CO-ORDINATING AGENCY FOR HEALTH PLANNING.

C/45 SOUTH EXTENSION - PART II

NEW DELHI - 110049.

April 23, 1973.

Dear Friend,

Subject: Explanatory Brochure for patient retained health records.

The enclosed draft of the brochure on the records is long overdue but we need your comments on it before we get it printed. The illustrations are much better than the copies done on these stencils. There will be a cover with ~~illustration~~.

Please submit your comments by 15th May. Beyond 15th May, we would find it difficult to incorporate your suggestions.

We would appreciate your comments on -

1. Clarity of meaning.
2. Spelling.
3. layout.
4. Content and factual corrections.
5. Any other comments.

As for the patient retained health records you will be interested to note these developments.

1. Leprosy and eye card added to original set discussed at Delhi.

2. Patient retained health records can serve as study cards, clinic retained, in a domiciliary programme where it is desired to put say 10% of the population served under intensive study, and where the clinic is attended daily by staff from hospital.

3. Duncan Hospital (180 beds) at R.xaul has converted all of its busy outpatients department (160 patients daily) to patient retained health records (including leprosy)

4. Only fully prepaid orders can be accepted at present.

5. Strenuous efforts are being made (and many of you have helped in this) to translate the cards into other languages besides English, Hindi and Urdu, now that this Community Health Section has been set up in CAHP, Delhi and nearer more printing facilities.

Sincerely,

Murray Laugesen

Murray Laugesen.
Community Health Section.

C O N T E N T S.

WHERE TO OBTAIN THESE HEALTH RECORDS

Community Health Department (attention Dr. V. Benjamin)
C. M. C. Hospital,
Vellore, Tamil Nadu: Tamil, Telegu, Malayalam, Kannada, with some English on each card.

Community Health Section,
Co-ordinating Agency for Health Planning (CAHP)
C/45 South Extension, Part II
New Delhi - 110049: Hindi, Urdu, Punjabi, Nepali, Marathi, with some English on each card.

CAHP will also answer enquiries on:

1. Cards in other languages in preparation.
2. Clinic retained record sheets.
3. Sets of explanatory slides (HR 8)
4. Supplies of this brochure (HR 6)
5. Additional records in this series. A record for School children (HR 10) is under consideration.

PRICES: (delivered to the nearest railway station)

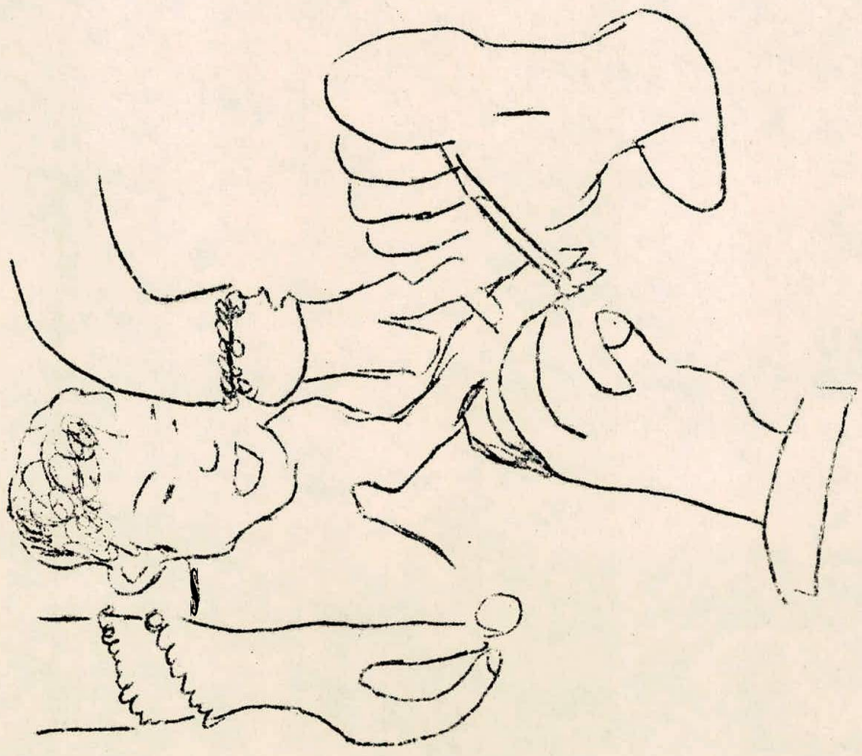
HR 1, 2, 3, 5, 7:	30 paisa each, including plastic bag & sales tax
HR 4:	25 paisa
HR 9:	10 paisa
HR 6:	Re. 1/-
Set of HR 1-7	Rs 2/- VPP

Section 1: PATIENT RETAINED HEALTH RECORDS MEAN BETTER HEALTH CARE.

These records are designed to encourage high standards of health care, while serving large numbers of people. They produce the best results however, only when used by a team of permanent staff.

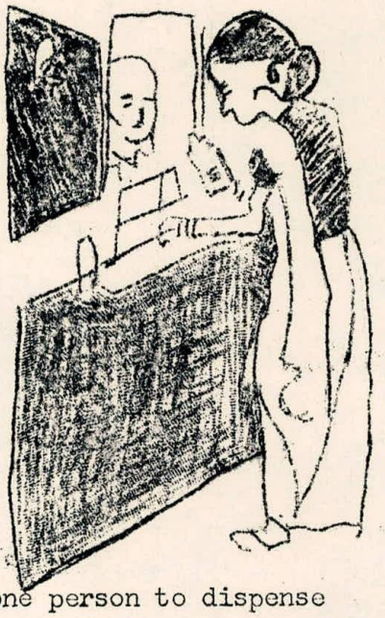
One person to register and weigh the patient.

One person to immunise



and one person to treat anaemia

One person to diagnose
and treat



one person to dispense

others to give health education
and family planning

Such teams can be formed from present staff in outpatients departments, and dispensaries.

SECTION 2. WHY PATIENT RETAINED HEALTH RECORDS ?

PATIENT RETAINED RECORDS ARE SELDOM LOST.

The card is of bright colour (yellow for under fives, green for antenatals, pink for T.B. patients, and blue for others). It is 10 inches (25 cm) long when folded, and is kept in a strong plastic envelope. It is issued to the patient, with instructions to bring it for every visit to the clinic. Antenatals must also be instructed to bring their card at the time of admission to hospital, or there is a danger of the card being forgotten in the panic of rushing to the hospital when labour begins.

Illiterate people who have little paper in the house, seem to value these cards more than the educated patients who are often the ones who forgot to bring their cards. Patients find that they get seen and treated faster when they have the health card in their hands than when without it. Even if patient retained records are occasionally left behind, they are very seldom lost permanently. (A quick check of most medical records department files will reveal that after 5 years at least 2% of records are permanently missing).

When used in conjunction with hospital retained record system, the patient retained card can act as the identification card for the hospital number system.

PATIENT RETAINED RECORDS ARE ECONOMICAL.

These health records with plastic envelope cost 30 paisa per patient to begin with, while registration clerk's time costs another 5 paisa per patient visit. This compares favourably with the cost of hospital records systems, many of which cost several rupees per patient served. Some hospitals therefore are changing all outpatients on to patient retained health records. They then have staff available for more useful work such as weighing children at the time of registration.

PATIENT RETAINED RECORDS SAVE TIME.

The doctor's assistants using the health cards, can easily carry out the health checks and tests before the doctor sees the patient. The weight graph on the child health card, and the

columns on the antenatal card give the doctor most of the information he needs. He is then able to quickly assess the patients and decide that protein supplements are needed, or immunisations, or anaemia treatment etc. Such efficiency and speed are essential if route health care is to be given to large numbers of patients. Unless a comprehensive health document is used, either fewer patients must be seen carefully, or large numbers are seen and treated superficially only.

PATIENT RETAINED HEALTH CARDS ENCOURAGE A HIGH STANDARD OF CARE.

When children are seen without a weight graph being made, most malnutrition will not be diagnosed. In India, marasmus which has no special clues to alert the doctor, is so much more common than kwashiorkor with its clinical signs. Without diagnosis of malnutrition we are unlikely to treat other illness completely successfully. We also miss an important cause of prevantable intellectual 'stunting'. The Morley type weight graph is easily filled in by the doctor's assistants, as it is not necessary to calculate age each time the graph is filled in. Other types of graphs are complicated to complete, and are likely to be neglected.

PATIENT RETAINED RECORDS ARE AS HIGHLY MOBILE AS THE PATIENTS.

Wyon (1971) found that in Punjab villages, 80% of first borns were delivered outside the husband's family home. For second deliveries 36% and for third, 24% migrated, often with young children, to the maternal grandmother's home. For people in Government service, this customary migration involves, long distances, and an antenatal patient in Bombay may deliver her baby in the Punjab. Tuberculosis and leprosy patients migrate to many different doctors in the course of their long illness, and a patient retained records once again saves the doctor much time. To ensure that the

To be any use the record must go with the patient for delivery.

health card is carried by the patient, the patients and staff must be educated to value them, and relatives must be warned that in the panic of rushing a patient to hospital, they must remember to bring the card also.

HEALTH CARDS ARE USEFUL FOR HOME BASED HEALTH CARE:

The health card forms a natural talking point and personalised health teaching aid wherever the auxiliary nurse makes a home visit. The child's name already on the card makes introduction easy when the nurse calls.

HEALTH CARDS ARE USEFUL IN RESEARCH.

These health cards have been followed up to remote villages on a big scale in Uganda, using students in their vacation, on bicyle (Moffat 1969). They can be used to document the age-weight incidence of disease, investigations of birth interval, response to feeding programmes and protein supplements, using master cards on the doctor's desk.

HEALTH CARDS CAN BE COMBINED WITH THE NUMBERING SYSTEM OF MEDICAL RECORDS.

If the health card is used in mobile clinics a separate block of numbers is allotted, and if the patient is admitted he is given the same number on his hospital retained records. A red inked ticketing machine for numbering walking records is useful. The main aim is to avoid giving two numbers to any patient - the method of doing this varies from hospital to hospital.

PATIENT RETAINED RECORDS ALLOW EASY REFERRAL TO AND FROM THE CENTRAL HOSPITAL.

The health card acts as a well documented note of referral. It can be used by the hospital doctor to summarise the patient's stay in hospital, so that the doctor who referred the patient knows what was done for the patient.

The health record serves as a well documented note of referral to the Central hospital

PATIENT RETAINED RECORDS EDUCATE THE PATIENT FOR HEALTH.

With these record cards, the patient learns what is needed for better health. By studying her own record card, and her child's record card the mother is encouraged to take an interest in her own health, and in her child's growth, diet and immunisations.

SECTION 3. CHILD HEALTH RECORD. (0-6 Years) HR 1.

Printed on strong yellow card.

This card was originally designed by Dr. David Morley at Ilesha, Nigeria in the early sixties, and since then it has helped in the supervision of the health of millions of children in many developing countries. It is being used increasingly in India. The Government of Maharashtra is shortly printing such a card for use throughout the State.

The present version owes much to the work of Dr. W. Cutting at Jammalamadugu, Andhra Pradesh. It includes family planning section, and dotted lines to allow grading of malnutrition. This record takes the child up to sixth birthday, the official age for starting school in India. Diet pictures are different for South and North.

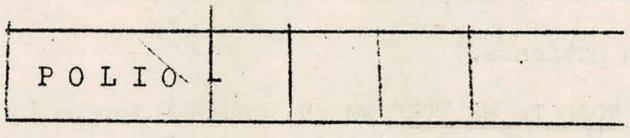
THE OUTSIDE OF THE CARD:

IDENTIFICATION PANEL provides the staff with enough information to avoid mix-up of cards in a busy clinic.

BROTHERS AND SISTERS: This section helps staff get to know the rest of the child's family. There may be a new-born whom the mother has not brought to clinic. She can then be persuaded to bring the baby the following week. Three or more dead babies, or seven or more live children in the family, are reason for special care. And family size must be known before family planning advice is given.

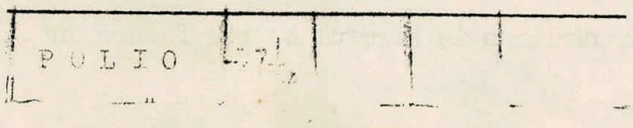
PROBLEMS AND TREATMENT: This space is for the doctor or nurse to note diagnosis, treatment and advice as required.

IMMUNISATION BOXES: are used for recording details of the various immunisations. The doctor may order the injection by putting a small mark in the appropriate box

(a) 

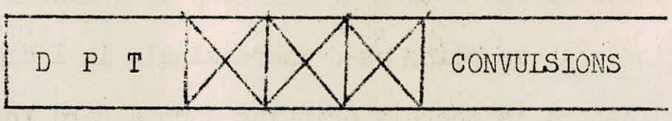
This indicates "Polio vaccine ordered" by the doctor or clinic in charge.

The nurse giving the immunisation completes the details of date in the box provided.

(b) 

Polio vaccine was given on

The doctor should see the child before immunisation is given, to see that he is well enough. Triple vaccine (DPT) should not be given if there is a history of convulsions. Nor should babies with fever be given D P T.

(c) 

In this case, tetanus toxoid can be given instead.

THE INSIDE OF THE CARD:

REASONS FOR SPECIAL CARE are noted so that high risk babies get special attention, even in a busy clinic. These are the groups who need special care :

premature baby - 2.5 kilograms ($5\frac{1}{2}$ pounds) or less when first seen [4]

breast milk stopped before 3 months [2]

weight not gaining over a 3 month period

failure to add solid food so far, and child now 9 months of age or more

twins, especially if female

malnutrition - if second or third degree (II^{o} or III^{o})

anaemia (under 8 grams Haemoglobin)

serious disease of mother or child, such as paralysis, tuberculosis, congenital defect needing operation, and also low intelligence.

mother or father dead, blind, mentally ill, alcoholic or unemployed.

three or more dead children in the family.

six or more children in the family already [3]

(These recommendations are based on the community studies of Wyon in the Punjab; an analysis of hospital deaths in Ferozepur [4] and experience of over 30,000 patient visits of under fives in Ferozepur District, Punjab. Each hospital should however study its own patients.)

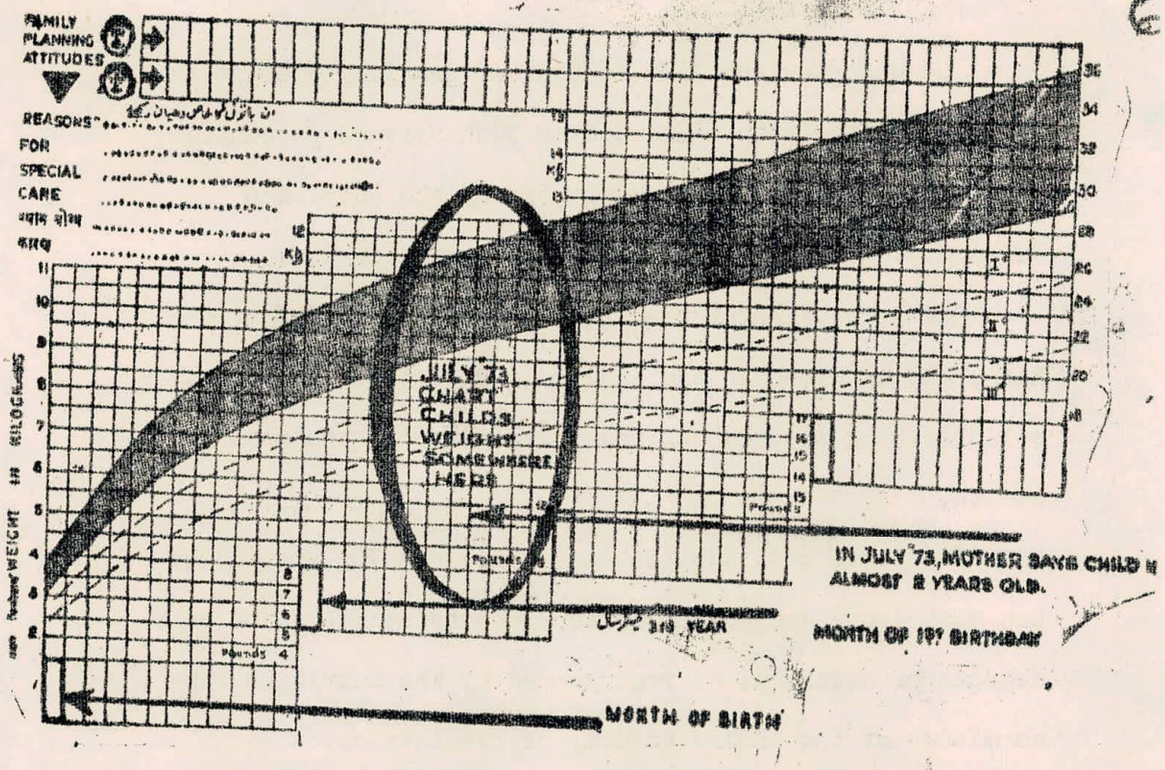
"ROAD TO HEALTH" weight graph - formed by the top and bottom lines of the weight graph. With a combination of curative and preventive care, and correct feeding, most children can attain this road to health. Parents respond well to the reminder that brain growth occurs rapidly in the first year, and that malnutrition is harmful to the future intelligence of their child. [5]

The upper weight line is that of privileged children in good health (95th All-India or 50th Harvard percentile, called the Harvard standard adopted by the Nutrition subcommittee of the Indian Academy of Paediatrics).

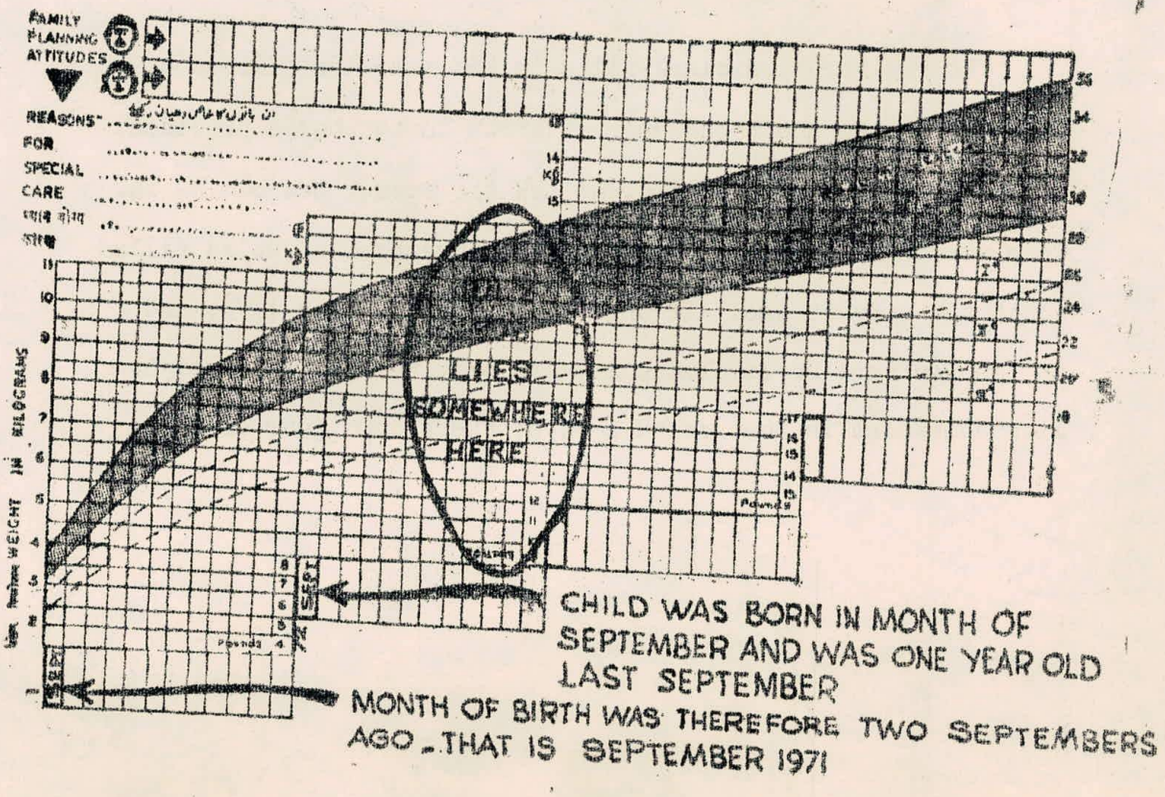
The lower line of the "road to health" is 80% of top line, and is close to the Indian average. But with early solid feeding most babies weights can attain the road to health.

The lower most two (dotted) lines are 70% and 60% of top most line, and enable us to classify malnutrition into degrees of severity, as recommended by the Nutrition sub-committee of the Indian Academy of Paediatrics.

The registration clerk fills in the name and address of the child, then the month and year of birth in the boxes provided. But while weighing the child, we ask the mother how old he is. This serves as a double check to make sure the weight is filled in at the correct age. If the child comes in July 1973, and the mother says he is almost 2 years old, then today's weight lies somewhere in the second half of the second year of life:

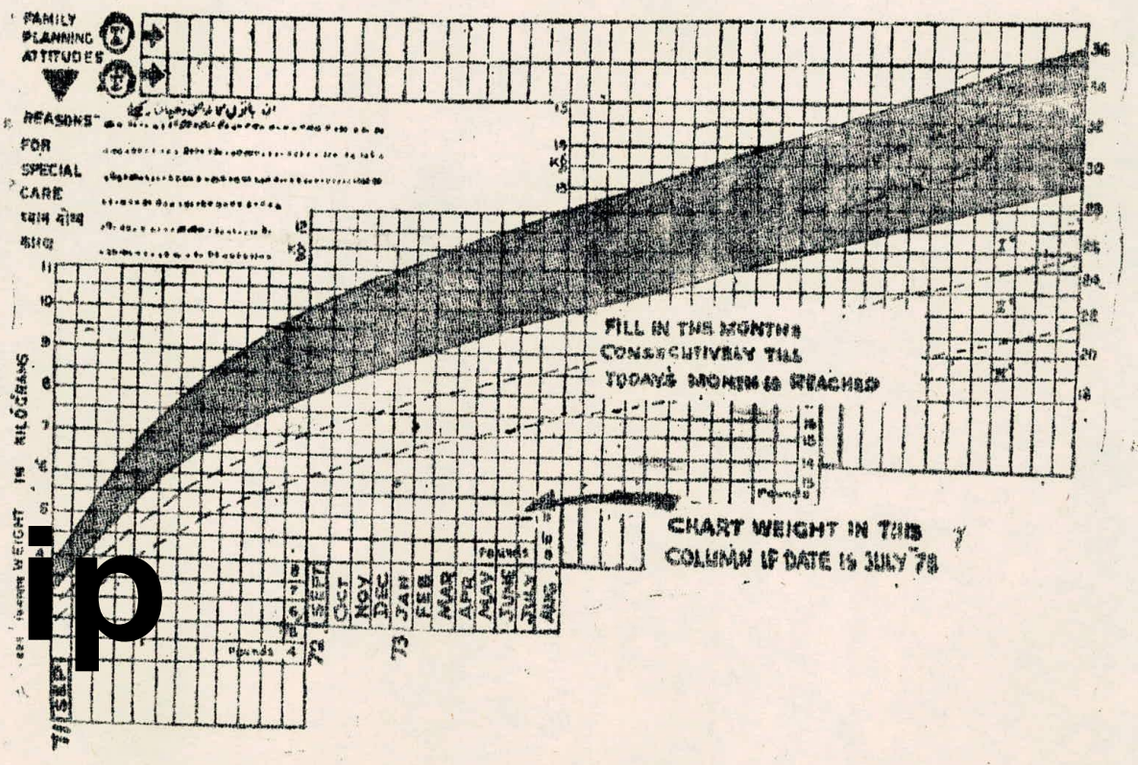


When asked, the mother replies that the baby was born in September If she comes to the clinic in July 1073, then last September was in 1972, and the baby was therefore born in September 1971. The first month ofeach yearly graph is outlined more heavily than the other months, and this is always the birth month, or the birth anniversary month. The years are written below.



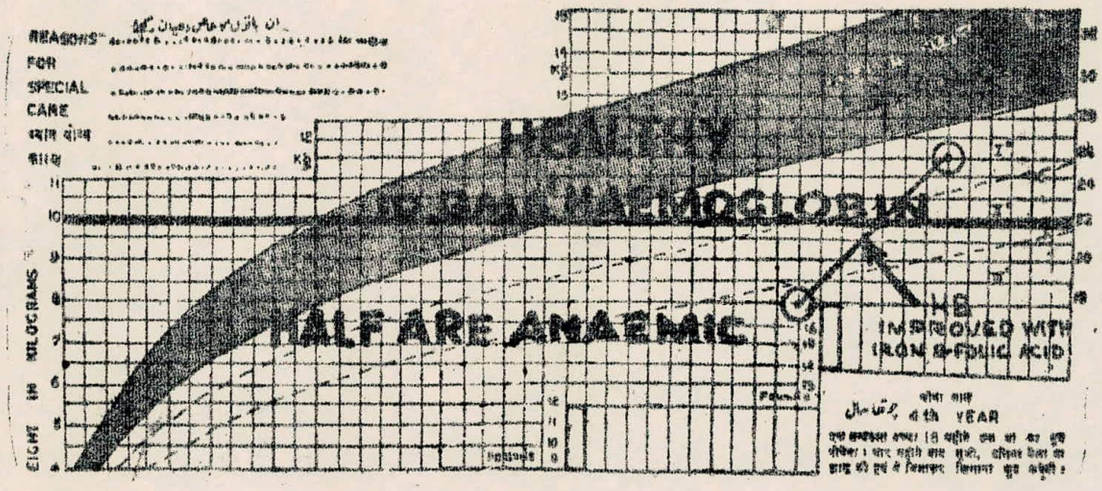
Now we fill in the months in the boxes provided till the month of today's clinic visit is reached. We chart the weight in this column opposite the current month.

We put a dot in the correct place for the weight, and connect up this dot by a line to the previous weight, to make a graph. Over a year or two many children will return for 5 to 10 recordings of weight. The rate of gain, or loss of weight will be as sensitive as a temperature chart to the presence of acute and chronic illness and to nutrition status.



HAEMOGLOBIN CAN BE GRAPHED ON WEIGHT CHART

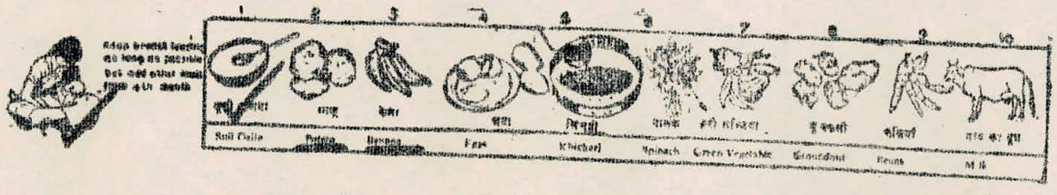
Laboratory technician uses a red pen, and uses the 10 Kg line on the weight chart as a 10 Gms Haemoglobin line (9 Kgm for 9 Gms Haemoglobin, and so on). If routine haemoglobins are done, at least half will be found anaemic , especially from 4 - 36 months of age. Routine iron and folic acid may be given instead of testing.



Note the improvement of the haemoglobin level with treatment.

DIET ADVICE

This is in picture form. Foods already eaten may be ticked, and those to be added underlined. In this way, illiterate mothers may remember diet advice again given. Preparation of baby's first food (Suji, ragi, potato, banana) should be taught in detail.



FAMILY PLANNING: If male attitudes are being discussed fill up opposite the picture of the man's face; if female methods, opposite the picture of the woman's face. For making this easy turn the card on its side. Family planning is especially needed when:

1. The child is about 6 months old and periods are likely to return soon.
2. The mother is about to return to her husband's village.
3. When breast feeding is stopped.

SECTION 4. HEALTH RECORD - MOTHER H.R.2

(Ferozepur antenatal card).

Colour - light green.

This card is different from other antenatal records in that -

(1) like other records in this series, it is carried by the patient herself. If she is told to take it with her, the record will almost certainly be available when the patient migrates to her mother's home for delivery.
(If records are kept by the clinic, then at least one third of these records will never be used because the patient has migrated out for delivery.)

(2) the whole pregnancy is charted against the calendar months so that the early months are always charted at the top of the record, and later months below; and calculation of expected date of delivery is made much easier.

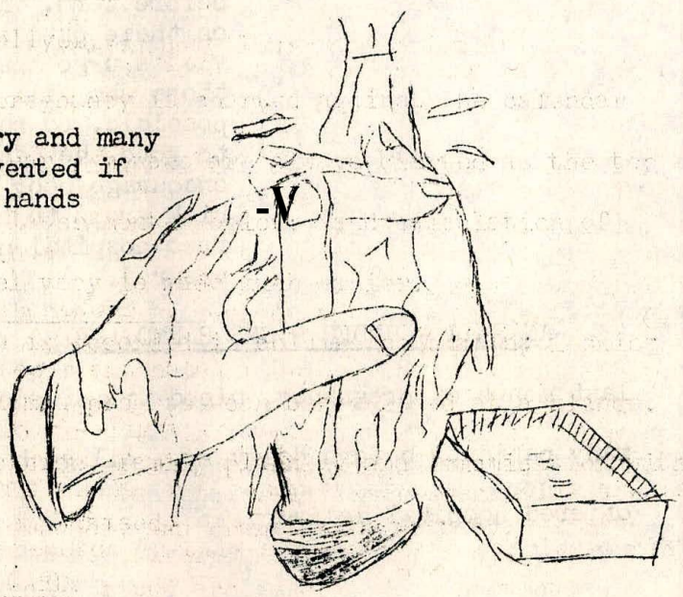
(3) information is recorded in columns so that by looking up and down the columns progress can be assessed at a glance.

(4) health education, family planning and immunisation with tetanus toxoid are emphasised.

THE OUTSIDE OF THE CARD:

HEALTH EDUCATION: Notes on correct diet are included to prevent anaemia of mother, and prematurity of baby. Good hygiene and cord care at birth are described to prevent puerperal sepsis and tetanus.

Fever after delivery and many deaths, can be prevented if the dai washes her hands repeatedly.



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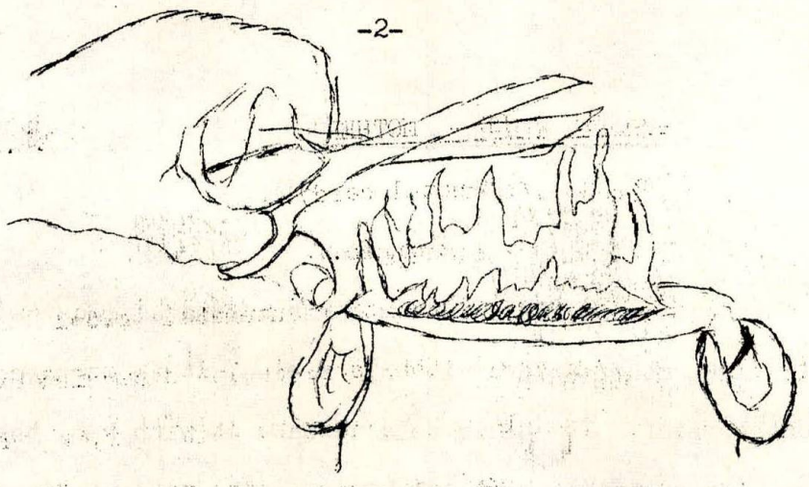


Educate the family and the dai to sterilise the knife or scissors used for cutting the cord, to prevent tetanus.

DANGER SIGNS:

These are emphasised. The aim is to alert the doctor and the patient to possible danger to mother or baby. The list of danger signs is based on material and perinatal death statistics at Frances Newton Hospital, Ferozpore.[4] However, each hospital should study high risk factors for its own patients.

Number of Danger Signs Present.	Suggested Management
None (no crosses in the red boxes)	Safe for home delivery, if a dai who uses antiseptic methods can be found.
one X patients	Summon skilled help if there is any delay or complication.
XX patient	Admit to hospital when labour begins.
XXX or XXXX	This is a high risk patient. Insist on hospital delivery where there is skilled obstetrician, and blood and safe surgery if needed. Admit this patient from the village 2 weeks before term. Keep special care file on these patients, and with home visits urge hospital admission. For those who will not agree, try if possible, to have skilled help ready to goto the patient if needed. To encourage poor patients in this high risk group to have the best care, free hospital delivery should be assured.

ANAEMIA - UNDER 9 GMS HAEMOGLOBIN. If this is found in the last month of pregnancy, blood transfusion will be needed in many patients before delivery. All such patients should be offered hospital delivery.

BLEEDING: This includes bleeding during previous pregnancies, for such patients may bleed again in this pregnancy.

BABY BORN DEAD, DIFFICULT DELIVERY, FORCEPS OR CAESAREAN: Include here any who had babies who died in the first week after birth. Some of these may be saved if the baby gets hospital nursing care.

HEIGHT: Small women usually have small babies, and low birth weight means greater risk to the baby.[8] Also, if small women have 'normal size' babies, they may have difficult delivery due to disproportion between the baby's head, and the small pelvis. 25% of Punjabi women at Narangwal Johns Hopkins - I.C.M.R. Rural Research Project, and 20% of women in hospital at Ferozpur, were less than 58 inches (147 cm.) in height. These women and their babies are at greater risk.

SWELLING OF HANDS OR FACE, OR DIASTOLIC BLOOD PRESSURE OF 90MM OR MORE: If diastolic blood pressure is raised at 34 weeks this indicates severe preeclampsia, needing admission to hospital. Eclampsia can occur in patients seen the previous week with diastolic pressure of 85 to 90 mm.

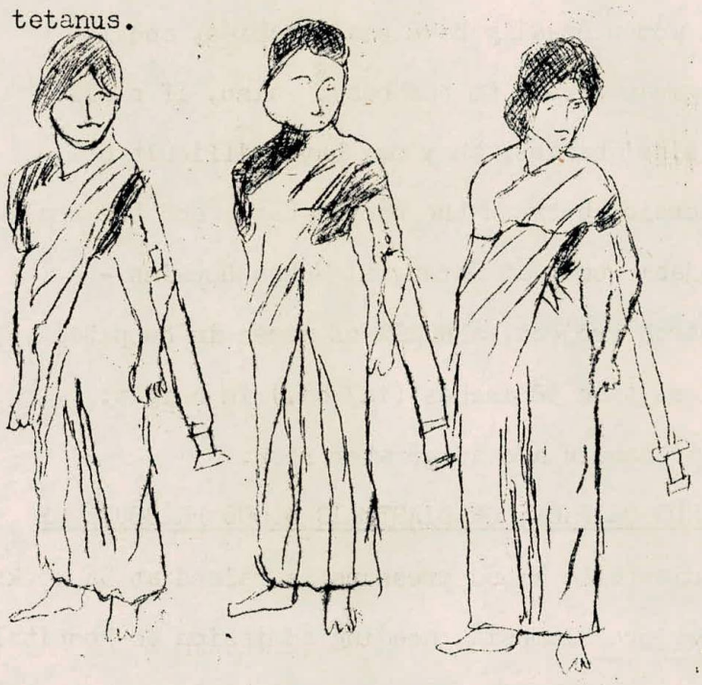
BREATHLESSNESS AND HEART MURMUR, OR COUGH + SPUTUM: This includes rheumatic heart disease and congenital heart, bronchiectasis, and tuberculosis. Sputum lasting 2 weeks or more, should be tested several times for tuberculosis. Women with breathlessness and heart murmur should deliver in the hospital.

FIRST BABY, OR 4 CHILDREN OR MORE, OR AGE 35+ The first baby may be difficult, as every women knows. But a woman having her 5th baby or more can quickly get into difficulty. Women over age 35 and mothers under 18 are also at greater risk.

OTHER: Include twins in this pregnancy. Also the thin, poor, underweight woman who may need special care for her baby. The babies of such women are very likely to be weak and underweight.

PREVENTION OF TETANUS: is emphasised. Dates of tetanus immunisations are recorded in the boxes provided. These injections should be given at one month intervals. The ideal is three

injections, and minimum is two injections. The first injection should start with the first visit, with the second given one month later. One booster is given with the next pregnancy. Tetanus toxoid protects those who will deliver at home under unhygienic conditions. In Ferozepur this was two thirds of all antenatal outpatients. It also protects the baby from neonatal tetanus.



Protect the newborn from tetanus by immunising his mother.

THE INSIDE OF THE CARD:

CALCULATION OF THE EXPECTED DATE OF DELIVERY is simple. The squares are filled with the calendar months following the last menstrual period, until the square for the ninth is reached: Seven days are added.

Example:

A patient attends clinic on 29 January. Her last Menstrual period was 1 Assoo by indigenous calendar. This converted by tables becomes 16 September.

Expected date of delivery:

		Months of gestation
L.M.P. 16	Sep	0
	Oct	1
	Nov	2
	Dec	3
29	Jan	4 attends clinic
	Feb	5
	Mar	6
	Apr	7
	May	8
	June	9
23	June	(9 months+7 days)

All columns across the card are now filled in opposite todays date (29 January). The instructions in treatment column show that her next visit is due in one month.

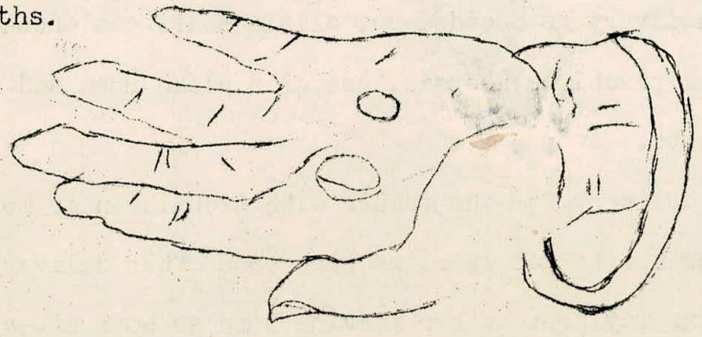
In case date of last menstrual period is not known, decide stage of pregnancy by size of uterus, or date of first movements felt.

SIZE OF UTERUS: If size of uterus is in advance of dates we can easily tell by comparing "size of uterus" column with "months of gestation" column.

Gestation.	expected uterine size
3 months (or 3rd month completed)	- just palpable above symphysis
4 months (or 4th month completed)	- half way to umbilious
5 months	- Just below umbilicus
6 months	- Just above umbilicus
7 months	- Half way between umbilicus and Xiphisternum
8 months +	- Xiphisternum

VERTICAL COLUMNS for serial recordings of haemoglobin, blood pressure, weight, for each visit, allow easy comparison.

HAEMOGLOBIN AND OTHER BLOOD TESTS: Krishna Menon, a world authority on pregnancy anaemia, recommends routine iron and folic acid treatment from the start of pregnancy. Anaemia, he says, is the commonest complication of pregnancy in India, causing at least 20% of the maternal dealths. Iron and iron + folic deficiencies are the common types (10) Measurement of Haemoglobin is even more important than measurement of blood pressure in developing countries.(11) V.D.R.L. & Kahn tests for syphilis are expensive and routine testing is done only if a worthwhile number of positive cases are being found. Otherwise these tests are reserved for those suffering repeated still births.



A daily tablet of iron and of folic acid costs less than 3 paisa per day, or Rs.7 per pregnancy.

WEIGHT:

The underweight woman who may have an underweight child. She may be from a Scheduled Caste and is usually poor. She may be less than 35 Kg. (77 lbs) before pregnancy; she may gain 6 Kg (13 lbs) only during the whole of pregnancy. At term her weight is less than 40 Kg (100 lbs). She may have had weak small babies previously. She needs diet advice to eat more, and food supplements in second half of pregnancy, especially in the last month.

The woman with twins or toxaemias. She gains weight too fast - more than ½ kg (1 lb) per week. In such cases look carefully for twins or toxaemias. However women with twins on poor diet may show poor weight gain. If the clinic does not have reliable scales, it is better to predict prematurity by questions about income, caste and diet and previous babies. And for hypertension we can measure blood pressure and for twins we can do careful abdominal examination at 6-7 months pregnancy. Twin babies should get food supplements before birth, besides double dose of iron and folic acid. Mother should be persuaded to eat more and better food.

EDEMA: Edema of feet in pregnancy in hot climates is not serious. But edema of face, fingers or abdomen is recorded as +++ in this column and as a cross in danger column on the outside of the card.

PLACE DECIDED FOR DELIVERY:

After assessing the risks, home or hospital delivery is advised. Distance and transport arrangements to get skilled help are discussed. Often the patient can go stay with relatives in the city to be near the hospital in case of difficulty.

If home delivery is decided on, clinic staff can encourage use of a dai who practises asepsis, use of a clean room and clean clothes and sheets.

Hospital delivery for the mother with 4 children or more will make it easy for her to get sterilisation soon after delivery. Otherwise customs may prevent her leaving home so soon after home delivery and the tubectomy will not be done.

FAMILY PLANNING is included as a normal part of good comprehensive medical care. Only when the woman and her family are sure of a safe delivery, and a live baby, can they start planning their family size. Good medical care makes family planning acceptance more likely. During the antenatal period the woman is more than usually interested in family planning. The details of previous children help in advising spacing or more permanent methods.

Family planning motivation and persuasion is especially needed for high risk women : (12)

1. women with four or more children (too many)
2. women with a child still on the breast (too soon)
3. women with only one or two years between babies (too fast)
4. women with chronic diseases or with sick or malnourished children (too sick)
5. women with a marriageable child (too old)
6. Women with previous abortions (too dangerous)
7. women with twins (too fertile)
8. women with enough sons.

For women not in these groups, information only is given, without persuasion.

The important times for giving family planning advice are (12)

1. at the first antenatal visit for confirmation of pregnancy (information only is given at this time, unless the woman is a high risk type.
2. again at each antenatal visit for high risk cases.
3. at first visit after baby is born, especially if there wasas an abortion or still birth.
4. when child is about 6 months old, or when menstrual periods are likely to return soon.
5. if and when breast milk is being stopped or has to be supplemented.

AFTER THE PREGNANCY the mother uses the same card until the next pregnancy, when another card is stapled to the first. The mother's card has on it her hospital unit number and her immunisation and pregnancy history, so it is kept by her permanently.

-x-

(THE TUBERCULOSIS (T. B.) CARD)

Colour - red.

This card was designed in Ferozepur at the request of Dr. K.S. Gill, a leading general practitioner of Moga. He wanted a card which would help the patient to keep up regular treatment, even if the patient changed doctor several times during the course of treatment. The card should help the doctors who treat the patient in the course of 18 months, and should help the patient to stay on treatment for the full 18 months, for a lasting cure. It is used along with the Child Health Card or the Antenatal Card, if the T.B. patient belongs to one of these groups, by stapling both records together.

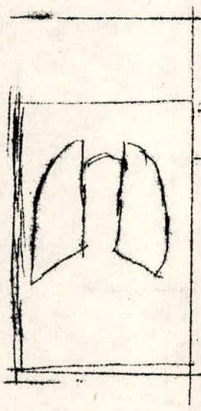
THE OUTSIDE OF THE CARD:

1. Previous Treatment is recorded in the special panel. This will help alert the doctor to possible drug resistance or drug toxicity.

2. Streptomycin Injection Record. The doctor can see if the patient has received the streptomycin daily, or twice weekly, as ordered.

STREPTOMYCIN INJECTION RECORD

Injector checks dose and circles date of injection for correct Month, Please compare with month column on inside of card by folding card inward to show. X-ray opposite.



	6	FEB	(1) 2 3 (4) 5 6 7 (8) 9 10 (11) 12 13 14 (15) 16 17 (18) 19 20 21 (22) 23 24 (25) 26 27 28 (29) 30 31
	7	MAR	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
	8	APR	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
	9	MAY	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

This is the result if the patient receives his streptomycin injections regularly every Monday and Thursday during February.

The correct month is found by turning the outside of the card inwards from the right, so that the month column lies uncovered against the streptomycin section.

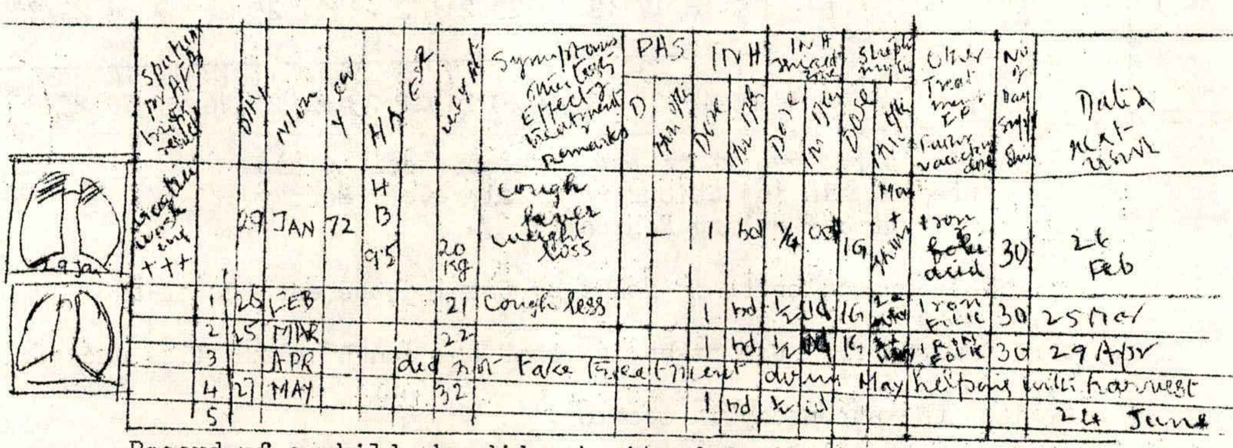
3. Details about the patient: Full address will help decide whether patient should be on tablets with or without streptomycin injections, and full address should also be copied on to the special care or high risk file. This will include sputum positive patients.

4. Prevention of T.B. in the Family: The Mantoux test is useful for preschool children who have not received B.C.G. and who are not malnourished. It is best to list all the household members at the first visit and then see how many will come for checkup. The Child Health Card should be made out for all preschool children contacts, because poor weight gain on the weight-for-age graph may suggest tuberculosis. B.C.G. is given to the children if they are still Mantoux negative after 3 months.

5. Concerning T.B: This health education section aims to encourage completion of treatment - the main problem in T.B. control. The patient is encouraged to prevent further spread of the disease by bringing contacts for medical examination. He is instructed to burn sputum.

THE INSIDE OF THE CARD:

1. Treatment Record - the card allows for 18 monthly visits until treatment is finished. The patient can see his own progress through the treatment. The date of the first visit is filled in under columns day, month and year. Then the calendar months are written in consecutively below this (as for the Baby Card) until the bottom of the card is reached.



Record of a child who did not attend during April.

To avoid overdosing with thiacetazone INH tablets (100 mg) plus combined INH-thiacetazone tablets are given.

2. Vertical Columns allow easy comparison of weight, etc from month to month. Miniature X-rays can be filed in small envelopes and stapled to the T.B. Card in the Chest X-Ray Column, opposite the correct month.

3. The columns for the 4 standard drugs allow the doctor to select whatever regime suits his patient best. The card may serve as a prescription, when it is presented at the pharmacy. If other drugs are needed, they may be written in the column for symptoms and effects of treatment.

4. Number of days drug supply given. Pharmacy staff fill this in , because due to lack of cash or shortage of drugs, the patient may not collect the amount of drug ordered. This record of supply failure / will help clinic staff to unearth the reason at the next visit. Normally drugs will be packed in 15 or 30 day lots, to last till the next clinic day.

5. Drug dosages: Given at the bottom of the treatment columns, these allow correct calculation for children's dosages. (13) It should be noted that a combination of INH only and INH-Thiacetazone tablets is needed to avoid overdosing the child with thiacetazone.

6. DRUG ALLERGY. Reactions to all kinds of drugs especially anti-T.B. drugs should be recorded here.

SECTION 6: HEALTH RECORD FOR ADULTS AND SCHOOL CHILDREN. H.R. 4

(colour: light blue)

Like the other health records, this is kept by the patient in a plastic bag as a permanent "walking record" of his (or her) health. It was designed for all those patients not qualifying for pre-school, antenatal or tuberculosis records, who come for out-patient care in the hospital or its clinics. It is also useful for school medical examinations and disaster medical care. And when the "notes" section of the under-fives health record is full, the reverse side of this card gives ample space for more clinical notes; it can be stapled on, or inserted in, that record.

THE FRONT SIDE OF THE RECORD:

The identification panels enable us to call the correct patient from the waiting crowd. The registration clerk completes these panels.

Age and sex: If male, enter age under the male face, if female, enter age in years under the female face.

Community or Caste: This we need to know, for the strict vegetarian may need testing for anaemia, while the poverty of under-privileged groups may prevent them getting proper health care.

Immunisations: These allow for vaccines commonly needed by adults. Polio is not separately named, because polio is so far, common only in pre-school children. Where diphtheria is common in those five years and over, the 'other' space can be used for diphtheria-tetanus vaccine. Small-pox, cholera and typhoid are retained for use in disaster situations.

Children and family planning: This reminds us that good health care includes the welfare of the whole family. Big families usually have poor nutrition and health while the treatment of many diseases, such as chronic rheumatic heart disease in a mother, is not complete without planning of family size.

Eyes and Ears: School children without good eyesight or hearing may need to sit nearer the teacher, who needs to know which children are under this handicap. Children with discharging ears run risk of tetanus coming through this entry point, so they need immunization.

Breathlessness, cough and sputum: This detects those at risk from chest and heart disease, and alerts us to test the sputum for tuberculosis.

Addictions and allergy: Alcohol, opium and bhang (marijuana), cigarettes and too much food can be mentioned here as addictions which shorten life or affect health. Alcohol causes many hospital deaths; also it uses up much of the children's food money in a poor home. Alcohol also makes family planning more difficult. Allergy includes drug allergy, specially to penicillin.

Other causes of predictable death or shortened life, such as diabetes or cancer, can if present be mentioned in this 'other' section, but heart and chest disease and addictions and allergy include most of the predictable causes of deaths, once we exclude infant and maternal deaths. 4

Instructions to the patient: The patient is asked to bring the health record whenever he comes to any hospital or clinic. by checking the immunisation record, the doctor will see that the After an accident, patient is already protected against tetanus.

Also where the child has had immunisation or other health care at school, the family doctor and parents know what has been done.

REVERSE SIDE:

The date column is filled in by the registration clerk, so that the doctor always knows that the patient has been registered.

The weight is noted each time so that the patient takes intelligent interest in his own health. It is the cheapest objective test of continuing health that is available to every one. In school health or nurses health care, falling weight is a serious sign alerting the doctor to tuberculosis.

Haemoglobin: Anaemia keeps millions in poor health, and anaemia can be diagnosed quickly and treated effectively at low cost in most patients.

Problems and treatment: In this section laboratory results can be written in red to separate them from the doctor's writing. The treatment written here by the doctor can in mobile clinics be used as the prescription for obtaining medicines from the mobile dispensary.

Example:

Problem.	Treatmnt.
Fever with shivering every second day: spleen palpable.	1. Chloroquin 2. Slide for parasites taken
Diarrhoea with blood pus & mucus	1. Oral streptomycin & Kaolin 2. To bring stool for test.

If the patient needs referral to the central hospital, this section acts as the note of referral

THE LEPROSY RECORD.

The Leprosy Record card has been designed by Muzzafarpur Leprosy Hospital for use by any hospital or doctor, to help to integrate Leprosy treatment into the general Health Services, and to ensure that patients will continue their treatment regularly wherever they may be. Specialist Leprosy Hospitals will obviously want to keep more detailed records in addition to this patient-retained card.

The card has been designed for two years treatment. It is to be kept by the patient in a plastic bag. At the end of the two years a new card will have to be made and can be kept in the same bag. Most leprosy patients think that they can only get treatment in specialised centres. This card should help them to overcome any diffidence they may feel about approaching a local practitioner or Out patient Department for treatment, and will ensure continuity of treatment.

This patient-retained record will be as mobile as the patient with leprosy.

HOW TO USE THE LEPROSY RECORD:

Page 1.

At the first attendance, the details on page 1 are filled in as far as possible and also the Examination on Admission chart on page 5.

PROGRESS SUMMARY: This should show any highlights during the course of treatment withdates e.g.

3.2.71 L. Drop foot developed
6.6.71 L. Foot ulcer
9.4.73 L. Foot operation

'Became Inactive' i.e. No increase or decrease in the disease for at least 2 years and skin smears negative for at least 2 years.

'Became Disease Arrested' After two more years treatment, smears remaining negative and no new signs.

Maintenance Dose: All patients are advised to continue taking D.D.S. for a number of years after they have become Disease Arrested. It would be impractical to go on making out new cards so it is suggested that the prescription be written here and the date of attendance noted.

Type — In the type box two sets of letters have been used

Indeterminate

T	or	N	Tuberculoid
D	or	N ? L	Dimorphous or Borderline
L	or	L	Lepromatous

It is suggested that the appropriate letter is circled on admission and if the type changes later an arrow can be drawn to the second type.

PAGES 2, 3 and 4.

The inside of the card has been laid out so that two years treatment can be seen at a glance.

A space at the top left hand corner has been left for any special notes.

In addition to giving specific anti-leprosy treatment, attention should be given to care of eyes, nose, hands and feet and also to the general health of the patient, so columns have been provided for these. The card could be taken to the Dispensary and used as a prescription for these medicines. No doubt hospitals and Practitioners have their own standard forms for ordering Laboratory tests, Physiotherapy etc.

Col. 1. Month - this shows the number of months since the commencement of treatment 1-24. If the patient takes 2 or 3 months treatment at a time, or if he misses a month, the intervening spaces should be left blank, in this way the regularity of treatment can also be seen.

Col.2. Date - the easiest method is to use a date stamp.

Col. 3:Condition - Any special remarks about the patient's condition should be made here e.g. Fever, Reaction, Ulcer, etc.

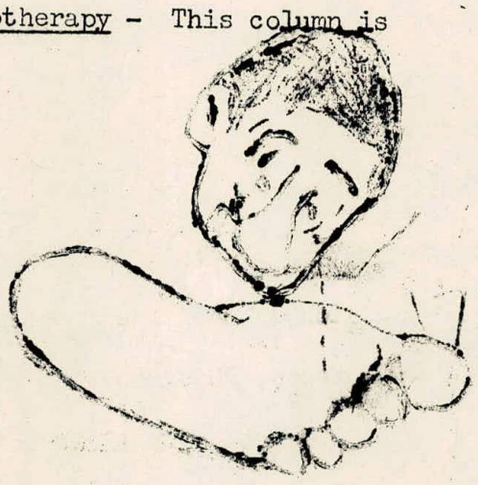
Col. 4: Skin smears - Whenever possible these should be done at the first attendance. If lepromatous or Dimorphous type these should be repeated at intervals to check the effectiveness of treatment. Stars have been printed at 6-monthly intervals as a reminder to the Doctor to check on these. It is suggested that a tick be made to indicate when ordered.

Col. 5: Anti-leprosy treatment - The most common treatment for leprosy is D.D.S. or Depsone, but if this is not well tolerated, different drugs may be necessary, so two columns have been provided.

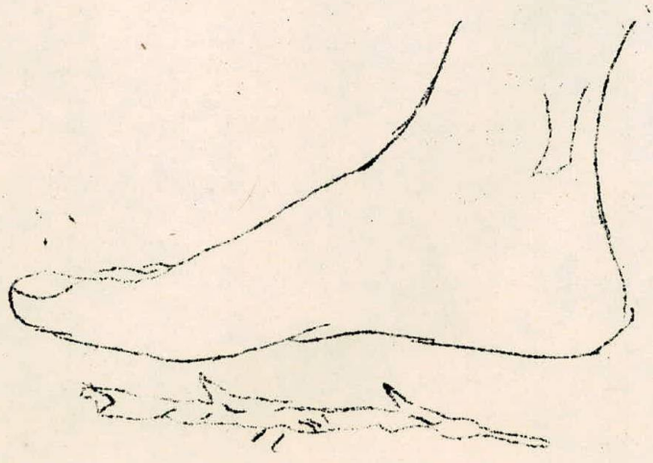
Col. 6: - Eyes - It is recommended that Lepromatous patients have Atropine 1% eye drops instilled once a month as the eyes are always affected in this type of the disease and this will help to prevent adhesions. In case of obvious eye infection, more vigorous treatment will be required. Space is given in the second column.

Col. 7: Nose - To prevent ulceration and infection of the nose, some bland oil is recommended e.g. liquid Paraffin to be applied twice daily.

Col. 8: Ulcers and Physiotherapy - This column is divided into 5 parts. Its use will depend upon the facilities available in the Hospital, but should also be a reminder to the Doctor to teach the patient about care of hands and feet.



The leprosy patient who cannot feel pain must inspect his feet daily.



Anaesthetic feet need special protection from unnoticed injury.

Bacillary Index:

6 = 1,000 or more bacilli in each field
5 = 100-1,000 bacilli in each field
4 = 10 -100 bacilli in each field
3 = 1-10 bacilli in each field.
2 = 1-10 bacilli in 10 fields.
1 = 1-10 bacilli in 100 fields.

negative = no organisms present.

The bottom line shows the Morphological Index (M.I) which is the percentage of live bacilli seen.

ADMISSION AND SUBSEQUENT EXAMINATION CHARTS: These should be filled in at the time of first examination and subsequently if there is any change or at the end of 2 years. These charts should show the extent and number of all lesions.

Pale patches are shown by horizontal lines.

Anaesthetic areas by vertical lines.

Modules are shown as small circles.

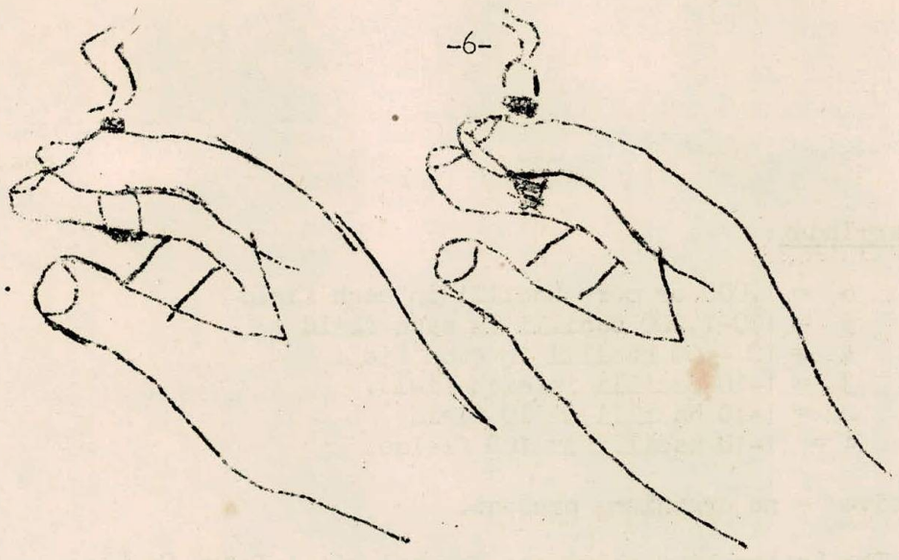
Thickened nerves are shown by thick lines in the appropriate area.

Other lesions such as lagophthalmos, foot drop, deformity of fingers etc should be written on the chart.

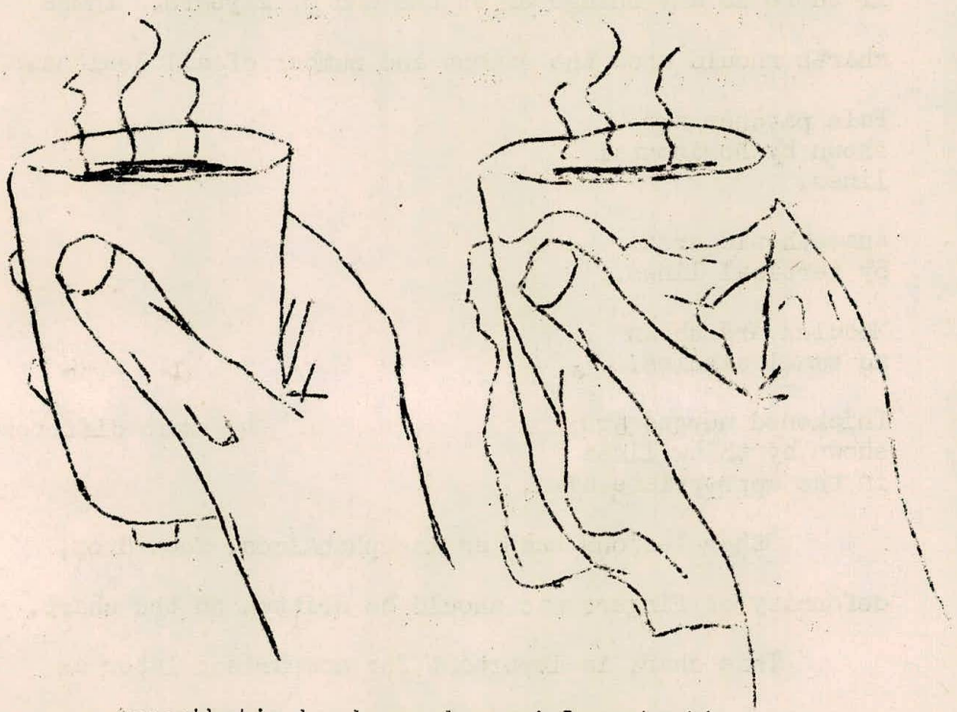
This chart is important for comparison later as patients are often unable to remember the extent of their original lesions or how long they have been present.

PAGE 6:

HEALTH EDUCATION: This page is printed in the local language for the benefit of the patient. It gives simple directions as to how he should protect himself and his family, and also tell him the date of his next visit.



If the patient with leprosy must smoke, he needs a cigarette holder to protect his anaesthetic fingers from burns.



Anaesthetic hands need special protection from burns to prevent deformity.

IMMUNISATION: At the bottom of the page is a space for recording B.C.G. Vaccinations for his family contacts, thus helping to protect them against Tuberculosis and Leprosy.

SECTION: 8. HEALTH RECORD - EYE H.R. 7

Colour: green type on green card.

This card is for eye surgeons, eye camp teams and general doctors who see eye patients. It will give him a clear picture of the changes in each part of the eye, and save much time for the doctor and his team. It was designed by Dr. S. Julius, MacRobert Hospital, Dhariwal, Punjab, for use by their eye team.

The record is kept by the patient, and so is available for the doctor, even if the patient changes doctor or place of consultation. As with other records in this series, only a team of workers with the doctor as team leader and teacher can achieve a high level of care for large number of patients. Tensions, visual acuity, visual fields and refraction work can be delegated, and this card enables the doctor to check the quality of the work done by his team.

OUTSIDE OF THE CARD:

Identification panels, Immunisation panels, Family Planning box and reasons for special care are almost the same as for the general adult health record. The main difference is that there is space to record 6 monthly Vitamin A given to prevent recurrence of Vitamin A deficiency. This can be regarded as an oral "immunisation" against the disease.

EXTRA NOTES is for eye patients who have illness affecting other parts of the body or for regular eye patients who have used up the inside of the card.

REFRACTION: This section records vision old and new, far and near, and so if the patient breaks or loses his glasses he can show this record to the optician and have a new pair made without having to see the doctor. Also Government employees need regular eye checks, conveniently noted in these boxes.

OPERATIONS DONE: This acts as the summary of past and present operations done. The patient takes this record home, and shows it to his local doctor.

HEALTH ADVICE FOR THE EYES: Surma contains black granules which block the punctum and naso lacrimal duct and predispose to infection. Also granules and the rod used for inserting the surma, cause abrasions of cornea which lead to infection which occasionally results in loss of the eye. Also the rod used may spread infection from one child to the next.

Kajil is an ointment applied with the finger, and the finger spreads infection from one child to another.

For young women, eyebrow pencil is much safer than Kajil and surma put into the eye.

INSIDE OF THE CARD:

Date - Registration clerk stamp the card here with the date .

Projection or Visual fields: This is useful in retinal detachment, prognosis of cataract operations and in space occupying lesions.

Tensions: In glaucoma, if these fail to respond to medical treatment surgery will be necessary.

EYE DIAGRAMS: These record, in picture form, the changing pattern of the disease from visit to visit, and the exact shape and size and site of the lesion. Corneal ulcer or opacity, type of iridectomy, size and shape of pupil extent of hypopyen or hyphaema, limbal follicles in healed trachoma and xerotic spots, can all be shown by recording it in writing on the appropriate line, with an arrow to the lesion drawn on the eye diagram.

Blood pressure, urine, Blood and other tests: These are useful for preoperative check-ups and for systematic diseases affecting the retina.

Treatment: This records medical and surgical treatment given or prescribed at each visit. Just as important it records advice given. Next visit the doctor checks if the advice given was followed. The drugs written here will be enough for special eye team dispensaries, but for general pharmacies, the prescription should be also written in full on a separate script.

CLINIC RETAINED TALLY SHEETS, for use by eye teams using these patient retained records, are available from Eye Department, MacRobert Hospital, Dhariwal, Punjab. There are separate tally sheets for registration, refraction, eye pharmacy, eye diseases, etc. These simplify collection of statistics of work done.

SECTION- 9 IMMUNISATION - IDENTIFICATION CARD. H.R.9

Colour red, on stiff card, in strong plastic envelope.

This card is useful for popularising immunisation. It is used in hospital out patient departments where patient retained health records are not used for all patients, but where some record is needed for the patient, in his hand, of the immunisations given. As many hospitals already issue the patient an identification card giving patient's name and hospital number, this immunisation record can be put on the back of such a card, and serve a double purpose.

The same card, without number being added, can be used to immunise relatives and friends of the patient, thus making follow up immunisation at branch clinics or sister hospitals possible, on the basis of the card given to the patient.

In Schools the teacher or student fills in the student's name on the card, after immunisation and gets date written in correct immunisation box. The teacher keeps all immunisation cards until the course is completed. Then the child takes the card home for parents to keep.

In House to house campaigns this card is carried in the worker's cloth shoulder bag, and pre-numbered cards keep track of the amount of work done. The same cards are asked for at each visit tillthe course is finished.

Note: This card is small and much more easily lost than the other larger patient retained health records in this series. But it is also much cheaper.
The plastic for the envelope for this card should be at least 350 gauge, as for the other records.
When a person carrying this HR 9 card, needs another card in this series, such as HR 2 mother's card in the case of pregnancy, the HR 9 card is torn up, after transferring name, number, and any immunisation given, on to the new card.
Where all outpatients are given patient retained health records, there is no need of this small card.

Front side.

e of pital	Francis Newton Hospital, Ferozpur
Name	RAM LAL
mber	9801

dly bring this to hospital each me. After any accident show this rd to the doctor.

Reverse side.

Write date given.	1	2	3	BOOSTER
BCG	1965			
Small Pox	1969			
Tetanus Toxoid	10 6/73	11 7/73	10 8/73	
TAB	12 9/73			
Cholera				
Other				

SECION- 10. CLINIC RETAINED PROPORMAS FOR USE WITH PATIENT

RETAINED HEALTH RECORDS.

Everyone asks, how do we keep statistics if the record is in the patient's hand ? This is no problem if we write the patient's number only, in the correct column of a duplicated foolscap proforma. Each clinic worker keeps her proformas on a clip board. Totals are done at the end of each day. Samples of these useful proformas can be obtained from Community Health Department, Frances Newton Hospital, Ferozepur, Punjab.

There are separate proformas for -

attendance	(with separate columns for under fives, antenatals, TB, and others, and for first and revisits).
Immunisation	(with separate columns for 1st, 2nd 3rd DPT, Polio and tetanus toxoid, TAB etc)
Anaemia	(with separate columns for those found to be anaemic and those to whom tablets given; by age group)
Pharmacy	(with separate spaces for each drug and for amount given, all drugs prepacked and pre-priced.)
Diseases tally sheet	(allowing calculation of age incidence of diseases seen and collection of statistics for Government.)

These sheets are handed in or posted in to the office of the doctor in charge. From these sheets ample statistics are obtained for writing all necessary reports of work done and supplies consumed.

ATTENDANCE RECORD

Name of clinic: SHARINWALA Dated: 30.6.73

Put circle round numbers seen free.

		0-2 yrs.	3-5 yrs.	6-14 yrs.	Tuberculosis.	Antenatal.	Tetanus Toxoid only	Other	Total all
First visits	1.	2492	2494	2495	2497	2498	2499		
	2.	2493		2496		2501	2500		
	3.	2503				2502			
	4.	2504							

IMMUNISATION RECORD.

Name of Clinic. SHARINWALA Date 30.6.73

Instruction: record patient's number once for each vaccine.

	DPT (Triple)				Polio Oral					
	1.	2.	3.	Booster.	1.	2.	3.	4.	5.	Booster
1.	6249	2424	1349	2321	6249	1949	1349		1295	1348
2.	2492				2492	2424				
3.					2493					

ANAEMIA RECORD.

Name of Clinic. SHARINWALA Date 30.6.73

If patient receives two packets of the tablets, write his number twice.

Age group (years)		Hb under 6 Gms	Hb 6-9.9 Gms.	Hb 10 Gms +	Hb not recorded today	Iron-folic under 5(30) antenatal (60)	Other treatment or remarks
0-5	1.	6243	6524			6243	
	2.					6524	
	3.						
	4.						

PHARMACY RECORD.

Name of Clinic: SHARINWALA Date 30.6.73

1. Write Unit Number of patients receiving drugs.
2. Those receiving the drugs free have their numbers circled.
3. Keep this form on clipboard.
4. If patients receive 2 packets write number twice.

						FREE		SOLD		
						No. used	Value Rs. p.	Selling Rate	No. used	cash recd.
A & D Vitamins (10 Caps)	(4295)		TABLETS.			1	0.50			
Aspirin 75 mg (10)	(2424)	(2424)	2572	2678		2	0.50		2	0.50
ASA (Aspirin) 300 mg(20)	4294	4294				-	-		2	1. 00

CHILD HEALTH AND WEIGHT CARD FLANNELGRAPH

Prepared by:

Audio - Visual Unit, C.M.C. Hospital, Vellore, Tamil Nadu.

In co-operation with;

Nutrition Education Unit, C.S.I. Hospital, Jammalamadugu, A.P,.

. . .

Introduction.

The use of parent-retained Health and Weight Cards For Under 5 Year olds has been shown to benefit the child and family by :-

1. Promoting adequate growth.
2. Advising on correct feeding.
3. Educating about full immunisation.
4. Indicating reasons for special care.
5. Recording important illnesses.
6. Encouraging family planning.

These cards can also greatly facilitate the work of the staff in a Young Children's Clinic.

The flannelgraph will help to teach staff and parents to understand and make the best use of the weight cards.

Hints on use of the Flannelgraph.

1. Cut out the figures, dots and words from the printed flannel. Keep these flat between two pieces of thin board.

2. Secure the background flannel of the weight graph onto a board. This should be firm so it will not collapse during the demonstration; it should slope so the appliques (figures, dots etc.) will not fall off; it should be displayed so that every one in the group can see it.

3. Arrange the pieces of flannel for application in the correct order so that you will not have to search or fumble during teaching.

4. Practise before hand so that;

   You are sure of the sequence of teaching.
   You know where you will place the dots, words and figures, and
   You can give the commentary fluently and confidently.

5. Keep the teaching moving by adding new dots, figures or words to the flannelgraph in a logical sequence.

6. Do not clutter the background with too many applications at a time. Clear off the previous illustrations before starting on a new topic.

7. Teach about only one major aspect of the weight card at a time. A short, concise lesson is more effective than a long, dull lecture.

The Weight Card and Flannelgraph are particularly valuable when teaching about :-

I. Achieving adequate growth.
II. Correct feeding.
III. Reasons for special care.
IV. Immunisation to prevent disease.
V. Family Planning as related to family health.

Teaching can conveniently be divided under the five headings indicated by the Roman numerals, but the topics are interdependent.

I. Adequate Growth and Development.

Place the dots on the weight graph at monthly intervals to show a good gain; for example;

3 Kg. at birth,
6 Kg. at 5 months,
9 Kg. at 12 months, and so on.

Point out the two lines that curve upwards across the chart. The upper represents the average weight of a well-nourished and medically protected Indian child. The lower represents the average weight of an Indian village child. Together they form a channel which can be referred to as The Road to Health. Demonstrate how the weight dots of a healthy child climb up this road and if the weight dots fall below the lower line we may say "the child has fallen off the 'Road to Health' and needs extra feeding and care".

A healthy child is one who gains weight regularly and well. If a child is not gaining regularly, extra advice, care and help are essential.

Place the pictures of the correct milestones of development above the weight line at appropriate ages; for example;

Infant lifting head and chest	at 3 months	(Picture No.11)
Infant sitting alone	at 7 months	(No.12)
Infant standing supported	at 10 months	(No.13)
Infant standing alone	at 12 months	(No.14)

Illustration (i) Adequate Growth and Correct Development.

In Teaching emphasize that :-

a). A steady gain is more important than the actual position on the weight graph.

b). Regular attendance to check growth and receive advice is important.

c). Achieving adequate growth is the best way to prevent malnutrition.

II. Correct Feeding.

Correct feeding is essential in order to achieve adequate growth and development.

Place the pictures of the foods below the growth curve starting with the mother breast feeding the baby, and introducing the others in a suitable sequence after 6 months.

Mother breast feeding infant (No. 1)
Tumbler of congee (gruel) with feeding cup (No.2)
Egg (No. 8)
Banana (Plantain) (No. 4)
Plate with rice dhal and green leaf curry (No.9)
Cow, representing cattle milk (No. 3)
Groundnuts (Peanuts) (No. 7)
Meat (No. 6)
Fish (No. 5)
} Suitably prepared.

At this and at other stages in the Flannelgraph demonstration it is good to get the staff or parents to participate. For example they can each be given a flannel picture and later asked to say what it represents, why it is important and then they should come forward and fix the picture on the flannelgraph.

Illustration (ii). The Right Foods for Full Growth.

Feeding instruction can be considered in 3 periods :-

1 st. Birth to 6 months.

Milk is very important, and plenty of breast milk is best (Picture No.1). If mother's milk fails, adequate amounts of buffalo or cow milk should be given (No. 3), possibly supplemented by a local gruel (congee) (No. 2). Feeding with powdered milks should not be encouraged unless the parents can understand the problems involved and have facilities for sterilising bottles etc.

2nd. 6 to 24 months.

Milk, preferably breast milk, is still important but other foods must be introduced and increased in amount. Start with a local gruel (Congee) (No.2), soft cooked egg (No.8), and ripe banana (No.4). Rice with dhal (lentils) and green leafy vegetables (No.9), and other local staples should be given. Add other protein-containing foods suitably prepared for a small child; groundnuts (No.7), and if acceptable, meat (No.6) and fish (No.5).

3rd. 2 to 5 years.

Staples, preferably a variety of them, will now make up the main bulk of the diet. As growth is still continuing rapidly, body building foods (Proteins) and protective foods (Vitamins and minerals) are still important in addition to energy foods.

III. Immunisation.

Many serious infectious diseases of childhood are preventable by correct immunisation.

Place dots on the flannelgraph to represent a satisfactory growth curve and against this attach in appropriate places the names, pictures and syringes representing the immunisations.

B.C.G. Syringe at birth (No. 16)
Smallpox vaccination in the 1st month (No.15)
D.P.T. Triple innoculation } in 2nd 3rd and 4th
O.P.V. Polio immunisation } months, three syringes (No. 17)
Measles vaccine, in 9th month, when available in India, additional syringe (No. 18)
D.P.T. Triple } booster at about 18 months,
O.P.D. Polio } additional syringe (No.18)

Illustration (iii). Immunise to Prevent Disease and Promote Full Growth.

The schedule can be altered according to the regime favoured locally, and the immunologicals available.

The importance of full immunisation should be emphasized.

IV. Reasons for Special Care.

It is recognised that certain factors predispose to disease in children. Malnutrition is the commonest condition underlying illness in India, so most of the reasons for special care concern children who are "At Risk" from this disorder. These factors include :-

Low birth weight, less than 2 Kg, ie. "Prematurity".
Twins.
Poor initial gain, less than 500 G a month in the first, and less than 250 G a month in the second trimester of life.
Artificially fed babies from a poor socio-economic background.
Measles, pertussis or recurrent diarrhoea in the first 2 years.
Death of one parent or a marriage broken for any reason.
High birth order, 6th or subsequent child.

Use the dots to make other growth curves on the flannelgraph showing for example :-

Illustration (iv). Risk Factors Resulting in Marasmus.

A premature baby gaining poorly because it is inadequately fed and ending up with Marasmus.

Illustration (v). Infection and Malnutrition Result in Kwashiorkor.

A child who gains well on breast milk, but loses weight after measles, then diarrhoea, and finally gets Kwashiorkor. Attach the picture of the child with Kwashiorkor (No.10) near the point where this develops.

Many growth patterns can be illustrated in this way and teaching given about how to avoid the dangers.

V. Family Planning.

Family health is related to family planning. At the top of the middle of the Flannelgraph and Weight Card is a Familogram, a panel to record the attitude and action of parents to family planning. Under the Red Triangle and

the pictures of the father and mother apply the words and illustrations indicating their progressive response to advice.

a). Demonstrate the importance of Family Planning with an example.

1. Under Reasons for Special Care, place the words "High Birth Order".

2. Place the dots showing a good gain for 4 months, then a poor gain to about 9 months, Explain that the mother didn't have time to introduce other foods as she was so busy looking after other pre-school children.

3. Place the word "Refusing" under the Family Planning section, indicating the parents were not interested in any contraception at that stage.

4. The word "Whooping Cough" should now be affixed in about the 9th month column and show how there is a loss of weight for 2 months. Explain that as the mother already had 5 children to feed and care for she had neither time nor money to take this child for Triple immunisation.

5. The mother is now pregnant again and is more responsive to Family Planning advice. Place the words "Considering" and "Loop" under the word "Refusing" in the Family Planning section, indicating she is interested in an I.U.C.D. after delivery.

6. However, the child is now nearly 1½ years old, place the picture of the child walking independently (14) at about the 18 months column. The mother has delivered again, place the picture of the mother breast feeding her child (1) in about the 2nd month column.

b). Explain the different Family Planning methods that are available, and place the illustrative pictures on the right hand side of the flannelgraph.

1. Pill - Mother rejecting contraceptive advice (21 A)
Mother considering family planning (21 B) and
Mother taking oral pills (24).

2. I.U.C.D. - Loop (19).

3. Condom - (20).

Stress the importance of spacing children for the health of child and mother. All these methods are reversible and suitable for spacing. The repeated visits of a young child to a clinic are excellent opportunities for advising parents about family planning when they are most receptive.

4. Sterilisation Operation.

Tubectomy - (22),. and

Vasectomy - (23).

Illustration (V). Family Planning Counselling.

SPECIAL FEATURES OF THE

CHILD, HEALTH, ANTENATAL and TUBERCULOSIS CARDS

(PATIENT – RETAINED)

B. M. LAUGESEN, M.B., Ch.B., F.R.C.S., Dip. Obst.

These cards are kept in the patient's possession, and brought each time to out-patient clinics. They are kept in a strong plastic bag to keep them safe from water, oil, dirt and children. They should last for years,

They are comprehensive health documents. They record weight, immunisations, clinical symptoms and signs, diagnosis and treatment.

They emphasise family planning and include health education advice.

The record is easily available because it is with the patient. Women often return to their parents' home for delivery. If these cards are widely used, the records will travel with the patients.

This card can supplement hospital-retained records. They can serve as the identification for the patient's unit number in the hospital outpatient department.

In all outlying dispensaries, mobile clinics and home visits these cards serve as the sole record of the patients. (For serious cases a clinic-retained record in addition may be used.)

Patient-retained record cards are just as likely to be kept carefully by illiterate patients as by well-educated patients. But both need a little education as to the value of the card. In Ferozepore we have already issued 7000 cards. Less than 1% of the patients forget their cards. In neighbourhood clinics these patients can easily return home for their cards.

Unless the hospital records system is VERY efficient, more than 1% of the patients' records are eventually lost. In many cases, patients spend much time waiting for their records to be taken out, before seeing the doctor.

These cards were designed by COMMUNITY HEALTH DEPARTMENT,
Frances Newton Hospital,
Ferozepore
Punjab.

Orders should be placed with KRISHAN SUDAMA PRESS,
Ferozepore Cantt.
Punjab.

Hindi/English/Urdu/Marathi/Gurkhali/Punjabi can be printed.

Cards with plastic envelope are priced @ Rs. 25/- per 100. Freight to be paid by the consignee.

THE MORLEY CHILD HEALTH CARD

This card was originally designed by Dr. David Morley, at Ilesha, Nigeria, some 10 years ago, and has since been used in many tropical countries. It has been modified for South India, by Dr. Cutting at Jammalamadugu, Andhra Pradesh. In Ferozepur we have also modified the card further to suit the needs of a hospital in North India.

THE OUTSIDE OF THE CARD

IDENTIFICATION PANEL provides the staff with enough information to avoid mix-up of cards in a busy clinic.

BROTHERS AND SISTERS : this section helps staff get to know the rest of the child's family. There may be a new-born whom the mother has not brought to clinic. She can then be persuaded to bring the baby the following week. Three or more dead babies, or seven or more live children in the family, are reasons for special care. And family size must be known before family planning advice is given.

NOTES : this space is for the doctor or nurse to note diagnosis, treatment and advice as required.

IMMUNISATION BOXES are filled with the date of immunisation by the nurse. The doctor may order the injection by putting a small mark in the appropriate box. The doctor should ALWAYS see the child before immunisation is given, to see that he is well enough. Triple Vaccine (DPT) should not be given if the weight is much below the bottom line, as a worsening of marasmus may follow. Patients with fever and common cold should not be given D.P.T.

THE INSIDE OF THE CARD

REASONS FOR SPECIAL CARE can be noted. From 5000 children seen in Ferozepur in 1970, the following are examples of babies needing special care :

breast milk stopped before 3 months

weight not gaining over a 3 month period

malnutrition — when weight is more than 2 KILOGRAMS (4 small squares) below the bottom line of the road to health

serious diseases of mother or child, such as low intelligence or paralysis, tuberculosis, congenital defect needing operation, anaemia (under 6 Gms haemoglobin)

mother or father dead, blind or mentally ill

3 or more dead children in the family

7 or more live children in the family

extreme poverty.

'ROAD TO HEALTH' weight graph – formed by the top and bottom lines of the weight graph. With a combination of curative and preventive care, and correct feeding, most parents can attain this for their children. Parents respond well to the reminder that brain growth occurs rapidly in the first year, and that malnutrition is harmful to the future intelligence of their child.

The upper weight line is the 90th all India percentile approximate.

The lower weight line is the 25th all India percentile approximate.

This means that 25% of children's weights will fall below the bottom line. In India, most babies stay on the top line for the first four to six months, but then drop below or near the bottom line, due to failure to add extra food early enough.

The Weight Graph can be completed by turning it on its side, and filling in the spaces at the bottom of the graph. The first space is for the month of birth. Subsequent months are recorded until the present date is reached.

Example : a baby born in September, 1970 visits the clinic in February 1971

70	September
	October
	November
	December
71	January
	February

The first month of each yearly graph is outlined more heavily than the other months, and this is always the birth month. The years are written at the side. This method is much easier to use than the standard weight graphs, where age has to be calculated. The column for recording today's weight is quickly found.

The weight is recorded between the lines opposite the current month box. Over a year or two, many children will return for 3 to 10 recordings of weight. The rate of gain or loss of weight will be as sensitive as a temperature chart to the presence of acute and chronic illness and to nutrition status.

DIET ADVICE is in picture form. Foods already eaten may be ticked and those to be added underlined. In this way, illiterate mothers may remember diet advice again given. Preparation of baby's first foods (suji, potato, banana) should be taught in detail.

FAMILY PLANNING : If male methods are being discussed, fill up under the picture of the man's face ; if female methods, under the picture of the woman's face. Space is usually also available below, on the graph.

THE FEROZEPUR ANTENATAL CARD

This is simple to use. It is based on the check list principle, and so very little time is taken in filling in the boxes each time the patient comes. The card was designed for use in busy mobile clinics, to enable the nurse or midwife to thoroughly check patients, before referring special cases to the doctor. The card is also used for Antenatal Outpatients at Ferozepur. The aim is to encourage a high standard of care in a busy clinic. The card is different from other antenatal cards in a number of features.

THE OUTSIDE OF THE CARD

DANGER SIGNS are emphasised. The aim is to alert the doctor and the patient to possible danger to the mother or baby. Patients with a cross in one or more of these squares require special advice and treatment. The list of danger signs is based on maternal and perinatal death statistics for Frances Newton Hospital, Ferozpur.

PREVENTION OF TETANUS is emphasised. Dates of tetanus immunisations are recorded in the boxes provided. These injections should be given at one month intervals. The ideal is three injections, and minimum is two injections. The first injection should start with the first visit, with the second given one month later. One booster is given with the next pregnancy. Tetanus toxoid protects those who will deliver at home under unhygienic conditions. In Ferozepur this was two thirds of all antenatal outpatients. It also protects the baby from neonatal tetanus.

HEIGHT is used to select possible disproportion cases for hospital delivery. 20% of Ferozepur patients were less than 58 inches (147 cm) in height. These patients are much more likely to have a difficult delivery than taller women, and may need Caesarean section.

HEALTH EDUCATION : Notes on correct diet are included to prevent anaemia of mother, and prematurity of baby. Good hygiene and cord care at birth are described to prevent puerperal sepsis and tetanus.

THE INSIDE OF THE CARD

CALCULATION OF THE EXPECTED DATE OF DELIVERY is simple. The squares are filled with the calendar months following the last menstrual period, until the square for the ninth is reached. Seven days are **added.**

Example :

A patient attends clinic on 29 January. Her last Menstrual period was 1 Assoo by indigenous calendar. This converted by tables becomes 16 September.

		Months of gestation
L.M.P. 16	Sep	0
	Oct	1
	Nov	2
	Dec	3
29	Jan	4
	Feb	5
	Mar	6
	Apr	7
	May	8
	June	9
Expected Date of Delivery : 23	June	(9 months+7 days)

VERTICAL COLUMNS for serial recordings of haemoglobin, blood pressure, weight for each visit, allow easy comparison.

FAMILY PLANNING is included as a normal part of good comprehensive medical care. Only when the woman and her family are sure of a safe delivery, and a live baby, can they start planning their family size. Good medical care makes family planning acceptance more likely. During the antenatal period the woman is more than usually interested in family planning. The details of previous children help in advising spacing or more permanent methods.

Until the next pregnancy the mother uses the same card. It can be used as a hospital identification card. For the next pregnancy a similar record can be stapled to the first one.

THE TUBERCULOSIS (T.B.) CARD

This card was designed in Ferozepur at the request of a general practitioner. He wanted a card which would help the patient to keep up regular treatment, even if the patient changed doctor several times during the course of treatment. The card should help the doctors who treat the patient in the course of 18 months, and should help the patient to stay on treatment for the full 18 months, for a lasting cure. It is used along with the Child Health Card or the Antenatal Card, if the T.B. patient belongs to one of these groups.

THE OUTSIDE OF THE CARD

1. **Previous Treatment** is recorded in the special panel. This will help alert the doctor to possible drug resistance or drug toxicity.

2. **Streptomycin Injection Record.** The doctor can see if the patient has received the streptomycin daily, or twice weekly, as ordered.

3. **Prevention of T.B. in the Family.** The Mantoux test is useful for preschool children who have not received B.C.G. and who are not malnourished. It is best to list all the household members at the first visit and then see how many will come for check-up. The Child Health Card should be made out for all preschool children contacts, because poor weight gain on the weight-for-age graph suggests active tuberculosis. B.C.G. is given to the children if they are still Mantoux negative after 3 months.

4. **Concerning T.B.** This health education section aims to encourage completion of treatment – the main problem in T.B. control. The patient is encouraged to prevent further spread of the disease by bringing contacts for medical examination. He is instructed to burn sputum.

THE INSIDE OF THE CARD

1. **Treatment Record** – the card allows for 18 monthly visits until treatment is finished. The patient can see his own progress through the treatment. The date of the first visit is filled in under columns day, month and year. Then the calendar months are written in consecutively below this (as for the Baby Card) until the bottom of the card is reached.

Example : a patient first seen on 16 September, 1970, and attending clinic each month except December,

Month of Treatment	Day	Month	Year
0	16	Sept	70
1	14	Oct	
2	11	Nov	
3		Dec	
4	13	Jan	71

2. **Vertical Columns** allow easy comparison of weight, etc. from month to month. Miniature X-Rays can be filed in small envelopes and stapled to the T.B. Card in the Chest X-Ray Column, opposite the correct month.

3. The columns for the 4 standard **drugs** allow the doctor to select whatever regime suits his patient best. The card may serve as a prescription, when it is presented at the pharmacy. If other drugs are needed, they may be written in the column for symptoms and effects of treatment.

4. **Number of days drug supply given.** Pharmacy staff fill this in, because due to lack of cash or shortage of drugs, the patient may not collect the amount of drug ordered. This record of supply failure will help clinic staff to unearth the reason at the next visit. Normally drugs will be packed in 15 or 30 day lots, to last till the next clinic day.

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Duplicate

18:17

18:16

18:7

18:19

PATIENT*RETAINED HEALTH CARDS IN A 250 BED HOSPITAL

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Summary Comprehensive health records in the patient's hand, to supplement the hospital-retained records, were used for 22,000 patient visits to our hospital maternity child health clinics in 1970 - 71. We have also used the card alone (as the sole record), in mobile clinics for another 4000 patient visits, with success during 1971.

PATIENT RETAINED RECORDS ARE SELDOM LOST

The card is of bright colour (yellow for under fives, green for antenatals, pink for T.B. patients, and blue for other). It is is 10 inches (25 cm) long when folded, and is kept in a strong plastic envelope. It is issued to the patient, with instructions to bring it for every visit to the clinic. Antenatals must also be instructed to bring their card at the time of admission to hospital, or there is a danger of the card being forgotten in the panic of rushing to the hospital when labour begins.

Illiterate people who have little paper in the house, seem to value these cards more than the educated patients who are often the ones who forget to bring their cards. Patients find that they get seen and treated faster when they have the health card in their hands than when without it. Even if patient retained records are occasionally left behind, they are very seldom lost permanently. A quick check of most medical records department files will reveal that after 5 years at least 2% of records are permanently missing.

When used in conjunction with hospital retained record system, the patient retained card can act as the identification card for the hospital number system.

PATIENT RETAINED RECORDS ARE ECONOMICAL

These health cards, with the plastic envelope, cost only 25 paisa each. A hospital record on a 7 x 5 inch card with accompanying cross reference file, and number identification cards will cost just as much, while quarto size folder for outpatients, used in some hospitals will cost several rupees, thus 'pricing out' the poor patient.

PATIENT RETAINED RECORDS SAVE TIME

The doctor's assistants using the health cards, can easily carry out the health checks and tests before the doctor sees the patient. The weight graph on the child health card, and the columns on the antenatal card give the doctor most of the information he needs. He is then able to quickly assess the patients and decide that protein supplements are needed, or immunisations, or anaemia treatment etc.. Such efficiency and speed are essential if routine health care is to be given to large numbers of patients. Unless a comprehensive health document is used either fewer patients must be seen carefully, or large numbers are 'processed' for immunisation only.

PATIENT RETAINED HEALTH CARDS ENCOURAGE A HIGH STANDARD OF CARE

When children are seen without a weight graph being made, most malnutrition will not be diagnosed. In India, marasmus which has no special clues to alert the doctor, is so much more common than kwashiorkor with its clinical signs. Without diagnosis of malnutrition we are unlikely to treat other illnesses completely successfully. We also miss an important cause of preventable intellectual 'stunting'. The Morley type weight graph is easily filled in by the doctor's assistants, as it is not necessary to calculate age each time the graph is filled in. Other types of graphs are complicated to complete, and are likely to be neglected.

PATIENT RETAINED RECORDS ARE AS HIGHLY MOBILE AS THE PATIENTS

Wyon (1971) found that in Punjab villages, 80% of first borns were born outside the husband's family home. For second deliveries 36% and for third, 24% migrated, often with young children, to the maternal grandmother's home. For people in Government service, this customary migration involves long distances, and an antenatal patient in Bombay may deliver her baby in the Punjab. Tuberculosis patients migrate to many different doctors in the course of their long illness, and a patient retained record once again saves the doctor much time. To ensure that the health card is taken by the patient, the patients and staff must be educated to value them, and relatives must be warned that in the panic of rushing a patient to hospital, they must remember to bring the card also.

HEALTH CARDS ARE USEFUL FOR HOME BASED HEALTH CARE.

The health card forms a natural talking point and personalised health teaching aid whenever the auxiliary nurse makes a home visit. The child's name already on the card makes introduction easy when the nurse calls.

HEALTH CARDS ARE USEFUL IN RESEARCH.

These health cards have been followed up to remote villages on a big scale in Uganda, using students in their vacation, on bicycle. Moffat (1969) They can be used to document the age-weight incidence of disease, investigations of birth interval, response to feeding programmes and protein supplements, using mater cards on the doctor's desk. Laugesen. 1971.

HEALTH CARDS CAN BE COMBINED WITH THE NUMBERING SYSTEM OF MEDICAL RECORDS

If the health card is used in mobile clinics, a separate block of numbers is allotted, and if the patient is admitted he is given the same number on his hospital retained records. We use a red inked ticketing machine for numbering walking records, The main aim is to avoid giving two numbers to any patients - the method of doing this varies from hospital to hospital.

PATIENT RETAINED RECORDS ALLOW EASY REFERRAL TO AND FROM THE CENTRAL HOSPITAL

The health card acts as a well documented note of referral and later, acts as a discharge summary,

CONCLUSION

Mission hospital can without much difficulty introduce a standard set of health cards that will be interchangeable between 300 - 700 hospitals all over the country. Later on Government islikely to follow suit, for there is no better system of medical record for health care of the vulnerable groups than patient retianed health cards. Unless the patient needs admission, these cards can confidently be used as the sole record of the patient.

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17-18

IDENTIFICATION OF COUPLES URGENTLY NEEDING FAMILY PLANNING ADVICE

USING THE CHILD HEALTH CARD.

(A very preliminary report.)

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Summary The birth interval can be estimated for one's own patients by noting when sibs are born to children attending a MCH Clinic, by noting where this event occurs on the Child Health Card. Dialogue to encourage spacing is then started with all mothers, so as to reach them before 5% have conceived. This achieves maximum economy of staff and time in a busy clinic. The Child Health Card used originates from Morley, and was modified for use in India by Cutting, at Jammalamadugu (Cutting, 1970)

The spacing idea is widely accepted

Wyon (1971) found that in the Khanna villages during 1956-59, some 25% of all wives accepted, and 20% practised contraception if the methods were made available. No figures are available yet for this area, for the group of mothers motivated enough to seek comprehensive health care for their babies through MCH clinics. But our impression is that the percentage would be higher, especially of course for the wealthier parents in the cities, where the babies attend for immunisation rather than for treatment of illness. Spacing seems more popular than sterilisation, and can be applied to the parents with only 1, 2, or 3 children. These parents are afraid of permanent methods because of their awareness of the current high infant mortality rate.

The importance of identifying the group most at risk.

In a busy clinic for pre-school children almost every mother is in need of family planning advice. But the numbers attending these clinics reached 1000 pre-school children a month in our hospital last year, and in bigger hospitals, the number reaches hundreds per day. These clinics degenerate into 'immunisation only' clinics, unless they are properly staffed. But even if health educators or family planning educators are supplied, there will not be enough staff or funds for most hospitals, especially voluntary hospitals, which must balance their budget each year. So it follows, that a method is needed to select those women who are top priority for spacing advice. (We found that only 1 mother in 30 gets family planning advice in a busy clinic where nursing staff strongly believe in family planning, but where no educator is provided.)

Determination of Birth Interval from the Child Health Card.

The Child Health Card has a space for listing all children born to the mother so far. If a 3 year old boy comes to the clinic, who also has a sister aged 3 months, then the entry on his card will be, thus, if the 3 year old is the first born -

BROTHER AND SISTERS

Name	Age	Sex	
Ramesh	3	M	this one
Baby	3 months	F	card made

We now take Ramesh's card, and enter the words SIB BORN in the month colimn on the weight graph, corresponding to Baby's month of birth. The calendar months along the bottom of the Morley weight for age graph, allow us to find the correct month for Baby's birth without any numerical calculation. The position on the card for Baby's birth will be in the third to last column in the third year panel of Ramesh's weight for

We now take another Child Health Card, and use it as a master record of birth intervals, by marking the third to last column of the third year panel to indicate a younger sib born at this interval, using the beginning of the card as the birth month of the elder sib. After 100 or 200 such pairs of sibs have been compared for birth intervals, by marking this master card, the 5th percentile for birth interval can be easily seen. This indicates the interval at which 5% of the younger sibs are already born. From this point, we calculate back 9 months, to give the inter-pregnancy interval (5th percentile), and a further 3 months back to allow us time to influence the mother towards contraception. If we find that 5% have given birth by 17 months, then 5% of these conceptions occured by 8 months, and we should start dialogue for spacing at 5 months.

There will be variations according to prolonged breast feeding, (an increase of interval by 10 months in Wyon's study of Punjab villages), due to visits of mother to her own parents (about 2 months increase after the firstborn in Wyon's study), about 5 months increase, when the mother's age was 10 years more.) It follows that each hospital must investigate its own pre-school clinic clientele, and find out what the birth interval is, and when to start dialogue with these mothers. There may be substantial differences between bottle feeding middle class urban mothers, and breast feeding village mothers. And it costs very little to find out.

THE DIALOGUE-FOR-SPACING STAMP

This can be locally copied and stamped on all child health cards. The exact positioning of the stamp will be fixed after local research. The stamp delineates the period of dialogue, likely conception and expected births.

Acknowledgement This idea is not original, but comes from Dr. D. Morley, Institute of Child Health, 30 Guildford St, London. WC1 1EH, U.K. The use of the child health card for finding birth interval locally is being tried in Ferozepur, inclinics supported by Oxfam (UK) the Evangelical Church in Germany, and local panchayats and municipal committees.

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18.15

REPORT FORMS FOR MATERNITY CHILD HEALTH CLINICS

B.M. LAUGESEN, M.B.Ch.B., F.R.C.S., Dip. OBst.

Registers are not necessary at all in Maternity Child Health Clinics. They are untidy, and bulky to carry. But report sheets can be duplicated or printed so that the same information is collected each time. The report sheets can be handed in to the Community Health Office or team leader each night for analysis, or posted daily to the headquarters of the Project, so that the reports can be studied and the weekly or monthly totals done, without interfering with the field workers, as happens with registers. These report sheet forms are kept on clip boards.

These reports are useful for hospital out-patients and MCH Clinics, and for branch dispensaries and mobile clinics. They are used along with patient retained cards for under five children, antenatal women, TB patients and others.

THE CLINIC ATTENDANCE RECORD SHEET.

This form records first visits, re-visits, and age groups: under fives, fives and over, antenatals, and other adults.

CLINIC: Zira DATE: 24 November, 1971.

	FIRST VISITS			
AGE	0 - 4	5 - 14	Antenatal	Other
1.	6784	6788	6786	
2.	6785	6789		
3.	6787			

This form shows that on 24 November, 1971, the patients seen for their first visit at the Zira Clinic were: three under fives, two other children, and one antenatal patient. It also shows that over 6700 new patients have been seen since the clinic, or group of clinics, or the project began. This MCH Clinic number, for which no hospital patient record is kept, can be distinguished from the hospital unit number by using red ink, whether by ticketing machine, or handwritten.

For the first visit, the patient's number can be stamped by ticketing machine if desired. For a revisit, the number is taken from the Health Card in the plastic bag, in the patient's hand. This number is entered by hand on the report sheet in the revisit section.

No record is kept of the names and addresses of the patients coming for the first time. As the clinic is held close to the patients' homes, these homes may be visited, health cards can be inspected and the percentage of children possessing health cards can be checked.

Numbers are preferred to names, as they are faster to write, they occupy less space on papar, and can be easily read by staff using different languages.

In the case of cash clinics, after allowing for poor patients seen free, whose numbers are encircled, attendance figures must tally with cash received.

PREVENTABLE DISEASE CONTROL REPORT SHEET.

What percentage of patients are completing the three injections of tetanus toxoid? Do we need to order more polio vaccine soon, if the present rush for vaccine continues? Why is Dr A. not giving Triple Vaccine as often as Dr B? Did Patient 6795 and Patient 6784 (who are recorded on the pharmacy form as getting high protein supplement for malnutrition), really get Triple Vaccine yesterday? If so, we must see Dr C. and warn him of the danger of causing weight loss when Triple Vaccine is given to malnourished children. Of the new antenatal patients on the attendance record yesterday, did all receive first dose of Tetanus Toxoid yesterday?

These are some of the questions which this form is designed to answer.

CLINIC Zira DATE 24 November, 1971.

BCG	Polio		
	1	2	3
6784	6784	6788	(6394)
6788	6293		
6394			

This record shows that one under five child (6784) received BCG along with first dose of polio, that three doses of BCG were used, and four doses of polio - at Zira, on 24th November, 1971.

If Polio Vaccine is charged at Rs1.50 per dose, the nurse should have collected Rs6 at the vaccine table, unless there are patients too poor to pay, in which case the number can be encircled to indicate this - eg ((6394)).

THE ANAEMIA CONTROL RECORD SHEET

What percentage of the under fives have severe anaemia (under 6 Gms Haemoglobin)? Are more than three-fourths of first visit under fives getting a Haemoglobin test, or is this being neglected? Is it true that more than half the antenatals have Hb under 10 Gms? Were the free iron folic tablets supplied by the government, properly utilised, only for those with tested anaemia?

How many cases of antenatal anaemia benefited were treated with these iron folic tablets? Does the large proportion of low Hb readings this week indicate dirty glass tubes in the Sahli apparatus? Sitting at base, 50 miles away from the Clinic, or standing behind the Haemoglobin technician during the Clinic, the doctor or team leader can find the answers to his questions on this record sheet, or at least ask himself the right questions.

To avoid counting higher Hb results due to treatment is easy, because revisit numbers are much lower than the first visit numbers.

THE PHARMACY RECORD SHEET

Uniform selling prices, standard quantities prepacked in bottles or little plastic bags, a standard drug list for all clinics, and a standard prescribing pattern, are features of the mobile pharmacy. Also standard instructions to the patient for each particular drug are given verbally by the assistant issuing the drugs. The value of all drugs (and vaccines from the vaccine record) issued in a particular village during the year can be used as proof of proper utilisation of the panchayat grant in aid, in case of free clinics. For cash clinics, the total collected will tally with the receipt issued by the hospital office, and pasted on the pharmacy sheet.

The total monthly expenditure in all clinics on medicines can be calculated from these sheets, and this information is used for budgeting. (In big hospitals the drugs for MCH clinics will be priced out to the clinics each month by the hospital pharmacist.)

Selling prices are calculated at cost + 20% approximately. Typewritten or printed labels are inserted inside the plastic bags. This makes sure correct tablets are given.

MALNUTRITION RECORD - USING CHILD HEALTH CARD.

Free clinics tend to attract sick children, but because such clinics are very popular, they give a much better idea of the community's health than ordinary hospital statistics.

The level of nutrition in any village or community can be assessed, using an Under Fives Card. The weight of one hundred consecutive children at their first visit to the clinic is marked on an Under Fives Health Card. The resulting graph indicates the age distribution of the children attending in percent, and also the percent more than four small squares (2Kg) below the bottom line of the graph. This group has serious malnutrition, and the percentage in this group will vary from village to village, indicating the need for more diet education and protein supplements in certain villages.

These weight for age patterns need not be studied all the time, but should be completed in one month, so that the amount of clothing worn does not change. If the Health Clinic is having good impact on the village there will be few new cases of serious malnutrition because first foods will be introduced early. This community change may take two years. Surveys of revisits are not so useful, as at first very sick tend to revisit the clinic more than the well babies. But this card may be used for a house to house annual check of 100 children under five, if the nurse chooses the same houses each year.

RECORD OF DISEASES - USING CHILD HEALTH CARD

Whooping cough, polio, and other common diseases can be also noted by the same method as above. As the patients are seen by the doctor, their weights are noted on a child health card. This helps the doctor to find out the age and weight groups of those who are struck down with these diseases, so that immunisation courses can be given in good time. For instance, it may be found that no cases of polio are found in the over three age group - thus allowing saving of funds for this expensive vaccine. (And also in times of shortage of vaccine supplies, saving of vaccine for the most needy group.) If those with one, two or three doses of vaccine previously given, are noted by cicling the patients number on the master card, one, two or three times, it can be checked whether three doses of vaccine are sufficient. The brothers and sisters space on the back of the card can be used for recording disease striking children 5 years of more. One master card is kept for whooping cough, one for polio, and others for other special interests of the clinic doctor - tuberculosis, hepatitis, malaria, etc. These records allow the doctor to steer his community health work in the proper direction, and save him being dependent solely on articles published by experts livingin big cities at the other end of the country.

FAMILY PLANNING & HEALTH EDUCATION REPORT

This sheet is carried on a clip board by the health educator, or if none is available, by the clinic Sister. It is useful for hospitals, health centres, mobile dispensaries and for home visits. It measures the amount of teaching that accompanies the healing work of the doctors and nurses.

THE FAMILY PLANNING SECTION separates the mothers into 'refusers', 'triers', and 'users' of modern contraception. The 'triers' have accepted the idea of family planning enough to have tried a modern method. Over the years we can watch acceptors and users percentages rise, and percentages in MCH Clinics should be higher than the target of 25% actual users in the population, which Government wants, to achieve current targets.

How to use this sheet. After attending to children's needs for medicine or vaccine, the health educator interviews mother. The emphasis is on child health. Example: A six months boy, the first boy after four girls, is brought for vaccine. The importance of spacing the next baby is explained - so that maixmum breast milk, food and attention may be given to this precious boy baby, for as long as possible. Later the mother may decide that one healthy son is enough. If she accepts nirodh or pills, she is listed by the clinic number on her son's child health card. At the same time, the family planning section on the child health card is filled in. Next time this child comes, we can resume the dialogue, and if this time she wants tubectomy, she is listed in the box for those wanting help. Space at the bottom of the sheet can be used to note address for follow up later by Government, or by the educator herself. When she has tubectomy (and a scar to prove it!), we list her in the 'tubectomy done' box. Each time we list her by the number on her son's card. The educator herself carries and issues nirodh and pills, so that the mother is saved further embarrassment.

THE HEALTH EDUCATION SECTION. We can try and measure quantity of health education given, even if we cannot measure its quality. Thus total number of people reached can be compared with the total number of attenders at the clinic. The number receiving talks on immunisation can be compared with the number immunised, and the number receiving advice on diet for baby compared with the number already having malnutrition.

Monthwise fluctuations in quantity of teaching may vary with the regional language skill of the different educators, with the attitude of the Ward or Clinic Sister or doctor, and most importantly, with the extent to which the health educator is expected to help out with nurse duties when the clinic gets busy. All these changes will be faithfully recorded on this record - it is then for the person in charge to find the cause, and take action.

How to use the record. Each time personal advice is given to a mother, record the number on her child's health card in the individual column. Every time a group (3 or more) is talked to, the number is written in the group talks column. Use a separate sheet for each clinic each month. In busy clinics a new sheet is needed each clinic day. The entries are made in different boxes according to the subjects discussed. The subjects - diet, immunisation, etc., can be replaced by flashcard, flannelgraph etc, if we wish to study the popularity of different teaching aids.

WHY HAVE A RECORD AT ALL?

1. If we wish to improve our services next month, we must know how good they are this month.
2. The health educator should be given the satisfaction of reaching measurable self-set goals.

MOBILE CLINICS ATTENDANCE RECORD

CLINIC ..... DATE ..... Starting Number .....

666

FIRST VISITS					TOTALS
AGE	0 - 4	0 - 4	5 - 14	ANTENATAL	OTHERS	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
Total First Visits:						

REVISITS					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
TOTAL REVISITS					

18 14

MOBILE CLINICS — PREVENTABLE DISEASE CONTROL

(Record patient's number once for each vaccine.)

Name of Clinic .....Date.....Opening Number.....

	B C G	D P T (Triple) 1	2	3	POLIO 1	2	3	
a								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
TOTAL								

	T A B AGAINST Typhoid. 1	2	Tetanus Toxoid- ANTENATAL 1	2	3	SMALLPOX FIRST OR Primary 1	SMALLPOX Repeat Repeat
1							
2							
3							
4							
5							
6							
7							
8							
TOTALS							

	Tetanus Toxoid - OTHERS. 1	1	2	2	3	3	Other
1							
2							
3							
4							
5							
TOTALS							

MOBILE CLINICS - ANAEMIA CONTROL GOVT STOCK Yes No

CLINIC . . . . . DATE . . . . . STARTING NUMBER . . . . . .

If patient receives two packets of the tablets, write his number twice.

Age group (years)		Hb under 6Gms	Hb 6-10Gms	Hb 10 Gms +	Hb not recorded today	Iron-folic under 5 (30) antenatal (60)	Other treatment or remarks
0 - 2	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						
3 - 4	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						
ANTE NATAL	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						
5 - 14 Years	1						
	2						
	3						
	4						
	5						
OTHER	1						
	2						
	3						
	4						
	5						
TOTAL							

MOBILE PHARMACY FOR MOTHERS AND CHILDREN

Name of Clinic..... Date.....

Name of Drug	Number of patients receiving the drugs	No. Used	Selling Rate	Rs.'P
Ferrous Sulphate 200 mg. (30)			0.60	
Folic Acid 5 mg. (15)			0.50	
FAC Mixture 100 ml.			0.70	
Imferon 2 ml. 100 mg. Fe. 1 amp.			1.75	
Sulphadimidine 0.5 Gm. (15)			0.90	
spirin 75 mg. (10)			0.20	
ASA (Aspirin) 300 mg. (30)			0.60	
Phenobarb 30 mg. (15)			0.30	
Furoxone Susp. 30 ml.			3.00	
Streptomagma 50 ml.			2.50	
Streptomycin 1 Gm. inj.			0.75	
Sequil 10 ml. amp.			1.00	
Cough Mixt. .00 ml.			0.70	
Kaolin Mixt. 100 ml.			0.70	
Punjab Biscuits packet of 22			1.40	
F.L. (condoms)			free	
Zinc Boric Eye Drops 5 ml.			0.75	
Terramycin Eye Tube 3.5 G.			1.55	
Ephedrine Nasal Drops 0.25/5 ml.			0.75	
Multivitamin Tablets (15)			0.60	
INH 100 mg. Tablets (30)			0.90	
INH 150 mg. and Thia-cetazone 75 mg. (30)			2.40	
Atebrin (Mepacrine) 100 mg. Tabs. (15)			0.30	
Other				

MEDICINE TOTAL CASH_____

MEDICINE TOTAL GIVEN FREE_____

FAMILY PLANNING & HEALTH EDUCATION REPORT

CLINIC/WARD .....DATE .....DAY.....MONTH,,,,,,,YEAR....

REPORT made by ....Family Planning or Health Educator

Write unit numbers from health cards in these columns:-

Not using any modern method and never has	Has tried modern method, but not using it now	USING Modern Method L/Nirodh	No Issued	INDIVIDUALS	GROUP TALKS Write no. in each group	SUBJECT of Talk.
				1		DIET
				2		
				3		
				4		
				5		
				6		
				7		
				8		Total listeners
				9		
	TOTAL	TOTAL		10		
	PREGNANT	Taking Pill	No. Issued	11		F.P.
				12		
				13		
				14		
				15		
		Husband had Vasectomy		16		IMMUNISATION
				17		
TOTAL				18		
				19		
				20		
		Wife had Tubectomy		21		OTHER
				22		
				23		
				24		
				25		

INTERESTED & WANT HELP

Unit No.	No of sons	Action taken

Interested couples Total:	Modern Methods Total Couples:	TOTAL	TOTAL	TOTAL

Depending on the number of patients seen, this report is handed in daily, weekly, or monthly, but a separate sheet is used for each clinic.

IMMUNIZATION RECORD - (Smallpox, Tetanus, **Polio,** B.C.G., Triple)

Roll No.	Child's Name	Consent Yes/No	Hospital to fill 1	2	3
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					
31.					
32.					
33.					
34.					
35.					
36.					
37.					
38.					
39.					
40.					

Class Teacher Kindly Fill in Names and Consents

School _____

Address _____

Class _____ Section _____

Roll Total _____

Arranged dates _____

Dates Done _____

Remarks

Batch No. Used _____

Roll No.	Child's Name	Consent Yes/No.	Hospital to Fill 1	2	3
41.					
42.					
43.					
44.					
45.					
46.					
47.					
48.					
49.					
50.					
51.					
52.					
53.					
54.					
55.					
56.					
57.					
58.					
59.					
60.					

18-B 13

INFORMATION SHEET FOR VISITORS

MOBILE CLINICS FOR MOTHERS AND PRE-SCHOOL CHILDREN

A Christian Action Programme for a Needy and Under Privileged Group.

Administered by the Community Health Department, Frances Newton Hospital, Ferozepur, Punjab, India.

Motivation: Christian concern about the 1 in 4 children dying before the age of 2 in the villages of the Punjab, (see Wyon, Khanna Study, Harvard 1971).

Theory on which this project is based: Medical care PLUS nutrition care results in much improved acceptance of family planning by the parents. The same hypothesis incidentally has been investigated by the Johns Hopkins team in the Punjab and has been advocated by the Director Generals of World Health and Food and Agriculture Organizations.

Sponsors: Government of India - Some vaccines and iron folic acid tablets;
OXFAM, the U.K. charity - running expenses;
CORSO, the New Zealand charity - milk biscuits;
Various Municipal Committees and Panchayats - some medicines;
Evangelical Church in Germany - clinic and staff housing;
Total Value of the Project Over 3 Years - $60,000.

NOTE: This preventive programme depends heavily on the curative services of the hospital to back it up, and on the fine reputation of 75 years' work in this field. The importance of malnutrition in causing intellectual defect gives added urgency to a programme of this kind.

Achieved in 1971: 6 weekly clinics started; minibus obtained; 4 medical papers published; grants approved; 2 other hospitals persuaded to choose similar projects; records, cards and proformas designed.

Planned for 1972: 10 more weekly clinics to become operational; team to be brought up to full strength; buildings to be started as soon as finance arrives; high dose tetanus toxoid to be tested at request of government; more student nurses to be trained in community work; Punjabi doctor interested in this work to be recruited to take charge; other mission hospitals wanting to copy this type of work to be given every assistance and visited if requested; another 10,000 school children or villagers to be protected from tetanus; jet gun maintenance service to be provided for other hospitals; 30,000 preschool children and 10,000 antenatals are expected to visit the mobile clinics in 1972.

Long Term Aim: To see other similar schemes to give personalized mother and child services started in every mission hospital in the North of India, and thus give government possible working models in this important field for further action as it sees fit.

Further Information of a more technical nature is available. We appreciate the comments and suggestions of all our visitors. Please do not fail to ask for further information and give us your ideas.

"Better to light one candle than curse the darkness."

SUGGESTED FURTHER READINGS:

1. Medical Care in Developing Countries, ed. King, Nairobi (Oxford University Press.)
2. Mobile Young Child Clinics in Rural Uganda, 1969 from Ankole Preschool Protection Programme, P.O. Box 221, Mbardra, Uganda.
3. Medical Care for the Underfives, Laugesen, B.M., J. Christ Med. Assoc. India, 1971 46, p. 74-81.
4. Jet Injectors for Immunization, Laugesen, B.M., ibid. 1971, 46, p.203-207.
5. Child Weight Card Modified for India-Promote Growth and Prevent Malnutrition, Cutting, W.A.M., ibid. 46 p. 316-322.
6. Health and the Developing World, Bryant, John, (1969, Cornell University Press.)

SPECIAL FEATURES OF THE

CHILD, HEALTH, ANTENATAL and TUBERCULOSIS CARDS

(PATIENT – RETAINED)

B. M. LAUGESEN, M.B., Ch.B., F.R.C.S., Dip. Obst.

These cards are kept in the patient's possession, and brought each time to out-patient clinics. They are kept in a strong plastic bag to keep them safe from water, oil, dirt and children. They should last for years.

They are comprehensive health documents. They record weight, immunisations, clinical symptoms and signs, diagnosis and treatment.

They emphasise family planning and include health education advice.

The record is easily available because it is with the patient. Women often return to their parents' home for delivery. If these cards are widely used the records will travel with the patients.

This card can supplement hospital-retained records. They can serve as the identification for the patient's unit number in the hospital outpatient department.

In all outlying dispensaries, mobile clinics and home visits these cards serve as the sole record of the patients. (For serious cases a clinic-retained record in addition may be used.)

Patient-retained record cards are just as likely to be kept carefully by illiterate patients as by well-educated patients. But both need a little education as to the value of the card. In Ferozepore we have already issued 7000 cards. Less than 1% of the patients forget their cards. In neighbourhood clinics these patients can easily return home for their cards.

Unless the hospital records system is VERY efficient, more than 1% of the patients' records are eventually lost. In many cases, patients spend much time waiting for their records to be taken out, before seeing the doctor.

These cards were designed by COMMUNITY HEALTH DEPARTMENT,
Frances Newton Hospital,
Ferozepore
Punjab.

Orders should be placed with KRISHAN SUDAMA PRESS,
Ferozepore Cantt.
Punjab.

Hindi/English/Urdu/Marathi/Gurkhali/Punjabi can be printed.

Cards with plastic envelope are priced @ Rs. 25/- per 100. Freight to be paid by the consignee.

Duplicate

THE MORLEY CHILD HEALTH CARD

This card was originally designed by Dr. David Morley, at Ilesha, Nigeria, some 10 years ago, and has since been used in many tropical countries. It has been modified for South India, by Dr. Cutting at Jammalamadugu, Andhra Pradesh. In Ferozepur we have also modified the card further to suit the needs of a hospital in North India.

THE OUTSIDE OF THE CARD

IDENTIFICATION PANEL provides the staff with enough information to avoid mix-up of cards in a busy clinic.

BROTHERS AND SISTERS : this section helps staff get to know the rest of the child's family. There may be a new-born whom the mother has not brought to clinic. She can then be persuaded to bring the baby the following week. Three or more dead babies, or seven or more live children in the family, are reasons for special care. And family size must be known before family planning advice is given.

NOTES : this space is for the doctor or nurse to note diagnosis, treatment and advice as required.

IMMUNISATION BOXES are filled with the date of immunisation by the nurse. The doctor may order the injection by putting a small mark in the appropriate box. The doctor should ALWAYS see the child before immunisation is given, to see that he is well enough. Triple Vaccine (DPT) should not be given if the weight is much below the bottom line, as a worsening of marasmus may follow. Patients with fever and common cold should not be given D.P.T.

THE INSIDE OF THE CARD

REASONS FOR SPECIAL CARE can be noted. From 5000 children seen in Ferozepur in 1970, the following are examples of babies needing special care:

breast milk stopped before 3 months

weight not gaining over a 3 month period

malnutrition — when weight is more than 2 KILOGRAMS (4 small squares) below the bottom line of the road to health

serious diseases of mother or child, such as low intelligence or paralysis, tuberculosis, congenital defect needing operation, anaemia (under 6 Gms haemoglobin)

mother or father dead, blind or mentally ill

3 or more dead children in the family

7 or more live children in the family

extreme poverty.

'ROAD TO HEALTH' weight graph – formed by the top and bottom lines of the weight graph. With a combination of curative and preventive care, and correct feeding, most parents can attain this for their children. Parents respond well to the reminder that brain growth occurs rapidly in the first year, and that malnutrition is harmful to the future intelligence of their child.

The upper weight line is the 90th all India percentile approximate.
The lower weight line is the 25th all India percentile approximate.

This means that 25% of children's weights will fall below the bottom line. In India, most babies stay on the top line for the first four to six months, but then drop below or near the bottom line, due to failure to add extra food early enough.

The Weight Graph can be completed by turning it on its side, and filling in the spaces at the bottom of the graph. The first space is for the month of birth. Subsequent months are recorded until the present date is reached.

Example : a baby born in September, 1970 visits the clinic in February 1971

70	September
	October
	November
	December
71	January
	February

The first month of each yearly graph is outlined more heavily than the other months, and this is always the birth month. The years are written at the side. This method is much easier to use than the standard weight graphs, where age has to be calculated. The column for recording today's weight is quickly found.

The weight is recorded between the lines opposite the current month box. Over a year or two, many children will return for 3 to 10 recordings of weight. The rate of gain or loss of weight will be as sensitive as a temperature chart to the presence of acute and chronic illness and to nutrition status.

DIET ADVICE is in picture form. Foods already eaten may be ticked and those to be added underlined. In this way, illiterate mothers may remember diet advice again given. Preparation of baby's first foods (suji, potato, banana) should be taught in detail.

FAMILY PLANNING : If male methods are being discussed, fill up under the picture of the man's face ; if female methods, under the picture of the woman's face. Space is usually also available below, on the graph.

THE FEROZEPUR ANTENATAL CARD

This is simple to use. It is based on the check list principle, and so very little time is taken in filling in the boxes each time the patient comes. The card was designed for use in busy mobile clinics, to enable the nurse or midwife to thoroughly check patients, before referring special cases to the doctor. The card is also used for Antenatal Outpatients at Ferozepur. The aim is to encourage a high standard of care in a busy clinic. The card is different from other antenatal cards in a number of features.

THE OUTSIDE OF THE CARD

DANGER SIGNS are emphasised. The aim is to alert the doctor and the patient to possible danger to the mother or baby. Patients with a cross in one or more of these squares require special advice and treatment. The list of danger signs is based on maternal and perinatal death statistics for Frances Newton Hospital, Ferozpur.

PREVENTION OF TETANUS is emphasised. Dates of tetanus immunisations are recorded in the boxes provided. These injections should be given at one month intervals. The ideal is three injections, and minimum is two injections. The first injection should start with the first visit, with the second given one month later. One booster is given with the next pregnancy. Tetanus toxoid protects those who will deliver at home under unhygienic conditions. In Ferozepur this was two thirds of all antenatal outpatients. It also protects the baby from neonatal tetanus.

HEIGHT is used to select possible disproportion cases for hospital delivery. 20% of Ferozepur patients were less than 58 inches (147 cm) in height. These patients are much more likely to have a difficult delivery than taller women, and may need Caesarean section.

HEALTH EDUCATION : Notes on correct diet are included to prevent anaemia of mother; and prematurity of baby. Good hygiene and cord care at birth are described to prevent puerperal sepsis and tetanus.

THE INSIDE OF THE CARD

CALCULATION OF THE EXPECTED DATE OF DELIVERY is simple. The squares are filled with the calendar months following the last menstrual period, until the square for the ninth is reached. Seven days are added.

Example :

A patient attends clinic on 29 January. Her last Menstrual period was 1 Assoo by indigenous calendar. This converted by tables becomes 16 September.

		Months of gestation
L.M.P. 16	Sep	0
	Oct	1
	Nov	2
	Dec	3
29	Jan	4
	Feb	5
	Mar	6
	Apr	7
	May	8
	June	9
23	June	(9 months + 7 days)

Expected Date of Delivery :

VERTICAL COLUMNS for serial recordings of haemoglobin, blood pressure, weight for each visit, allow easy comparison.

FAMILY PLANNING is included as a normal part of good comprehensive medical care. Only when the woman and her family are sure of a safe delivery, and a live baby, can they start planning their family size. Good medical care makes family planning acceptance more likely. During the antenatal period the woman is more than usually interested in family planning. The details of previous children help in advising spacing or more permanent methods.

Until the next pregnancy the mother uses the same card. It can be used as a hospital identification card. For the next pregnancy a similar record can be stapled to the first one.

THE TUBERCULOSIS (T.B.) CARD

This card was designed in Ferozepur at the request of a general practitioner. He wanted a card which would help the patient to keep up regular treatment, even if the patient changed doctor several times during the course of treatment. The card should help the doctors who treat the patient in the course of 18 months, and should help the patient to stay on treatment for the full 18 months, for a lasting cure. It is used along with the Child Health Card or the Antenatal Card, if the T.B. patient belongs to one of these groups.

THE OUTSIDE OF THE CARD

1. **Previous Treatment** is recorded in the special panel. This will help alert the doctor to possible drug resistance or drug toxicity.

2. **Streptomycin Injection Record.** The doctor can see if the patient has received the streptomycin daily, or twice weekly, as ordered.

3. **Prevention of T.B. in the Family.** The Mantoux test is useful for preschool children who have not received B.C.G. and who are not malnourished. It is best to list all the household members at the first visit and then see how many will come for check-up. The Child Health Card should be made out for all preschool children contacts, because poor weight gain on the weight-for-age graph suggests active tuberculosis. B.C.G. is given to the children if they are still Mantoux negative after 3 months.

4. **Concerning T.B.** This health education section aims to encourage completion of treatment – the main problem in T.B. control. The patient is encouraged to prevent further spread of the disease by bringing contacts for medical examination. He is instructed to burn sputum.

THE INSIDE OF THE CARD

1. **Treatment Record** – the card allows for 18 monthly visits until treatment is finished. The patient can see his own progress through the treatment. The date of the first visit is filled in under columns day, month and year. Then the calendar months are written in consecutively below this (as for the Baby Card) until the bottom of the card is reached.

Example : a patient first seen on 16 September, 1970, and attending clinic each month except December.

Month of Treatment	Day	Month	Year
0	16	Sept	70
1	14	Oct	
2	11	Nov	
3		Dec	
4	13	Jan	71

2. **Vertical Columns** allow easy comparison of weight, etc. from month to month. Miniature X-Rays can be filed in small envelopes and stapled to the T.B. Card in the Chest X-Ray Column, opposite the correct month.

3. The columns for the 4 standard drugs allow the doctor to select whatever regime suits his patient best. The card may serve as a prescription, when it is presented at the pharmacy. If other drugs are needed, they may be written in the column for symptoms and effects of treatment.

4. **Number of days drug supply given.** Pharmacy staff fill this in, because due to lack of cash or shortage of drugs, the patient may not collect the amount of drug ordered. This record of supply failure will help clinic staff to unearth the reason at the next visit. Normally drugs will be packed in 15 or 30 day lots, to last till the next clinic day.

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VHAI-249

EXERCISE ON GROWTH CHARTS FOR UNDER FIVES

And Indigenous Calendar

These records are central to all activities in the Under Fives Clinic, and are now coming into use in many countries.

To understand how they are used let us take for our example Bobbi who was 2 years old when seen in summer of 1976 and we will complete a chart for her. Her mother says Bobbi was born in May.

Turn the chart sheet until the boxes in which we fill in the months are down the left hand side . (Fig.1)

Fill in the month of birth, which in this case is May, in the first space of each year. You will notice that this first space is more heavily outlined. Write 'MAY' in each of these.

Then fill in the other months, as shown, for 2 years.

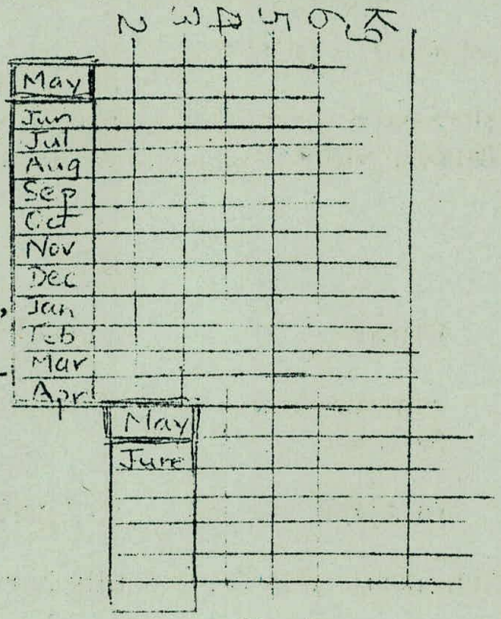

Fig. 1

Once this calendar is completed, we never need calculate the age again

How old was Bobbi in July, 1976?
.....months

Turn the chart so that the kilogram weights are down the left hand side.

Now, when the child is weighed each month put a large dot in the month space. (Fig.2)

Bobbi, Born May 1974

	1974 Weight in kilograms		1975	
	May	3.0	May	6.5
	June	4.0	June	7.5
	July	4.5	July	8.0
	Aug	5.5	Aug	8.5
	Sept.	6.0	Sept	9.0
	Oct.	6.5	Oct.	9.0
	Nov.	Did not attend	Nov	9.5
	Dec.	7.0	Dec.	2.5
1975	Jan	Had whooping cough	Jan.76	10.0
		Did not attend	Feb "	9.5
	Feb.	Still away	March	10.0
	March	6.0 Measles	April	10.5
	April	5.5 To Nutrition Feeding Centre with marasmus		

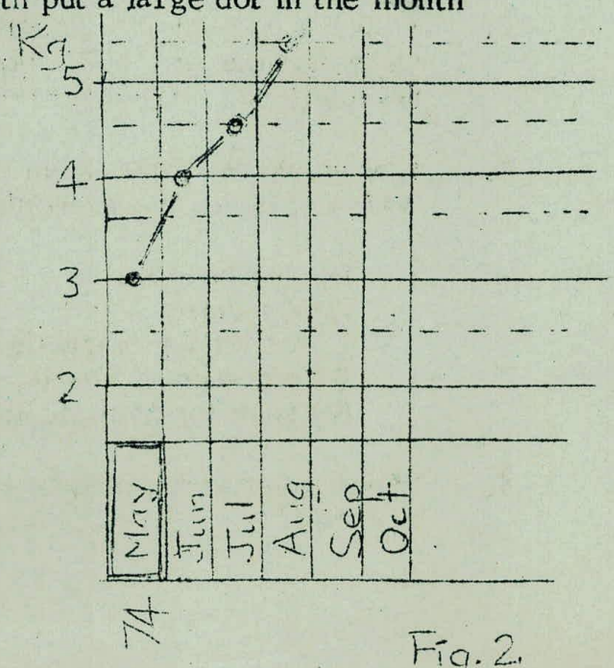

Fig. 2

1. What are the advantages in the mother keeping this record?

2. What are the advantages of this record over six pages of clinical notes?

3. List some of the reasons for Bobbi's loss of weight following whooping cough and measles

4. The child illustrates one of the problems in timing DPT immunization. What is this?

EXERCISE IN USE OF INDIGENOUS CALENDAR

When was the child born?

Mother says Bobbi was born at amavasya. This was in the month of Baisakh after Baisakhi. We look at the indigenous calendar (VHAI-215)

	1974	1975
Baisakh	mid April to mid May	
Amavasya in Baisakh	22 April	11 May
Baisakhi	13 April	13 April

Which month was Bobbi really born in ?

1. Rural mothers often do not know the English calendar. How many health workers would know the village calendar?

2. Would it be easier to record on the growth chart all months as indigenous or "desi" months from the beginning, without translation?

3. How would we make up an indigenous calendar?
Which of these events would be important in your area?

   Phases of moon
   Desi months
   Local village festivals and markets
   Events such as floods, famine, new road
   Seasons for planting and harvest.

4. Which languages would be needed and which staff would find it useful?

Upgrading of Medical Records with Local Resources

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Summary :

This paper describes the reasons for, methods, and results of a change from alphabetical filing to a unit number system for patients' medical records in a 210-bed hospital. Without much expenditure, enormous improvement in public relations and increased utilization of patients' records for research has resulted. Costs are compared.

Introduction :

The Frances Newton Hospital in Ferozepore admits 6000 in-patients and treats 15000 out-patients yearly, and has 210 beds with over 100% occupancy. The medical records room is 20 feet by 15 feet, is situated in the out-patient department on the same premises as the rest of the hospital. In 1969 there were only two part-time records clerks who, though very quick at sorting through the alphabetical files of previous year, could not prevent long waits for most patients while the records were found or could not be found. Some 10% of the records were probably lost permanently through misfiling or in other ways. Some patients had two, some three, additional records made out because the original could not be found. This caused difficulties for the doctor who now had only half of the record in his hand for decision making. Some patients got their card in five minutes but others, after waiting an hour or more, suggested we introduce a number system.

The advantages of number systems :

After studying both methods with our staff, we can say that numbers are much faster to use for filing than an alphabetical system. Numbers lead

to fewer filing mistakes and routine file checks for any mistakes can be done very quickly. Punjabi names do not lend themselves to unambiguous English spellings and sometimes the name is changed by the patient, or mis-spelled at time of admission in the middle of the night. Misfiling then results from the mis-spelling.

Numbers can be clearly stamped by machine. They are much faster to write and take up less space than names, especially if the father's name has to be also recorded in the register. However, most hospitals do not get much advantage from numbers because a multiplicity of out-patients and in-patients' numbers are re-issued each year or with each admission and the numbers are not the basis of the filing system.

The Unit Number System

The patient is given a number. He shows this every time he comes to the hospital, year in and year out. Our ticketing machine actually stamps this same number four times :

1. On patient's identification card (incidentally we use the back of this card as an immunisation record). As our ticketing machine has six digits, the present unit numbers will last our hospital for twenty years.

2. On the patient's medical record. Whether out-patient or in-patient, the patient has only one number which is equally necessary on all laboratory and other requests, and in all hospital registers; for example, operations, deliveries, death and birth registers.

3. On the patient's alphabetical cross index-card. This card contains enough details to identify the patient and is filed by name and in case the patient forgets to bring his identification card (5% of the patients). The patient's unit number can thus be found.

4. In the out-patient register. All new patients including emergency admissions, have to be given unit nmbers through this register.

The unit number replaces all other numbers. By emphasizing this number to the exclusion from the patient's record of all others, it becomes possible to insist on its inclusion. It is important to use some sort of unique number to prevent wrong operations and wrong blood given. We have had four patients with the name Surjit Kaur on the list for tubectomy on the same day, from the same ward, but one was for tubectomy only; the others needed other procedures at the same time.

The patient is identified thus: Kanta Devi, Unit No. 123450, and this can mean no one else. Newborns are given a number at birth. The more the number is used, the more useful it becomes.

Terminal Digit filing

This we have used in combination with the unit number system, although it can serve any type of numbering system. The filing area is divided into 100 numbered units from 01 through 98, 99, 00. All numbers ending in "49" go into box 49 so that 3849 is the thirty-eighth card in box 49. This can be speeded up after a few months by subdividing each of the 100 groups into ten, according to the third-to-last digit, so that now 3849 is the third card in subdivision 8 of box 49. This system is quick and thought to be more accurate than ordinary numerical filing. Any number, no matter how big or small, can be filed easily by its terminal digits.

For cheap and non-bulky dividers, we cut up old X-ray film and write numbers on these dividers in white ink. Wood is too thick and metal sheet is too expensive, for 1000 dividers are needed for division by 3 digits.

Tracer Cards and the despatch register

If patients' records are disappearing, it is necessary to install devices to keep track of outgoing patients records. The tracer card is slightly bigger than the patient's record and of different color. It records where the patient's record has gone, with date and unit number. It is inserted to the files as the patient's record is taken out. This device is cheap as the tracer

is used over and over again, for different patients. The despatch register shows which doctor has the patient's records. It is also a useful guide to number of patient visits per doctor per month and to the total for all out-patient visits for the month. Only the unit number is used in this register, not the name. On return, each number checked off means a record safely returned.

Case summary at time of discharge and disease coding onto cards :

The case summary, in some form, is essential for helping the patient's own general practitioner know what has been done. This summary is carboned, one copy remaining in the patient's record. This copy contains a square for coding of the diagnosis. Coding is relatively easy for the record clerk once the doctor has decided the final diagnosis. The Punjab Government uses the 'A' list of 150 causes for disease notificati onby hospitals, as found in the International classification of Diseases (World Health Organization 1967).

We, therefore, prepared 150 cards, one for each disease. Each day the uhit numbers discharged are entered on the appropriate disease cards. If the patient died, the unit number is entered in red. At any time the in-patient disease statistics are up to date, and if monthly statistics are needed, the cards are ruled off each month. Topical extras, such as tubectomy unit numbers, can be extracted monthly and entered on this type of card.

We use another set of 150 cards for out-patient diagnosis and enter new out-patients on these daily. This is more accurate and faster than the previous method which used to take three months to deal with the statistics of the previous twelve months to the annoyance of the government.

Filing of In-patieut records and X-rays

Although ultimately we wish to have the same size quarto record for out-patients as for in-patients, all in the same folder, this is not yet economically feasible because of the staff costs involved; also, space is short. For some hospitals a unified filing system will never be practical even if they

could afford it, because their out-patient department is not on the same site as the rest of the hospital. But this does not prevent the in-patient records all being filed by the unit number. A terminal digit filing system works easily. If patient 7849 is admitted, then later his in-patient notes, which may be needed by the court, will be found in box 49, in numerical order, except those out-patients not requiring admission will not have any in-patient notes. Their record will be found only in the file. The main file is kept for 10 to 20 years but the notes are kept for much less time if these contain only nursing records.

X-rays are also easily filed by unit number, with terminal digit filing. The filing area is divided into 100 and all the patients' X-rays are kept together in the X-ray envelope with unit number on it. Dates of each examination can be stamped on the outside then every year all those X-rays more than five years without further X-ray can be destroyed according to space requirements. Even if the unit number is lost, the alphabetical cross-reference in medical records department should find it. This system will be found to be much faster than the common practice of working from the date of X-ray which is often not accurately known. If some count of patients X-rayed each year is needed then simply a register of unit numbers will suffice.

Maximising Human Resources :

With new and better systems in operation, medical records work has become much more complicated and exacting and staff morale has increased with the increased skills learned. Accuracy and speed have increased and few cards are lost. Because so far we have not had time to send anyone for training in coding, the doctor gives coaching to the records staff in diagnostic coding and checks the accuracy of the coding done by the clerk. In a year or two it will be feasible, from the staff point of view, to introduce the next upgrading phase if finances allow. Meantime, we have the satisfaction of having introduced major improvements with minimum

financial out-lay, and the medical records staff has the satisfaction of doing exacting and interesting work.

This staff is now one arts graduate and three matriculates of which two are females. Salaries range from Rs. 90 – 150 per month.

A comparison of costs

From 2 half-time workers, staff increased to 4 full-timers. Thus per patient seen, medical record staff salary increased from 17 paisa in 1969 to 70 paisa in 1970. However, the previous staffing was insufficient and expensive in lost goodwill from the public. Stationery and printing costs have also increased by about 20 paisa per patient. Also, there were cartain initial costs in filing boxes and ticketing machine, about Rs. 400 or 2 paisa per patient if spread over the first year. The cost of improved service to the hospital is 80 paisa more per patient. This amount has been recovered without difficulty from the patients in the form of consultation fees which formerly were waived on certain days of the week. Attendance of out-patients has not lessened.

Use of Patients records for study purposes

Now about 100 records are taken out (up to 700 maximum) for study each month, whereas formerly 10 would have been the maximum one could hope to extract. One can select by age groups, diseases, operations, deaths, deliveries, or by doctor, or by date seen, or time of the year admitted. A comprehensive study of deliveries using computer is now possible and studies of anemia and malnutrition have been completed.

A Date-of-Birth numbering system for under-fives :

Morley (1966) from Nigeria, suggested using a patient number incorporating the date of birth. Then Dr. Cutting of C.S.I. Campbell Hospital, Jammalamadugu successfully introduced such a system for under three year olds in rural clinics in Andhra. A child born on 14 February 1969 wlll be given the number 14-02-69-03, and "03" means he was the third such child

having that birthday to register. The register is divided into 365 and the top and the bottom of each page can be used for different years but same day and month. Once ruled up, such a set of registers can be used for several clinics, so a child may attend different clinics and some record is available if he should lose his under-fives weight card (normally carried by the mother). If the date of birth is not accurately known it can be "guestimated" fairly well by using a conversion table from indigenous to English calendar with festival dates marked on. As Dr. Cutting has pointed out, filing of information by date of birth makes cohort analysis of records very easy. We have not used this system in our central hospital but it is certainly useful for a rural branch hospital or mobile clinic for the small children.

Walking Record Systems

Most medical practitioners and most civil hospitals still rely heavily on walking record systems – a prescription – summary sheet or record card kept by the patient. It is probably true that most X-rays are filed (and framed) in the same way. These systems are cheap but the important thing is that they are 95% effective, being quickly retrievable even if in poor condition, without delay, 19 times out of 20. The same applies to under-fives Morley weight cards. Walking record systems may be more effective than other systems in rural or mobile clinics where trained records staff are not available. It follows that unless Medical Records departments can give a service far better than the fairly effective cheap alternatives available, then they cannot justify the expenditure required to run them.

The first criterion of a good doctor is availability, and the same applies to the patient's medical record.

Acknowledgment is gratefully given to Medical Records personnel, Christian Medical College, Ludhiana, who provided many good ideas, and to our own hospital staff, many of whom worked very hard to get the new system introduced on January 1, 1970.

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HR-24

A RECORD SYSTEM FOR COMMUNITY HEALTH SERVICES USING VILLAGE HEALTH WORKERS

- Murray Laugesen

PRINCIPLES FOR COMMUNITY RECORD SYSTEM:

1. We set the health priorities first before we design the records.

2. Standard records. Most health priorities are predictable e.g. Tuberculosis is a priority problem everywhere. So is malnutrition. The records therefore be standardised for comparison with other projects.

3. Records must be logical and simple. Ask why each question is asked. Every question costs paper and time and salary. Do yearly check and remove any records that have been kept but not analysed or used for decision making in the past year. Top level permission should be needed before starting a new register or printing a new form. Keep records simple.

4. The record must be present wherever health care is given. The records must be easily available, where and when needed. Therefore, there should be only one record and one number for each patient (unit record, unit number system). This means that once we run several clinics in the same area, we need records that are mobile with the patient (home based). This holds good for OPD and community clinics and home visits with the home based health record cards. But inpatient notes are kept by the hospital and a summary written on the patient's card to take home. If the out-patient can use home based records also as their sole record it will greatly simplify integration of the hospital and the community clinics.

   Records must be of low cost. Standardised records make bulk printing possible. Thus bulk printing by VHAI or the Voluntary Health Association may be preferable.

5. Let the people help keep their own records. We ask the people to keep their own personal health records. We ask village women health workers to keep their own workers notebook. Thus the village people learn how to care for their own health. Therefore, the records have to be kept at least partly in the regional language. Costs are also kept low, if we can use village people to help with some of the record keeping.

A LOW COST EFFECTIVE RECORDS SYSTEM

Best results come when we adopt the entire system.

1. In the hands of the people - home based health records.

   HR-1 (child) HR-2 (mother) HR-3 (TB) HR-4 general-adult and school child) HR-5 (leprosy) HR-6 (explanatory booklet) HR-7 (eye). These all contain both English and the regional language.

2. For the village health worker - HR-23 (Local Health Workers Notebook)

   This is filled in regional language. She used a separate note book for each panchayat.

3. For the Mobile Health Team

   a. For the Health Supervisor (health visitor, public health nurse or experienced registered nurse.) She keeps her own HR-23 notebook but instead of individual patients names, she writes names of villages.

Reasons for special care - Tuberculosis

Patient's name	Remarks	January	February
Village Sarinwala	6 TB (regd)	5	6 (attended)

This indicates that in Sarinwala, Village Health Worker's performance on TB is satisfactory. This is verified by spot check to one of these patients. The supervisor may supervise 8 such workers each week doing a half day clinic with the health team. The VHW of that place attends.

b) For team leader (Dr or Supervisor)

Housewise maps of all villages served. These are mounted on cloth or card board and put inside plastic.

c) For the person registering the patients.

Cyclostyled worksheets for all clinics run by the mobile team. These are tabulated. (Examples are given in the booklet - Patient Retained Health Records - HR-6, published by VHAI). These record: patients attendance, vaccine given, drugs sold. Separate sheets are made out for every clinic in every village.

d) For the team's Cashier

Receipts waste health worker's time in busy clinics, and cost about Rs 2/- per hour for paper and salary. Cinema type tickets are prenumbered, and the cashier signs in the morning for say numbers 4000 to 5099 of red tickets printed as 'Receipts for Rs 0.50. At the end of the day he hands in money against every ticket not returned. We use different coloured tickets printed for say Rs 0.25, 0.50 and Rs 2/- and then round off all charges in the clinic to the nearest 0.25 (upwards). Just as the bus conductors record the number of tickets sold on certain sections of the journey, the fee income for each village can be entered on pre tabulated cyclostyled sheets.

4. For the base office

a. A master copy of HR-23 includes all the villages under care and is a combination of results of all the health workers note books. This master copy is updated each week or month as often as the VHW's come in to get their pay or get further training. Villages are listed instead of people's names.

b. A bound master Leprosy register with a page for each village by number. Regularity of treatment is recorded. Its pages are enlarged permanent records of the HR-23 page for leprosy for that village. 1 lines per patient allow us to record 2x12 months of treatment.

c. A similar Tuberculosis register

d. Village and house to house survey sheets completed and analysed (HR-22)

e. Attendance Registers for mobile team and base staff to sign daily.

f. Financial Reports, Salary Registers, separate ledgers etc, as for any cost and income centre in a hospital.

(Refer Accounting Guide for Voluntary Hospitals by VHAI 1974)

g. Registers for free supplies received and issued, and copis of reports sent to the donors or Government.

h. Inventory of Equipment checked regularly.

i. Log Book of the Project. This will help others to sail the same seas more safely in future.

j. Personnel files. One for each worker. (appointment letters etc).

k. Annual reports. Quarterly and monthly reports.

l. Correspondence, with donors, advisors, villages, suppliers and the in-charge of institutions and Managing Committees.

Other record systems that have been tried.

Family folders: One worker is needed to pull these folder before each patient is seen. The folder is not usually present during home visits, nor during patient's visits to the base hospital. Storage costs extra.

Small identification cards and tickets. These are small and easily lost.

Outpatient cards in boxes taken out in the hospital vehicle.

These records are not available for home visits. They get misplaced. They require staff to pull them. They do not inform the patient as he cannot study what is said about him. They usually record illness care and not health care.

Further copies of this paper and all recommended health records are available from.

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