

Reviews and reports

Overall view of the health status of women and its determinants in the Eastern Mediterranean Region

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Introduction

Women's status, as reflected in their legal rights, education, health, employment, position in the household and family decision-making power, affects demographic behaviour such as age at marriage, fertility, and infant, child and maternal mortality. These in turn have an impact on the improvement of women's status and their participation in the development process. Women's health status in particular has an important impact on the health of their children, the family, the community and the environment. Moreover, women are cornerstones of the family and assume responsibility for many of its most vital functions, not only in regard to health and education, but also in food production and income generation. Therefore, the health of women is a prerequisite for the health of the whole family and, by extension, of communities and societies [1]. In recognition of the importance of women's contribution to development and the need to improve the health status and role of women, many countries in the Eastern Mediterranean Region (EMR) have begun to formulate policies and implement maternal health programmes. Of particular significance is the formulation of reproductive

health policies and programmes to meet the needs of all women at different stages in their reproductive lives, according to their socioeconomic setting and religious and cultural backgrounds.

Women's reproductive health begins even before a girl's birth. It starts with nutrition and health care for mothers, valuing infant girls, education for young girls, comprehensive health care, including safe contraception, for women in their reproductive years, attention to the impact of women's occupational activities, and care for aging women. To this end, national commissions or councils for welfare of women have been established in several countries of the EMR.

This paper does not attempt to address all aspects of sociodemographic and economic development affecting women's lives in the EMR. A few indicators have been selected as illustrative of the sociodemographic and economic determinants of the health of women (Figure 1).

Female education

Although education has been unanimously endorsed as a fundamental right and as an explicit goal of development, women's ac-

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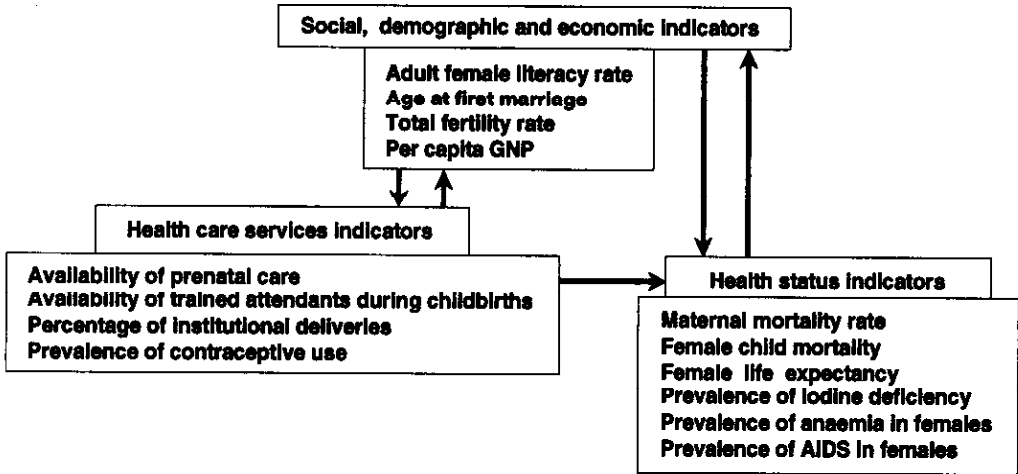


Figure 1 Selected indicators of women's health

cess to schooling remains inadequate in a large part of the Region. The long historical neglect of women's educational needs has left high illiteracy rates, especially among older, poor and rural women. The Region's total population in 1994 reached 425 million, of which almost half (48.4%), or 205.7 million, are females. Among adult females (15 years or older), only 35% are literate (Table 1) compared to an adult male literacy rate of 61%. There are big differences in female literacy among countries of the Region. It ranges from as high as 90% in Cyprus to as low as 13% in Somalia. Primary school enrolment ratios are almost always higher for males than females. It is worth noting that as the overall school enrolment ratio for any one country increases, the difference between male and female enrolment decreases or becomes negligible. Moreover, in several countries of the Region, only half of those females who do attend primary school ever reach secondary school. Thus, in nearly every country of the

Region, there are fewer girls enrolled in secondary schools than there are boys.

The low adult female literacy rate in the EMR has important implications, not only for the health of women, but also for the health of their children. An inverse relationship between female literacy and the infant mortality rate (IMR) has long been recognized. At the country level, maternal and child health surveys conducted in several countries of the Region indicate that there are marked differences in morbidity and mortality of children according to the education of the mother. For example, in Yemen [2], for each sick child with diarrhoea among children whose mothers have more than primary education, there are almost two others among those whose mothers are illiterate. It was also found that about half the children of illiterate mothers, but only a quarter of children of mothers with more than primary education, have experienced acute respiratory infection and difficulty in breathing. The results of the

Table 1 Selected Indicators of women's health in countries of the Region^a (latest available data)

Country	Female literacy rate (%)	Primary school enrolment (%) ^b		Female secondary school enrolment (%)	IMR per 1000 live births	Total fertility rate
		Male	Female			
Cyprus	90	101	101	96	9.0	2.4
Kuwait	79	94	91	79	12.1	3.8
Qatar	76	118	86	86	12.0	3.3
Lebanon	73	96	116	76	34.6	3.2
Jordan	72	98	95	54	34.6	5.6
Bahrain	71	111	111	101	19.9	3.3
Syrian Arab Republic	69	115	101	43	34.6	4.2
Iraq	66	92	86	34	92.0	5.8
Tunisia	59	100	110	42	41.0	3.3
Libyan Arab Jamahiriya	52	107	104	...	29.0	6.5
Saudi Arabia	50	92	87	43	30.0	6.5
Oman	49	105	83	52	23.0	6.9
Iran, Islamic Republic of	45	123	105	48	34.0	3.6
Morocco	40	82	60	29	57.4	4.4
United Arab Emirates	36	104	109	89	9.5	4.6
Egypt	35	100	89	69	33.6	3.9
Yemen	28	70	35	6	77.9	7.7
Pakistan	22	80	30	13	80.0	5.9
Somalia	16	18	6	7	112.0	7.0
Afghanistan	15	33	16	8	165.0	6.8
Djibouti	15	54	30	10	114.0	6.6
Sudan	13	57	45	19	70.0	5.3

^a In descending order according to the adult female literacy rate

^b Gross enrolment ratio

... Data not available

same survey provided strong evidence concerning the impact of the mother's education on child health and survival. The infant mortality rate for infants born to illiterate mothers is 101 deaths per 1000 live births, significantly higher than that for infants of educated mothers, which is only 50 per 1000 live births. Children of illiterate

mothers also have a higher probability of dying before the age of five years (142 per 1000 live births) than children of women with at least primary education (89 per 1000 live births) [2].

In order to ameliorate this situation, many countries have made considerable efforts in the past decade to expand their edu-

cational facilities, to reduce the incidence of illiteracy, to raise school enrolment rates and to narrow social and gender-based differentials in access to schooling. Substantial progress has been made (female adult literacy rate increased from 22% in 1982 to 35% in 1994), but insufficient education still stands as a major obstacle to women's health.

Economic factors

A similar inverse relationship has been established between income levels and maternal mortality rate (MMR) (Table 2). Income level, expressed in terms of per capita gross national product (GNP), is a determinant factor when considering women's health, especially noting women's in-

Table 2 Selected indicators of women's health in countries of the Region* (latest available data)

Country	Per capita GNP (US\$)	MMR per 100 000 live births	Population coverage (%)				Female life expectancy (years)
			Local health services		Antenatal care	Attended deliveries	
			Urban	Rural			
Kuwait	17 730	27	100	98	100	100	75.0
United Arab Emirates	15 770	1	90	68	90	99	72.0
Qatar	14 760	0	100	100	100	100	74.6
Cyprus	10 913	0	100	100	100	100	79.1
Dahrain	7 100	7	100	100	95	90	74.1
Saudi Arabia	6 230	17	88	50	65	90	69.0
Oman	5 430	20	90	100	95	92	67.9
Libyan Arab Jamahiriya	5 420	60	100	100	100	76	67.0
Iraq	3 608	117	96	100	70	84	67.0
Iran, Islamic Republic of	2 320	54	75	100	50	84	69.0
Syrian Arab Republic	1 430	143	90	90	51	83	67.2
Tunisia	1 260	69	72	76	70.5
Morocco	1 231	332	36	100	32	31	67.1
Jordan	1 140	60	85	84	69.8
Lebanon	960	...	85	100	96	45	68.0
Yemen	650	1000	35	65	26	35	47.0
Egypt	610	51	100	100	53	41	66.4
Djibouti	475	740	95	100	76	74	42.0
Pakistan	360	400	100	79	34	19	64.0
Sudan	330	365	47	100	52	87	60.0
Afghanistan	175	1000	45	65	6	20	44.0
Somalia	170	1100	15	95	25	2	49.0

* In descending order according to per capita GNP

creased vulnerability in situations of economic hardship, as well as the severe negative effects on health that occur among the low-income class. Poverty often means that people exist on insufficient food or the wrong kinds of food. For women, when this is combined with childbearing and a heavy workload, it often leads to serious malnutrition. Poor women are more likely to live in crowded, unsanitary housing with an inadequate water supply. Poverty and gender-defined roles limit access to education for girls, narrowing their possibilities for future employment and a chance to break out of the cycle of poverty and ill-health. Poverty limits access even to free health care if a family cannot afford the costs of medication and transport, or if a woman cannot afford to take time off from paid work to visit a health facility. At the country level, the maternal and child health survey quoted previously [2] showed that the socioeconomic level of the household is among the key variables in explaining the large differentials in level of health and nutrition seen in urban and rural areas and across different regions of a country.

On the other hand, healthy women contribute to the household income and to a nation's productivity. The EMR records one of the lowest economic participation rates for women. The average rate of economically active females in the EMR is 17%, while the average for the developing countries is 50%. For every five economically active males in the Region, there is only one economically active female [3].

Fertility and contraceptive use

Fertility determines the biological potential of reproduction. The total fertility rates in many EMR countries are still high. In 11 out of the 22 countries of the Region, the

total fertility rate is above the regional average of 5.1 (Table 1). Here again, as with literacy rates, there are big differences between fertility rates among countries of the Region: from 2.4 in Cyprus to 7.7 in Yemen. Interestingly, an inverse relationship between fertility and female literacy exists (Figure 2), which emphasizes the role education plays in real and lasting improvement in women's life. This relationship is consistent with the classic model of demographic transition, which hypothesizes a steady decline in fertility concurrent with the process of socioeconomic development. The influence of education on fertility is assumed to derive from various dimensions of the educational experience. In addition to the cognitive and attitudinal changes, education opens up economic opportunities and provides a vehicle for social mobility. All of these educational assets

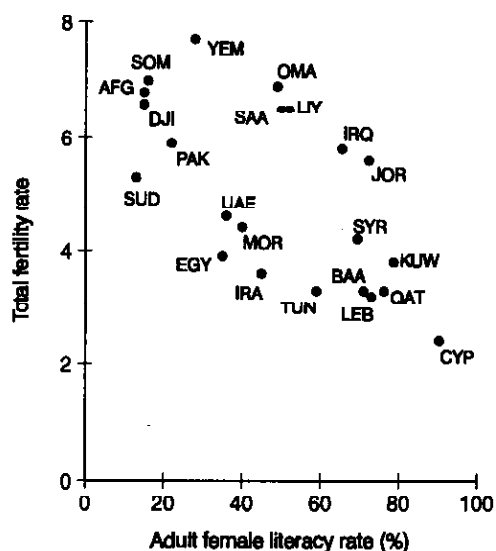


Figure 2 Relation between adult female literacy and fertility in countries of the Eastern Mediterranean Region

Table 3 Total fertility rate and wanted fertility rate in selected countries according to a woman's education

Country	Total fertility rate	Total wanted fertility rate	Years of schooling					Difference 0-10+
			0	1-3	4-6	7-9	10+	
Egypt	4.7	2.9	3.5	3.1	2.2	2.1	2.7	-0.8
Morocco	4.9	3.3	3.8	2.3	1.8	1.5	1.9	-1.9
Tunisia	4.0	2.9	3.4	3.2	2.7	1.8	1.6	-1.8

have an influence on women's lives, shaping both their productive and reproductive roles [4-6]. The Demographic and Health Surveys (DHS), conducted by Macro International since the late 1980s in Egypt, Morocco and Tunisia, provide the opportunity to re-examine the relationship between education and fertility from a cross-national perspective [7]. Table 3 presents the total fertility for educational subgroups in these three countries. When women at the upper and lower end of the educational range are compared, fertility levels are seen to be substantially lower among the better educated. The magnitude of the observed differential between the upper and lower educational strata is of the order of one to two children.

The rate of contraceptive use in countries of the EMR ranges from as low as 5.8% in Iraq to as high as 54.0% in Bahrain (Table 4). The regional average is 30%, i.e. one-third of the women currently married (15-45 years), in the 15 countries reporting contraceptive use, are currently using contraceptive methods. The DHS showed that in Egypt, Morocco and Tunisia, the majority of women who practise contraception use modern methods. As with fertility, these surveys showed that education exerts a profound influence on women's contraceptive practices. Table 5 shows that the

Table 4 Percentage of currently married women (15-45 years) using contraceptives in the Eastern Mediterranean Region

Country	Contraceptive prevalence (%)	Year
Iraq	5.8	1991
Yemen	9.7	1992
Sudan	9.9	1993
Afghanistan	11.7	1987
Oman	12.0	1994
Pakistan	20.0	1993
Qatar	32.0	1987
Jordan	35.0	1990
Kuwait	35.0	1987
Syrian Arab Republic	39.6	1993
Morocco	41.5	1992
Egypt	47.8	1992
Iran, Islamic Republic of	48.6	1993
Tunisia	53.6	1992
Bahrain	54.0	1988
Regional average	30.0	1987-93

better educated women surveyed displayed the highest rates of contraceptive use. Highly educated women have contraceptive prevalence rates about 25-40 percentage points higher than uneducated women.

Table 5 Percentage of currently married women using any method of contraception in selected countries according to woman's education

Country	Total	Years of schooling					Difference 0-10+
		0	1-3	4-6	7-9	10+	
Egypt	38	28	40	51	52	55	27
Morocco	36	31	52	60	63	69	38
Tunisia	50	42	43	61	64	69	27

This positive association could be due to the fact that better educated women are more likely than others to desire small families, and hence have a stronger motivation to practise contraception. Moreover, because of their literacy and greater familiarity with formal institutions and health care providers, educated women are also better informed about available contraceptive options and sources.

Social, cultural and religious belief systems influence certain health-seeking behaviour, such as contraception. Fortunately, the religious beliefs of the people in the EMR are not against contraception.

Age at childbirth

The age of a mother at childbirth has an important influence, not only on the health of the mother, but also on infant and child mortality. In a recent study in Egypt, mothers who were under 24 years and those who were over 34 years had higher infant and child mortality rates when compared to those between 24-34 years old [8].

Moreover, the results of the Maternal and Child Health Survey in seven countries of the Region [2,9-13] indicate that 30%-37% of females in the age group 15-19 years are married (Figure 3). Almost half of those who are married had their first

baby by the age of 20 years. In Oman, as many as 37.3% of the females in the age group 15-19 years are married and 60% of these had their first baby before the age of 20 years. Nevertheless, countries in the EMR are witnessing a general trend of increased age at which women marry. This will have an impact on the population in the countries where fertility control programmes are relatively rare.

Health services

Women's special health needs suffer considerable neglect. Several countries in the EMR do not provide enough qualified birth attendants, good prenatal or postnatal care or emergency care during pregnancy. Women continue to face a high risk of death or disability as a result of complications arising from pregnancy, delivery or the postpartum period. This situation will be improved only if effective services are available to all sectors of the population.

Besides the availability of services, the accessibility and acceptability of services are vital for the reduction of maternal morbidity and mortality. In many rural areas, there may be no health services at all, or lack of roads and difficulties of transportation may make them inaccessible. Of all the factors influencing women's health, access

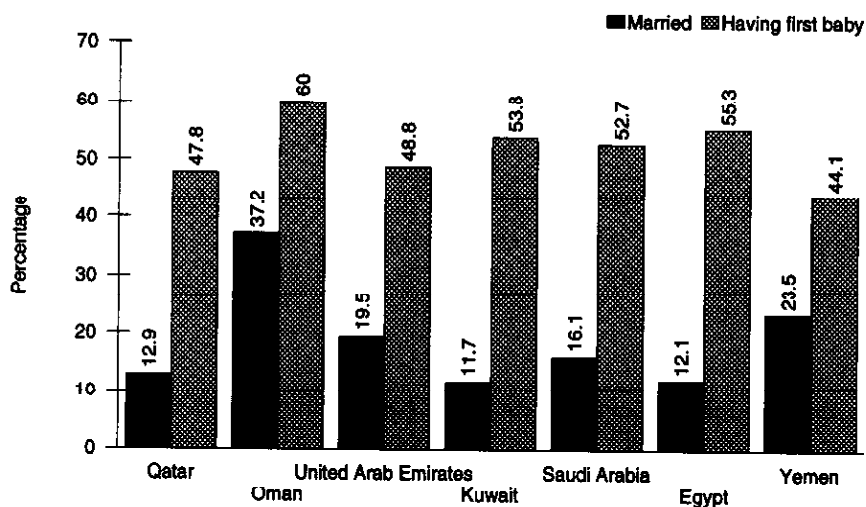


Figure 3 Percentage of married females in age group 15–49 years and percentage of them having their first baby by age 20 years

to health care ranks among the most important. A high proportion of maternal deaths in these areas occur at home, without trained assistance at delivery, or when the women is actually on the way to a district hospital. Urban bias in resource allocation has severe consequences for poor people in rural areas. Wherever women's capacity to travel is limited, lack of high-quality care in local facilities or outreach programmes is a severe constraint on their access to care. Table 2 shows the urban-rural differences in health service coverage. Moreover, providing access to obstetric emergency services is a vital factor for reducing maternal mortality. In a study conducted in Faisalabad, Pakistan, it was shown that when the obstetric flying squad was established in 1988, it resulted in a reduction of maternal mortality and morbidity [14].

A feature of the health care services in several countries of the EMR is the inequality of their distribution. In Egypt, for example, more than half of the population

lives in rural areas but only one-sixth of the physicians are in rural areas. Similarly, in Pakistan, certain urban areas may have as high as six times the number of physicians as some rural areas for the same population size.

The attitude of women towards pregnancy services and delivery care services is also important. In Sind province, Pakistan, a sample of 1200 women, consisting predominantly of poor and illiterate women of reproductive age, were surveyed to improve the knowledge base for decision-making in maternal health policy [15]. The study showed that there was generally little access to quality institutional care services in rural areas. Most rural women delivered at home using the services of the traditional midwife, the *daya*. Concern for cost and convenience was found to be coupled with a high degree of trust in the services of the *daya*. It is because of such attitudes that WHO's Regional Office for the Eastern Mediter-

anean (EMRO) has recommended the target of one trained traditional birth attendant per village, if none with a higher education level were available.

Although there is still a lack of quality information about women's health concerns, especially with respect to access to good maternal care and use of health services, a great deal of useful information has now become available from the results of the maternal and child health surveys [2,9-13]. The results of these surveys, and other data available from national sources, showed that 61% of pregnant women received prenatal care (Table 2). This figure represents a marked improvement over that of 1980 when only 39% received prenatal care. However, it is still lower than the global average of 68%. Moreover, the wide discrepancy between urban (66.2%) and rural (31.3%) coverage calls for intensification of women's health programmes in rural areas. In 1994, almost half (46%) of all deliveries in the EMR were attended by trained personnel (Table 2), showing a marked improvement over the 1980 figure when it was only 27%. The 1994 average is close to the global average of 57%. It is worth noting, however, that only 24% of all deliveries take place in health institutions in the EMR.

Women's health status

The now improved recording and reporting mechanisms permit a more precise assessment of the impact of services on the reduction of maternal morbidity and mortality as well as on the overall health status of women. Female child mortality, female life expectancy, the maternal mortality rate and the nutritional status of women are good indicators of the outcome of development strategies on the health status of women.

Female child mortality

At birth, females enjoy a biological advantage over males in survival. Thus, child mortality rates (up to age five years) are normally lower for girls than for boys. In three countries of the Region, however, namely Egypt, Pakistan and the Syrian Arab Republic, more girls die at a young age than boys, a marked departure from the biological pattern observed in most countries (Table 6). It is worth noting that these three countries account for almost half (48.5%) of the population of the Region. In such cases, it can be said that there is discrimination against the girl child in the provision of health and nutrition [3].

Table 6 Female child mortality as compared to male child mortality in selected countries (annual deaths per 1000 children aged 1-4 years, 1984-1990)

Country	Female	Male	Female mortality as % of male mortality
Egypt	6.6	5.6	118
Pakistan	9.6	8.6	112
Syrian Arab Republic	2.9	2.8	104

Maternal mortality

In the EMR at least 54 000 maternal deaths occur each year (hospital statistics). The maternal mortality rate is the most sensitive indicator for women's health and has long been recognized as an important preventable cause of death in developing countries. It measures the possible risk to a mother when giving birth to a live baby. In some countries of the Region, particularly the least developed countries, the maternal mortality rate has reached appallingly high levels.

Rates vary widely between countries and between urban and rural areas. Where the problem is greatest, most maternal deaths go unregistered. The maternal mortality rate in Afghanistan, Somalia and Yemen, for example, is estimated to be around 1000 maternal deaths per 100 000 live births. This means that one maternal death occurs per 100 live births. The regional average is 340 per 100 000 live births (Table 2), which is more than 10 times that of industrialized countries (30 per 100 000 live births).

Anaemia, haemorrhage, eclampsia, infections, abortions and the complications of obstructed labour account for over 80% of maternal deaths. However, these deaths represent only a small proportion of the total morbidity attributable to the same causes. Most of these causes are preventable through properly organized primary health care and appropriate and accessible referral facilities. In fact, it has been clearly shown that where the percentage of deliveries attended by trained personnel is high, the maternal mortality rate is low (Table 2). In

a study conducted in Egypt in 1993, it was found that at least 46% of the direct causes of maternal mortality were due to haemorrhage, which is largely preventable [16] (Figure 4).

Female life expectancy

Despite the high level of maternal mortality, some improvements have been recorded with respect to life expectancy. With improved health and nutritional conditions, female life expectancy in the Region has increased from an average of 57 years in 1980 to 65 years in 1994 (Table 2), which is approaching the world average for females of 67 years. Female life expectancy ranges from 44 years in Afghanistan to 79.1 years in Cyprus. The average female life expectancy in the EMR is higher than that of males (62 years), thanks largely to reductions in maternal mortality.

Nutritional status

For biological reasons, adult women suffer more than men from malnutrition, such as iodine deficiency, iron deficiency anaemia

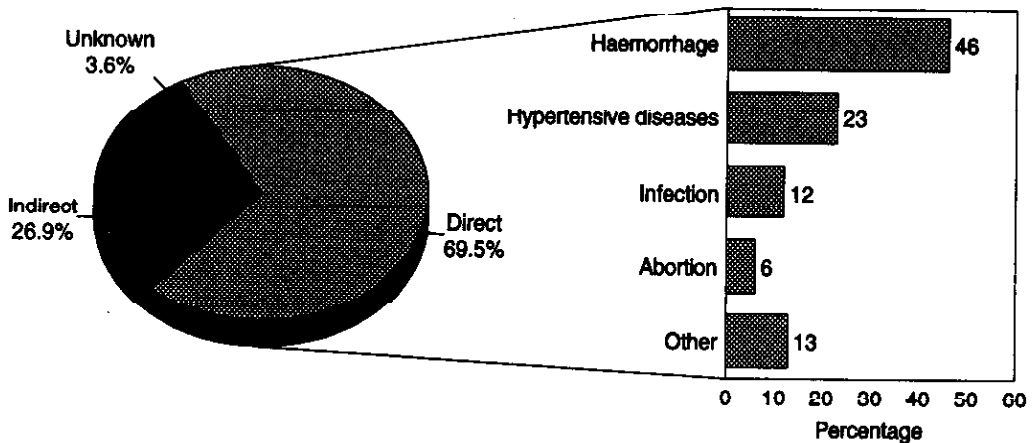


Figure 4 Causes of maternal mortality in Egypt, 1993

and stunting caused by protein-energy malnutrition. Chronic malnutrition in female children leads to stunting associated with small pelvic size which impacts on later stages of women's health. Iodine deficiency in a pregnant women can lead to severe mental retardation in the child. Moreover, malnutrition and ill-health in a mother can initiate a cycle of ill-health in the next generation, as many of these women will bear low-birth-weight babies.

Thus, birth weight can be used as an indirect indicator of the nutritional status of pregnant women. In the EMR, 81.5% of neonates weigh at least 2500 g at birth, which is close the world average of 81% but much lower than the average for the more industrialized regions which is 93%. The EMR average is probably inflated as it takes into consideration only those births that were weighed and recorded, i.e. births that took place in hospitals or health institutions or were attended by trained personnel. As only 50% of deliveries in the Region are attended by trained personnel, this figure probably represents only these births. The actual average is probably somewhat lower than 81.5%.

Another indicator of the nutritional status in women is haemoglobin level. Inadequate iron store before conception is a main cause of iron deficiency and anaemia during pregnancy. Moreover, inappropriate spacing of pregnancies further aggravates low haemoglobin levels and results in anaemia, which in turn lowers the survival chances of both mother and child. Maternal anaemia results in intrauterine growth retardation, low birth weight, increased perinatal mortality and increased maternal morbidity and mortality. In addition, iron deficiency anaemia has repercussions on working capacity and intellectual performance. The prevalence of anaemia in women in the EMR ranges from around 20% in

Jordan, parts of Egypt and Oman to more than 60% in Djibouti. On the other hand, the prevalence of anaemia in pregnant women ranges from 11% in some parts of Saudi Arabia to 54% and 62% in some parts of Oman and the United Arab Emirates respectively [17]. The above facts highlight the importance of proper nutrition of women with iron rich diets before and after pregnancy and emphasize the role of programmes for the prevention of anaemia in the EMR.

Female genital mutilation

Female genital mutilation is still practised in a few countries of the Region. Excision and infibulation contribute to reproductive tract infections leading to bilateral tubal occlusion and infertility. Fortunately, however, the attitudes of the population to such practices are changing. A study conducted in the Bara district in Sudan to identify attitudes of women, health staff and traditional birth attendants towards motherhood, prenatal care and practices affecting the health of women in the district [18] yielded the following results: in addition to the commonly known risk factors for maternal health, e.g. haemorrhage, puerperal infection, obstructed labour, and anaemia, the women in the villages and the health staff identified female genital mutilation as a major threat to safe motherhood.

AIDS in women

Women suffer from a variety of illness affecting their reproductive health. Most can be cured given the proper medical attention, including early recognition of symptoms, correct diagnosis and treatment. One reproductive health-related disease, how-

ever, has no cure as yet: acquired immunodeficiency syndrome (AIDS). As the AIDS epidemic unfolds, women constitute increasing proportions of the afflicted. Women, especially young women, are more vulnerable to human immunodeficiency virus (HIV) (as with other sexually transmitted diseases) than men because of the existence of biological, cultural and socio-economic disadvantages. The WHO global programme on AIDS (EMRO) reported that there has been an observed difference in sex distribution between cases that appeared in the early years of epidemic spread in the Region and those in later years. The proportion of female cases is increasing and is at present 26% of all cases [19]. Pregnant women infected with HIV have a 15%–45% chance of passing on the virus to their children before, during or shortly after birth. Thus, the chances are that both mother and child will die, or that the mother will die leaving behind the child and other children, which emphasizes the serious social implications of the disease.

Work of WHO

WHO has strengthened the emphasis given to women's health issues by creating the unit of Women, Health and Development (WHD) within its Division of Health Policy and Management in all the regional offices. Focal points on women, health and development exist at the regional level in order to strengthen and coordinate the incorporation of activities for women in all WHO programmes.

WHO/EMRO is paying particular attention to reducing maternal mortality through safe motherhood. In this respect, WHO/EMRO is working towards the goal of one trained birth attendant per village. More-

over, advocacy of women's issues has resulted in strong political commitment, which has led to the growing acceptance of family planning for health as an essential requirement for the promotion of women's health. Health education programmes are concentrating on the promotion of healthy lifestyles, elimination of female genital mutilation and prevention of the spread of HIV.

Conclusion

Improving women's health and well-being betters not only their own lives, but also contributes to healthier children and improved household and community welfare. Women's health should be viewed as a continuum. The reasons that women suffer from illness, disease and pain are numerous and complex. Concentrating on individual causes is misleading since it ignores the many interrelated factors that make up the life of girls and women and are reflected in their health status. Among the various dimensions of women's health status, education has drawn the most attention, not only for pragmatic reasons such as data availability and ease of measurement, but also because education shapes the domestic and public spheres of women's experience and largely conditions the quality of women's lives. Education and gainful employment are also regarded as more susceptible to improvement through policy intervention than other facets of women's status that are more deeply rooted in cultural conventions. The association between better health services and lowered mortality indices is clear and pervasive enough to warrant policy attention. Most WHO programmes are now paying increasing attention to the role of women, health and development.

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