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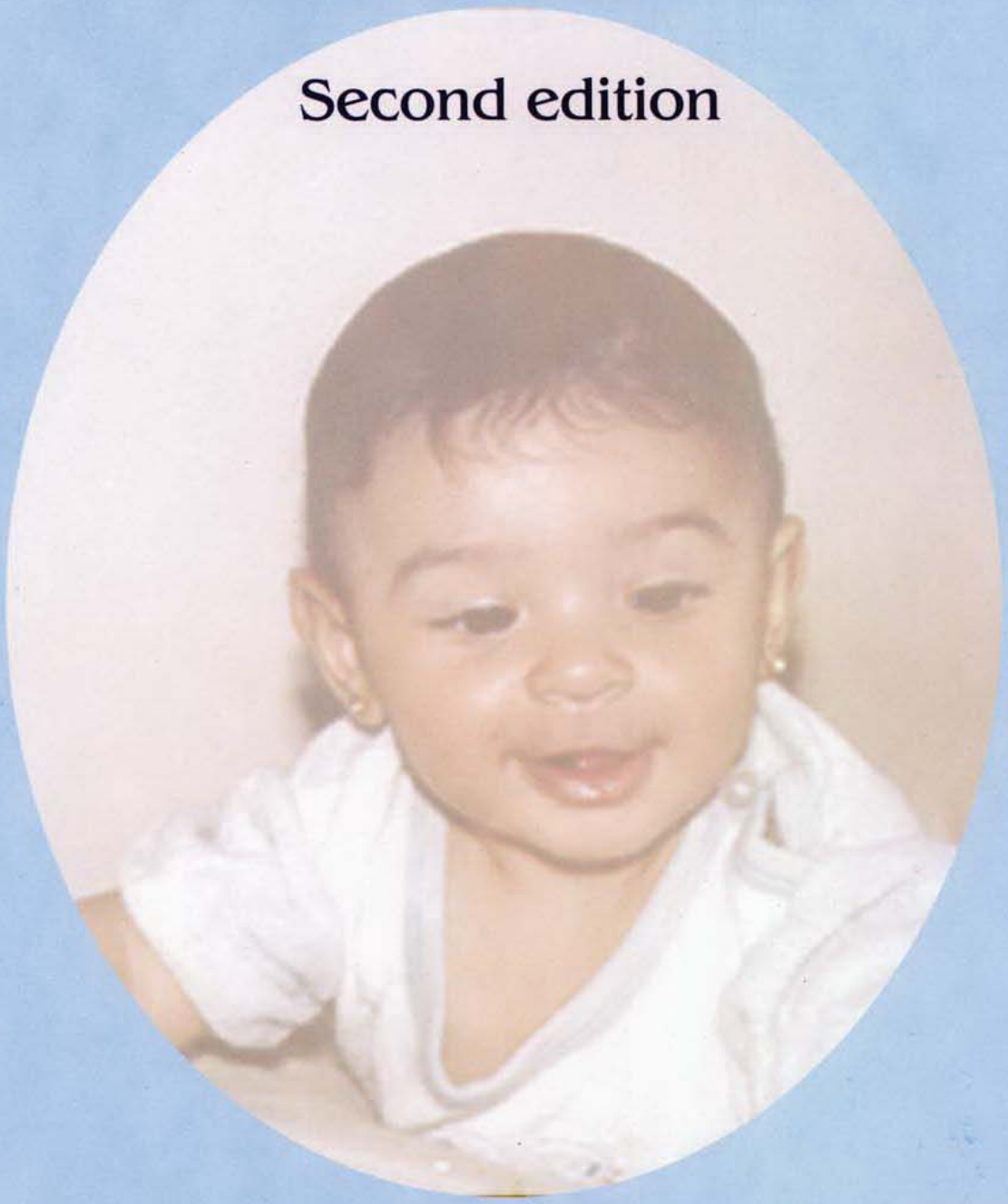
Overview of child health in Arab countries

Second edition



World Health Organzation
Regional Office for the Eastern Mediterranean

Child and Adolescent
Health and Development Unit

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CONTENTS

INTRODUCTION

At the World Summit for Children held in 1990, world leaders committed themselves to giving every child “a better future”. To achieve this objective, 27 goals were formulated during the Summit, 23 of which were related to health. In addition, world leaders identified challenges that can hamper growth and development and affect child health and committed to focusing on child survival, protection and development in an effort to achieve the goals of the Summit.

TRENDS IN CHILD MORTALITY IN ARAB COUNTRIES

The Arab world[1] is characterized by wide diversity in mortality rates, socioeconomic development and health systems. The population of Arab countries under 5 years of age represents about 14.76% of the total population. Mortality among the under-5 population (U5M) has decreased significantly; however the rapid pace of decline slowed in the 1990s (Figure 1). Despite this remarkable reduction, improvements in mortality rates have been unevenly distributed. The Arab world can be divided into three categories according to U5M rates:

- countries with high levels of socioeconomic development and low U5M rates
- countries undergoing economic transition with moderate U5M rates
- countries with low socioeconomic development and high U5M rates.

Reductions in the mortality have been the result of public health programmes including immunization, control of diarrhoeal diseases (CDD) and acute respiratory infections (ARI) and nutrition. Despite significant reduction in deaths from communicable diseases at later ages (1–5 years), most deaths occur in children less than one year of age. Moreover, early neonatal mortality (death during the first week of life) accounts for up to 25% of all deaths among children under age 5 (Figures 2 and 3). The four major causes of early neonatal mortality are infection, asphyxia, birth trauma and complications due to premature birth.

[1]In this document, countries of the Arab world are defined as Algeria, Bahrain, Djibouti, Egypt, Iraq, Kuwait, Lebanon, Libyan Arab Jamahiriya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates and Republic of Yemen. With the exception of Algeria and Mauritania, these countries are also part of the WHO Eastern Mediterranean Region.

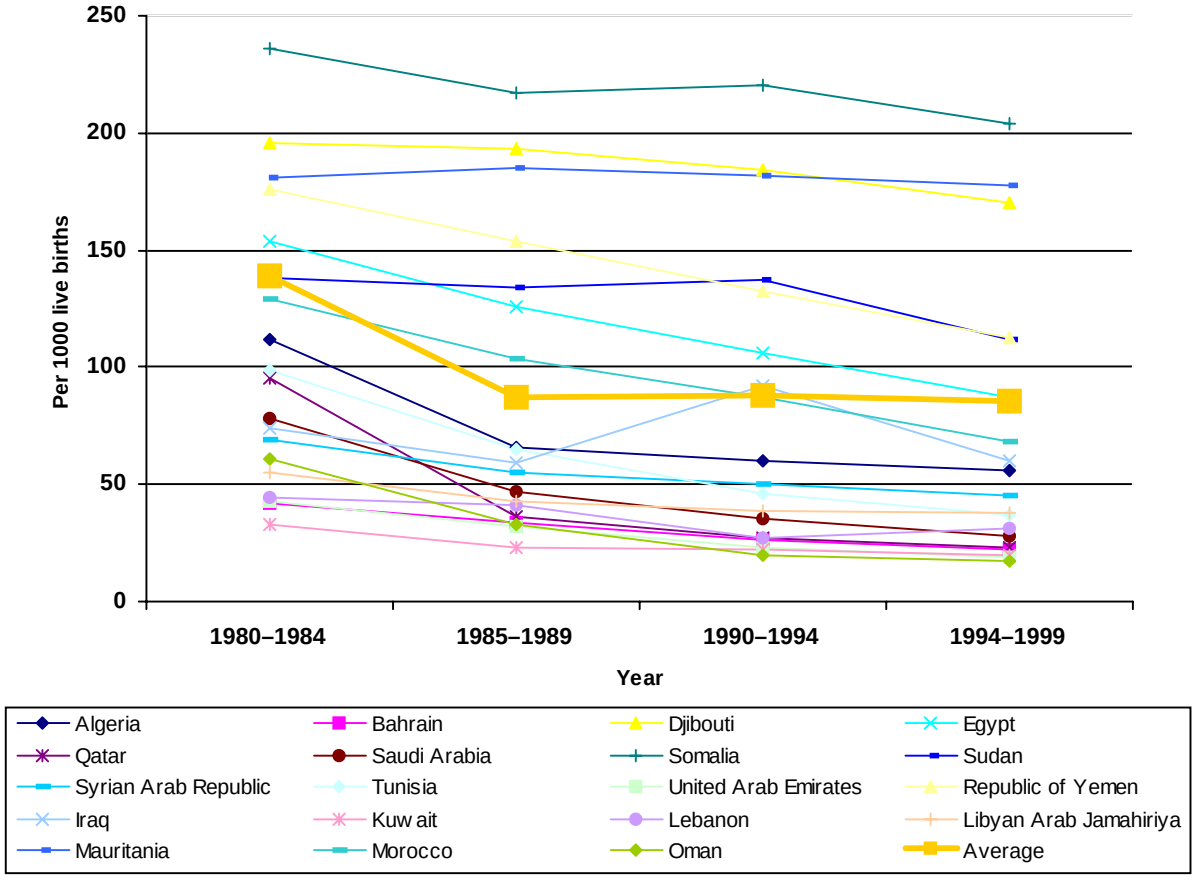

Figure 1. Under-5 mortality trends in Arab countries, 1980–1999

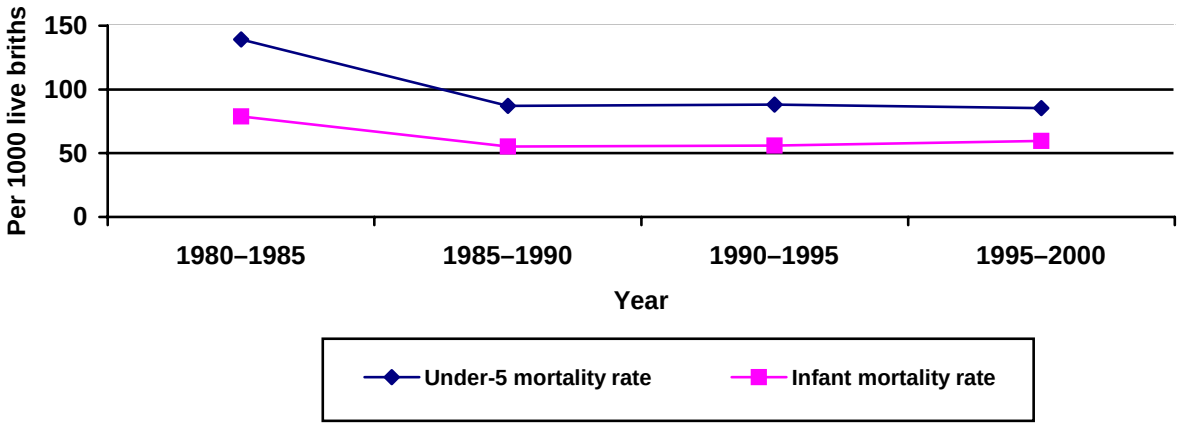

Figure 2. Average under-5 and infant mortality rates in Arab countries, 1980–2000

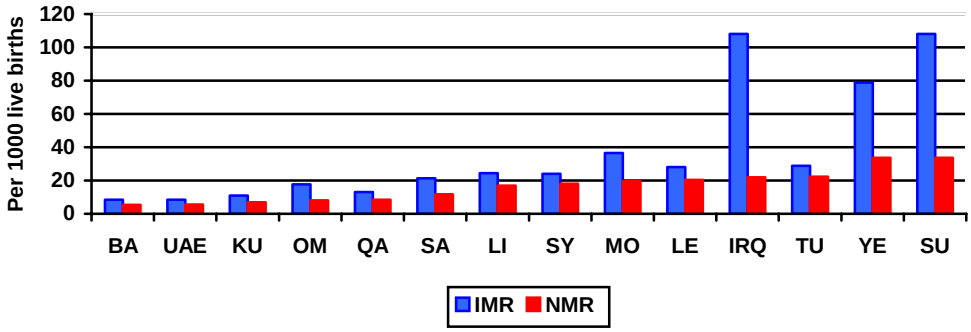

Figure 3. Infant mortality and neonatal mortality rates in selected Arab countries

Note. Infant mortality includes neonatal mortality which, in turn, includes early neonatal mortality

Other factors have offset the benefits of these effective interventions, including poverty and inequity in several countries. Moreover, new emerging threats such as economic sanctions, armed conflict and HIV/AIDS in some countries also contributed heavily to slowing the decline of U5M rate. There are lessons to be learned from successful interventions in renewing efforts to increase child survival.

TRENDS IN CHILD HEALTH IN ARAB COUNTRIES

Immunization

EPI

Among Arab countries, successful implementation of the expanded programme of immunization (EPI) has contributed significantly to the improvement of child survival by reducing mortality related to communicable diseases.

Diphtheria

Diphtheria immunization coverage has increased greatly in the 19 Arab countries of the WHO Eastern Mediterranean Region. Reported coverage was 1% in 1980, 80.9% in 1989 and 89.5% in 1999. This has led to a drastic decrease in reported diphtheria cases, from 3600 cases in 1980 to only 78 cases in 1999 (Figure 4).

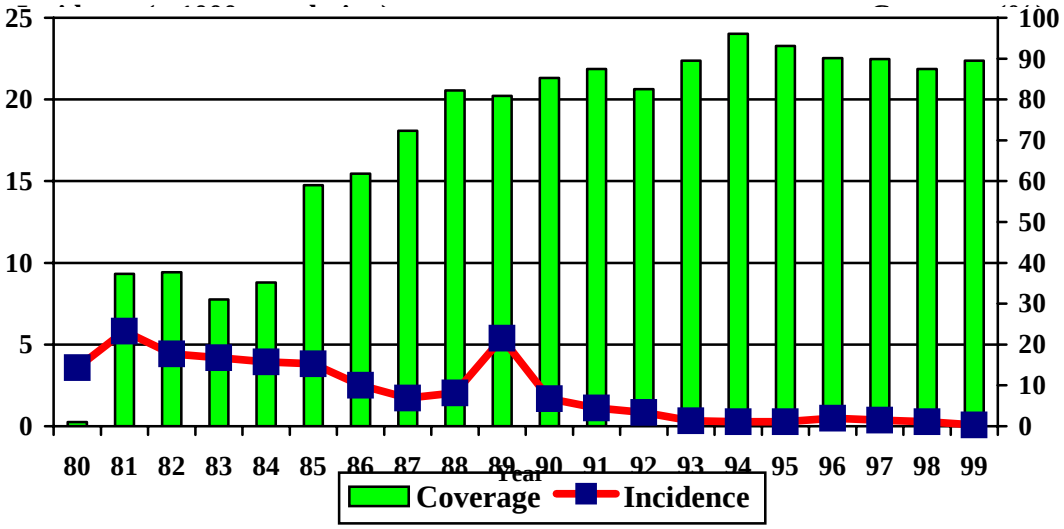

Figure 4. Reported incidence of diphtheria and immunization coverage with DPT3 among infants in Arab countries of the Region, 1980–1999

Measles

Similarly, measles immunization coverage has increased in the Arab countries of the Eastern Mediterranean Region. Coverage was 1% in 1980, 79% in 1989 and 89% in 1999. More importantly, the incidence of measles has decreased from 254 392 in 1980 to 30 774 in 1999 (Figure 5).

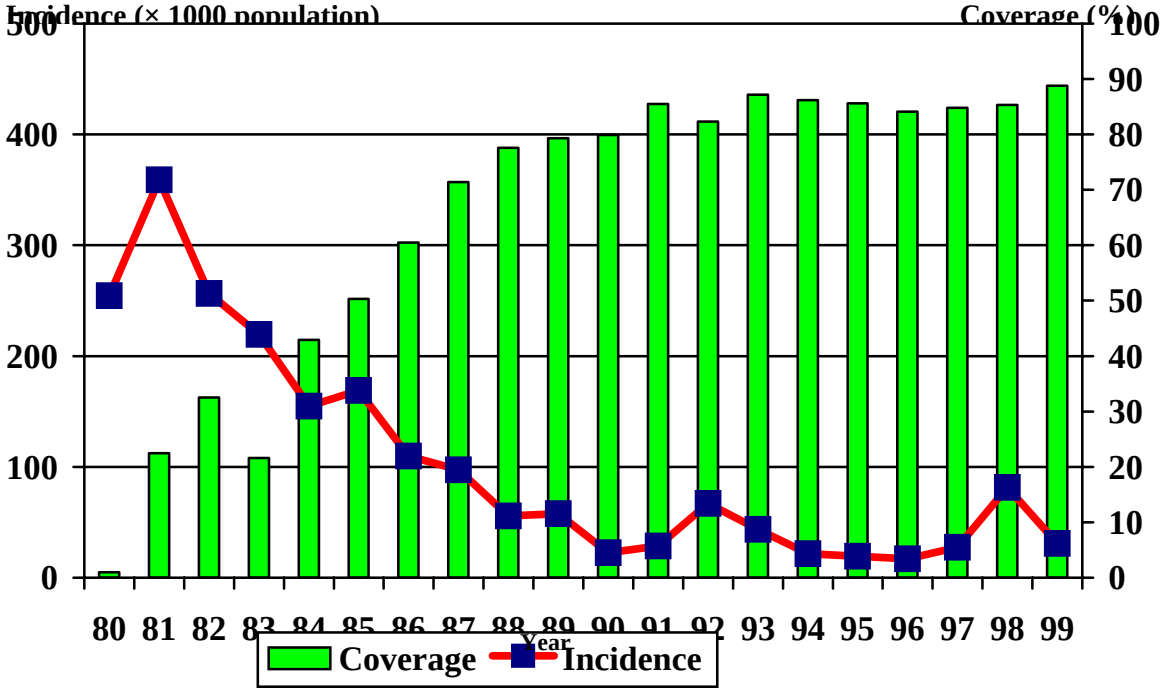

Figure 5. Reported incidence of measles and immunization coverage with measles among infants in Arab countries of the Region, 1980–1999

Tetanus

Significant progress has been made in maternal and neonatal tetanus (MNT) control and elimination programmes in the Arab world. Fourteen out of 19 Arab countries in the Eastern Mediterranean Region have already reached the elimination goal. Of the remaining 5 countries, 3 are very near the goal, with only a few districts still notifying cases, and all are implementing the recommended high-risk approach.

Poliomyelitis

The intensification of polio eradication activities in Arab countries, through a combination of improved routine immunization coverage and supplementary immunization campaigns, has led to a gradual disappearance of poliomyelitis from the Arab region. In 1988, thousands of polio cases were reported from all Arab countries except Kuwait. In 2001, laboratory-confirmed polio cases were reported only from Egypt (5 cases), Somalia (7 cases) and Sudan (1 case), with a probable virus importation into Mauritania (1 case) (see Figure 6).

Routine infant immunization coverage in Arab countries reached 80% in the early 1990s, and has remained close to 85% since then (83% in 2000). While the number of cases has decreased annually as routine coverage increases, the continued decrease in the incidence of poliomyelitis during the second half of the 1990s—down to only 14 laboratory-confirmed cases in Arab countries in 2001—is mainly attributable to the implementation of extensive supplementary immunization campaigns, particularly in the countries where polio remains endemic. It is hoped that the intensified immunization efforts will be successful in stopping viral transmission in the Arab countries before the end of 2002.

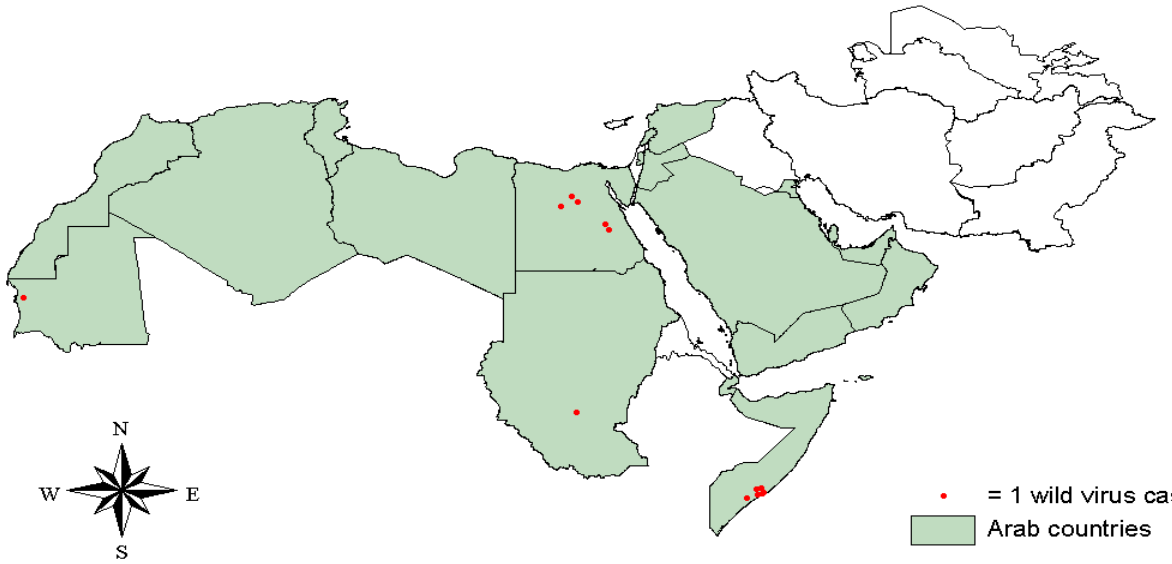

Figure 6. Number of wild virus polio cases in 2001 in the Arab countries of the Region

Surveillance systems for polio eradication in all Arab countries are now sufficiently sensitive to find or confidently exclude ongoing poliovirus transmission. Surveillance quality has reached levels that will allow the independent Regional Commission for the Certification of Poliomyelitis Eradication to certify the Eastern Mediterranean Region as polio-free, once all Member countries have become polio-free.

Polio eradication activities have received unprecedented political and multisectoral support in all Arab countries. In many countries, polio eradication activities have also been of great benefit for the control of other vaccine-preventable diseases (improved vaccine cold chain, vaccine delivery and disease surveillance systems) as well as for primary health care in general.

Challenges

Despite these efforts and successes and the fact that immunization is the most cost-effective intervention known against poliomyelitis, measles, diphtheria, tetanus, pertussis and tuberculosis, immunization programmes are faced with certain concerns:

- Problems of accessibility to vaccines due to low coverage by health facilities, sub-optimal delivery strategies and unavailability of services in conflict areas and for mobile and displaced populations

- Low coverage rates in some areas due to lack of public awareness of the importance and value of immunization as well as unavailability of vaccines

- Low coverage due to misinformation about the contraindications of vaccines, adverse events and multiple injections

- Poor quality of immunization services, including missed opportunities of immunization, lack of defaulter tracing and follow-up, overcrowded immunization sessions and improper health staff behaviour

- High costs of new vaccines, lack of resources for coverage acceleration and lack of resources for renewal and replacement of cold chain equipment

- Vaccine shortages, lack of necessary supplies and breakdown in logistics.

Diarrhoeal diseases

In 1980, diarrhoeal diseases were among the major killers of children under 5 years. Due to the great achievements of diarrhoeal disease control programmes, there has been a remarkable decline in deaths from diarrhoea. This success can be attributed to consistent promotion of standard case management in health facilities, local production and wide use of oral rehydration salts (ORS) and increased awareness among families of how to manage cases at home correctly, with special emphasis on continuing feeding of children during illness.

Social marketing of ORS through community-based interventions has been an important tool in reducing mortality due to diarrhoea.

During the 1980s and 1990s, almost all Arab countries established programmes to control diarrhoeal diseases. In most cases, EMRO and the UNICEF Regional Office for the Middle East and North Africa (UNICEF/MENARO), in collaboration with WHO headquarters, directly supported planning, training, implementation and evaluation of the CDD programmes. Pre-service training in diarrhoea case management was introduced in medical and nursing schools in almost all Arab countries. Working with UNICEF/MENARO, EMRO supported countries in producing oral rehydration salts locally. By studying family and community practices with regard to diarrhoea, education strategies and tools were developed and introduced.

In addition, EMRO conducted many activities aiming at promoting and supporting breastfeeding, to help improve child growth and development and prevent childhood illness, in particular diarrhoea. During the last decade, in close collaboration with UNICEF and other partners, EMRO has played a major role in various activities related to breastfeeding, including development and promotion of the International Code of Marketing of Breast Milk Substitutes, the Baby Friendly Hospital Initiative and the development and implementation of breastfeeding counselling.

Acute respiratory infections

Acute respiratory infections remain the most common cause of child death in many countries (about 18% of under-5 mortality). During the mid 1980s, EMRO, together with UNICEF/MENARO, introduced the programme for the control of acute of respiratory infections (ARI), drawing on an active programme of research and development and focused on scientifically sound case management guidelines. It aimed to improve the recognition of ARI by families, to allow them to seek appropriate care promptly, to improve the quality of care for ARI in health facilities and to ensure the availability of affordable antibiotics. By mid 1985, almost all Arab countries had introduced the ARI programme; in about half of them, ARI activities were introduced through combined CDD/ARI programmes.

Integrated Management of Childhood Illness

Experiences in implementing CDD and ARI programmes have highlighted two important lessons.

- More lives can be saved by broadening the approach to include more than two conditions.

- The technical approach to managing diarrhoea and acute respiratory infections provides a starting point for considering the needs of the child by linking clinical care, growth and development, disease prevention and promotion.

These lessons led WHO and UNICEF to develop the Integrated Management of Childhood Illness (IMCI) strategy, intended to improve the equity and efficiency of services and save more children from preventable death. In addition to case management of acute illness, the strategy emphasizes the importance of malnutrition as an underlying cause of child mortality and morbidity. It also encompasses disease prevention and health promotion, specifically breastfeeding and nutritional counselling.

IMCI was first introduced in the Eastern Mediterranean Region in 1996 and is currently being implemented in 12 Arab countries in the Region. IMCI's flexibility has meant that it is adaptable to different health policies and systems in those countries. Despite this local adaptation, IMCI rests on three pillars: improving health system functioning, improving health providers' performance; and improving family and community health practices. Furthermore, IMCI has been shown to be among the most cost-effective interventions in the health system.

Countries in the Region have committed to building capacity to support IMCI implementation and child health more generally, with particular attention to planning, monitoring and supervision. EMRO has contributed to national capacity through its leading role in supporting medical and nursing schools to incorporate IMCI pre-service training in their programmes.

The overall experience from the Region demonstrates improved quality of health care services delivered to children, reduced costs of care due in part to rational use of medications and increased use of services as families and communities perceive the increased quality of the care. Important issues for meeting the goal of implementing IMCI in all Arab countries by 2010 include the following.

- More emphasis is needed on child development.
- Community participation must be accelerated.
- Prevention components must be strengthened.
- Adequate data for evaluation must be collected regularly and used to adjust implementation.
- Strong political commitment and multisectoral collaboration must be maintained.

Malaria

Malaria is considered the leading cause of child mortality in 5 countries of the Arab world. EMRO is contributing to the global efforts of the Roll Back Malaria initiative (RBM) launched by WHO, UNICEF, the World Bank and United Nations Development Programme in 1998, focusing on progressively increasing control activities in countries. In EMRO, close collaboration between RBM and IMCI creates opportunities to benefit from the existing interventions of both: improving quality of case management of malaria, improving health

system support and enabling affected communities to decrease their burden of malaria by ensuring their active participation in rolling back the disease.

Sexual and reproductive health/maternal mortality

During the last decade, the concept of reproductive health has reshaped WHO's approach towards safe motherhood as horizontal and holistic rather than a vertical programme. To enhance the implementation of Safe Motherhood Initiative through the programmatic framework of reproductive health in countries, WHO developed the Mother–Baby Package that describes the minimum interventions of the four pillars of safe motherhood: antenatal care; obstetric care; postpartum and neonatal care; and family planning.

Achievements in reducing maternal and neonatal mortality have lagged behind those for infant and child mortality. Despite many successful achievements in Arab countries, much work remains to be done to achieve the goals of the Safe Motherhood Initiative. With respect to success in reducing maternal mortality, Arab countries can be divided into three categories:

- Countries which have made significant progress in reducing maternal mortality but still must further strengthen the quality of safe motherhood, with particular focus on neonatal health care

- Countries which have made some progress, but still need to bring about further reduction in maternal mortality

- Countries which have made little or no progress in reducing maternal mortality and still need extensive support to implement effective safe motherhood measures.

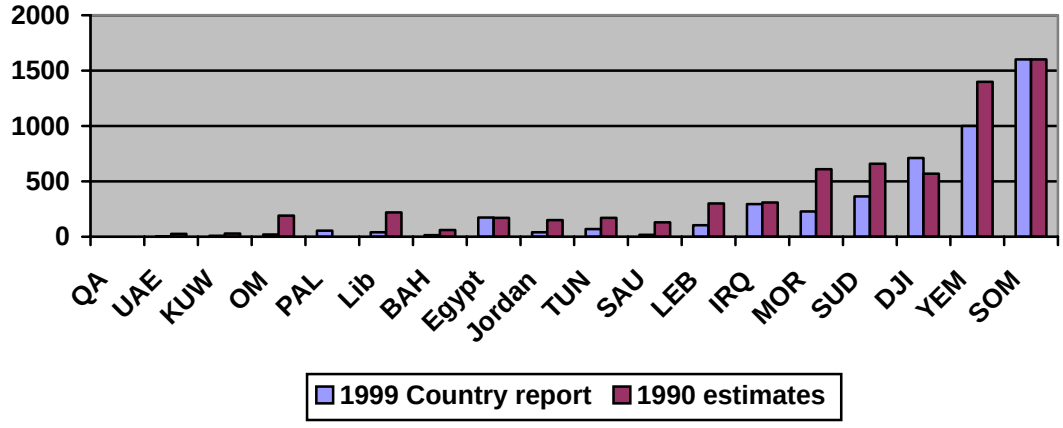

Figure 7. Maternal mortality rates in selected Arab countries, 1990 and 1999

Measuring progress in reducing maternal mortality is difficult due to a combination of factors. First, many countries lack health information systems capable of providing accurate estimates of maternal mortality. Second, variation between countries in the elements of Safe Motherhood initiatives suggest disagreements or uncertainty regarding best practices.

Furthermore, lack of resources and poor quality of care have made expansion of successful efforts difficult.

HIV/AIDS

The HIV epidemic is still in its early stages in most Arab countries, with the exception of Djibouti, Somalia and Sudan, where the spread of HIV is much more advanced. Nevertheless, the number of new infections is increasing steadily every year in all countries and several specific population groups seem to be at particular risk of infection, including injecting drug users and migrants.

Although currently relatively few in number, children infected with HIV do exist in countries of the Region. Initially, most infections occurred via infected blood products. Recently, increasing numbers of babies are infected during delivery or breastfeeding.

Adolescent health

Given the large population of young people in the Arab world, adolescents are key as the foundation of the future. Adolescence is a period of rapid change during which intellectual abilities are stimulated and cognitive and affective faculties are nurtured. During these formative years, adolescents are influenced by parents, teachers, peer groups, health care providers, the media and the religious and cultural norms in their communities. The health behaviours of adolescents, such as eating habits, use of tobacco and other substances, are of critical importance to the health and disease patterns that will be observed when this population reaches adulthood.

The Regional Office is emphasizing the importance of caring for this critical group through an education package developed for parents, teachers and adolescents themselves. This tool is valuable for raising community awareness about the main issues and concerns in adolescent health.

Tuberculosis

Tuberculosis is an important public health problem in the 19 Arab countries of the WHO Eastern Mediterranean Region. Tuberculosis affects 240 000 people and kills 53 000 people every year in these countries. Although 85% of cases occur among adults, tuberculosis has a substantial impact on children.

Those affected with tuberculosis are usually young adult males, often the providers for the family. Tuberculosis also affects adult females, namely mothers. Since tuberculosis is the leading infectious cause of death in adults it is one of the leading causes of the death of parents, thus creating orphans. Moreover, tuberculosis still affects 17 000 children and kills 4 000 children every year in the 19 Arab countries of the Eastern Mediterranean Region.

Combating tuberculosis is one of the most important challenges facing WHO. Promoting DOTS use, providing guidelines, building surveillance systems, monitoring,

increasing immunization coverage, improving socioeconomic status and raising public awareness are all part of WHO's agenda.

Nutrition

Growth

In Arab countries, 17.3 million (24.9%) children are underweight, 23.9 million (34.3%) are stunted and 5.2 million (7.5%) are wasted. In addition, severe, acute protein energy malnutrition is a problem in countries with situations of complex emergency (e.g. Somalia, Sudan) or those under economic and political sanctions (e.g. Iraq).

Growth retardation is largely linked to unsatisfactory infant and young child feeding practices. Recognizing the critical importance of those practices, WHO now recommends exclusive breastfeeding until the age of 6 months and complementary feeding and breastfeeding until the age of 2 years.

Vitamin A deficiency

Vitamin A deficiency is currently a major concern because it causes immuno-compromise, respiratory infection and blindness. Only 4 countries in the Eastern Mediterranean Region still report clinical vitamin A deficiency, but 13 countries, including Egypt, Jordan, Morocco and Oman, have found that sub-clinical vitamin A deficiency is present. Necessary steps for controlling and eliminating vitamin A deficiency include improvement in dietary intake of vitamin A and its precursors through fortification of edible oils and distribution of high doses of vitamin A supplements as part of national immunization days.

Anaemia

Control and treatment of anaemia, particularly that caused by iron deficiency, is essential for children. Between 25% and 40% of children under 5 years in the Arab world are anaemic, primarily due to iron deficiency. The Regional Office is promoting the fortification of flour with iron and folate as a cost-effective solution for mass protection against iron deficiency.

Obesity

The increase in the prevalence of obesity among adolescents has been reported from several countries, with rates reaching as high as 40% in some countries. The resultant consequences of diabetes, hypertension and cardiac problems are also encountered in larger numbers from these countries. Rapid changes in lifestyles and food consumption patterns as a result of economic prosperity, urbanization and globalization, have contributed to rising levels of obesity.

Considerable efforts are still needed to treat and prevent severe and moderate protein-energy malnutrition in children under 5 years of age. These include the following measures.

- Continue promotion of exclusive breastfeeding for 6 months and appropriate complementary feeding practices for infants and young children with continued breastfeeding till the age of 2 years.

- Control and prevent obesity and diet-related noncommunicable diseases through establishing appropriate food-based dietary guidelines and environments that promote physical activity and healthy lifestyles.

- Control and prevent micronutrient deficiencies through fortification of food with micronutrients like iron, folic acid, vitamin A and D; ensure universal salt iodization; provide supplementation to vulnerable populations such as children under 5 and women in the childbearing age group at all possible opportunities.

Child labour

Child labour has been recognized as a serious problem in some Arab countries over the last decade, where various exploitative forms of child labour still exist. These forms of labour may have dangerous consequences on the physical, cognitive, emotional, social and moral development of working children and may also expose them to fatal injuries and accidents. Such types of labour may include: full-time work at too early age in hazardous environments, which expose children to dangerous chemicals and physical stresses such as high levels of noise, heat and radiation; work that exerts undue physical, social or psychological stress; work and life on the streets; and work that undermines children's dignity and self-esteem, such as bonded labour and sexual exploitation. Together with the League of Arab States, EMRO is working to develop a plan of action for Arab countries.

Many health professionals are not aware of the impact of hazardous elements at the workplace on children and the health outcomes that may result from exposures to these elements. Most occupational health standards and regulations have been established only for adults.

The justifications for child labour are complex and include poverty, economic exploitation, social values and cultural circumstances. To be comprehensive, solutions must involve the widest possible range of partners in each society. EMRO's agenda for the future includes the following actions.

- Conducting detailed situation analyses of the main health problems emerging from child labour to prioritize the activities needed to control this phenomena.

- Ensuring research to shed more light on the various aspects of child labour.

- Establishing networks among organizations, institutions, researchers and individuals interested in child labour.

- Upgrading primary health care (PHC) to respond effectively to the health risks related to this growing problem.

Protection of children's environmental health

EMRO's strategy for child health integrates three themes: controlling disease due to poverty; improving environmental conditions; and mobilizing social capital. Specific interventions include control of environmental hazards (especially lead), water fluoridation, traffic accident prevention, safe use of household chemicals and improvement of schools, playgrounds and sport facilities.

Major environmental concerns related to children's health include the following.

- lack of adequate and safe water supply and sanitation in the least developed countries
- outdoor and indoor air pollution
- food safety and hygiene
- inadequate solid waste management in some countries
- exposure to lead, pesticides and other pollutants
- exposure to vectors of disease
- tobacco use

EMRO's vision for future work in this area is based on the idea that preventing exposure is the most effective means of protecting children from environmental threats. The vision includes the following activities.

- promotion and advocacy for child environmental health
- information collection for evidence-based burden of disease studies
- applied pollution control and environmental measures (e.g. lead-free fuel)
- expansion of school-based health programmes

Mental health and substance abuse

The median age of the population in many Arab countries is less than 20 years. Psychosocial problems and mental health related morbidity is often one of the results of such a demographic picture. Major studies regarding psychiatric morbidity in the Arab countries of the Eastern Mediterranean Region are scant and no systematic region-wide study has been done. Based on recent work in Bahrain, Egypt, Morocco, Saudi Arabia and Tunisia, the prevalence of major psychiatric disorders among children and adolescents of the Region is similar to other parts of the world. However, mental retardation and epilepsy are more common in those Arab countries with less access to resources and high prevalence of infectious diseases of childhood, complications of pregnancy and childbirth and nutritional diseases.

Another area of concern for children and adolescents of the Arab world is the breakdown of the traditional extended families due to urbanization. New nuclear families suffer from a number of shortcomings, including compromised emotional support for children

due to the demands of living in the city, and increased psychosocial distress due to the effects of poverty in the absence of community safety nets.

One of the major challenges faced in the area of child and adolescent health is the increasing danger of substance abuse. Apart from tobacco, which is the substance most frequently abused in the Arab world, there is an increasing danger of abuse of other substances such as marijuana, prescription drugs and even opium and heroin. Whenever high unemployment exists among youth, their involvement in the illicit drug trade also increases.

CONCLUSIONS AND VISION FOR THE FUTURE

- Baseline and regularly updated information is needed for monitoring, and explicit efforts must be made to gather such information.

- Integrated approaches are more sustainable and successful than vertical programmes, despite several notable successes.

- Health systems are essential in achieving health goals.

- Focusing on home care and the active role of families in caring for children is instrumental in improving equity of access.

- Due attention should be given to emerging problems such as effects of sanctions and armed conflicts, child labour, drug abuse and HIV/AIDS, in addition to poverty and inequitable access to health services.

- Strengthening partnership with other United Nations agencies, bilateral organizations and so on should be considered an important step towards the implementation of successful child health activities.

- Nutrition interventions, being the major contributor to child mortality and morbidity, should be strengthened in Arab countries.

- The United Nations Convention on the Rights of the Child (CRC) is the major instrument for monitoring and ensuring the rights of children and adolescents to health and health care and for mobilizing national and international support in this area. WHO's role related to the CRC should not be limited to providing data to the United Nations committee on the CRC. Over the last ten years, WHO's activities have been particularly relevant to four specific CRC areas: child survival, improving quality of child health care; active participation of communities in caring for children through a range of activities, especially IMCI; and strengthening psychosocial development of children. The CRC has been used by WHO as a framework for programming for adolescent health since the early 1990s.

- EMRO should take steps towards using the CRC as a framework for planning and monitoring child health-related activities. A first step would be conducting the

orientation course developed by the Child and Adolescent Health and Development (CAH) Department to train regional staff on the use of the CRC as a tool for planning and monitoring child and adolescent health activities in countries. A second step would be conducting this course at country level to strengthen the process of reporting on CRC and planning child and adolescent health activities through this framework.

- Future planning for child health in EMRO should consider using the lifecycle approach through integration of activities of all relevant concerned departments and partners.