

SEMINAR ON THE PROVISION OF HEALTH
SERVICES FOR THE PRE-SCHOOL CHILD

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COUNTRY REPORT
ON PRE-SCHOOL HEALTH SERVICES
IN IRAN

by

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Subsequent to the "Revolution of the Shah and the People", my country, Iran, has become one of the most rapidly developing countries in the world. Iran has an old civilization, with a history of culture dating back to 3000 B.C. but a young population.

According to the latest estimate of 1973-1974, the total population of Iran is 31,169,000 and the number of children under 15 years of age constitutes 46 per cent of it. The proportion of children in the pre-school age is 22 per cent that is, 6,857,180. The number of pre-school children in rural areas is 4,179,000 and in urban areas 2,678,180.

A simple calculation, reveals an approximate population growth rate of 3.23 per cent which is high. This rate is principally due to improvement in health and environmental condition, higher standards of living and socio-economic effects of Iran's development plans and programs. The goal is to achieve one per cent growth rate in 20 years between 1973-1993.

Although Iran is still predominantly a rural country, the rural-urban ratio is changing rapidly. The latest reports of "Iran Statistical Centre" indicate that the urban-rural ratio was 37/63, 40/60 and at present is 42/58. This ratio will be still changing due to the fact, that villagers migrate to the cities in hope of a better job

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and more income. Since the majority of the pre-school children dwell in rural areas, a greater emphasis should be put to the importance of providing health care for them. This fact indicates the scope of the problem, which is, first, to deliver MCH/FP services to the rural areas and, second to improve and extend the services within the cities, and also, to review the delivery of health services, to improve the quantity and quality of health care provided to the pre-school child population within the framework of existing health services.

Health Services

Maternal and child health/family planning centres

Since 1952, when General Public Health and Preventive Medicine programs were started in Iran, MCH centres were established throughout the country. At present there are 469 MCH centres, with 10 centres located in Teheran, the capital and it's suburbs. Out of these, 264 are operated by the MCH Department of the Ministry of Health, 95 by the Imperial Organization for Social Services, 83 by Red Lion and Sun Society, 15 by the Institute for the Protection of Mothers and Children, 7 by the Society for the Protection of Children.

There are over 1900 family planning clinics in the country, of which 188 are located in Teheran and Central Ostan. The number of family planning clinics located in the capital is 44 only 10 of these have MCH services as well. Lengthy experience proved very clearly that the foundation of a successful family planning program is laid in MCH centres. Statistical figures proved that wherever family planning clinics have been established as a separate entity the acceptance and success was not as great as when integrated into previously established MCH centres. Therefore we speak about MCH/FP centres as components which provide admirable opportunities for health services.

Pre-school children can benefit family planning programs because this age group can be reached in the family. Pre-school age is an important period of child's life, when, total shaping of the personality takes place. It is understood that pre-school children are an integral part of the overall child health program and the needs of pre-school children differ from infants.

The health services provided for pre-school children in MCH/FP centres include, communicable disease control by immunization against diphtheria, pertussis, tetanus, poliomyelitis, smallpox, measles, typhoid, and cholera whenever necessary. Medical and physical examination, health education in regard to personal hygiene, nutrition. There are no screening procedures for the purpose of detecting deviations from normal physical and mental conditions. Even if there were, the results would not be useful due to the absence of specialists for consultation, particularly in rural areas. Generally speaking the services are inadequate in both quality and quantity when measured against the needs.

The first MCH/FP teaching and demonstration centre in Teheran, established in 1958 is one of the well crowded centres. Table 1, 2, and 3, shows the number of attendants to child health clinic, antenatal, family planning clinics, mother's classes, and vaccination service, between 1969-1974.

TABLE 1

Year	under one year of age	over one year of age	well babies	sick babies	Total number
1969 - 1970	8922	10062	14084	4900	18984
1970 - 1971	8909	8474	12399	4984	17383
1971 - 1972	7720	7074	8450	6344	14794
1972 - 1973	8020	6687	7478	7229	14707
1973 - 1974	8467	8350	9275	7542	16817
Total	42038	40647	51686	30999	82685

At the end of neonatal period infants are brought to the child health clinic once a month. Measurements of body weight, height head and chest circumference are recorded at each visit. Between 1 and 2 years of age they report for check-up once every three months. After 2 years they come every 6 months till the age of 6 years, at which time they are looked after by the school health services.

The immunization schedule starts from the age of 2 months. Table 2 shows the number of vaccinations given by MCH/FP teaching and demonstration centre in Teheran, between 1969-1974.

Table 2

Year	Smallpox	D.P.T.	Polio- myelitis	D.T.	Measles
1969-1970	10197	21136	54904	3773	3527
1970-1971	63356	23785	28212	25057	4540
1971-1972	27006	51927	28881	22044	5080
1972-1973	110133	60787	29036	20268	5440
1973-1974	20174	20458	26305	19065	4700
Total	230866	178093	167338	90207	23287

Table 3

Year	Antenatal & Postnatal	Family Planning	Mother's Classes	
			Number of attendants	Number of sessions
1969-1970	7969	6022	3154	165
1970-1971	8271	8386	3133	108
1971-1972	8194	12521	2510	70
1972-1973	8170	16528	2096	50
1973-1974	8165	20490	1041	32
Total	40769	63947	11934	425

Since infant mortality rate is still high in my country, the majority of MCH/FP centres throughout the country provide health services to smaller age groups. In Shiraz, the central city of Fars Oostan, when MCH services were started for the first time in 1952-1953 child health clinic became so crowded that we were obliged to limit the attendants, up to 2 years of age. Therefore it is very difficult even to estimate what percentage of preschool children are provided with adequate health services in urban or rural areas. At present we are in the fifth Five-Year developing Plan, 1973-1978, in which MCH/FP activities will be expanded and pre-school children will benefit greatly.

Rural health centres

The interpretation of a "Health Centre" may vary from one developing country to another according to the general health problems in the community. If we define it as a centre with all-inclusive functions, that is, MCH/FP, dental and mental health clinics, school health services, public health nursing, communicable disease control, environmental sanitation, laboratory services, vital statistics, nutrition, health education, operational and evaluative studies, scientific studies and research, then it should be stated that we do not have health centres, neither in urban nor in rural areas. Most of the MCH/FP clinics located in Teheran and central cities of Oostans have these functions with the exception of, mental health, school health, environmental sanitation, operational, evaluative and scientific studies, which are very important for further development of the health services systems. There are no comprehensive system of health care for pre-school children in rural areas, no special clinics for only children under five years of age.

There are three types of health services in rural areas for pre-school children. Centres with MCH/FP services, Health Corp Units, and semi-mobile clinics. Health personnel serving in these centres are very well aware of the fact that the most important preventive measures in the rural areas are health education particularly about the importance

of environmental sanitation, personal hygiene, immunization, antenatal and postnatal care, which has a direct effect on child health.

In the fifth Five-Year Plan, the Ministry of Health envisaged the foundation of 500 centres to provide preventive and curative services in rural areas, making the best possible use of the existing manpower and facilities. During the fifth Five-Year Plan, 1973-1978 fifteen first grade health centres will be established, which will be closely connected with the administration of the Health Department of the Ostan, and will provide guidance and consultations to the centres established in rural areas.

We all know the fact, that because of geographical, social, economic, transportation conditions, it is difficult to cover the rural population in all age groups including pre-school age, with adequate health personnel and facilities. In most rural areas it is essential that public health staff should be prepared to handle all the priority requirements of the area they serve. For example, a physician, who almost always is a general practitioner is bound to do almost everything. He has to perform minor and major surgeries, he has to diagnose the diseases without laboratory facilities, and to give treatment with limited supply of drugs etc. In a rural area a physician is a leader, a teacher, a social worker, a counsellor etc. He should have proper approach and correct communication, to understand the people who are less demanding and more appreciative for any health care they receive.

Clinics for children under five years of age

There are no separately functioning clinics, providing preventive and curative health services, education and social service care only for children under five years of age. The child health clinics operated in MCH/FP centres take care of children at the end of neonatal period up to pre-school age, and in some centres up to 2 years, due to the case load and shortage of health personnel. Infants are

taken to the child health clinic regularly for checking physical growth and development, immunization, introduction of proper diet according to the age, and general health appraisal.

In the first MCH/FP teaching and demonstration centre in Teheran infants born to the mothers attended antenatal clinic, have been taken care of for the past sixteen years. Body measurements were taken and recorded once a month up to the end of one year of age, which gave us valuable opportunity to study physical growth and development among thousands boys and girls. The results were very satisfactory because they had doubled the weight at five months of age, and tripled at the end of the first year. Head circumferences were obtained by a tape applied firmly over glabella and supra-orbital ridges and that part of the occiput posteriorly which gives the greatest circumference. Chest measurements were taken in midinspiration at the level of the xyphoid cartilage of subternal notch. Height was measured with the child lying supine on a measuring board with feet firmly against a fixed upright. After the first year measurements were taken with the child standing erect. It should be stated that not all the child health clinics have the opportunity to take all the body measurements and study the physical growth and development of the child particularly during the first year of life, because in many cities as well as rural areas infants are taken to the clinic only during illness. It took many years to achieve the goal of "keeping the well baby well", only in cities where the standard of mother's education is higher.

MCH/FP centres operating in urban and rural areas were discussed very briefly, without estimating the percentage of pre-school children provided with adequate care. However, it is quite evident that existing establishments providing care for this age group, MCH/FP centres, dispensaries, maternity and children's hospitals, are not adequate to meet the expanding demand.

Dispensaries

According to the latest reports of General Statistical Department, Ministry of Health, there are a total of 2743 dispensaries in Iran, with 635 or 23 per cent located in Teheran, and 2108 or 77 per cent are located in central cities of the Ostans, with the exception of those operated by the Health Corps. During the third Five-Year Developing Plan, the Seventh Principal of the "Revolution of the Shah and the People", Health Corp was created to serve in rural areas. Dispensaries operated by the Imperial Organization for Social Services and the Ministry of Agriculture are also located in rural areas. Ministry of Health, Ministries of Education, Rail-Ways, Economy, Labour Minerology, and Charity Organization, Red Lion and Sun Society, Oil company, Foreign Missions, Water and Electric Power, etc., operate dispensariēs distributed in Teheran city and provinces. Since, these different agencies and organizations have the tendency to independent administrative growth, there are duplications of services, without estimating the economic consequences for the country. These dispensaries provide ambulatory curative services not only to pre-school children, but also to all age-groups. There are no accurate statistical figures to show the utilization rate of these services by the pre-school child.

Maternity and children's hospitals: Out-patient departments

There are 187 maternity hospitals in the country, with a total number of 16518 beds. The number of maternity hospitals located in Teheran is 56 with 5507 beds, and 131 maternity hospitals with 11011 beds are located in provinces.

There are only 8 children's hospitals located in Teheran with, 936 beds. The Institute for the Protection of Mothers and Newborns, established in 1943, by the Society for the Protection of Mother and Child, operates 8 children's hospitals with 80 beds, in the same buildings of it's maternity hospitals, which can be considered as

children's wards. There are no separately built children's hospitals in provinces with the exception of few private general hospitals with few beds for children. Taking into consideration the number of pre-school children dwelling in rural areas, the necessity for children's hospitals is quite evident.

There are no accurate statistical data to show the percentage of hospital deliveries throughout the country. The highest figures, however, have been reported by the Farah Maternity Hospital in Teheran, which is approximately 100 to 120 deliveries per 24 hours. The duration of hospitalization is on average 10 hours for normal cases.

Teheran University Medical School operates 2 children's hospitals with 182 beds only in Teheran. Table 4 shows the number of maternity and children's hospitals, operated by various organizations:

Table 4

Type of Hospitals	Maternity Hospitals				Children's Hospitals			
	Teheran		Provinces		Teheran		Provinces	
Type of Agencies	No. of Hosp.	No. of Beds	No. of Hosp.	No. of Beds	No. of Hosp.	No. of Beds	No. of Hosp.	No. of Beds
Red Lion and Sun	1	40	57	3215	1	66	-	-
Ministry of Health	4	85	-	-	2	131	-	-
Teheran University	3	660	12	2513	2	182	-	-
Social Insurance Org.	3	206	8	1683	1	330	-	-
Imperial Organization for Social Services	1	213	4	201	-	-	-	-
Institute for the Protec. Moth. & Child.	1	440	8	160	-	-	8	80
Private Mat. Hosp.	32	2538	28	1570	1	40	-	-
National Iranian Oil company	-	-	2	626	-	-	-	-
Charity Societies	3	206	4	527	1	187	-	-
Ministry of Road	2	411	4	192	-	-	-	-
Foreign Missions	1	120	3	224	-	-	-	-
Misc. (Army Gendarm. Aviation force)	5	588	-	-	-	-	-	-
Iron Foundry	-	-	1	100	-	-	-	-
T o t a l	56	5507	131	11011	8	936	8	80

The constructions of another 3 maternity and children's hospitals have been started by the Institute for the Protection of Mothers and Newborns in provinces, which will be completed in the nearest future.

It is true that the number of maternity and children's hospitals are not adequate to meet the needs, but there are considerable number of mothers who are reluctant to accept maternity hospital services. Since the majority of the deliveries are attended by male obstetricians due to shortage of female specialists the expression such as "I'll rather die than to expose myself to a male doctor" is commonly heard by medical professionals. In certain cases children are taken to the hospital when it is too late, and when the child dies the mother becomes greatly prejudiced toward hospitalization. Therefore health education is very important to alleviate this type of cultural constraints. Health education should be given with special skill and finesse, to make it acceptable to mothers.

Family supportive social/educational services

Creches, day-care nurseries

As the women in my country attain higher positions in the society, and gradually become part-time housewives, the need for creches, day-care nurseries is growing very rapidly. With the change in family pattern, the separation of in-laws, the potential child caretakers, the increasing need of women to work outside the home, brought about by the industrialization in Iran, have produced the necessity of placing children in some type of day-care setting, at least for 8 to 12 hours a day.

There are only 14 day-care nurseries, and 43 creches, in Teheran and provinces taking care of 2889 and 3228 children respectively, according to the studies carried out by the Department of Communication Ministry of Health. Private day-care and industrial nurseries were not included in the report. Private day-care nurseries are very

expensive, therefore mothers prefer to employ a housemaid who takes care of house chores and children. Since the majority of pre-school children remain at home with their families, the parents become their first educators, the mother in particular. Therefore steps have been taken to improve the quantity and quality of girls education to prepare them in assuming their responsibilities for upbringing their children.

There are 3 day-care industrial nurseries in provinces taking care of 700 children, established by jute weaving factory in Babol, and textile factory in Behshahr, and jute weaving, textile factories in Shahi.

Table 5 shows the number of day-care nurseries, creches located in Teheran and provinces operated by Queen Farah Charity Society, Red Lion and Sun Organization, Municipality, Women's Organization, Society for the Protection of Children.

Table 5

Location	Day-care nurseries				Creches			
	Teheran		Provinces		Teheran		Provinces	
Type of agency	No.	No. of child	No.	No. of child	No.	No. of child	No.	No. of child
Queen Farah Charity Society	4	454	4	325	3	159	23	1531
Red Lion and Sun Organization	-	-	4	550	1	100	5	165
Municipality	3	567	2	152	-	-	1	320
Women's organization	1	50	1	350	-	-	-	-
Society for Child Protection	-	-	-	-	5	578	4	325
T o t a l	8	1071	11	1377	9	837	33	2341

There are a total of 47 orphanages taking care of 5521 children. The number of orphanages operated by Queen Farah Charity Society is 3 with 334 children and 9 with 2165 by the municipality. The number of orphanages operated privately is 7 taking care of 621 children. The number of orphanages located in Teheran is 12 and ones located in provinces is 35, taking care of 2499 and 3022 children.

According to UNICEF Assignment Children No.21 January-March 1973, the integration of day-care services with other programs for children, including preventive and curative health care, education programs and social service programs should be considered in the future by program planners. Not only have the Danish and Czechoslovakian child care systems demonstrated this on a national scale, but in both cases the day-care programs serve as one of the central points for coordination and distribution of care programs for children. Also that there should be frequent contacts between day-care workers and parents.

Kindergartens

It is true that a child needs his home and family to feel the security and warmth, caresses of his parents, but he also needs education and training not available in an average family. Therefore a child should have the opportunity to stay in some educational establishment. The most important establishment for children in pre-school age is kindergarten.

There are a total of 431 kindergartens throughout the country taking care of 21,237 children. The number of kindergartens in Central Ostan including Teheran city is 275, with only 2 governmental and 273 private, and 156 are located in all the rest of the provinces (53 governmental and 103 private). The total number of children taken care of in private establishments is 17994 and 3243 of them are taken care of in governmental kindergartens.

According to the decree of His Imperial Majesty Shahanshah

Ariamehr, primary and secondary education has been announced to be free of charge in the country, beginning of 1974-1975 scholar year. This does not include private kindergartens. In the future amalgamated institutes, day care nurseries and kindergartens will be established for the benefit of families who have young children with working mother and no maids available.

Nutrition, rehabilitation and mothercraft centres

There are no special nutrition centres in the country, with the exception of 101 centres located in Teheran, where pre-school children are provided with pasteurized milk. Some of these centres are MCH/FP centres with a special unit for the distribution of milk, skim and fresh pasteurized, vitamin A and D pearls containing 10,000 units of vitamin A and 1000 units of vitamin D. Ten of these centres are operated under Ministry of Health and 91 centres are operated by the Institute for the Protection of Children.

The first milk pasteurization plant founded in 1957, with the assistance of UNICEF provides valuable help in child nutrition. Many years of experience have proven that the survival of thousands of pre-school children in the country, is indebted to this plant. A total of 10,000 pre-school children receive pasteurized milk daily in Teheran. There are no pasteurized milk distribution program in rural areas.

Food and Nutrition Institute established in 1961 has developed certain standards for food products, planning diet for hospitals, creches, kindergartens, day-care nurseries. The medical research team of this Institute conducted a survey in the nurseries of Isfahan, which is the second most populated city, where children of factory working mothers are looked after. Physical examination proved that the majority of them were suffering from malnutrition, and protein calorie deficiency which is widely prevalent in the country. It is the most serious nutritional problem among pre-school children, particularly in rural areas.

A simple survey conducted in MCH/FP Teaching and Demonstration Centre in Teheran, revealed the fact that 85 per cent of mothers attending the centre continue to breast feed their infants, until the child is one year of age. The other 15 per cent stop the breast feeding due to shortage of milk supply. Weaning period is started at about one year of age and is completed at 2-3 years of life.

Mother's classes which are held regularly in MCH/FP centres, provides valuable opportunities for health educators to give information in regard to the importance of child's nutrition, proper time to start weaning foods, hygienic measures in administering supplementary food etc. Mothers are encouraged not to stop breast feeding specially when the child has diarrhoea, widely prevalent in summer, because human milk is quite as bland as any of the electrolyte solution that can be given instead. Health education is a function of all the staff working in MCH/FP centres, and it should be looked upon as a team activity, specially that the majority of these centres do not have a health educator.

The leading cause of infant and pre-school child mortality is gastro-intestinal disorders due to malnutrition or lack of mother's knowledge in regard to principals of child nutrition. Diarrhoea and intestinal parasitosis make substantial contribution to the causation of malnutrition in the country. Malnutrition would largely disappear if only mothers would know how to feed, and when to start semi-solid and solid food that are readily available. Improved education of all groups involved of the special nutritional needs, and the ways in which these needs can be covered is very important. Studies are needed to improve the quality of health education and to determine the most effective ways of imparting it.

Rehabilitation, that is the restoration of an ill or injured one to self-sufficiency in the shortest possible time is a relatively new program in my country. Therefore not very many children in pre-

school age, who need rehabilitation have been taken care of. There are a total of 277 rehabilitation centres in Iran, taking care of 56745 children, according to the reports of Ministry of Health. Collecting detailed information in regard to these centres and the type of injuries or illnesses which necessitated this kind of institutional care, and also, about mothercraft centres, was not possible due to the shortage of time during the preparation of this country report.

Services for the handicapped pre-school child

There are no accurate statistical information in regard to the number of pre-school children with special problems who need particular health and educational facilities, because very little survey has been carried out. There are certain barriers which prevents, the availability of accurate data. Economic barriers due to costly services especially orthopedic cases. Geographic, because the majority of the population dwelling in rural areas do not receive adequate medical care even for healthy and sick children. Cultural, because a handicapped child is being considered as a misery, a punishment for committed or uncommitted sins. An average mother feels ashamed of having an abnormal child, of course it depends to the degree of handicapping. Crippling handicaps who are frequently long-term problems require professional care, special education and other services over many years, are kept at home in a small room for fear of being discovered.

Even if there were satisfactory data on the number of children with various types of handicaps, still due to the differences in definition there would be considerable amount of variation. The number of pre-school children who have vision, hearing or speech defects, or are handicapped physically mentally, socially in urban or rural areas is not known. The available information indicated that there are a total number of 577 institutions which

provide for 4158 children with special problems of physical, mental, social disabilities. There are 193 institutions for partially or completely deaf children, 150 for physically retarded or subnormals, 133 for mentally retarded, 84 for partially or completely blind children and 17 institutions for complete physically retarded children.

MCH/FP centres can provide very good opportunities for case finding. Home visitors can participate actively in case finding, but after the case is found and proper diagnosis established, what can be done for the child? Where and by whom the child would be treated or educated? There are not enough educational facilities for children with hearing or speech defects. Therefore the main responsibility for their education especially in rural areas remains with the parents, who are not highly educated, and very little can be expected from them.

CONCLUSIONS AND RECOMMENDATIONS

- 1- Since at present we do not have health centres with all-inclusive functions, such centres should be established, which will relieve the hospitals from overcrowding.
- 2- Health care which is offered almost entirely in hospitals should be transferred to the health centres, and implemented in form of prevention rather than cure.
- 3- There should be joint planning and implementing of health services for pre-school children, with the coordination and cooperation between Ministry of Health and Ministry of Education.
- 4- Present MCH/FP centres reorganized and restaffed so that there would be correct and appropriate distribution of health personnel.
- 5- Since the majority of pre-school age children dwell in rural areas more health and educational facilities should be provided for this important age group.

- 6- Screening procedures be carried out for all pre-school children for early detection of various defects.
- 7- Surveys should be done in regard to physical growth and development of pre-school children, for the purpose of formulating proper standards applicable for pre-school children of the country.
- 8- Operational and evaluative studies must be carried out to determine the quality and quantity of health services provided for pre-school age children throughout the country.
- 9- Our ultimate goal is to reach such a stage of improved health care systems as to provide adequate health and educational services for every child, particularly at pre-school age.