(Important Paper)

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HEALTH AND NUTRITION

1. The Health and Nutrition chapters of the 1985-89 Plan of Operations were guided by the overriding priority for child survival. This was expressed in the primary objective of reducing infant mortality rate from 114 to 90, during the five years. The IMR figure for 1987 reached 95. UNICEF role in this period has necessarily been determined by several factors, among them, the size and complexity of the tasks to be addressed, the policies and priorities of the government (e.g. health policy of 1983, and the implementing systems of the government and the pace at which they move). As will be seen from the following discussion, the major advances have been in the programmes of immunization and iodine deficiency control. Through these two programmes, we have seen a major improvement in the health system to deliver, for the first time, a universal contact service - EPI, as well as to organize sectors outside of health to reach a national health goal - control of IDD. These approaches have established a successful model for the decade ahead. In strategic terms, variable experience has been gained in the social communication and the involvement of non-government organizations, both of which are major building blocks for UNICEF cooperation in the 1990's.

2. Overview 1985-89: Looking back, the plan of operations appear remarkably ambitious, covering as it does, virtually every aspect of public health relevant to the needs of children. The gains in EPI, detailed later in this chapter, have established new capacities within the health system. The strengths of this programme lie in the comprehensive nature of the national plan and UNICEF's willingness to raise necessary outside resources totalling $110 million. UNICEF collaborated closely with the Government in all dimensions of the EPI programme. The result has been not only an increase in immunization, but not less important, a precedent which gives the public health system the confidence to build other interventions on a similar scale.

3. The phased expansion of EPI over five years has been accomplished on schedule. This enormous task has been possible because of strong government and political commitment, backed by sound professional support. For the immunization programme, the technology available was specific and effective; policy was precisely defined; clear operational guidelines were available and widely disseminated; supplies needed were estimated, and their availability ensured; a plan for indigenous product development was initiated; training materials for auxiliaries and professionals were produced to support training programmes at national, state, district and peripheral levels. All these components of programme support,

essential for operationalizing any primary health care intervention, have not been available for most PHC interventions.

4. Interestingly, the other ambitious project in health, diarrhoea management, as comprehensive in its planning approach as immunization, has not produced commensurate results. Political will for action has not been strong or articulate, and the absence of an approved National Plan or policy has left bureaucrats and workers uncertain regarding key elements of strategy. While we have participated in numerous meetings and working groups to resolve issues, the lack of technical consensus, often on small issues like ORS packet size/composition, role of home fluids, open sales of ORS, etc. has left decision-makers paralysed. What UNICEF could achieve during this period was two-fold: a nationwide study on knowledge, attitude and practices on diarrhoea management, the largest of its kind anywhere, which clarified the present situation of attitudes and treatment of diarrhoea an identified a large number of misconceptions upon which the original plan had been built. Most important, we have identified numerous cultural beliefs and practices upon which to base sound treatment advice, as well as recognizing the critical role played by private, often non-licenced practioners who treat over three-fourths of all diarrhoea cases. As a result, a clear national policy has finally been framed. Concurrently, UNICEF moved ahead on the communication and training front. Preparing a set of 23 video modules, illustrating clinical case management, an illustrated field guide and video training module for paramedics and public advocacy material for use of ORS. The IMA (Indian Medical Association) doctor retraining seminars have now reached over 30,000 private practioners with a standardized video training course.

5. UNICEF assistance in leprosy has been limited to three of the 212 districts in which the disease is endemic. The overall impact is, thus necessarily modest. At the same time, UNICEF made a substantial contribution to the nation wide social awareness campaign. This has been critical for acceptance by the patients and the community alike that leprosy is treatable. The preparatory work in planning and material production has been done but the major public information effort is still ahead of us.

6. UNICEF involvement in the fields of acute respiratory infection, sexually transmitted diseases, tuberculosis, rheumatic fever, genetically transmitted diseases, has been modest at best. UNICEF is assisting the Government in redesigning new disease specific projects such as ARI and anaemia control with much greater emphasis on addressing the behavioural aspects of target groups and building upon the delivery infrastructure strengthened through UIP.

7. The chosen objective in maternal health, to reduce low birth weight, maternal, pre-natal and neo-natal mortality, were over ambitious in relation to the magnitudes and underlying causes of these problems. All the same, UNICEF has supported a major initiative for comprehensive MCH care in 9 districts, starting with training and equipping the village mid-wife and establishing effective referral services for pregnancy and delivery care. This is expected to expand to more districts in the 8th five year plan as a major initiative for safe motherhood.

8. Numerous activities in strengthening village health committees, non-government organizations, management information systems, traditional health systems, referral services, central drug supply and management and organization of health services were envisioned in the Plan of Operations but not achieved in any substantial sense. These elements have been strengthened only to the extent they were found to be part of the major programme thrusts like EPI, MCH and leprosy control. We have learned that UNICEF's ability to improve the functions of the overall health system is necessarily linked through specific programme activities, rather than as an across-the-board approach to the system. As a corollary, our effect on the system is proportionate to the "scale" of our activities within it.

9. Persistent attention given by UNICEF over the past five years to a wide range of activities to address iodine deficiency disorders (IDD) has culminated in a major achievement, with mandatory iodation of salt, now a law in 7 states and in the whole country by 1992. The production of iodated salt for human consumption has already reached 50 per cent of the need and is slated to rise to 100 per cent within another two years. This programme reaps an optimal mix of advocacy, planning, inter-sectoral activities, field research, communications, collaborative efforts with government as well as private sector and the application of appropriate technology.

10. While efforts in anaemia and vitamin A has so far been less successful, GOI, with UNICEF support, has documented the weaknesses of the current programmes and has accepted in principle that these two important areas be integrated with the EPI programme -- providing iron folic tablets to pregnant women, pre-natal care and vitamin A as a regular part of immunization outreach visits. Both these programmes require greater attention, logistics and supplies which have plagued them todate, issue readily resolved when linked to a successful EPI system.

11. UNICEF has made many alliances to promote the infant feeding code and wide range of activities has been supported, particularly through NGOs. Legislation has passed the Upper House of Parliament but has been repeatedly delayed in the Lower House through the successful efforts by the milkfood industry. A swell of public demand suggests that this law will be enacted within the next year. Inspite of UNICEF's constant interest in appropriate weaning, there is no clear forum through which UNICEF can act. Similarly in areas of maternal malnutrition, our efforts require an environment and a system to carry these important messages and programmes to the people. Possibilities in this regard will unfold as the government plans for for women and children become clearer for the 8th five year plan.

12. During the last five years, a national task force on growth monitoring as convened regularly at UNICEF, resulting in continuing dialogue and exploration of ways to implement and expand growth promotion activities. While this may seem a small accomplishment, the preservation of growth monitoring activities in the ICDS system and the continuing interest of primary health care programmes throughout the country is to a significant extent, a result of UNICEF advocacy. Extensive field testing has involved designing of improved mother-child growth card which includes primary health care concepts like ante-natal care, maternal nutrition, immunization, vitamin A, iron folic and an array of health education messages within the basic activity of monitoring and promoting growth. Presently in use through NGOs, its acceptance by ICDS is still problematic as nutrition and health matters are seen by many to lie in another ministry as a prime responsibility of health workers.

13. The Plan of Operations were over ambitious in their objectives in that they did not quite match the present capacity in both UNICEF and the government. Many envisioned activities were not linked to existing programme within the health system. It is clear that for any intervention to be strengthened, it has to happen in the context of existing programmes of collaboration between Government and UNICEF.

14. IMMUNIZATION:

14.1 **Expansion:** With continued leadership of the Technology Mission of Immunization, the last 143 districts (Phase V) were included in the phased geographic expansion of the accelerated immunization programme. All the 448 districts in India are now under UIP, making UIP and EPI virtually the same - all India. Over 50 percent of the last 143 districts are in states which have high infant mortality rates, and less developed health infrastructure, Bihar, Uttar Pradesh, Rajasthan and Madhya Pradesh. They are also the least developed districts within these states. Achieving the desired immunization coverage in these districts, is a challenging and difficult task. Attention is being focused in these areas by instituting state-specific strategies, micro-planning at district level and monitoring district-wise coverage of immunization services.

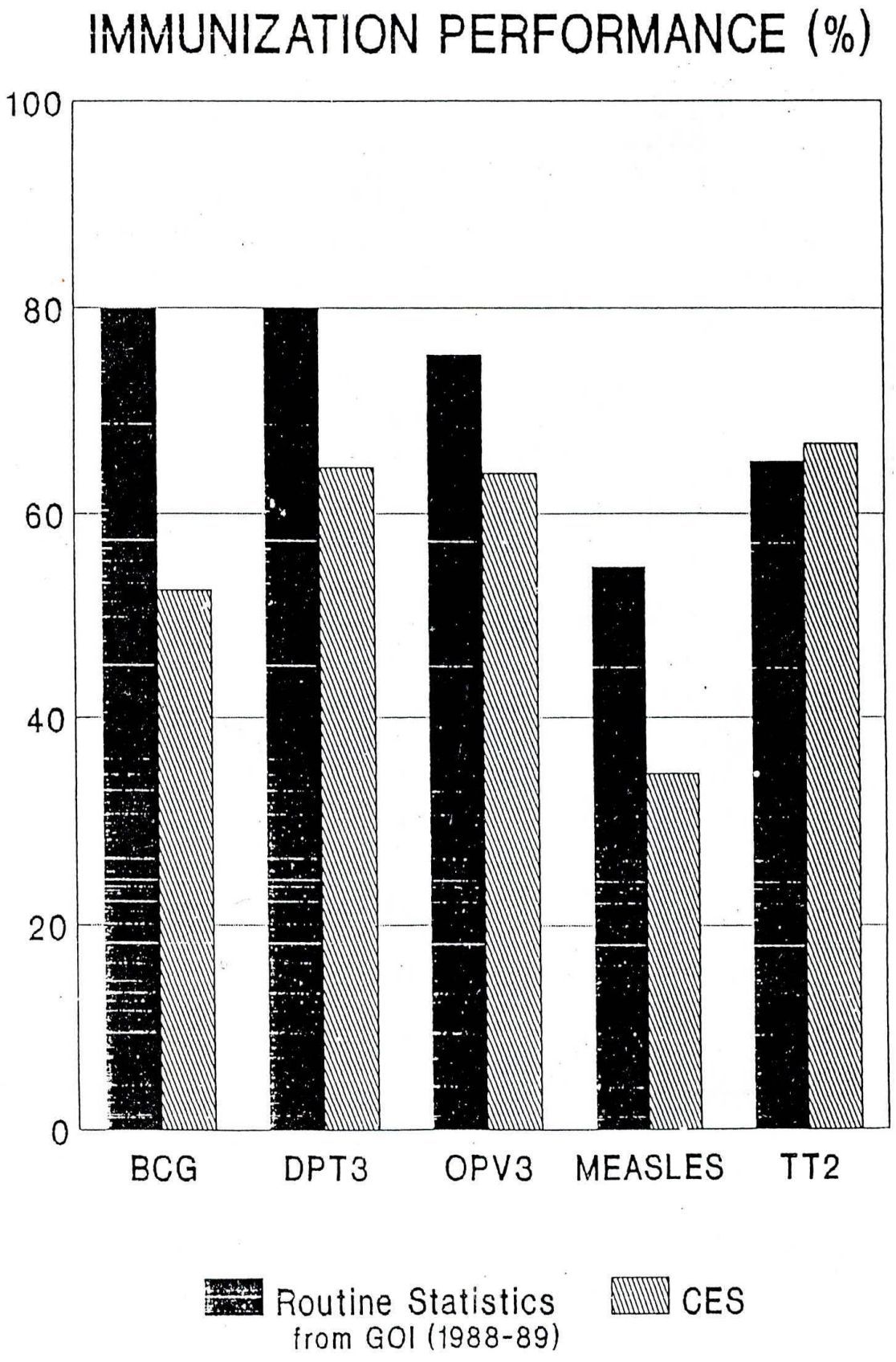
14.2 The policies of using one needle and one syringe for every child who comes for immunization, opening a vial of vaccine for even one child, discarding unused vaccines at the end of the day, are now instituted by the Government as a necessary part of improving quality of services. Primary immunization services are now being provided to infants - reducing the upper age limit to focus on the most critical age group.

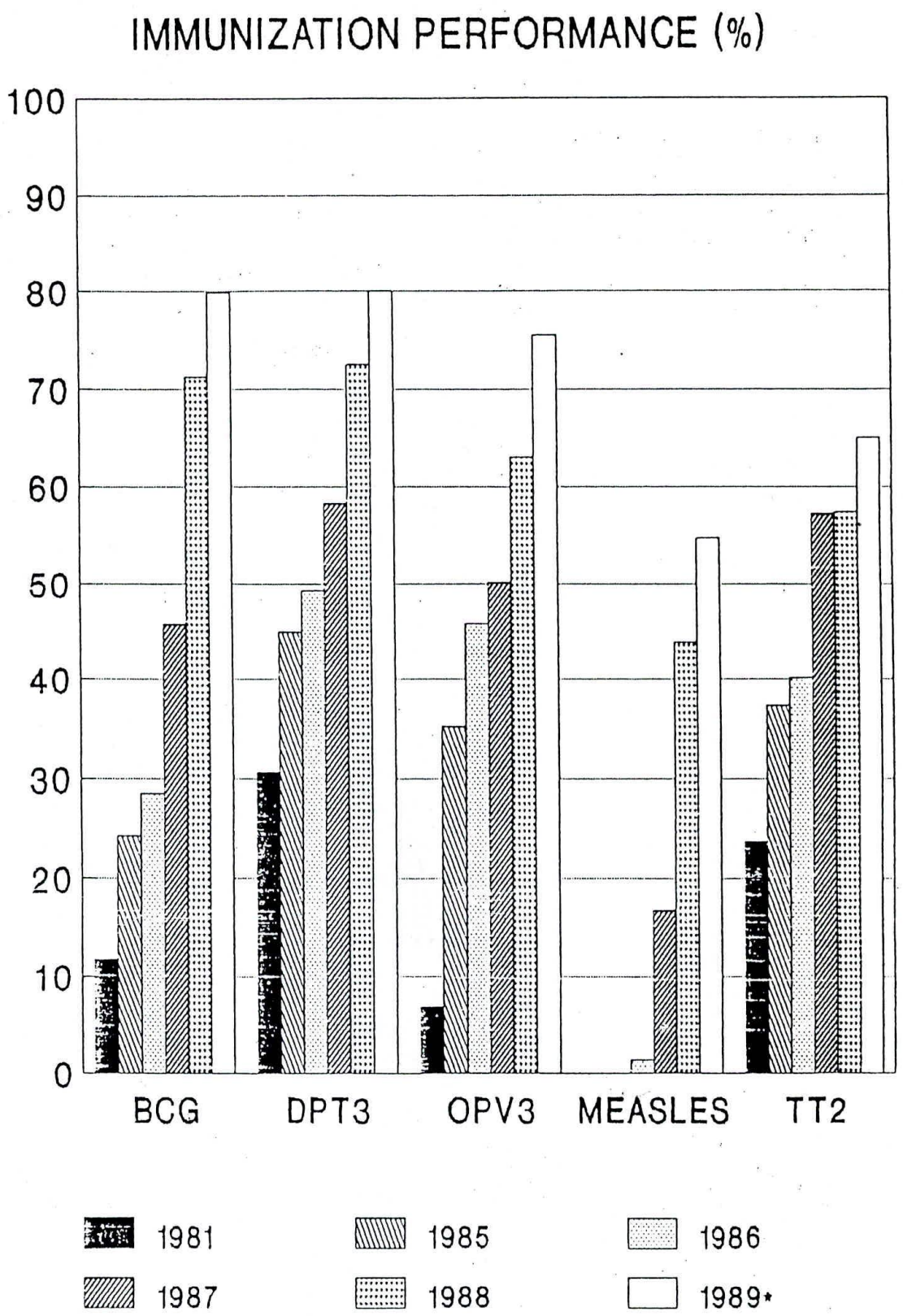
14.3 **Coverage:** From policy to training to supplies, the system is largely in place to deliver complete immunization to pregnant women and infants throughout India. Demand for these services still falls short of the need. This is reflected in the overall coverage by immunization services with all vaccines. The coverage has, all the same, been steadily increasing as seen from the following tables. Preliminary results from a recent National EPI Review, shows some variation, due to statistical and other reasons, from the routine performance statistics generated by the Government system.

Immunization Performance (Percentage)

	Routine Statistics * (1988-89) March-April	Coverage Evaluation ** Survey
BCG	79.87	52.54
DPT3	79.97	64.49
OPV3	75.46	63.86
MEASLES	54.80	34.45
TT2	65.04	65.79

* Figures are tentative.


IMMUNIZATION PERFORMANCE (%)
100
80
60
40
20
0
BCG
DPT3
OPV3
MEASLES
TT2
Routine Statistics
from GOI (1988-89)
CES



In computing the percentage performance, the denominator used by Government for surviving infants is the estimated mid-year population x crude birth rate x (1 - 0.7 IMR).

For pregnant women, the denominator used by Government is the estimated mid-year population x 1.05 (5 percent adjustment for pregnancy wastage).

The performance ratio takes into account vaccines for infants born in the previous year, but without including them as "eligibles" in the current year.

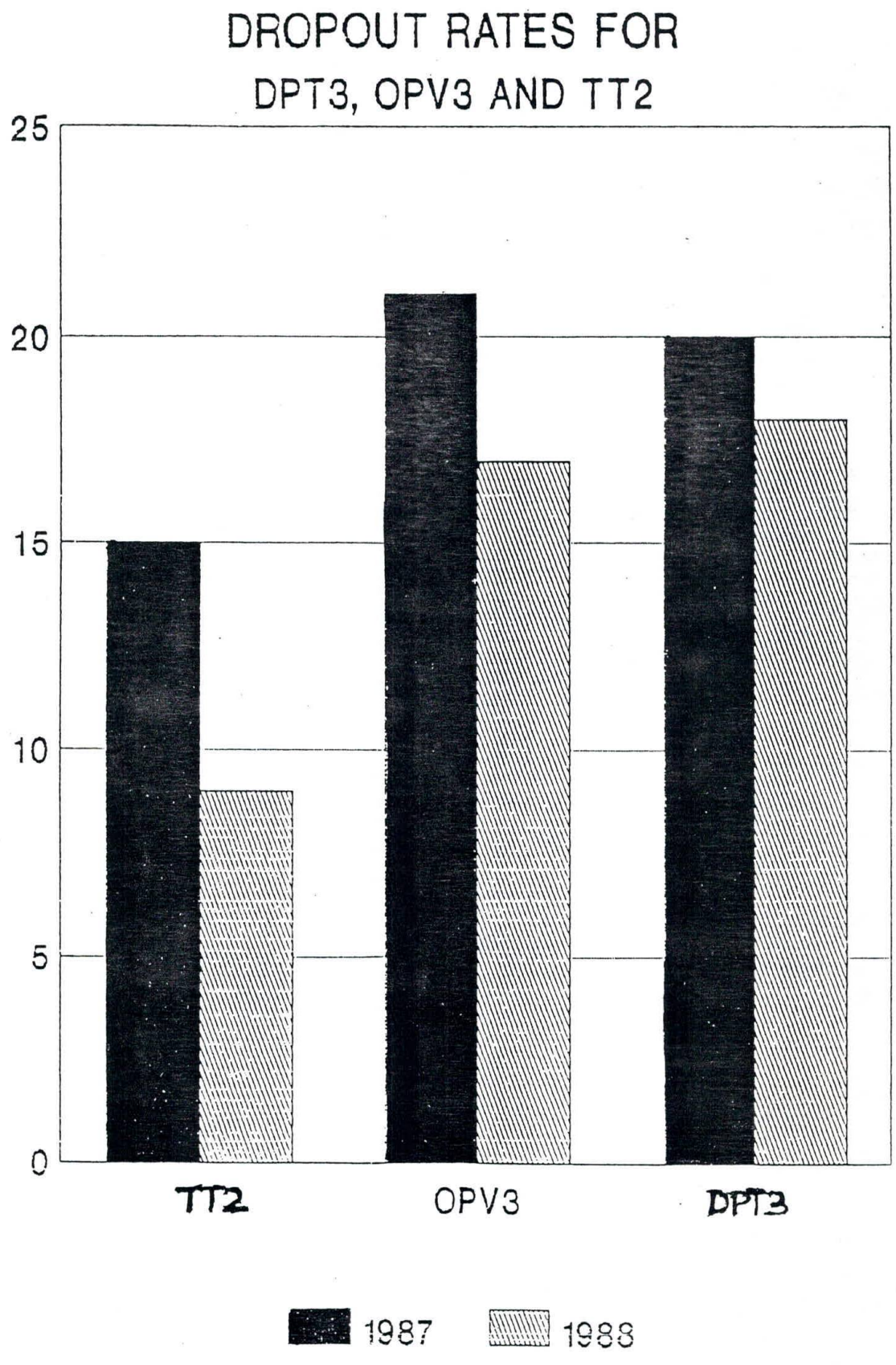
** Based on 32 coverage evaluation surveys conducted nationwide in May 1989 in a population of 72 million; weighted for population and collated by Dr Jon Rohde.

14.4 The total number of pregnant women and infants reported to have been immunized between April 1987 and March 1988 and between April 1988 and March 1989 are as follows:

		1987-88	1988-89*
TT_2		Pregnant women	
14,606,024 (including booster)	16,524,000		
DPT_3	Infants	16,522,442	18,129,000
OPV_3	Infants	14,367,144	17,107,000
Measles	Infants	9,989,485	12,424,000
BCG	Infants	16,221,494	18,107,000

14.5 The estimated disease and death reduction associated with this performance is shown below. This is based on the WHO formula for computing morbidity and case fatality (Reference: "Setting Disease Reduction Targets" WHO SEA/EPI/NEET.88/15.

Disease	Cases Prevented	Deaths Prevented
Neonatal Tetanus	157,000	125,600
Measles	11,802,800	236,000
Diphtheria	189,500	14,200
Pertussis	14,327,700	71,600
Poliomyelitis (Paralytic)	106,800	6,400
Childhood Tuberculosis	12,100	10,900


DROPOUT RATES FOR
DPT3, OPV3 AND TT2
25
20
15
10
5
0
TT2
OPV3
DPT3
1987
1988

14.6 During 1988, the median dropout rate for DPT3 was 18%, for OPV3 17% and TT2 9%. These represent a marginal improvement from the previous year. Where coverage levels were low, surveys showed that one third to half of the infants had not been reached with any immunization service. Reasons for non-immunization or dropout relate to lack of services in 20 to 30 percent of cases (non-availability of vaccines, postponement of the immunization session and absence of health workers were also recorded as reasons for immunization failure in some surveys). Therefore, making immunization services available for every village is critical. The Government of India and state governments have recently decided to ensure that immunization services will be available for every village and urban unit on a fixed day every month, which will be widely publicized.

14.7 Of greater concern, is the 70 to 80 percent of cases, where lack of information is the prime reason for dropout for non-immunization. People are sometimes not aware of the

- place, day or time of the immunization session;
- need to return for more doses to complete the immunization schedule;
- optimal age for immunization;
- importance of measles immunization;
- need for early registration during pregnancy to ensure that both doses of tetanus toxoid are given on time;
- few contraindications to vaccination;
- harmless reactions of immunization.

The mother being busy, illness of the mother or long periods of absence of families visiting their native place, were other reasons given. Far greater efforts to publicize the service and to inform parents of the need to return are required.

14.8 Fewer than one third of all children had an immunization card, the most basic communication tool, any many who have them cannot tell if the child is fully immunized. A new card carefully tested to assure understanding even by illiterates, is under print and will be used by end 1989.

15. **Improving Measles Coverage:** Measles vaccine was introduced in 1985, rather late in the programme. Though there is a significant increase, the coverage levels remain far less than desired. There are several reasons. Measles is not considered to be a serious disease by health personnel and even doctors; people feel it is part of every life -- and some even think it is a visitation of a "goddess". Adverse reactions, after measles vaccination, which has been publicised in the press, has led to restrictive directive from the Government, (such as "Measles" vaccine will be administered in the presence of "doctors only"). Now, a major comprehensive strategy is being formulated, to improve coverage. Information on the seriousness of measles will be made available to professionals, health personnel and people. Some states have decided to designate specific days when measles vaccination will be available. The Indian Medical Association is designating 1990 as the year of measles, when their members will promote the importance of both the disease and the vaccination. Most importantly, the communication strategy that emphasizes full immunization (completion of all the boxes in the immunization card) is expected to give a boost to measles coverage.

16. **Tetanus Toxoid:** Coverage levels with tetanus toxoid are one of the highest in India in developing countries - 65%. The recent coverage evaluation surveys confirm this. This vaccine was introduced in the MCH programme in the late 1960's. Tetanus Toxoid has been used for injury by rural and urban population - therefore, there is no resistance from either the people or professionals for this vaccine. The high coverage of tetanus toxoid points to relatively high levels of at least one antenatal contact of the mother with health services. This has obvious implications for improving antenatal care which still requires major strengthening, judging from the basis of inacceptably high levels of maternal mortality.

17. **Urban Immunization:** Special efforts are being made to provide immunization services in the 3,500 urban units in India. Norms for cold chain equipment for urban areas were developed and equipment supplied. The emphasis is on immunization in urban slums. A workshop resulted in the development of specific plans for 12 metropolitan cities, results in special initiatives. For instance, the Mayor of Patna, Bihar, along with the State Branch of the Indian Medical Association, intensified immunization activities. 663 immunization service centers were set-up, through effective networking of local private practitioners, people and NGO's, covering 1.2 million population, half of whom were slum dwellers. The efforts are being sustained through 40 permanent centers, catering to 55 slum pockets. Through a series of meetings, urban plans were developed for around 500 urban units. More than the

plans themselves, the planning process for immunization services in urban areas brought together various agencies and departments for coordination and collaboration.

18. The infrastructure is inadequate for providing primary health care, MCH, and immunization services in urban slums. Now that immunization has been placed high on the health agenda of urban services, critical issues for urban primary health care are being raised. It is not advisable to build an infras ructure based on PHC and sub-centres on the basis of population similar to rural areas. There are resources -- these resources are not yet harnessed for priority activities in health -- particularly, not for preventive and promotive aspects. Coordinating mechanisms, joint planning, area-specific responsibility and accountability, remain the major ways for achieving immunization goals.

19. Private practitioners have contributed in varying degrees to immunization. For example in the city of Bombay, the coverage evaluation survey revealed a far greater proportion immunized (81% with OPV3) than routine government statistics (less than 50% for OPV3), since the contribution of private practitioners is not being included by government data. The Indian Medical Association and Indian Academy of Paediatrics have been playing an important role for promotion of immunization. Workshops have been held to define immunization policy, practices and quality services by professional groups.

20. 'Suraksha', a registered society in Hyderabad, brings together the government departments of health and urban development, NGOs, medical colleges, Rotarians for a common goal of immunization. Based on their success, this experience is now being replicated in other urban areas. The Urban Basic Services (UBS) strategy, has been an important instrument not only for convergence of services, but also for boosting immunization coverage significantly. Similar improvements have been observed in some areas where the ICDS scheme is implemented although it is not consistent. Urban immunization is an opportunity for partnership. To exemplify, a series of meetings are scheduled between the 1,400 Rotary clubs with 50,000 members, and the 1,100 state/local branches of the Indian Medical Association with 70,000 members to conduct joint efforts for urban immunization.

21. System Support: The central and state governments, and concerned district officials continued to give importance to the delivery of immunization services. Along with family planning, immunization is now considered a priority. Maintenance of the cold chain and the logistics system, provision of necessary vaccines, insistence of sterilization through auto-claves, reducing the number of contraindications to immunization, are actively promoted.

22. Training for planning and management of the immunization programme continued to be an important input. Six national and ten state level management courses were held for senior and mid-level managers. Over 140 district level workshops were conducted to improve the planning and management skills of block level personnel. Newer areas in the immunization programme are being included, such as surveillance, training technologies. Recognizing that one training exposure may not culminate in acquiring the necessary skills, supervisory visits are being used to follow up training programmes. Guidelines for this have been developed and widely disseminated. During the initial three years of UIP, one medical officer was trained in each block. Subsequently, eligibility norms for training have been changed to include all medical officers at block level. Training plans are being developed to ensure that all medical and paramedical personnel have been trained in all districts.

23. The National EPI Review showed that the levels of knowledge of workers increased significantly after training, but was not necessarily followed by improved skills or compliance to standard procedures and techniques. The next phase of the immunization programme has to make major efforts in improving quality of services through continued refresher training, supportive supervision and guidance. The monthly review meetings at each level will be used as a forum for training and updating knowledge. Materials are being developed for twelve annual sessions.

24. With consistent efforts to develop training capacity, several states have developed the ability to undertake training for immunization through a core group of trainers. Additionally, this core group is exposed to newer programme initiatives. In Tamil Nadu, a group of trainers are now developing training strategies to extend every opportunity provided by UIP for linking to interventions for elimination of neonatal tetanus, safer motherhood and young child survival.

25. Self sufficiency for the immunization programme is a goal of the National Technology Mission on Immunization. India is the only developing country which produces BCG vaccine. The quality, production capacity and technologies used were reviewed and additional equipment is being procured to step up production.

Similarly, DPT vaccine production in the country was reviewed by a consultancy team and steps initiated for qualitative improvement and increased production capacity. A policy decision has been made by Government of India to produce OPV in the country. A joint UNICEF/WHO consultancy is reviewing the production plans and designs.

26. Indigenous production of cold chain equipment is a priority. The cold boxes and vaccine carriers produced in India were tested in a WHO laboratory and were found to meet the international standards. These efforts will contribute significantly towards sustaining immunization services in the next decade.

27. Making essential supplies available for the immunization programme (instead of cash equivalence) has proved to be a critical factor in operationalizing UIP. The large volume of equipment and supplies needed, their replacement, maintenance and information on status of functioning, are important for sustained programme delivery. A computerized materials management information system is being developed at the National Industrial Development Corporation. The system is linked with districts (based on information from primary health centers), and all levels of storage for both vaccines and equipment. Some key features of this initiative are

- forecasting replacement;
- estimating additional needs due to infrastructural expansion;
- linking maintenance through an information system of "down-time" for equipment;
- forecasting vaccine needs based on production capacity;
- distribution of vaccines and supplies.

28. Performance Review: The first National EPI Review was undertaken in 1989. The study design, objectives and instruments for data collection were developed jointly by WHO, UNICEF and Government of India.

29. The objectives of this study were to

- review the programme inputs like policies, plans, resources;
- study details of processes of implementation, including operational strategies, management of various resources, monitoring, training, supervision, information systems and logistics;
- study programme output, in terms of actual performance and extent of coverage of beneficiary population.
- study the impact of the programme in terms of disease occurrence with reference to specific vaccine preventable diseases.

30. Twentynine expert teams, with faculty from medical colleges and public health experts from various organizations, studied 18 major and seven small states, as well as four metropolitan areas - Delhi, Bombay, Calcutta and Madras. In depth analysis of systems, and state-specific reviews are unique features. Action for immunization depends largely on state initiative and implementation; therefore, state-specific reports are more meaningful. The national report of the study is being finalized.

31. All states and most medical colleges now have the capacity to undertake the coverage evaluation surveys. They are an integral part of every training activity. Information is collected on reasons for dropout and non-immunization, which is used for understanding communication needs. Coverage Evaluation Surveys (CES) have become a critical part of programme management. About 250 were performed in 1988 alone. The findings of the Coverage Evaluation Surveys show relatively lower performance levels compared to routine statistics generated by public health system. Partly this is on account of the reference period for the CES exercise which is earlier by 18 months or so. Recognizing that there are statistical valid reasons for the difference between routine data and Coverage Evaluation findings, a continuing performance uptrend is apparent in both the sets of reports.

32. Mobilization: The last few years have seen significant change in general awareness of people and organizations regarding immunization. Large organizations, with networks around the country, have come forward to promote immunization. Special attention is being given in involving these organizations in the states with least coverage (UP, Bihar, MP, Rajasthan) which has 40 percent of India's population. Plans are being developed and implemented for these organizations to work with the government in a defined geographic area, taking responsibility for networking and demand generation. In these areas, they would help to identify all pregnant women and infants; ensure they have an immunization card; support immunization sessions and workers; inform and organize people for the immunization session; track those who do not come and bring them; be an information resource for immunization; and may be, even provide immunization service. Within states, strategies for district mobilization and communication are being developed, where networking for demand generation with area-specific responsibilities are identified. Documents have been prepared to focus action - "What is your Social Mobilization Score?", "UCI by 1990 A Mobilization Strategy for Next 500 Days" and "101 Ways of Participating in UIP".

33. A number of voluntary organizations have been mobilized and were assisted in preparing group specific communication materials and training programmes, such as The Catholic Hospital Association; Voluntary Health Association of India.

34. The recent initiative to mobilize "panchayats" (local self-government in rural areas) by the government, provides a unique and vast opportunity for involving people in their own health - more so, because one third of panchayat members will be women. Steps have been initiated to involve them for immunization throughout the country, and specifically in Madhya Pradesh, Bihar, Uttar Pradesh and Rajasthan.

35. Rotary clubs all over the country, have supported immunization. But is not the Saturday campaigns or occasional house-to-house canvassing that is important. It is their sustained interest and concern, collaboration with health service, pressure on political leaders, bureaucrats and health systems throughout the country (specifically in urban areas) that will make a sustained immunization activity. They are not simply an extension of government but are expanding their activities in the field of social mobilization.

People's Participation in Universal Immunization Programme

People's participation in Universal Immunization Programme comes in many hues and shapes in India.

In the Southern-most districts of Tamil Nadu and Kerala, it is the mothers groups of the Health for One Million Programme that ensures that every infant and expectant mother is immunized through peer group pressure and counsel. In the Ernakulam district of central Kerala, it is the District Collector who has taken a personal commitment to see his entire district 100% immunized and 100% literate by the end of the year.

Tamil Nadu, one of the first states to announce fixed days for immunization in its health facilities has ensured that religious leaders with mass following speak up for immunization. One such revered leader, Shankaracharya of Kanchi declared that immunization is as sacred an obligation as the sacred rites and ceremonies of the childhood.

The Mandya district of Karnataka has responded with an intensive communication campaigns involving every form of media, representatives of villages and district councils. Volunteers of the Adult Literacy Mission, with the help of specially prepared readers for neo-literates have reached out with immunization messages to 15-20 neo-literate families each.

(more)

In Maharashtra, Impact India has taken on the responsibility of immunizing all the children of Dharavi, the largest slum in Asia. Meanwhile, the villages of the states are following an immunization calendar where every infant to be immunized is identified and followed up with the help of calendar itself.

In Gujarat, a local university has taken on the responsibility of fully protecting the infants and expectant mothers of 162 villages.

In Madhya Pradesh, it is the trade union of the large public sector coal mines who have come forward not only to protect the family members of the union, but also families in the neighbourhood.

Rotarians who are in the process of creating a 10,000 medical corps and 50,000 strong volunteer force have turned their attention to Bihar, where through the streets of Patna, school students marched for immunization.

In Uttar Pradesh, where seven ministers have already made public appeals for inter-sectoral cooperation for achieving UCI, the Lions Club have come forward to reorient and motivate Panchayat leaders. The All India Women's Conference branch too, is involved in mobilising women for the achievement of UCI.

Meanwhile, India's largest network of non-governmental hospitals have launched a nation-wide campaign for the rights of the child, wherein protection rights of infants receive a lot of attention.

In Karnal (Haryana), it is the health workers, Integrated Child Development Scheme workers and the Traditional Birth Attendants who form the local child survival task force to ensure that every child is immunized before his or her first birthday, and that every expectant mother get two TT injections.

36. Communication: A comprehensive communication strategy which will include a media plan, inputs for training and motivation of health personnel at every level is being finalized with focus on:

(a) reaching the unreached
(b) heightening societal awareness and conviction
(c) empowering functionaries
(d) energising community support

37. In the absence of a comprehensive strategy, various communications have been undertaken in an ad hoc manner. For example, to improve intra-organizational communication in this vast health system, a compilation of important Government of India circulars on UIP policy and guidelines were disseminated. Bimonthly UIP newsletters are sent to all health personnel.

38. As motivation for functionaries, Government of India has decided to reward the immunization work of five outstanding functionaries from each district. A certificate and a medal has been designed. This is the first time field level functionaries are being publicly recognized for their work in health (other than family planning) by Government of India.

39. For the purpose of awareness-raising, audio-visual aids were prepared for use by health workers, the public and some, on specific issues. To respond to the question regarding the mono-focality of the immunization programme, a sound-slide presentation titled "UIP in 1990" was prepared for the Central Council of Health Ministers to demonstrate how UIP is a strategy for strengthening the health system, and may be used to graft selected interventions for safer motherhood and young child survival. A film "Health through Technology" was produced to focus on indigenisation and product development in the programme. Private practitioners have been increasingly involved in providing immunization services and workshops and guidelines have been prepared for them. The Indian Academy of Paediatrics invited questions from doctors all over India and compiled these for wide circulation. A guide for general practitioners is being published. Health Action, India's premier health journal has devoted a special issue to peoples participation in UIP and is in the process of forming health action groups in support of child survival through its readers.

40. Children are our crusaders. "Immunization Songs" were composed by one of India's most popular music directors and sung by an equally popular playback singer from India's Hollywood - Bombay. The lyrics were composed by a senior paediatrician. Six story books on UIP aimed at school going children have been released. A small leaflet carries the schedule, and answers common questions on the immunization programme.

41. A set of materials have been designed for health and development functionaries. To list a few - schedule, chart, poster, village calendars to keep track of infants born and their immunization status, school calendars for children to record immunization of siblings and infants in their neighbourhood, a 25 questions booklet on UIP.

42. Government of India has also stepped up the use of mass media for UIP. All India Radio devotes at least two hours of air time every day (from all its radio stations) on immunization alone. Next to family planning, UIP receives priority for air time. Government of India's TV network - Doordarshan beams spots and films on immunization every alternate day for atleast one minute, if not more, from all its stations. This TV time is equivalent to atleast US $ 500,000 annually, for immunization alone.

43. The Indian Railways has agreed to support immunization on a massive scale, through 100 hospitals and 571 health units. Two training programmes were organized for the Railways. They also support information dissemination. Close circuit TVs at railway stations are being used to promote immunization and child survival issues.

44. However, these IEC activities are not part of an overall communication strategy. There is great urgency for an integrated and synchronized communication and training strategies which is consistent and mutually reinforcing, to ensure sustained demand for services.

45. Perspectives

45.1 **Sustainability**: The goal of reaching universal immunization at national level needs to become the goal for each state, and within each state for every district. Coverage levels of 80 percent and above are being increasingly recorded in districts. High coverage levels need to be sustained in the next decade, or large-scale outbreaks may result. Remaining pockets of low coverage need to scale-up. Continued financial, managerial and technical support will be required for supply of essential items (vaccines, syringes and needles, training materials, immunization cards), training, communication, cold chain maintenance, surveillance, vaccine testing, indigenous production, mobility, involvement of medical colleges.

46. **Disease Reduction:** During the next decade, the control of vaccine preventable diseases and documentation of "zero" levels of neonatal tetanus, measles and poliomyelitis need to be instituted in districts by phases. The elimination of neonatal tetanus, combines immunization with interventions for safer motherhood. At the WHO inter-country regional meeting of EPI managers in June 1989, the Government of India committed support for activities to eradicate poliomyelitis by 2000 AD and eliminate neonatal tetanus by 1995.

47. The surveillance systems would document "zero" status of the diseases in districts. Active surveillance will be started and even a single reported case would be treated as an outbreak. This surveillance system for vaccine preventable diseases could be extended to include other diseases in mothers and children. A district based, computerized management information system (which includes analysis of routine data, coverage evaluation survey, and materials management) is being developed, linked to NICNET (National Information and Communication Network). This could be extended to include specific information related to MCH.

48. **From EPI to MCH:** The contacts for immunization will be used to administer Vitamin A, promote ORT, treat pneumonia, weigh babies and empower mothers with knowledge for improved feeding practices. The package of services for safer motherhood may include, tetanus toxoid immunization; antenatal care; treatment and prophylaxis for anaemia control; birthing care; birth spacing as a health measure and knowledge for improved care of both mother and baby.

49. There is a need to extend a communication strategy beyond immunization to include specific interventions for mother and child health. As a communication strategy for immunization draws people for immunization services to sub-centers, primary health center and other health facilities, these health facilities will be developed as communication centers to the public for a complementary set of strategies for safer motherhood and young child survival.

50. The logistics, distribution and supply system developed for UIP can be expanded to support minimum services at village, sub-center and referral levels of health care. Support is needed for developing indigenous products, defining product standards and specifications, testing facilities.

51. This marks the beginning of a new phase in the programme, for which considerable resources, in technical, managerial and financial terms will be required. It is expected that the massive scaling-up of activities for child survival and development, will require continued support of the various bilateral as well as multilateral agencies.

52. **Partners:** UNICEF worked in close collaboration with WHO for the immunization programme. Joint consultancies were held to enhance country capacity for vaccine production (BCG, DPT and OPV). Product development, (particularly cold chain equipment) though primarily initiated by UNICEF, has been supported by WHO. A joint WHO/UNICEF team from the headquarters and regional offices helped to define testing needs and specifications for OPV vaccines, which resulted in s reamlining the process. Joint EPI reviews have been conducted in several countries supported by WHO/UNICEF - in China, Maldives, Bhutan, India, Bangladesh. UNICEF has been a technical resource to workshops conducted by Rotary International. Monthly informal meetings with WHO and other bilateral agencies are coordinated by UNICEF. These forums help in information exchange and programme update. In addition to those agencies directly involved in giving supplementary funds for immunization (CIDA, SIDA, NORAD, ROTARY, JAPAN, USAID) other agencies such as WHO, World Bank, Ford Foundation, DANIDA, CARE, UNDP, British Council are also invitees. The shared concern for achieving UCI goals, sustaining immunization services beyond 1990 and linking immunization with essential MCH interventions, has generated enthusiasm and commitment for further support.

53. MATERNAL AND CHILD HEALTH

53.1 Since independence, and in particular in the last 20 years, there has been considerable expansion in the physical infrastructure in rural area through the establishment of sub-centers, primary health centers and community health centers. Simultaneously, multipurpose health workers and assistants have been trained for providing health care to rural populations. The challenge is to support the sub-centers, primary health centers and community health centers to provide effective and minimal health care services, including:

- developing an effective functional referral system for key problems;
- providing training in these key areas to personnel, along with supported supervision;
- defining the exact level of services to be provided at each facility which is graded and linked;
- make sure that essential supplies, backed with an effective logistics system, is available.

54. Birth care: A project has been initiated in 11 districts in six states covering a total population of around 20 million. These states/districts have high level of infant mortality. The objective is to improve maternal and infant survival through improved skills of the traditional birth attendants. A package of services are being given for improve ante-natal care, safer birthing practices, total immunization coverage, use of ORT, control of anaemia. The traditional birth attendant (TBA) is the central figure.

55. Three state and eight district level workshops have been held to orient senior policy makers and mid-level programme managers, and developed district action plans. A core group of 15 trainers in each project district have been trained, so that they may support block level training. A set of training materials have been developed for each level, complemented with guides for facilitators. Around 60,000 TBAs will be trained in over 18,000 villages.