The Turkish Journal of Pediatrics 1997; 39: 227-238

IMPROVEMENTS IN MOTHER – CHILD HEALTH INDICATORS IN TURKEY*

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SUMMARY: Akın A, Köseli A. (Directorate of Mother and Child Health and Family Planning, Ministry of Health, Ankara, Turkey). Improvements in mother-child health indicators in Turkey. Turk J Pediatr 1997; 39: 227-238.

Turkey has a young population as a result of high fertility and growth rates in the recent past. Thirty-five percent of the population is less than 15 years of age, and 25 percent of the population comprises reproductive-age woman. The latest estimate of the population growth rate was 19 per thousand for the 1990-1995 period. In recent decades dramatic declines in fertility rates have been noted. In the early 1970s, the overall fertility rate was approximately five children per woman, declining to 2.7 in 1993. The crude birth rate is currently estimated to be approximately 23 per thousand. The crude death rate has also declined from approximately 30 per thousand in the 1940s to 6.5 per thousand in the 1990s. Life expectancy at birth in Turkey is 65.9 for males and 70.5 for females. The infant mortality rate in the 1960s was approximately 200 per thousand, declining to 67 per thousand during the 1985-1990 period, and 53 per thousand for the period 1988-1993. It was 48 per thousand in 1995 and 42.2 per thousand in 1996, according to the State Planning Organization. The infant mortality rate has declined by 35 percent in the last ten years. The mortality rate for children under five years of age was 113.5 per thousand between 1978-1983 and 60.9 per thousand in 1993; it is currently 50 per thousand. The maternal mortality rate was greater than 200/100,000 in 1995. During the last five years the proportion of women receiving antenatal care has increased from 43 to 63 percent. The proportion of safe deliveries was 76 percent. Thirty-nine percent of all deliveries occur at home. The important point here is that the proportion of unsafe deliveries assisted by traditional birth attendants is 24 percent.

It is very obvious that during the last 15 years, maternal and child health (MCH), especially child health, has improved dramatically in Turkey. The improvement made in the last five years has been more marked. The improvement is closely related to the government's special interest, attention and efforts to prevent and identify the most common health problems and to overcome these problems with appropriate interventions. The government also pays special attention to the socio-economic priority areas of the country and initiates special health programs in these areas first, in order to reduce high regional differences in MCH indices.

Despite these dramatic improvements, one great obstacle is the high maternal and infant mortality and morbidity rates in the country at the time of ratification of the European Social Charter. The success made so for in maternal and child health should not be ignored, but it must be realized that much still remains to be done to improve the MCH level further. *Key words: child health, maternal health, Turkey.*

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Turkey is a Middle Eastern country representing a bridge between Asia and Europe. The country has a surface area of 774,815 square kilometers and, according to the 1995 census, a population of 62,526,000. Ninety-eight percent of the population is Muslim. Turkey is among the 20 most populous countries of the World and is the most populous country in the Middle East.

Turkey has a young population as a result of high fertility and growth rates in the recent past. Thirty-five percent of the population is less than 15 years of age, while the population of the elderly is quite low. Reproductive-age women represent 25 percent of the population.

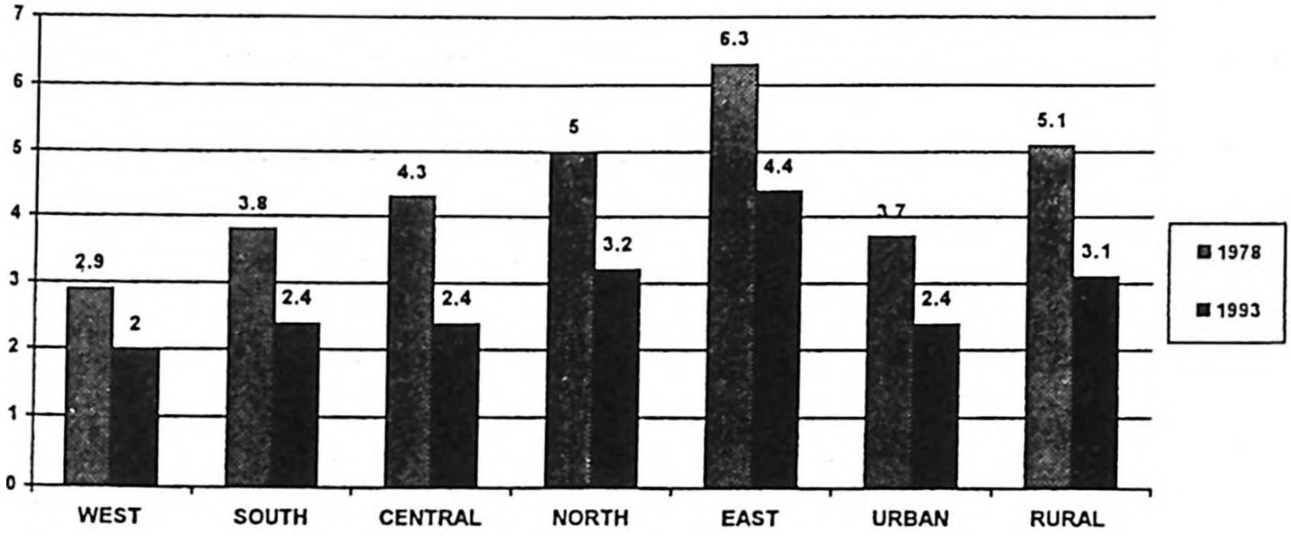
Intercensal estimates of population growth (PGR) have been around 20-25 per thousand since the 1970s. The latest estimate of the PGR was 19 per thousand for the 1990-1995 period. Now it is estimated to beetven lower at 17 per thousand.

Recent decades have witnessed dramatic declines in fertility rates. In the early 1970s the total fertility rate was approximately five children per woman, declining to 2.7 in 1993. The crude birth rate is estimated to be around 23 per thousand now. The crude death rate has also declined from around 30 per thousand in the 1940s to 6.5 per thousand in the 1990s. Life expectancy at birth in Turkey is currently 65.7 for males and 70.3 for females.

The infant mortality rate in the 1960s was approximately 200 per thousand, declining to 67 per thousand during the 1985-1990 period, and 53 per thousand for the period 1988-1993. It was 48 per thousand in 1995 and 42.2 per thousand in 1996, according to the State Planning Organization. The infant mortality rate has been reduced by 35 percent in the last ten years. The mortality rate for children age five was 113.5 per thousand between 1978-1993, 60.9 per thousand in 1993, and is now 50 per thousand.

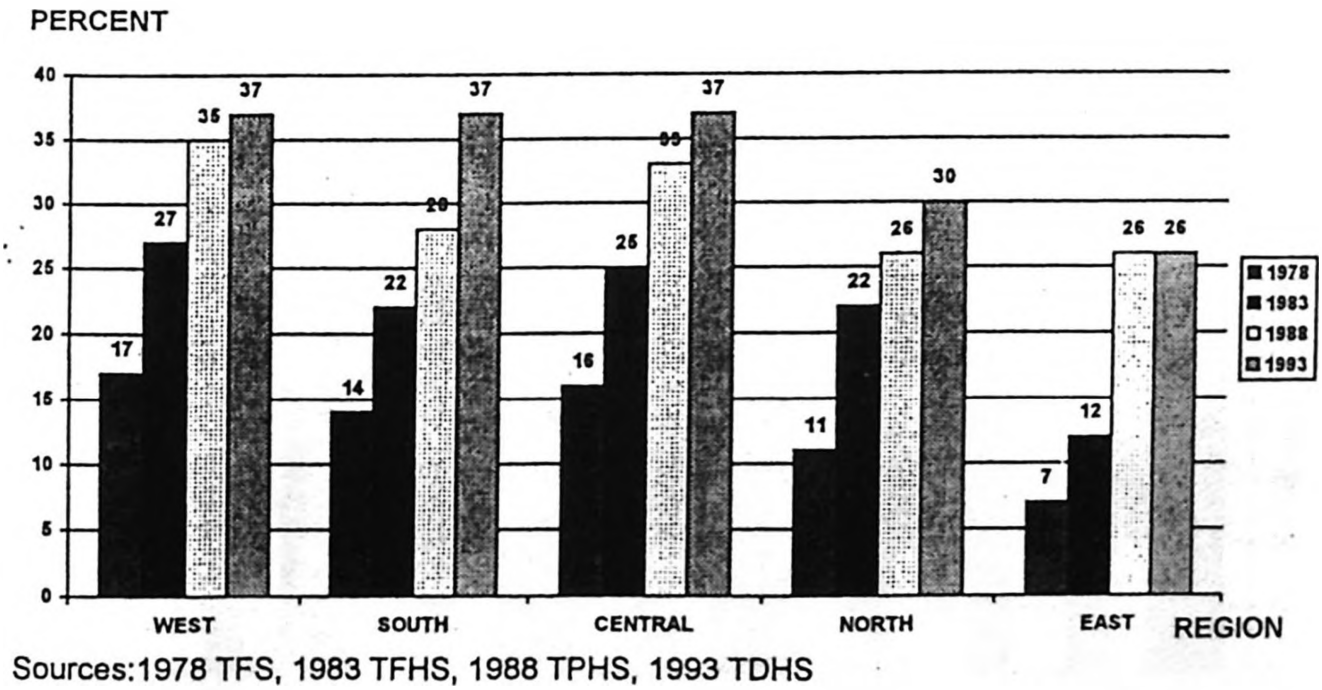
The maternal mortality rate was greater than 200/100,000 live births in 1974. It decreased to 132 in 1981, and was estimated to be 100/100,000 in 1995. A combined community and hospital-based study on maternal and perinatal mortality has been planned in collaboration with WHO.

During the last five years the proportion of women receiving prenatal care has increased from 43 to 63 percent. The proportion of safe deliveries is 76 percent. Overall 39 percent of deliveries are being done at home. The important point here is that the proportion of unsafe deliveries (those assisted by traditional birth attendants) is 24 percent. The leading problem in this situation is accesibility of health services rather than their existence due to certain social and environmental factors in some regions; the low social status of women and/or hard winter conditions very often create problems related to transportation and accessibility.



Sources:
1978 TFS, 1993 TDHS

Fig. 1: Total fertility rate by region and urban-rural residence



Sources:1978 TFS, 1983 TFHS, 1988 TPHS, 1993 TDHS

Fig. 2: Current use of modern contraception by region
(percentage of currently married women age 15-49).

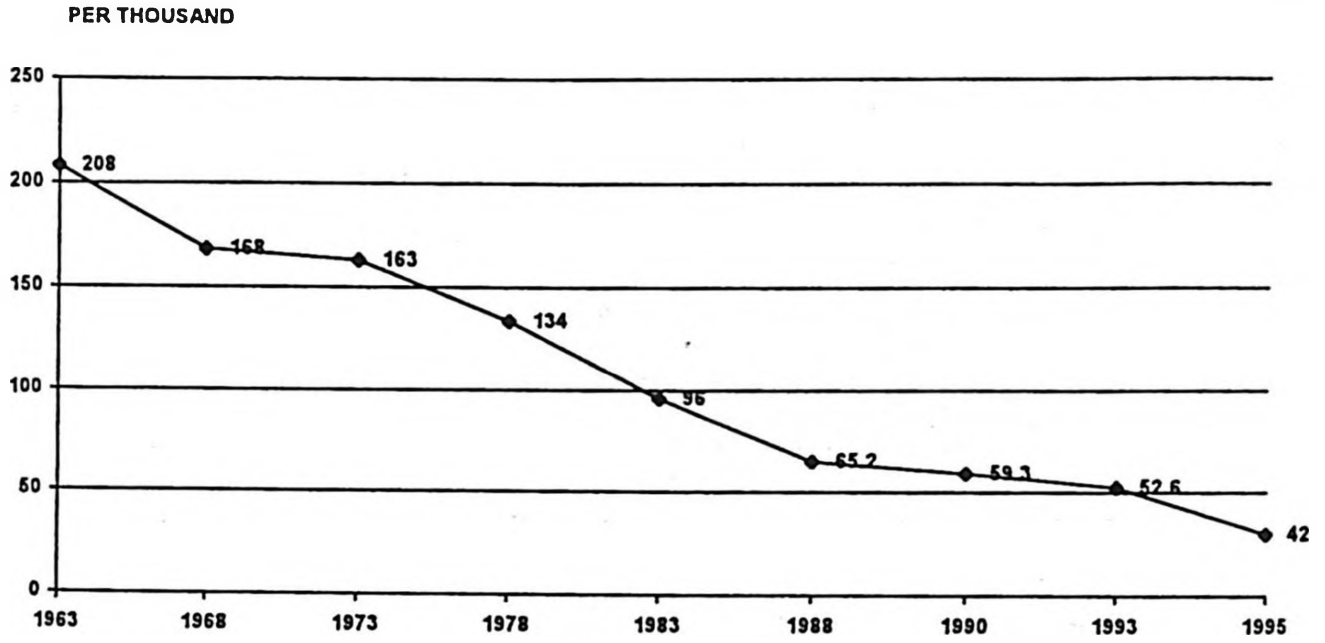


Fig. 3: Infant mortality rate by year.

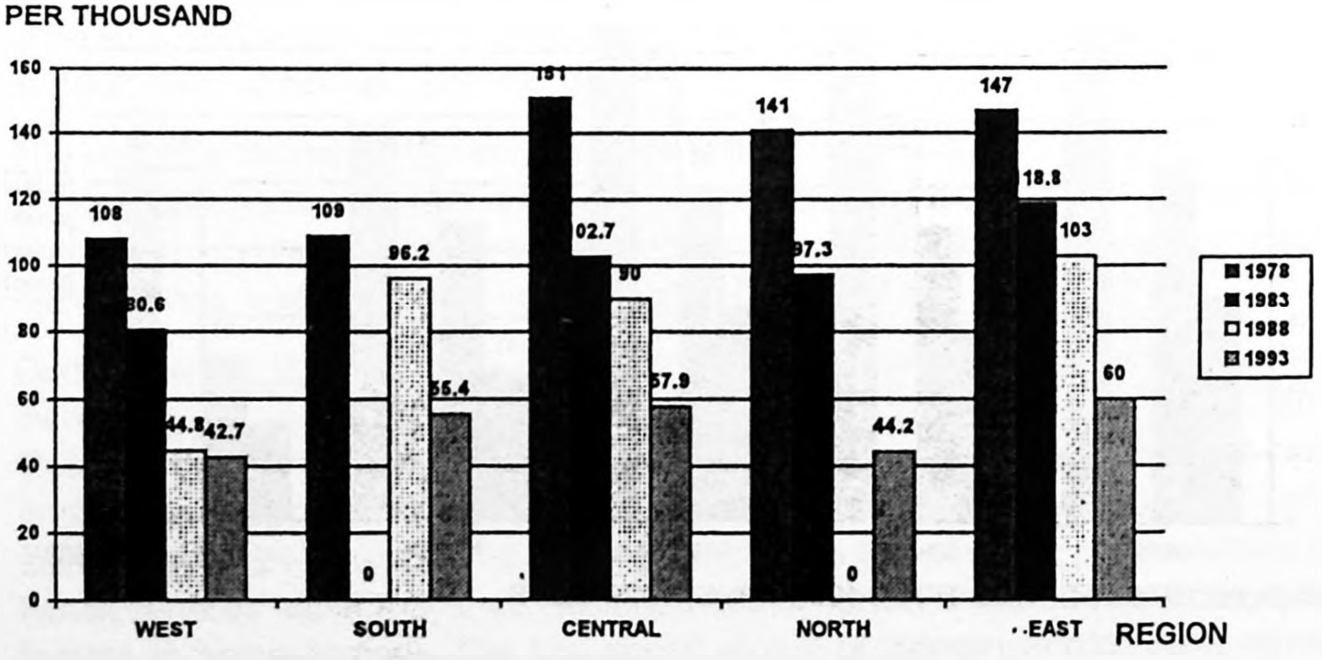
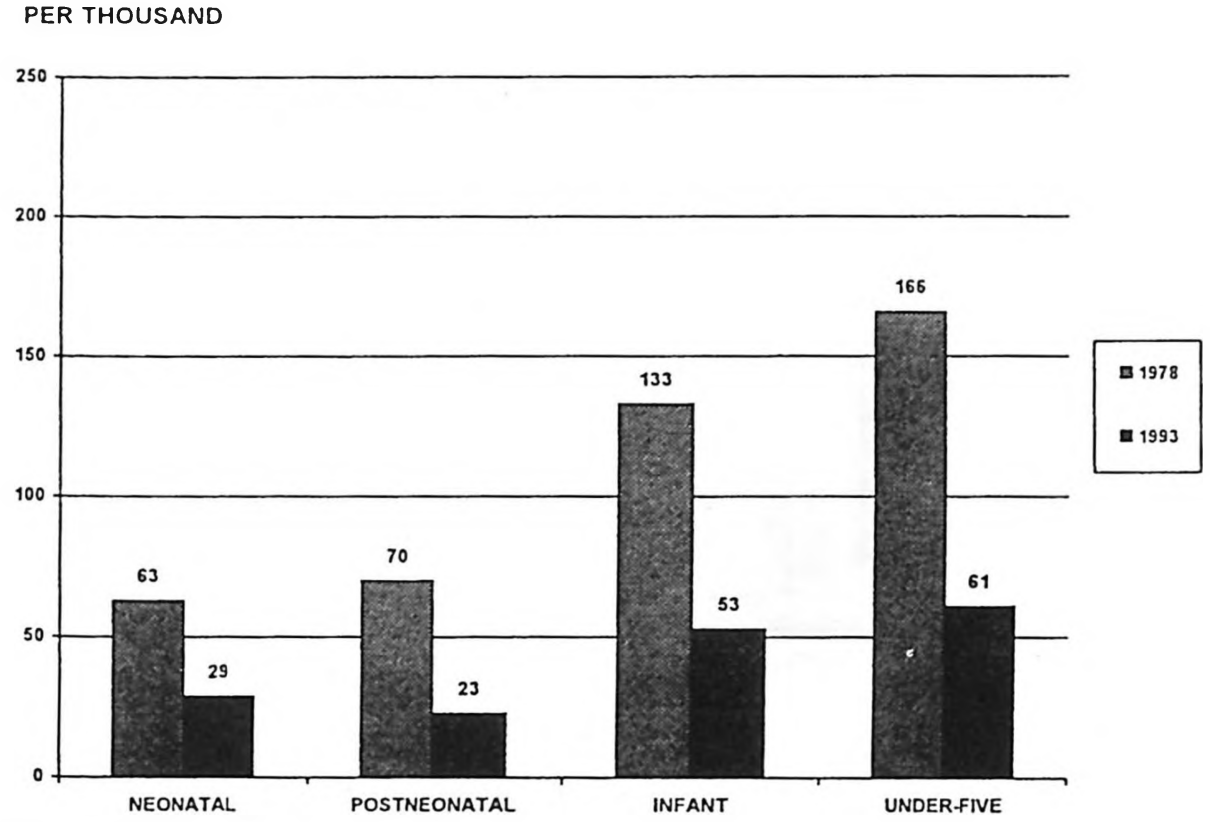


Fig. 4: Infant mortality rate by region.



Sources:
1978 TFS, 1993 TDHS

Fig. 5 Childhood mortality rate 1973-1978 and 1988-1993.

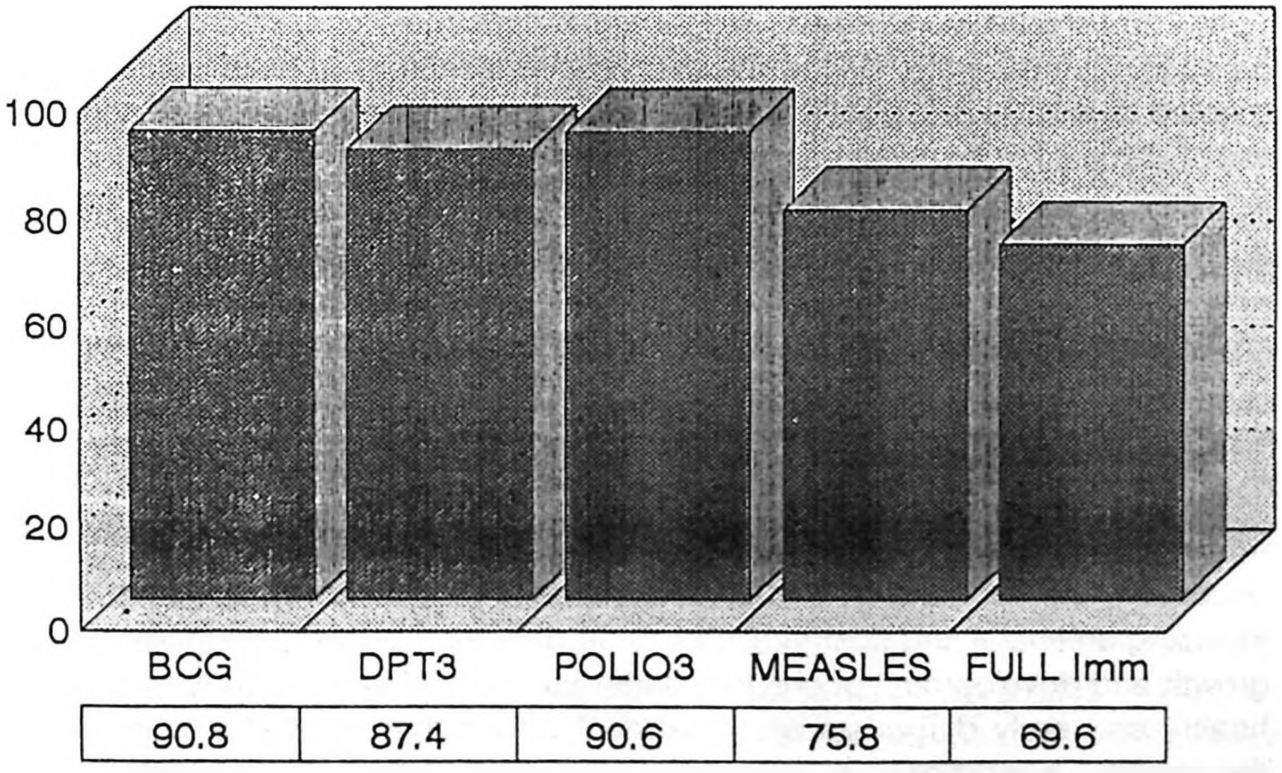


Fig. 6: Immunization rates among children aged 12-23 months in Turkey.

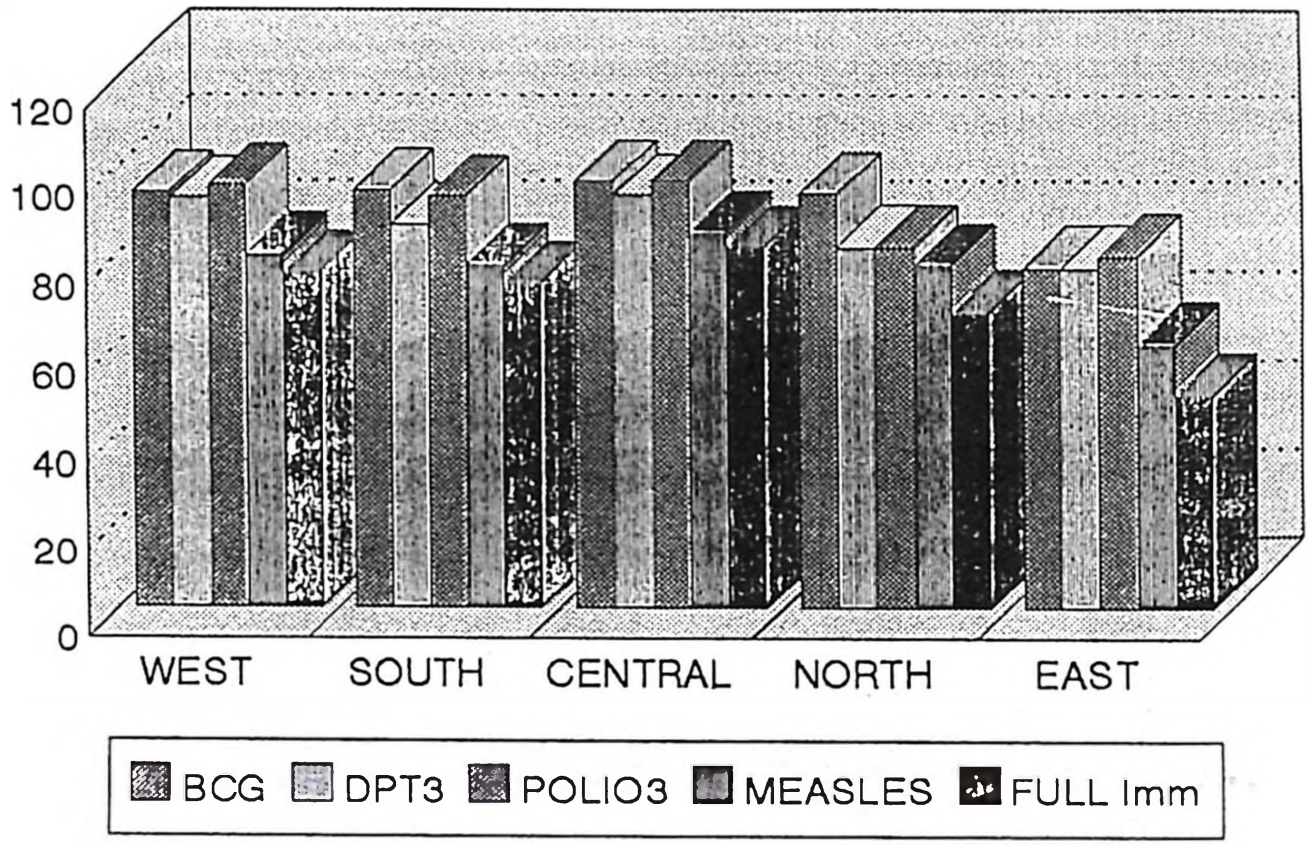


Fig. 7: Immunization rates among children aged 12-23 months according to region.

Mother and Child Health Care Services in Turkey

Family and mother-child health is secured by our main constitutions as one of the basic human rights. Since the law on socialization of health services was enacted in 1961, mother-child health services have been provided as an integral part of primary health care services, and an intersectorial approach is encouraged.

The infrastructure of the National Health Care System is quite favorable for providing these services all over the country. At the grass roots level, there are 11,877 health facilities where nurse-midwives provide MCH/FP services. At the primary health care (PHC) level, there are 4,987 health centers and 270 MCH/FP centers where a health team including specialists, general practitioners and nurse-midwives provide PHC services. Those PHC units are supported by 1,000 hospitals in the country.

At the primary health care level, the services include: counseling, information, education, communication and clinical services related to reproductive health, including antenatal and postnatal care; safe delivery; family planning; monitoring, growth and development of children under six years of age; immunization; family health; and early diagnosis and treatment of common infectious diseases. At the hospital level, besides these services further diagnosis and treatment for risks and complications due to pregnancy, delivery and infancy are provided.

Since mother and child health care services are accepted as integral components of primary health care, the service coverage is intended to meet the needs of not only women but also adolescents and men.

Traditional attitudes of the government toward population growth began to change in the 1950s, mainly due to medical problems (e.g., realization of the existence of high maternal mortality caused by illegal abortions). High urbanization and unemployment problems were also factors contributing to the new anti-natalist policy. The State Planning Organization and the Ministry of Health pioneered the policy change; previous policies became more liberal by allowing provision of contraceptives as well as information, education and counseling (IEC) activities of family planning. The first anti-natalist Population Planning Law was enacted in 1965.

In 1983, the law was revised and a more liberal and comprehensive one was accepted. This new law legalized abortion up to the 10^{th} week of pregnancy plus voluntary surgical contraception. In addition, trained nurses and midwives were authorized to provide effective methods and perform tasks such as IUD insertion. In this law, intersectorial collaboration was also emphasized for the success of family planning services.

The Population Planning Advisory Committee (PPAC) was established to secure conformity to human rights, and to ethical and professional standards in the delivery of health care to mothers, family planning and related reproductive health services and to ensure responsible, voluntary and informed consent. This committee is headed by the Minister of Health. In 1993, the women's Health Advisory Board was established under the PPAC, and includes several representatives of governmental and non-governmental organizations (Ministries, international organizations, NGOs, the State Planning Organization, the State Statistical Institute, Hacettepe Institute of Population Studies, and the Higher Education Council).

The Turkish intersectoral committee for Child Survival and Development was established in 1989. Its name was changed to the "Child Intersectoral Board" in 1990. Its mission is to monitor and supervise Child Health-related activities and report regularly to the President.

Besides routine services, special MCH programs have been implemented by the MOH since 1985 in collaboration with several international organizations such as UNICEF, UNFPA, USAID, JICA and GTZ in order to improve MCH levels where the needs are greatest.

These special program include:

- Expanded immunization program, including: Eradication of poliomyelitis program.
- Fluorine use in oral and dental health
- Safe motherhood and newborn care program

- Elimination of neonatal tetanus program
- Control of acute respiratory infections
- Control of diarrheal diseases.
- Inservice training program for medical staff.
- Management Information Systems.
- Information-education communication support project
- Promotion of Baby Friendly Hospital Initiative.
- Elimination of iodine deficiencies and promotion of iodized salt.
- Phenylketonuria screening.

To minimize the differences between regions and declines in health indicators, the Second Health Project was implemented in 1995 in collaboration with the World Bank, and will continue until 2001. This project covers eastern and southeastern parts of Turkey where the need to improve MCH levels is greatest. Within the framework of this project, all mother-child health and family planning program are being carried out as an integrated package program. It is expected. that the health indicators will improve further within few years.

The safe motherhood approach is considered one of the priority program of the country that will increase the utilization of health care services, especially through, community-based health care activities. The Ministry of Health plans to expand the safe motherhood approach throughout the country.

For in-service training and public education, a number of IEC and source materials have been produced and are being used such as:

- National Family Planning Guidelines
- Mother Health and Family Planning Handbook
- Child Health Handbook
- Situation analysis of mothers and children in Turkey
- Management of Diarrheal Diseases
- Diagnosis and Treatment of Acute Respiratory Infections
- Source books on Safe Motherhood Program
- 1993 Turkish Demographic and Health Survey
- Source book on population-development and the environment
- Prenatal care, breastfeeding, family planning, contraception flipbooks for counseling
- ICPD documents

To improve and strengthen MCH/FP services and to reach the WHO "Health For All" targets by the year 2000, national targets and strategies have been defined and the following two documents have been prepared and are in use now. The main objective is to give these services in more accessible, affordable ways with the highest quality and equality by sharing the responsibilities.

These documents include:

1. National Programme of Action for Children was prepared in 1993 and updated in 1995. Being the product of comprehensive work, the document "National Programme of Action" aims to realize the overall goals of the World Summit for Children at the national level.

2. To help couples and individuals meet their reproductive goals in a framework that promotes optimum health, responsibility and family well-being and respects the dignity of all persons and their right to access qualified reproductive health services, the Women's Health and Family Planning Strategic Plan was prepared in 1995.

The defined targets of the National Plan of Action are as follows:

Maternal Health and Family Planning:

By the year 2000 (based on 1990 rates):

1. Reducing maternal and perinatal mortality by 50 percent.
2. Increasing the proportion of the practice of modern family planning methods to 70 percent.
3. Detecting all pregnancies and ensuring prenatal care.
4. Ensuring all deliveries occur in healthy conditions.
5. Reducing all inter-regional differences in health service indicators by 75 percent.

Child Health:

By the year 2000 (based on 1990 rates):

1. Reducing the infant mortality rate by one-third.
2. Reducing the mortality rate of children under the age of five years by 50 percent.
3. Reducing the mortality rate of children under age five due to diarrheal diseases by 50 percent, and the incidence of diarrheal diseases by 25 percent by the year 2000.
4. Increasing oral rehydration therapy to 80 percent.
5. Reducing the mortality rate of children under age five due to ARI, particularly pneumonia.
6. Reducing the severe and moderate malnutrition of children five years of age by 50 percent.
7. Achieving 95 percent immunization coverage for each vaccine in children than age one.
8. Eradicating polio.
9. Eliminating, neonatal tetanus.
10. Reducing the measles incidence by 90 percent and the mortality rate due to measles by 95 percent.

Conclusion

It is very obvious that during last 15 years the MCH level, especially the child health level, has improved dramatically in Turkey (appendices). The improvement made in the last five years has been more marked. The improvement is closely related to the government's special interest, attention and efforts to prevent and identify the most common health problems, and efforts to overcome these problems with appropriate interventions. Also, the government pays special attention to the socio-economic priority areas of the country and initiates special health programs first in these areas in order to reduce the high regional differences in MCH indices.

Despite the dramatic improvements summarized above, the main obstacle is the initial high maternal and infant mortality and morbidity in the country at the time of ratification of the European Social Charter. So far the success made in MCH should not be ignored, but it should be realized that much still remains to be done to improve the MCH level further.

Turkey Demographic and Health Indicators

Fact Sheet:	
Total population-1995 (millions)	62.2
Urban population (%)	59
Rate of Natural Increase-1994 (%)	1.8
Population Doubling Time (years)	31.9
Crude Birth Rate-1995 (per 1,000 population)	22.4
Crude Death Rate (per 1,000 population)	6.6
Life Expectancy At Birth (years)	65.7
Males	65.7
Females	70.3
Marriage and Other Fertility Determinants (1993)	
Percent of women age 15-49 currently married	64.6
Percent of women age 15-49 ever married	67.1
Median age at first marriage among women age 25-49	19.0
Median duration of breastfeeding (months)	11.9
Median duration of postpartum amenorrhea (months)	3.7
Median duration of postpartum abstinence (months)	1.9
Fertility (1993)	
Total fertility rate	2.7
Mean number of children ever born to women age 40-49	4.6

Desire for Children (1993)	
Percent of currently married women who:	
Want no more children	69.8
Want to delay next birth by at least 2 years	13.9
Mean ideal number of children among women age 15-49	2.4
Percent of women a non numeric response to ideal family size	1.8
Percent of births in the last five years which were:	
Unwanted	20.4
Mis-timed	12.0
Knowledge and Use of Family Planning (1993)	
Percent of currently married women:	
Knowing any method	99.1
Knowing a modern method	98.6
Knowing a modern method and knowing a source for the method	94.6
Who have ever used any method	80.1
Who are currently using any method	62.6
Percent of currently married women currently using:	
Pill	4.9
IUD	18.8
Injection	0.1
Diaphragm, foam, jelly	1.2
Condom	6.6
Female sterilization	2.9
Male sterilization	0.0
Periodic abstinence	1.0
Withdrawal	26.2
Other traditional method	0.9
Mortality and Health (1993)	
Infant mortality rate	52.6
Under-five mortality rate	60.9
Percent of births in which mother	
Received antenatal care	62.3
Received 2 or more tetanus toxoid injections	26.2
Percent of births in which mother was assisted at delivery by a	
Doctor	33.7
Trained midwife/nurse	42.2
Traditional birth attendant	12.9

Percent of children	
0-1 months old who are breastfed	99.0
4-5 months old who are breastfed	79.7
10-11 months old who are breastfed	60.7
Percent of children 12-23 months old who received:	
BCG	89.1
DPT (3 doses)	77.1
Polio (3 doses)	77.2
Measles	77.9
All recommended immunizations	64.7
Percent of children under five years old who:	
Had diarrhea in the 2 weeks preceding the survey	24.8
Had a cough accompanied by rapid breathing in the 2 weeks preceding the survey	12.4
Are chronically undernourished (stunted)	18.9
Are acutely undernourished (wasted)	3.0