "Environmental Activists Share Knowledge and Experiences: Description and Evaluation of STP Schools at the Highlander Research and Education Center," *PCMA Working Paper Series*, no.29 (Ann Arbor: University of Michigan, 1991); Barbara Ruben, "Leading *Environmental Action* (Summer 1992): pp. 23-25. According to the three women I interviewed, the issues of gender and leadership were critically discussed at the Leadership Summit. The decision was made to appoint, on a rotating basis, one woman and one man who would act as cochairs for each of the regional network gatherings. In this way, many women would gain the opportunity to develop leadership skills in the process of their work. According to Israel et.al., some women who attended the Highlander Center's STP (Stop the Pollution) schools (workshops that bring together environmental justice grassroots activists from around the country for leadership development and political strategizing) were not so convinced about the "gender sharing" approach to leadership training. Instead, they have requested the implementation of a *women's* STP school. For these women, confronting the specificities of gender and empowerment in their activism may best be accomplished in a "women-only" space.

36 The notion that women possess a unique consciousness of caring for the earth and its inhabitants creates a point of tension within ecofeminist movements—e.g., some feminists ask, Are women who protest "as women" against the bomb or against environmental destruction engaging in an effective use of society's own values against itself or are they accepting society's ideological definition of themselves as inherently more caring? Many feminists suggest that the adoption of the historical association of "women and nature" or "women and environment" by some ecofeminists is essentialist (that is "naturalistic," it posits a natural, universal woman's essence) in that it reproduces the age-old gendered relations of power where women and nature are once again relegated to secondary status. Many argue that this essentialist use of the women/nature connection maintains and perpetuates the gender dualism that also essentializes men as naturally warring and violent and destructive of the environment.

Likewise, these critiques suggest that essentialist positions ignore the ways that some women contribute to environmental problems and to the culture of militarism, and the ways that some men fight against gender oppression and work for the environment. In terms of political strategy, however, some feminists suggest that essentialism must be used "strategically" because the destructive discourses and institutions that associate women and nature still persist in many societies. See Val Plumwood, "Beyond the Dualistic Assumptions of Women, Men and Nature," *Ecologist* 22, no.1 (Jan./Feb. 1992): pp.8-13.

37 See Diamond and Orenstein, *Reweaving the World*; Elizabeth Dodson Grey, *Green Paradise Lost* (Wellesley: Roundtable Press, 1979); Susan Griffin, *Women and Nature: The Roaring Inside Her* (New York: Harper Colophon Books, 1978); Carolyn Merchant, *The Death of Nature: Women, Ecology and the Scientific Revolution* (San Francisco: Harper and Row, 1980); Judith Plant, *Healing the Wounds: The Promise of Ecofeminism* (Philadelphia: New Society Publishers, 1989); Karen Warren, "The Power and Promise of Ecological Feminism," *Environmental Ethics* 12 (Summer 1990); Rosemary Radford Reuther, *New Woman, New Earth* (New York: Seabury Press, 1975).

38 Alston, interview.

39 For example, Bina Agarwal, "The Gender and Environment Debate: Lessons from India," *Feminist Studies* 18 no.1 (1992): pp. 119-158; Brinda Rao, *Dominant Constructions of Women and Nature in Social Science Literature* (New York: Guilford Publications, 1991); Lee Quinby, "Ecofeminism and the Politics of Resistance," in Diamond and Orenstein; Maria Mies, *The Lacemakers of Narsapur: Indian Housewives Produce for the World market* (London: Zed Books, 1982).

40 Agarwal, p.127.

41 Leonie Caldecott and Stephanie Leland, eds., *Reclaim the Earth: Women speak out for life on earth* (London: Women's Press, 1983), p.6.

42 I am using the expression "unmarked" to connote that these environmental justice activists do not necessarily identify themselves as engaging in "women's movement." However, in another sense, clearly these women activists are *marked* in the dominant culture by their racial, class, and ethnic backgrounds.

43 Gibbs.

44 Interviews conducted by Greenpeace activists from the video, *First National People of Color Environmental Leadership Conference*, directed by Karen Hirsch and A.C. Warden, 1991.

45 Lee.

46 Robbin Lee Zeff, Marsha Love, and Karen Stults, eds., *Empowering Ourselves: Women and Toxics Organizing* (Falls Church, VA: Citizen's Clearinghouse for Hazardous Wastes, 1989), p.5.

47 Ibid., pp. 5-6.

48 Hirsch and Warden.

4 In recent years and in response to the exhortations of many people-of-color organizations in the US, the importance of addressing the complexities of "urban environments" and "urban ecologies" has appeared in some mainstream environmental discourse. Organizations such as Greenpeace, Sierra Club, and Earth Island Institute's Urban Habitat Program have begun to link inner-city needs with environmental concerns. These projects construct the awareness of urban areas as "multicultural ecosystems" that require specific environmental knowledges to ensure sustainable and socially and ecologically sound development. For example, *Sustainable Cities: Urbanization and the Environment in International Perspective*, ed. Richard Stren, Rodney White, and Joseph Whitney (Boulder: Westview Press, 1991). In addition, some environmental historians have expanded their objects of scholarly attention to include cities and metropolitan areas as right fully "environmental." A good example is William Cronon's *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991).

5 Author's interview with Dana Alston at the Public Welfare Foundation, Washington, DC, Dec. 22, 1992.

6 Author's interview with Pam Tau Lee at the University of California's Labor and Occupational Health Program, Berkeley, CA, Jan. 25, 1993.

7 This "blaming the victim" approach is evident in both domestic and international arenas. For example, Lois Gibbs, director of Citizen's Clearinghouse for Hazardous Wastes, recounted an attempt to work with an unnamed "Big Ten" group on a lobbying campaign for a low-income community that was fighting a major polluting corporation. The mainstream groups

> don't understand grassroots people and they don't have much respect for them either. There was also something else in this debate, they said, "people who live in industrialized areas, like Niagara Falls, make a decision and make a tradeoff." I thought well I lived in Niagara Falls but that wasn't a conscious decision that I wanted to live in a polluted area. They say, "well if people wanted a clean environment they wouldn't live there." God, they don't get it.

Author's interview with Lois Gibbs, at the Citizen's Clearinghouse for Hazardous Wastes in Falls Church, VA, Dec. 22, 1992.

Similarly, people living in developing countries are often accused of being the major perpetrators of overpopulation, deforestation, and the poaching of endangered species in their efforts at daily survival in the context of postcolonial or neocolonial global capitalism. For more detailed analyses of this argument, see Vandana Shiva, *Staying Alive: Women, Ecology and Development* (London: Zed Books, 1989); Michael Redclift, *Sustainable Development: Exploring the Contradictions* (New York: Methuen, 1987); Gita Sen and Caren Grown, *Development, Crises and Alternative Visions: Third World Women's Perspectives* (New York: Monthly Review Press, 1987).

8 Robert Bullard and Beverly Wright, "Environmentalism and the Politics of Equity," *Mid-America Review of Sociology* 12 (Winter 1987): pp. 21-37; Robert Bullard, *Dumping in Dixie: Race, Class and Environmental Quality* (Boulder: Westview Press, 1990); R.F. Anderson and M.R. Greening, "Hazardous Waste Facility Siting: A Role of Planners," *Journal of the American Planning Association* 48 (Spring 1982): pp. 204-18; US General Accounting Office, *Siting of Hazardous Waste Landfills and their Correlation with Racial and Economic Status of Surrounding Communities* (US General Accounting Office, 1983); Sue Pollack and Joann Grozuczak, *Reagan, Toxics and Minorities* (Washington, DC: Urban Environment Conference, Inc., 1984).

9 Alston.

10 Lee.

11 Alston.

12 A slogan coined by Richard Moore, the codirector of the Southwest Organizing Project and cochair of the Southwest Network for Economic and Environmental Justice.

13 Commission for Racial Justice, "Toxic Waste and Race in the United States: A National Report on the Racial and Socioeconomic Characteristics of Communities with Hazardous Waste Sites" (New York: United Church of Christ, 1987).

14 Karl Grossman, "From Toxic Racism to Environmental Justice," *E Magazine* (May/June 1992): p. 31.

15 Richard Moore, "Confronting Environmental Racism." *Crossroads/forward motion* 11 no.2 (April 1992): p. 7.

16 Ibid., p.8.

17 Alston.

18 Pat Bryant, "Toxics and Racial Justice," *Social Policy* 19 (Summer 1989): p. 52.

19 Sharon Noguchi, "Birkenstockers Meet Ethnic Activists," *San Jose Mercury News*, Feb. 5,1993, p.9B.

20 Alston.

21 Gibbs.

22 The Clinton administration's pro-environmental and social justice rhetoric has, to some extent, encouraged many environmental justice activists. A number of prominent analysts of environmental racism in the US, including Robert Bullard, professor of sociology at University of California, Riverside, were enlisted to the transition team as environmental policy experts in order to develop recommendations to improve the EPA's regulatory practices and their effects on communities of color (from Lee).

23 The title of one of the early texts produced on the emergence of the environmental justice movement, *We Speak for Ourselves: Social Justice, Race and Environment*, ed. by Dana Alston (Washington, DC: Panos Institute, 1990).

24 Dana Alston, "Transforming a Movement: People of Color Unite at Summit Against 'Environmental Racism'," *Sojourner's* 21, no. 1 (Jan. 1992): p. 30.

25 Ibid.

and actions of the people struggling for local environmental conditions in marginalized communities. Activists from the environmental justice movement criticize this top-down, paternalistic approach that characterizes many prominent national and international environmental organizations and argue persuasively that it is not working. The favorite international environmental catch-cry "think globally, act locally" should perhaps be modified to something like, "think locally (with knowledge of global linkages), act locally, and global transformation can be negotiated and realized." Not a terribly catchy revision, yet it emphasizes the significance of organizing from the grass roots, from the multiple, local, historically and culturally specific contexts in which women (and men) are working to improve the social and environmental conditions of their lives. From these localized, community-driven efforts, a larger "movement" is being forged. As one activist has put it, the environmental justice movement's grassroots political culture is not an effect of the self-interested NIMBY (not in my backyard) phenomenon but the critical invention of new forms of coalition politics.[68] People moving in their local communities and neighborhoods are transforming into "people movement" on a larger scale.

The leadership of the mainstream environmental movement, predominantly white, middle-class men, could learn a lot from listening to the multiple voices of the "courageous women" and "hysterical housewives" who constitute the majority of people working for change in the expanding network of grassroots environmental justice organizations. These activists show that by single-mindedly focusing on slogans such as "save the whales" or "extinction is forever," the mainstream groups, perhaps inadvertently, but nonetheless, conceal or ignore their own accountability in perpetuating the discriminatory and even genocidal effects of environmental racism. The multiple struggles for material and cultural survival that these activists and their communities have been engaged in for years, in the face of massive social and environmental assaults, illustrate a commitment to addressing the fundamental problems underlying the "environmental crisis." The issue is not that we need to regulate and design more advanced stack technologies or to determine the minimum habitat requirements of a particular organism, but that "everyone deserves to live in a healthy and safe environment" regardless of race, class, gender, culture, or species. Organizing for environmental justice against toxic poisoning is relevant to "everyone's backyard" and that includes the entire planet. Women activists from diverse backgrounds are simultaneously challenging *and* redefining (and in the process, reinventing) discourses and practices of unjust environmental decision making, gender, racial and class stereotyping, and dominant notions of scientific expertise. These women's voices from the environmental justice movement speak loudly and clearly and it's time to listen.

NOTES

1 The phenomenon of the predominance of women, specifically "marginalized" women, in environmental justice organizations has been documented by various sources. See, for example, Lin Nelson, "The Place of Women in Polluted Places," in *Reweaving the World: The Emergence of Ecofeminism*, ed. Irene Diamond and Gloria Orenstein (San Francisco: Sierra Club Books, 1989), pp.173-188; Susan Masterson-Allen and Phil Brown, "Public Reaction to Toxic Waste Contamination: Analysis of a Social Movement," *International Journal of Health Services* 20, no.3 (1990): pp.485-500; Anita Light, "Hysterical Housewives or Committed Campaigners", *Ecologist* 22, no.1 (Jan./Feb. 1992): pp.14-15; Paula DiPema, "Women and the Environment: Truth vs. 'Facts'," *Ms.*, (Sept./Oct. 1991): pp.21-26; Jane Kay, "Women in the Movement," *Race, Poverty and the Environment* 1, no.4 (Winter 1991); Barbara Ruben, "Leading Indicators: Women speak out on the challenges of national grassroots leadership," *Environmental Action* 24, no. 2 (Summer 1992): pp.23-25; Anne Witte Garland, *Women Activists: Challenging the Abuse of Power* (New York: Feminist Press, 1988).

2 See Robert Gottlieb and Helen Ingram, "The New Environmentalists," *Progressive*, Aug. 1988, pp. 14-15.

3 Discourses of environmental preservation, protection, and the conservation of the "aesthetics of nature" dominate the environmentalism of mainstream groups, especially the "Group of Ten", which is also called the "Big Ten," and includes Friends of the Earth, Wilderness Society, Sierra Club, National Audubon Society, Environmental Defense Fund, Natural Resources Defense Council, National Wildlife Federation, Izaak Walton League, National Parks and Conservation Association, and the Nature Conservancy.

study a lot,"[64] and for her community organization, Tucsonans for a Clean Environment (TCE!), it pays off. Similarly, neither Rose Marie Augustine nor Marta Salinas in MacFarland, CA reject the valuable possibilities of scientific expertise, even though both have come face to face with its destructive deployment. Augustine is currently working with doctors and medical professionals to try to establish a health clinic in south Tucson for the many residents who have been seriously contaminated by TCE poisoning. Salinas continues to struggle against pesticide poisoning in the MacFarland area and is hoping to organize a community-led health study in collaboration with sympathetic environmental health experts.[65]

Productive partnerships and new alliances between grassroots organizations and the scientific/medical establishment are able to emerge as activists shore themselves up with scientific, legal, corporate, economic, and legislative expertise. Alston discusses the level of impact that she and others were able to have on the new head of the National Institute of Health's (NIH's) environmental health division.

> The NIH tests one chemical at a time and determines whether it is carcinogenic, but our case to him was that we were contaminated by multi- sources, lots of different toxics and that this type of testing really doesn't speak to this....At first he was very rigid like the rest of the scientists are, and he kept saying that there's no protocol, there's no model. We kept saying but that's the point, we need for you to go back to basics.... About two months later, he had gone down to Cancer Alley; he was sitting in this woman's kitchen and he looked out the front door and saw this one plant spewing out, then he looked out another window and he saw something else spewing out, and then he looked out the back window and there was something else from a different plant. So it was so clear to him that the one chemical exposure model was just ridiculous. Now he says that they have to go back to the very basic science that they were at 25 years ago when they were trying to figure out how to test for one chemical. There's been a lot of resistance within the agency.[66]

In this way, environmental justice activists, like Alston, attempt to have some influence on the theory and practice of science. Others, like Gibbs, argue that "science is political and we need to use it politically as well."[67] To this end, many grassroots organizations have recruited a wide array of scientists, lawyers, university researchers, toxicologists, and policy experts who can bring their expertise to bear on the many issues involved. One significant alliance between grassroots anti-toxics activists and "scientists" is the National Toxics Campaign's independently managed laboratory in Boston that is available to any community group that needs corroborative testing alongside the CDC's health and environmental toxins inspections.

CONCLUSION: ENVIRONMENTALISTS LISTEN!

The mainstreaming of US environmental politics since the first Earth Day demonstrations in the early 1970s has resulted in its steady deradicalization and capitalization. This has occurred largely at the expense of low-income communities of color who live, work and play in marginal "environments" and have never been considered part of the "mainstream" of US culture. Thousands of people living in these environments continue to be threatened by the dumping of industrial toxins in their communities and by the racist "environmental" policies, often "scientifically" justified, that support these hidden externalities of capitalist production. Moreover, numerous environmental indicators have demonstrated that the life-sustaining conditions of the global environment are deteriorating at an alarming rate. As Lee has argued, the mainstream environmental movement has not produced a "winning strategy" for social and environmental change. The mobilization of new forms and strategies of grassroots politics being set into motion by the movement for environmental justice represent powerful interventions into the possibilities of creating such "winning strategies."

Myriad voices of women activists from communities of color and low-income neighborhoods, only some of whose words I have included in this essay, foreground the importance of thinking and working from the grass roots to effect social and environmental transformations. Mainstream environmentalism constructs highly "globalized" discourses and policies and, in the process, obscures the experiences

viewed as unsophisticated and unprofessional by high-level policymakers. It has been the so-called "experts" invoking the "neutrality" of science who have sanctioned the poisoning of thousands of people in targeted communities throughout the country and the globe. Newman contends:

> Those of us that live near toxic dumps, "treatment facilities," "sanitary" landfills, residual repositories, and other such "state-of-the-art" sites are the true experts on the issue through first hand experience. While others gather their information from textbooks and reports, we live, breathe and die this issue....We're the ones that have watched as our communities have become devastated; we've seen homes disappear. We're the ones that must lie awake listening to our children struggle to breathe; who comfort the young woman who has suffered her 6th miscarriage....We're the ones that know the pain of parents whose beautiful babies die in their arms and the agonizing feeling of helplessness at not being able to stop it. Yes, we know the issue better than anyone![58]

Community self-reliance has become one of the primary strategies in the grassroots movement for environmental justice because "you can't count on the agencies to 'prove' there's anything wrong." They have learned repeatedly that "the studies produce statistics to be analyzed away; that the tests produce numbers to be classified into safe levels or standards; and that 'experts' can find ways to explain away anything."[59] Resource and training organizations such as CCHW and the Southwest Network's newly constituted "grassroots training institute" offer community groups technical assistance, leadership training, and organizational development. The level of organizational sophistication and strategizing emerging in this movement seriously counters the "expert" opinions of social research institutes such as Cerrell and Associates who provide the State of California and private corporations with sociological criteria for targeting communities that are "least likely to resist" the incursion of potentially dangerous industries. Not surprisingly, the profile of such a community looks something like the following: "least resistant: small communities, under 25,000 population; rural: employed by facility; sees significant economic benefits; conservative; free market orientation; above middle age; high school or less education; nature exploitative occupations, i.e., farmer, mining, low-income."[60] Women activists in South Central Los Angeles repudiated this "expert" diagnosis. For example, in 1986 Robin Cannon successfully blocked the construction of LANCER, a 13-acre waste incinerator that the Los Angeles city council attempted to build in a poor residential black and Latino community.[61] The stereotypes of "unaware," "unconcerned," and "compliant" poor communities were also expelled by the "Las Playas Housewives," a women's organization in Tijuana, Mexico, that led a successful campaign to revoke the operating license of a US-owned (Chemical Waste Management, Inc.) toxic waste incinerator located, not surprisingly, south of the US border.[62]

Women activists in environmental justice organizations possess not only "experiential knowledge" of the effects of toxins in their environments and bodies but also extensive understanding and ability to apply "scientifically" generated knowledges of ecosystem dynamics, chemical production processes, and the specific uses of a variety of industrial technologies. For instance, Lee described the relentless library research that Robin Cannon and her sister undertook to learn about toxic incinerators in South Central, LA. Lee asserts, "If you want to know about incinerators, just ask Robin." Similarly, in Tucson, AZ's mostly Latino south side, Rose Marie Augustine, a 54-year-old "ignorant housewife," can discuss "everything there is to know about TCE (trichloroethylene)."[63] Augustine's research into TCE emissions produced by numerous defense contractors located in south Tucson, including a Hughes missile plant, has resulted in the corporations' forced installation of a $33 million air stripper and emission controller. She contends, "even though we don't have diplomas, we do

The norms and disciplining of gender, race, and class are foregrounded and confronted by these environmental justice activists even though most do not explicitly take on a feminist agenda. By showing up in places considered by the dominant culture to be "unnatural" for women of color and low-income white women, they challenge the limitations of oppressive stereotypes. When these women assume leadership positions in the community and demand changes in family expectations and responsibilities as they "leave the house and enter the trenches," they break down traditional constructions of gender, race, and class and construct new empowered identities and political agencies. A number of activists have identified a critique of gender and sexism as a central organizing skill and have produced a handbook, *Empowering Ourselves: Women and Toxics Organizing*, which addresss issues of community organization that specifically pertain to women's experiences of gender.[55] These confrontations with the ideologies and materialities of gender, race, and class also produce new theories about the workings of power and oppression within environmental discourses. For example, in her work fighting the Stringfellow Acid Pits dumping site, Penny Newman—an anti-toxics activist who, until recently, served as the western region field organizer for Citizen's Clearinghouse for Hazardous Wastes (CCHW)—has gotten her first-hand knowledge about the supposedly "objective" technocratic rationality that governs much decision making around issues of the risks of hazardous substances. She details her critique of the "environmental" discourse of "acceptable risk."

> When we allow discussions about an "acceptable risk" of 1 in 1,000 or 1 in 10,000 we are accepting that it is all right to kill one person in every 1,000 or 10,000. We have allowed the premise to be that it is all right for an additional person to die so that a facility can operate. These calculations are made for each individual chemical under perfect operating conditions. No calculations are made for the effects of people being exposed to two or more chemicals simultaneously, and of course the "kill rate" increases during accidents or "illegal" discharges. The law permits corporations to kill as long as they stay within set limits.[56]

In the process of her research on these "scientifically" devised industrial standards, she discovered that women and children are not considered in calculations of "acceptable risk." She learned that these calculations are determined by the CDC and other local health departments and "are based on occupational exposures for healthy males working an 8-hour day, 5 days a week, wearing safety equipment in controlled settings." In many low-income communities, specifically communities of color located near toxic sites, "children, pregnant women and the elderly are often exposed for 24 hours a day, 7 days a week with no protective clothing." Newman's political strategy, therefore, incorporates the effects of environmental racism in low-income communities of color simultaneously with an analysis of the differential impact of toxic exposure on women. She refers to this phenomenon as the "feminization of pollution."[57]

Finally, women activists in the movement for environmental justice not only produce new understandings of the relationships of "gender and environment," they also, in the process, challenge government and corporate power structures and notions of "professionalism" and scientific expert knowledge. These grassroots organizations do not merely seek to reallocate resources (for example, in Superfund disbursements, workman's compensation payouts, or medical expenses), but to transform the hierarchical social relationships and fixed boundaries between popular, community-based experiences and the scientific/medical knowledge production industry. It has become overwhelmingly obvious to the activists in the environmental justice movement that the notion of the "professional" or the "scientific expert" is highly problematic. This criticism embraces both the "experts" who come from government, industry, universities or scientific laboratories, and also the "professional" mainstream environmentalists who are reluctant to take on the "radical" agendas of grassroots organizations for fear of being

the same culprit, white American capitalists. So the cycle has to stop, somebody needs to develop an interest.[48]

Reveilletown, a post-Civil War community founded by ex-slaves had, until recently, sustained its residents through an agricultural economy based on sugar cane production. The residents of the community were poisoned by vinyl chloride emissions produced by the Georgia Gulf petrochemical company, and were relocated in an out-of-court settlement in 1989.[49] For Janice Dickerson, therefore, the environmental consequences of Georgia Gulf's activities destroyed not only the health of many people of Reveilletown (as well as its land, air, and water), but also the integrity of a particular African American culture's way-of-life. In explaining her current commitment to fighting for the socio-environmental rights of her community, Dickerson continues,

> the petrochemical industry in Louisiana is not only destroying the health of the people, it's destroying the environment, the air and the water, it's destroying the quality of life that people were accustomed to in the area, what we are talking about is just plain old survival for everyday people. From the perspective of the African American, it's a civil rights matter. Civil rights and the environmental movement are both interwoven because again we are the most victimized. There is no difference from a petrochemical industry located 2-3 hundred feet from my house and killing me off, than there is when the Klan was on the rampage just running into black neighborhoods hanging black people at will. I feel at this point in my life, there's so many basic issues that need to be confronted and dealt with from the basic survival of the African American, along the petrochemical line here in Louisiana, that you can't really do it on a part-time basis. There are so many issues that you need to deal with, somebody needs to get out and do it full time, so I've decided to do this with my life.[50]

Winona La Duke, director of the White Earth Land Recovery Project and a member of the Mississippi band of the Anishinabe from the

White Earth reservation, also cites culture and sovereignty issues as the key reasons for her participation in the environmental justice struggle.[51] She also serves as president of the Indigenous Women's Network and argues that "what people really have to understand is that indigenous people have always resisted and we are still engaged in resistance, and that we are alive and we intend to remain that way."[52]

For whatever reason women in this movement make the decision to become politically active for environmental justice, they often find that their work makes them visible or identified as "women," particularly eccentric women. Cora Tucker talks about the time that she was accused of being a "hysterical housewife" as she lobbied the state legislature in North Carolina as an activist for voting rights in the early civil rights movement. Tucker and other women who are considered "oddities in their communities" have self-consciously appropriated the derisive and sexist slur of "hysterical housewife" as a political term and have redefined it as a powerful identity.

> I've learned that's a tactic men use to keep us in our place. So when I started this stuff on toxic waste and nuclear waste, I went back to the General Assembly...and I said, "You're exactly right. We're hysterical, and when it comes to matters of life and death, especially mine, I get hysterical...if men don't get hysterical, there's something wrong with them."[53]

Tucker and other activists in the environmental justice movement recount that when they first enter the political arena they are confronted with the perception of themselves as being women outside of their "natural" elements as mothers, housewives, ladies, etc. Tucker expresses this experience clearly:

> If you're out of the norm they say, "what's wrong with this woman?" They think you're crazy. Most of your mommas would never have gotten up at a board meeting and say anything about toxic waste because they were trained that "ladies" didn't act that way. Ladies don't take on an issue. I don't know if "lady" is a compliment or not. I really don't like to be called a lady because my momma used to tell me that a lady was a woman who didn't know which way was up.[54]

my community and my family, specifically, could be sacrificed and that people who were in charge, whether they were health authorities or local government or state or federal authorities, all knew that my family was being poisoned and they still made a conscious decision that it was OK because of the cost involved in cleaning up. That just totally flipped me out, because I had always believed what was in your high school civics books. It was my children who motivated me clearly. I just got really outraged, nobody can say that there is a price on my children's heads, nobody can say that based on cost-benefit analysis, risk-benefit analysis, or whatever weird stuff they use, that they can justify the killing, the murdering of people.[43]

Likewise, Marta Salinas, former resident of MacFarland, CA, a predominantly Latino agricultural community, talks about her reasons for confronting the dangers faced by farmworkers and their families due to the widespread and uncontrolled use of pesticides in the local cotton and citrus industries.

One afternoon when I heard my little daughter crying inside the room, I walked over and she had a shoebox with some flowers that she put in it. She said that her Barbie doll died of cancer, and she came up and told me, "Mom, I know I'm going to die some day, but I do have a wish, my birthday wish is that I want clean water and dirt and I want to be in my own home so that I can play. If I die of cancer I want to die with my kittens so I can die hugging them."[44]

Her children and others in the community were not only becoming sick but also overwhelmed and obsessed with thoughts of cancer, death, and hopelessness—not the average worries of healthy young children. Salinas and other mothers in the community have identified a so-called "cancer cluster" in the MacFarland area, where at least 16 children have contracted a wide variety of deadly cancers since 1983. Her visibility and activism for the health of her children and community have taken a toll on her and her family. They have been forced to move seven times and to relocate the children in different schools due to the ostracization and local political pressure against her antipesticides work.[45]

Although most of the women in the environmental justice move-

ment will, to some degree, assert that they are acting on behalf of the well-being of their children, their identity as simply "mothers" is by no means always the central focus of their activism. For instance, Cora Tucker, who works for environmental justice in her organization "Citizens for a Better America," explains that women's activism contributes to an organization because "we go at it from the point of view of how it affects our children, we see the effects on our children more than anyone else in the community...women are the first people to make those connections."[46] However, she also insists that these issues are not only a question of women's connection to children but also "bread and butter issues."

People don't get all the connections. They say the environment is over here, the civil rights group is over there, the women's group is over there, and the other groups are here. They say, "now Miss Tucker, what you really need to do is go back to food stamps and welfare, environmental issues are not your problem." And I said to him, "Toxic wastes, they don't know that I'm Black." [Most white people] say that Black people are only interested in bread and butter issues. But nothing in the world is more bread and butter than clean air to breath or having good water to drink.[47]

The question of community survival in the face of cultural imperialist attacks by the dominant, white male, industrial complex figures conspicuously in many women of color's involvments in environmental justice work. Women in many communities and cultures have customarily been seen to be the repositories of or given the responsibilities for maintaining local, cultural traditions and histories. Janice Dickerson, a former resident of the now-relocated African American community of Reveilletown, LA and current director of the Gulf Coast Tenants Association, speaks to this issue of cultural survival.

I think that Reveilletown might be a focal point for a lot of [black people] to start looking and begin to realize what can happen to our history. I mean we lost our history once when we were shipped to America, and here we are, we've been settled here for over a hundred years and we are uprooted again, and we are uprooted by basically

the Nevada Test Site in 1987.

During those same years, other women in the US, not specifically identifying themselves as feminists or even activists *per se*, organized around issues of the environment and the survival of their communities. At the same time that "ecofeminists" convened the "Women and Life on Earth" conference, Lois Gibbs was waging her now-famous battle against the Hooker Chemical Company (Occidental Petroleum Corporation), which had dumped 20,000 tons of toxic waste on the neighborhoods of Love Canal in upstate New York. It was also the same year that Penny Newman was leading the battle against the State of California and a group of private corporations, including McDonnell Douglas and Rockwell International, for siting and dumping over 34 million tons of carcinogenic, hazardous chemicals in the Stringfellow Acid Pits, a state-licensed disposal site (now California's top priority Superfund site) overlooking the rural community of Glen Avon in southern California. In the early 1980s, while thousands of women, predominantly white and middle-class, were encircling the Pentagon, weaving symbolic webs of containment made of yarn, flowers, and children's photos through its barbed wire fences, Cora Tucker, a longtime civil rights activist and resident of rural Halifax County, VA, was organizing against a local uranium mining project and the proposed siting of high-level nuclear waste repository near her community.

These stories of women's "environmental" activism represent very different modes of organization and strategy; one distinguished by the production of national, large-scale, often symbolic demonstrations and direct action and the other by local, community-based, networking-style activism. At the time, the continuities between these different levels of women-led actions for the "environment" were not obvious (although Gibbs did present a speech to the Amherst conference), even though they showed evidence of the existence of different women struggling for many of the same socio-environmental issues. In the '90s, there is no visible, active, explicitly "ecofeminist" movement in the US. Instead, the ecofeminist efforts to theorize and strategize around a "women and environment" connection has remained almost exclusively within the realm of the production of theory. On the other hand, the movement for environmental justice, widely recognized as being driven and energized by women, yet not marked as a "women and environment" movement, continues to expand and develop its strategies, organization, and commitment to the grass roots on a national and, paradoxically, international scale.

To return to the question of the salience of the "gender and environment" debate, I want to consider some implications for social movement theory and strategy that an understanding of the gendered nature of the environmental justice movement may suggest. To get at this question, it is important to look at the different struggles over environmental "resources and meanings" that these women undertake in this "unmarked"[42] women's movement. Listening to the voices of the women active in the environmental justice movement, I have learned about the many ways that they contest and redefine discourses and practices of not only environmentalism but also of gender, racial, and class stereotyping. They also question and reconstruct the concepts of "objectivity" and the "validity" of scientific expertise.

For example, many women in the movement evoke deep concerns about the health and future survival of their children and communities when explaining their initial or continued involvement in fighting for environmental justice. The identity and experience of being a "mother," and the outrage at watching local corporations and government officials exhibiting total disregard for the lives of their children, have significantly motivated many women to become politically active. Lois Gibbs explains her distress at the serious illness of her one-year-old son and the rare blood disease that her young daughter developed when her family moved to Love Canal.

> It was like what the hell's going on here, I did everything right, I prided myself in being a responsible mother, and then I found out about the dump. What really got me involved was the realization that

these gendered roles of "mother" and "nurturer" have included child-rearing, food production, and the overall responsibility for the health and survival of the community, women's social location affords them specific knowledges and investments in issues of the "environment." Both of these arguments, and multiple combinations of the two, are represented in numerous ecofeminist writings and actions that have appeared since the late 1970s.[37] How are women activists in the environmental justice movement situated in these "ecofeminist" debates around gender and the environment? I found Alston's interpretation of the political usefulness of these debates enlightening.

> There may be some truth to both of these theories but I've just found that women, plain and simple, have a lot of courage...offering themselves and stepping forward when there is a problem and there are things to be done. As far as all the intricate, motivating forces behind this, we can have all kinds of theoretical discussions about that from now until forever, but I always find that when there is a man who has distinguished himself in a particular way he's usually surrounded by very dedicated, hardworking, courageous women who made it all work. We have a lot of issues to get over, understand, and deal with as to why it's not the woman who was projected forward or who has gotten the visibility or the credit that she deserved.... Personally, I like spending my energy trying to change how we are perceived and how we move forward than analyzing why we're there in the first place.[38]

In other words, to what extent do these ecofeminist theories help to inform movement organization and strategy? The focus, by many ecofeminist theorists, on the question, "why women?", has been criticized as being ethnocentric (i.e., positing the existence of "woman" as a unitary category whose experiences of patriarchal oppression are universal) and overly ideological (i.e., locating the domination of "woman" solely in the realm of consciousness—that is, women are oppressed because of the ideologies of hierarchy and control—instead of looking at the material, economic, and political structures through which these ideological constructs are produced and transformed) by numerous feminist critics writing on women's organization and struggles for the environment.[39] In agreement with the intentions of these

critiques, I am less interested in attempts to answer the question, "Why women?", as I am in understanding the "struggles over *both* resources and meanings"[40] of gender, race, and class relations and environmental conditions that the women in the environmental justice movement are waging.

AN "UNMARKED" WOMEN'S MOVEMENT

Many ecofeminist writings construct theories as to why women would organize *as women* in their struggles for socio-environmental change. Such theories, as I mentioned earlier, suggest that women possess unique knowledges about the connections between human health and survival, the environment, and their ever-increasing destruction by the "capitalist-militarist-patriarchal complex." These theorists claim that by virtue of these "innate" or experiential knowledges, women come together in political solidarity. "Womanist" or "motherist" organization around issues of militarism and the material conditions of survival is not something new in the US. However, the late 1970s and early 1980s marked a particular historical moment in which many, predominantly white, middle-class women explicitly linked feminist and environmentalist concerns. The proliferation of the nuclear industry, specifically the Three Mile Island crisis, prompted women in the US to come together in 1980 at a conference in Amherst, MA, entitled, "Women and Life on Earth: Ecofeminism in the 1980's." Ynestra King, one of the organizers of the conference and a prominent theorist and activist in the movement, declared in the opening address: "We're here to say the word 'ecology' and announce that for us as feminists it's a political word—that it stands against the economics of the destroyers and the pathology of racist hatred. It's a way of being, which understands that there are connections between all living things and that indeed we women are the fact and flesh of connectedness."[41] The conference catalyzed a series of now famous nonviolent, direct actions, including the Women's Pentagon Actions of 1980 and 1981, the Seneca Women's Peace Encampment in 1983 and the Mother's and Others Day action at

This is not, I am convinced, a calculated act on the part of movement activists in order to construct the *appearance* of solidarity in the interests of controlling the movement's representation. Instead, the narratives of broadly based consensus and political unity that have emerged from my interviews and various movement literatures, indicate the conviction and insights that come from years of hard political and organizational work. The women with whom I spoke were refreshingly candid in their expressions of relief and hopefulness that the decision was made at the Leadership Summit to remain a grassroots-driven movement.

One of the effects of the collective commitment to decentralized grassroots politics that the Leadership Summit established has been a change in the way the media represent the environmental justice movement. The image emanating from the summit of an expanding network of multiple grassroots organizations actively working together enabled a more complex analysis and portrayal of the movement's objectives and activities. Alston asserts that

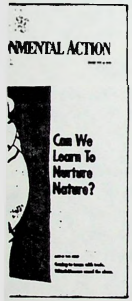
> the media attention previous to [the summit] concentrated on the tensions between people of color and the environmental movement as the main issue. The summit helped to broaden the message that was getting out to the general public...it has broken away from just the conflict between the two. The media thought what was most exciting was that people were calling the environmental movement racist, and that made great headlines. The media has changed because they started covering the more complicated debates about what people were facing in environmental degradation—was it race or class that was involved?...We're talking about something that's far more fundamental than just the dumping of hazardous wastes in our communities. And [the media] have also shown that there was a lot of work going on, these people are not just victims, they're people who are taking substantive action to try to change the conditions in their lives and to create something different.[34]

As in many environmental and social justice movements in the US and internationally, women comprise the majority of "people taking substantive action" in their communities and local organizations. According to numerous accounts by activists, women make up about 90% of the active participants in the environmental justice movement, yet they are not well-represented in highly visible leadership roles.[35] This situation indicates one of the key challenges for the environmental justice movement that has emerged from the summit's principle of democratic and diverse leadership. How to simultaneously address issues of gender, race, and class in shaping new forms of leadership and organization in this new movement for social and environmental change?

WOMEN AND ENVIRONMENTAL JUSTICE: SITUATING THE GENDER AND ENVIRONMENT DEBATES

One of the major commonalities between the environmental justice movement and other environmental and social justice movements in the US (and internationally) is the high representation of women working in the rank and file. The apparent historical pervasiveness of this phenomenon has inspired a spate of academic and feminist theorizing about the underlying reasons for the high involvement of women in movements and struggles for social and environmental change. Much of this discussion revolves around the question of the extent to which women's observed connection to nature and to environmental concerns has essentially biological or social origins. The biological explanation contends that women have an innate knowledge of the interconnectedness and value of all life on earth due to their reproductive capacities. Consequently, their experiences of pregnancy and childbirth compel them to fight for life-affirming policies and clean, healthy environments as mothers in defense of their children and families. This position is criticized as being overly "essentialist"[36] and deterministic by those theorists who argue that women's heroic struggles for social and environmental justice must be understood as emerging from the gendered socio-cultural roles they have been expected to fulfill as a result of patriarchal oppression. Since

tal problems. They reject the top-down approach as disempowering, paternalistic, and exclusive and instead are committed to developing a more democratic, locally and regionally based, decentralized organizational culture. A commitment to such values, they argue, will build a movement that truly works. Alston remarks:



> I think that those of us who study the history of social movements have learned so much from other movements that we made a commitment to spend the next two years building local and inter-regional structures and to strengthen those, and to then come back together and see....We didn't want one person to emerge as the "spokesperson" because we have worked too long and too hard to have the bonds between us destroyed. The media and the EPA were pushing for this spokesperson, so it's been a real struggle. I'm really glad that we made that decision.[29]

Referring to the issue of the traditional tendencies toward movement centralization, Lois Gibbs explains:

> At the People of Color Leadership Summit, one of the things was the struggle about who was going to take leadership. This was a real test to see if people really believed that we have more strength in numbers of groups, as opposed to one, and when the issue came up about, do we want to centralize, do we want to develop a key leadership for this thing, people adamantly said, "No!" It was one of the first tests of this issue, the question is how do you keep this together, how do you make it happen? Every time we see somebody who looks like they're going to be a leader, we're biting our fingernails and thinking "media, please don't start naming them leaders."[30]

An interactive environmental justice *network* has emerged as the most identifiable structure organizing the movement. Pam Tau Lee describes this strategy.

> What I see is a wonderful phenomenon...the development of networks. Those networks are based on actual work that is coming out of the grass roots. You've got the Southwest Network, 40 organizations that are doing real live work, who have joined a network to create "a net that works," as Richard Moore puts it. And you've got another one in the Southeast, as the New Orleans Conference on Labor and the Environment showed, real live grassroots organizations coming in and starting from a strong foundation and building up. There was just a meeting in Chicago of the Midwest organizations, so the approach is, I feel, one that's going to win. It's a winning strategy, the top-down strategy is not a winning strategy.[31]

Alston expounds further on the movement's organizing strategies by noting that

> the Southwest has been meeting regionally for many years and has representative leadership, reservation, urban, and rural....Several weeks ago the Southeast had their first regional meeting in New Orleans, sponsored by the Southern Organizing Committee. They were expecting several hundred people and they had over 1500 show up. I've been to many meetings in the south and they are usually all black or black and white but to see the indigenous people, the Haitian and Latino farmworkers, it was unbelievable. I'm going to a planning meeting in January for the Northeast regional meeting, the Midwest already has had one meeting that brought together African-American organizers out of Chicago and Detroit to meet with the Plains Indians.[32]

As one concession to a form of centralization, a steering committee was established to facilitate a national network. Given that foundations are notoriously reluctant to support amorphous structures like networks, preferring the institutionalization of an "entity," what will become of the national environmental justice network is yet to be seen. The three activists I interviewed noted the tensions between the desire to remain faithful to the imperatives of "direct democracy" by working locally and on a small-scale, and the impulsion to centralize and "go national" in order to gain more clout or to "look more like a movement." The "parochialism" of many grassroots groups and the political limitations of failing to link local struggles to national and global ones, have circulated as internal criticisms of the environmental justice movement.[33] However, as a social movement in the early stages of its evolution, the environmental justice movement is intentionally portrayed, by many of its members, as constituting a solid political front.

America, Puerto Rico, and the Marshall Islands to develop a process for framing the contours of a "multiracial movement for change" founded on the political ideology of working from the grass roots. Conference participants heard testimonies and reports of the persistence of the effects of environmental racism in their communities, including extensive poisoning of air, water, and land that continues to disproportionately devastate their environments and health. These discussions also provided a supportive context for people of color to "reaffirm their traditional connection to and respect for the natural world," which was collectively understood as "including all aspects of daily life." Environment so defined addresses environmental problems in terms such as "militarism and defense, religious freedom and cultural survival, energy and sustainable development, transportation and housing, land and sovereignty rights, self-determination and employment."[25] Dana Alston describes how the Leadership Summit helped to bring people of color together in a spirit of political solidarity.

> The most important thing that came out of the summit was the bonding. Many people might think that because they're nonwhite, that they're going to come together, but the society is built on keeping people divided and we all know about the tensions between African Americans and Asian Americans and Latinos and Native Americans but it's the history, the culture, the society that's keeping us divided....That's how the power structure stays in power, by keeping us separate. So from the very beginning we had to put together a set of principles from which we were going to relate to each other.... All decisions were going to be based on those principles, and that all cultures coming to the table would be respected; there would be equity as far as participation and voice, across gender, race, ethnicity, and region. I think that bonding was important, the idea that there was more that we shared in common as far as our oppression than there were things that divided us.[26]

The composition and program of the second day of the Leadership Summit shifted with the arrival of another 250 participants from a variety of environmental and social change organizations together with a sampling of "professionals" such as lawyers, academics, and policymakers. Engaging in critical discussions and debates, the conferees articulated key issues of environmental justice movement building that included environmental problem-definition, leadership and organizational strategy, and creating the conditions for coalitions and partnerships. The participants convened "policy groups" that drafted recommendations (presented at the United Nations Conference on Environment and Development gathering in Brazil the following year) focusing on "the ecological impact of war, underground nuclear testing, the international waste trade, and US foreign aid and trade policies."[27] In addition, the Leadership Summit produced, through a consensus process, a set of 17 organizational principles that would serve to guide the emergent political process. These "Principles of Environmental Justice," which were distributed at the summit, construct the profile of a broad and deep political project that specifies environmental justice as "securing our political, economic and cultural liberation that has been denied for over 500 years of colonization and oppression, resulting in the poisoning of our communities and land and the genocide of our peoples." They also function as guidelines to assist and inform collective actions and decision making. Alston explains that at difficult moments during the Leadership Summit, "we would go back to the principles and often the answer to the question would be really very obvious."[28]

All of the women activists with whom I spoke maintain that the most promising achievement of the Leadership Summit was, not surprisingly, its commitment to the construction of diverse, egalitarian, and nonhierarchical leadership and organizational processes and structures. In contrast to the technocratic rationality and top-down managerialism that the mainstream environmental organizations have adopted by mimicking the decision-making approaches of the very corporations that they oppose, the participants at the Leadership Summit insisted on something different. As grassroots activists working in direct response to the threats of pollution, resource exploitation, and land-use decisions in their communities, they realize that the decision-making process is itself a primary issue in the debate over environmen-

of color organizations has recently formed. EDGE: The Alliance of Ethnic and Environmental Organizations provides a forum for multiracial dialogue around issues of sound economic development in light of California's rapidly changing demographics and ethnic composition. Their first conference, "Redefining the California Dream: Growth, Justice and Sustainability," convened in January of this year and brought together groups as varied as the Japanese American Citizens League, the Environmental Defense Fund, the Latino Issues Forum, and Citizens for a Better Environment.[19]

Such examples provide evidence that the environmental justice movement has intervened, at least to some extent, in foregrounding the importance of race and class in organizing for truly effective environmental change. Most of the women activists I interviewed, however, were still cautiously watching to see what may come of these changes. They are particularly suspicious and critical of the ways that some "Big Ten" organizations are choosing to respond to the challenges put forth by the movement. Alston explains that

> some now see that there are a lot of organizations that have made [environmental justice] a priority, and you see these same organizations going to set up programs...like the National Wildlife Federation has a grant proposal out for 1.4 million dollars to work with people of color...and they are notorious for having terrible relationships with people of color. They have Waste Management, Inc. on their board of directors which engages in supreme environmental racism. They will dump some of the most hazardous materials known in people of color's communities. To watch NWF raising all this money to deal with people of color is very difficult to see.[20]

Similarly, Lois Gibbs, director of Citizen's Clearinghouse for Hazardous Waste, argues that

> some of these "Big Ten" groups have put in proposals to the tune of 1.5 million dollars to do community organizing and outreach to low-income community groups, and people of color groups. I look at that and I know that these people are adopting the rhetoric for foundation purposes. They use it in their newsletters and their PR pieces, but all they're doing is taking away from support groups that could help them, whether it's the Southwest Research Organization or the Southern Organizing Committee, or Greenpeace, these are organizations that could help and there's only a small pool of money. Now these big bluechip organizations are coming in and foundations are saying, "Oh, good they've been around for a hundred years and now we don't have to take the risk." If media people have a choice of tracking down the Southern Organizing Committee or the Environmental Defense Fund, you know who's in their Rolodex. I find it very frustrating because we've built this wonderful movement and it's almost like being victimized one more time.[21]

And with a touch of irony, Pam Tau Lee remarks that former EPA chief, William Reilly, consistently refused to utter the words "environmental racism" during his tenure. However, toward the end of his term he became more comfortable with the notion of environmental justice and referred to it in EPA memos and reports.[22] These activist's criticisms of the unacknowledged "paternalism" inherent in the "Group of Ten's" approach to dealing with the issues of environmental justice illustrate the importance of the movement's insistence on self-representation and self-definition, best signified by the movement phrase "We speak for ourselves."[23] This unequivocal rejection of a "partnership based on paternalism" with the mainstream environmental movement explains, in part, the overwhelming enthusiasm surrounding the First National People of Color Environmental Leadership Summit, which convened in Washington, DC in October 1991.

PRACTICING ENVIRONMENTAL JUSTICE: LEADERSHIP AND DIVERSITY FROM THE GRASSROOTS

Accounts of the proceedings of the Leadership Summit describe the occurrence of a history making event in which the way "environmental issues are debated and resolved is changed for good. And for the better."[24] This momentous event brought together 300 African American, Native American, Latino, and Asian American delegates from the US and a number of conferees from Canada, Central and South

excluding people of color from leadership in the environmental movement."[14] The process of "naming" and articulating the specificities of environmental racism by movement activists firmly established it as a significant object of political scrutiny and as a serious critique of the theory and practice contradictions of mainstream environmental organizations. The expression of this new political concept also provided an organizing tool that could galvanize into action the multiple and diverse communities and constituencies for whom "environmental racism" was a painful reality. The extent to which the discourse of environmental racism has been engaged by the mainstream media and environmental groups is another question.

How have the appearance of the UCC-CRJ report on toxics and race and the public naming of the existence of environmental racism affected the national environmental agenda? By 1990, a variety of coalitions of minority environmental justice organizations had emerged, including the extremely dynamic Southwest Network for Economic and Environmental Justice (SNEEJ). In January and March of that year, representatives from many of these coalitions of grassroots organizations composed two recriminating letters to the "Group of Ten" national environmental organizations "calling on them to dialogue on the environmental crisis impacting communities of color, and to hire people of color on their staffs and boards of directors."[15] The final letter focused on an analysis of environmental racism and the ways that the primarily white, mainstream organizations have been complicit in supporting it.

> There is a clear lack of accountability by the "Group of Ten" environmental organizations towards Third World communities in the Southwest, in the U.S. as a whole and internationally. Your organizations continue to support and promote policies which emphasize the cleanup and preservation of the environment on the backs of working people in general and people of color in particular. In the name of eliminating environmental hazards at any cost, across the country industrial and other economic activities which employ us are being shut down, curtailed or prevented while our survival needs and cultures are ignored. We suffer from the results of these actions, but are never full participants in the decision-making which leads to them.[16]

Responses to these challenges have been varied, according to the activists with whom I spoke. At worst, some of the "Group of Ten" have expressed outrage and denial and have all but ignored the invitation to "come to the table as equals." On the other hand, some have begun to enter into discussions about building "multicultural and multiracial organizations," to share resources such as technical expertise, legal assistance, and funding, and to seriously modify their organization's structure and mission. Dana Alston cites the transformation of the National Toxics Campaign (NTC) as evidence of such engagements.

> Some organizations, like the NTC, have been transformed by the environmental justice movement because they allowed themselves to open up; they made a commitment to get 50% people of color on the board, to be driven by grassroots groups. They are really committed to making just partnerships and not paternalistic partnerships. Now it's the only national multiracial environmental organization in the country. They still have their problems....I see them as an example of a real transformation of a national environmental organization....They were basically a white organization.[17]

Other promising signs of multiracial coalition building include the series of "Great Louisiana Toxics Marches" initiated in 1988 by the Gulf Coast Tenant's Project in New Orleans. These massive demonstrations (some lasting up to 11 days and spanning a distance of 100 miles) sent marchers through Louisiana's "Cancer Alley" and were organized by a diverse group of grassroots civil rights, church, labor, and tenant's organizations together with a number of national bodies like the Sierra Club and Greenpeace. "The 'toxics marches' have helped put race on the environmental agenda and to put the environment on Third World communities' agenda."[18] In the San Francisco Bay Area, another coalition between mainstream environmentalists and people

The results of an exit poll conducted by one of the "Big Ten" environmental organizations on last year's presidential election day support Lee's observations. According to Alston, the poll reports that

> In the white population, 28% said that the environment was one of the key factors that helped them determine who to vote for, but when it came to African Americans or Latino Americans it was close to 48%. Before, when you asked a black person what were the important issues they would say, "Oh the air smells terrible, the water tastes terrible, my child has asthma, there's lead poisoning in the apartments" but they hadn't defined those as "environment" because how it was being defined by others was whales and ancient forests and national parks, etc. Now that gap in definition is being closed, but we always said that people of color were much more interested and invested in these issues than what was being said about us, that is, that "we're not interested, we're too busy surviving" even though the Black Congressional Caucus has had the best voting record on the environment in the past 20 years.[11]

Obviously, the notion that these grassroots, community-based, social and racial justice-driven organizations are composed of "new environmentalists" is contested terrain. Questions of the importance of self-representation, definitional clarity, and the agency inherent in "speaking for ourselves" are key issues for movement activists. What is "new" about the environmental justice movement is not the "elevated environmental consciousness" of its members but the ways that it is transforming the possibilities for fundamental social and environmental change through processes of redefinition, reinvention, and construction of innovative political and cultural discourses and practices. This includes, among other things, the articulation of the concepts and materialities of "environmental justice" and "environmental racism" and the forging of new forms of grassroots political organization.

"WE DON'T HAVE THE COMPLEXION FOR PROTECTION"[12]: THE POLITICS OF ENVIRONMENTAL RACISM

Although people living nearby toxic waste facilities have known for many years about the detrimental effects to their health and their environments that industrial pollution generated, it was not until the publication of a landmark report sponsored by the United Church of Christ Commission for Racial Justice (UCC-CRJ) in 1987 that an awareness of the widespread existence of "environmental racism" entered into the mainstream political consciousness.

The UCC-CRJ report, "Toxic Waste and Race in the United States," compiled the results of a national study that demonstrated a demographic pattern that indicates race as the leading factor in the location of commercial hazardous waste facilities. The study, presented to the National Press Club in Washington, DC that same year, found that people of color suffered a "disproportionate risk" to the health of their families and their environments, with 60% of African American and Latino communities and over 50% of Asian/Pacific Islanders and Native Americans living in areas with one or more uncontrolled toxic waste site. The report also disclosed the statistic that 40% of the nation's landfill capacity is concentrated in three communities—Emelle, AL with a 78.9% African American population, Scotlandville, LA with 93% African Americans, and Kettleman City, CA whose inhabitants are 78.4% Latino.[13]

The concept of "environmental racism" entered into political discourse around the environment in 1987 when the Rev. Benjamin Chavis, the commission's executive director, formulated the term. According to Chavis, environmental racism is "racial discrimination in environmental policy making and the enforcement of regulations and laws, the deliberate targeting of people of color communities for toxic waste facilities, the official sanctioning of the life-threatening presence of poisons and pollutants in our communities, and the history of

"The merging of cial justice and environmental interests, efore, assumes people are an integral part of what should be erstood as the environment."

you're talking about lead and where people live, it used to be a housing struggle, if you're talking about poisoning on the job it used to be a labor struggle, people being sick from TB or occupational exposures used to be separate health issues, so environmental justice is able to bring together all of these different issues to create one movement that can really address what actually causes all of these phenomena to happen and gets to the root of the problems.[6]

The merging of social justice and environmental interests, therefore, assumes that *people* are an integral part of what should be understood as the "environment." The daily realities and conditions of people's lives have not been at the center of mainstream environmental discourse. Traditional environmental arguments have commonly constructed the relationships of society and "nature," and urban vs. wild/natural as hostile, even incommensurable dichotomies. Arguments based on such dualisms often end up blaming the people who have to live with the consequences of the externalities of unchecked industrialization.[7] Numerous studies have demonstrated that it is primarily low-income communities of color that are often targeted for industrial and toxic waste disposal sites.[8] Dana Alston discusses how the environmental justice movement's redefinition of "environment" to account for the presence of people reflects one of the primary discrepancies between it and the mainstream movement.

> I think you can get at the heart of the difference if you look at the relationship problem that people of color have with the environmental organizations, for example, the Nature Conservancy, which defines itself as the "real estate" arm of the environmental movement and as being about saving nature, pristine areas, sensitive ecosystems, endangered species, and rainforests. But the reality of the situation is that there is hardly anywhere in the world where there aren't people living, no matter how remote you get, and the most vulnerable cultures are in the areas that are most remote, whether you are talking about here in the US or in Latin America or wherever, so immediately, it puts us in confrontation with the Nature Conservancy. We continue to raise these issues not only in the international arena but here as the Nature Conservancy goes to buy large tracts of land in New Mexico or out west where indigenous and Chicano people have lived for decades and have sovereignty or land-grant rights...with total disregard for how these real estate dealings affect the social, political, and

> economic life of our communities. We feel that many of these communities are just as much endangered species as any animal species...so, we don't lift up one aspect of the ecosystem over another.[9]

Consequently, activists in the environmental justice movement are unlikely to identify themselves as the "new environmentalists" because they do not view themselves as an outgrowth of the "old" environmental movement together with its "save the whales and rainforests" sloganeering. The "old" vs. "new" binary analytic casts the "new" grassroots, low-income and community-of-color-based activist as "other" to the normative referent of the mainstream, white, middle-class, privileged environmentalist. It would be more accurate to regard environmental justice activists as the "new" civil rights or "new" social justice activists, since many of the prominent organizers affirm their roots in and political continuities with the social justice movements of the sixties, including the civil rights, welfare rights, and labor and farmworker movements. Moreover, the term "new environmentalists" suggests that the members of these emerging grassroots organizations, who come from predominantly African American, Latino, Native American, and Asian American communities, are only recently becoming interested in or aware of the importance of "environmental" concerns. Pam Tau Lee contests this characterization of communities of color.

> If you come into Chinatown, you'll see that recycling didn't just come from this new yuppie environmental scene, or if you go into different African American communities, you'll see that people have been recycling and reusing for a really long time. Last summer, I worked on a project with kids in Chinatown on the environment and they said, "We called the city and we wanted a recycling program for Chinatown, and they wouldn't let us participate in it. They said that the trucks are too big and the streets in Chinatown are too narrow, and they can't come in."...Some other kids said, "I think they're prejudice, they don't care about us!"...If you go to my mother-in-law's, everything is washed and hanging to dry, she probably has every styrofoam container that she ever had from any restaurant, and you'll find that in all these communities.[10]

distinguishes it from that of the "mainstream" environmental movement whose constituents have historically been white and middle class. As someone with high stakes in the transformation and invention of feminist and multicultural environmental coalitions, I am particularly interested in the political culture being shaped in this movement. I have spoken with many activists involved in the environmental justice movement and have been struck by the stories they tell about the processes and challenges of configuring and forging this multi-issue, grassroots movement for the nineties. These women activists, together with men in their communities, actively produce the conditions for social and environmental change, locally and nationwide, by reinventing socio-environmental terms and definitions, constructs of gender, race, and class politics, forms of leadership, strategies for coalitions, and notions of social movement history. Drawing heavily on personal interviews with three prominent women in leadership roles and a variety of movement literatures, I will discuss some of the critical issues and innovations articulated by the voices of the environmental justice movement.

SOCIAL JUSTICE: A NEW SPELLING OF "ENVIRONMENT"

The question of the "newness" of a social movement is often a subject of debate, at least for some social movement theorists and political analysts expounding on the emergence of the so-called "new" social movements. Social movement historians have occasionally referred to environmental justice activists as the "new environmentalists,"[2] a term that I find misleading. Many of the grassroots activists I interviewed are reluctant to call themselves environmentalists at all, much less newly converted ones. In part, this is due to the dominance of the mainly white, middle-class, and uncritically "preservationist" political culture from which much of the mainstream environmental discourse has developed.[3] In these mainstream terms, what gets to count as environment is limited to issues such as wildland preservation and endangered

species protection. Issues pertaining to human health and survival, community and workplace poisoning, and economic sustainability are generally not considered to be part of the "environmental" agenda. Additionally, the activists I spoke to perceived much of mainstream environmental discourse to be either fixated on anti-urban development campaigns (read as "no jobs for city-dwelling people"), or utterly indifferent to the concerns of urban communities altogether. Many of the community organizations that comprise the environmental justice movement are located in low-income and working-class communities in and around industrialized urban centers throughout the country. Crucial issues in these communities include lead and asbestos poisoning in substandard housing, toxic waste incineration and dumping, and widespread unemployment. Until relatively recently, these are problems that the mainstream organizations have located outside the domain of "environment."[4]

Clearly, the concept "environment" is highly problematized in the environmental justice movement. The activists I spoke with define environment as "the place you work, the place you live, the place you play." Moreover, Dana Alston, director of the environment program at the Public Welfare Foundation and former director of the Environment, Community Development and Race Project at the Panos Institute, argues that environmental justice must be

> seen through an overall framework of social, racial and economic justice, and the environment is just one piece in a whole linkage...it calls for a total redefinition of terms and language to describe the conditions that people are facing and to come up with solutions.[5]

Pam Tau Lee, the labor coordinator for the Labor and Occupational Health Program at the University of California, Berkeley, and a board member of the National Toxics Campaign Fund and the Southwest Organizing Network, elaborates further to say that environmental justice

> is able to bring together different issues that used to be separate. If

rk on UNCED," written by some of the more grassroots-oriented members of
izen's Network Steering Committee, Aug. 5, 1992.
Dolan, "Strong Treaties Elude Even Activists at Earth Summit," *Los Angeles*
June 11, 1992.
ernative treaties are easy to get. Many are posted on the "UNCED treaties
nce" on *Econet*. The set is available for $10 from the U.S. Citizen's Network on
(300 Broadway #39, San Francisco, CA 94133). An annotated edition is under
ition and will be published by Commonweal.

inspired a number of attempts to synthesize and state this agenda as a whole.
table examples, both of which will be worth reading for years to come, are
eace's *Beyond UNCED* (available from local offices) and *Whose Common*

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GIOVANNA DI CHIRO

DEFINING ENVIRONMENTAL JUSTICE

women's voices and grassroots politics

The language used by activists to represent the development of a contemporary movement for "environmental justice" in the US abounds with political conviction, dynamism, and hope. Phrases such as, "transforming a movement," "reclaiming the landscape," "empowering ourselves," "reshaping our communities," speak to the power and promise that motivate this historical moment of social movement building. The environmental justice movement has materialized within the last decade as a US social movement that both challenges dominant discourses of environmentalism and produces new constructs of environmental theory and action. The term "environmental justice," which appeared in the US sometime in the mid 1980s, problematizes popular notions of "environment" and "social justice" and discursively produces something different. In this essay, I want to examine some of those differences as they are articulated through the voices of women activists in the movement.

The vast majority of activists in the environmental justice movement are low-income women and predominantly women of color.[1] From the start, the gender, race, and class composition of movement activists

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Women, AIDS and Activism
NY-ACT-UP, 1989.

ACT UP demonstration "Wall Street II" in March 1988 marking ACT UP's second birthday and protesting the lack of money spent on AIDS.

Photo by Miriam Lefkowitz

What the Numbers Mean

RISA DENENBERG

Why do women die from AIDS so much faster than do men? Why are so many women with HIV illness of African descent or Latina? Why is the research on women with HIV disease so limited? How can we understand what all the statistics mean?

Numbers can be alarming but also revealing. In order to get answers, we need to ask the right questions and take a hard look at the available data. The growing number of women with HIV disease parallels a rise in cancer, drug use, homelessness, incarceration, and poverty among women.

Epidemiology is the science that studies epidemics and describes the occurrence and distribution of disease in a given location or population. Its goals include explaining how a particular disease is affecting people, how it is transmitted (passes from person to person), and how it can be prevented or controlled.

In the United States it is estimated that health care workers report 80 to 90 percent of all AIDS cases to local health departments, who then report them to the Centers for Disease Control (CDC). The CDC places each case in a category of exposure (the way the person is presumed to have gotten the virus) and generates statistics and predictions based on these data. In August 1989, the number of AIDS cases reported to the CDC reached 100,000.

While the number of AIDS cases is monitored, the number of people who are HIV positive is only estimated. The U.S. Public Health Service estimates that 1 to 1.5 million people are HIV positive at present. An international estimate from data collected by the World Health Organization suggests that 5 to 10 million people worldwide have been exposed to HIV. Many people who are HIV positive are well and may never get AIDS.

With a world view, epidemiologists have suggested that there

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are three distinct patterns of HIV transmission geographically. In pattern type I (which includes the United States, some western European countries, some Central American countries, Canada, New Zealand, and some countries in southern Africa) cases are disproportionately male (10 to 15 male cases for each female case), and perinatal transmissions (from woman to fetus during pregnancy and delivery) are low. In pattern II (including many central, eastern, and some southern African countries, and most of the Caribbean) the ratio of male to female cases is approximately equal, as are transmission rates from male to female and female to male. Perinatal transmission is high. Pattern III includes countries where there have been relatively few AIDS cases to date (including eastern Europe, northern Africa, much of Asia, and the Middle East).

The interval between diagnosis of AIDS and death from AIDS varies in different populations and may have to do directly with access to health care services. Survival times are shorter in African and Caribbean countries than they are in the United States. The little data we do have show clearly that in the United States survival times for women are shorter than those for men. Worldwide this means that people of color, poor people, and especially poor women of color are dying faster.

The number of AIDS cases in U.S. women reported to the CDC was 10,611 as of December 1989, representing 9 percent of the 117,781 cases. This represents a steady increase in the percentage of women diagnosed over the years of data collection (3 percent in 1981, 6.8 percent in 1983, and 9 percent in 1989). The geographic distribution is similar to that for men—New York, California, Florida, and New Jersey being the states with the greatest numbers of both men and women diagnosed with HIV.

The CDC has constructed a hierarchy of exposure categories. For example, a gay man who has had a blood transfusion would be recorded as exposed by homosexual/bisexual contact because it is listed first in the hierarchy. A bisexual woman who has sex with a gay man would be listed as exposed by heterosexual contact. And a lesbian intravenous drug user would be categorized as exposed by her IV drug use. This system assumes likelihood of transmission based on a U.S. model where AIDS was seen first in gay men. It does not list woman-to-woman contact as an exposure category and is probably inadequate to explain all the modes by which women get HIV. In the period from January 1989 to December 1989, the CDC listed women as having been exposed to HIV by intravenous (IV) drug use (52 percent), heterosexual contact (31 percent), receipt of blood transfusion (10 percent), and unknown (7 percent). The category of homosexual/bisexual contact, which accounts for 67 percent of men listed, excludes women. The next most numerous categories in men are intravenous drug use (18 percent), combined risk of IV drug use and homosexual/bisexual contact (8 percent—another category that applies only to men), heterosexual contact (3 percent), receipt of blood transfusion (2 percent), and unknown (3 percent). The most significant difference in the statistics for women is that the rate of unknown causes is more than double for women what it is for men. This highlights the concern that transmission of HIV in U.S. women is not fully understood.

A significant trend is the rapidly increasing rates of heterosexual transmission in women (any contact with a man is considered heterosexual, regardless of the man's sexual identity). These rates increased from 14 percent in 1982 to 17 percent in 1984, to 26 percent in 1986, and to 31 percent in 1989.

Ethnicity statistics for women, as of December 1989, break down as follows: Black (52 percent), white (27 percent), Latina (20 percent), Asian (0.6 percent), and Native American (0.24 percent). Seventy-three percent of women with AIDS are women of color, while 40 percent of men with AIDS are men of color (the U.S. population is approximately 25 percent people of color).

Epidemiological statistics do not account for all AIDS cases. An AIDS diagnosis is made after meeting the CDC's definition of AIDS, which was developed from the infections first observed in gay men in the United States in 1981. It was revised in 1985 and 1987, but is still based on the infections that gay men get. In brief, AIDS is diganosed in an HIV-positive individual when a predetermined set of unusual (opportunistic) infections or cancers are discovered and can be medically documented or when either a wasting syndrome (large weight loss) or HIV dementia (change in mental alertness) are identified. Rarely, an AIDS diagnosis will be conferred on an individual who is not HIV positive if one of the opportunistic infections or cancers associated with a compromised immune system is diagnosed definitively. HIV-positive people may be quite ill for months or years before meeting the definition of AIDS.

Since the CDC definition for AIDS was developed from observations of men, women often die of an opportunistic infection before they are even considered eligible for an actual AIDS diagnosis. Women are thus excluded from the total statistical picture. They not only won't get counted, they also won't get treated; they won't qualify for health benefits, child care, rent subsidies, or other support services

PWAs (People with AIDS) and AIDS activists have pressured the government to provide, and they won't be provided with information on how to take care of themselves and how to protect the people with whom they are having sex or sharing needles. Statistics, in other words, only count women who already fit into the CDC's narrow definition for AIDS; all the other women just remain invisible. Many women (and of course there are no statistics for this) are diagnosed with HIV infection only after they have died.

There are many questions that could be answered by epidemiologists that would promote a better understanding of women and AIDS. Woman-to-woman transmission must be studied, and homosexual/bisexual exposure categories must include women (of all sexual identities) who have been exposed to HIV through contact with gay and bisexual men. For men as well as for women, unknown exposure categories must be investigated, and a better understanding of the risks associated with specific sexual acts must be reached. The information currently available certainly suggests that more women are at risk in the United States than has been previously projected. The rising number of women with AIDS is alarming and must be heeded by activists, researchers, and public policymakers. The lives of women who are already ill and those who may be at risk depend on a greater understanding and a more effective response to women's experience of AIDS.

How Do Women Live?

KIM CHRISTENSEN

The impact of the AIDS crisis differs dramatically in various communities. Differing access to medical information, early interventions, and treatment, and differing abilities to take time off to take care of oneself, combine to make HIV infection a radically different experience for a wealthy, white, childless man than for a low-income Latina mother. HIV infection tends to worsen already existing forms of inequality and oppression based on gender, race and ethnicity, class, sexual orientation, and ability/disability level.

In order to understand the impact of the AIDS crisis on women, we need a realistic picture of where women are economically, politically, and medically in the United States today. Any group's access to resources, public attention, and power is critical in determining how well they fare in the AIDS epidemic.

Compared with men, women enter the AIDS crisis with fewer resources and support systems, and yet are responsible for more people. Our greater vulnerability to rape, battering, and other forms of sexual violence not only directly increases our chances of contracting HIV, but also places women in an inferior "bargaining position" when negotiating for safer sex.

The medical establishment's view of men as "the norm" further complicates HIV prevention, detection, and treatment for women. On the one hand, women are often invisible to medical researchers, and the AIDS research establishment is no exception. For example, many experimental AIDS drug trials completely exclude women. On the other hand, women are often treated as potential "fetus incubators" whose reproductive capacities are valued more than our lives, or as guinea pigs for the latest hormonal or surgical intervention. The traditional invisibility and powerlessness of women vis-à-vis the medical establishment mean that thousands of women are dying of

AIDS before a doctor even recognizes that our symptoms are related to HIV infection. Our inferior social status also makes it unlikely that treatments will be developed with our needs in mind.

Heterosexism, racism, and sexism are perhaps the three main forces that have fostered government inaction and allowed AIDS to reach pandemic proportions in the United States today. This chapter paints a statistical picture of U.S. women's current economic, political, and medical position. We need this foundation if we are to plan and organize actions that successfully address women's specific needs in the AIDS crisis.

Sexism and Women's Position in the AIDS Crisis

Sexist attitudes have had an enormous impact on the treatment of women in the AIDS crisis by the medical profession, public policy officials, and even some AIDS activists. Even more important than sexism—a set of bigoted attitudes about gender—has been the institution of patriarchy, which perpetuates male control over women's labor time, sexuality, and reproductive capacities. This male control may be exercised by an individual man, as in the case of a battering husband, or by male-dominated institutions, such as the Supreme Court, Congress, the New York Stock Exchange, the governing bodies of any of the major religions, or the medical profession.

Violence against women, including legal/societal toleration of this violence, is one of the most blatant aspects of patriarchal oppression. One out of three women in the United States will be raped during her lifetime.[1] The figures are even higher for African-American and Latina women.[2] Yet, because of the horrendous treatment raped women receive from police and medical authorities, less than ten percent of women who are raped report the crime.[3] Forty percent of all American wives are battered at some time in the course of their marriages.[4] The vast majority of women working outside of the home report being sexually harassed at least once on the job.[5] Reliable estimates of sexual abuse range from one-tenth to one quarter of all female children.[6]

Women learn very early that violence can be the price for "stepping out of line," for insisting on our opinions, our right to unrestricted mobility, our choice of dress or profession. This violence (and the constant *threat* of such violence) constricts our actions, reduces our aspirations, and distorts our self-images. A woman's exposure to HIV, and her ability to take care of herself if she becomes ill, may be largely determined by her exposure to male violence and the social supports she can use to defend herself.

Women's inferior economic status is another fundamental aspect of patriarchy. While women's participation in the paid labor force has increased by over 20 percent in the past three decades,[7] women's wages have not risen comparably. For example, white women who worked full time in 1988 earned about 65 percent of what white male full-time workers did.[8] Black and Latina women's incomes are even lower than those of white women, averaging 59 percent of what white men make.[9]

While women's earnings are generally two-thirds of men's, women are often responsible for more dependents. More than half of all marriages with children now end in divorce;[10] women get child custody in the vast majority of the cases;[11] only 23 percent of divorced mothers receive any child support payments at all;[12] and for those lucky enough to receive child support, the average amount is only $1,200 per year.[13] Many women, especially women with children, have to be financially dependent on men—either an individual man (father, husband, ex-husband, etc.) or the male-dominated state. The alternative, for many women and their children, is grinding poverty.

In the context of the AIDS crisis, women's inferior economic status means that we are less likely than men to have health insurance, less likely to be able to afford the consistent and high-quality medical attention necessary for early detection of HIV infection and opportunistic infections, and less likely to be able to afford quality treatment for ourselves and our children. For example, AZT, the only antiviral drug currently approved by the Food and Drug Administration for HIV infection, can cost up to $8,000 per year.[14] Since this is almost half of the average U.S. woman's annual earnings, it is unlikely that the many women without health insurance can afford it.

Since we live in a patriarchal society, women bear disproportionate responsibility for household labor and child care. A full-time working woman performs an average of 35 hours of physical housework labor per week, in addition to her 40-hour paid job.[15] The average woman who does not work outside the home performs 55 hours of such labor per week, more if she has more than two children.[16] The average husband and father performs less than a third of that labor time, which does not increase when his wife gets a paid job.[17]

This labor, although vital to the continued smooth functioning of the economy and the society, is not calculated as "work," nor does it count as part of the GNP. It does not provide the woman with health insurance, Social Security, or any independent income. Shouldering the burdens of the "double day" significantly reduces women's time

for (among other things) basic self-care activities such as exercise and rest."[8] For an HIV-positive woman with children, this lack of self-care time can significantly reduce life expectancy.

Patriarchy also ensures women's lack of control over our sexuality and our reproductive capacities. In 1990, there is still no 100 percent effective and safe method of birth control. The tiny percentage of medical research devoted to this project speaks volumes about this society's lack of respect for women's health and autonomy, not to mention sexual pleasure. The medical establishment abhors the idea of experimenting on the male reproductive system, despite its being physically less complex and more accessible. It displays no such aversion to hormonal and other experimentation on women, particularly women of color in the United States, and women in the Third World.[9]

Increasing state control over abortion in the wake of the Supreme Court's 1989 *Webster* decision, combined with increasing forced abortion and sterilization of HIV-positive women (overwhelmingly women of color), threatens to steal away the fragile gains in control over reproduction for which women fought so hard in the 1960s and 1970s. In addition, lesbians encounter enormous obstacles in obtaining alternative insemination, in adopting or providing foster care for children, and in retaining custody of their biological children in cases of contested custody.

Reproductive freedom must mean real freedom of choice for lesbians, poor women, HIV-positive women, and women of color to avoid or terminate unwanted pregnancies, as well as to have or adopt children, to retain custody, and to raise them in safe and economically viable environments.

Control over sexuality and sexual choices is impossible without accurate information. Unfortunately, the majority of U.S. youth still do not receive sex education that is nonjudgmental regarding sexual choices and that deals with AIDS in a medically accurate way. Heated controversies have taken place in numerous school districts over informing students about condom use or distributing condoms, despite the fact that 70 percent of high school students are sexually active.[10]

In addition, the "double standard" for male and female sexuality is unfortunately still alive and well, with young women being held responsible for "controlling" and "harnessing" male sexuality, and for both birth control and safer sex negotiations. Yet all of the inequalities cited above (the threat of violence, economic dependence, etc.) often make negotiating sex, including safer sex, problematic for young women in heterosexual relationships.

The institutional supports for heterosexuality, and the threat of discrimination and violence against women who choose to express their lesbian sexuality, make "compulsory" heterosexuality the norm in the United States today. No woman can have sexual autonomy until she has the option of freely, and without fear, choosing to be sexual with another woman.

The dominant media bring patriarchal ideas and imagery into every U.S. household: from the virtual invisibility of lesbianism, to the romanticized sexual violence in scores of major films, to the absence of discussion of most of the major issues affecting women's lives.

Heterosexism is often used (in the media and by individual men) to reinforce sexism, and to scare heterosexual women into traditional sex roles. (For example, women in nontraditional occupations, or women who aggressively pursue our rights, are often called "dykes," regardless of their actual sexual orientations.) Sexist and heterosexist ideas and imagery serve to rationalize, perpetuate, and render invisible the physical, economic, sexual, and political oppression of women. They also make women, especially lesbians, almost totally invisible in the AIDS crisis.

Oppressed not just by patriarchy and sexism, most HIV-positive women are also subjected to racism, class oppression, heterosexism, and ableism. To draw an accurate picture of women's status, we need to examine briefly these forms of oppression.

Racism and AIDS

White supremacy is a set of institutions (supported by a set of racist ideas) that ensures that white people continue to have access to the labor and other resources of the various communities of color. Political, economic, and cultural control of these communities is often necessary for this to occur. Violence against people of color and official tolerance of and/or initiation of such violence remain institutionalized practices that perpetuate racism. Violence against people of color is not only perpetrated by young white men on the street, it also reaches into the highest levels of our government. For example, despite undisputed statistical evidence that a Black person is four times as likely to receive the death penalty as a white person convicted of a similar crime, the U.S. Supreme Court found that the death penalty is "not inherently racist" and does not violate the equal protection provisions of the Fourteenth Amendment.[11]

The U.S. government's drug policy is yet another example of institutional racism. Despite the "just say no" rhetoric, the government

has tolerated and often actively participated in the flooding of communities of color with addictive drugs. This strategy was widely employed in the late 1960s in an attempt to "cool out" the Black Panther Party and other radical Black organizations.[22] It has continued into the 1980s, as CIA shipments of cocaine have been used not only to fund the anti-Nicaraguan contras, but also to quell domestic unrest.[23]

Continuing economic exploitation of people of color is another key aspect of institutional racism. As in the case of white women, there have been some significant changes in the economic status of people of color in the past three decades. Yet, at the same time that *employed* Black men have been making higher wages, a smaller and smaller proportion of all Black men have been able to find jobs at all.[24] While Black women have experienced gains in terms of employment and income, they have increasingly gained sole financial responsibility for their children. This is, of course, related to the fact that more Black men are unable to find jobs, and are therefore unable to contribute to family income. As of 1985, over 44 percent of Black families with children were maintained by women.[25] As a result of this combined racism and sexism, *more than half the African-American children in this country are currently being raised in poverty.*[26] The implications for these women and their children, in terms of receiving quality health care for AIDS, are devastating.

Racist imagery in educational materials and the media continues to indicate the institutional nature of U.S. racism. Crimes that victimize people of color often are not deemed "newsworthy" (whereas crimes with white victims are). Events that primarily or disproportionately affect communities of color (such as the AIDS epidemic) are not thought to be of interest to the "general reader," who is assumed to be white and usually male. The illness and deaths of people of color, women, and lesbians and gay men are simply not deemed to be "important" enough to report.

Class Oppression and AIDS

In addition to the issue of unequal access to treatment, this country's response to the AIDS crisis in general is profoundly influenced by its class structure and its profit-driven economy. For example, treatments that will not be profitable simply are not explored by major drug companies and are undertaken rarely by the government. Personal and financial connections between major pharmaceutical companies and the government agencies responsible for regulating these companies' AIDS research programs further complicate the problem.

This is particularly important in the case of women, intravenous drug users (IVDUs), and others with lower incomes. A drug company can't make a profit on a drug if many of the people who need it are too poor to pay a high price for it. Research and drug trials tend to be concentrated among those people with enough money to make an experimental drug "profitable."

Attention to profitability, rather than to saving lives, also leads to "turf wars" and patent battles that further delay experimental drugs and even proven treatments from reaching patients who need them. For example, in 1986, Michael McGrath of the University of California at San Francisco found that trichosanthin ("Compound Q") killed HIV-infected immune system cells in the test tube. However, he waited two years to announce his discovery, until he and his pharmaceutical sponsor, Genelabs, could obtain a patent on the product and sell its licensing rights worldwide. Compound Q may or may not prove to be an effective treatment for AIDS, but the research on this vital question was delayed for two years for purely financial gain.[27]

Heterosexism and AIDS

As with sexism, heterosexism refers not just to the attitudes of individuals. Rather, a pressure towards heterosexuality is built into most of our major social, economic, and political institutions.

Violence against lesbians, bisexuals, and gay men is often tolerated and/or initiated by police. A recent survey showed that 90 percent of lesbians and gay men interviewed had experienced heterosexist violence, or the threat of such violence, during their lifetimes.[28]

Lesbians, gay men, and bisexuals suffer from institutional forms of economic discrimination in addition to direct housing and job discrimination. Gay men and lesbians lack spousal health care benefits for ourselves and our children, marital tax breaks, "family" status in rental agreements, the legal right to make decisions for our lovers in emergencies (including medical emergencies), and even inheritance rights in the case of the death of a lover.

As discussed earlier, lesbians and gay men are frequently denied reproductive rights, including alternative insemination for lesbians, adoption and foster care, and child custody rights in contested cases.

The heterosexist imagery and ideas put forth in the mass media and by religious and educational institutions, among others, perpetuate the notion that heterosexuality is the only "natural" or "moral" sexuality. The authorities of many major religions also state or

strongly imply that homophobia and heterosexism are [redacted]ptable, even divinely sanctioned. Some even claim that AIDS is God's "punishment" for sexual or other behaviors that they consider to be unacceptable. This propaganda has a major impact on federal, state, and local governments' AIDS policies and funding.

Ableism and AIDS

Ableism consists of the practices, behaviors, and attitudes that deny disabled people, including people with AIDS (PWAs), access to all or most of the major institutions of this society. One in six Americans is disabled,[9] but our visibility, earning ability, and political clout are far smaller than our numbers. Violence against the disabled happens throughout our society, yet the media totally overlook the existence of such violence. Visibly disabled women are often perceived to be "easy prey," and are significantly more likely to be assaulted than able-bodied women.[10] In addition, violence against PWAs (or those who are *believed* to have AIDS) is on the rise in most urban communities.[11]

Economic and insurance discrimination is another major aspect of institutional ableism. The incomes of employed disabled people are significantly lower than those of the able-bodied; disabled women earn only 36 percent of what nondisabled men make.[12] Direct employment discrimination against the disabled is often compounded by inaccessibility and discrimination on the part of schools and universities. Despite the existence of Section 504 of the Rehabilitation Act (which mandates appropriate education for all children, regardless of ability level), many disabled children still do not receive the special education they need to become economically self-sufficient adults.

In addition to lower income, disabled people often have higher medical costs than the able-bodied, and are, ironically, much less able to get health insurance. It is perfectly legal for insurance companies to deny policies to those with HIV illness, or other "preexisting medical conditions," and to refuse to pay benefits if people conceal their disabilities to get insurance. The combination of lower incomes, higher medical costs, and lack of insurance often results in very low standards of living for the disabled, especially disabled women and disabled people of color.

Ableism also perpetuates discrimination in the accessibility of buildings and transportation. This society was literally not built for the disabled. The vast majority of streets and sidewalks, apartment buildings, stores, and offices are totally inaccessible to wheelchair users. Until recently, federal law did not require chair lifts on publicly funded buses, drastically limiting many disabled people's mobility. In public facilities it is still unusual to find hearing interpretation or Braille, which would greatly increase mobility and autonomy for the hearing- and sight-impaired.

Disabled people are often denied control over their reproductive capability. In the early 1900s, as a result of the eugenics movement and Social Darwinism, most states had laws on the books requiring sterilization for the physically disabled, epileptics, and the "feebleminded." Although by and large these laws are no longer enforced, involuntary sterilization of the disabled continues, especially among the developmentally disabled and disabled people of color.[13]

Despite being supposedly "nondirective," many genetic counselors continue to "direct" women with genetically passed disabilities to seriously consider sterilization or abortion. Pregnant HIV-positive women are often coerced into abortions, despite the fact that only 20 to 50 percent of their children will actually receive the virus. Even some feminists defend abortion on the grounds that women must have the right to abort "defective" fetuses, including those that have a chance of being HIV positive. These arguments assume that no woman would choose to give birth to a disabled fetus, and that disability is a "personal tragedy," rather than a political and social problem of accessibility and funding for services and health care.

Rarely, if ever, are PWAs and other disabled people portrayed as normal and productive members of society. When we're not totally invisible, disabled people are usually portrayed in the media as pitiful, childlike victims. We're portrayed as asexual and unable to carry on personal or romantic relationships, whether heterosexual or lesbian or gay.

The media and the medical profession share the notion that disability is something to be overcome, that we must "strive to overcome our disabilities" rather than learn to live within our capabilities. The underlying assumption, of course, is that there is something terribly wrong with the disabled person, rather than with the social structure in which she or he lives.

All these types of oppression reduce women's access to the information, resources, and political clout necessary to fight AIDS. Women in general enter the AIDS crisis from a more vulnerable position than do men. Women who face additional forms of oppression are that much more vulnerable. Solving the AIDS crisis for *everyone* means combating the powerlessness and marginalization of

many of the oppressed people in this country: women, people of color, the poor, and the disabled. As AIDS activists, we have a responsibility to plan our actions in ways that take account of the differences among women, as well as our similarities. The information in the rest of this book will help us all to do that.

Notes

1. Federal Bureau of Investigation, *Uniform Crime Report: Crime in the United States*, 1980, p. 15. The FBI adds the following footnote to their statistical estimate: "Even with the advent of rape crisis centers and the improved awareness by police dealing with rape victims, forcible rape, a violent crime against a person, is still recognized as one of the most under-reported of all Index crimes... Victims' fear of their assailants' return and their embarrassment over the incidents are just two factors which can override their decision to contact law enforcement."
2. Audre Lorde, "An Open Letter to Mary Daly," in *This Bridge Called My Back: Writings by Radical Women of Color*, Cherrie Moraga and Gloria Anzaldúa, eds. (Albany, NY: Kitchen Table: Women of Color Press, 1983), p. 97.
3. *Uniform Crime Report*, p. 15.
4. Lenore Walker, *The Battered Woman* (New York: Harper and Row, 1979), p. 14.
5. Ronnie Sandroff, "Sexual Harassment in the Fortune 500," in *Working Woman*, December 1988, pp. 69-73.
6. Sources for varying estimates:
   - Susan Forward and Craig Buck, *The Betrayal of Innocence: Incest and Its Devastation* (New York: Penguin, 1978), p. 3.
   - Judith Herman and Lisa Hirschman, "Father-Daughter Incest," in *Signs: A Journal of Women and Culture*, Vol. 2, no. 4, Summer 1977, pp. 735-756.
   - Kee MacFarlane, "The Sexual Abuse of Children," in Jane Chapman and Margaret Gates, eds., *The Victimization of Women* (Beverly Hills, CA: Sage Publications, 1978), pp. 81-109.
7. *Economic Report of the President*, 1989, Table B-37.
8. Derived from "Money Income of Households, Families and Persons in the United States: 1986," U.S. Department of Commerce, Bureau of the Census.
9. "Money Income of Households..." Bureau of the Census.
10. "Divorces and Annulments, Rate and Percent Distribution, by Sex and Age, 1985," in *Statistical Abstract of the United States, 1989* (U.S. Department of Commerce, Bureau of the Census), p. 87.
11. Ruth Sidel, *Women and Children Last* (New York: Penguin, 1986), p. 18.
12. Nancy Folbre, *Field Guide to the U.S. Economy* (New York: Pantheon Books, 1987), Graphs 3-11.
13. Folbre, *Field Guide*.
14. John Bohne, Tom Cunningham, Jon Engbretson, Ken Fornataro, and Mark Harrington, *T+D Handbook: Treatment Decisions*, ACT UP/New York, unpublished, 1989, p. 32.
15. Joseph Pleck, *Working Wives, Working Husbands* (Beverly Hills, CA: Sage Publications, 1985).
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17. Pleck, *Working Wives*, p. 123.
18. Arlie Hochschild, *The Second Shift: Working Parents and the Revolution at Home* (New York: Viking, 1989), p. 4.
19. Susan Davis and CARASA (Committee for Abortion Rights and Against Sterilization Abuse), *Women Under Attack: Victories, Backlash, and the Fight for Reproductive Freedom* (Boston: South End Press, 1988), p. 22.
20. Ann Northrop, Hetrick Martin Institute, personal communication.
21. William Brennan, Dissenting Opinion in *McClesky v. Kemp*, U.S. Supreme Court Reporter, Vol. 107, 1987, pp. 1756-1794.
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24. Kimberly Christensen, "Political Determinants of Income Changes for African-American Women and Men," submitted for publication to *Review of Radical Political Economics* in June 1990.
25. Folbre, *Field Guide*.
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27. Bohne et al., *T+D Handbook: Treatment Decisions*, p. 44.
28. Survey conducted by National Gay and Lesbian Task Force, New York, 1988.
29. Barbara Mandell Altman, "Disabled Women and the Social Structure," in *With the Power of Each Breath: A Disabled Women's Anthology*, Susan Browne, Debra Conners, and Nanci Stern, eds. (San Francisco: Cleis Press, 1985), pp. 69-76.
30. Rebecca Grothaus, "Abuse of Women with Disabilities," in *With the Power of Each Breath*, pp. 124-128.
31. Survey conducted by the National Gay and Lesbian Task Force, New York, 1988.
32. Altman, "Disabled Women and the Social Structure."
33. Anne Finger, "Reproductive Rights and Disability," in *With the Power of Each Breath*, pp. 292-307.

stopped asking, "How are you?" There was a certain relief in turning myself over to this greater cause, where everything was always about her—humidifiers, macrobiotic food, appointments. Even now, we are friends, and still there is a subtext: will she get sick again, will she die?

I wonder, do I just thrive on drama? Do I have a martyr complex, or a death wish? Did I fall for him because of his status? Do I want to get infected; is this my most recent and subtle form of self-destruction? Friends and family are anxious, ask me about *it*. They tell me I'm crazy, and speak of illness and health in hushed tones.

And I have to admit, after all these months, sometimes I'm still scared. I see an article and I think, could I be the first case of saliva transmission? Why am I still scared? I forget for weeks, and then when I get sick, feverish, peaked, HIV is there like a threat. I worry secretly, and when I tell him, he's angry, defensive.

All around us, his friends, my friends, into the hospital, out of the hospital, dying. When will it start with him? He gets a cold, the flu. He's tired, glands swollen.

I hate this virus.

This started out to be about the joys of safe sex, but I guess it's complicated.

I am HIV negative, as of my last test. I've learned a lot and had some really hot sex and lots of flirty, sexy stuff, and there's been a lot of love and happiness in this relationship. There's a difference between rational fears and irrational ones. I try to act on the rational ones. I try to protect myself and my lover from real threats, and try to overcome the irrational fears.

You *can* make decisions about your life and love based on what you want, and not let illness, or fear of illness, make all the decisions for you.

Unique Aspects of HIV Infection in Women

RISA DENENBERG

What Is Not Known

A woman with HIV illness who lives in Newark, New Jersey, lives an average of 15.5 weeks following a diagnosis of AIDS,[1] while a white gay male in the northeast region of the United States with HIV illness lives an average of 20.8 months following diagnosis.[2] There are many problems in assessing the number of women with AIDS, as well as the ways in which HIV disease affects women.

Very little is known about women and HIV disease, and very little research has been done or can be anticipated. Therefore, it is not possible to draw conclusions about risk factors, disease progression, opportunistic infections, or proper treatments. However, by framing the relevant questions, we can provide a basis for understanding what we need to know.

In this discussion it is important to remember that women's bodies are different from men's in significant ways, that women are rarely viewed as individuals in the health care system and often are viewed as vectors for disease, and that women rarely see primary health care practitioners and often receive health care in settings where public health concerns have more priority than individual concerns. Additionally, women delay seeking care due to, for example, a lack of resources, the burden of child care and caring for elderly or ill family members, our being lesbians and afraid of discrimination, or the fact that so often our complaints of fatigue, headaches, and weight loss are assumed by ourselves and others to be "merely" emotional or stress related.

If we want to understand what happens to a woman after exposure to HIV, women activists will have to be willing to ask publicly the relevant questions.

Why Do Women Die Faster than Men?

Approximately 73 percent of women with AIDS in the United States are women of color, yet people of color comprise only approximately 25 percent of the overall population. Of women diagnosed with AIDS, 52 percent are Black, 27 percent are white, 20 percent are Latina, 0.6 percent are Asian/Pacific Islander, and 0.2 percent are Native American. Women constitute nearly 9 percent of the total number of AIDS cases in the United States reported to the Centers for Disease Control (CDC) through December 1989. Forty percent of men with AIDS are men of color.[3] The disproportionate representation of people of color of both sexes, but especially of women of color, reflects the unique social and economic burdens encountered in living in the United States, and also explains, in part, the mortality differences between all women and white men. For example, a Black woman intravenous drug user (IVDU) with pneumocystis carinii pneumonia (PCP) has the least favorable survival time of any group of AIDS patients studied.

Statistics on women and mortality also reflect the reality that women as a group are undercounted, overlooked, misdiagnosed, and undiagnosed. Further, women are generally treated inadequately following a diagnosis.

This occurs in the following ways.

- Diagnosis comes late in the course of a woman's illness. This occurs because women do not have access to health care or because they delay health care due to other priorities such as finding housing and feeding children. It also occurs because most health care providers are inadequately trained to identify HIV disease and don't even look for it in women. Women with HIV often die soon after they are diagnosed; often diagnoses of HIV are not made until after their deaths.
- Women are underdiagnosed. The CDC has specific guidelines for what constitutes a diagnosis of AIDS. They were last updated in 1987, and many new cases are currently being identified on the basis of that revision. Still, both the initial and the updated guidelines show that AIDS is primarily understood as a white gay men's disease. Women simply do not fit into this disease pattern. Therefore, women often die with AIDS-related complex (ARC), which is generally understood as a stepping stone from asymptomatic illness to AIDS and is usually diagnosed when someone demonstrates HIV-related symptoms such as weight loss, swollen glands, and fever, but does not meet the CDC's definition of AIDS. Since many women die of ARC (the numbers are unknown because deaths from ARC are not tracked as are deaths from AIDS), it is logical to assume that the CDC guidelines are inadequate for diagnosing AIDS in women; without adequate diagnoses, the quality of treatment offered to women is undoubtedly compromised. Equally serious for these women is the fact that, without AIDS diagnoses, they do not qualify for particular benefits available only to people with AIDS.
- Women are misdiagnosed. They often die of HIV-related illnesses that are not recognized as such. Perhaps less time and money are spent on diagnostic tests or on discovering the causes of a woman's symptoms. Again, women are not viewed by health care providers as being likely to have HIV disease. For example, between 1981 and 1988, there was an unexplained and significant increase of deaths from pneumonia and influenza in women aged 15 to 44 in several urban centers in the United States.[4] Many of these deaths might have been from undiagnosed opportunistic infections common to HIV illness.

Women and Men: What Are the Differences?

Biologically, women differ from men in several ways that are relevant to this discussion. Women are subject to unique organ-specific diseases and conditions (e.g., pelvic inflammatory disease [PID], endometriosis, uterine tumors, cervical cancer, and vaginal candidiasis), a higher incidence of some diseases (e.g., simple urinary tract infection, breast cancer, human papillomavirus infection [HPV]), and an increased likelihood of suffering serious consequences arising from common problems (e.g., gonorrhea, chlamydia).

Women die of complications related to pregnancy and to diseases of reproductive organs (e.g., cervical, breast, ovarian, and uterine cancers). The incidence of ectopic pregnancy (a pregnancy that grows outside of the uterus, usually in the fallopian tube) has increased dramatically since 1970. In 1970, one in 200 pregnancies was ectopic; in 1985, one in 48 was ectopic. This reflects, generally, an increase in sexually transmitted diseases (STDs). STDs such as gonorrhea and chlamydia often cause asymptomatic infection in women who later develop a condition called pelvic inflammatory disease. This acute problem often leaves scar tissue in the genital tract and greatly increases the risk of ectopic pregnancy, which in turn can rupture, causing hemorrhage and death.

Some studies note that women IVDUs experience more medical problems than male IVDUs. This probably reflects the broad spectrum of medical, social, and economic differences between men and women. All of this is important in understanding HIV infection in women.

Women and Symptoms

Are women's symptoms of HIV infection the same as or different from men's? Since we have little information related specifically to HIV disease in women, we have to look at other differences that can give us a basis for forming tentative answers to this question. Looking at the arena of STDs, we know that there are gendered differences in presentation (how symptoms show up medically, or "present"). In gonorrhea and chlamydia there is often a long silent phase in women (sometimes from three to six months), whereas men frequently show symptoms much sooner, such as a drip or burning during urination. Some bacterial infections often ascend to other organs in women (uterus, tubes), but rarely ascend in men. With monilia (yeast, or candida), trichomonas, and bacterial vaginitis, women frequently experience discharge, odor, itching, and pain while men often carry these organisms without any symptoms or medical consequences.

On the other hand, some sexually transmitted infections seem to be equally distributed and cause similar symptoms in men and women. Genital herpes and syphilis seem to have equal incidence sexually. With other infections that also cause sores or lesions on the genitals, the same type of symptoms occur with different frequency. More women and gay men are treated for warts (called condyloma, arising from HPV infection), and more men are seen clinically for chancroid (another ulcer-forming sexually transmitted infection of which there is increased incidence).

Another important difference is related to the menstrual cycle and vulnerability to infection. Many women with recurrent genital herpes report outbreaks with their periods. Other problems associated with periods include premenstrual syndrome (PMS) and toxic shock syndrome (which can be fatal). Hormone fluctuations result in recognizable changes in weight, fatigue, sexual desire, and so on.

A second issue concerning symptoms is whether or not the same symptom is viewed similarly in men and women. Are women's symptoms taken as seriously? It's not likely. Often women don't view their own health symptoms as seriously as they do others' symptoms. Mothers who are obviously ill themselves frequently come to a clinic or emergency room only when their children become sick. Many clinicians would probably interpret the same symptom—such as a headache—differently depending on a number of variables, including gender.

A review of the most common symptoms listed on health forms from various HIV assessment programs that serve mainly male clients include fatigue, fever, chills, night sweats, weight loss, loss of appetite, headache, blurred vision, insomnia, confusion, concentration problems, sore mouth, sore throat, trouble swallowing, cough, shortness of breath, nausea and vomiting, diarrhea, muscle or joint pains, swollen glands, and skin changes. All of these symptoms could point to problems other than HIV illness, and many of them could be interpreted to reflect depression or psychological factors such as stress or overwork, which are diagnoses more often attributed to women. An HIV-positive woman, for example, may be at less risk for weight loss, because women have more body fat. Certainly weight loss is often ignored in women or understood inappropriately as something always favorable. There is simply no information regarding which symptoms different groups of HIV-positive individuals are most likely to experience. To improve early diagnostic capability and greater treatment availability for women, such studies must be undertaken. It is known that an early diagnosis can help prolong life if relevant medical services are available.

On the other hand, objective clinical signs that can be discovered by medical examination are much more likely to raise suspicion of HIV disease. Some frequent signs include specific medical conditions that can result in skin changes; mouth sores; findings on routine blood tests; and neurological changes such as problems with balance, numbness, or subtle changes in mental abilities. Yet practitioners who don't already have the eyebrow of suspicion raised often overlook clinical signs in women, especially since AIDS has, from the beginning, been defined as a gay men's disease. An obstetrician/gynecologist (ob/gyn) might find and treat a vaginal yeast infection after listening to a woman complain of discharge and itching. It is very unlikely that this doctor will then look in the client's mouth for oral signs of HIV disease such as herpes, thrush (oral yeast infection), hairy leukoplakia (an unusual growth associated with HIV disease), aphthous ulcers (canker sores), gingivitis (gum infection), or other medical conditions.

Male and Female Differences in the Mechanism of HIV Exposure

There are some clear differences between men and women in terms of sexual transmission of a variety of diseases. Where most STDs are concerned, women are often at greater risk than are men from a single episode of vaginal intercourse. For example, the risk of women being infected with gonorrhea is approximately double that for men. As repeated unprotected sexual intercourse occurs, the risks of trans-

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mission may be about equal. Still, a woman who has few sexual encounters with many men is at greater risk than a man who has few sexual encounters with many women; hence the biology of the double standard.

Exposure to HIV during sex does not always cause infection, but it is sometimes assumed that women are at greater risk than are men of exposure by heterosexual intercourse. There is evidence that in Africa and in the Caribbean the ratio of male-to-female cases of AIDS is about one to one. In recent studies of adolescents in New York City, this pattern of equal representation of women is now emerging. We need to know what variables increase a woman's risk of being infected. A woman with a chronic yeast infection or who is menstruating is at greater risk of *transmitting* HIV if she is infected, but is she also at greater risk of *contracting* HIV if she is not? It is this aspect of transmission that has not been studied or even considered, yet it suggests urgency for teaching risk reduction to women, whether heterosexual or lesbian. It is likely that a woman with an STD, a genital ulcer disease (herpes, chancroid, syphilis, lymphogranuloma venereum), condyloma (warts), or cervical dysplasia (an abnormal pap smear result) is at increased risk of acquiring HIV if exposed.

Some HIV transmission risks are equal for men and women, such as receiving anal sex and sharing intravenous (IV) drug works. But there are some unique risks when HIV-infected semen is deposited into the vagina. It is important to know that, while HIV has an affinity for T-lymphocytes (T-cells), it also can reside in other types of cells (other kinds of white blood cells, some types of neurological cells, and several others). The cells in the cervix are unique in that they respond to hormonal changes throughout a woman's cycle and play a significant role in allowing or disallowing different intruders to have access to the higher organs. An inhospitable cervix would never allow sperm to penetrate or pregnancy to occur. It is due to the cyclic change in immune function that these events are allowed to occur. The uterus and tubes are considered sterile and not to be invaded by ordinary or pathological germs, although "healthy" germs abound in the vagina (as they do in the mouth). The cervix, then, is a responsive organ, which has some power to decide what gets in.

In one small study of cervical tissue from HIV-positive women, the virus was able to be cultured from endothelial cells (lining of the cervix) and monocyte-macrophage cells (a type of white blood cell) as well as from the cervical mucus.[3] So, certain cervical cells actually become infected with HIV. In this study, the women with infected cells also had symptoms of an infected cervix (cervicitis). It is possible that HIV can cause a local cervicitis before spreading to the rest of the body. It is also likely that an already infected cervix is at greatly increased risk of becoming infected with HIV.

Further, in studies of the wart virus HPV, it has been found that, while the transmission rate is high for the virus (about 50 percent of sexually active heterosexuals test positive for HPV), the route by which viral expression and disease occur is not known. In fact, while nearly half of some samples are HPV positive, only 1.5 percent of women show clinical evidence of the warts.

Immune suppression in a woman's genital tract is proposed by some researchers as the mechanism of this phenomenon, and recurrent genital fungal and viral infections are associated with transient suppression of cell-mediated immunity.[4] Another proposed mechanism is an allergic response (to sperm, to yeast, to spermicides) inside the vagina, which may increase the likelihood of developing the warts. Allergic responses also relate to cellular immunity.

A good bit is known about immunity and women's genital tracts. It appears that cancer of the cervix, which is curable when detected early, often occurs following an invasion of microorganisms, particularly viruses. Whole books have been written on HPV and volumes regarding the minute details of cervical cancer, which is detected by routine pap smear screening. As yet, we have no proposed protocols for the gynecological care of HIV-positive women. Some of the research has been done; it simply hasn't been applied to understanding HIV infection.

About Opportunistic Infections

We know that HIV causes some life-threatening events as a viral agent. It is believed to be responsible for certain neurological (nervous system) disorders such as aseptic meningitis and AIDS dementia. But the majority of HIV-related problems occur because HIV suppresses the body's immune system: the reduced number and reduced capacity of lymphocytes make a person less able to fight infection. Almost all people will get ill when infected with certain harmful germs such as syphilis. The person whose immune system is compromised is at even greater risk of disease, complications, and death from such germs. But germs that are ordinarily harmless also threaten the lives of people who have HIV disease. Hence the term opportunistic infection.

Opportunistic infections are also caused by harmful germs that would normally cause only limited infection. For example, many healthy people have herpes sores on the lips at times, but when such

herpes is found spreading to the throat or lungs in a person with HIV, it is considered opportunistic and is indicative of a damaged immune system.

Opportunistic infections that have been observed in men and women include coccidiodomycosis, cryptococcosis, cryptosporidiosis, isosporiasis, mycobacterium avium, mycobacterium Kansasii, M. tuberculosis, cytomegalovirus, pneumocystis carinii, toxoplasmosis, and candidiasis. These are the medical names for the bacteria, virus, fungus, protozoa, and so on that infect a compromised immune system. Ninety percent of AIDS deaths are attributed to opportunistic infections, many of which could be treated. Some opportunistic cancers are also associated with HIV disease, such as Kaposi's sarcoma (KS, which usually begins as a skin disease) and lymphomas (which begin in lymph tissue).

The frequency of both cancer and certain infections does differ by gender, but it has not been studied in relation to HIV disease. Women are known to have a very low incidence of KS, but are prone to chronic, persistent vaginitis. Beyond this, little is known regarding sex differences. There are known geographic differences in certain opportunistic infection prevalences, and the pattern of opportunistic infections in HIV disease differs greatly from patterns seen in other immunocompromised states, such as in people with cancer or on steroids. Young children with HIV disease get different opportunistic infections because their immune systems are both immature and compromised.

But the woman question? Well, it just hasn't been adequately studied.

Current Knowledge of Women's Genital Health Must Be Applied to HIV Disease

Information that can be obtained from medical texts, self-help books, and current research can be applied to the issues surrounding HIV disease.

Transmission issues seem to be related to vaginal health and therefore, naturally, to the practice of safer sex. Infections that go untreated probably increase the risk of HIV transmission to women. Genital tract health is affected by cyclic hormonal changes as well as by the types and combination of germs present in the vagina. Further exploration would probably reveal a unique pattern of opportunistic infection in the genital tracts of HIV-infected women. Some HIV-infected women may get sick and die of more ordinary infections such as chlamydia or monilia.

Chronic vaginitis, especially recurrent monilia or yeast infection, was noted in 24 percent of HIV-positive women in one study. Of these women, 86 percent progressed to AIDS.[7] Some researchers now suggest that chronic yeast is associated with a frequent incidence of oral thrush and is a good predictor for development of opportunistic infections. Research on whether such women would benefit from treatment of their vaginitis has not been undertaken.

What about other vaginal conditions? There has been a tremendous increase in the incidence of all STDs since 1980 in the United States, particularly of penicillin-resistant gonorrhea, syphilis, chlamydia, and herpes. Many such conditions lead to abnormal pap smears. Treating the infection often results in the return to a healthy cervix. Untreated or untreatable infections (such as herpes) often result in progression to cervical cancer—a known state of immunodeficiency. Some studies suggest that genital herpes (HSV-2) may be a risk factor for subsequent HIV infection in exposed men. At least 20 percent of women with visible warts on the cervix are found to have coexisting, precancerous changes. HIV infection, too, may be a risk factor itself for cervical changes that precede cancer. Women with HPV or genital herpes are told to have pap smears every six months. But we do not yet have guidelines on pap smear frequency for HIV-positive women.

Some Speculation about HIV Infection and a Woman's Body

Recognizing gender differences and understanding that HIV-positive women are dying without AIDS diagnoses suggest certain assumptions about what is going on in women who are exposed to HIV.

First, the mechanism of exposure differs where vaginal intercourse occurs. The cervix, which at certain times of the month allows sperm to travel into the uterus, is susceptible then in a unique way, at that time probably only surpassed by direct blood-to-blood transmission. So the rate of transmission may be high in a woman having unprotected vaginal sex with an HIV-positive man. Even in woman-to-woman sex, which many consider to be less risky, transmission risk is likely to be increased according to vaginal conditions. Any condition affecting the health of the vagina, genital tract, and rectum undoubtedly affects transmission rates and degree of exposure in all women.

Further, coexisting untreated infections render the vagina and cervix susceptible in additional ways.

When immunocompromise first occurs, an increase in STDs is likely. There is currently a dramatic increase in the rate of STDs,

especially in teenage females who have had vaginal intercourse. Chronic, recurrent, difficult-to-treat infections are likely the next stage of early HIV infection. Young women without primary health care providers who are seen in emergency rooms probably get multiple doses of antibiotics, are not fully examined physically, and are probably not listened to regarding their complaints or believed when they say they took their medicine, did not have vaginal sex again, or whatever. Stereotypes abound among even the best health providers treating young women, including the assumption that all their patients are heterosexual, sexually active, unable or unwilling to follow directions, and so on.

In women who have tested positive for HIV antibodies, often a reversal of the above scenario occurs. The woman may complain of vaginitis on many occasions and be treated with vaginal suppositories without being given a pelvic exam. The provider may even know that candidiasis can occur vaginally in the HIV-positive female but know little else about the female genital tract. He or she may not be skilled at doing pelvic exams and may conduct an inadequate exam. Referrals are rare or nonexistent. Appropriate lab tests are often unavailable. This situation leaves an HIV-positive woman exposed to the continuing risk of the presence of multiple, known, and sometimes treatable infections and the additional risk of cervical cancer.

On the other hand, a known HIV-positive woman may seek and receive gynecological care and be treated adequately for gynecological problems by a provider who knows little about other subtle signs such as cough, weight loss, or oral thrush that may suggest early opportunistic infections. A woman with chronic lymphadenopathy and other signs may be diagnosed with ARC and end up dying of a pelvic infection that failed to respond to treatment. The failure to respond may indicate that the organism responsible for the infection was never identified. Some opportunistic infections that may in fact invade the upper genital tract include cytomegalovirus, tuberculosis, disseminated herpes, candida, and perhaps some of the rarer fungal infections. Certain other infections such as HPV might spread throughout the body or at least invade the upper genital tract under conditions of immunocompromise.

The shorter urethra in a woman exposes her urinary tract to more organisms from all kinds of sexual activity and even from certain hygiene practices (the anus, vagina, and urethra are all very close). Urinary tract infection by common germs and by opportunistic infections may occur more frequently in females than in males and must be studied. Chlamydia and gonorrhea in the pelvic organs may be more serious in HIV-positive women and may require different treatment, and opportunistic infections such as cytomegalovirus, M. tuberculosis, and salmonella may be involved.

Looking retrospectively at the deaths of women who were IV drug users or who died of pelvic infections or ectopic pregnancies, even reviewing maternal deaths to look for possible HIV-related signs, would probably be very revealing. One similar study in New York City on the deaths of male IVDUs revealed that a possible AIDS diagnosis had been overlooked in about half of the death certificates reviewed.

A Few Words about Research

Obviously much needs to be done. Educational materials need to be distributed to women and to doctors as well as to activists and social service workers. Research demands must be framed by activists, and research demands for women need to be framed by feminists. Women are suffering the medical effects of living in a sexist society.

We are important, we do get AIDS, we are not the same as men, we need our own place on the research agenda. And equally important, we must not be afraid to ask questions, undertake our own research projects, write about our experiences and about what we know. What we have to contribute to understanding the problem and having an impact on its solutions should not be underestimated.

Notes

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ACT UP protests at the National Institutes of Health in Bethesda, Maryland, May 21, 1990. The "Invisible Women," an affinity group, wore gauze to symbolize women's invisibility in AIDS research and treatment.

Photo by Donna Binder

Socio-Cultural Implications Of Menstruation And Menstrual Problems On Rural Women's Lives And Treatment Seeking Behaviour

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Introduction

This paper describes women's understanding of menstruation and their ability to cope with the associated rigid socio-cultural norms and practices associated with it in rural areas of Gujarat. The study also bring forth women's concern about menstrual problems and factors that guide their treatment seeking behaviour.

It is widely noted that menstruation, which is a mark of "womanhood", has a powerful socio-cultural significance in practically all societies in the world. Attitudes, practices and beliefs vary widely according to religion and culture.

In developing countries, people are entrenched in deep rooted cultural practices, passed from one generation to the other. In India, it is believed that most of these practices originated from Vedas. In the Vedic lifestyle, there are rules for women to follow during menstruation. Some of these rules prohibit them from preparing food that is offered daily to the Lords as part of the Vedic rituals and ceremonies and prevent them from performing pujas and rituals.

Over time, as people move away from the understanding of the Vedic rituals, various other beliefs and practices became prevalent. The theme of contamination has now become prominent in rituals and practices related to menstruation, particularly in the rural areas. Menstruating women are considered impure or unholy and are neither allowed to participate in any social or religious functions nor are they allowed to enter the kitchen. These chores are taken over by other women, older daughters and even men in the family.

Literature Review

A literature search reveals that several researchers in India studied the socio-cultural aspects of menstruation as early as the nineteen sixties. For instance, Srinivasa has referred to studies conducted by Rao and by Koshi, to assess the age at menarche and menstrual patterns among school and college girls (Srinivasa, 1970; Rao, 1963: Koshi et al., 1970). The studies reveal that the onset of menstruation among girls is at around 14 years. Late onset of menarche evokes feelings of anxiety among parents, a reaction that seems to be justified considering the observations of Komura and associates (Komura et al., 1992) who investigated the relationship between age at menarche and reproductive ability in 2278 married women who started menstruating. They reported that a group of women in after the age of 18 years have a significantly higher rate of infertility (15.7%) than other women (5%). Irregular menstruation during the first few years after menarche has been related to decreased reproductive ability. The findings indicate the importance of menarche before the age of 18 for normal reproductive functioning.

Studies have also indicated that there are misconceptions, ignorance, and incomplete knowledge about the biological basis of menstruation among young girls. In the USA, sixth grade students who view themselves as "prepared" for menarche, have incomplete knowledge and possess a variety of misconceptions. Girls' knowledge of the location and function of reproductive structures have been found to be faulty, and most did not understand how reproductive structures are interrelated (Koff and Rierdan, 1995).

The socio-cultural norms and practices associated with menstruation have been brought forth again, almost two decades later, by some of the researchers in India (Van Woerkens, 1990; George, 1994). Despite the fact that onset of puberty is celebrated in some parts of the country, a menstruating woman is considered impure and unholy and is not allowed to participate in any religious or social functions. The rules are found to be more rigid among Hindus than in other communities.

Chaturvedi and Chandra in their study have observed a clear relationship between menstrual attitudes, physical distress and premenstrual change among college students (Chaturvedi and Chandra, 1991). Those who reported considerable menstrual problems considered menstruation to be "debilitating" and had an "unhealthy" attitude whereas those who had pre-menstrual well being considered menstruation to be a " natural event and had a "healthy" attitude. Similar observations have been made among Icelandic nursing students (Sveinsdottir, 1993). However, most of these studies however have been focussed on women living in urban areas and little is known about these aspects among rural women.

Several researchers have shown that menstrual disorders constitute one of the major reproductive health problems (RHP) among women (Bhatia and Cleland 1995; Patel, 1994; George, 1994). A study carried out by Patel in tribal areas of Gujarat has shown that excessive bleeding during menstruation is reconsidered a "severe" women's illness, the causes of which have been attributed to heavy workloads, weakness, consumption of "hot" foods, intercourse during menstruation and side-effects of tubectomies.

Researchers have also studied menstrual problems as a consequence of surgical contraception. Disturbances such as menorrhagia and dysmenorrhoea have been reported as symptoms resulting from sterilization (Purkayastha and Bhattacharya, 1992; Lethbridge, 1992). However, it had been argued by others that these menstrual disorders are not long term (Rulin et al., 1993). A study population of 500 low-income group women undergoing sterilization were interviewed before sterilization, 6 to 10 months after

surgery and 3 to 4.5 years later. An increase in severe dysmenorrhoea which emerged as a disturbing but not significant trend at 6-10 months did not continue over the next 3 to 4.5 years.

Some researchers have suggested that regulation of hormonal menstrual cycles is beneficial to a woman's health. For example, Dennis (1992), in his paper on cultural change and the reproductive cycle, has shown that frequent menstrual cycles are associated with a number of gynecological problems. According to him suppression of the menstrual cycle with cyclical hormones such as oral contraceptives is the simplest way to lower the incidence of a number of medical problems including benign breast disease, ovarian cysts, dysfunctional bleeding and salpingitis (inflammation of uterine tubes). Similar observations have also been made elsewhere (Moghissi,1958). It is stated that dysmenorrhoea can also be prevented with cyclical hormone administration. Thus, the practice of consuming oral pills to regulate menstruation could aid in lowering the incidence of gynecological morbidities.

Menstrual problems, thus constitute one of the most severe reproductive health problems among women in India. An association between the use of surgical contraception and menstrual problems too has been established. Coupled with these medical issues are traditional norms and practices and ignorance about menstruation that dictate a menstruating woman's life and restrict her mobility and treatment seeking behavior. The problems may be worse in rural areas (where nearly 70 percent of the Indian population resides) where there are inadequate health care facilities and a much more rigid adherence of traditional norms and practices.

It thus becomes imperative to understand rural women's views on (a) menstruation from its onset to menopause, (b) the influence of menstruation on their daily lives, (c) beliefs and attitudes toward menstruation, reproduction and use of family planning methods and (d) menstrual problems and treatment seeking behavior. The present paper is an attempt in this direction.

The issues discussed in the present paper are part of a larger study conducted by Operations Research Group (ORG) entitled 'Understanding Sexual Health Problems and Behavior of Women in Rural Areas of Gujarat'. The study, sponsored by the Ford Foundation, was initiated in the year 1996.

The Study Site

The study was conducted in two talukas[1] (Padra and Baroda) in Baroda district of Gujarat. In all 8 villages were selected. In some of the villages (3 out of 8) the researchers had conducted studies on women's work load and child health and development in the past and the community members were familiar with the research team and aware of the purpose of their visit. The other five were neighboring villages (See Figure 1). These villages were however not representative of all talukas in the district.

Profile of Villages:

These villages are located at distances of about 20-25 km from Baroda city. The villages are small and the number of households in these villages range from less than 100 to about 300. The socio-economic profiles of these villages are similar. The majority of the population belongs to the Hindu community (87%). Among these, nearly two-fifths (37%) are upper caste Hindus. The proportion of Muslims is significantly higher in the villages of Baroda taluka (20%) than in the villages in Padra taluka (4%). In both talukas, people have strong religious beliefs and practices which occasionally leads to communal violence.

Agriculture, mainly on unirrigated land, is the main occupation of people. A little more than 50 per cent of the households are landless. Most of the men and women earn their livelihood by working as agricultural or casual labourers. Socio-economic disparity among various caste groups is wide. There is a high rate of emigration from these rural areas to countries abroad (like the US and UK) among those who are economically better off. Hence, to a certain extent, there is increasing exposure to western mass media and life styles.

All the villages have electricity, public transportation and other basic amenities. Most of the houses are kutcha (mud and thatch) or of mixed type made of brick walls and tin on tiled roofs. Government health providers viz., auxiliary nurse midwives (ANMs) visit 6 out of the 8 villages. Their roles are limited to providing family planning services and immunization. Services of health care providers (MBBS/ RMP) are available within each village or at close proximity. The distance of the nearest primary health center (PHC) is about 8 to 10 km away. For certain illnesses such as measles, jaundice and infertility, faith healers are often preferred to providers practising any other system of medicine.

[1] taluka : a smaller division of the district

Research Methodology

To begin with, house listing was done using a detailed checklist to identify married women in the age group 15-49 years suffering from RHPs. Of the 1067 married women contacted in the villages, 262 (25%) reported a current RHP. Although the major RHPs reported were white discharge (53%) and urino-genital problems (48%), as many as 24 percent reported menstrual problems. These problems were described by women as irregular bleeding, profuse bleeding, scanty bleeding, unnatural (black) bleeding, painful bleeding and prolonged bleeding (>7 days). The other RHPs reported were infertility (4%) and uterine prolapse (2%).

Community mapping was subsequently done to select women from different socio-economic clusters (called *faliyas*) to ensure adequate representation. Among these, women who were willing to participate in the study and could be contacted during repeat visits were selected. In all, 68 of the 262 women reporting RHPs were selected in the study.

Data were gathered primarily through repeated indepth interviews, (4-6 times) for a period of 6 months from March to August 1996. Interviews were conducted in local Gujarati language by 5 women researchers, with the help of 5 women field assistants. Informal group discussions were also conducted with women who did not report RHPs during the study period. Their views and opinions on social norms and practices prevailing in the community related to menstrual and other related reproductive health problems as well as treatment seeking behavior were obtained. Group discussions also served as a platform to "validate" trends and patterns emerging from the repeated indepth interviews.

In the small villages, one group discussion was held per village and in the larger villages, two group discussions were held per village, one within the high income group and one within the low income group. Each group comprised of 6-7 married women somewhat with roughly similar socio-economic characteristics. Nine group discussions were conducted in all.

During the course of the field work, local health care providers including traditional birth attendants (TBAs, locally known as *Daisy*), private practitioners as well as doctors (MBBS) working with the mobile health services provided by a non governmental organization (NGO) in the area, were also interviewed.

Key informant interviews were conducted with some of the influential and educated members of the community. These interviews were conducted both with men and women. Information about general social and cultural practices in the community, and local terminology used for menstrual problems and other RHPs was collected. Using the terminology as well as the symptoms described by women during the

indepth interviews, the key informants were asked to rank various RHPs with respect to perceived degree of severity, causes of these problems, preference for treatment, mode of transmission and other related issues. The exercise also helped to dispel ambiguity regarding various concepts and terms encountered during the process of data collection. For instance, terms such as 'sitting aside' (chheti besi) 'dirty hair' (mathu mali), 'date' (tareek) all indicate the duration when a women is menstruating.

As mentioned above, the interviews were conducted by researchers and the field notes were written in Gujarati. These notes were later expanded and translated in English. While most of the data were analyzed using the software package 'dtsearch', some of the information was also tabulated manually to facilitate analysis.

Results

Profile of Selected Women

Most of the women selected for study are young: around 35 years of age. The majority (80%) are Hindus, and live in nuclear families (65%). Hardly any women are educated up to the primary level and more than two fifths have no formal education. The majority (66%) participate in income generating activities primarily as agricultural or casual labourers. (see Table 1)

Half of the women reported that they started menstruating by 14 years of age and a significant proportion (41%) stated that they attained puberty after their marriages. Age at first conception was reported to be 18 years or earlier by the majority of women (71%).

While most (62%) of the women have adopted a permanent method of family planning as many as 18 percent of all women desired hysterectomy to relieve them from their current RHPs. Menstrual problems constituted about 31 percent of the total RHPs reported.

Throughout the course of data collection, it was observed that women did not hesitate to discuss menstruation and related problems. This could be attributed, to a certain extent, to the fact that interviews were being conducted by women researchers. However it was also observed that the presence of in-laws, male relatives and/or a husband did not deter them from sharing their experiences and problems openly. At times, even other community members contributed actively to the data gathering by narrating anecdotes and customs associated with menstruation. Hence it was felt that open discussion of menstruation was not taboo in the community.

Attitudes Towards Menstruation

Attempts were made to assess the attitudes of women toward menstruation. Past studies have revealed that personal experiences are likely to influence menstrual attitudes and there is a clear relationship between menstrual attitudes and physical distress. If women experience pain during menstruation or have had painful experiences related to menstruation they tend to have a negative attitude toward menstruation. However, despite the fact that all of the 68 selected women reported some reproductive health problems, the majority (three-fourths) did not have a negative attitude towards menstruation. Though they were angry, irritated and embarrassed on the days they menstruated, they perceived that the advantages of menstruation far outweighed the negative aspects. They believed that it was a natural gift (*kudrati bhet*).

> *It is good to menstruate. It is essential for a woman. Without it we cannot have children..... But, sometimes I get angry and irritated that I cannot do anything. Even for a small thing I have to ask somebody, so I feel shy and then get angry..... Many times, if I have to attend marriages and am menstruating, I curse myself, I feel bad that I cannot go.*

> *It is so embarrassing when we have our periods. Everybody comes to know about it.... Anyway, it is not in our hands, we cannot become a man now. Throughout our life we will remain women. In fact we should consider it a gift from God. It is important to menstruate, we cannot have children otherwise..... If a girl does not menstruate then her parents will start worrying because getting her married will be a problem.*

Women in the study areas believed that vitality and good eyesight were related with a menstrual cycle. Scanty menstruation and/or menopause, according to them, results in poor eyesight. Overall, the benefits of menstruation were perceived as maintenance of good eyesight, purification of blood and growth of the body. Some also believed that it was necessary to deplete the body of excessive heat *(garmi)* and disease:

> *It is good, all the disease in the body comes out. If one does not menstruate, the uterus will become diseased and the body will swell.*

> *I feel that it is necessary to menstruate. If we do not menstruate now then we might lose our eye sight in old age.*

However, the most vital function of menstruation was perceived as reproduction. More than one-third of the women stated that it is a manifestation of womanhood and its onset signalled that the girl was

ready for marriage and procreation. The belief that menstruation is a mark of womanhood is reflected in the following sentences:

> *It is a gift given by God to women. It is very necessary. It is our body's greatness that we can become mothers. And, even if we get irritated, what is the use? It is going to come every month. It is a custom among us, that as soon as a girl becomes mature (attains menarche), she is considered a burden on this earth. We should get her married as early as possible.*

Around one-fourth of the women expressed a completely negative attitude towards menstruation. All of them had achieved their desired family size. Most of these women experienced menstrual problems such as excessive and/ or painful periods. The physical problems caused anger and irritation. Another opinion regarding menstruation was that it was dirty and a curse to women.

> *I get severe back aches. I do not feel like working. It is really a curse to get periods for 15 days a month. All those days, I cannot cook, fill the water or do puja. I am thinking of having my uterus removed*

The duration and regularity of the menstrual period was considered to be related to good health and body heat *(garmi)*. Almost half of the respondents reported that they bled for 4-5 days, a period which was considered "normal". Scanty periods (i.e. menses for less than 3 days) were believed to result in *garmi* and thereby a lower chance of conception. Menstruation for just one day was believed to be "abnormal".

> *People around me - my parents-in-law and my sister-in-law scare me. They say that I will not conceive because of scanty periods. I have been married for 3 years and have no children. My husband thinks that there is something wrong with me because I menstruate for only one day.*

One woman who menstruated in the form of spotting spoke of the anxiety she and her family experienced when the doctor told her that she would never conceive as she did not have a regular flow. However, she later gave birth to three boys.

> *The doctors are mad. They say anything they want. That doctor told me that I would never became a mother.... My husband told me not to worry and to have faith in God. See, I have 3 sons now.*

Onset Of Menstruation

Age at Menarche Most women could not accurately remember the age at which they started menstruating for the first time. Almost half of them recollected that they attained menarche around by the age of 14 years.

Parents were concerned when their daughters did not begin menstruating by the so called `appropriate' age of 14-15 years.

In rural areas, though girls are married at an early age (12-16 years) they are expected to stay at their natal home until they attain puberty. By and large, marriage is consummated only after the girl starts menstruating. Traditionally, a ceremony called "*gauna*" is held at the natal home and then the girl is sent to her husband's house.

A delayed onset of menstruation could delay *gauna* and the girl's ability to bear children could be questioned. This, in turn, could jeopardize her marriage.

Nevertheless, in the study areas, early marriage prior to onset of menstruation is perceived to be auspicious and is expected to bring blessings to the parents. A woman who experienced her first menstrual periods just one month before her marriage regretfully stated:

> *My parents missed their blessing by one month. Just one month before the wedding I started menstruating. It is a belief that if parents get their daughters married before they have started menstruating, then the parents are blessed* (punn maley).

***Awareness of Menarche*:** Though most of the women were unaware of the concept of reproduction prior to the onset of menarche, all of them gradually learnt of the association between menses and reproduction.

More than half of the women reported that they had absolutely no previous knowledge of the phenomenon until they attained menarche. A few women (7) who had some idea stated that their knowledge was limited to the awareness that "women bled from the vagina on certain days of the month". Apparently, they knew nothing beyond this. Even women who had attained menarche at 16 years or later stated that they were not fully aware of the implications of menstruation.

Those who admitted to having some knowledge stated that they had observed older relatives following the social norms and restrictions associated with the phenomenon. About one fourth of those who knew menstruation was related to a woman's ability to bear children and was an event that happens every month, learnt about it either through friends or relatives, or from their sisters-in-law belonging to the same age group.

Due to inadequate prior knowledge among most of the respondents, the first reaction at the onset of menarche was usually negative and they reported being either scared, puzzled or shocked. The experiences of two women reflect the effects of their first menstrual periods.

I did not know anything. Things were different in our days. When I got it for the first time, I was sleeping. It was at night. When I got up in the morning- I saw blood all over my skirt. I got very scared, ran to my mother and told her, `Mother, somebody came and hit me at night - so much blood is flowing'.

My friends knew that women menstruate and they had told me about it - so I knew a little. When I got my MC for the first time, I was restless. I thought `What has happened?" I made a vow to our Goddess and begged her to stop this. I promised to offer coconuts if she heard my prayer. I felt shy to tell anyone, but finally told my friends that I had got `it'.

Finding it difficult to cope with such situations alone, nearly one fifth reported that in these circumstances, they usually told their sisters, friends or sisters-in-law, preferably of the same age group. Around one-third reported that they approached their mothers. At times, when the first menstrual period occurred after marriage at the in-laws house, the women approached the sister- or mother-in-law. One woman recollected:

Earlier, I was not aware of menstruation. When I got married and came to my in-laws' home, my mother-in law explained everything to me and said that I would not be allowed to sleep with my husband till I start menstruating. This is how I learnt about the menstrual cycle (MC).

None of the women stated that they had been informed about menstruation, prior to its onset, by their mothers. The general belief among women themselves was that girls should not be informed about menses before its onset and some even considered it a sin to do so. When probed whether they would inform their daughters in advance, they said that it was unnecessary and improper to do so. Besides, women also felt that girls now-a days were more aware of these aspects as a result of schooling where they get more opportunities to discuss things with their peer group than the respondents did when they in school.

Norms and Practices Observed at the Onset of Menstruation The advent of menarche brought along with it the restrictions and practices associated with menstruation. The women reported that they were taught how to make a pad from an old sari or skirt and were shown the manner in which it was to be placed in the underwear. In certain cases, women were instructed to wear a *kachto* (a long skirt locally called *chaniya* pulled tightly under the groin and tucked at the back) under another skirt instead of a cloth pad.

Almost all the women were told that they were not supposed to pray during the days they were menstruating nor stand near the area where the pictures of the Gods were placed. They were also instructed not to attend social occasions (such as weddings) as certain religious rites were performed during such ceremonies.

While the above norms were common among all women in the community irrespective of religion and caste, women belonging to the Hindu community were particularly instructed to maintain physical isolation for the first 3-4 days of the menstrual periods. The idea behind the prescribed isolation was to prevent the spread of impurity associated with menstruation.

All women reported that they were advised to observe some degree of isolation while menstruating. Based on the degree of isolation advised, the respondents can be divided into two categories: (1) partial isolation and (2) complete isolation. The taboos associated with partial isolation included: (a) not filling drinking water nor touching the earthen pots containing drinking water; (b) not milking the buffalo or cow; (c) not touching anyone, and (d) not cooking or helping in food preparation. More than half were instructed to maintain partial isolation at menarche. Reminisced one of the women:

> *My mother told me, `You have grown up now and become an adult.' She gave me an old petticoat to wear as a `kachto' under the skirt I was wearing She told me to sit aside for 4 days, not touch anybody, not go near the cooking stove nor fill water. She said that I would be able to touch everything only after I washed my hair on the fourth day.*

Around one-fifth of the women reported that they were told to maintain complete isolation. In addition to the above taboos, these women were also restricted from (a) filling water used for washing clothes or vessels, (b) performing chores both inside and outside the house, (c) going on outings, and (d) they were expected to sit and sleep outside the house during this period.

Other changes associated with puberty included switching over to wearing saris instead of skirts to distinguish them as young adults and, in some instances, discontinuation of schooling. Some were also expected to maintain a certain degree of decorum and told not to laugh loudly or talk with members of the opposite sex. In this context, one woman recollected:

> *My parents were very strict. They stopped me from going to school. My mother said that it was time for me to get married.*

The first menstrual period was joyously welcomed by mothers and mothers-in-law as it signalled a girl's fertility and hence, her ability to bear children. More than three-fourths stated that a special sweet

(normally *sheera*[2]) was prepared for them at menarche. A few women recalled that their mothers distributed sweets to neighbours and friends to celebrate the event.

Implications Of Menstruation On A Woman's Daily Routine

Social Norms and Practices Currently Observed during Menstruation *(The taboo* behaviour started at menarche continued to be followed throughout life but with a considerably lower level of rigidity.) There was a substantial decline in the number of women practicing complete isolation. Just three women reported observing complete isolation from all routine activities, while the rest maintained either partial isolation (61%) or restricted themselves only from religious activities (33%). The reported degrees of restriction, analyzed by using a Guttman's scale, is shown in Table 2.

Often the type of restrictions observed by these women were influenced by their religion and by the amount of social support they received during the days they menstruated. Muslim women were relatively less rigid with respect to these practices than Hindus.

All 13 of the Muslim women continued performing their routine chores. However, all of them strictly refrained from participating in any religious activities. Apart from being restricted from saying the *Namaz* they were also not allowed to touch the Koran, fast during Ramzan or cook the special foods during festivals.

There was a significant change in the pattern of daily activities among the Hindus. In addition to refraining from participating in any religious ceremony, women maintained a physical distance from every one except for their infant children. If they accidentally touched anyone, water was sprinkled on the 'defiled' person, a procedure that is believed to purify him/her. While most were not allowed to touch the earthen pots containing drinking water, others were also expected to stay away from the copper vessels containing water stored for washing clothes and utensils. Those who did performed chores such as washing clothes, refrained from touching them once dry.

All the routine activities were resumed only after the traditional head bath was taken either on the third or fifth day following the onset of each menstrual period. This was one of the ritual purification processes adopted to wash away the impurity associated with menstruation. Often menstruation is also

[2] A sweet made of semolina, milk and clarified butter (ghee)

referred to as " her head is dirty (*mathu mailu chey*). Symbolically, menstruation is also referred to as " bathing (*nahvun*) "as well as "bathing and washing (*nahti-dhoti*)".

Due to the various taboos associated with the phenomenon, menstruating women often had to depend on others for routine chores. Meals were generally cooked by relatives in joint families or neighbours, friends and even by husbands in the case of women living in nuclear households. At times, the woman herself was served food by others and, in certain cases, in separate utensils specially kept aside. As a consequence of this dependency, meals were often not served according to the routine schedule. In some households, meals were not cooked at all, resulting in the family sustaining on an inadequate diet of dry snacks. Often this situation led to verbal altercations between husband and wife.

Certain women who earlier had lived in joint families became more flexible in their attitude once they moved to nuclear set-ups. One of the women recalled:

> *Earlier my mother-in-law took care of all the chores on the days I menstruated. After her death, there is no one to do all the work in the house. My husband does not know how to cook. So, I have stopped following all these customs. During the days I menstruate, I get up early in the morning at around 5 o' clock and bathe. Only then do I start the work. On other days I am not particular about the time I bathe. But, I do not perform `puja. We shift the photograph of our Goddess and place it behind a curtain so that even my shadow does not fall on it.*

Those who observed isolation during menstruation followed the customs strictly as they feared that non-conformance to the norms would be tantamount to sinning. Of all the Hindu communities, the various *Foolmalis* (traditionally cultivators of flowers) were most rigid in their attitudes. Two of our women in the sample belonged to this community.

One *Foolmali* woman, reportedly, was extremely drained by the physical violence inflicted on her by her alcoholic husband. This woman menstruated for 10-12 days a month and depended on her husband to perform most of the household chores as her children were small. The following sentences reflect her difficult situation.

> *My husband gets very angry when he has to cook food for 10-12 days. He shouts at me and says, `How long will I cook for you ? You will have this problem all your life. Get your uterus removed, or go away to your mother's home'.....At times he does not cook for 2-3 days, so we have to starve sometimes. Sometimes he gets angry and beats me up. He does not even talk to me when I have my periods - all the 11 days..... Once he broke my wrist, I had to have an X-Ray taken (`photo')..... he hits me with anything he can get hold of; not just a stick..... He hits me on the back, pulls my hair and kicks me. At times, he hits me continuously for an hour.*

At times, the burden of customary norms is so heavy that it results in economic losses to the household as well as physical abuse by the husband. The effect is more intense in the case of persons belonging to the lower socio-economic strata where it is imperative for the woman to work and contribute her share to the household coffers. One woman lamented:

> *I cannot work in the fields [when menstruating]. It is my only way of earning. If we do not work in the fields, our income will get affected. God will punish us by not giving us our meals.*

Despite the restrictions observed during menstruation, by and large women reported that there is no respite from work. Although there is a reduction in activities performed `inside' the house, this is compensated for by household chores outside the home such as grazing cattle, collecting fire wood etc. When the researchers asked the respondents about the rest they should be enjoying during the days they menstruated, one of them replied sarcastically,

> *No one will let me rest on those days. Since I cannot do any work in the house, my in-laws tell me, `Go to the fields, collect fodder and dung. We will take care of all the work inside the house. You go and do all the work outside the house.' What rest are you talking about?*

Hygiene and Sanitary Practices The precautionary measures adopted at menarche were usually continued throughout the later period. The majority of women (87%) used cloth pads made from old, clean saris or petticoats. However, a few (6) women preferred to wear a petticoat in the form of a *kachto* in order to absorb the menstrual discharge. Two women who had scanty periods did not use any precautionary measures. While one used only underwear, the other allowed the menstrual flow to collect in her *salwar* (a type of pyjama traditionally worn by Muslim and Punjabi women) as she was not in the habit of wearing underwear.

The practice of washing and drying the soiled cloth also reflects the various beliefs associated with menstruation. Most of the women used soap and water, however, some kept a separate soap exclusively used for cleaning the cloth in order to prevent the spread of `impurity'. The process was carried out usually in the backyard and some women who had bathrooms even preferred to wash the cloth away from the house. Care was also taken to throw the water used for washing the cloth far away from the house. One woman stated:

> *I wash the cloth piece (after each use) with soap and water and dry it far away so that no one sees it. I take water in a* tagara *(a semi circular metal container) for*

washing the cloth and throw the dirty water far away. We cannot throw the water any where because if a snake smells it, it will become blind and we will be cursed.

Some women (8) went as far as the village pond in order to prevent the soiled 'impure' water from coming in contact with other members of the family. In addition, the cloth was washed only after all the other clothes were washed.

Precautions were also taken while drying the cloth. Some covered it with another cloth, while others dried it far away from the house. A few even maintained a separate clothesline for this purpose.

The cloth was generally reused for 2-3 months. Several beliefs were also associated with its disposal. The habit of burying or burning the cloth was common. Some stated that if the shadow of a man or animal fell on it, it was a bad omen. Similarly, if a pregnant woman stepped on a soiled cloth it would have an adverse effect on her.

Women took adequate measures to maintain personal hygiene. Though all usually cleaned their genital parts while bathing, some (24) also washed these parts two or more times a day during menstruation after urinating, or when changing the cloth. Women belonging to the Muslim community were very particular about washing their genital area throughout the month and not just on the days they were menstruating. This habit, known as *hath pani*, is part of their religious practice.

Sexual Behaviour Apart from routine chores, menstruation also had a profound effect on the sexual behaviour of these women. Almost all (94%) maintained sexual abstinence during the days they menstruated. Staunch beliefs pertaining to 'impurity' deter women from having a sex with their husbands. As many as three-fourths of them said that their husbands would become 'impure' and thus 'unfit' to perform religious activities if they had intercourse during menstruation. They even took extreme precautions to sleep on a separate quilt-like mattress. These mattresses were kept away from the other bedding used by the family and washed after each menstrual period.

Some women (10) reported that they felt it was 'dirty' to have sex during menstruation, while three women either said they feared conception or believed that pregnancy resulting from sex during menstruation could lead to the birth of an abnormal child. Some even stated that the bleeding would become extremely profuse if they had intercourse during this period.

A fear of negative consequences for the husband was yet another belief that prevented women from having sex with their husbands during menses. Some were apprehensive about their husbands becoming

blind or impotent, while others believed that it would result in sexually transmitted infections if they had sex with their husbands during menstruation. One woman stated:

> *The first time I had sex after my second marriage, I was menstruating. I feel that he (husband) got eruptions (folli) on his penis because of this reason. I feel that his body got the heat (garmi) from my body.*

Concept of "Safe Period" Though most were aware that there were certain days in a month considered safer than the rest, during which chances of conception were lower, the majority had misconceptions about when that safe period occurs.

> *If one wants children, then one has to have intercourse during those 4 days of the menstruation and for 3 days after the menses. All my 3 children were conceived during those days.*

Similarly, 4 respondents reported that they maintained abstinence on the days they menstruated in the belief that they would conceive if they had intercourse on those days.

Practices Adopted to Postpone Menstruation. Sometimes menstruating women did not disclose when they were menstruating to other, in order to be able to participate in social occasions.

Gujarat, a state of varied cultures, celebrates a number of festivals with pomp and gaiety. Marriages and social functions (for example, the thread ceremony), are held throughout the year. Women look forward to such functions and festivals for entertainment and social interaction, as well as respite from routine chores. In view of this, sometimes they resort to ways and means of postponing their menstrual cycles.

Around one-third of the women interviewed, admitted to using oral contraceptive pills to delay their periods but not as a family planning measure. Almost all were aware that this method could be used to postpone menstruation. Although some were aware of the names of these pills (Mala-D), others commonly referred to them as "pills to postpone menses" (*masik lambavani goli*). A woman stated:

> *I was just married and was expecting my MC 2-3 days after the marriage. My sister-in-law got 10 tablets for me from the store, I took one daily and my MC got delayed.*

Some women procured these pills directly from the chemist's store whereas others requested their husbands, close friends or relatives to buy them. Women were aware that the ANMs visiting their villages

also carried these pills. Health functionaries who were interviewed during the study also supported the fact that women demanded such pills, not as a measure for birth control, but to postpone menstruation.

Two women consulted their doctors with regard to such decisions. One of them who had consumed oral pills on an earlier occasion, once again sought help from the doctor prior to her son's *babri* (a ceremony amongst Hindus wherein a boy's head is shaved for the first time) to postpone menstruation:

> *The second time, I took an injection from the doctor during the 'babri' of my son. This injection cools (thandak) the body and postpones MC.*

Thus, consumption of oral pills or injections to postpone menses seems to be a matter of convenience and a common and accepted practice in the study area. However, the repercussions of such behaviour may have long-term effects for some women. Improper utilization or inappropriate consumption of pills without medical advice may result in delayed and profuse menstrual bleeding and consequently lead to uterine problems. Such practices may also lead to irregular cycles and the anxiety of suspected pregnancy. This fear of pregnancy may cause women to seek medical advice or visit local healers to induce an abortion.

There were several other measures, women adopted to alter their menstrual cycle. Menstruation, as stated before, is believed to be necessary for depletion of body heat and consumption of "hot food" is perceived to aggravate the condition. These "hot foods"[3] are believed to increase body temperature resulting in an enhanced blood circulation and thus profuse menstrual flow. Hence, foods termed "hot" or "*garam*" were avoided prior to important events. Almost half of the women (44%) avoided consumption of these hot foods while menstruating. One woman stated:

> *I avoid fish and brinjal. These increase the heat (garmi) in the body and thus, heat generation from the private parts..... this leads to excessive menstrual flow.*

Hot foods: Brinjal, jaggery, spices, bajri (millet), non-vegetarian foods, onion, chilly, alcohol papaya seed, dry ginger powder (sonth), Zatpat (flavoured betelnuts) etc.

Another woman added:

> *I avoid eating hot and spicy foods. If I consume jaggery, bajri or sukhdi*[4] *even one day after the periods, I get spotting the next day because of the heat. I have also reduced eating mutton.*

Another belief was that consumption of flat beans *(Valor papdi)* could lead to tetanus if consumed during menses and hence it was avoided.

Besides the above, one fourth of the women also avoided sour *(Khatu)* foods on the days they menstruated as these also were believed to increase menstrual flow and backache.

Four women stated that making a vow to the *tulsi* (ocimum sanctum), a plant worshipped by the Hindus, or to the Mahisagar, a river that flows near the study areas, aided in delaying the next menstrual period. One of the women recollected:

> *Once I prayed to the tulsi plant to delay my MC. I made a vow (badha) to get MC postponed..... We have to offer rice, betel nuts, money and water to the plant and pray and afterwards we have to bring these (offerings) back and keep them in a box at home.*

Various measures were also adopted to induce menses when it was overdue. Women were aware that missing a period when one had not adopted any contraceptive method could indicate pregnancy. Several incidents were narrated during discussions with community members wherein women (both married and unmarried) attempted to induce an abortion when they suspected an unwanted pregnancy.

Those who were unmarried often sought an abortion in a covert manner and usually adopted traditional or home remedies during the initial period (2-3 months) of pregnancy. Some measures tried were consuming a large quantity of 'hot' foods such as papaya or a boiled concoction of ground black pepper and water. Some also of consumed a large dose of an anti-malarial drug (locally called a "chlorine tablet"), which has a high quinine content. One of the TBAs stated that half a liter of alcohol, if consumed at one time, would definitely induce menstrual flow.

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[4] A brittle sweet made of dry ginger powder, jaggery and clarified butter (ghee)

Sour foods: Curd, buttermilk, lemon, tamarind, etc.

Some women even mentioned that tablets were available at the chemist's store to induce menses. Taking vows was another measure adopted for this purpose. For unmarried women, medical consultation was sought only if all the above attempts failed. However, married women were more likely to seek medical attention immediately as, according to them," they had nothing to hide". Ten out of the 68 women had attempted to induce an abortion and in fact, one woman had tried it five times. While all five of the women who sought medical termination of pregnancy (MTP) services from doctors (private and government) were successful in their attempts, most of those who adopted other measures were unable to abort the pregnancy.

One unsuccessful woman recalled:

> *I had tried to induce an abortion ('mahina padavva') after the birth of my first daughter. We did not want another child so soon. I was one and a half months pregnant. So my husband went to our family doctor and got 3 tablets. I took one tablet each day for 3 days, but nothing happened, my periods did not come.*

One woman, whose husband stopped caring for her once he discovered that she had had a pre-marital sexual relationship, recollected her unsuccessful attempt aborting her first pregnancy after marriage.

> *I did not want this child. What is the use of having a child when your husband is not interested in you? I knew that he would not care for the child. So, when one of our cows fell sick, I consumed 4 long capsules meant for her, thinking that heat (garmi) generated by the capsules would lead to an abortion. I was 4 months pregnant at that time.*

This woman, who later separated from her husband and resumed her relationship with her pre-marital lover spoke about the anxiety she underwent when she did not menstruate for one and a half months.

> *Initially, I boiled jaggery, ground pepper and water and drank this 2-3 times, but it was no use.....Then, I told my friend to get tablets (golli) so that I could get my periods. The man at the store gave her 2 tablets. Just 2 tablets cost me Rs.12. I ate both and got my MC the next day.*

Menstrual Disorders and Treatment Seeking Behaviour

Types of Menstrual Problems: Disorders pertaining to menstruation compose a significant segment of all the RHPs reported by women in rural areas. Among the 68 women covered under the present study, 21 (31%) stated that they suffered from menstrual problems, the reported symptoms being excessive bleeding, scanty flow, irregular cycle (reported by 6 women each) and extreme pain during periods (5 women). Other problems mentioned were prolonged menstrual flow, and black coloured discharge (see Table 1).

Just two women reported having only menstrual problems and the rest mentioned the incidence of other disorders such as urinary tract infections (UTI), white discharge, infertility and uterine prolapse along with their menstrual problems. Almost half (10 out of 21 women) suffered from UTI and white discharge along with menstrual disorders.

Some women were worried when they menstruated twice during the same calendar month, even though their cycles were of the 25-28 days interval. They felt that there was something wrong with them since their cycle occurred twice a month. Some women shared these apprehensions with an ANM or a local doctor and asked for medicine to treat this problem.

This practice was also reported by the health providers (ANMs, private practitioners) in the villages.

Duration and Severity of Problems: Nine out of the twenty one women reporting menstrual problems said they had been suffering for more than 5 years, whereas 8 women reported that the onset had been during the past one year. The problem was perceived to be "severe" in thirteen cases. The intensity of the problem was estimated on the basis of description given by the subject. These were subsequently ranked by the researchers as mild[5] and severe[6].

Besides menstrual problems, more than half of the 68 women interviewed complained of other minor physical discomforts such as body pain or ache, weakness, nausea or dizziness on the days they menstruated. The most common complaint (reported by 24 women) was body ache on all the days of menses.

Sometimes the menstrual problems were linked to supposed moral transgressions.

> *If an unmarried girl has had a sexual relationship with a male, she will have problems such as severe stomach ache on the days she menstruates. Otherwise, there will be no problem.*

[5] 'Mild': The women suffers from the problem, but does not report that it hampers her daily routine life (household and economic)

[6] 'Severe': The problem reportedly affects the woman to such an extent that she is only able to perform her normal activities with great difficulty

Perceived Causes of Menstrual Problems: Almost half (10 out of 21) the women reporting menstrual problems stated that their problems commenced soon after sterilization. A similar observation was made in the case of other RHPs as well. Several women also linked problems such as UTI and white discharge to surgical contraception.

> *Immediately after the operation I would get my periods every 10 days. It is only since the past few years that it comes at a monthly interval. Now, my periods stink a lot and come in clots. Also, initially I used to menstruate only for 4 days but after the operation, it has stretched to 7 days.*

Fear of menstrual irregularities or problems also influences women's use of contraceptives. Most of the women interviewed have used family planning methods at some time in the past. Permanent methods appear to be more popular (64%) once the desired family size has been achieved (see Table 1). Other women reported that they do not use any contraceptives as they feared that their flow would become more profuse and/or irregular. This fear appeared to be particularly acute for the use of Copper T.

Several other factors were believed to be responsible for problems related to menstruation: "excessive" intake of hot (garam) foods or medicines could cause garmi, and result in menstrual problems.

Treatment Seeking Behaviour: Several efforts are made by rural women to get relief not only from menstrual problems but also from associated aches and pains. While some reported taking home remedies for their problems, others seek prompt medical treatment particularly if their problems persist.

During the visit to the villages, women gave examples of traditional modes of treatment for excessive menstruation. One treatment is to consume a mixture of fennel seeds and lump sugar (khadi sakar) which has been soaked overnight. This is believed to cool the body (bring *thandak)* and thus reduce the menstrual flow. Other foods that were perceived as "cooling" are gum of acacia *(gundar),* milk and banana. In contrast, those with scanty flow are advised to drink a solution of ground black pepper and water as the heat *(garmi)* generated by this spice is believed to enhance the flow.

Some of the women (10 out of 21 reporting menstrual problems) did not seek any treatment. Most of these women reported recent onset of their ailments. The major reasons stated for hesitating to approach health providers were 1) fear of a gynecological examination; 2) problems of commuting; and 3) financial concerns. One woman expressed her hesitation in seeking treatment from a doctor because the provider misdiagnosed her case as an irregular menstrual cycle, although she was actually pregnant.

> *My menses had not come for one and a half months. I had consulted a private doctor at a nearby village. The doctor gave me 10 capsules, each costing Rs.3. After taking the capsule, the bleeding started. It was so excessive that I was*

immediately rushed to the SSG Hospital (the districts civil hospital) in the night. I was admitted for 10 days. The doctor told me, 'You are lucky to have come here in time. Had you come later, by an hour, it would have been difficult to save you! When I asked the doctor what the problem was, he told me 'You were pregnant, who advised you to take the capsule? It is the medicine which caused the bleeding (abortion).

However, women were more prompt and particular about seeking treatment for problems related to menstruation than they were for RHPs. This could be because they considered such problems to be more serious and a threat to their fertility.

The remaining 11 women sought treatment from private (6) or government (5) providers. Four women sought treatment only once but ignored the problem when it recurred. Others sought treatment initially as well as whenever the problem reoccurred. Thus, private practitioners (RMP/ MBBS) and government doctors were equally popular sources while seeking medical treatment for menstrual problems. However, only two of the women reported that they got relief from the menstrual problems from the prescribed medicines.

While three women made the decision to seek treatment on their own, five were encouraged by their husbands to approach health providers.

Hysterectomy

A recent trend is the practice of resorting to hysterectomy as a permanent solution to menstrual problems, as well as freedom from social norms and restrictions observed during menstruation. At times, the magnitude of social restrictions is so enormous that a hysterectomy is seen as salvation from all anxieties. Even women with apparently no physiological problems yearned for a hysterectomy rather than other sterilization operations once they had achieved their desired family size. During the household survey 22 (2%) of the 1067 married women contacted reported that they had opted for hysterectomies. Besides, several women enquired eagerly of the possibility of camps in their villages for this purpose.

In this regard, one of the doctors (MBBS) providing mobile health services for a local NGO said,

There is a great demand for hysterectomies in rural areas. Only a few women had a hysterectomy because it is a costly operation and the service is not as easily available as sterilizations which are conducted during (sterilization) camps at the village level.

Among the 68 women who were selected for the study, 12 wanted to get their uterus removed. Some of these women viewed hysterectomy as a long term solution and believed that opting for surgery was more practical than consulting doctors at regular intervals.

> *On the first day of my menses, the pain is so severe that I roll on the floor, clutching my stomach ..... I feel that there is something wrong with my uterus, so I want to get it removed.*

Other women reported that they were tired of the restrictive behaviours and the resultant dependency on others' help for household chores and hence wanted a hysterectomy. One of the woman commented.

> *As we are born as women, we menstruate. I find it very irritating. We have to follow so many restrictions during that period as we belong to the Foolmali community. My children are very small, so I have to depend on others to cook the meals. I wanted to get my uterus removed, my husband had also agreed. But my mother-in-law did not allow me to. I wish my periods would go away. Do you have any tablets so that my periods can stop?*

Usually, government hospitals advocate hysterectomy only for cases with severe physiological problems. It has been observed that often wealthier rural women with no physiological problems get their uteruses removed at private clinics at a fairly high cost of Rs.7000-8000. This amount was unaffordable for the poor, who reportedly save for months together to have a hysterectomy done.

Only one out of 68 women had undergone a hysterectomy operation. She opted for the surgery due to post sterilization complications. She said:

> *After the operation (sterilization), I had problems related to my MC. Sometimes it would reoccur within a span of 10-12 days. The cycle was not regular. I suffered like this for one and a half months and finally got my uterus removed.....By then I had spent around Rs.4000-5000 on treatment.*

Conclusion And Recommendation

Views and Beliefs about Menstruation

Menstruation is viewed as a natural phenomenon by rural women. It is believed that menstruation is necessary to dissipate heat (garmi) and disease from the body. Women are aware that menstruation signals that the body is prepared for reproduction and that it is important for procreation. However, they do not understand the timing of ovulation during the menstrual cycle. In other words, they are unaware of the periods that are safe and unsafe for conception.

Menstrual flow for a period of 4 to 5 days, at a one month is perceived to be normal. Any variation in this pattern causes considerable anxiety, worry and apprehension among women. Menstrual flow for 1-3 days is considered scanty and 'abnormal' by women and is seen as a threat to their fertility. By and large women do not have a negative attitude toward menstruation despite the fact that all reported having some RHPs.

Women's Experience At Onset Of Menstruation

Age at onset of menstruation is reported to be around 14 years. The first experience is stated to be 'shocking' and 'frightening'. Prior knowledge about menstruation is rarely given to young girls and mothers do not believe in discussing this matter with their daughters. A peer group is the main source of information on menstruation for most of girls, and it is from peers that they also gradually learn about the connection between menstruation and reproduction.

The onset of menstruation is nevertheless celebrated among household members by preparing sweets.

Effect of Menstruation on Women's Daily Lives

Menstruating women have to maintain a certain degree of isolation because they are considered 'impure' and 'polluted' Sexual abstinence is observed during the days a woman is menstruating because of the fear of transmitting impurity and disease to the partner. Sex during menstruation is perceived as 'dirty'. While religious restrictions are followed by almost all women, other social restrictions and norms are observed to varying degrees. The restrictions are more rigidly practised among Hindus than among Muslims. These restrictions limit women's abilities to perform domestic chores and have a significant impact on their lives. Hence, they often resort to the irregular and inappropriate use of oral contraceptive pills to postpone their menstrual cycles.

Women express a desire to have hysterectomies to relieve them from the social and cultural restrictions once the desired family size is reached. There is also an increasing trend among women who prefer a hysterectomy (big operation) to a tubectomy (small operation) for the double advantage of contraception and ending menstruation.

Menstrual Problems and Treatment Seeking Behaviour

Menstrual problems are perceived as 'serious' and women seek prompt medical treatment from private or government providers. These problems are largely attributed to '*garmi*' caused by (a) hot or sour foods; (b) sterilization and (c) allopathic tablets. Since menstruation is believed to be necessary for dissipation of '*garmi*", women who have scanty periods think that the heat gets accumulated in the body. The accumulated heat (*garmi*) manifests as eruptions on the body or prevents conception or results in profuse bleeding. Hence for most of the menstrual problems, women seek treatment (at home or outside) that would cool the body (*thandak ni dewa*).

An explanatory model showing relationship between causes of '*garmi*' and menstrual problems is shown in Fig. 2.

Recommendation

It is recommended that programmes that aim to address the reproductive health need of women should focus on:

- developing a comprehensive information, communication and education (IEC) programme targeted towards adolescent girls to educate them on issues related to menstruation and reproduction.
- preparing a simple procedure to calculate the timing of ovulation to prevent unwanted pregnancies and the practice of induced abortion.
- counselling by health care providers on irregular and inappropriate uses of oral contraceptive pills and unnecessary hysterectomies.

Further research needs to be undertaken to understand the treatment seeking behaviour of women suffering from reproductive health problems and the process of deciding to seek treatment. There is also a need to quantify the extent of misutilization of oral pills for postponing menstruation as well as number of women who have undergone medically unnecessary hysterectomies.

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Table 1: Profile of Selected Women in Rural Areas

Characteristic	Sample (N = 68)	
	N	%
Age (years)		
£ 35	51	75
> 35	17	25
Marital Status		
Married	67	99
Separated	1	
Children (no.)		
£ 3	48	71
> 3	13	19
none	7	10
Type of Family		
Nuclear	44	65
Joint	24	35
Religion		
Hindu	55	80
Muslim	13	19
Occupation		
Agri/casual labourer	28	41
Housewife	24	35
Cultivator	9	13
Others (petty business, etc)	7	11
Education		
Illiterate	30	44
Primary	27	40
Middle & above	11	16
Age at Menarche (years)		
Before marriage	40	59
After marriage	28	41
Age at 1st conception (years)		
£ 18	48	71
> 18	13	19
NA (Not conceived)	7	10
Attained menopause		
No	67	99
Yes	1	7
Use of Family Planning Method (Current)		
Permanent method	42	62
Temporary	6	38
Women reporting menstrual problems as their major RHP	21	31

Characteristic	Sample (N = 68)	
	N	%
Types of menstrual problems reported*		
- irregular bleeding	6	-
- profuse bleeding	6	
- scanty bleeding	6	
- unnatural bleeding (black, stinks etc.)	5	
- painful bleeding	5	
- prolonged bleeding (>7 days)	2	
Hysterectomy		
Do not desire	55	81
Desire	12	18
Undergone	1	1

* Multiple responses
(Other RHPs reported were white discharge 79%, Urino genital problems 51%, Uterine disorders 4% and infertility 7%)

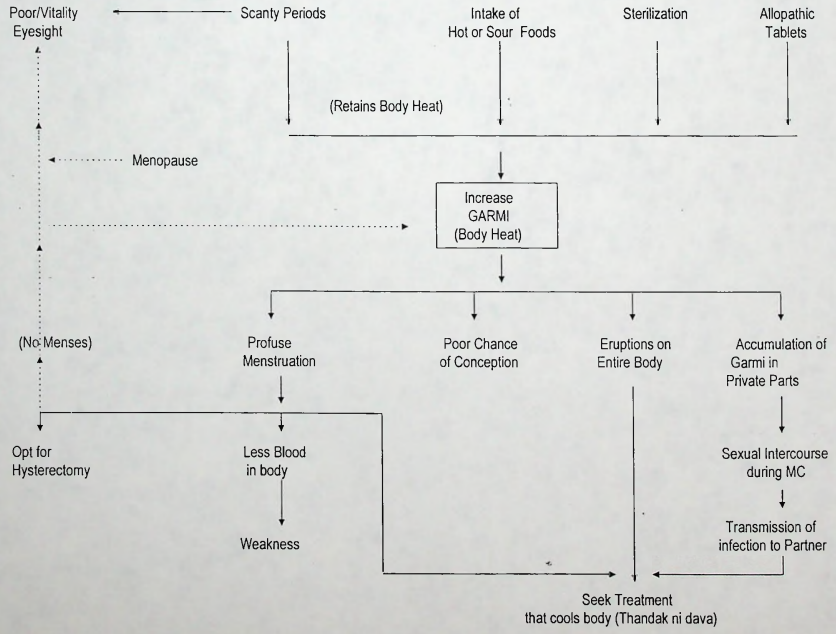
Table 2 : Norms and Practices Observed During Menstruation by Women

Taboo Activity	Percentage*
Religious activities	97.06
Sleeping and intercourse with husband	94.12
Attending social occasions (babri@/ marriage/ etc.)	79.41
Cooking/ filling water	58.82
Touching anyone (except infants)	35.29
Working inside the house	17.65
Sitting/ sleeping inside the house	7.35
Touching dry clothes	5.88
Filling water in copper vessels	4.41
Economic activities/ work	1.47

*Data computed on the basis of using a Guttman's scale exceed 100% due to multiple responses.

@ babri is a ceremony among Hindus where a boy's head is shaved for the first time.

FIG.2 : INTERRELATIONSHIP BETWEEN CAUSES OF 'GARMI' (BODY HEAT) AND MENSTRUALPROBLEMS



WE DO

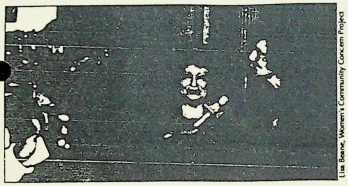
Women's Environment & Development Organization

News & Views

Vol. 6, No. 1 April 1993

Does the Breast Cancer Epidemic Have Environmental Links?

WEDO and New York's Commission on the Status of Women Hold Joint Hearing



Lisa Beane, Women's Community Concern Project

NBC New York reporter Carole Jenkins interviews Dr. Devra Lee Davis, an environmental medicine, at the WEDO-New York City Commission on the Status of Women hearing on breast cancer chaired by Bella Abzug.

Is there a breast cancer epidemic? "If one in eight women now get breast cancer when it was one in 20 just three decades ago, I would call that an epidemic,"* said Dr. Devra Lee Davis, Visiting Professor in the Department of Environmental and Occupational Medicine at Mount Sinai Medical Center in New York and Scholar in Residence at the National Research Council of the National Academy of Sciences.

"Why are women in their sixties getting more breast cancer than ever before?" Dr. Davis asked. "They've had their kids, they're not alcoholics, we can't explain it by known risk factors. But they were 'Rosie-the-riveters' during World War II, and ever since they've been exposed to new industrial materials, new household chemicals and pesticides." Increased detection by mammography can't account for it, she said, for "breast cancer deaths increased 1% a year in the U.S. both before and since mammography."

Along with some two dozen other experts and concerned citizens, Dr. Davis testified at a March 2nd public hearing on possible environmental links to breast cancer—focusing in particular on pesticides and on extremely low levels of radiation from nuclear power plants and electric power lines (electromagnetic fields).

The hearing was organized and held by WEDO and the New York City Commission on the Status of Women, both chaired by Bella Abzug, at City Hall, as part of WEDO's ongoing Women for a Healthy Planet program.

* This does not mean you have a one in eight chance of breast cancer now, but that you may be one of eight who could develop the disease if you live to 85.

continued on page 9

WEDO'S FUTURE

An Editorial

Following the UN Earth Summit in Brazil last June and the tremendous breakthroughs WEDO and the women it supported were able to achieve there, and with the success of the Women's Tent, *Planeta Femea*, at the parallel grassroots Rio '92 Global Forum, it was time for WEDO to focus on its future and the tasks ahead for a young, but strong and trend-setting organization.

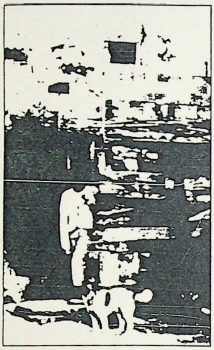
The decision was to continue—to grow and expand the network of WEDO women so the message and the methodology could be strengthened for the all-important follow-up to the Earth Summit and related milestones in the near future: the 1993 World Conference on Human Rights, the 1994 International Conference on Population and Development, and the 1995 Fourth World Conference on Women.

But as we extend our Women's Action Agenda and advocacy efforts for sustainable development into related fields such as human rights, population and democracy, WEDO also recognizes that it must expand its base by embracing more and more women activists around the world in its work.

continued on page 2

Inside...

Letter from Colombia

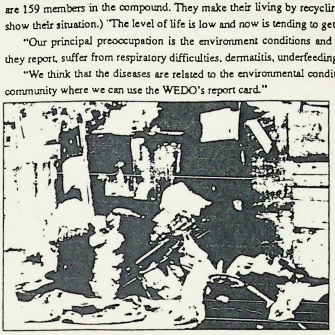


Dear Mrs. WEDO, the letter begins.

The writers live in Comuneros, a squatter settlement not far from the Colombian capital of Bogotá. Seven years ago, 18 families migrated there from the city center. Now, the writers say, there are 159 members in the compound. They make their living by recycling. (The photos they enclosed show their situation.) "The level of life is low and now is tending to get worse."

"Our principal preoccupation is the environment conditions and the health of children," who, they report, suffer from respiratory difficulties, dermatitis, underfeeding and stomach disease.

"We think that the diseases are related to the environmental conditions," and so, they say, "it's a community where we can use the WEDO's report card."



A group of women, with support from a local NGO, are starting to deal with their problems. They are organizing a cooperative to improve the recycling process so they can "reach a better quality of life."

They are "Waiting for your news" (see page 4), and the letter is signed:

Sara Usme
and
Martha Toledo

WEDO-City Hearing Examines the Environmental Links to Breast Cancer

Continued from page 1

Although the causes of breast cancer—now the most common cancer in women—are not completely clear, this doesn't mean we shouldn't act, Dr. Davis said: "We know we can prevent a disease before we know the cause of it, as we did with cholera in 19th century England, or lung cancer in this one."

While each expert testified there is a growing body of scientific evidence suggesting a link between breast cancer and avoidable environmental contaminants, much more research on this link needs to be done.

"We regret the dearth of research in this area," Bella Abzug said. "That has to change. We need to find out."

One group of women in suburban New York, concerned about above-average breast cancer rates in their area, is doing its own research. The West Islip Breast Cancer Coalition is conducting a community-wide study. They sent questionnaires to every household in town and, on a detailed map showing every house and building, have documented every case of breast cancer. So far, the ongoing study has found several clusters of breast cancers, indicating that the cause or causes may be environmental.

"There was a 30% drop in breast cancers when three carcinogenic pesticides were phased out in Israel," reported Dr. Samuel Epstein, a Professor of Occupational and Environmental Medicine in the School of Public Health at University of Illinois Medical Center in Chicago. Yet, he added, "none of the cancer establishment's $100 million in studies has focused on organochlorine pesticides."

He cited a study of Connecticut women with breast cancer who had 50-60% higher levels of PCBs and DDT in their breast tissue than women without breast cancer. An EPA study found that U.S. counties with waste sites were 6.5 times more likely to have elevated breast cancer rates than counties without hazardous waste sites. An added problem is that most are sited in poor black or Hispanic areas.

Another factor is radiation, according to Dr. Ernest Sternglass, Professor Emeritus of Radiological Physics at the University of Pittsburgh School of Medicine: "Since the beginning of the century we have known that radiation of all types induces cancer. What was not known was how nuclear reactors and nuclear testing would create such sudden, great changes, that radiation produced by the process of fission would act very differently from natural radiation processes or X-rays."

Very small amounts of protracted radiation are 1,000 times more toxic than a short-term X-ray, he said, because it affects bone marrow and the immune system. "Around one nuclear facility after another, there has been an increase in cancer," Dr. Sternglass explained. "But the 'establishment' wouldn't accept these epidemiological findings because they couldn't understand how a small amount of radiation" could cause such effects.

Based on this testimony, findings and recommendations, WEDO and the Commission will issue a complete report with concrete proposals for legislative initiatives, public/private partnerships and other collaborative efforts to further investigate the potential causal agents of breast cancer.

Because these findings show yet another connection between women's and environmental issues and in particular how they are not being adequately addressed by decision-makers, WEDO will use this information to encourage women to set their own health-care priorities and agendas through its Community Report Card project.

WEDO Helps Grass-roots Women Get Access to the 4th UN Women's Conference

Ten years after the end of the UN Decade for Women (1976-85), women from every part of the globe will gather in Beijing, China, September 4-15, 1995, for the UN Fourth World Conference on Women: Action for Equality, Development and Peace. Some will come as members of official national delegations, composed of men as well as women. Others will be members of women's groups to participate in a parallel forum of non-governmental organizations (NGOs) that, hopefully, will have a direct impact on Conference decisions.

WEDO Challenges Restriction

In an action alert memo sent to its international network in early March, WEDO warned that a policy approved by the UN Commission on the Status of Women (CSW), which has responsibility for conference preparation, might severely restrict participation of grass-roots women's groups in the 1995 event.

In contrast to the open access policy that allowed broad participation and input by women into the UN Conference on Environment and Development, the CSW initially decided that only organizations accredited to the UN Economic and Social Council (ECOSOC) and interested international NGOs would be allowed to participate.

WEDO and other women's groups successfully challenged this restriction at Vienna meetings in March of the CSW and the NGO preparatory forum. WEDO Co-Chair Bella Abzug, in the action memo, urged women to press the CSW and their governments to allow full participation by grass-roots women's groups, particularly from the developing nations, in every phase of the process from regional meetings to the Beijing conference

In response, the CSW agreed to follow the expanded access procedures accepted for the Commission on Sustainable Development and the 1994 Population Conference in Cairo.

Decade of Women

Beginning with the UN International Women's Year in 1975, three world conferences on women's concerns were held at five-year intervals: Mexico City in 1975, Copenhagen in 1980 and Nairobi in 1985. All three approved recommendations designed in varying degrees to improve the economic, social and political status of women, to end discrimination against them and ensure their equal participation in society.

The Decade's final, comprehensive statement, The Nairobi Forward-Looking Strategies for the Advancement of Women, later approved by the UN General Assembly, provided a framework for renewed commitment by governments and the international community to act on the growing worldwide women's movement demands for equality with men. Although the 84-page document reflected limitations imposed by male-led governments, it was unprecedented for its time, setting forth an action agenda that ranged across all aspects of social policy, with special emphasis on the needs of poor women in urban areas and developing countries.

Conference Goals

The Beijing conference will have three essential tasks:

1. Evaluate what UN member states have done to implement the Forward-Looking Strategies. Each nation must present a formal report; WEDO and other women's groups will evaluate what has and has NOT been done;
2. Update the document with new action recommendations to correspond with changing conditions over the last decade;
3. Develop new strategies for women's advancement.

For the 20,000 women from all countries who took part in the 1985 meeting at Nairobi, it was an inspiring experience in which they learned from each other, strengthened existing networks and built new ones, and returned home with hundreds of new ideas and examples of what women can accomplish when they act together.

Preparations for the 1995 World Women's Conference are already underway at the UN Division for the Advancement of Women in Vienna. The Conference Secretary-General is Gertrude Mongella, formerly Tanzania's ambassador to India and an active member of WEDO's International Policy Action Committee (IPAC).

In addition to the March meetings in Vienna, local and national meetings are planned by women's groups around the world. Official UN regional meetings will be held in 1994 in Senegal, Indonesia, Argentina and West Asia. No official meeting has been scheduled yet for Europe, the U.S. and Canada.

WEDO's Objectives

WEDO, as an international network of women concerned with environment, development, social justice and an equal role for women, is making the 1995 conference a major focus of activity..

Our objectives are to ensure the maximum inclusion of women in official delegations to the Beijing meeting and the maximum access for women from NGOs and grass-roots groups to present relevant sections of our Women's Action Agenda 21 on environment, development, gender balance and other proposals, particularly in the regional meetings and preparatory process, as well as at [illegible] for inclusion in the final [illegible] document, which will be [illegible] by the full UN General Assembly.

The past 10 years have brought tremendous changes for women, some positive, some negative. Women's movements, nationally and internationally, are growing in influence and strength. In the industrialized nations women continue to break down legal, social and political barriers to their full participation in society, and grass-roots women's groups can be found in almost every developing nation in the world. But in the aftermath of the collapse of the Soviet bloc and the rise of ethnic hatreds, violence against women, attempts to deprive women of reproductive rights, growing impoverishment, hunger, homelessness and illness, the world in many ways has become a more dangerous place for women and their families.

The new Forward-Looking Strategies that will emerge from The Fourth World Women's Conference must reflect women's expanding needs, and this can happen only if women from every nation and region are activated to participate in the decisions that shape their lives. WEDO expects to have a major role in informing and mobilizing women for this effort. If you want to participate, contact WEDO.

Funding social change since 1967

RESIST

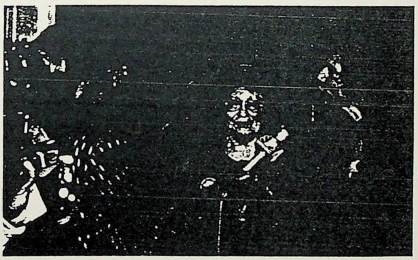
ISSN 0897-2613 • Vol. 2 # 4 *A Call to Resist Illegitimate Authority* April, 1993

Environmentalists and Breast Cancer Activists Tell New York Commission: ACT NOW!

DIANA SCHREIBER

On March 2nd, the New York City Commission on the Status of Women (CSW) and the Women's Environment and Development Organization (WEDO) held a public hearing to address the connection between breast cancer and the environment. More than thirty environmentalists, cancer activists, cancer researchers, public health officials and politicians addressed the commissioners in the hope that their testimony could spur legislation and halt the ferocious pace at which this disease is killing women.

The hearings covered potential risk factors including: pesticides and other toxic chemicals; radiation exposure from power plants and nuclear testing; electromagnetic fields; hormones in food; reproductive technologies such as Depo-Provera; and mammography. In addition, activists in Long Island, New York City and Boston reported on their work and upcoming plans. Because we have addressed many of these issues in an earlier issue of the RESIST newsletter (#246, May/June 1992) here we will provide edited testimony from a portion of the hearing, focusing on information that was not in the earlier article. For more details, contact the CSW, 52 Chambers Street, Suite 209, NY, NY 10007. Tel. (212) 788-2738. For a report on mammography for women under 50, contact the National Women's Health Network, 1325 G Street, NW, Washington, DC 20005, or call (202) 347-1140.



Bella Abzug (center), Chair of the New York City Commission on the Status of Women, and Dr. Devra Lee Davis (right), of Mt. Sinai Medical Center, being interviewed by Channel 4, March 2, 1993. Photo: Lise Beane, Women's Community Cancer Project

BELLA ABZUG, Chair of both the CSW and WEDO, opened the hearing:

I am here today as the chair of two organizations, one local, the other inter-

continued on page five

...r Hearing

...ued from page one

...ational, but both dedicated to making a better world: the New York City Commission on the Status of Women and the Women's Environment and Development Organization. We have come together to explore, for the first time ever in a forum of this kind, growing scientific evidence of a link between the incidence of breast cancer and environmental factors.

Our ultimate goal is to bring pressure to bear on local, state and federal public health policy makers to broaden the parameters of the scientific inquiry so that more resources, both financial and scientific, can be redirected toward finding causes that will lead to the prevention of a disease that is killing 44,000 women every year. This is a responsibility that society has to face. Seven out of ten women who will come down with the disease will have no known risk factors to explain it. We think it is time we step up our efforts to look for causes, without abandoning our commitment to developing better and better treatment protocols.

One of the reasons that we're in the situation we are in is that for too long medical research, and other forms of scientific research, have often eliminated the participation of women in making their findings. Now that's beginning to change, and the participation of so many women, many of whom are here today, have helped to do that — to create a public outcry about women with AIDS, who for a long time were ignored by the CDC; about women and heart disease; and now, in the question of cancer itself.

Why Look at Environmental Risks?

DR. DEVRA LEE DAVIS, a visting professor in the Dept. of Environmental and Occupational Medicine at Mt. Sinai Medical Center, and founding director of the International Breast Cancer Prevention Collaborative Research Group:

Some of our colleagues have said breast cancer is not an epidemic. I want to know, if relatively more women are dying today than ever before, how can this not be an epidemic? The word epidemic comes from the Greek and means "among the people." Breast cancer today afflicts one out of every nine women by the age of 85. Three decades ago it affected one in 20. Is that not an epidemic? Some people have suggested that this epidemic is nothing more than the fact that we are getting better at detecting cancer. Let me tell you why this is not likely to be the whole explanation. The most important reason is that we don't even know how much mammography is taking place today. There is no national survey of mammography. The estimates of the rate of the mammography have developed from a Gallop poll conducted for the American Cancer Society of its generally well-educated, upper middle class volunteers, most of whom are quite health-conscious and almost all of whom can get reimbursement for their mammograms. For rest of the public, we really don't know what the rate of mammography is.

But I can tell you, one reason mammography cannot explain all of the increases in breast cancer is that the increase is occuring not just in new cases, but in deaths, and the increase is occuring not just in the United States, but in most of the major developed countries of the world, and in some of those countries there is no mammography screening of young women.

The two biggest risk factors for breast cancer are sex and age. We can tell you what women want. We want better treatments for those of us who are at risk, which is all of us. We want safer and more effective screening techniques. For our daughters and their children, we want to prevent the disease from claiming as many of them as it will us. We want to know why relatively more women in Bella Abzug's generation, women now in their sixties, are dying of breast cancer. From all we know about breast cancer, they should have less of the disease. After all, they had children earlier in life, and they had more of them.

So why are these mothers of the baby-boomers dying more? Maybe the answer has something to do with the unusual environments they encountered in the newly industrializing workplace, and then later in those sparkling clean domestic environments that they were encouraged to maintain in their households, with all those brand-new chemicals that were used indoors, materials you purchased at the drug store and hardware store, such as pesticides which are banned today.

We can explain only 30% of the cases of breast cancer. [I.E., only 30% of women who get breast cancer are in so-called high-risk categories such as having a family history of breast cancer.] So what accounts for the rest? According to several new studies (see RESIST # 246) women with breast cancer have increased levels of certain chemicals [40-50% more residues of PCBs and metabolites of DDT] in their [breast] fat. This should come as no surprise, as experimental studies in animals have indentified a number of causes of breast tumors. We have failed to pay attention to the animal studies. The lively debate about the role of dietary fat may not be so polarized if the issue becomes ***what's in the fat,*** not just the fat itself. As to other causes, such as electromagnetic fields (EMFs) or other chemical exposures, the evidence remains incomplete, but is tantalizing and growing.

All of the known risk-factors that can be identified for breast cancer can be linked to estrogen. But guess what? Estrogen is not just something that you make inside yourself. It is influenced by chemicals. That is to say, those pesticides and toxic chemicals that you are taking into your body — in animals, [were associated with] increased levels of estrogen. Why should they not do it in humans? The common link of all of the known and suspected risk factors for breast cancer could be this: there are compounds we call xeno-estrogens, which although foreign to the body, once taken into the body increase the total amount of estrogen you are exposed to. That could be the link here. We are trying to pursue that research.

Why have we paid so little atten-

continued on next page

LETTERS

Dear RESIST,

On behalf of the Union of Palestinian Women's Associations (UPWA), we wish to express our sincere appreciation for the continued support we've received. [Your recent grant] to UPWA's Leadership Development Program will result in expanding and strengthening this important program designed to develop the leadership capacity of Palestinian Arab women community organizers.

We also wish to recognize the important and valuable role of RESIST in providing crucial funds and assistance to many excellent groups working for peace and social justice; which allows organizations like [ours] to continue developing its programs while working within the broader movement for peace, justice, and equality to effect social and political change.

We feel honored and proud to be a grantee of RESIST, a truly unique foundation whose dedication and commitment to the struggles of women, and peoples in communities of color spans a period of over 25 years and continues to be source of empowerment and hope for us all.

Finally, we wish to extend special congratulations to the dedicated board members and staff of RESIST on the occasion of the foundation's 25th Anniversary Celebration. May our combined efforts contribute to a better society for all our future generations.

Khariyeh Abudayyeh and Maha Jarad
Union of Palestinian Women's Associations
Chicago, IL

Dear RESIST,

What a superb newsletter you put out! It's always good, and sometimes it's superb. I read the February issue with great interest and, moved by the call not to accept NAFTA but to organize, took it to my church (very main-line Protestant) Peace and Justice Committee. I proposed that we do some study of NAFTA and then perhaps move on to action. There was some resistance, but eventual agreement that everyone would at least read the newsletter, and we would make further decisions after that. So I need to get six to ten copies for committee members.

Many thanks for the great work you are doing. It boggles my mind that so few of you can do so much.

Sincerely,
Virginia Senders, PhD
Shutesbury, MA

Ed. Note: Gee thanks! This is what it's all about. We're very happy to provide 10- 20 copies of the newsletter for free for organizing purposes if we have enough extras available. For more than that, we may have to charge for postage, so call or write to ask if there are enough and how much it will be. For back issues of "Breast Cancer and the Environment," (#246, May/June, 1992) we are charging $1.00 per copy because we had to re-print the issue to fulfill requests. Please write with comments, criticisms and suggestions for future articles.

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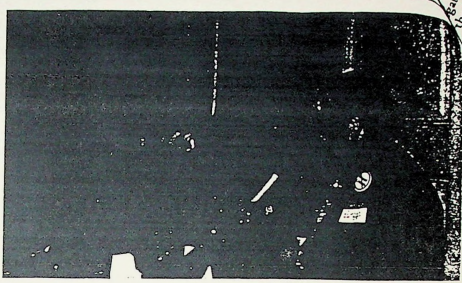
continued from page five

tion to preventing a disease that afflicts so many women? One reason is that prevention is less glamorous. But also, think about this: fewer profit if we prevent the disease. More profit from it's treatment. Although this country now spends about 14% of its GNP on health care, we have devised no new cure for advanced breast cancer in two decades. We spend five times more on chemotherapy than is spent in England, but we have no better record on cancer deaths. We cannot afford to keep on with the same old ways. If we could figure out how to prevent only 20% of all cases, we will have spared 35,000 women and their families from the sometimes disfiguring, and often disabling experience of breast cancer.

[Currently there is debate in Congress about the value of the Delaney Clause which forbids the addition of cancer-causing pesticides to processed foods.] We have had a failure in this country to regulate pesticides adequately and that failure is evidenced by a number of recent studies. We know that dogs whose homeowners use residential pesticides die of increased rates of certain cancers. We know that in some homes where children have been exposed to pesticides indoors, those children have increased rates of brain cancer and leukemia. We have growing evidence that there may be an link. The problem with the Delaney Clause is the public has come to believe that we are protected against these exposures. The Delaney Clause has absolutely nothing to do with such things. It does not apply to what you spray in your house or put on your lawn. In addition it does not provide any protection for those who are at most risk, who are farmers and gardeners.

We know from more than 20 studies in 8 different countries that farmers are at increased risk for certain cancers that we think are associated with their exposure to pesticides. What we need is a comprehensive reform of pesticide regulation in total. It may mean changing Delaney, but not to make it weaker; rather, to make it more comprehensive.



Barbara Balaban of One in Nine, a Long Island cancer activist group, being interviewed by RESIST editor Tatiana Schreiber at the March 2nd hearing in NYC. Photo: Lise Beane, Women's Community Cancer Project.

ABZUG: We hope that's what will happen, but to make sure, those of you who are interested should write to Carol Browner at the EPA and let her know what you think.

Radiation Exposure and Breast Cancer

DR. JAY GOULD, medical statistician and economist, and Director of the Radiation and Public Health Project, sponsored by the Commission for Racial Justice of the United Church of Christ. He is the coauthor, with B. Goldman, of *Deadly Deceit: Low-Level Radiation High Level Cover-Up:*

In the period between 1935 to 1944, before the nuclear age began in 1945, there was an actual decline in breast cancer incidence; if it had continued until today, the incidence of cancer in women between 50 - 74 would have been half of what you see today. I'd like to call your attention, as a statistician, to the data I've gathered, based on information from the National Cancer Institute. What [my the data show] is that the increase in breast cancer really began with the nuclear age in 1945. But you also see that in 1970 after the opening of the Millstone reactor [on Long Island Sound] you had another increase which is so large it's impossible to escape the fact.

[In addition,] after 1979, the date of the Three Mile Island accident, there was an enormous national increase which apparently peaked in 1988, seven years after the accident. The other chart shows that in the country as a whole, because civilian nuclear reactors are concentrated in the northeast part of the country, you have very high per capita exposures in those regions [strongly] correlated with very high breast cancer rates. Whereas in regions with very few reactors, like the mountain regions and places like Texas and Louisiana, where male cancer rates are extremely high because of exposure to petrochemical contaminants in the environment, the amazing thing is that because of the relative lack of radioactive emmissions from nuclear reactors, breast cancer rates in those states are extremely low.

Now the probability that this kind of effect could be produced by chance is so small it's inadmissable. It means that the scientific community has to find out: why do we have this correlation? The Millstone Plant, in particular, is only 12 miles away from Suffolk County. From 1970 to 1975 it had enormous emmissions of radioactive iodine and strontium, two of the most lethal radionuclides, known to be highly carcinogenic, and which concentrate in milk and water and other foods. This kind of exposure simply has to be inves-

ncer Hearing

continued from page seven

It was not until 1972, 30 years into nuclear age, that it was discovered [by Abram Pektkau] that the small protracted radiation emissions over a long period of time produces much greater damage to cell membranes through the formation of free radicals which attack cell membranes and puncture them in matter of a few minutes to hours; as a result, very small amounts of radiation are typically 100-1000 times as toxic as the same [dosage] of a medical X-ray given in a short time. That's because these free-radicals interact and de-activate each other, causing them to become inefficient at high concentrations but very efficient and deadly at low levels.

Strontium-90 is very dangerous, because it gives off a very fast beta ray which can penetrate the bone marrow and produce an effect on the immune system of the whole body which impairs the ability of the body to fight cancer. These things were only fully understood in the last 15-20 years. Over 40 studies in the scientific literature show that around one nuclear facility after another, there has been increase in cancer, including breast cancer. This epidemiological evidence is overwhelming, but was not accepted because it was not understood how a small amount of radiation could have such enomous effects.

In fact, the [Petkau effect] causes the risk to rise much more rapidly at low-doses than at high doses, and as a result, we now find that small releases, regarded as harmless in the past, are in fact causing contamination of our milk and food, and this has never been adequately investigated because it was believed to be too small a dose compared to ordinary x-rays or mammography. We have grossly underestimated the effects of very small amounts of radiation added into our drinking water supply.

Since 1967, New York city has been able to obtain more than 80-90% of its water from distant sources in the Catskills and the Delaware water system. Since then, the cancer rates in New York City have declined. But in Westchester, where they continued to use the Croton water supply, a few miles downwind from the Indian Point plant, there has been a continuing and sharp rise in cancer rates. The same thing has been happening on Long Island.

It is my recommendation that we look immediately at ways to set up a commission to reexamine whole question of shutting down Indian Point. We did not appreciate how dangerous it is to the water supply of New York City. And the people of Harlem and the South Bronx are more heavily exposed to water from the Croton reservoir than people from Brooklyn, Queens and Staten Island, who receive much of their water from the more distant sources which are not contaminated by radioactivity.

We would actually like to see all the nuclear plants in the country phased out.

ABZUG: OK, well you know this commission has limited authority, but we'll work on it.

STERNGLASS: We now have an administration that must show an ability to reduce health costs or it will not be reelected. We can show that after Three Mile Island was shut down, infant mortality in Pennsylvania dropped 30-40% in two years after it was shut down. We have an enormous amount of data, which is ignored by the military nuclear establishment, which says that all these health problems have been vastly aggravated by our refusal to admit the biological hazards of nuclear-bomb testing and nuclear weapons production...

Note: Jay Gould and Dr. Sternglass have been asked by members of the National Breast Cancer Coalition to prepare a report on the role of radioactive chemicals in contributing to high breast cancer rates in Long Island.

Long Island Women Take Action

LORRAINE PACE, president of the West Islip Breast Cancer Coalition.

Our grassroots organization evolved less than one year ago after I was diagnosed with breast cancer. I have twenty friends who have this disease, who live in West Islip. I felt that this was more than just a coincidence. I needed to find out what we all have in common. I must say, living on Long Island is a delight, but we have one of the highest rates of breast cancer in the state. Somehow, there seems to be something drastically wrong. Risk factors [primarily being Jewish and affluent] and lack of education and early detection have been the explanations we have been given from our experts. Long Island can no longer accept these explanations without demanding further studies.

[In trying to find out why so many women were being diagnosed with breast cancer] I discovered that the New York tumor registry was at least four years behind in their statistics. No one could tell me how many women were diagnosed with breast cancer in 1992. The statistics quoted were from 1988. Yet, with one phone call I could find out who won the New York State lottery, and where their ticket was purchased. These priorities are clearly unbalanced and we feel they must be addressed.

Since there were no current statistics available, we decided to do a demographic study of West Islip. Our goal was to locate and visually identify the areas and incidence of breast cancer. From the beginning we had the assistance of Dr. Roger Grimson, a biostatistician [at SUNY-Stonybrook], who oversaw the color-coding and mapping process. With the assistance of the Suffolk County Health Department and Good Samaritan Hospital in West Islip, we have written a single page survey and distributed it to every household. So far, our response has been over 52%, which goes to show that women are very concerned.

On the map, we have definitely

continued on next page

...cer Hearing

...ntinued from page eight

...found certain clusters, consistently on the whole map. Of about 4500 respondents so far, over 300 had malignant breast cancer, more than 1,000 had benign breast disease, and most reported other forms of cancer in their families. I think this needs to be thoroughly investigated. The survey has had another effect on West Islip. Nineteen women who answered our survey said they didn't have breast cancer. Then, they went for a check-up and found out they were walking around with malignant breast cancer. That's a lot of women in one very small little area.

During the Vietnam War, we all mourned the loss of 58,000 men and women. During that same ten year period, our nation lost 330,000 women to breast cancer. They went very quietly, but it's time not to be quiet anymore.

[After our first mailing we] went to our congressman who is from West Islip. He contacted Revlon, and they donated $5,000. We did two more mailings. We're hoping to get at least a 75% response rate. We'll go door to door. We're very determined, we want to know why we got this breast cancer and why all our friends got it. We've been working very hard, but we don't intend to stop.

We intend to map out where all the transmission lines are and all the transformers, and all the water wells. We wrote to the Long Island Lighting Co. and we asked for an address of where every transformer is, to look at risk from EMFs. So far, they have sent a map, but you have to be a genius to read the map. I don't even think they can read it; we said, please, just send us the addresses, we want to compare, maybe where there's a transformer, maybe that's where these clusters are? Maybe there's something else. We don't know, but we don't want to leave one stone unturned.

One in Nine Convenes its Own Research Panel

BARBARA BALABAN, director of New York's statewide breast cancer hotline and support program at Adelphi's School of Social Work; member of steering committee of One in Nine, the Long Island Breast Cancer Action Coalition; also serves as New York State grassroots coordinator for the National Breast Cancer Coalition [Balaban recently served as the only Long Island representative on the panel of the Centers for Disease Control which examined data from a Long Island Breast Cancer study and concluded that the high rates of breast cancer in Suffolk and Nassau County were due to "known risk factors."]:

Government officials and their scientific representives would have us believe it's "the preponderance of women on Long Island with high risk factors" and what's really insulting is that they don't think we can do the arithmetic to know that they still have not begun to look at the unknown risk factors, those that account for more than 50% of all breast cancer cases.

My first suggestion is that we have to stop referring to "high risk factors." These are really the small amount of known risk factors, which are usually simply described with no explanation. There are no studies on why being Jewish or well-to-do causes breast cancer.

Next we have to look seriously at what the unknown risks might be. There's been a lot of discussion of electromagnetic fields, but as yet, no definition of acceptable levels of EMFs, so we have no place to begin. When I served on the CDC panel, I raised the question of the environmental impact on breast cancer incidence. I was told this was too difficult an area to study, and would be too expensive. Too expensive compared to what? The cost of treating breast cancer? The disruption to a family? A woman's life? Too difficult? What do scientists do when their children tell them algebra is too difficult? We hope they aren't told not to bother, but are sent back to try harder.

Breast cancer, an epidemic disease for which every woman is at risk deserves no less consideration. Today in Washington, a subcommittee is voting on the National Institute of Health's reauthorization bill. There is a Waxman ammendment calling for a two-year study by the National Institute of Environmental Health to study the relationship between the environment and breast cancer. [The amendment passed in the House by a vote of 283-131, an important victory in this struggle.] We need elected officials in every city to try to have an impact on federal legislators. We need support desperately to help them understand that this is not just a group of ninny women walking around with small cause. This effects every family in this country.

Government sponsored scientists have told us that we on Long Island have done a great job mobilizing community support. They then had the nerve to suggest we redirect our energies toward increasing compliance with early detection mechanisms, and by implication preserve the status quo.

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Cancer Hearing

continued from page nine

They conveniently forgot that early detection is not prevention. We still do not know the cause of breast cancer, nor do we have a cure.

Well, we women know better than they what we have to do. On Nov. 1 we are convening a two-day scientific hearing on Long Island. Leading researchers throughout the country will present creative ideas on some new directions we can look to understand more about the environment/breast cancer connection. [The panel will be headed by Dr. Devra Davis, and Dr. Susan Love, director of the Breast Cancer Center at the University of California in Los Angeles.] This will be paid for by community-raised funds, and not one person dedicated to the patronizing and regressive attitudes of previous administrations will be included.

The National Breast Cancer Coalition has shown that united, we have a voice that reaches all segments of the government. On Sunday May 2nd, we will rally in Washington, DC to demand that breast cancer be declared a national epidemic and be made a top priority in this country. You, your families, and your friends are invited to join us. Together we can make a difference. We have to, our lives depend on it. In the time I've been speaking, two more women have been diagosed with breast cancer. For every two speakers, another woman dies of this disease. This has got to stop. Thank you. ◊

Looking Back

that you are permanently unable to reproduce instead of being able to choose the time when you may have children in the future.

No existing contraceptive method is foolproof no matter how conscientiously used. If the government and compulsory pregnancy forces were really serious about this issue they would be working day and night and pouring millions of dollars into developing a contraceptive method that is both medically safe and effective. And even then abortion would be necessary in some cases as a back-up measure. But, of course, they aren't serious except about curtailing the rights of us all. How can we take a government and a society's pro-life stance seriously when they are the same people who also brought us the neutron bomb, a bomb that kills people and leaves property intact?

The Supreme Court decision of 1973 said that it is between a woman and her doctor to decide if she wants to terminate a pregnancy. It does not say that every American woman must undergo abortion, it merely says that if she wants to have an abortion, as women throughout the ages have had in a valid attempt to control their fertility, she will not have to die in the attempt.

The Doyle-Flynn bill, the Hyde Amendment and the Supreme Court decision are nothing but sexist and racist attacks on poor people. I don't know how many of you knew Fanny Lou Hammer, a poor Black woman, a civil rights activist and freedom fighter. She died this year and I just found out this week that in the early 1960s she was a victim of forced sterilization. She used to say, "I'm sick and tired of being sick and tired." I think we're all sick and tired of being sick and tired. It's time for the oppressors who are trying to control us to get real sick and real tired. We demand a woman's right to choose. Defeat the Doyle-Flynn bill. ◊

Barbara Smith is a Black feminist lesbian writer and activist who lived in Boston from 1972-1981. She currently lives in Albany, NY.

We hope to publish a "Looking Forward" article on reproductive rights in an upcoming issue of the newsletter.

We Thought You Might be Interested...

Neighbors Talk to be published this spring...

Boston area writers announce the spring publication of *Neighbors Talk in Roxbury, Dorchester and Jamaica Plain*, a collection of poems, raps, and stories about Boston communities written by those who live there.

All kinds of people come together in *Neighbors Talk*: teenagers; women from the Dominican Republic and Haiti; Native Americans who live in Dorchester; people who've lived in the communities for over 60 years. More than 80 people contributed stories and served on the community editorial boards that shaped the book.

The images in *Neighbors Talk* create a vibrant picture of neighborhoods more often described by people who live outside them. Here, residents rejoice in neighborhood victories and Nelson Mandela's visit; youth defend rap with a touch of "pizzazz jazz."

Over half the funds to publish the book have been raised. The rest will come from pre-orders, so ordering now will help make publication possible. For price and postage info, call Rachel M[illegible]17) 522-6513, or write *Neighbors T[illegible]* Ave., Jamaica Plain, MA 02130. [illegible]achel Martin, a long-time friend of RESIST, guest-edited "Listen Up: Youth, Writing and Resistance,"(*RESIST*, #237, July/August, 1991).

Computers Available for non-profits in Massachusetts...

The Nonprofit Computer Connection (NCC) is a technical assistance program helping nonprofit organizations use information technology effectively. NCC has several hundred personal computers it will distribute in 1993 to eligible nonprofits in Massachusetts. To be eligible, a group must be tax-exempt and have at least one full-time staff person. Community-based health and human services agencies, cultural organizations, community-based educational organizations, and housing and economic development groups will all be considered. Individuals, churches, schools, and "organizations whose primary activity is advocacy" are not eligible.

Call the NCC Donation Program Coordinator at (617) 728-9151, or write Donation Program Coordinator, Nonprofit Computer Connection, 30 Federal St., 5th Floor, Boston, MA 02110.

11 AFTER DELIVERY WH-5

BREAST MILK

1) Vidaarel Nela Kumbala) - To increase breast milk, powder of the vidaare root with milk is given to the mother.

2) Asuvagandhal Hire-maddina-gida) - To enhance breast milk secretion, powder of the hire-maddina-gida root boiled with cow's milk is recommended.

3) Breast milk will improve in quality if the woman is given a mixture of 20 gms of Tulsi juice, 20 gms of the juice of maize leaves, 10 gms of the juice or extract of ashwagandha, and 10 gms of honey, for 7 days following delivery.

4) Garlic is given in plenty as it has lactogenic properties.

5) White cumin seeds fried in ghee and sweetened with sugar is a good recipe.

6) Rice starch and pinch of salt is given to delivered women to increase milk output. Gingelly laddoos made with jaggery with their high protein and fat content act as nutritional supplement stimulating milk

secretion.

7) Green gram (Hesarakalu) with its skin is another favourite diet to increase milk secretion.

8) Almond (badami) soaked overnight made into a paste with poppy seeds and take mixed with milk as a 'kheer' helps to increase milk output.

9) Cottonseed decoction obtained by boiling ~~tablespoonful~~ of seeds in a glass of water gives a useful recipe which helps to increase flow of breast milk.

10) Soyabean preparations, sago (chillikore soppu) porridge, black cumin (kalonji) soup, wheat and ragi 'daliya' (ಗೋಧಿ ಎಸಳು) are all useful as diet to increase milk output in the delivered woman

Milk Suppression.

1) Milk suppression could be due to anaemia. Drink plenty of water with a pinch of haldi in it.

2) Prepare khichadi with papaya and eat.

3) Prepare khichadi with onion and coconut and eat

4) Masur dal is good for milk.

5) Prepare dalya with ginger (mangarela), somph, haldi and jaggery and take one spoonful thrice a day.

APPETITE / NUTRITION

1) Vidaare (Nela Kumbala) - Powder of the fleshy root is given to the mother and the child as a general tonic to improve health and weight.

2) Aswagandha (Hire - Maddina Gida) - Powder of the dried root is given with milk or boiled with milk as a general tonic (for under-weight women)

3) A teaspoonful of ajwain, (oma) is ground in a little water and taken on an empty stomach as an antipyretic, anti-infective and stomachic after delivery.

4) A small piece of asafoetida with a lump of palm candy for its anti-flatulent, digestive properties. Asafoetida powder mixed with rice is given to women after delivery.

5) Fry fenugreek seeds (Menthya) in ghee and finely powder them. This powder is mixed with wheat flour and sugar to make halwa. A small quantity is taken daily for quick normalisation after delivery.

6) A highly nutritive preparation to improve the over-all health of the delivered woman is a mixture of dry coconut shavings, poppy

seeds, bits of dry ginger, different varieties of giriya (gourd, pumpkin and cucumber seeds) made into small sweet balls with jaggery. One or two balls are given daily to the delivered mother for good health.

7) To about half a pint of water add a handful of peeled white onions, a tablespoonful of cumin (Jeerige) well ground into a paste, and a fistful of 'Brahmamanduki' leaves (available at pan shop). They are rich in Vellarin which is a mild sedative. The leaves are dried in shade off to avoid loss of its active principle and then stored. The water with all the ingredients is heated for about 10-15 min till the decoction becomes concentrated. An ounce is given thrice a day for a few days after delivery.

8) Kachora - The root is an ingredient in some of the strengthening conserves taken by women so as to remove weakness after childbirth. It is given 3 times a day to women during the first two weeks following child birth.

6) Prepare kichadi with rice, coconut, methi and jaggery and eat.

7) Take few pieces of stick cactus crush and soak it overnight in water and give it to drink in empty stomach 1/day x 3 days.

11) Neem (Bevu) - The fresh juice of neem leaf is given for the first three days after the birth of the child. This is given before the principle meals. Such a measure improves the general health of the mother and also increases the milk yield. This is also given to the cows so as to increase the yield of milk.

12) Clove (Lavanga) - Taking a teaspoonful of the decoction of clove to which a little bit of hing is added and doing so twice a day is beneficial to feeding mothers for this will ensure greater milk production.

13) Turmeric (Arishina) - During labour and so long as the child is young and breast feeding, it is advised for the ladies that they should be regularly taking turmeric - for ex in milk. This is an excellent practice as this will stimulate the uterus and will also purify milk secretion.

NEW BORN INFANT

1) GUDOOCH (Amuath Balli) - A decoction of the stem of amuath balli with grapes and sugarcane is useful in jaundice of children

2) Amla (Nallikayi) - Powder of the amalaki fruit mixed with a little amount of gold, ghee and honey. This is given to the new-born baby soon after the birth to gain resistance against diseases. In stomatitis of children, 5 gms of bark of the amalaki tree is made into a paste with breast milk is applied inside the mouth.

3) Haridraa (Arishina) - New-born child is applied with a paste of haridraa and milk. It clean the skin and removes all the remnants of the amniotic fluid.

4) Bilwa (Billapatre) - A liquid food is prepared with unripe bilwa fruit, ela, sugar and parched rice corn. This is given to the child in lack of appetite and to develop hard stool formation after birth.

BLOOD CIRCULATION / CLEAN UTERUS

1) Amla - Fruits of amalaki are boiled in water and it is used for taking bath after delivery. In micturation and dysuria during and after the period of pregnancy.

2) Haridraa (Arishina) - Paste of haridraa with oil applied over the body just before bath after delivery. This will act as an anti-toxicant. Arishna powder with ghee and honey is given after delivery to purify and give strength to the whole uterus.

OTHERS

1. Cold - Keeping a bit of hing enclosed within a piece of cotton in the ears will ensure freedom from catching cold after child birth.

2. Family Planning - Dill European & Indian - Sabbasige - The herb is particularly invaluable for women after child birth. Consuming its preparations regularly will promote rich secretion of milk and more importantly it also acts as a good family planning measure. For, by this procedure, the interval between child birth and the next menses period gets greatly prolonged so that both the mother and the child can secure ample time for healthy and proper nourishment.

DURING PREGNANCY.

DH-5

ANAEMIA.

① Back-pain → Coconut oil - In the 7th mth of pregnancy, it is quite frequent to suffer from back pain. Massaging the back with coconut oil or castor oil and then taking bath in hot water will lessen this pain much.

② POMEGRANATE - Dalimbe - Fresh juice of the unripe daadima is given. In tastelessness and lack of appetite juice of unrip daadima is taken with sugar, salt and parched corne of rice.

③ Sathaavari - If the woman is anaemic, pale and thin, sathaavari powder along with milk or water is given. This aids in indreasing the body weight and the growth of the foetus.

④ Draaksha (Draakshi) - Fruit juice of the draakshi is given to pregnant lady and mother in cases of anaemia, constipation and giddiness.

FEVER-

① GUDOOCHI - (Amritha Balli) - A decoction of the gudoochi stem is taken internally twice daily in empty stomach.

② Elachi (Elakki) - In cold and ~~otha~~ similar allergic conditions of pregnancy, powder of ela seeds is given with pepper powder.

③ Headache - Amla - One amla preserved in sugar or 10 gms of Gulgand (confection of rose petals) taken with warm milk at bed-time. Or milk sweetened with raw sugar may be taken at bed time. Coriander rubbed in water into a paste should be applied to the forehead

ITCHING.

① Tulsi – Itching of the skin over the abdomen and the breasts of a pregnant woman is relieved by the application of the paste of Vana Tulsi. Cracked-like stretch marks can be cured.

EPILEPSY.

① Amla (Nallikaye) - Fruit juice of aamla is given internally.

NAUSEA.

① CLOVE (Lavanga in Kannada) - Take a masha of the powder of cloves, mix it with a syrup of sugar candy or pomegranate juice. This is to be taken by the pregnant by licking, to get rid of the repeated vomitings and the agitation thereof. An infusion of cloves also serves the same purpose but this should not be given if there is an accompaniment of fever along with vomiting.

② CUMINUM (jeerige) - For pregnant women, seeds are ground and mixed with lime juice and given in cases of bilious nausea.

③ CORIANDER (Kottambari) - Take a teaspoonful of coriander seeds, powder, grind it smoothly in water, mix this paste homogenously in water in which rice has been washed, add sugar and administer. This measure can be continued twice a day till, the vomiting tendency comes under full control.

④ POMAGRANATE - Rice cooked with the juice of pungent daadima is used as a regular food. Juice of daadima is useful in vomiting (with lemon).

WHITE DISCHARGE / BLEEDING

① Sathaavari - Sathaavari powder mixed with boiled water stops white discharge or bleeding.

② Lime juice and honey - A glass of lime juice with a teaspoonful of honey everyday is supposed to protect the mother against excessive haemorrhage at the time of delivery. (Good for morning sickness too).

HABITUAL ABORTION.

(1) 6 gms of hing (ingu) are made into 60 pills (each of 1½ grain). The moment pregnancy is suspected one such pill is given twice a day. The dose is then slowly increased to 10 pills a day and then gradually reduced till confinement. Such a procedure has proved successful in cases having 3 to 5 abortions, & complications of prometritis (the inflammation of the outer layers of the uterus) or catarrhal endometritis (discharge from the inner walls of the uterus) and also in cases in which abortion at 6th mth was threatening.

(2) Kamala (ತಾವರೆ) Rhizomes of the kamal crushed and boiled along with milk is recommended.

(3) Sathaavari (ಆಸ್ಪರಗೊ/ಆಸ್ಪರಗುಸ್) — For women with primary sterility or those having habitual abortions, crushed sathaavari roots boiled with milk are given. It helps to stabilize the foetus and also aids in healthy growth.

(4) Nidaare (Nela Kumbala) - In sterility and abortion, a decoction of the roots of nela kumbala is given with milk and sugar.

BURNING SENSATION IN THE WOMB.

① Kamalaa (કમલા) - Flower of the kamal is boiled in water and given internally in case of burning sensation during pregnancy. Boiled and cooled water prepared by the kamal flowers is recommended for internal use during pregnancy to overcome the abnormalities of the umbilical cord, such as the cord is too long or too short.

URINARY TRACT INFECTIO

① Coconut - In excruciating pain during urination, it is advised to consume as much of tender coconut water and barley water as they desire. Consume tender coconut water twice a day adding to it a little bit of jaggery and half a teaspoonful of coriander leaves.

② Khas (ಲಾವಂಚ) - If problems like urinary tract infections and passing of blood along with urine, severe pain and burning sensation while urination occurs, khas is soaked in water for two to 3 hrs, then strained & water is given to the pregnant lady.

③ Sathaavari - In oedema, and urine retention fresh juice of sathaavari with sugar is given. A decoction is useful in burning sensation & frequent micturition.

④ Gokshuram (Neggilu - ನುಲ್ಲು) - In urinary tract infections, less urine output, urine retention and swellings during or after the period of pregnancy, fruits of the gokshuram are boiled in water and given for frequent use.

DIARRHOEA & INDIGESTION.

① POMEGRANATE - Unripe daadima made into small pieces and crushed with water is taken internally.

② Elachi (Elakki) - Powdered ela seeds with sugar is useful in belching and hiccup of pregnant ladies and children.

③ Bananas, dry raisins, fenugreek leaves are essential in the diet to ensure good bowel movements and quick regeneration of the blood.

④ Fenugreek (Menthya) - For those who are pale due to poor digestive capacity a teaspoonful of fenugreek seeds soaked in buttermilk is given as a digestive tonic.

NUTRITION.

① GOURDS (Sore kayi, halu kumbala) - The sweet fruit variety is wholesome to the developing foetus and therefore well advised for the pregnant women, as a very salutary diet.

② BITTER APPLE (Paramekke kayi, tumati kayi) - Useful in rectifying abnormal presentation of foetus and also in atrophy (or non-devpt and growth) of foetus.

③ BANANA (Balle-hannu) - Pregnant ladies will find consuming ripe banana fruits regularly would nourish their food well and will also pave way to a safe delivery.

④ A fruit salad of honey, milk and papaya fruit is an excellent tonic - ideal for children, feeding mothers and pregnant ladies (after their 3rd month).

⑤ [redacted] (Asuagandha (Hire-muddina gida)

Powder of the dried root is given with milk or boiled with milk as a general tonic. Good for under-weight women.

⑥ Plenty of milk (cow's milk preferably) and rice

INFLAMMATION OF BREASTS.

1) Grind the bark of med (Litsea) spread it on a piece of cloth and put it on the affected area.

2) Give hot compress with the bark of Gullar.

3) Give vacha as antibiotic.

4) Heat mustard oil and apply around the area and massage; give hot compress as above, or give fermentation.

5) Grind the bark of Gossypium herbaceum (Kapas), warm it and apply.

6) Fore sore nipples, give compress - even salt compress is enough.

OTHERS -

① Anatha - Mool (Kare-ambu, Kare-kambu) - In certain toxic conditions of pregnancy a decoction of the saaribaa root with milk is given.

② Displaced uterus - Tulsi - This can be restored to its proper position by sprinkling a finely powdered mixture of Tulsi and mango ginger on the genitalia.

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⑤ "Iron Tonic" - Drumstick leaves

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④ Vidaare (Nela Kumbala) - In sterility and abortion, a decoction of the roots of nela kumbala is given with milk and sugar.

BURNING SENSATION IN THE WOMB.

① Kamalaa (કમળ) - Flower of the kamal is boiled in water and given internally in case of burning sensation during pregnancy. Boiled and cooled water prepared by the kamal flowers is recommended for internal use during pregnancy to overcome the abnormalities of the umbilical cord, such as the cord is too long or too short.

URINARY TRACT INFECTION

① Coconut - In excruciating pain during urination, it is advised to consume as much of tender coconut water and barley water as they desire. Consume tender coconut water twice a day adding to it a little bit of jaggery and half a teaspoonful of coriander leaves.

② Khas (ಲಾವಂಚ) - If problems like urinary tract infections and passing of blood along with urine, severe pain and burning sensation while urination occurs, khas is soaked in water for two to 3 hrs, then strained & water is given to the pregnant lady.

③ Sathavari - In oedema, and urine retention fresh juice of sathavari with sugar is given. A decoction is useful in burning sensation & frequent micturition.

④ Gokshuram (ನೆಗ್ಗಿಲು - Mullu) - In urinary tract infections, less urine output, urine retention and swellings during or after the period of pregnancy, fruits of the gokshuram are boiled in water and given for frequent use.

DIARRHOEA / INDIGESTION

① PONEGRANATE - Unripe dadima made into small pieces and crushed with water is taken internally.

② Elachi (Elakki) - Powdered ela seeds with sugar is useful in belching and hiccup of pregnant ladies and children.

③ Bananas, dry raisins, fenugreek leaves are essential in the diet to ensure good bowel movements and quick regeneration of the blood.

④ Fenugreek (Menthya) - For those who are pale due to poor digestive capacity a teaspoonful of fenugreek seeds soaked in buttermilk is given as a digestive tonic.

NUTRITION.

(1) GOURDS (Sore kayi, halu kumbala) - The sweet fruit variety is wholesome to the developing foetus and therefore well advised for the pregnant women, as a very salutary diet.

(2) BITTER APPLE (Paramekke kayi, tumati kayi) - Useful in rectifying abnormal presentation of foetus and also in atrophy (or non-devpt and growth) of foetus.

(3) BANANA (Balle-hannu) - Pregnant ladies will find consuming ripe banana fruits regularly would nourish their food well and will also pave way to a safe delivery.

(4) A fruit salad of honey, milk and papaya fruit is an excellent tonic - ideal for children, feeding mothers and pregnant ladies (after their 3rd month).

(5) ~~[illegible]~~ Ashwagandha (Hire-muddina gida)
Powder of the dried root is given with milk or boiled with milk as a general tonic. Good for under-weight women.

(6) Plenty of milk (cow's milk preferably) and rice

PTO

INFLAMMATION OF BREASTS.

1) Grind the bark of med (Litsea) spread it on a piece of cloth and put it on the affected area.

2) Give hot compress with the bark of Gullar.

3) Give vacha as antibiotic.

4) Heat mustard oil and apply around the area and massage; give hot compress as above, or give fomentation.

5) Grind the bark of Gossypium herbaceum (Kapas), warm it and apply.

6) For sore nipples, give compress - even salt compress is enough.

OTHERS -

① Anatta - Mool (Kare-ambu, Kare-kamba) - Saaribaa. In certain toxic conditions of pregnancy a decoction of the saaribaa root with milk is given.

② Displaced uterus - Tulsi - This can be restored to its proper position by sprinkling a finely powdered mixture of Tulsi and mango ginger on the genitalia.

DURING DELIVERY.

LABOUR PAIN--

1) Neem - Bevu - Neem is called 'Sarvarogaharini' viz. the after labour neem, ~~the use of neem has to be more regular~~ If the midwife administers fresh juice of leaves even before the labour, the contraction of the uterus is facilitated. The flow will be clear, the swellings of the uterus and the surroundings get lessened and the patient starts getting energy. Faecal matter gets cleared, there will not be any fever and even if fever arises its violence is much less.

- Drinking water in which neem bark has been boiled whenever she feels thirsty after the labour is over, will keep the patient healthy.
- Washing the uterus with warm neem water will relieve the uterine pains due to delivery and also the morbid swellings if any. The wounds will heal and dry up and the orifice becomes clean and contracted. Fermentation with the inner bark of old neem trees is highly recommended for all

. DTO

diseases following delivery.

Flower of Neem – Flowers are ground and applied over the head or the stomach to relieve the pains at the head & the stomach following delivery.

2) Pepper-Pipnasu - An infusion of the root is prescribed after childbirth to cause an expulsion of the placenta, almost as a regular household remedy.

2) CINNAMON – Dalchini - The distress of the labour pain after child birth will get greatly relieved by a drink of the cinnamon decoction.

3) Acacia Arabica - Jali, Karjali, Bauri – Its water removes the pains at the stomach and the intestines.

4) Tulsi - Tying Tulsi roots to the waist is beneficial during labour pains.

5) Take black tea with one teaspoonful of ghee and sugar. If needed repeat it -

RELAXES ORGANS

1) Pepper - It is useful for the recovery of the relaxed organs soon after delivery. Powder of the pepper fruit is given internally with honey. It also cleans the uterus. Rice cooked with more amount of water and powder of pepper and the fruit in small quantities is given to the mother. It acts on liver, and spleen, increases the blood amount and appetite.

2) Mitā ghas (Scoparia Dulcis) - Make sarbat with mitā ghas, ~~and~~ Consuming it will spend up dilation and induce contraction. It can be given after delivery too.

EXPULSION OF PLACENTA

1) Pepper - Menasu - An infusion of the root is prescribed after childbirth to cause an expulsion of the placenta, almost as a household remedy.

2) Chirchitā - Take the root of Chirchitā and tie it on the waist or put at the mouth of the uterus. Remove as soon as the baby and the placenta are out.

3) Kalijira - If placenta is not fully removed give kalijira. Grind 2 spoonful kalijira with one teaspoonful of haldi and little jaggery.

Bleeding -

1) Take a piece of jethi madh (Glycyrrhiza glabra) cook in fire, and mix it with some jaggery and let her eat.

AFTER DELIVERY:

BREAST MILK.

1) Vidaara Neli Kumbalu - To increase breast milk, powder of the vidaara root with milk is given to the mother.

2) Asvagandha (Hire-maddina-gida) - To enhance breast milk secretion, powder of the hire-maddina-gida root boiled with cow's milk is recommended.

3) Breast milk will improve in quality if the woman is given a mixture of 10 gms of Tulsi juice, 20 gms of the juice of maize leaves, 10 gms of the juice or extract of ashwagandha, and 10 gms of honey for 7 days following delivery.

4) Garlic is given in plenty as it has lactogenic properties.

5) White cumin seeds fried in ghee and sweetened with sugar is a good recipe.

6) Rice starch and pinch of salt is given to delivered women to increase milk output. Gingelly laddoos made with jaggery with their high protein and fat content act as nutritional supplement stimulating milk

PTO

secretion.

7) Green gram (Hesarukalu) with its skin is another favourite diet to increase milk secretion.

8) Almond (Badam) soaked overnight made into a paste with poppy seeds and taken mixed with milk as a 'kheer' helps to increase milk output.

9) Cottonseed decoction obtained by boiling a ~~tablespoonful~~ of seeds in a glass of water gives a useful recipe which helps to increase flow of breast milk.

10) Soyabean preparations, sago (chikkakare soppu) porridge, black cumin soup, wheat and ragi 'dalia' (ಗೋಧಿ ಅಂಬಲಿ) are all useful as diet to increase milk output in the delivered woman.

Milk Suppression.

1) Milk suppression could be due to anaemia. Drink plenty of water with a pinch of haldi in it.

2) Prepare kichadi with papaya and eat.

3) Prepare kichadi with onion and coconut and eat

4) Masur dal is good for milk.

5) Prepare ajwain with ginger (mangarela) soonph, haldi and jaggery and take one spoonful thrice a day.

6) Prepare khichadi with rice, coconut, methi and jaggery and eat.

7) Take few pieces of stick cactus crushed and soak it overnight in water and give it to drink in empty stomach 1/day x 3 days.

11) Neem (Bevu) - The fresh juice of neem leaf is given for the first three days after the birth of the child. This is given before the principle meals. Such a measure improves the general health of the mother and also increases the milk yield. This is also given to the cows so as to increase the yield of milk.

12) Clove (Lavanga) - Taking a teaspoonful of the decoction of clove to which a little bit of ghee is added and doing so thrice a day is beneficial to feeding mothers for this will ensure greater milk production.

13) Turmeric (Arishina) - During labour and so long as the child is young and breast feeding, it is advised for the ladies that they should be regularly taking turmeric - for ex in milk. This is an excellent practice as this will stimulate the uterus and will also purify milk secretion.

APPETITE / NUTRITION

1) Vidaare (Nela Kumbala) - Powder of the fleshy root is given to the mother and the child as a general tonic to improve health and weight.

2) Ashwagandha (Hire - Maddina Gida) - Powder of the dried root is given with milk or boiled with milk as a general tonic (for under-weight women).

3) A teaspoonful of ajwain (oma) is ground in a little water and taken on an empty stomach as an antipyretic, anti-infective and stomachic after delivery.

4) A small piece of asafoetida with a lump of palm candy for its anti-flatulent, digestive properties. Asafoetida powder mixed with rice is given to women after delivery.

5) Fry fenugreek seeds (Menthya) in ghee and finely powder them. This powder is mixed with wheat flour and sugar to make halwa. A small quantity is taken daily for quick normalisation after delivery.

6) A highly nutritive preparation to improve the over-all health of the delivered woman is a mixture of dry coconut shavings, poppy

P10

seeds), bits of dry ginger, different varieties of gingiva (gourd, pumpkin and cucumber seeds) made into small sweet balls with jaggery. One or two balls are given daily to the delivered mother for good health.

7) To about half a pint of water add a handful of peeled white onions, a tablespoonful of cumin (Jeerige) well ground into a paste, and a fistful of 'Brahmanandhi' leaves (available at pan shop). They are rich in Vellarin which is a mild sedative. The leaves are dried in shade (12) to avoid loss of its active principle and then stored. The water with all the ingredients is heated for about 10-15 min till the decoction becomes concentrated. An ounce is given thrice a day for a few days after delivery.

8) Kachora - The root is an ingredient in some of the strengthening conserves taken by women so as to remove weakness after childbirth. It is given 3 times a day to women during the first two weeks following child birth.

MUSCLE RELAXING / SPASMS

1) Ginger (Shunti) – As a food article shunti with salt or jaggery is generally used after delivery. It improves appetite and gives strength and energy to abdominal muscles. A preparation is made with dried ginger 1 part, jaggery 2 part, black sesame without skin 1 part made into a powder and eaten along with hot milk in cases of pain in the Vagina after delivery.

NEW BORN INFANT

1) GUDOOCH (Amuth Balli) - A decoction of the stem of amuth balli with grapes and sugarcane is useful in jaundice of children.

2) Amla (Nallikayi) - Powder of the amalaki fruit is mixed with a little amount of (gold) ghee and honey. This is given to the new-born baby soon after the birth to gain resistance against diseases. In stomatitis of children, 5 gms of bark of the amalaki tree is made into a paste with breast milk is applied inside the mouth.

3) Haridraa (Arishina) - New-born child is applied with a paste of haridraa and milk. It cleans the skin and removes all the remnants of the amniotic fluid.

4) Bilwa (Billapattre) - A liquid food is prepared with unripe bilwa fruit, ela, sugar and puffed rice (laa). This is given to the child in lack of appetite and to develop hard stool formation after birth.

BLOOD CIRCULATION / CLEAN UTERUS

1) Amla - Fruits of amalaki are boiled in water and it is used for taking bath after delivery. In micturation and dysuria during and after the period of pregnancy.

2) Haridraa (Arishina) - Paste of haridraa with oil is applied over the body just before bath after delivery. This will act as an anti-toxicant. Aadhra powder with ghee and honey is given after delivery to purify and give strength to the whole uterus.

OTHERS

1. Cold - Keeping a bit of hing enclosed within a piece of cotton in the ears will ensure freedom from catching cold after child birth.

2. Family Planning - Dill European & Indian Cabbarige - The herb is particularly invaluable for women after child birth. Consuming its preparations regularly will promote rich secretion of milk and more importantly it also acts as a good family planning measure. For, by this procedure, the interval between child birth and the next menses period gets greatly prolonged so that both the mother and the child can secure ample time for healthy and proper nourishment.

Egypt
Dissemination

Encourage Journalists to Cover Reproductive Health

OR Summary 15

After Egyptian print journalists attended a series of briefings on reproductive health issues, their reporting of these issues improved. Health agencies can improve coverage of reproductive health issues by providing a regular flow of accurate information to a broad range of journalists.

Background

To raise public awareness of reproductive health (RH) issues, the Population Council FRONTIERS project and the Futures Group POLICY project jointly organized press briefings and provided background materials to key journalists from Arabic newspapers and magazines. From May 1999 to June 2000, project staff worked closely with 20 Egyptian journalists, including editors of women's pages and senior editors. The four press briefings covered youth, marriage patterns, contraceptive technology, and menopause. The press kit prepared for each briefing contained fact sheets, reference materials, a contact list of key experts, and an evaluation sheet.

To assess RH reporting and track coverage resulting from the intervention, project staff monitored eight major Arabic newspapers and nine magazines daily. All articles on RH were coded according to their topic, length, and use of research findings.

Findings

◆ The press briefings did generate press coverage. Of the 433 RH articles published in newspapers from May 1999 through March 2000, one-fifth covered topics featured in the press briefings. Similarly, one-third of the 127 magazine articles identified covered press briefing topics.

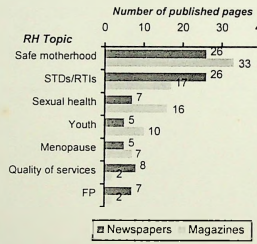
"The numbers and figures presented ... will have a more effective impact on public opinion."
–Participating journalist

◆ Journalists attending the press briefings reported that their knowledge of RH issues increased and that they planned to use the press kits to write their articles. Some journalists shared the press kits with their colleagues.

◆ The project did improve the quality of reporting, but room for further improvement remains. Roughly one in three articles based on the press briefings cited research findings or information included in the press kit. Although project staff stressed the need to use multiple sources, most articles were based on a single source of information.

◆ Of the total pages devoted to RH topics, more than one in four dealt with safe motherhood. The second most popular topic was reproductive tract infections, followed by sexual health, youth, menopause, and quality of services (see Figure).

RH Topics Covered in Newspapers and Magazines



◆ The majority of RH newspaper articles were news stories. In contrast, more than half of the magazine articles were feature stories; half of these articles were one page or longer. Both media formats are useful for research dissemination: newspapers are widely read by policymakers, while magazines tend to be shared with others and retained for a long time.

Policy Implications

◆ Research dissemination should include briefings and resource materials for journalists. Links with both print and broadcast journalists should be developed.

◆ To broaden the range of RH topics presented, more local agencies should be involved in media relations activities. More information about family planning and female genital cutting* should be provided to journalists, since these topics currently receive little press coverage.

◆ Health agencies should seek to improve the quality of reporting by providing a regular flow of accurate information and helping journalists to identify newsworthy stories.

November 2000

*See *OR Summary* 14, NGOs Need to Join Forces to End FGC.

Hegazi, Sahar and Mona Khalifa. 2000. Increasing the Coverage of Reproductive Health Issues in the Egyptian Press: Final Report. *For more information or to obtain a copy of the English Final Report of this study, contact: Population Council, 6A Giza St.,P.O. Box 115, Dokki 12211, Giza, Cairo, Egypt. Tel : 20-2-5725910; Fax: 20-2-5701804; E-mail:* frontiers@pccairo.org

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OR SUMMARIES

Zimbabwe Reproductive Tract Infections

OR Summary 1

RTI Screening Methods for Women Are Not Cost-effective

Existing methods for screening reproductive tract infections among family planning clients are not cost-effective: laboratory tests are too costly, and syndromic case management often leads to missed infections and unnecessary treatment. Health programs should continue to emphasize preventive measures—changing individual behavior and promoting condom use.

Background

Reproductive tract infections (RTIs) are common in Zimbabwe. Many RTIs increase the risk of human immunodeficiency virus (HIV) infection. In 1998, the Zimbabwe National Family Planning Council (ZNFPC) conducted an OR study to assess the feasibility of adding RTI diagnosis and treatment services to its menu of services. The study population consisted of 1,634 clients at three ZNFPC clinics. Each client was asked about lower abdominal pain, vaginal discharge and other RTI symptoms, was examined for clinical signs of RTIs, and was given laboratory tests to confirm the accuracy of diagnosis based upon symptoms and signs.

Findings

◆ **RTI prevalence**. Laboratory tests found that 9 percent of all family planning clients had one or more of the sexually transmitted RTIs (gonorrhea, trichomoniasis, and chlamydia). These three RTIs have serious public health consequences. Most clients with RTIs (26% of all clients) had either candida or bacterial vaginosis, which are not sexually transmitted. Two-thirds of FP clients had none of the five RTIs assessed by laboratory tests.

◆ **Applying clinical guidelines**. The study assessed the use of national guidelines for diagnosing and treating RTIs when laboratory tests are unavailable. Referred to as "syndromic management," the guidelines direct providers to treat with drugs all common causes of the specific syndrome or the combination of clients' reported symptoms and clinical signs observed during a pelvic examination. Identifying RTIs based on the guidelines was not effective because:

- Symptoms did not correlate well with RTIs. More than one-third of the clients with one or more RTIs (detected by laboratory tests) had no symptoms, and thus were not diagnosed as infected using the syndromic approach. Conversely, 47 percent of the family planning clients who had RTI symptoms and clinical signs, and therefore were identified as infected under syndromic management, did not actually have any of the five tested RTIs.

- Service providers did not always follow the syndromic management guidelines. They treated only 53 percent of the women who complained of lower abdominal pain and 65 percent of those who reported vaginal discharge and had clinical signs of it. The rest of the women went untreated (some were, in fact, uninfected and did not need treatment).

◆ **Cost of interventions.** None of the interventions studied is affordable to programs in low-resource settings. The lowest-cost intervention is to use syndromic management to evaluate only those FP clients seeking RTI services (see Table). However, this intervention has its drawbacks. In the study 75 percent of RTI cases were undetected and 56 percent of the women treated were misclassified as infected and thus received unnecessary treatment. Laboratory tests provide accurate diagnosis, but they are very expensive.

Policy Implications

◆ Most health agencies in developing countries lack the resources required to implement syndromic management of RTIs on a large scale. For example, in Zimbabwe estimated per capita spending on all health care was US$47 in 1998. Applying syndromic management of RTIs to all FP clients would cost more than 10 percent of these scarce resources.

◆ The ineffectiveness of syndromic approach in identifying women with RTIs calls for a more concerted effort in advocating for and supporting the development of simpler and more cost-effective laboratory tests.

◆ In the absence of more cost-effective approaches to RTI management, ZNFPC and other health agencies need to put greater emphasis on measures to reduce unsafe and unprotected sex, including condom promotion and counseling services to increase clients' perception of personal risk and knowledge of safer behaviors.

December 1999

Accuracy and Cost of Four RTI Diagnostic Models for FP Clients

Diagnostic Model (n = 1,623)	# of Women Correctly Treated	# of Women Given Drugs Needlessly	Total Cost of Drugs and Lab Tests (US$)	Cost per Clinic Client (US$)
Syndromic approach for FP clients seeking RTI services (n = 410)	130	168	4,024	2.48
Syndromic approach for all FP clients	337	298	8,605	5.30
Syndromic approach for all FP clients, with laboratory testing of clients with RTI symptoms and clinical signs	337	0	6,722	10.30
Laboratory testing for all FP clients	524	0	41,819	25.77

Zimbabwe National Family Planning Council. 1999. Demand for and Cost-Effectiveness of Integrating RTI/HIV Services with Clinic-based FP Services in Zimbabwe. *For more information, contact: Population Council, P. O. Box 17643, Nairobi, Kenya. Tel. 254-2-713-480; Fax: 254-2-713-479; E-mail: publications@popcouncil.or.ke.*

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OR SUMMARIES

Mali
Female Genital Cutting

OR Summary 2

FGC Excisors Persist Despite Entreaties

Programs to persuade traditional practitioners to discontinue the practice of Female Genital Cutting (FGC) are ineffective. Interventions must address the demand for FGC rather than focusing on the supply.

Background

About 94 percent (DHS, 1996) of Malian women aged 15-49 have experienced Female Genital Cutting (FGC). In Mali FGC is associated with serious gynecological and obstetric complications.

In 1998 the National Center of Scientific and Technological Research of the Mali Ministry of Secondary and Higher Education and Scientific Research conducted an evaluation of programs to eradicate FGC. The study assessed the work of three national nongovernmental organizations

Excisors continued to perform FGC. Most excisors remained unconvinced that FGC is harmful to women.

(Association Malienne de Suivi et d'Orientation des Pratiques Traditionnelles/AMSOPT, Association pour le Progrès et la Défense des Droits des Femmes/APDF, and Association de Soutien au Développement des Activités de Population/ASDAP) working in Bamako and five regions of Mali. These NGOs had attempted to persuade traditional practitioners of FGC ("excisors") to abandon the practice. Excisors are typically women from the blacksmith caste who come from families recognized by the community as excisors. Family members learn the practice by assisting excisors.

All three NGOs employed outreach workers to educate excisors and community members on the adverse effects of FGC on women's health. Two NGOs developed income generation schemes to provide the excisors with alternative revenues. One NGO sought to train excisors to advocate discontinuation of FGC. Researchers interviewed the heads of the three NGOs, 10 field staff, and 41 excisors. They also conducted 45 focus group discussions with 380 community members.

Findings

◆Nearly all families practice FGC. Ninety-one percent of a nonrepresentative sample of 126 women under age 40 said that they had circumcised their daughters. Nevertheless, the practice may be declining, since 98 percent of the 134 women over age 40 said that they had circumcised their daughters.

◆ Major decision-makers regarding FGC are heads of family groups, religious leaders, the village chief, and grandmothers. Community members defended the practice as a means of continuing cultural traditions, fulfilling religious obligations, controlling female sexuality, and preparing girls for marriage.

◆ Community members and NGO staff reported that the excisors continued to perform FGC, despite their statements to interviewers that they

had abandoned the practice. Excisors who had truly discontinued FGC did so for two major reasons: (1) retirement due to advanced age, poor eyesight, or replacement by their daughter; and (2) the promise of income from alternative activities. Most excisors remained unconvinced that FGC is harmful to women.

FGC eradication programs must reach diverse audiences, including men, opinion leaders, religious leaders, and traditional midwives.

◆ The strategy of converting excisors was ineffective because:

✢ Parents continued to seek out excisors as needed. They also found health workers willing to do FGC.

✢ The low social status of excisors does not put them in a decision-making role to end FGC.

✢ Excisors receive community recognition for their role and thus payments from their work are not their only source of motivation.

Men Talk about FGC

"The world changes. That's why we can now talk about excision with you. Before, no one would want to come to hear you discuss such topics."

"Perhaps our grandchildren will not go for excision. In any case, abandonment will not happen during our lifetime."
-- Participants in a focus group discussion

Policy Implications

◆ Programs must focus on reducing demand for FGC from the community, rather than seeking to reduce the supply of excisors willing to do FGC.

◆ NGOs must develop broad-based community education campaigns that promote discussion about FGC and encourage local leaders to speak out against the practice. FGC eradication programs must reach diverse audiences, including men, opinion leaders, religious leaders, and traditional midwives.

◆ Research should focus on designing effective intervention strategies based on reproductive health and human rights, countering arguments made by FGC adherents, and documenting NGO activities.

January 2000

Mali Ministère des Enseignements Secondaire, Supérieur et de la Recherche Scientifique, Centre National de la Recherche Scientifique et Technologique. 1998. Evaluation de la Stratégie de Reconversion des Exciseuses pour l'Eradication des Mutilations Génitales Féminines au Mali. *For more information, contact: Population Council, P.O. Box 21027, Dakar Senegal. Tel.: 221-824-1993; Fax: 221-824-1998; E-mail: pcdakar@pcdakar.org.*

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OR SUMMARIES

Burkina Faso Postabortion Care

Upgrading Postabortion Care Benefits Patients and Providers

OR Summary 3

Training hospital staff to improve emergency medical care for women with miscarriages and unsafe abortions leads to better patient care, shorter hospital stays, lower costs, and increased contraceptive use. Local anesthesia is essential for pain control. Physicians trained to provide postabortion care have trained other medical teams in Burkina Faso as well as in Senegal, Guinea and Haiti. Health officials from other West African countries have expressed interest in PAC training.

Background

At the request of the Family Health Directorate of the Ministry of Health (MOH), the Reproductive Health Research Network (CRESAR) conducted a study during 1996-1998 to introduce emergency care for women with complications from miscarriage or unsafe abortion. With technical assistance from Population Council and JHPIEGO, CRESAR trained staff at two large hospitals in Ouagadougou and Bobo-Dioulasso to provide postabortion care (PAC). Training for physicians, nurses and midwives covered manual vacuum aspiration (MVA), family planning methods, infection prevention, and communication with patients. Staff also participated in the development of policies and standards for PAC services.

To measure changes in knowledge and behavior, CRESAR interviewed 330 patients with abortion complications and 78 providers before the intervention, and 456 patients and 41 providers after the intervention. Information on hospital costs was also collected.

Scaling Up

During the pilot study the MOH, CRESAR, and service providers at the two study sites drafted national policies and standards for PAC services. The standards specify essential components of quality PAC services, such as infection prevention procedures and routine patient counseling. The MOH has adopted these policies and standards and has begun to extend services to regional hospitals.

The four physicians trained during this study have trained other medical teams in regional hospitals in Burkina Faso. They have also trained providers in Senegal, Guinea and Haiti. Health officials from other West African countries have expressed interest in PAC training.

Frontiers IN REPRODUCTIVE HEALTH

Findings

◆ Patient satisfaction was significantly higher after improved PAC services were introduced. Nearly all patients stated that providers answered their questions readily and gave clear explanations and instructions.

◆ Nearly all patients (94%) received family planning counseling. After counseling, 83 percent of the patients accepted a contraceptive method, compared with 57 percent before the intervention.

◆ Verbal reassurance alone is inadequate for pain control during MVA. Local anesthesia is essential.

◆ Providers switched to MVA as their preferred treatment for postabortion care. MVA lowered costs for both the hospital and patients due to shorter hospital stays, less use of general anesthesia, and less staff time, compared with previous clinical practices.

Policy Implications

◆ During expansion of PAC services, special attention should be given to quality of care and linkages to family planning services. Costs for MVA equipment and other supplies should be included in hospital budgets.

◆ The hospitals used as study sites can play a key role as reference, training and study centers for other practitioners.

Benefits of Improved PAC Services

	Before Training	After Training
Staff time for emergency treatment (minutes)	73	23
Length of hospital stay (hours)	36	19
Cost to patient (USD)	$34	$15
Patient informed of immediate return of fertility	13%	90%
Patient received FP method	57%	83%

February 2000

Ministry of Health, Burkina Faso, 1998. Introduction of Emergency Medical Treatment and Family Planning Services for Women with Complications from Abortion in Burkina Faso. *For more information contact: Population Council, 128 Sotrac Mermoz,P.O. Box 21027, Dakar, Senegal. Tel. 221-824-1993; Fax: 221-824-1998; E-mail: pcdakar@pcdakar.org.*

This project was conducted with support from the U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT under Contract Number CCP-3030-C-00-3008-00 and Cooperative Agreement Number HRN-A-00-98-00012-00

Senegal Postabortion Care

OR Summary 4

Train More Providers in Postabortion Care

Improving postabortion care (PAC) services benefits patients and reduces costs. Providing PAC services can result in shorter hospital stays, decreased patient costs, better communication between providers and patients, and increased acceptance of contraceptive use by women treated for abortion or miscarriage. Local anesthesia is needed for pain control.

Background

In Senegal, nearly one in five women requiring emergency obstetrical care has had a nonmedical abortion. Recognizing unsafe abortion as a serious health problem, the government adopted a national health strategy in 1997 that aims to halve the number of unsafe abortion cases by the year 2001.

In 1997 the Center for Training and Research in Reproductive Health (CEFOREP) and the Obstetrics and Gynecology Clinic (CGO) at Le Dantec University Teaching Hospital in Dakar introduced new clinical techniques to improve emergency treatment for women with complications from miscarriage or abortion. The CGO and two other teaching hospitals served as pilot sites. Physicians, nurses and midwives at the three sites received training in manual vacuum aspiration (MVA), family planning, and counseling. The United Nations Population Fund and JHPIEGO Corporation provided equipment, logistics support and training.

To measure the impact of the training, CEFOREP interviewed 320 women receiving emergency treatment and 204 providers before the intervention and 543 patients and 175 providers after the intervention. Information on service delivery costs was also collected.

Findings

- After training, providers quickly shifted to MVA from other clinical techniques.

- Changes in service management reduced hospital stays by nearly half, to an average of 1.2 days. Patient costs dropped by 25 percent, although the cost (CFA 26,700 or US$46) remains high for these patients (see Table).

Expanding access to PAC and improving referral procedures could save more women's lives.

- Communication between providers and patients improved. Patients received more information about the treatment and more psychological support. However, verbal reassurances did not reduce the need for local anesthesia for pain control.

- After the intervention, the proportion of patients who received family planning counseling doubled. Of those who were counseled, the proportion of women who decided to use a contraceptive method increased from 56 percent to 76 percent.

Policy Implications

◆ Expanding access to PAC and improving referral procedures could save more women's lives. More than two in three of all patients interviewed had visited two or more hospitals before receiving treatment, delaying care for up to 4.7 days from the onset of symptoms.

◆ FP counseling should be systematically provided to all postabortion patients.

◆ PAC training should be extended to more physicians, midwives and nurses. Pain control medication is essential. PAC supplies and equipment should be included in hospital and clinic budgets.

Benefits of Improved PAC Services

	Before Training	After Training
Patients admitted immediately for treatment	55%	69%
Length of hospital stay—2 hospitals	2.3 days	1.2 days
Cost to patient	35,800 CFA (US$61)	26,700 CFA (US$46)
Patients counseled about family planning	18%	34%
Of patients counseled, those who received a contraceptive	56%	76%

February 2000

Centre de Formation et de Recherche en Santé de la Reproduction and Clinique Gynecologique et Obstetricale Chu A. le Dantec. 1998. Introduction des Soins Obstetricaux d'Urgence et de la Planification Familiale pour les Patientes Presentant des Complications Liees a un Avortement Incomplet. *For more information, contact: Population Council, 128 Sotrac Mermoz, P.O. Box 21027, Dakar, Senegal. Tel. 221-824-1993; Fax: 221-824-1998; E-mail: pcdakar@pcdakar.org*

This project was conducted with support from the U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT under Contract Number CCP-3030-C-00-3008-00 and Cooperative Agreement Number HRN-A-00-98-00012-00

OR SUMMARIES

Kenya Postabortion Care

OR Summary 5

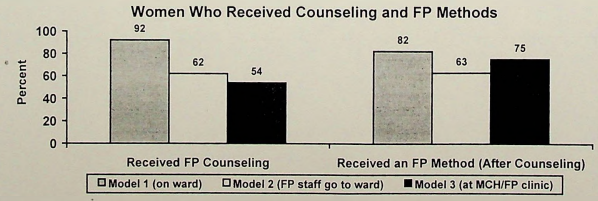
Offer Family Planning on Hospital Wards

The most effective way to ensure that women being treated for incomplete abortion obtain family planning is to offer information and services in hospital gynecological wards, this study concluded. Having ward staff provide contraceptives on the ward is more convenient than having regular family planning providers visit the ward or having patients go to a separate clinic. Findings from this study have been key in informing the expansion plan for PAC in Kenya.

Background

In Kenya, more than one in three women hospitalized for gynecological problems have complications from miscarriage or unsafe abortion. These women generally receive no information or services for family planning or other reproductive health needs.

During 1996-1997, the Kenya Ministry of Health (MOH), Population Council and Ipas collaborated to test three models for providing postabortion care (PAC) and family planning (FP) information and services in two areas of the hospital. The three models are: (1) having gynecology ward staff provide postabortion FP services on the ward; (2) having staff from the maternal and child health/FP clinic provide FP on the gynecology ward; and (3) providing FP at the MCH/FP clinic after PAC treatment but before hospital discharge. Six large district and provincial hospitals served as pilot sites. Researchers compared the effectiveness of the three models by using surveys given before (481 patients and 140 providers) and after the intervention (319 patients, 92 male partners of patients, and 106 providers).



Frontiers in Reproductive Health

The intervention consisted of: (1) training doctors and nurses in manual vacuum aspiration (MVA) and postabortion FP; (2) providing equipment and supplies; and (3) reorganizing services to better suit patients' needs. All pilot sites designated small rooms for MVA procedures, thus speeding up patient flow and freeing up the main operating rooms. The hospitals offering FP services created private counseling areas on the wards by converting unused space, adding partitions, or reorganizing space. They obtained contraceptive supplies from the hospital's MCH/FP clinic.

Findings

◆ Model 1 – providing postabortion FP information and services on the ward – led to increased adoption of contraception and shorter hospital stays. Under Model 1, more patients actually received FP counseling and services than in the other two models (see graph).

◆ Providers and patients reacted positively to the improved PAC services offered in all three models. Providers preferred MVA to pre-intervention clinical treatment methods. Before the package was introduced, only 7 percent of all PAC patients received FP counseling, compared with 68 percent after the intervention.

◆ In all settings PAC services could be further improved by providing patients with more information. Only 16 percent of the patients were told what to do if problems developed. Similarly, only 41 percent of the patients were warned that they could conceive again soon after abortion. Roughly half of the patients were told about the possible side effects of their chosen method.

◆ Pain control practices remain a problem. Only 3 percent of the patients in both the baseline and post-intervention groups received pain medication, and thus nearly all women reported pain during treatment.

◆ Husbands/partners of patients indicated a strong interest in receiving more information from providers. More than 90 percent of the men interviewed said that they would have liked to know more about their wife/partner's condition and family planning. One hospital began to counsel couples on the gynecological ward.

Policy Implications

◆ Postabortion FP information and services should be offered on gynecological wards by ward staff. Ward staff may need additional training in FP counseling.

◆ Men accompanying PAC patients should also be offered information on their partner's condition and FP counseling, if the woman consents.

◆ PAC providers must provide medication for pain control and should not rely on verbal reassurances alone.

◆ To ensure that PAC services continue, hospital administrators need to ensure that staff are adequately trained and that equipment, supplies, and drugs are available. Both pre-service and in-service training are needed to integrate PAC skills into the existing health system.

◆ Based on these findings, the Kenya MOH developed detailed workplans for expansion of improved PAC services. These plans have now been incorporated into a national strategy to expand PAC throughout Kenya, in both the public and private sector.

February 2000

Solo, Julie, et al. 1998. Creating Linkages between Incomplete Abortion Treatment and Family Planning Services in Kenya: What Works Best? *Also see* Improving Care of Postabortion Patients in Hospitals, *OR Summaries, January 1998. For more information, contact Population Council, P.O. Box 17643, Nairobi, Kenya. Tel. 254-2-713-480; Fax: 254-2-713-479; E-mail: publications@popcouncil.or.ke.*

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OR SUMMARIES

Peru
Quality of Care

OR Summary 6

Managers Must Monitor Quality of Care Regularly

Family planning providers at Peru's government health facilities conform to national care guidelines in that more than 90 percent of them treat their clients respectfully and offer them a wide choice of contraceptive options. Nevertheless, the majority of providers could further improve the quality of care by giving clients more information about correct use and possible side effects of their chosen method and by screening for contraindications. A 100 percent quality standard ought to be established to avoid violation of individual reproductive rights.

Background

In the late 1980s, Peru's National Family Planning Program within the Ministry of Health (MOH) assigned method-specific targets to clusters of health facilities. In 1998 the MOH changed its policies to ensure that services responded to individual reproductive health needs and wishes. It eliminated method quotas, ended voluntary surgical contraception (VSC) campaigns, and issued norms to ensure quality of care and informed choice.

In 1999 the Population Council collaborated with the MOH to determine whether providers were complying with the new guidelines and, secondarily, to develop a monitoring system to assess compliance over time.

Findings

◆ More than 90 percent of MOH family planning providers treat their clients with respect and provide a variety of contraceptive options without showing bias for or against any particular method.

◆ Nevertheless, MOH providers can do more to ensure that every client receives adequate information about her/his chosen method. For example, most providers warned simulated clients about possible menstrual changes associated with the injectable DMPA, but they did not mention possible delayed conception after discontinuation. Actual clients in exit interviews showed adequate general knowledge about the pill, condom, injectable and VSC. However, specific knowledge concerning the method chosen or used was incomplete.

◆ Most providers in urban health centers did not check simulated clients for three of the four medical conditions that are contraindicated for DMPA use. Few of the providers in health centers gave information on danger signs requiring medical attention.

◆ More than 90 percent of clients who had been sterilized in hospitals stated that they had made the decision themselves or jointly with the provider and 98 percent knew its reproductive consequences.

Frontiers IN REPRODUCTIVE HEALTH

◆ In urban health centers, simulated clients were counseled for 2 to 45 minutes. Providers conveyed 43 percent more information in the 9 to 14-minute sessions compared with 2 to 8-minute sessions.

◆ In home interviews, most clients at rural health posts stated that they had made the decision to use contraception, and many had selected a specific method prior to visiting the health post. Rural clients, however, had limited knowledge about their chosen method.

Policy Implications

◆ The MOH has produced and circulated new quality of care norms and strengthened its provider retraining efforts and supervision strategies.

◆ MOH facilities and individual providers should be evaluated on the quality of their performance and should receive regular feedback.

◆ Providers should invest as much time as needed in interactions with clients.

◆ A 100 percent quality standard must be established to avoid violations of individual reproductive rights.

◆ Two of the five data collection modes– the client exit interview and the use of simulated clients requesting DMPA – proved reliable for monitoring the quality of care in health centers. Monitoring tools for hospitals and rural health posts need further improvement.

February 2000

Study Design

In order to conserve time and funds, the study used Lot Quality Assurance Sampling to draw a sample of Peru's 6,589 service delivery points. The study sample consisted of 19 hospitals, 19 health centers, and 19 health posts. Six observations were obtained in each facility. Data were collected from June through August 1999 as follows:

◆ Hospitals were assessed using reports of simulated clients who requested VSC counseling and home interviews with VSC adopters.

◆ Health centers were assessed using reports from simulated clients who requested the injectable DMPA and exit interviews with family planning clients.

◆ Rural health posts were assessed through home interviews with clients who had recently started using family planning.

For an element to meet the LQAS standard, at least 95 percent of the six clients interviewed at each facility had to receive specific information or a specific service from the provider in at least 80 percent of the facilities sampled. Parallel analyses were made on the basis of 95 percent confidence intervals in each sample (N = 114).

León, Federico R., 1999. Peru: Providers' Compliance with Quality of Care Norms.

León, Federico R. et al., 1999. Counseling Sessions Length and Amount of Information Exchange in Peruvian Clinics. *For more information, contact: Population Council, Av. San Borja Sur 676, Lima 43, Peru. Tel. 511-475-0275; Fax: 511-475-0675; E-mail: pclima@amauta.rcp.net.pe or contact: Population Council, Escondida 110, Villa Coyoacán, 04000, Mexico, D.F. Mexico. Tel. 52-5659-8537; Fax: 52-5554-1226; E-mail: diseminar@popcouncil.org.mx.*

OR SUMMARIES

Egypt
Access & Quality of Care

Family Planning Providers Should Encourage Clients to Discuss Sexual Problems

OR Summary 7

Both clients and providers welcomed the inclusion of discussions on sexuality during family planning counseling. Providers who were trained in sexuality counseling were more likely to discuss sexual matters with clients. Clients preferred to have the provider initiate the discussion.

Background

This 1999 study, the first of its kind in Egypt, examined the feasibility and impact of introducing discussions of sexuality during family planning (FP) consultations. Conducted by the Population Council in collaboration with the Egyptian Ministry of Health and Population (MOHP), the study took place in four MOHP clinics and two private clinics affiliated with the MOHP. Nurses and physicians at all six clinics attended a two-day training session on contraceptives with an emphasis on barrier methods.

Providers in the three clinics that had been randomly chosen as intervention sites also received three days of training on sexuality, gender and counseling skills. To assess the acceptability of sexuality counseling as well as impact of training, researchers interviewed 25 providers and 503 clients, held five focus group discussions, and debriefed seven "mystery clients" (women who posed as clients).

Findings

◆ Family planning consultations with trained providers were more likely to include a discussion of sexual matters compared with consultations with untrained providers (see Table). More than two-thirds (71%) of the clients who received sexuality counseling said they were not embarrassed to discuss such private issues. The most common sexual problems raised by clients were loss of sexual desire and pain during intercourse. Reports of mystery clients showed that, despite training, providers' technical competence in managing such problems was somewhat limited.

Client Experiences during Family Planning Consultations

Clients who were:	Control (%) (n = 183)	Intervention (%) (n = 320)
Counseled on sexual relations	18	44
Encouraged to ask questions	84	95
Counseled on chosen method's effect on sexuality	22	41
Given a barrier method	2	9

Client Attitudes and Experiences

"If the doctor asks us those [sexuality-related] questions we would tell her about our problems but otherwise I would be embarrassed to tell her."

"I often could not have sex with my husband because of the IUD (bleeding)."

– clients interviewed after clinic visits

◆ Women attending focus group discussions reported various sexual problems related to family planning. Expressing their reluctance to initiate discussion of sexual problems, they said that they would like the provider to ask some routine questions about their sexual relations and indicate a willingness to discuss sexual topics. As confidentiality is a major concern, they prefer to talk with a provider they know, preferably a woman.

◆ Clients at the intervention clinics were more likely than those at the control clinics to receive counseling on the male condom and to obtain a barrier method, mainly condoms. The majority of clients using barrier methods planned to use them for a short time before switching to another method.

◆ Clients at the intervention clinics noticed improvements in the quality of care. They were significantly more likely than clients at the control clinics to report that the provider had encouraged them to ask questions, had provided all the information they were expecting, and had explained how their chosen contraceptive method could affect their sexual relations.

Policy Implications

◆ Sexuality issues, including potential effects of contraceptive options, should be incorporated into family planning counseling. Pre-service and in-service training for providers should include instruction on sexuality, sexual problems, and their relation to family planning methods.

◆ Referrals to teaching or university hospitals should be established.

◆Health education messages should encourage the public to ask family planning providers about concerns and questions regarding sexuality.

March 2000

Abdel-Tawab, Nahla et al., 2000. Integrating Issues of Sexuality into Egyptian Family Planning Counseling.*For more information, contact:Population Council, 6A Giza St., P.O. Box 115, Dokki, Cairo, 12211 Egypt. Tel 20-2-571-9252; Fax 20-2-570-1804; E-mail frontiers@pccairo.org.*

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Indonesia
Institutionalization of OR

Coordinated Studies Are Needed to Assess Trends

OR Summary 8

Longitudinal studies with consistent indicators and representative study populations are needed to identify changes in maternal and child health indicators.

Background

In 1999 the Population Council/Indonesia conducted a critical review of 11 Indonesian surveys and studies that measured various indicators of maternal and child health (MCH) between 1996 and 1999. Many of these studies tried to link these indicators with the nation's economic crisis, which began in July 1997. Council staff sought to explain how these studies came up with divergent findings.

Findings

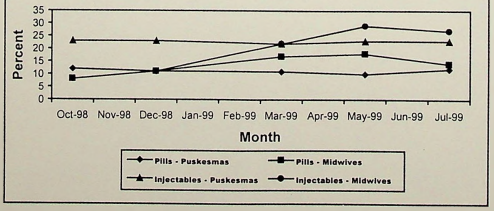
◆ The timing of data collection activities and their geographical coverage are key factors leading to differences in findings.

◆ Data need to be disaggregated to the lowest level possible in order to ascertain differential impacts across regions, among socio-economic and age groups, and by gender and urban/rural residence.

◆ Attributing changes in MCH indicators to the economic crisis may be misleading. Health and nutritional status appears to have been declining before the crisis began. The overall impact of the economic crisis may not be reflected in MCH indicators for several years.

◆ Family planning services experienced some disruptions during 1997-1999. The price of contraceptives rose in late-1997 and early 1998 and fluctuated greatly between mid-1998 and mid-1999. Clinics reported a significant increase in stockouts of contraceptives between 1997 and 1998. During October 1998 through July 1999 stockouts in primary health centers and at

Figure 1. Contraceptive Stockouts

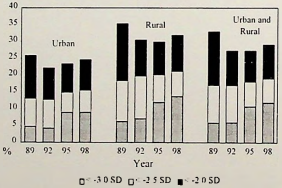


midwives' clinics remained at relatively high levels (see Figure 1). Nevertheless, contraceptive prevalence and the number of health facilities offering contraception did not change significantly during 1997-1999.

◆ The incidence of sexually transmitted infections increased from 1997 to 1998, but it is unclear whether this trend is related to the economic crisis.

◆ The proportion of urban and rural children aged 6-17 months who were underweight – a sign of chronic malnutrition – was higher in 1998 than in 1995 (see Figure 2).

Figure 2. Percent of Children Aged 6-17 Months with Low Weight-for-Age, 1989-98



Policy Implications

◆ Government and nongovernmental agencies, donors, and researchers need to coordinate the planning of key research studies to ensure that comparable and useful measures are developed.

◆ Program planners and other decision-makers must take into account the limitations of each dataset before making generalizations to a wider population or linking health indicators to socio-economic trends. They also need to understand that the various data collection methods have different advantages and disadvantages.

◆ To ensure that research findings are useful to program managers and planners, researchers should make sure that findings, research methodology and sample size are reported accurately and that indicators are comparable in time-series studies. In order to distinguish new trends from short-term fluctuations, researchers should analyze at least three data points and use trend analysis techniques. Tests of statistical significance are essential in order to identify true differences between groups.

March 2000

Gardner, Michelle and Lila Amaliah, 1999. Analysis of Conflicting Crisis-related Research Results. *For more information, contact: Population Council, Sanga Rchana, 53, Lodi Estate, 3rd floor, New Delhi, 110003, India; Tel. 91-11-461-10912; Fax 91-11-461-0912; E-mail: frontiers@pcindia.org, or Population Council Indonesia, Menara Dea Building, Suite 303, Jl. Mega Kunigan Barat Dav. E4.3, No. 1, Jakarta, 12950; Tel. 6221-576-1011; Fax: 6221-576-1013; E-mail: pcjkt@cbn.net.id.*

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OR SUMMARIES

Kenya Reproductive Tract Infections

OR Summary 9

Identifying RTIs Remains Problematic: Prevention Is Essential

More than half of the family planning and antenatal clinic clients in Nakuru, Kenya had one or more reproductive tract infections (RTIs). Roughly one-third of these infections were sexually transmitted. Using syndromic management algorithms based on the woman's reported symptoms, providers correctly classified only 5 to 16 percent of women who later tested positive with laboratory results. Given the limitations of syndromic management, programs need to stress prevention of sexually transmitted infections (STIs).

Background

Since 1990 the Nakuru Municipal Council has implemented a multifaceted program to reduce the incidence of reproductive tract infections, especially those that are sexually transmitted, including HIV/AIDS. Staff in the Council's five health clinics use syndromic management guidelines, based on clients' reported symptoms and clinical signs, to identify clients with RTIs.

In 1998 the Population Council conducted a study to assess the accuracy of syndromic management and determine the best ways to integrate RTI management into existing antenatal (ANC) and family planning (FP) services. Sources of data included: (1) findings from a medical examination, including a pelvic exam and assessment of symptoms and clinical signs, of 906 FP clients and 815 ANC clients; (2) clients' (and their partners') risk factors for STIs; (3) laboratory tests for five RTIs; and (4) interviews with 18 nurses and 195 clients. After an assessment of existing RTI services, 18 nurses from the five municipal clinics attended a three-day refresher course in syndromic management, including training in using a checklist for client management.

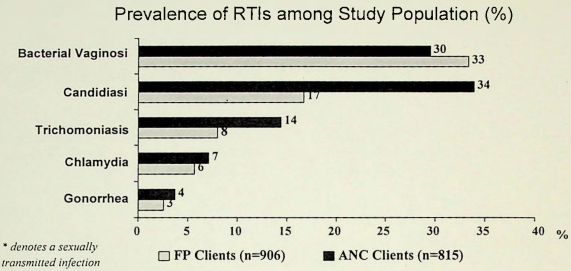
Findings

- Fifty percent of FP clients and 59 percent of ANC clients had at least one RTI, as detected by laboratory tests. A relatively high proportion of clients – 14 percent of the FP clients and 21 percent of the ANC clients – had one or more sexually transmitted infections (chlamydia, gonorrhea, and trichomoniasis).

- Vaginal infections due to bacterial vaginosis, trichomoniasis and candidiasis were more common (47% FP and 56% ANC clients) compared with cervical infections due to gonorrhea and/or chlamydia (7.5% of FP and 9.4% of ANC clients).

- Most women found to have an RTI through laboratory testing were asymptomatic and showed no clinical signs. Only 23 to 29 percent of ANC and FP clients with infection reported one or more RTI symptoms, and 37 to 43 percent of infected clients were found on examination by a provider to have clinical signs.

- Applying syndromic management guidelines, providers were able to classify correctly as



infected only a small proportion of the women who actually had a laboratory-diagnosed RTI (5% of the FP clients and 16% of the ANC clients).

◆ Current syndromic management guidelines for women classified as having vaginal discharge syndrome are more reliable for managing women who have a vaginal infection than for managing women having a cervical infection. Most women classified by providers as having a vaginal discharge syndrome (61% of FP clients and 70% of ANC clients) did in fact have a vaginal infection, whereas only 11 percent of FP clients and 8 percent of ANC clients classified as having vaginal discharge syndrome had a cervical infection.

◆ Collecting STI risk assessment information from clients did not significantly improve providers' ability to identify women with cervical infections.

Policy Implications

◆ Given the poor performance of syndromic management for women presenting with vaginal discharge as a symptom of an STI, programs need to emphasize treatment, by improving providers' counseling skills and encouraging them to educate clients about STI symptoms and preventive measures, especially dual protection.

◆ If programs insist on continuing to use syndromic management of vaginal discharge, then women classified by providers as having vaginal discharge syndrome should be first treated as having a vaginal infection (i.e. bacterial vaginosis, candidiasis and trichomoniasis) rather than a cervical infection. If symptoms persist, treatment for cervical infection may be advisable.

◆ Algorithms for managing vaginal discharge need to be reviewed to emphasize treatment for bacterial vaginosis, which is the most common RTI and has been associated with increased risk for HIV infection and pelvic inflammatory disease.

March 2000

Solo, Julie; Ndugga Maggwa; James Kariba Wabur; Bedan Kiare Kariuki; and Gregory Maitha. 1999. Improving the Management of STIs among MCH/FP Clients at the Nakuru Municipal Council Health Clinics. *For more information, contact: Population Council, P.O. Box 17643, Nairobi, Kenya. Tel. 254-2-713-480; Fax 254-2-713-479; E-mail: publications@popcouncil.or.ke.*

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OR SUMMARIES

Burkina Faso and Mali FGC

Female Genital Cutting Harms Women's Health

OR Summary 10

Women in Burkina Faso and Mali who have had their genitals cut are more likely to have gynecological and obstetrical problems, including bleeding, internal scarring, vaginal narrowing, and complications during childbirth. More severe cutting increases a woman's risk of other reproductive health problems.

Background

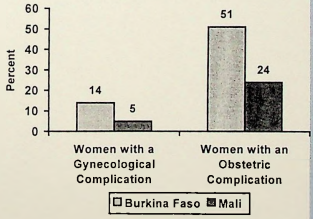
In collaboration with the Ministries of Health (MOH) of Burkina Faso and Mali, the Population Council conducted two studies in 1998 to describe the occurrence and severity of health problems related to female genital cutting (FGC). This traditional practice entails partial or total removal of girls' external genitalia.

Study participants were consenting women who received a pelvic exam during prenatal, family planning, obstetric, or gynecological consultations at MOH clinics. Providers were trained to observe the types and complications of FGC. In order to assess their potential role as change agents, providers in Mali also received training on the health effects of FGC and client counseling. In Burkina Faso, health providers recorded information on and interviewed 1,920 women at 21 health centers in the rural provinces of Bazèga and Zoundwèogo. In Mali's Bamako district and Ségou region, providers recorded information on 5,390 women in 14 urban and rural health centers.

Findings

- The prevalence of FGC was very high – 93 percent of the clinic clients in Burkina Faso and 94 percent in Mali had been cut. In Burkina Faso, Type 1 (removal of the clitoral hood and/or clitoris) was most common. Nearly three-fourths (74%) of the women in Mali had Type 2 (clitoridectomy and removal of the labia minora). Five percent of women in both groups had the most severe form of FGC, Type 3 or infibulation, which entails partial or complete removal of the external genitalia with stitching or narrowing of the vaginal opening. FGC was found among all ethnic groups.

Health Complications of FGC*



* *Based on client reports in Burkina Faso and actual deliveries in Mali.*

◆ Fourteen percent of the clients in Burkina Faso and 5 percent of those in Mali had at least one gynecological complication related to FGC. In Burkina Faso, where the majority of women have Type 1 cutting, keloid scarring and vaginal stenosis (narrowing of vaginal walls due to scarring) were the major complications reported by women. In Mali, where Type 2 cutting predominates, hemorrhaging from scar tissue was the major complication observed by clinic staff, followed by vaginal scarring and obstruction.

◆ In both countries, women who were infibulated (Type 3) were almost two and a half times more likely to have a gynecological complication than those with a Type 2 cut. Similarly, women with a Type 1 cut were much less likely to have a complication than those with more severe cuts.

◆ FGC was found to be a major risk factor for complications during childbirth, with risks increasing according to the severity of the cut. In Burkina Faso, cut women were three times more likely to report having had a difficult delivery than uncut women. Women with Types 2 or 3 cutting were more likely to experience hemorrhaging or perineal tearing during delivery.

◆ Among the women in Mali who gave birth at the clinic, 29 percent of those who had been cut experienced complications during childbirth, compared with 7 percent among those who had not been cut. In Mali, 5 percent of uncut women experienced complications during delivery compared with 18 percent of women with Type 1 cutting, 30 percent of those with Type 2, and 36 percent of those with Type 3.

◆ In Burkina Faso, cut women were 1.5 times more likely than uncut women to show signs of genital infection, particularly vaginal discharge, suggesting that FGC may render women more susceptible to RTIs.

Policy Implications

◆ All health personnel should receive information on the serious health problems associated with FGC.

◆ In addition to women's rights issues, information on the deleterious health effects of FGC should be used in community education campaigns.

◆ People assisting women giving birth should anticipate the possibility of FGC-related complications.

March 2000

Diop, Nafissatou J., et al. Etude de l'Efficacité de la Formation du Personnel Socio-sanitaire dans l'Education des Client(e)s sur l'Excision au Mali. *Bamako, Mali: Population Council, 1998.*

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Jones, Heidi, et al. Female Genital Cutting and its Negative Health Outcomes in Burkina Faso and Mali *Studies in Family Planning Vol. 30, No. 3, September 1999. For more information, contact Population Council, P.O. Box 21027, Dakar, Senegal. Tel. 221-824-1933; Fax 221-824-1998; E-mail: pcdakar@pcdakar.org.*

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OR SUMMARIES

Mali
Female Genital Cutting

OR Summary 11

Empower Health Workers to Advocate against Female Genital Cutting

Health providers are an important potential resource in campaigns to eradicate female genital cutting (FGC), but a concerted effort is needed to ensure that they can become effective behavior change agents. After a three-day training course, providers' knowledge about FGC increased, but few of them counseled their clients about FGC.

Background

The various initiatives to eradicate FGC in Mali – public education campaigns and conversion of traditional excisors – over the past two decades have had little impact on this traditional practice. This study assessed the use of health personnel to combat FGC, as recommended by the World Health Organization.

Conducted in 1998 by the Association de Soutien au Développement des Activités de Population (ASDAP), a nongovernmental organization, and the Ministry of Health, the study covered 14 urban and rural health centers in Bamako and Ségou region. In the eight health centers that served as experimental sites, 59 health providers, including physicians, midwives, nurses and aides, attended a three-day training course on identifying and treating medical complications related to FGC and counseling clients about FGC. In the six centers that served as control sites, 48 providers were interviewed.

Findings

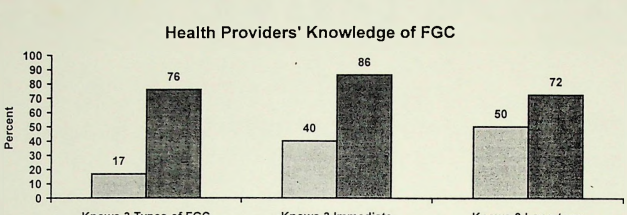
◆ Nine in ten health providers are opposed to FGC and are willing to play an active role in educating their clients about FGC.

◆ Nevertheless, some providers support the medicalization of FGC. Nine percent of the providers who had been trained and 29 percent of those in the control group stated that FGC presents no health risk if performed in hygienic conditions. Thirteen percent of the 107 providers interviewed admitted that FGC is being practiced at their facility. Four providers said they had performed FGC procedures.

◆ Training did change some providers' attitudes regarding FGC. Before training, 39 percent of providers thought that an uncut girl had loose morals; after training, 26 percent still held this belief. The proportion of providers who thought that men prefer to marry women who have been cut declined from 32 percent to 28 percent, while the proportion who thought that FGC guarantees a girl's virginity decreased from 14 percent to 9 percent.

◆ Providers' knowledge of FGC increased dramatically after training. Roughly three in four trained providers knew at least three immediate and long-term complications (see Figure). However, providers were uncomfortable discussing FGC with their clients and felt too rushed due to the large volume of clients during the morning clinic sessions. Group health talks were held in only two of the eight experimental

Frontiers
IN REPRODUCTIVE HEALTH



clinics. Only six of the 1,105 clients interviewed were counseled about FGC.

◆ The majority of health providers have provided treatment to girls with complications following FGC. More than one third had to refer a client for further treatment of FGC complications. Nevertheless, providers acknowledged that they have limited competence in caring for FGC complications, even after training.

Policy Implications

◆ Mali's MOH is using the study results to develop a new curriculum to promote standardized, mandatory training on FGC for all health providers.

◆ Based on the study findings, the MOH issued a policy banning the practice of FGC in its facilities.

◆ The three-day training course was effective in changing provider attitudes toward FGC, but additional training in communication skills is needed to overcome providers' reticence to discuss FGC with their clients.

◆ To eradicate FGC, community education initiatives are needed in addition to clinic education.

April 2000

Diop, Nafissatou J., et al. Etude de l'Efficacité de la Formation du Personnel Socio-sanitaire dans l'Education des Client(e)s sur l'Excision au Mali. *Bamako, Mali: Population Council, 1998. For more information, contact Population Council, P.O. Box 21027, Dakar, Senegal. Tel. 221-824-1933. Fax 221-824-1998. E-mail: pcdakar@pcdakar.org.*

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OR SUMMARIES

Egypt
Postabortion Care
OR Summary 12

Expand Access to Postabortion Care

Training providers and introducing a case management protocol led to improved postabortion care at ten government and teaching hospitals in Egypt. Patients reported shorter waits and greater satisfaction with the medical services they received. Physicians adopted treatment methods associated with lower complications and provided more health-related information to patients.

Background

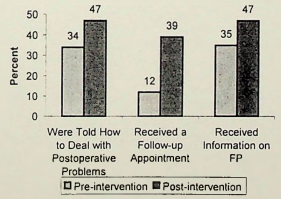
A 1994 pilot study in two Egyptian hospitals showed that upgrading postabortion care (PAC) and training physicians in manual vacuum aspiration (MVA), infection control and counseling led to significant improvements in the care of postabortion patients. This 1997 study, conducted by the Egyptian Fertility Care Society with support from the Population Council, sought to institutionalize improved postabortion medical care and counseling procedures in ten hospitals – seven government hospitals and three university hospitals.

In the 1997 intervention, five senior physicians from each hospital attended a five-day training course in MVA, infection control, and family planning (FP) counseling. The physicians then supervised four months of on-the-job training of doctors and nurses at the 10 hospitals. A case management protocol, including emergency medical treatment, pain control, and FP counseling, was also introduced. Researchers measured the resulting changes in knowledge and practice by administering surveys before (255 physicians, 311 nurses, and 508 patients) and after (246 physicians, 263 nurses and 497 patients) the intervention. Data were also collected from 1,036 medical records.

Findings

◆ After their training physicians had significant gains in knowledge about short-term complications, adverse health impacts, and the immediate return of fertility following postabortion treatment. Physicians were more likely after the intervention to recognize that PAC patients should receive information about the cause of miscarriage and the need to eat well, rest and use contraception during recovery.

Care of Postabortion Patients



◆ After the intervention, physicians shifted from nearly universal use of dilatation and curettage (D&C) to use of MVA in 57 percent of cases

requiring emergency medical treatment. More than three in four physicians reported lower complication rates with MVA, compared with D&C. More than half said that MVA is more effective and easier to use than D&C.

◆ The shift to MVA led to a shift from general anesthesia to local anesthesia in about 30 percent of the cases. Following the intervention, the proportion of physicians stating that mild analgesia and local anesthesia can reduce patients' anxiety increased significantly. However, pain control techniques still need improvement: 18 percent of post-intervention patients did not receive any pain control medication. Although the proportion of patients reporting extreme pain did not increase significantly, reports of moderate pain increased five-fold (from 5% to 27%).

◆ Nearly three in four (73%) of the post-intervention PAC patients stated that the service they received at the hospital was excellent, compared with 44 percent before the intervention. Post-intervention patients were more likely than pre-intervention patients to report that the provider was friendly, that they waited less than 30 minutes for medical services, and that they received information about possible complications, their management, and follow-up.

◆ The proportion of PAC patients who said that they had received family planning information at the hospital increased from 35 percent to 47 percent. However, only 7 percent of the PAC patients received a contraceptive method before discharge.

Policy Implications

◆ Training and protocols for PAC, including procedures for control of pain and infection, should be standardized in hospitals as well as undergraduate and graduate medical schools. Government and teaching hospitals should include MVA supplies as standard items in their budget and should ensure an adequate supply of pain medication.

◆ Some aspects of PAC still need improvement: pain control, information given to patients, and the provision of FP counseling and services. Nurses should be given a greater role in comforting, counseling, and informing PAC patients. Simple guides on MVA instruments and FP counseling should be developed.

Utilization

◆ The Ministry of Health and Population's "Healthy Mother/Healthy Child" project is training providers in MVA and other elements of PAC, including pain control and linkages with family planning services. Ten new hospitals have introduced improved PAC through the Healthy Mother/Healthy Child project—five in Aswan, two in Luxor, and three in South Qena. Expansion into new sites in Fayoum and Bani Sewef is underway.

May 2000

Nawar, Laila et al., 1997. Scaling-up Improved Postabortion Care in Egypt: Introduction to University and Ministry of Health and Population Hospitals. *For more information, contact: Population Council, 6A Mohamed Bahie Eddine Barakat St., 10th floor, Giza, Egypt. Tel. 20-2-571-9252; Fax 20-2-570-1804; E-mail: frontiers@pccairo.org.*

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OR SUMMARIES

Peru
Quality of Care

OR Summary 13

Tell Clients How to Use Their Chosen Method

Family planning providers in Peru need to focus more closely on giving clients relevant information on their chosen method and asking key questions in order to make the most efficient use of the time available for client counseling.

Background

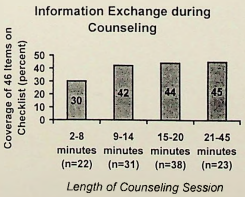
In 1998 the Peruvian Ministry of Health (MOH) issued quality of care norms to ensure that family planning providers respond to their clients' reproductive health care needs and goals. In mid-1999 the Population Council collaborated with the MOH on a study to determine whether the length of counseling sessions affects the amount of information provided to the client.

Using Lot Quality Assurance Sampling, the study focused on 19 health centers in 10 urban areas, drawn from a national sample of 172 facilities. Six simulated clients (women posing as clients) made a total of 114 visits to the 19 health centers during June-July 1999. Each simulated client was trained to say that she wanted to switch from the rhythm method to a more effective method. After counseling, she chose the injectable Depo-Provera but stated that she wished to consult her husband before beginning use.

To assess the quality of counseling, the simulated clients completed a checklist after each visit, indicating what information had been given to them. The checklist consisted of 46 items reflecting optimal information exchange. It covered: questions to identify factors relevant to contraceptive options; information on available contraceptive methods; questions to screen for contraindications to injectable use; information about injectable use, side effects and warning signs; use of barrier methods for temporary protection against pregnancy; and follow-up instructions.

Findings

◆ Providers conveyed more information during sessions lasting nine minutes or longer, compared with shorter sessions. During the sessions lasting 9-14 minutes, providers covered 42 percent of the 46 items on the information exchange checklist, compared with 30 percent of the checklist items during shorter sessions of eight minutes or less. However, information exchange improved only slightly during counseling sessions lasting 15-45 minutes.



Frontiers IN REPRODUCTIVE HEALTH

◆ Longer counseling sessions did not lead to more information exchange because the providers spent the extra time giving clients more details about methods they were not planning to use, rather than giving them essential information on use of their chosen method and screening for contraindications. In fewer than 20 percent of the visits, providers asked about vaginal bleeding, discussed breast cancer, advised interim use of barrier methods, or asked whether the client understood.

◆ Nevertheless, providers are meeting many quality of care goals. In more than four in five counseling sessions, providers asked standard questions needed to assess appropriate contraceptive options, discussed four or more contraceptive methods, and asked the client to make a choice of methods.

◆ Providers involved in the study welcomed the feedback regarding the quality of their counseling. They cited time constraints as the major cause of insufficient counseling. Some visits were clearly too short, but the average visit lasted 15 minutes, which should have been sufficient to cover key information. Researchers concluded that providers could have used their counseling time more efficiently. Also, they missed opportunities to provide client-centered treatment by asking questions to ascertain each client's situation and needs.

Policy Implications

◆ The MOH should test an alternative model for client counseling in order to help providers to give more effective, client-centered family planning counseling. This model consists of five steps:

1. A warm welcome;
2. A client-centered diagnosis that identifies a subset of appropriate family planning methods;
3. Provision of appropriate, personalized information on appropriate methods, leading to choice of a single method;
4. Screening for contraindications, education on use of the method chosen, and instructions for follow-up; and
5. Feedback to ensure understanding and appropriate follow-up.

This model should stress the provider's role after a contraceptive method has been chosen, including screening for contraindications, giving instructions on correct use, and discussing side effects and warning signs. The MOH should develop job aids to help providers implement this model and should undertake operations research to assess its value.

September 2000

León, Federico R. et al., 1999. Counseling Sessions Length and Amount of Information Exchange in Peruvian Clinics. For more information, contact: Population Council, Av. San Borja Sur 676, Lima 43, Peru. Tel. 511-475-0275; Fax: 511-475-0675; E-mail: pclima@amauta.rcp.net.pe or contact: Population Council, Escondida 110, Villa Coyoacán, 04000, Mexico, D.F. Mexico. Tel. 52-5659-8537; Fax: 52-5554-1226; E-mail: discmina@popcouncil.org.mx.

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OR SUMMARIES

Egypt
FGC
OR Summary 14

NGOs Need to Join Forces to End FGC

Fifteen Egyptian non-governmental organizations are actively involved in programs to eradicate the practice of female genital cutting. To make these programs more effective, NGOs should form coalitions, engage in advocacy, train activists in communication skills, and evaluate the impact of their programs.

Background

Until recently, the practice of female genital cutting (FGC) has been nearly universal in Egypt. However, a 1998 national survey found the first signs of a decline in the practice among adolescents since 1994 (El-Gibaly et al., 1999).

Non-governmental organizations (NGOs) working in community development, health and women's rights have played a leading role in advocating eradication of FGC in Egypt. To document and assess the impact of anti-FGC programs, the Population Council conducted an assessment from August 1999 to February 2000. Researchers telephoned numerous Egyptian NGOs to identify those most actively involved in anti-FGC programs. Then they conducted in-depth interviews with officials of 15 NGOs as well as staff of the Ministry of Health and Population, UNICEF and the United Nations Population Fund (UNFPA).

Findings

◆ Most NGOs had no evaluation mechanism in place to assess the impact of their interventions. Some NGOs collect information on process indicators, such as the number of meetings, attendees, and requests for information. Few NGOs measure the impact of their interventions on participants' knowledge, attitudes, or practices.

◆ Each of the four basic intervention models identified in the assessment was useful in addressing some aspect of the behavior change continuum, from creating awareness to increasing knowledge, to talking with others about FGC, culminating in the decision to take a firm stand against FGC. The four intervention models are:

✢ **Awareness-raising**. Many NGOs have organized large lectures and seminars for community members, with medical and religious leaders discussing the harmful effects of FGC. Such meetings reach large numbers of people at a relatively low cost.

✢ **Community members as change agents.** Some NGOs have trained influential community members or individuals who are

opposed to FGC (positive deviants) to talk to others in their community. NGO leaders reported that this approach did lead to knowledge gains and attitude change regarding FGC.

+ **Community development** Several NGOs have integrated anti-FGC messages into literacy classes and a program for handicapped youth. A few NGOs have added anti-FGC components to their comprehensive development programs. This approach is promising, since it targets the entire community and reaches individuals through multiple channels such as seminars, home visits and literacy classes. However, it is expensive and labor-intensive.

+ **Advocacy**. A few NGOs have done advocacy work such as: organizing meetings of government officials; providing information to politicians, researchers and journalists; building coalitions with other NGOs; training local leaders in advocacy skills; and producing radio and television programs on FGC.

◆ Although most NGO officials recognized the importance of networks and coalitions for combating FGC, only two NGOs belong to such groups.

Policy Implications

At a two-day seminar held in January 2000 in Cairo, 40 representatives of NGOs, government agencies, research institutes, donor agencies, and Cooperating Agencies discussed the assessment findings and recommended that:

◆ NGOs should form coalitions to reinforce and complement each other's work. They should involve government agencies, media outlets, research institutions, and communities in broad-scale interventions.

◆ More advocacy activities, particularly those that combine media and policy activities, are needed to create a strong social and political environment against FGC in Egypt.

◆ Anti-FGC messages should discuss social, religious and legal perspectives rather than focusing on the health hazards of FGC.

◆ NGOs should develop partnerships with research institutions to obtain technical assistance in evaluation. They should develop indicators to measure the different stages of attitude and behavior change.

◆ Outreach workers and community advocates need training in communication techniques and problem-solving skills, assistance in defining their activities, and better supervision.

September 2000

Abdel-Tawab, Nahla, and Sahar Hegazi 2000. "Critical Analysis of Interventions against FGC in Egypt." Cairo: Population Council. For more information or to obtain a copy of the English Final Report or the Arabic Condensed Summary of this study, contact: Population Council, 6A Mohamed Bahie Eddine Barakat St., 10th floor, Giza, Egypt Tel.: 202-571-9252; Fax: 202-570-1804; E-mail: frontiers@pccairo.org .

This project was conducted with support from the U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT under Cooperative Agreement Number HRN-A-00-98-00012-00.

Campaigning against cancer

The best soldier in the battle against cancer is someone who has survived the disease. PADMA TANDON reports on efforts to educate the public — and the medical profession

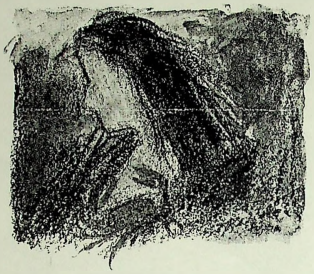
A doctor plays with the nipple of a woman suffering from breast cancer as he discusses her case with a panel of 10 other doctors.

A 58-year-old unmarried woman, who had never exposed herself in public, is asked to strip to her waist to be examined for breast cancer by a team of specialists.

A mother of three begins sobbing hysterically when the doctor informs her, without any prior warning, that she has cervical cancer.

These are just three real instances of the insensitivity shown by doctors while dealing with cancer patients, says Jyotsna Govil, president of Cancer Sahyog (Cancer Aid).

Hers is a Delhi-based voluntary group, assisting doctors at the All India Institute of Medical Sciences and the Rotary Cancer Hospital.



While harassed doctors in our hospitals complain they are overextended, having to deal with as many as 30 patients every day, patients and their families feel a little more sympathy would go a long way in quelling their fears.

Today breast cancer is the number two killer of women in India. Cervical cancer is also on the rise, as are lung and oral cancer. And yet the medical profession has done little to inform women about this dreaded disease.

Brief information capsules are a must, especially since doctors are tomtomming the fact that unlike the West, where one-third of cancer patients get cured, Indian survival rates are low. Too many patients come for diagnosis when the disease has entered the third and fourth stages and is too advanced to cure.

The 16th International Cancer Congress held in New Delhi recently had specialists focusing on the different forms of cancer and the steps being taken worldwide to treat it. A small adjunct of this huge Congress was a series of interactions between doctors, cancer survivors and volunteers organised in support groups.

The support groups attempt, through sympathetic counselling, to bridge the information gap currently existing between doctor and patient.

Several cancer survivors, working as volunteers, spoke about how an initial intervention would have helped them dispel their own fears. Mona Saigal, a cancer survivor living in Delhi, spoke about how her world altered radically when she learned she had breast cancer. "The doctors didn't tell me anything. I wish someone had helped me overcome the initial trauma."

"For the patient, the doctor is God. Most doctors however refrain from taking on this awesome responsibility," observed Mary Goodwill, an American volunteer.

Govil spoke about the patients' need to have someone listen to them so they could express their fears.

This refrain was voiced repeatedly by volunteers from across the globe, whether they belonged to small Slovenia — as does Vida Zabric, working with the voluntary group Reach to Recovery — or giant Canada where Blossom Stilson works with a therapy group. The universal feeling is that psychological morbidity decreases when the patient is better informed.

Zabric, a retired engineer, tells her patients, "I am the living proof that you can survive. My husband gave up hope, I did not and I am still alive."

Dr Robert Macbeth, a retired surgeon from Toronto, Canada, maintained that in the developed countries one out of 11 women suffered from breast cancer.

"A large number of these women are married and find it difficult to cope with this disease," he pointed out. "They equate losing an intrinsic part of their anatomy to losing their sexuality. Many are unable to show their husbands and, if it is a weak marriage, it simply breaks up under this new pressure. Others just want to return home and lead a normal life," Dr Macbeth added.

In India, breast cancer is more of an urban phenomenon, prevalent amongst better-off sections where women do not breast feed. Cervical cancer is found among poorer women. Lack of access to toilets, multiple partners, and having too many children too early, are factors that cause this disease.

Distribution of easy-to-read material makes people more aware of the symptoms of the disease, said Dr J Elizabeth of the Armed Forces Medical College, Pune, citing her own experience with 200 women who filled out a questionnaire knowledgeably after reading pamphlets on cancer.

If pre-surgery comprises one traumatic stage in a cancer patient's life, then post-surgery, whether it be of the breast, trachea or limb, requires a concerted rehabilitative effort.

Asha Tola, head of the department of occupational therapy at the Tata Memorial Hospital in Bombay, spoke of the pioneering methods her unit has devised to cope with a whole range of disfigurements. She works in tandem with a speech therapist and physiotherapist.

Several patients come to them suffering from post-operative anxiety, having suffered facial disfigurement or having lost their voice box or a limb. It takes many weeks to make them come to terms with their new reality.

"For example, a woman who has lost her breast will have to undergo bra training. We insist that a temporary pad be inserted at the earliest, so that a woman can go home looking complete," Tola said.

Earlier women were using pouches made out of foam. Tola attended a course in latex technology in Kerala in 1985 to learn to make breasts of latex. These cost Rs 150 per piece and last one year. Today, breasts made from silicon are also popular although they cost as much as Rs 7,000 per piece.

Tola regrets that paramedical workers like her are not accorded respect within the medical community. "Unlike in the West, we continue to be discriminated against by doctors, both financially and in terms of status. The result is that no one wants to become a para-medical worker and we face an acute shortage," she said.

A major problem facing patients is the sheer cost of treatment. While the arsenal of anti-cancer drugs has grown, with 50 chemotherapy drugs available to combat 100 types of cancer, their prices are sky high. The wonder drug Taxon for breast and ovarian cancers is prohibitive, with a course of six injections costing Rs 31,000. Platinum-based drugs used to cure lung and ovarian cancers are even more expensive.

But there is a world-wide swing towards more affordable drugs. Dr J Stjernsward, chief of WHO's Cancer and Palliative Care unit in Geneva, is a strong advocate of morphine-based drugs for cheaper relief for patients.

Stjernsward cited the example of Kerala as having brought down the incurability rate of cancer patients from 85 per cent to 55 per cent during the last four years. High education levels plus district-level campaigns helped ensure patients came in for early diagnosis.

Stjernsward announced that a major campaign is to be launched in India, to create public awareness for self-detection of breast, oral and cervical cancer. In the Kerala programme, the proportion of cases detected early rose from 15 to 40 per cent, as women informed about the symptoms of the disease reported immediately to health workers.

Women's Feature Service

CN 12/1/95

WH-5

IVth Annual Conference of Breast Cancer Foundation - India

Bangalore on 8th. 9th & 10th March 2000

Host : Bangalore Institute of Oncology, Bangalore

Ref. : *Date :*

March 16, 2000

To
Dr.Ravi Narayan
Community Health Centre
Koramangala
BANGALORE.

Dear Sir,

On behalf of the organising committee of IVth Annual conference of Breast cancer foundation-India, Bangalore I sincerely thank you for sparing us your valuable posters which was exhibited for the ***awareness of public***.

The valuable message of public awareness for the eradication of cancer was conveyed to the viewers through each posters, which was appreciated by and large all.

Thanking You,

Yours sincerely,

Dr.Ramesh S.Bilimagga
Org.Secretary

Fabulous job

Address for Correspondence :

Dr. RAMESH S. BILIMAGGA, Organising Secretary

Bangalore Institute of Oncology, 44-45/2, 2nd Cross, R.M.R. Extension,
Bangalore - 560 027. INDIA. Tel : 2225698, 2221723 Fax : 91-080-2293862
E-mail : bilimaga@vsnl.com.
Website : angelfire.com/scifi/conference

DURING DELIVERY.

LABOUR PAIN -

1) Neem - Bevu - Neem is called 'Bavantinimb' viz. the after labour neem. If the midwife administers fresh juice of leaves even before the labour, the contraction of the uterus is facilitated. The flow will be clear, the swellings of the uterus and the surroundings get lessened and the patient starts getting hungry. Faecal matter gets cleared, there will not be any fever and even if fever arises its violence is much less.

- Drinking water in which neem bark has been boiled whenever she feels thirsty after the labour is over, will keep the patient healthy.
- Washing the uterus with warm neem water will relieve the uterine pains due to delivery and also the morbid swellings if any. The wounds will heal and dry up and the orifice becomes clean and contracted. Fomentation with the inner bark of old neem trees is highly recommended for all

diseases following delivery.

Flower of Neem - Flowers are ground and applied over the head or the stomach to relieve the pains at the head or the stomach following delivery.

2) Pepper - Marasu - An infusion of the root is prescribed after childbirth to cause an expulsion of the placenta, almost as a regular household remedy.

2) CINNAMON - Dalchini - The distress of the labour pain after child birth will get greatly relieved by a drink of the cinnamon decoction.

3) Acacia Arabica - jali, karijali, bauri - Its water removes the pains at the stomach and the intestines.

4) Tulsi - Tying tulsi roots to the waist is beneficial during labour pains.

5) Take black tea with one teaspoonful of ghee and sugar. If needed repeat it -

RELAXES ORGANS

1) Pepper - It is useful for the recovery of the relaxed organs soon after delivery. Powder of the pepper fruit is given internally with honey. It also cleans the uterus. Rice cooked with more amount of water and powder of pepper and the fruit in small quantities is given to the mother. It acts on liver, and spleen, increases the blood amount and appetite.

2) Mila ghas (Scoparia Dulcis) - Make sarbat with mila ghas. ~~and~~ Consuming it will speed up dilation and induce contraction. It can be given after delivery too.

EXPULSION OF PLACENTA

1) Pepper - Menasu - An infusion of the root is prescribed after childbirth to cause an expulsion of the placenta, almost as a household remedy.

2) Chirchilā - Take the root of Chirchilā and tie it on the waist or put at the mouth of the uterus. Remove as soon as the baby and the placenta are out.

3) Kalijira - If placenta is not fully removed give kalijra. Grind 2 spoonful kalijira with one teaspoonful of haldi and little jaggery.

Bleeding -

1) Take a piece of jethi made (Glycyrrhiza glabra) cook in fire, and mix it with some jaggery and let her eat.

85-6

medico friend circle bulletin

JANUARY - FEBRUARY 1983

Witches, Healers and Gentleman Doctors

The story of the psychomedical experts-the doctors, the psychologists, and sundry related professionals-might be told as an allegory of science versus superstition : on the one side, the clear-headed, masculine spirit of science; on the other side, a dark morass of female superstition, old wives' tales, rumors preserved as fact. In this allegorical version, the triumph of science was as inevitable as human progress or natural evolution : the experts triumphed because they were right.

But the real story is not so simple, and the outcome not so cleary "progressive." It is true that the experts represented a less parochial vision than that of the individual woman, submerged in her family and household routines : the experts had studies; they were in a position to draw on a wider range of human experience than any one woman could know. But too often the experts, theories were grossly unscientific, while the traditional lore of the women contained wisdom based on centuries of observation and experience. The rise of the experts was not the inevitable triumph of right over wrong, fact over myth; it began with a bitter conflict which set women against men, class against class. Women did not learn to look to an external " science " for guidance until after their old skills had been ripped away, and the 'wise women' who preserved them had been silenced, or killed.

In Europe the conflict between female lay healing and the medical profession had taken a particularly savage form: the centuries-long witch-hunts which scar the history of England, Germany, France, and Italy. The witch hunts themselves were linked to many broad historical developments: the reformation, the beginnings of commerce, and a period of pleasant uprisings against the feudal aristocracy. But for our purposes the important point is that the targets of the witch hunts were, almost exclusively, peasant women, and among them female lay healers were singled out for persecution. It is to this aspect of the witch hunts that we now turn briefly.

The Witch-Hunts

The extent of the witch craze is startling: in the late fifteenth and early sixteenth centuries there were thousands upon thousands of executions-usually live burnings at stake-in Germany, Italy, and other countries. In the mid sixteenth century the terror spread to France, and finally to England. One writer has estimated the number of executions at an average of six hundred a year for certain German cities-or two a day; 'leaving out Sundays.' Women made up some 85 percent of those executed-old women, young women, and childeren.

The charges leveled against the 'witches' included every misogynist fantasy harboured by the monks and priest who officiated over the witch hunts: witches copulated with the devil, rendered men impotent (generally by removing their penises which the witches then imprisoned in nests of baskets), devoured newborn babies, poisoned livestock, etc. But again and again the 'crimes' included what would now be recognized as legitimate medical acts-providing contraceptive measures, performing obortions, offering drugs to ease the pain of labor. In fact, in the peculiar legal theology of the witch hunters, healing, on the part of a woman, was itself a crime. As a leading English witch hunter put it:

For this must always be remembered, as a conclusion, that by Witches we understand not

only those which kill and torment, but all Diviners, Charmers, Jugglers, all Wizards, commonly called wise men and wise women .....and in the same number we reckon all good Witches, which do no hurt but good, which do not spoil and destroy, but save and deliver .... It were a thousand times better for the land if all Witches, but especially the blessing Witch, might suffer death. 2

.....The inquisitors reserved their greatest wrath for the midwife, asserting :

> The greatest injuries to the Faith as regards the heresy of witches are done by midwives; and this is made clearer than daylight itself by the confessions of some who were after-wards burned. 6

Folk medicine Vs ' Scientific ' medicine

In fact, the wise woman, or witch, as the authorities labeled her, did possess a host of remedies which had been tested in years of use. **Liber Simplicis Medicinae,** the compendium of natural healing methods written by St. Hildegarde of Bingen (A. D. 1098–1178) gives some idea of the scope of women healers' knowledge in the early middle ages. Her book lists the healing properties of 213 varieties of plants and 55 trees, in addition to dozens of mineral and animal derivatives. Undoubtedly many of the witch-healers ' remedies were purely magical, such as the use of amulets and charms, but others meet the test of modern scientific medicine. They had effective painkillers, digestive aids, and anti – inflammatory agents. They used ergot for the pain of labor at a t me when the Church held that pain in labor was the Lord's just punishment for Eve's original sin. Ergot derivatives are still used today to hasten labor and aid in the recovery from childbirth. Belladonna–still used today as an anti-spasmodic–was used by the witch-healers to inhibit uterine contractions when miscarriage threatened. Digitalis still an important drug in treating heart ailments, is said to have deen discovered by an English witch.

Meanwhile, the male, university – trained physicians, who practiced with the approval of the Church, had little to go on but guesswork and myth. Among wealthier people, medicine had achieved the status of a gentlemanly occupation well before it had any connection to science, or to empirical study of any kind. Medical students spent years studying Plato, Aristotle, and Christian theology. Their medical theory was largely restricted to the works of Galen, the ancient Roman physician who stressed the theory " temperaments" of men, " wherefore the choleric are wrathful, the sanguine are kindly, the melancholy are envious " and so on. Medical students rarely saw any patients at all, and no exprimentation of any kind was taught. Medicine was sharply differentiated from surgery, which was almost everywhere considered a degrading, menial craft, and the dissection of bodies was almost unheard of.

Medical theories were often grounded more in " logic " than in observation: " Some foods brought on good humours, and others, evil humours. For example, nasturtium, mustard, and garlic produced reddish bile; cabbage and the meat of old goats and beeves begot black bile. " Bleeding was a common practice, even in the case of wounds Leeches were applied acdording to the time, the hour, the air, and other similar considerations. Incantations and quasi-religious rituals mingled with the more " scientific " treatments inherited from ancient Greece and Rome. For example, the physician to Edward II, who held a bachelor's degree in thelogy and a doctorate in medicine from Oxford, prescribed for toothache writing on the jaws of the patient, " in the name of the Father, the son, and the Holy Ghost, Amen, " or touching a needle to a caterpillar and then to the tooth. A frequent treatment for leprosy was a broth made of the flesh of a black snake caught in a dry land amoung stones.

Such was the state of medical " science " at the time when witch-healers were persecuted for being practitioners of satanic magic. It was witches who developed an extensive understanding of bones and muscles, herbs and drugs, while physicians were still deriving their prognoses from astrology and alchemists were trying to turn lead into gold. So great was the witches ' knowledge that in 1527, Paracelsus, considered the " father of modern medicine, " burned his text on ph r.ma-ceuticals, confessing that he " had learned from the Sorceress all he knew. "

Well before the witch hunts began, the male medical profesion had attempted to eliminate the female healer mainly the better–off, litetate woman

healer who competed for the same urban clientele as that of the university trained doctrs. Take for example, the case of Jacoba Felicie, brought to trial in 1322 by the Faculty of Medicine at the University of Paris, on charges of illegal practice. She was a literate woman and had received some unspecified " special training " in medicine. That her patients were well off is evident from the fact that (as they testified in court) they had consulted well–known university trained physicians before turning to her. The primary accusations brought against her were that

.. She would cure her patient of internal illness and wounds or of external abssesses. She would visit the sick assiduously and continue to examine them in the manner of physicians, feel the pulse, and touch the body and limbs.[9]

Six witnesses affirmed that Jacoba had cured them, even after numerous doctors had given up, and one patient declared that she was wiser in the art of surgery and medicine than any master physicians or surgeon in Paris But these testimonials were used against her, for the charge was not that she was incompetent, but that – as a woman–she dared to cure at all.

Conflict America

Commercial envy

The regular doctors banded together in 1847 to form their first national organization, pretentiously entitled the American Medical Association, and one of the AMA's first tasks was to survey the competition the 40,000 regulars plus a " long list of irregular practitioners who swarm like locust in every part of the country."

The regular doctors were caught in a contradiction of their own making. Medicine had once been embedded in a network of community and family relationships. Now, it had been uprooted transformed into a commodity which potentially any one could claim as merchandise, a calling which anyone could profess to follow. So long as medical education was cheap, and medical fees were not too cheap, there was no limit to the numbers of regular doctors. Thus the patrician ideal of the gentleman doctor could never be realized. And of course, the deeper the doctor sank into commercialism, and the more they spawned in this fertile muck–producing new doctors simply for profit– the less likely they were to achieve the status and authority of their collective dreams. Ahead lay nothing but humiliation. Dr. G. H. Reed of Teledo wrote poignantly in the Journal of the American Medical Association about " a doctor who was found crying because he was hungry. "

A great deal– it is impossible to say exactly how much - of the competition which was reducing male regular doctors to tears was coming from women. By mid century there were not only female lay healers to contend with, there was a new creed of middle–class women who aspired to enter the Market as regular, professional physicians. Like the women who had become involved in the Popular Health Movement earlier, they were motivated by a spirit of reform: they were opposed to the excesses of heroic medicine and equally important, they were outraged at the implicit indecency of the male doctor – female patient relaionship.

By mid–century the private horrors of mixed sex medical encounters had become a public issue. Samuel Gregory, an irregular physician argued in 1850 that male obstericians, by their very presence, created enough anxiety in their patients to lengthen the process of labour. Gregory's book " Man–midwifery exposed and corrected;" or " the Employment of men to attend women in childbirth, shown to be a modern innovation, unnecessary, unnatural and injurious to the physical welfare of the community, and pernicious in its influence on Professional and public morality" was a great success, and in 1852 " a few ladies of Philadelphia " organized around their belief that " the BIBLE recognizes and approves only women in the sacred office of midwife. "[57] And Catherine Beecher raised the charge of seduction and sexual abuse, taking place in the practices of the most apparently benevolent, honorable, and pious doctors

Women doctors and male opposition

Given the tensions and moral compromise associated with male medical care, the mid–nineteenth–century movement of women into medical training took on the aspeccts of a crusade–for female health, for decency.

It was this sense of being involved in a moral crusade which accounts for the determinction of our early female doctors. For example, Elizabeth

Blackwell applied to over sixteen schools before she found one which would accept her, but, as she said, ' The idea of winning a doctors's degree gradually assumed the aspect of a great moral struggle, and moral fight possessed attraction for me. ' In the same year that Blackwell gained admission, Harriet Hunt was admitted to Harvard Medical College–only to have the decision reversed because the students threatened to riot if she came. (Harvard had admitted three black male students the year before and that, according to the white male majority, was enough) Undaunted, Hunt went to seek a medical education at an ' irregular ' school. Through the efforts of women, there were, by 1900, approximately five thousand trained women doctors in the land, fifteen hundred female medical students and seven medical schools exclusively for women.

Male doctors recognized that women in profession posed a threat which was far out of proportion to their numbers. The woman patient who considered herself socially superior to female lay healers, yet was repelled by male medicine, would naturally welcome a woman professional. Faced with this threat male doctors responded every argument they could think of : How could a lady who was too refined for male medical care travel at night to a medical emergency ? operate when indisposed (e. g menstruating) ? If women were too modest for mixed-sex medical care, how could they expect to survive the realities of medical training–the vulgar revealations of anatomy class, the shocking truths about human reproduction, and so on ? (Elizabeth Blackwell admitted that she first found the idea of medical training ' disgusting. ')

The regular doctors did not rely on persuasion alone to discourage women from medical education. The would-be woman doctor faced some very solid road blocks at every step of her carcer. First it was difficult to gain admission to a ' regular' school (the ' irregular ' sects, descended from the Popular Health Movement, mantained their feminist sympathies and openness to female students). Once inside, female students faced harrassment from the male students ranging from ' insolent and offensive language ' to ' missiles of paper, tinfoil (and) tobacco quids. ' There were professors who wouldn't discuss anatomy with a lady present and textbooks such as the 1848 obstetrics text which declared, ' she (woman) has a head almost too small for intellect but just big enough for love. '

Having completed her academic work, the would-be woman doctor often found the next steps blocked. Hospitals were usually closed to women doctors, and even if they weren't, the internships were not open to women. When she did finally make it into practice, she found her brother regulars unwilling to refer patients to her and absolutely opposed to her membership in their medical societies. It was not until 1915 that the AMA itself admitted female physicians.

[Extracted and abridged from the second chapter of ' For her own good–150 years of experts' advice to women ' by Barbara Ehrenreich and Deirdre English, Anchor books, New york 1979. References have been omitted due to lack of space.]

The Women's Health Movement

by S. B. Ruzek. Praeger, New York, 1979.

The women's movement has been concerned with many controversial areas in recent years, but one of the most heated debates has centred on the health care of women. The Boston women's health book collective was an attempt to extract the health care of women from a profession they have viewed as sexist and at the care of male dominated attitudes. The Women's Health Movement is an effort to deal with this complex and emotionally charged area.

The book presents a limited area of information in an eminently readable, flowing style. The subject matter, dealing primarily with the women's movement and health care over the past 15 years, is absorbing, with many inflammatory issues presented in a factual and unbiased way. It is obvious that the author as a social scientist has taken great effort to present a detached unemotional document. At times, this work is more a critique of the whole structure of society and the organization of health care than simply a review of women's issues in health.

The book presents data on many controversial issues in women's health including the Intra Uterine Device (I U D), Oral Contraceptive (OC) and the Morning After Pill. The introduction of the I U D was permitted withoutany regulation. The subsequent morbidity and mortallity due to the Dalkon Shield (an I U D) was evident in 1973, yet there was a 3 year interval to the adoption of regulatory legislation The introduction of OC was eqully distressing. Limited studies of 132 Puerto Rican women over a year and 718 women for less than a year constituted all the prior knowledge available before their release on the mass market. Five deaths went unexamined in the study Although this is a blatantly inadequate trial, it needs to be viewed in the context of its time. Prior to the scandal over Thalidomide in 1962, many drugs were being placed on the market without evidence of safety or efficacy. The data presented on DES [Diethyl Stilbesterol – one oestrogenic harmone.] and the M. A. Pill is also anxiety provoking for women. One year after the evidence for vaginal cancer in the femal offspring of women who had taken DES during pregnancy was documented, DES was released as a M. A. Pill, again with scant evidence of efficacy or safety. That women should be aware of these issues and demand more knowledge of potential contraceptives is imperative. That women should be the sole purveyors of further research in this field is not so obvious, yet such a presumption is stated and encouraged in the book.

The book makes some important observations on drug advertising and exposes many of the blatantly sexist advertisements which portray women in stereotyped and unflattering roles. The book provokes a thoughtful evaluation of women's roles and needs in the health system. ✻

[Book-Review published in Social Science & Medicine, 16 : 1310–1311, 1982.]

Medical laboratory manul for tropical countries (Volume – 1)

By Monica Cheesbrough Published by M. Cheesbrough, 14 Bevills Close, Doddington, Cambs; England, 1981. 519+xii pp. Price– Sterling 5.95 (including postage) for developing countries.

The manual is intended for use as both a training and a reference work for laboratory technicians at intermediate and referral hospitals in tropical countries, but would be equally useful for laboratory technicians in temperate countries. It begins with a section on the organization of a laboratory service and the place of the technician within it. This is followed by a very practical section of 50 pages on anatomy and physiology. The third section provides comprehensive coverage of medical parasitology. The section on malaria is particularly complete, including not only laboratory diagnosis and details of the life cycle but also background information on geographical distribution, epidemiology, clinical features, complications, immunity, prevention and control. There is even a discussion of drug resistance. Each chapter ends with a list of references and recommended reading.

The chapter on clinical chemistry is extremely good and includes some aspects which, although pertinent, have been neglected in other manuals, i. e. maintence of laboratory equipment (and even instructions on how to repair minor faults) and the preparation of quality control samples using locally available resources, which will free laboratories from dependence on commercial products.

Review in World health forum 3 (2): 244–245(1982).

OPPRESSIVE "SCIENTIFIC" PROCEDURES

[The following is one more page extracted from the book " 150 Years....." "Scientific" Gynaecology in the nineteeth and early twentieth century believed that woman's body was controlled by her reproductive organs and consequently these organs were held responsible for all sorts of diseases. The following paragraphs give an idea of the barbaric treatment given for the " disorders of reproductive organs. "] —Editor

Since the reproductive organs were the source of dierease, they were the obvious target in the treatment of diesease. Any symptom-backaches, irritability, indigestion, etc., – could provoke a medical assault on the sexual organs. Historian Ann Douglas wood describes the "local treatments" used in the mid-nineteenth century for almost any female complaint. This (local treatment) had four stage, although not every case went throhgh all four: a manual investigation, " leeching, ' " injections, ' and " cauterization. " Dewees (an American medical professor) and Bennet, a famous English gynecologist widely read in America, both advocated placing the leeches right on the vulva or the neck of the uterus, although Bennet cautioned the doctor to count them as they dropped off when satiated, lest he " lose " some. Bennet had known adventurous leeches to advance into the cervical cavity of the uterus itself and he noted, " I think I have scarcely ever seen more acute pain than that experienced by several of my patients under these circumstances. " Less distressing to a twentieth century mind but perhaps even more senseless, were the " injections " into the uterus advocated by these doctors. The uterus became a kind of catch all, or what one exasperated doctor referred to as a " Chinese toy shop ' : Water, linseed tea, and " decoction of marshmellow ... tepid or cold " found their way inside nervous women patients, The final step, performed at this time, one must remember, with no anestetic but a little opium or alcohol, was cauterization, either through the application of nitrate of silver, or, in case of more serve iufection, through the use of much stronger hydrate of pottass, or even the " actual cautery, " a " white-hot iron " instrument.

The most common of surgical intervention in female personality was ovariotomy, removal of the ovariesor " female castration. " In 1906 a leading gynecological surgeon estimated that there were 150,000 women in the United Status who had lost their ovaries under the knife. Some doctors boasted that they had removed from fifteen hundred to two thousand ovaries apiece. According to historian G. J. Banker Benfield :

Among the indications were troublesomeness, eating like a ploughman, masturbation, attempted suicide, erotic tendencies, persecution mania, simple " cussedness, " and dysmenorrhea (painful menstruation). Most apparent in the enormous variety of symptoms doctors took to indicate castration was a strong current of sexual appetitiveness on the part of women.

The rationale for the operation flowed directly from the theory of the " psychology of the ovary ": since the ovaries controlled the personality, they must be responsible for any psychological disorders; conversely psychological disorders were a sure sign of ovarian disease. Ergo, the organs must be removed. ....

The overwhelming majority of women who had leeches or hot steel applied to their cervices, or who had their clitorises or ovaries removed, were women of the middle to upper classes, for after all these procedures cost money. But it should not be imagined that poor women were spared the gynecologist's exotic catalog of tortures simply because they could'nt pay. The pioneering work in gynecological surgery had been performed by Marion Sims on black female slaves he kept for the sole purpose of surgical experimention. He operated on one of them thirty times in four years, being foiled over by post operative infections. After moving to New York, Sims continued his experimentation on indigent Irish women in the wards of the New York Women's Hospital. So, though middle-class women suffered most from the doctor's actual practice, it was poor and black women who had suffered through the brutal period of experimentation.

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WH 1

RESEARCH-ACTION ON ALTERNATIVE MEDICINE AND WOMEN'S HEALTH

ACTION-ORIENTED RESEARCH ON ALTERNATIVE MEDICINE & WOMEN's HEALTH IN INDIA

(a project starting February 1989)

Introduction :

Out of a national workshop of women's group working on the field of health, held in Tamil Nadu, it was realised how little we know about other methods of treatments for women's complaints than those of the allopathic medicine. This means a whole popular knowledge on healing is getting lost, while the methods proposed by modern medicine remains highly inaccessible to rural India and inefficient to many chronic complaints.

Woman, the primary health giver, is the last to be taken care of. Many aspects of her health are neglected to start with those concerning her specificity as a woman (see ref. 1)

Since women need obviously to take care of themselves, they need to have in their hands, understanding of their health and simple methods of treatments relying on what is accessible to them, like plants and natural elements.

The goal of this project is to gather this information from as many healers as possible, in all approaches and distribute it, in order to make it accessible to more women. The research will take place in a constant process of exchange, giving whatever training is needed to make this possible (in basic gynecology and obstetrics, approach to medicinal plants, basic acupuncture .) It will give women a chance to take their health into their hands (see ref. 2).

We are concious we will be confronted to many different concepts of health, disease and the healing process. Attention will be given to understand those approaches and to integrate them into existing practices in a meaningful and culturally acceptable way. Special attention will be given to stories and myth from women and their own perceptions of these concepts.

Final outcome :

The outcome of this project will be a publication, initially in the languages used to collect the information (Bengali, Gujarati, Hindi, Mahrati. Oreya, Tamil, Telugu) as well as in English. With the help of organisation active in the field of women's health, it is expected to make this work available to as many women as possible and to generate a feed-back.

The research process will increase the networking between urban and rural groups, as well as between India and other countries.

Finally this process should enable us to get a better understanding of the adequate use of each method available, and in what field of problems they give the best results. So that ultimately, the choice will not be made only because it is the most recent method one has heard of, or because it is the one selling its services in the area, but instead for its real indications!

Methodology

It has been decided that since we are going to meet many different approaches we should to start from the plants themselves (the mineral or the animal extract) which are common to all. An information-sheet will be filled up completely for each corresponding to a specimen. The information-sheet is established after preliminary interviews done with the first group to start, and after workshops taking place with the health workers involved with the collection of the information (basic gynecology and obstetrics, approach to botany, and other as desired). The information-sheet has been also discussed with a computer team so that it will be easy to compile and to draw conclusions.

The women's life stories, concepts and other methods : diet, exercises, acupuncture will be collected separately and written down.

We are collecting all information on simple remedies, that women can collect, prepare and use by themselves for their most common complaints, starting with the one that will come out of the workshops with health workers and village women.

The field covered is :

1-problems of the cycle (too long, too short. irregular- absent, ...),

the menstruation (painful, too havy, too scanty ...) and the problems of monopause and menarque

2 - infections: urinary, genital and vaginal discharge

3 - tumors : cervix, uterus, breast, benign and malign

4 - pregnancy

(a) before (infertility, contraception, ...)
(b) begining (spontaneous abortions, nausea,....)
(c) advance (contractions, bleeding, anemia,....)
(d) birth (problem of labour, hemorrage, eclampsia, retention,....)
(e) post-partum and breast feeding (infections, engorgement,....)

5 - neglected aspect of general health (back-pain, joint-pain, fatigue, depression, ...)

The second phase of this project will be spent in :

- small scale tests in clinics and groups focussing on primary health,
- analyses (functional and content of plants) when not already studied,
- computer processing,
- writing of the first draft of the publication.

INITIATORS INVOLVED :

- **Devakirubai D. a.n.,SRED,** Arakkonam, Tamil Nadu, collecting info. in Tamil.
  SRED trained 20 health workers in villages, has one gynec. clinic in allopathy and one in siddha medicine and homeopathy.

- **Bharati Chaudry** (Action India and JAGORI) New Delhi collecting info. in Hindi.
  Bharati is working on educational health in a forest area, botanical help available, acupuncture training has started with 7 village women

- **Saswati Roy,SWADHINA,** Calcutta, collecting info. in Bengali and Oreya.
  SWADHINA is an organisation for self reliance of women, active in W. Bengal, Orissa and Bihar.

- **Vd. Smita Bajpai, CHETNA,** Ahmedabad, collecting info. in Gujarati, Hindi, and Mahrati.
  CHETNA is a nutrition and health awareness center working in many villages spread in 3 neighbouring States.

- **Umamaheshwari A.** (Deccan Dev. Soc. ANVESHI) Hyderabad, collecting info. in Telugu.
  Uma is working in 40 villages in ayurvedic medicine preparing remedies herself and training women.

RESOURCE PERSONS :

- **Indira Balachandran,** botanist, Arya Sala Herbal Garden, Kottakal, Kerala

- **Dr. Shyama K. Narang** (allopathy and acupuncture) Bangalore.

The coordination is done by the collective of the women directly involved, plus feminist support groups. The convener is Rina Nissim from the Geneva Women's Health Center.

Possible collaboration with us :

Initially planned for 7 groups, we can still integrate two more groups who would like to join the venture!
Additionally, other input will be appreciated, like :

- contacts to meet healers, women's groups and research centers,
- feminist translators,
- help to promote the results,
- creation of plant distribution centers,
- etc ..

If any of this is meaningful to you, contact us quickly!

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4 - Rina Nissim, **'Natural Healing in Gynecology'**, Pandora, London N.Y. 1986.

5 - Sheryl Burt Ruzek, **'The Women's Health Movement : Feminist Alternative to Medical Control'** Praeger Publishers USA 1978.

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Bangalore-560 038.

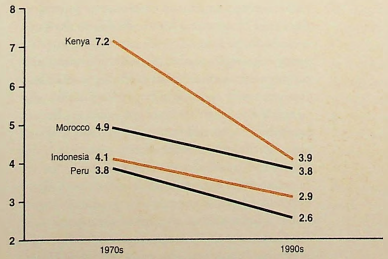
HOW DOES FAMILY PLANNING INFLUENCE WOMEN'S LIVES?

Among the many changes that occurred in the second half of the 20th century, perhaps the most significant and personal for women has been the means to choose whether and when to have children. This "reproductive revolution" — made possible by the expanded availability of modern contraceptive methods in the last 30 years — has helped give women the chance to pursue new roles and activities outside the home. These new roles and activities ultimately contribute to a country's economic and social development.

In the less developed world, more than half of couples now use family planning, compared with only 10 percent in the 1960s. As countries have modernized and become more urban, and as women have become more educated and begun to marry later, smaller families have become more desirable as part of a modern lifestyle *(see Figure 1)*.

Figure 1

Women's desired number of children, selected less developed countries



SOURCE: Demographic and Health Surveys (Calverton, MD: Macro International).

Organized family planning programs have helped women meet their reproductive goals by making contraceptives more widely available, even in many low-income, rural communities. Nevertheless, wide variations in family planning use still exist within and among countries.

Research tells us that women's ability to plan their families has altered their work experiences, educational prospects, and relationships with their husbands and families. Whether or not these changes are beneficial depends on the context in which women live — in particular, women's perceived and actual ability to make decisions about their own lives, inside and outside the home. Policymakers and program planners who want to expand women's choices and opportunities need to understand how family planning programs and other investments can help make women's aspirations a reality.

The effect of family planning on women's lives

Several research efforts in the past decade have examined the relationships between family planning and women's lives, using different approaches:

- The Women's Studies Project of Family Health International (FHI) coordinated 26 studies in 10 countries over five years, asking women directly whether and how they had benefited from family planning.
- The International Center for Research on Women (ICRW) and the Population Council coordinated studies in less developed countries to explore women's perceptions about family planning and, in particular, why some women do not use contraception.
- The Demographic and Health Surveys (DHS) provide standardized survey data on women's desired and actual childbearing collected from more than 40 less developed countries. These data have permitted cross-country analyses of the characteristics of women and families who use or do not use family planning.

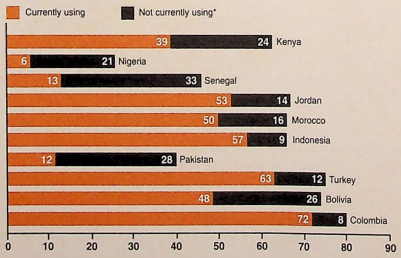
The data collected from these projects support the following conclusions.

As women have smaller families, they spend less time on unpaid work in the home and more time in paid employment. In Bolivia, for example, analysis of survey data showed that contraceptive use was associated with working for pay outside the home, and that a growing number of women entered the workforce from 1994 to 1997. The research did not show whether the change in work status was due to family planning use — or the other way around, that work status affected family planning use. Nevertheless, researchers concluded that family planning is at least an enabling factor as women enter the labor force in increasing numbers.[1]

More time in the work force translates into greater earnings. A long-term study in the city of Cebu, Philippines, showed that, among women who continuously work for pay, women with fewer children had greater increases in earnings. Over an 11-year period, the average change in income for women having between one and three pregnancies was twice that of women who had more than seven pregnancies.[2]

Figure 2

Contraceptive use among women who say they would prefer to avoid pregnancy



SOURCE: Demographic and Health Surveys, 1990-95 (Calverton, MD: Macro International).
*This group is referred to as having an "unmet need" for family planning.

Many women, however, have mixed feelings about work. While working for pay can increase women's autonomy and income, it can also carry additional burdens. The Cebu, Philippines study showed that longer hours — rather than better jobs or better pay — contributed to some of the increase in women's earnings. Many of the women interviewed said they would have preferred not to work outside the home. Similarly, FHI studies in other countries found that working women face additional stress because they have taken on the dual responsibilities of working outside the home and continuing to manage a household.

Access to contraceptive services can improve educational prospects for young women, particularly those who would be forced to drop out of school if faced with an unplanned pregnancy. Yet young women who are sexually active may face serious obstacles to using family planning services. A study conducted in three cities in Zimbabwe found that secondary school students who were sexually active were discouraged from going to family planning clinics and had to rely on private or secret sources for contraception. One woman explained: "I had tried to get some tablets, but I was chased from the clinic. I think it was because I looked very young. ... But now I regret it. I could have finished school."[3]

Whether young women choose to delay childbearing and pursue studies may depend on the range of opportunities available to them. A study in Brazil found that for some teens, pregnancy was a welcome event, even if it meant interrupting their studies. Similarly, young women in a Jamaican study revealed mixed feelings about pregnancy; the study quoted one girl as saying that a pregnant teen "would feel happy in a way."[4] Some girls will choose motherhood over education if they believe that it will give them greater status than pursuing other options, such as school or work. Still others have no choice but to pursue motherhood, if faced with an unplanned pregnancy.

Contraceptive use can improve family relations. Family planning carries psychological and other benefits, such as freedom from fear of

unplanned pregnancies and the ability to spend more time with each family member. In Indonesia, about 80 percent of women surveyed said that family planning had enabled them to have more leisure time and spend more time with each child and with their husbands. Couples interviewed in Zimbabwe named family planning as an important factor in quality of life, and couples in Bolivia felt that their conjugal relations had improved.[5]

On the other hand, in communities where family planning is not socially accepted, women who use contraceptives can face difficult consequences. Some women may fear disapproval or retribution — even violence — from their husbands, disdain from relatives and friends, or ridicule in the community. In Bangladesh, women who were the first in their village to use contraception faced ostracism by community members. In Mali, where fewer than 10 percent of married women practice family planning, researchers found that many women use contraception secretly and fear punishment if their husbands find out.[6] In a study in Zambia, one man interviewed said: "I cannot allow my wife to become a whore. Women who use contraceptives cannot be trusted."[7]

Remaining needs

In just a few decades, women have made great strides in their ability to plan their families, yet progress has been uneven. An estimated 120 million women in the less developed world say they would prefer to delay or stop childbearing, but are not using any family planning method.[8] In some countries, more than one-quarter of all married women fall into this category *(see Figure 2)*. Several studies have asked women with an unmet need why they do not use contraception. The reasons are numerous, including a lack of knowledge about family planning methods and services, ambivalence about wanting a child, opposition from husbands and other family members (as discussed above), health concerns, and fear of contraceptive side effects.[9] Many of these reasons overlap and relate to two underlying issues: the gender-related expectations that shape women's lives and the quality of family planning services available to women.

Addressing gender inequality. Although women have long been the intended beneficiaries of family planning and reproductive health programs, gender roles, particularly the unequal power wielded by men and women, influence the extent to which women can make decisions about their health and quality of life. In many societies, women's autonomy is limited, so that major family decisions — including whether to use contraception and how many children to have — are the principal domain of husbands.

Gender expectations can also limit the benefits that women are able to gain when they do decide to use family planning. Some women with fewer children may find that their opportunities in life differ little from their peers (or elders) who have had more children. Population Council studies in parts of rural Egypt and Bangladesh showed that declines in fertility were not associated with measurable changes in gender roles or women's opportunities.[10]

The international community has identified a broad range of policy changes and investments to improve the range of choices and opportunities available to women — including adolescent women. They include:

- improving educational opportunities for girls and women, and more broadly, making girls' and women's empowerment a specific development objective;
- expanding women's employment opportunities and child-care options for working mothers;
- revising laws, such as those on property and inheritance, that establish or reinforce women's inferior position in society;
- supporting community-based initiatives that encourage men and women to discuss changing gender roles and norms;
- implementing programs for adolescents, in and out of school, to help them make better life choices and protect themselves from unintended pregnancies and sexually transmitted infections; and
- passing and enforcing international treaties such as the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW).

Improving the quality of services. Family planning and other reproductive health programs need to establish and evaluate quality approaches to providing services. Service quality depends on a combination of factors, such as a reliable supply of a range of contraceptive methods, technical competence of service providers, and offering convenience, respect, and privacy to those who use the services. Research shows:

- Family planning programs should improve people's knowledge of contraception and reduce their fear of methods. Women and men need better information about how to use contraceptives and what side effects to expect once they do adopt a method.
- Programs should make greater efforts to reach men with services and information, and to encourage them to adopt or support their partner's adoption of family planning.
- Health workers should treat people with dignity, explain possible problems and how to manage them, and provide clients with alternatives.
- Services should make greater efforts to reach out to adolescents, and at a minimum, not deny services to young or unmarried individuals who seek them.
- Community organizations and women's groups should educate women to demand quality services.

Making complementary investments

Governments and women's health advocates increasingly recognize that investments in women go hand in hand with investments in family planning and reproductive health services. Such investments are not either-or choices, but represent mutually reinforcing objectives. The vast majority of the world's governments endorsed these objectives and the specific actions needed to achieve them at the 1994 International Conference on Population and Development and 1995 Fourth World Conference on Women.

Improvements in women's status can create favorable conditions for increased use of family planning, better reproductive health, and greater contributions of women to development. Family planning programs should be part of a mutually reinforcing web of programs designed to give women greater control over their reproduction and over other aspects of their lives. Ultimately, these investments will allow women to contribute more fully in the social and economic development of their communities and countries.

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MEASURE *Communication*

MEETING YOUNG WOMEN'S REPRODUCTIVE AND SEXUAL HEALTH NEEDS

With more young people on earth than ever before, the sexual and reproductive lives of today's young women will have a dramatic effect on the health, prosperity, and size of the world's future population. Today's young women are the healthiest and most educated to date, but they still face obstacles to achieving their full potential. For example, complications from pregnancy, childbirth, and unsafe abortion are the major causes of death for women ages 15 to 19 in less developed countries. Additionally, young people ages 15 to 24 have the highest infection rates of sexually transmitted infections (STIs), including HIV/AIDS, and teenage women are becoming infected at twice the rate of teenage men.

Policies and programs that work for the advancement of women must address the unique needs of young women in the vulnerable — and often overlooked — age group of 10 to 19.

In 1994, governments agreed at the International Conference on Population and Development (ICPD) "to meet the needs of adolescents and youth for information, counseling, and high-quality sexual reproductive health services," as a way to "encourage them to continue their education, maximize their potential, and prevent early marriage and high-risk childbearing."[1] The ICPD and the Fourth World Conference on Women in Beijing in 1995 recognized these goals, not only as needs of young people, but also as their rights.

The sexual and reproductive lives of young women

Age at marriage is one of many aspects of young women's lives currently in transition. Overall, marriage before age 18 is less common than it was a generation ago, but there is regional variation. Compared with levels 20 years ago, early marriage has declined in much of Asia and sub-Saharan Africa[2]; however, girls are still marrying at a young age in some countries. In Bangladesh, average age at marriage is 14.2 years. About half of 15-to-19-year-old women in Mali, Mozambique, Niger, Chad and Uganda are married, and in many other sub-Saharan countries, at least one-fourth of 15-to-19-year-old women are married.

Marrying later in life has a number of implications for young women. Those who marry later are more likely to have a basic education and have fewer and healthier children. However, later marriage, combined with increased premarital sex among adolescents, puts young people at greater risk of unintended pregnancies, unsafe abortion, births out of wedlock, and STIs, including HIV/AIDS.

Premarital sexual activity is common in many parts of the world and is reported to be on the rise in all regions.[3] In many countries, young women and men are under strong social and peer-group pressure to engage in premarital sex. The average age of marriage has risen in many

Table 1

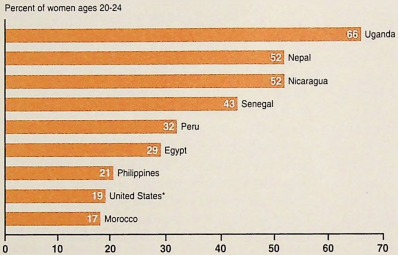
Age at marriage and age at first sexual intercourse amoung young women*, selected countries

Country	Median age at marriage**	Median age at first intercourse
Cameroon	18.0	15.9
Kenya	20.2	16.8
Niger	15.3	15.3
Bolivia	20.9	19.0
Brazil	21.0	18.8
Guatemala	19.2	18.6
Haiti	20.5	18.7
Indonesia	19.9	19.8
Philippines	22.7	22.8

SOURCE: Demographic and Health Surveys (Calverton, MD: Macro International).
*Among women ages 25 to 29.
**Includes formal marriage and cohabitation. Median age indicates that half the women surveyed entered their first union before this age and half after this age.

Figure 1

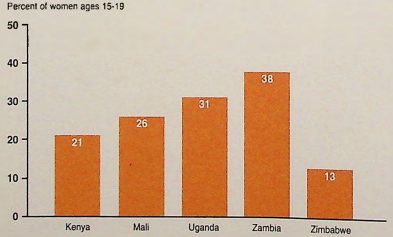
Women giving birth by age 20, selected countries



SOURCE: Demographic and Health Surveys, 1995-1998 (Calverton, MD: Macro International).
*1995 National Survey of Family Growth (Hyattsville, MD: National Center for Health Statistics).

Figure 2

Unmarried adolescent women who have recently* received money or gifts in exchange for sex, selected sub-Saharan African countries



SOURCE: Demographic and Health Surveys (Calverton, MD: Macro International).
*Zimbabwe: within the past 4 weeks; Uganda: last sexual encounter; other countries: within the past 12 months.

parts of the world and the age of puberty for women has fallen, giving young people more years "at risk" of having premarital sex.

For example, in Kenya, there is more than a three-year gap between age at first intercourse and age at marriage, and in Brazil, it is slightly more than two years *(see Table 1, page 1)*. Surveys show that the percentage of women having premarital sex by age 20 ranges from 4 percent in the Philippines and 44 percent in Tanzania, to 86 percent in Jamaica.[4]

Serious risks and consequences accompany increased premarital sex, particularly when young people do not have access to adequate reproductive health services and information. Specifically, these risks can include STIs, including HIV/AIDS, and unintended pregnancies. When faced with an unintended pregnancy, many young women will seek an abortion, which in many countries is inaccessible, illegal, or unsafe. Unsafe abortions — self-induced or done by an untrained provider — can result in severe illness, infertility, and even death. Complications from unsafe abortion are the leading cause of death among teenagers in some countries.[5]

Adolescent women are less likely than women over age 20 to use contraceptive methods. Reasons for this include lack of information, misinformation, and fear of side effects, along with geographic, social, and economic barriers to access and use of contraception. Typically, family planning services are designed to serve married, adult women. Unmarried teens may find service providers hostile or unhelpful, especially where strong cultural or religious beliefs condemn sexual activity among unmarried adolescents. Teens may be unwilling to disclose their sexual activity to parents or service providers. Also, the sporadic and unplanned nature of adolescent sexual activity can be an obstacle to consistent contraceptive use. Surveys indicate that 12 percent to 42 percent of *married* adolescent women in less developed countries who say they would prefer to space or limit births are not using family planning. If sexually active, *unmarried* adolescents were included in the surveys, the unmet need percentage would certainly be higher.[6]

Of the 15 million young women ages 15 to 19 who give birth every year, 13 million live in less developed countries.[7] Thirty-three percent of women in less developed countries give birth before age 20, ranging from a low of 8 percent in East Asia to 55 percent in West Africa. In more developed countries, about 10 percent of women give birth by age 20; however, in the United States, the level of teen childbearing is much higher, at 19 percent. Figure 1 shows births to young women in selected countries.

Young women and their children face serious health consequences from early pregnancy and childbearing. More adolescent girls die from pregnancy-related causes than from any other cause. Because they have not completed their growth, adolescent girls are at greater risk of obstructed labor (when the birth canal is blocked), which can lead to permanent injury or death for both the mother and infant. Infants of young mothers are also more likely to be premature and have low birth weights. In many countries, the risk of death during the first year of life is 1.5 times higher for infants born to mothers under age 20 than for those born to mothers ages 20 to 29.[8] All women face higher risks during first births than in subsequent births; for teens, the risks are greater still. Because adolescents have less experience, resources, and knowledge about prenatal care and childbirth than older women, they and their children suffer when obstetric emergencies arise.

Sexual exploitation and abuse of young women

Because sexual violence and exploitation are abuse of power, young women are especially at risk, and the violations can have devastating and long-lasting consequences. Statistics on rape suggest that between one-third and two-thirds of rape victims worldwide are 15-years-old or younger.[9] Since girls are more likely than boys to be subjected to sexual violence, girls are at risk of becoming infected with HIV and other STIs at a much younger age. Other risks include unintended pregnancies, physical injury, and psychological trauma. Studies also show that young people who have been victims of sexual abuse are more likely to engage in high-risk sexual behavior than those who have not been abused.[10]

Sexual exploitation of children and adolescents is a multibillion-dollar illegal industry, according to UNICEF. Some young people become prostitutes in order to make money. In many places, such as in Bangladesh, Brazil, Nepal, the Philippines and Thailand, young people are lured or forced into prostitution.[11] Similarly, poverty leads many young women in sub-Saharan Africa and elsewhere into sexual relationships with older men — sometimes known as "sugar daddies" — who give the young women money and other necessities, such as clothing and school fees, in exchange for sex *(see Figure 2)*.

Young women and HIV/AIDS

Half of all people infected with HIV are under age 25, according to WHO estimates, and about half of all new infections are among 15-to-24-year-olds.[12] Ninety-five percent of people with HIV live in the less developed world.

Young women are particularly vulnerable to STIs, including HIV/AIDS, for biological and cultural reasons. Adolescents in general are at high risk of contracting HIV and other STIs because they often have multiple, short-term sexual relationships, do not consistently use condoms, and lack sufficient information on how to protect themselves from HIV/AIDS. Adolescent women, in particular, are at a biological disadvantage because they have fewer protective antibodies than do older women, and the immaturity of the cervix increases the likelihood that exposure to the infection will result in the transmission of the disease.[13] Moreover, because women often do not show symptoms of chlamydia and gonorrhea — the most common STIs — and because having another STI increases an individual's susceptibility to HIV, women's risk of contracting and spreading these infections is especially high. In fact, teenage women become infected with HIV/AIDS at twice the rate of teenage men. In addition, sexual violence and exploitation, lack of formal education (including sexuality education), inability to negotiate with partners about sexual decisions, and lack of access to reproductive health services all work together to put young women at especially high risk.

Policy and Program Implications

Meeting young women's needs for reproductive health information and services is vital to their future. At recent world conferences, governments committed to a universal agenda for action to improve the sexual and reproductive health of adolescents, as follows:[14]

- Provide health education to adolescents, including information on sexuality, responsible sexual behavior, reproduction, abstinence, family planning, unsafe abortion, STIs including HIV/AIDS, and gender roles.
- Encourage parental involvement and promote adult communication and interaction with adolescents.
- Use peer educators to reach out to young people.
- Provide integrated health services for adolescents that include family planning information and services for sexually active adolescents.
- Make health services adolescent-friendly by ensuring confidentiality, privacy, and respect, and by providing the high-quality information necessary for informed consent.
- Take measures to eliminate all forms of violence against women and end trafficking in women.

Research and program experiences suggest that policymakers and health providers need to remove legal and institutional barriers that impede young people's access to existing family planning and reproductive health services. In addition, information and services need to be designed to accommodate the unique needs of adolescents and young adults. Examples include providing sexuality education in schools before teens become sexually active; providing specially designed services for youth in clinics or community settings; and using popular entertainment, mass media, and peer education — where young people are trained to talk to their peers — to convey information on sensitive topics. Successful programs are usually those that involve youth in design and implementation.

Sexuality education for youth has long been hampered by adult concerns that knowledge will promote promiscuity among unmarried teens. However, worldwide reviews of studies by the World Health Organization and United Nations[15] conclude that sexuality education does not encourage early initiation of intercourse, but can delay first intercourse and lead to more consistent contraceptive use and safer sex practices.

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MEASURE *Communication*

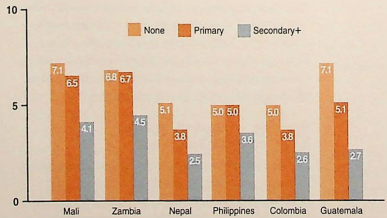
IS EDUCATION THE BEST CONTRACEPTIVE?

The World Bank calls women's education the "single most influential investment that can be made in the developing world." Many governments now support women's education not only to foster economic growth, but also to promote smaller families, increase modern contraceptive use, and improve child health. Educating women is an important end in and of itself. But is education the best short-term strategy for advancing women's reproductive choice in low-resource settings?

The United Nations, the U.S. National Academy of Sciences, the Population Council, and others have examined the linkages between education and childbearing to provide a greater understanding of these issues. This policy brief highlights key findings from their investigations. The evidence suggests that a number of factors influence childbearing decisions, and that both short-term and long-term policy options need to be considered to improve women's reproductive health.

Figure 1

Average number of children per woman by education level



SOURCE: Demographic and Health Surveys 1995-1999 (Calverton, MD: Macro International).
NOTE: For Mali, Zambia, and Nepal, data include secondary-level education and higher. The other three countries show secondary-level education only.

The links between education and childbearing

Women with more schooling tend to have smaller, healthier families. Throughout the world, more education is associated with smaller family size. In a number of less developed countries, women with no education have about twice the number of children as women with ten or more years of school.[1] Women with more education usually make a later, healthier transition into adulthood: They have their first sexual experience later, marry later, want smaller families, and are more likely to use contraception than their less educated counterparts.

The relationship between women's education and family size varies across settings. The fertility rates of women with similar levels of education differ from country to country *(see Figure 1)*. The most highly educated women in some African countries, for example, have larger families than do women in other regions who have only a few years of schooling. Additionally, past research has demonstrated that modest levels of education are not always associated with smaller family size. A 1995 study found that in some less developed countries, women with a few years of schooling had about the same number, or more children, than did women with no education.[2] This study concluded that in countries that are more developed and have higher female literacy levels, more education is consistently associated with lower fertility. In the poorest countries, however, a small amount of education may have little effect on fertility levels.

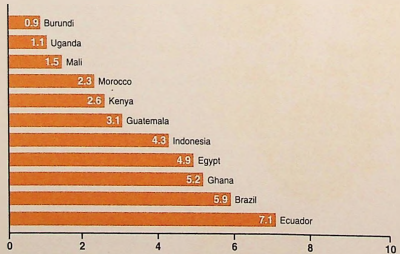
Steep fertility declines often occur among women who have had seven or more years of school. In many of the poorest countries, seven years of education is the "threshold" level for a fertility decline of 20 percent or more. Research indicates that the less developed the country, the more years of education are required to affect fertility levels and related indicators such as age at marriage and contraceptive use.[3]

National context is important in influencing family size, especially when female education levels are low. The context in which education takes place is critical in shaping childbearing decisions. Researchers suggest that several aspects of national context are especially important[4]:

■ *Universal education.* Fertility levels tend to decline more rapidly where schooling is widespread or primary school enrollment is nearly universal. When a larger proportion of the population is brought into the educational system, even a small amount of education may be associated with fertility decline. Researchers believe that as overall education levels rise, social norms concerning childbearing and parenting change. Even those women without much formal education will be affected by the changing community norms regarding smaller family size. In addition, parents with children in school or with educational aspirations for their children may choose to have fewer children. Schooling often increases the costs of having children.[5]

Figure 2

Average number of years of schooling among women, selected countries



SOURCE: United Nations, 1996-97.

■ *Exposure to the mass media.* In some settings, research suggests that universal education may be less crucial to fertility declines than in the past. In Côte d'Ivoire and Senegal, which have not achieved universal education, substantial fertility declines have occurred since the early 1960s. Researchers believe that a number of factors — including radio and television exposure — may be fulfilling some of the role that universal schooling played in the past.[6]

■ *Strength of the family planning program.* A strong family planning program promotes smaller, healthier families. Even educated women may have a difficult time limiting the number of children they have if the services that they need — including information, counseling, and supplies — are not available. An analysis of survey data from 31 less developed countries found that when a country has a moderate to strong family planning program, even a modest level of education can be associated with a substantially lower fertility rate. By contrast, in countries with a weak or nonexistent family planning program, the fertility rate of married women with a few years of education is often higher than that of noneducated women.[7]

■ *Availability of employment opportunities.* High levels of female labor force participation and higher wages for women are also associated with smaller family size.[8] A few years of education can result in smaller family size when they provide access to a job that offers a promising alternative to early marriage and childbearing. Working outside the home may expose girls to nontraditional roles and values. For working women, children might represent an "opportunity cost" in terms of lost earnings or lack of advancement. For these women, children may also mean a heavier "double burden" of household and work responsibilities.

Why do educated women have smaller families?

At present, no scientific consensus exists about the exact processes by which education affects childbearing. Are special skills imparted through formal education that enable and encourage women to have fewer children? Theories abound regarding the different mechanisms involved.

Often, education is associated with characteristics that might lead a woman to choose fewer children: literacy skills, greater personal autonomy, and exposure to new values, ideas, and role models.

Literacy skills — reading comprehension, in particular — appear to have a pronounced impact on family size. Among women in South Africa, one study found that strong reading comprehension skills, regardless of family income level, affected family size. The study author suggests that access to information plays an important role in decisionmaking. Women with strong comprehension skills are better equipped to access and interpret information, whether it is provided in the classroom or through the mass media. More informed women, in turn, tend to have greater demand for and be better users of health services.

Are literacy skills more important than years in school? Research conducted in Ghana also found that higher female literacy is associated with lower fertility. This study determined, however, that the time spent in school had a strong impact on fertility over and above the effect of literacy skills alone. Years in school might influence fertility in different ways: by changing student values, by making it more likely that a girl will marry an educated husband who desires a smaller family, and by improving knowledge through family life education or other means.[9]

Young women who are exposed to education, particularly at secondary levels, may be more likely to perceive that they have greater autonomy. They may have a greater ability to make decisions, to move freely, to earn money, and to have control over their earnings. Even if they do not participate in the formal labor force, these women may bring a sense of autonomy into other areas of their lives. For example, they may have a larger role in the decision about the choice of a husband and the timing of marriage. Within marriage, they may have better rapport with their husbands, particularly in relation to childbearing decisions.[10]

Schooling may make new values and ideas, a wider social network, and different role models accessible to students. Similarly, having children who are in school may change the values and ideas of parents. Typically, the norms conveyed through formal education promote the small, nuclear family.[11] Parents with children in school may also be more likely to view childhood as a time of growth and dependency; they may be less likely to view children as economic contributors to the household.[12]

The importance of nonschool factors

Women who are more educated usually differ in many ways from their less educated counterparts. Often, they are wealthier, reside in urban areas, and have better access to services. To what extent do nonschool factors — socioeconomic status, ethnicity, parental education, individual goals, later age at marriage, and marriage to an educated husband — influence childbearing decisions? The relative importance of different factors probably varies from one setting to another. Husbands' education and household wealth typically influence fertility; however, most studies show that women's education has a greater impact on fertility.[13]

Equipping women to make healthy childbearing decisions

Efforts to improve educational attainment must continue regardless of any impact on childbearing practices. But what conclusions may be drawn about the connection between education and childbearing? The research does not provide any simple formula governing years of education and family size. The effects of education on women depend upon a wide variety of social, cultural, and economic factors. With these caveats in mind, what are the policy implications?

■ *Promote universal education and secondary-level education.* Near universal enrollment in primary school and in secondary-level education is important in influencing childbearing decisions. In some low-resource settings, however, it may not be realistic to achieve universal education or high levels of secondary school attendance in the near future. Relatively few women in many less developed countries have seven or more years of schooling *(see Figure 2)*. A study of education and fertility in sub-Saharan Africa concluded that "most countries are far from providing mass schooling for their populations, and as a result of war, economic

austerity, or high levels of population growth, some have witnessed stagnation or erosion of the educational gains of earlier decades."[14] A key question for policymakers is whether it is feasible in the short-term to dramatically raise national education levels.

■ *Expand mass media and population education programs.* Radio and television programs can heighten awareness, promote new ideas, and encourage healthier behaviors. Population education can be incorporated into both in-school and out-of-school programs, conveying information about AIDS, gender equality, family planning, responsible parenthood, and other topics.

■ *Improve literacy levels.* Comprehension skills appear to play a special role in influencing childbearing decisions. Thus, enhancing literacy skills by improving school quality and by providing education programs for those not in school may yield economic, as well as population and health returns.

■ *Strengthen family planning efforts.* A strong family planning program provides women with the services and information required to make healthy childbearing decisions. Family planning services are a key ingredient in reducing family size and, for young people, in encouraging healthier transitions into adulthood.

■ *Provide employment and earning opportunities for women with basic education.* Research suggests that when women have promising employment and earning opportunities they may forgo early marriage and childbearing. Policies designed to increase women's employment and wages may encourage smaller, healthier families.

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WH-5.

For a woman's well-being

Menopause is the time in a woman's life when menstruation ceases. This can occur any time between the ages of 40 and 52 and results from the loss of ovarian follicular activity. The follicles – structures that hold and release eggs within the ovaries – play a role in the production of female hormones oestrogen and progesterone, which are vital for fertility and reproduction. As a woman ages, hormone production declines progressively, resulting in irregular menstrual cycles and finally cessation of menstruation.

Today, given the increased levels of life expectancy, with more and more women living even up to four decades after the onset of menopause, it is imperative that more attention is paid to the effective medical management of menopause. For a number of years oestrogen was thought of as the magic hormone for the management of menopause. Today phyto-oestrogen or 'plant oestrogen', which mimics the action of oestrogen in women, are becoming popular. Currently, around seven phyto-oestrogens have been identified, with isoflavones – the phyto-oestrogens found in soya – evincing the most interest.

According to Dr. Adam Carey, Medical Director, The Centre for Nutritional Medicine, London, studies have shown that soya has an impact on a number of conditions related to heart disease, osteoporosis, menopause symptom relief and possibly cancer, and these effects are attributed to isoflavones. A trained obstetrician and gynaecologist, Carey has co-authored a number of papers and has over 10 years of teaching experience. He left clinical practice in the United Kingdom's National Health Service four years ago to take up his present appointment. He is currently involved in tackling a wide variety of clinical problems that include gynaecology, weight management, reproductive endocrinology and sports nutrition.

Carey, 41, is also working on four research projects, all of which look into various treatment options for menopausal symptoms. Excerpts from an interview he gave Ravi Sharma:

► *Listening to the talk you gave to some of Bangalore's leading gynaecologists, it was obvious that you are a great advocate of the use of isoflavones to manage menopause. In layman's terms, what are isoflavones?*

It has been known for some time that if you are to restrict osteoporosis and build bones one needs weight-bearing exercises, building blocks (essentially vitamins and minerals) and builders (which are known to be oestrogen). But now there are other compounds and hormones that are clearly as effective in building bones as oestrogen. One of these may be progesterone, the other being isoflavones. Isoflavones, which are a compound found in soybean and other legumes, appear to have a positive effect on bones. We are also seeing that diet can have an important effect both on the building blocks and in being a builder.

K. GOPINATHAN

► *How do isoflavones work?*

Isoflavones are a chemical which have a structure that is similar to that of oestrogen. Hence they bind to the same kind of receptors that oestrogen binds to. Like the key of a car. It is not the original key but it still opens the door. It is a key that opens the same doors that oestrogen does, but maybe it doesn't fit so well. So it doesn't open all the doors all the time but it does most of the time.

► *There is a body of core research that suggests that the community should look at isoflavones in clinical use and practice.*

Yes. Five years ago the climate was that oestrogen was absolutely good for everything. That climate has now changed. Oestrogen has now been found to increase the risk of breast cancer, clots in the leg (thrombosis) and cancer of the womb, and also in the short-term increases the risk of heart diseases. These risks weren't so clear five years ago. The balance has now changed and during the last five years there has been a lot of research on soya and soya isoflavones.

► *How did you get interested in isoflavones?*

By listening to my patients. Being trained as an obstetrician and gynaecologist I was seeing a lot of patients who were coming with two basic problems. One, they were scared of traditional hormone replacement therapy (HRT), given the (possible) risks of breast cancer associated with it. They would tell me, "This is something that really troubles me, nonetheless I would do it". And second, whilst they were taking HRT they were concerned about the side-effects, particularly they didn't like to have a cyclical bleed, which occurs for the first few years post-menopause if the woman is using HRT. A cyclical bleed is very much like a menstrual period, the experience is similar and it comes every month, but it is an induced bleed. And most post-menopausal women would rather not have any bleeding. Because of these two reasons all my patients would tell me, "I don't like the side effects of HRT and I don't think (a cyclical bleed) is natural." This is what made me start thinking.

► *Are you advocating an alternative?*

It is a complement as opposed to an alternative. I don't use it as a golden bullet. It is part of a holistic management. What I offer only goes hand in hand with conventional medical practices. My team works with doctors and dietitians seeing patients jointly. We then medically define what the patient needs in terms of her lifestyle and then the dietitian or nutritionist will take her through step by step on how she should change it.

A patient may be on HRT, but her HRT will be more effective if her diet is right. Some patients do not want HRT, so this is better. It may not be as effective as HRT for reduction of hot sweats, but then getting your diet right does not have any side-effects. And when you use things like isoflavone the effectiveness improves. In other words, getting your diet right improves your symptoms to a degree, when you add nutritional supplementa-

development. The NFSIT seems to lack the technical expertise to evaluate the proposals it receives for funding.

The difference between the TDB and the new proposals is that the TDB's operations are governed by Acts of Parliament. There are mechanisms in place to ensure continuous flow of funds – though the Finance Ministry tries its best not to pay the TDB's dues fully – as well as the availability of technical expertise to evaluate projects, assess market potential and monitor progress.

The source of funds for the TDB's operations is the 5 per cent cess levied on all payments made for technology imports – in the form of lumpsum, royalties and dividends – as required under the R&D Cess Act of 1986. This amount is paid into the Consolidated Fund of India (CFI) and the "the Central government may... pay to the development bank (the IDBI's venture capital fund), from time to time, from out of such proceeds... such sums of money as it may think fit for being utilised for the purpose of the fund". The R&D Cess Act came into being after the formulation of the Technology Policy in 1983. Two years later the Technology Policy Implementation Committee (TPIC) recommended the creation of a Technology Development Fund (TDF).

The cess began to be collected only from 1988-89. Imports in the pharmaceutical, IT and biotechnology sectors too contribute to this cess. From this perspective, too, it does not make sense to create separate boards and funds for these sectors. However, the amount that the government thought fit to pay into the IDBI's VCF was only a fraction of the cess collected. For IDBI, funding technology through VCF was not a priority because the VCF was but a small fraction of its overall operations. This suited the Finance Ministry too – over the years it seems to have dipped its fingers into this fund also as part of its fiscal manipulations. Until 1995-96, the government had transferred to IDBI only Rs.27.84 crores out of the Rs.364.88 crores that had accrued as cess until then.

At the urging of the Ministry of Science and Technology, which felt that the money due to industry for technology development was being wasted, the administration of the cess fund was transferred from IDBI's VCF to the DST by establishing the TDB in 1995. The consequent amendments to the R&D Cess Act were made in 1996. Despite the creation of this new mechanism, the government's reluctance to part with the cess is apparent (see Table; the figures for the cess collected for 2001-2002 are not yet available). Budgetary allocations to the TDB have always been less than the amount collected and the actual payments even lesser. For instance, while the budget estimate (BE) for 2001-02 was Rs.63 crores, it was brought down to Rs.57 crores in the revised estimate(RE). The BE for the current year is Rs.58 crores, about the same as last year's RE, 7.9 per cent down from last year's BE. The BE has been progressively coming down from a maximum of Rs.70 crores (see Table). Considering that the Finance Ministry had consumed the Rs.283.47 crores that had accrued until 1994-95, it would have been only appropriate for it to release the entire cess money every year since then. But this is not happening.

Collections under the R&D Cess Act, 1986

Year	Cess collection (as per CGA's figures)	Payments to IDBI	Allocation to TDB		Payments to TDB
			BE	RE	In Rs. crore
1986-87					
1987-88		8.84			
1988-89	16.31	5.00			
1989-90	27.20	1.00			
1990-91	30.12	10.00			
1991-92	32.78	3.00			
1992-93	44.89				
1993-94	60.74				
1994-95	71.43				
1995-96	81.41				
Total	364.88	27.84			
1996-97	80.15		30.00	30.00	29.97
1997-98	81.42		70.00	49.93	49.93
1998-99	53.89		50.00	20.00	28.00
1999-2000	35.93		70.00	50.00	50.00
2000-2001	36.91		70.00	63.00	62.79
Total	767.96	27.84			220.69
2001-2002			63.00	57.00	57.00
2002-2003			58.00		

The TDB assists technology development through equity capital or financial assistance (grants and loans at 6 per cent simple interest) to industrial concerns and other such agencies attempting the commercial application of indigenous technology or adapting imported technology for wider domestic application; and through financial assistance to R&D institutions engaged in developing indigenous technology or adapting imported technology for commercial application. Funding by the TDB, under the current guidelines, covers only half the estimated project cost and the enterprise seeking assistance has to produce evidence of provision made for the remaining amount.

The strength of the TDB's funding process lies in the thorough project evaluation and monitoring mechanisms that have been put in place. Given the DST's access to expertise in all areas of science and technology, both within the government and in the private sector, its project evaluation committees comprise the best persons in their fields and their assessment of technology is bound to be good. Indeed, financial institutions such as ICICI, IDBI and venture capitalists such as the Gujarat Venture Capital Fund and Risk Capital and Technology Corporation Ltd have begun to realise the benefits of the TDB's evaluation and have agreed informally to provide additional funding to any project that the TDB clears. Already funds in the form of loan repayments have begun to flow into the TDB.

In creating the TDB the government has arrived at a correct mechanism, albeit belatedly, to fund technology development. Instead of consolidating and strengthening the mechanism, the creation of a multiplicity of similar agencies is being attempted. The scope of the TDB's operations can be expanded easily to include R&D projects. This is well within the terms of the Technology Development Board Act. Its sources of funding can be diversified (though this might call for an amendment of the Act) and additional funds can be earmarked for specific purposes. For instance, the corpus fund that was announced for R&D in the pharmaceutical sector can be set apart for the said purpose alone.

But if the government has funds to be allocated in such ways, it is unclear why the cess collected is not transferred fully to the TDB. After all, the TDB operates the TDF, which was created by an Act of Parliament and is meant to be operated outside the government's budgetary mechanism. In fact, as a first step, the sum of about Rs.500 crores that is the remainder of the total cess accrued since 1988-89 after payments made to the TDB, should be transferred fully to the TDF so that the TDB is able to net more promising technologies and R&D projects. ■

tion that has a pharmacological action similar to oestrogen, you have an even bigger effect. For some people it can be an alternative, for many a complement. Studies have also shown that they work together synergistically.

► *Getting your diet right seems to be the key?*

Yes. For example, if an overweight patient has urinary incontinence doctors won't want to operate on them. Because we know that if they are slimmer the operation is more successful. If they have osteoporosis doctors prescribe oestrogen. We now know that if they don't get their diet right oestrogen won't have anything to work on. So they have to have their diet corrected.

► *Can hot flushes, one of the main manifestations of menopause, be controlled by diet?*

Yes, studies have shown that you can reduce them by reducing caffeine intake. But only to a degree, though. Dietary modulation is reasonably effective but doesn't cure it. Isoflavones reduce the occurrence of hot flushes by 50 to 60 per cent. Oestrogen by about 85 to 90 per cent. Another hormone – progesterone – may also be useful in the future.

► *Isoflavones can be taken naturally in the form of soya. Why a capsule?*

Absolutely, I'm all for the eating of whole foods. But I don't see a lot of soya being eaten in India. Dietary changes are difficult to make. Also bigger, more thorough studies have to be undertaken before a whole nation changes its diet. And even if studies have proved that soya is as effective as oestrogen and completely safe, I would still question the merit of changing a nation's cultural background.

► *Some communities notably in the Far have a soya-rich diet. Are there any studies showing a lower incidence there of distressful menopausal symptoms?*

Absolutely. If you look at the epidemological studies from Japan, where most of this work has been done, the Japanese have the lowest incidence of diseases associated with menopause, be it breast cancer, endometrial cancer, cardiovascular disease, osteoporosis – and in men, prostrate cancer. Illnesses that are very high risk in the United Kingdom (U.K.), the United States and now increasingly in India. Studies show that both in the U.K. and the U.S. at least 80 per cent of post-menopausal women experience one or more of these symptoms, one of three women has osteoporosis and by the age of 80 almost all of them have had at least one osteoporosis-produced fracture.

In medical journals when they talk of Asia they assume that what is happening in Japan is happening in India. My experience with Indian gynaecologists clearly shows that many more Indian women than the 5 to 10 per cent that journals indicate, suffer menopausal symptoms. A recent study in Bangalore showed that more than half the women who go through menopause experience symptoms.

In Japan the very high intake of isoflavones amongst other things is reducing the incidence of all the common diseases that are killing people in the rest of the world. Less than 10 per cent of Japanese women experience menopausal symptoms. But when they move to the U.S., within one generation they become prone to breast cancer, endometrial cancer, cardiovascular disease and so on. So it is not the genetics of the Japanese women that is protecting them, but something in the environment – either the air they are breathing or the food they are eating. We think it is the food.

► *Can isoflavones reverse these disorders?*

You can't reverse ageing. Heart attacks cause death, but a fractured hip does not cause immediate death. But 20 per cent of women who have a break in the leg will die within the first 12 months of that fracture. This is because they contract pneumonia or whatever else. Fractures take a lot of money to put right. Fractured spines, which leave little old ladies all bent over (the Dowager's hump), cause chronic pain and disability.

It is estimated that the amount of money spent on treating osteoporosis-related cases in England is £1 billion a year. Even if we can't stop all the cases, it would help if we could delay them. Menopause was never a problem 200 years ago since all of us died before menopause. It is a problem today because many of us live up to 80. Most women have 30 years post-menopause and they get their fractures in their 70s and 80s. We are looking to push the likelihood of these fractures happening when the women are 90 or 100.

► *Do men experience menopausal symptoms?*

Men very rarely, for example, experience hot flushes, only if they are undergoing chemotherapy. But men also have problems associated with changes in their hormonal levels as they get older. Most men after the age of 45 experience a fall of some of the androgens in their bodies. They also get osteoporosis – about a third as often as women. They are also at cardiovascular risk and often show abnormal lipid profiles. Isoflavones improve those lipid profiles. ■

A virus lives on

The World Health Assembly decides to retain existing stocks of the smallpox virus for continued research into new vaccines, without setting a future date for their destruction.

R. RAMACHANDRAN

IN a controversial move that could have far-reaching consequences, the 55th World Health Assembly (WHA) on May 18 went back on its six-year-old resolution to destroy the current stockpiles of smallpox virus variola and decided to retain them indefinitely for international research. This reversal is a clear fall-out of the heightened fears of bioterrorism built up chiefly by the United States in the wake of post-September 11 anthrax attacks.

Endorsing the recommendation made by the World Health Organisation's (WHO's) 32-member Executive Board in January, the WHA decided to retain the existing stocks of variola virus to allow continued research into new vaccines and anti-viral drugs against smallpox "on the understanding that steps should be taken to ensure that all approved research would remain outcome-oriented and time-limited and periodically reviewed". Since smallpox was effectively eradicated in 1979, stocks of live virus exist only in two high-security laboratories – the Centres for Disease Control and Prevention (CDC), Atlanta, U.S., and the Russian State Centre for Research on Virology and Biotechnology (VECTOR), Koltsovo, Novosibirsk.

The last case of naturally occurring smallpox was in Somalia in 1977 and in 1980 the WHO declared the disease to have been completely eradicated globally. One of the key factors that enabled eradication of smallpox, the disease that had afflicted mankind for centuries and has no treatment even today, through an intensive worldwide immunisation campaign between 1967 and 1979, is the fact that the only known host of the variola virus is the human body.

The decision to retain current stockpiles of the smallpox virus is a fall-out of the fears of bioterrorism built up chiefly by the U.S. in the wake of post-September 11 anthrax attacks.

At its January 14-18 meeting, the WHO board accepted the advice of its Director-General Gro Harlem Brundtland and the advisory committee for variola virus research that ongoing research would not be completed by end 2002 – the deadline set in 1999 for the destruction of virus stocks. Brundtland had said: "The research programme should be completed as quickly as possible and a proposed new date for destruction should be set when the research accomplishments and outcomes allow consensus to be reached on the timing of destruction." Given the history of the issue, it is unlikely that consensus would ever be reached.

Indeed, in a speech to the board the U.S. Assistant Surgeon-General Kenneth Bernard said that continued research into improved vaccines was vital in the wake of the September 11 attacks and subsequent anthrax scare. "We regard the potential release of smallpox as a critical national and international security issue... We are currently making progress in research designed to develop new tools against smallpox... The need for new drugs and vaccines is particularly acute in parts of the world with large populations of immunosuppressed people such as those with HIV/AIDS for whom the current vaccine would be potentially lethal." Russia too echoed these views which found all-round support among the 32 members, including Japan, which had been earlier among the front-ranking opponents, along with Brazil, Cuba, India and China, to the idea of retaining the stocks.

China, which like India is not currently a member of the board, was the lone voice of dissent. It wanted a final deadline for destruction without any excuses for further delay. Interestingly, in contrast to its the earlier stand on the issue, the Indian representative to the meeting apparently sat quietly through the deliberations. India's current disposition towards the U.S. would seem to have dictated its endorsement of the WHO's policy reversal.

Since Edward Jenner discovered it in 1796, the conventional vaccine is based on live vaccinia, the causative virus of cowpox. It is estimated that the current world vaccine stock is about 110 million doses, including 500,000 doses maintained by the WHO at its Collaborating Centre for Smallpox Vaccine in Bilthoven, the Netherlands. The centre also holds the seed virus used to produce the vaccine.

Since the vaccine itself does not require the variola virus, the Global Commission for the Certification of Smallpox Eradication recommended in December 1979 that any remaining stocks of the virus (isolated from infected blood, tissue samples) should be destroyed or transferred to one of the four WHO-designated reference laboratories in the U.S., the U.K., South Africa and Russia. This was endorsed by the WHA in May 1980. However, by the end of 1983, all variola stocks in South Africa were destroyed and those in the U.K. were transferred to the CDC.

Consequently, today all known stocks of the virus have been consolidated at the two WHO collaborating centres at the CDC and VECTOR. The CDC is a repository of 451 smallpox virus samples and the Russian collection contains about 150 samples. Of course, there is no guarantee that somewhere in the world there is not another potential source of virus – the corpse of a person who died of smallpox and is buried in the Arctic or Siberian permafrost, or a virus vial unknowingly retained in some laboratory, or samples deliberately retained by some country out of a suspicion of the motives of the Russian and U.S. governments or out of intentions of biowarfare.

To clear the way for the subsequent destruction of these stocks, the two laboratories undertook cloning and sequencing of deoxyribonucleic acid (DNA) fragments of selected virus strains under high-containment biosafety level 4 (called P4) conditions. Since 1983 such clones have been kept in a few laboratories in the U.K., the U.S., Russia and South Africa. Because the cloned DNA fragments had the potential to create a

One of the key factors that enabled the eradication of smallpox through an intensive worldwide immunisation campaign between 1967 and 1979, is the fact that the known host of the variola virus is the human body.

smallpox-like virus by recombination with vaccinia or monkeypox viruses, the WHO required the registration of all clones of variola DNA and restricted their use and distribution. Arguing that the clones obviated the need for the infectious virus for reference purposes, the WHO Ad Hoc Committee on Orthopoxvirus Infections resolved in 1986 that the virus stocks be destroyed "if no serious objections were received from the international health community".

At the May 1990 WHA, the U.S. declared that technological advances now allowed the entire virus genome to be sequenced within three years and offered to destroy all the virus stocks at the CDC. In December 1990, the WHO Ad Hoc Committee on Orthopoxvirus Infections endorsed the proposal for sequencing of the virus genome jointly by the U.S. and Russia. It also decided that the remaining virus stocks be destroyed by December 31, 1993, provided sufficient sequence information was available and serious scientific objections were not raised. By December 1993, Russian and U.S. scientists had successfully sequenced the genomes of two strains of variola major – Bangladesh 1975 and India 1967 – and one strain of variola minor – Garcia 1966. (Variola minor is a milder form of the virus with a much smaller mortality rate of 1 per cent as compared to 30 per cent in variola major.) At present 10 different strains of variola have been sequenced completely.

While the larger ethical issue of whether humanity has the right to exterminate a living species deliberately does pose a dilemma, purely from a research perspective, the scientific community has been divided on the issue and has debated on it extensively since 1991. The proposed destruction by 1993-end did not come about because of this division of opinion among researchers and public health specialists. Those supporting destruction argued that once sequencing is complete, the virus itself is no longer necessary and, once destroyed, smallpox ceases to be a potential threat to public health, be it from accidents, military use or terrorism. On the other side of the question, it was argued that having the virus in its functional form offers much more information for science than the mere record of its genetic code can possibly impart. It was further held that the smallpox virus has evolved along with its host, humans, and its strategies to evade the human immune system are very specific, but are only beginning to become known.

The 1996 WHA adopted a resolution recommending that destruction should take place on June 30, 1999. The three-year period was given to achieve a broader consensus before a final decision was taken. In 1998, a WHA survey of the positions of its 191 members revealed that of the 79 countries that responded, 74 were in favour of destruction. Russia was against it while the U.S., the U.K., France and Italy were undecided. Between 1990, when the U.S. offered to destroy its stocks – and so did Russia – and 1998 there had been a change in their respective perspectives. In January 1999, the Ad Hoc Committee also found itself lacking in unanimity over the issue.

Two factors were responsible for the change in the U.S. position. One, a disclosure by a Russian defector, Ken Alibek, former deputy director of the Russian Bioweapons Programme, that following termination of mass vaccination, and in the atmosphere of the Cold War, Russia had developed facilities to produce the virus in tonne quantities in a month and had even weaponised the virus. Two, a 1998 report by the U.S. National Academy of Sciences' Institute of Medicine (IOM), which assessed the scientific need for live variola virus without, however, addressing the costs that may be involved in such research and weighing the risks of release of the virus and its re-emergence.

"The most compelling reason for long-term retention of live variola virus stocks is their essential role in the identification and development of antiviral agents for use in anticipation of a large outbreak of smallpox," the IOM report said. It also said that live virus would be necessary for the development of novel types of vaccine. It also favoured live or "replication-defective" virus for the study of variola pathogenesis and the response of the human immune system. The smallpox virus has very different biological properties. If this could be understood, it would reveal more about the human immune system, it was argued.

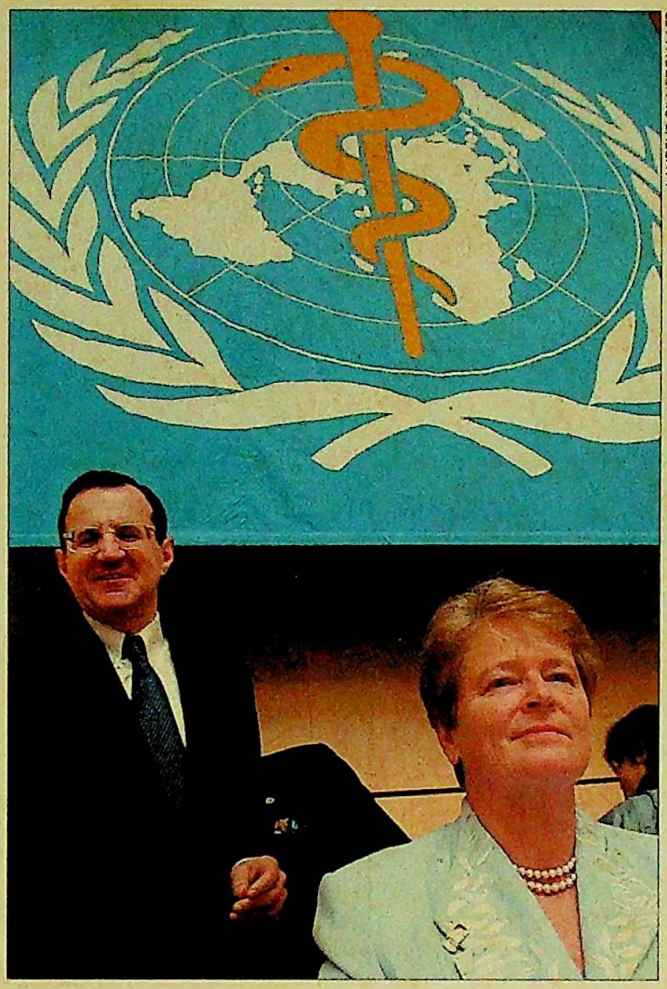
Accordingly, in April 1999, a month before the 52nd WHA, President Bill Clinton sought a delay in the proposed destruction of the virus. The White House statement said that the President's decision was based on a consensus recommendation of his advisers, reflecting agreement among all departments, and also the fact that the administration cannot be certain that destruction of the declared stocks will eliminate all the virus in existence. U.S. media reports then quoting officials said that the U.S. believed that Iraq, North Korea and Russia had bioweapon programmes based on the smallpox virus. Indeed, Donald A. Henderson, Director of the Johns Hopkins Centre for Civilian Biodefence Studies, who directed the WHO smallpox immunisation campaign and who is a former adviser in the Clinton administration, believes that a

desire to be able to retaliate in the event of a biological attack was behind the administration's reversal which he claimed emanated from the Defence Department.

The 1999 WHA, influenced by the U.S. stand, agreed by consensus to the "temporary retention, up to but not later than 2002, of the existing stocks of variola virus for the purpose of further international research into antiviral agents and improved vaccines, and to permit high-priority investigations of the genetic structure and pathogenesis of smallpox." While affirming that the final elimination of all variola virus remained the goal of the WHO and all member-states, the resolution said that "any such research shall be conducted in an open and transparent manner only with the agreement and under the control of WHO."

In a perceptive article written in October 2001, Henderson and Frank Fenner analysed the various research priorities identified by the expert group and argued why the deadline set by the 1999 WHA should be adhered to. They looked at the development in the research areas identified: the development of a more attenuated, less reactogenic vaccine; and the development of an antiviral drug that could be used in the treatment of smallpox. An associated important area was the evaluation of a suitable animal model in the absence of any known non-human host for smallpox.

Two candidate vaccines, which produced satisfactory antibody levels but produced less side effects in animal tests, had been identified. But, for obvious reasons they could not be tested in an area where smallpox was endemic. Therefore, an assurance of their efficacy was no longer possible. From that perspective, administrations would procure more of the proven vaccine thus foreclosing the rationale for further research on modified vaccines, they argued. "It would seem appropriate that future research efforts be directed at mitigating the possible effects of adverse reaction through the use of anti-vaccinial drugs or monoclonal antibodies," they argued.



LAURENT GILLIERON/ AFP

Gro Harlem Brundtland, Director-General of the World Health Organisation, arrives for the opening session of the 55th World Health Assembly at the United Nations in Geneva.

Questioning both the feasibility and wisdom of pursuing the development of antiviral drugs, Henderson and Fenner pointed out the high cost (about $500 million, which no government was ready to invest) of developing a new anti-microbial drug and the fact that it would take eight to 10 years of research and development to bring it to the market. Added to this would be the large sums of money that would be required to build up and maintain stockpiles of reasonable size of the drug for possible future use. Secondly, here too there would be a lack of proven efficacy of the drug, however effective it may appear in a surrogate host with a surrogate virus in the absence yet of a viable variola/monkey model. An anti-viral drug, they argued, might be more useful in preventing the disease in immune-compromised patients who would be at risk of "progressive vaccinia" disease if vaccinated. Research efforts should focus on an anti-vaccinial drug, which could be more thoroughly evaluated through animal studies, and such studies would not require retention of the variola virus, they said.

Running counter to this perspective, the WHO committee on variola virus research reported to the board that "significant components of this research, most notably refinement and use of an animal model developed in 2001 and the development of antiviral drugs, were unlikely to be completed by the end of 2002." It further stated that to study the animal model (cynomolgus monkey), further access to live variola virus was necessary after the expected 2002 destruction date. This the board endorsed, and based on this the Director-General recommended retention of stocks without setting a deadline.

An Indian expert in biological warfare, Kalyan Banerjee, former Director of the National Institute of Virology (NIV), Pune, and a former member of the National Security Advisory Board (NSAB), is furious with the WHA decision. As a dissenting member of WHO's Ad Hoc Committee, he has reasons to be furious. He feels that continuing research with the smallpox virus may enable the U[redacted] military to develop it as a bioweapon. In the wake of the September 11 events, the U.S. proposes to have a stockpile of 286 million doses of the vaccine by the year end, enough for every U.S. citizen. 'So where is the rationale for developing a new vaccine with live virus?" he asks, echoing the point raised by Henderson and Fenner.

Criticising the U.S.' unilateral decision to retain the stocks indefinitely, Banerjee accuses the WHO of having become a "cat's paw" in the issue. "Research does not need the live virus and there is no justification in retaining the stocks. The people of the world and the WHO worked hard to eradicate smallpox, only to leave the most potent bioweapon in the hands of the custodial powers," he said. ■