

EM/ARD/017/E  
Distribution: restricted

# Country Cooperation Strategy for WHO and Tunisia 2008–2013

# Tunisia



**World Health  
Organization**

Regional Office for the Eastern Mediterranean



# Country Cooperation Strategy for WHO and Tunisia 2008–2013

# Tunisia



**World Health  
Organization**

Regional Office for the Eastern Mediterranean

© World Health Organization 2010

All rights reserved.

This health information product is intended for a restricted audience only. It may not be reviewed, abstracted, quoted, reproduced, transmitted, distributed, translated or adapted, in part or in whole, in any form or by any means.

The designations employed and the presentation of the material in this health information product do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

The World Health Organization does not warrant that the information contained in this health information product is complete and correct and shall not be liable for any damages incurred as a result of its use.

Document EM/ARD/017/E/R/12.10

Design and layout by Pulp Pictures

Printed by WHO Regional Office for the Eastern Mediterranean, Cairo

## Contents

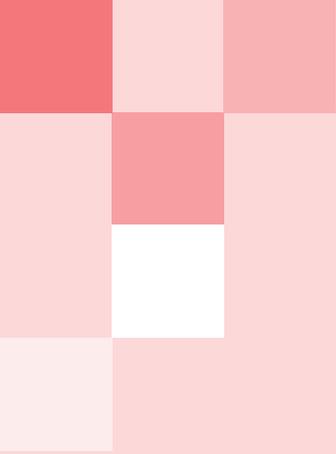
❖❖	<b>Acronyms and Abbreviations</b>	<b>5</b>
❖❖	<b>Section 1. Introduction</b>	<b>7</b>
❖❖	<b>Section 2. Country Health and Development Challenges</b>	<b>11</b>
	2.1 Socioeconomic achievements and constraints	13
	2.2 Environment	16
	2.3 Analysis of the health situation	17
	2.4 Key health sector challenges	35
❖❖	<b>Section 3. Development Cooperation and Partnerships</b>	<b>37</b>
	3.1 General framework	39
	3.2 United Nations system	39
	3.3 Bilateral cooperation	41
	3.4 Tunisian cooperation	42
❖❖	<b>Section 4. Current WHO Cooperation</b>	<b>43</b>
	4.1 Brief historical perspective	45
	4.2 main activities and cooperation modalities	45
	4.3 Strengths, weaknesses and prospects for cooperation	47
	4.4 Mediterranean Centre for Health Risk Reduction	48
❖❖	<b>Section 5. Strategic Agenda for WHO Cooperation</b>	<b>49</b>
	5.1 Guiding principles and policy framework for WHO work in countries	51
	5.2 Strategic directions for WHO support	53
	5.3 Strategic priorities	53
❖❖	<b>Section 6. Implementing the Strategic Agenda: Implications for WHO</b>	<b>57</b>
	6.1 Country office	59
	6.2 Regional Office and headquarters	59



## Acronyms and Abbreviations

AMG	Free medical assistance
ANER	National agency for renewable energies
ANPE	National agency of environment protection
APAL	National agency for coastal protection
APC	Additional private practice
APCI	Conditions qualifying for full coverage
ARI	Acute respiratory infection
BMI	Body mass index
BTS	Tunisian solidarity bank
CITET	Tunis International Center for Environmental Technologies
CNAM	National health insurance fund
CNRPS	National pension and social security fund
CNSS	National social security fund
CSB	Basic health care centre
DHMPE	Directorate of environmental health and environmental protection
DMPA	Average annual expenditure per person
DMSU	School and university health directorate
DSSB	Directorate of basic health care
EPP	Evaluation of professional practices
EPS	Public health institution
EU	European Union
FAO	United Nations Food and Agriculture Organization of the United Nations
FNS	National solidarity fund
GMO	Genetically modified organism
GDP	Gross domestic product
GEF	Global Environment Facility
HDI	Human development index
IDP	Integrated Development Programme
IEC	Information, Education, Communication
INS	National Institute of Statistics

INSP	National Institute of Public Health
ISO	International Organization for Standardization
KAP	Knowledge, Attitudes and Practice
MICS	Multiple indicator cluster survey
MDG	Millennium Development Goals
ONAS	National sanitation utility
ONPF	National Office for the Family and Population
PCT	Tunisian Central Pharmacy
RDP	Rural Development Programme
SSP	Public health facilities
TFR	Total fertility rate
TQM	Total quality management
TND	Tunisian Dinar
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization
YPLL	Years of potential life lost



Section

1



Introduction





## Section 1. Introduction

The Country Cooperation Strategy (CCS) reflects a medium-term vision of WHO for technical cooperation with a given country and defines a strategic agenda for working in and with the country. The CCS is a key instrument for WHO in the context of improving aid effectiveness at country level through alignment and harmonization of the health and development agenda. The CCS clarifies the proposed roles of WHO and how its core functions are applied in supporting the national health and development plans and strategies. The CCS takes into account regional as well as Organization-wide strategic orientations, priorities and the broader international legal and policy framework of the United Nations system such as the Millennium Development Goals, gender equity and the human rights-based approach to development.

The CCS examines the health situation in the country within a holistic approach that encompasses the health sector, socioeconomic determinants of health and national policies and strategies that have a major bearing on health. The exercise aims to identify the health priorities in the country and place WHO support within a framework of six years in order to strengthen the impact on health policy and health system development, as well as the linkages between health and cross-cutting issues at the country level. The CCS is the reference for WHO's work in the country, and guides planning, budgeting and resource allocation. It is the basis for reviewing WHO country presence and for mobilizing human

and financial resources for strengthening WHO's support to health development in the country.

The CCS process takes into consideration the work of all partners and stakeholders in health and health-related areas. The process is a strategic dialogue in the country and within the entire WHO secretariat: the country office, Regional Office and headquarters. It draws from, and contributes to, aid coordination and partnership platforms, in particular the Common Country Assessment/United Nations Development Assistance Framework (CCA/UNDAF). It seeks to complement the cooperation strategies of other major external actors in the country.

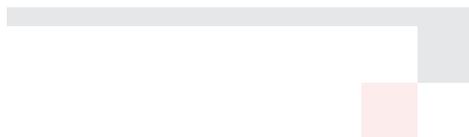
This CCS has been formulated within the complex context of socioeconomic, demographic and epidemiological transition that the country is currently experiencing. This transition inevitably means that, despite the country's substantial achievements, it still has considerable challenges to overcome—it remains vulnerable and needs to further develop its ability to respond to these challenges. The country also faces possible destabilizing effects on the health care system as a result of the global economic crisis, the implications of climate change and the burden imposed by the risks generated by emerging diseases and pandemics. WHO's cooperation with Tunisia from 2008 to 2013 will concentrate on six areas in order to support the Ministry of Public Health and its partners during the transition and the associated reform process

required. These six areas include:

- ❖ strengthening health security;
- ❖ implementing a national strategy for health promotion and action on social determinants of health;
- ❖ developing appropriate strategies to respond to the various challenges and changes facing Tunisia, in order to strengthen and give a fresh boost to basic health care;
- ❖ striving to maintain the achievements made in the public sector, upgrading it and increasing its efficiency and responsiveness;
- ❖ promoting efforts in the long-term strategic planning of human resource development;

- ❖ strengthening the governance of the health system by developing policies based on evidence and strategic planning.

These areas were identified after in-depth consultation in Tunisia and within WHO. The strategic programme defined here will be implemented through biennial programmes developed during the Joint Programme Review and Planning Missions (JPRM). The cooperation strategy is flexible and can be updated, evaluated and adjusted as required.





Section

# 2



**Country Health and  
Development Challenges**





## Section 2. Country Health and Development Challenges

### 2.1 Socioeconomic achievements and constraints

#### 2.1.1 Demographic trends and characteristics

Tunisia is situated at the northern tip of the African continent on the shores of the Mediterranean, bordered to the west by Algeria and to the south-east by the Libyan Arab Jamahiriya. It has a surface area of 154 350 km<sup>2</sup>. It is divided into 24 governorates, which are in turn subdivided into 264 administrative divisions and grouped into 7 large socioeconomic regions.

The total population was estimated to be 10 225 100 inhabitants on 1 July 2007, with a sex ratio of 1:003 and a population density of 66.17 inhabitants per km<sup>2</sup>.<sup>1</sup> The urbanization rate is increasing rapidly (33% in 1956, 63.44% in 2002, and 66.17% in 2007). The urbanization rate is highest in the Tunis district (92.1%) and in the eastern central region (72.6%), which are the most economically and socially developed areas, each accounting for 23% of the total population in 2006.<sup>2</sup> Only the western central and north-western regions remain predominantly rural (with urbanization rates of 33% and 37.8%, respectively). Tunisia's demographic growth is now under control.

In 2007, the birth rate was 17.4%, the total fertility rate 2.03 and the natural population growth rate 1.18%.<sup>1</sup> However, the country's total fertility rate is close to replacement level. The proportion of the population in the 0–14 year old age group is steadily declining. The proportion of people in the 60 years and older age group is increasing, (5.8% in 1975, 9.1% in 2000, and 9.5% in 2006, which poses new, specific problems related to social and health care for the elderly.<sup>3</sup> Life expectancy at birth has increased from 74.3 years in 2007: 72.4 years for men, 76.3 years for women.<sup>1</sup> The overall mortality rate has decreased from 12% in 1970 to 5.8% in 2002 and 5.5% in 2007.<sup>3</sup> The ageing index (the number of persons 60 years old or over per hundred persons aged 0–14 years) has been rising worryingly from 13.2% in 1975 to 37.5% in 2004.<sup>4</sup>

However, the country's population is still young in comparison with developed countries. The mean age of the population was 29.5 years and the median age 25.4 in 2004, (28.34 years and 24.6 years in 2001).<sup>4</sup> The 15–29 year old age group accounted for 29.72% of the total population in 2006.<sup>2</sup> It represents over two thirds of the population of active age and the greater part of unemployment-related problems. Unemployment is the authorities' main priority and one of the four highest priority objectives of the UNDAF 2007–2011.<sup>5</sup>

<sup>1</sup> *Annuaire statistique de la Tunisie*. Tunis, Institut National de la Statistique, 2007, n° 50.

<sup>2</sup> Institut National de la Statistique, 2006.

<sup>3</sup> *Indicateurs statistiques sur la Tunisie*. Tunis, Institut National de la Statistique, Éditions 1999, 2000, 2001, 2002, 2003.

<sup>4</sup> *Recensement de la population*. Tunis, Institut National de la Statistique, 2004.

<sup>5</sup> République tunisienne, Système des Nations Unies en Tunisie. Plans PNUAD cadre des Nations Unies pour l'aide au développement. 2007–2011, février 2006.

## 2.1.2 Economic and social context

The average annual growth in gross domestic product (GDP) (at constant 1990 prices) was 4.7% between 1992 and 2002, and exceeded these levels up to 2008.<sup>2</sup> The average annual expenditure per person (1820 Tunisian Dinar (TND) in 2005) had increased in real terms, from an average annual growth of 0.8% between 1990 and 1995 to an average annual growth of 3.4% between 1995 and 2000, and of 3.8% between 2000 and 2005.<sup>6</sup> However, there are marked disparities, with the western regions faring worst (north-western region (1416 TND), western central region (1138 TND), south-western region (1466 TND)). The poverty rate was estimated to be 12.9% of the total population in 1980, but fell to 4.2% in 2000 and 3.8% in 2005 (urban areas (1.9%), rural areas (7.1%), south-western region (5.5%), western central region (12.8%)). The unemployment rate was 13.9% in 2004,<sup>4</sup> with marked regional disparities (the west of the country), especially in certain governorates, such as Zaghuan, Jendouba, Le Kef, Siliana, Kasserine, Gafsa. Unemployment mainly affected young people and those with few qualifications (68.1% of unemployed people were under 30 years of age in 2004, compared with 60.1% in 1994); 90% of unemployed people had only been educated to primary or secondary level. However, young graduates accounted for 9.4% of the unemployed population.<sup>7</sup>

The population's living conditions are improving steadily, despite persistent inequalities, which has contributed greatly to reducing the impact of communicable diseases and waterborne diseases, in particular. As regards housing, 79.2% of families own their dwelling (87.4% in rural areas, 75.4% in urban areas) and seriously unsanitary conditions have been eradicated (less than 1% rudimentary dwellings since 2000). The number of households with connection to drinking-water and electricity supplies<sup>8</sup> is increasing, with a few disparities in rural areas and the west of the country, and which are even more marked for connection to a sewerage system (Table 1).

Social behaviours have changed during half a century of independence, economic and social development, urbanization and adoption of new lifestyles.<sup>9</sup> Through its committed policies in favour of education, Tunisia has achieved considerable successes, particularly in eliminating gender disparities (Tables 1 and 2).

The illiteracy rate fell to 23.1% in 2004 and 20.6% in 2007 and the reduction in illiteracy among women is particularly remarkable (Table 2).<sup>10</sup> However in the western central and the north-western regions, the female illiteracy rate was 10% higher than the national rate. This is a harmful situation, because women are an essential means of transmitting healthy behaviours and disseminating health education to those

<sup>6</sup> *Enquête nationale sur le budget, la consommation et le niveau de vie des ménages 2000, volume A : résultats de l'enquête sur le budget des ménages*. Tunisie, Institut National de la Statistique, 2000.

<sup>7</sup> *Plan - cadre des pour l'aide au développement*. Tunisie, Organisation des Nations Unies, janvier 2006.

<sup>8</sup> Ministère du Développement Commercial et Industriel/Organisation des Nations Unies en Tunisie. *Rapport sur les OMD en Tunisie*. Tunis 2007 (non publié).

<sup>9</sup> *Prévalence des IST chez les femmes : le cas du district de Tunis*, in « Les mutations sociodémographiques de la famille tunisienne, enjeux et défis. Analyses approfondies des résultats du PAFAM ». Tunisie, ONFP et al, 2004.

<sup>10</sup> ONFP, 2008.

**Table 1. Economic and quality of life indicators<sup>8</sup> (2004-2007)**

<b>Average annual expenditure per person TND (2005)</b>	
Rural areas	1161
Urban areas	2171
All areas	1820
<b>Social/economic indicators</b>	
Human development index (HDI) (2005) (global ranking 91/177)	0.766
Indebtedness ratio (2007) (%)	43.7
Annual % variation in the general family consumer price index (2007)	+3.2
<b>Illiteracy rate in people aged 10 years and over (%) (2004)</b>	
Females	31.1
Males	15.0
Both sexes	23.1
<b>School enrolment ratio at the age of 6 years (2005) (%)</b>	
Girls	99
Boys	99
<b>School enrolment rate (6–11 years) (2005) (%)</b>	
Girls	97.0
Boys	96.9
<b>Access to drinking-water (% of population) (2006)</b>	
All areas	90
Rural areas	80.6
Access to electricity (% of households) (2006)	99
<b>Connected to sewerage system (% of households) (2006)</b>	
All areas	80
Rural areas	60

around them, particularly for maternal and child health.

Since the code of personal status was adopted, positive developments

in conditions for women continue to strengthen.<sup>11</sup> Women are recognized as capable partners in the overall development process advocated by the political authorities (in 2007, 42% of the medical profession,

<sup>11</sup> La population en Tunisie : situation démographique et programme national de la santé de la reproduction. Tunisie, ONFP, 2003.

**Table 2.** Change in the distribution of the population aged > 10 years by level of education and sex, between 1966 and 2004

Level by education	1966			2004		
	Female (%)	Male (%)	Both (%)	Female (%)	Male (%)	Both (%)
No education	82.4	53.9	63.4	31.1 46.4(*)	15.0	23.1 35.5(*)
Primary level or basic schooling—first stage	15.1	38.4	30.7	33.4	40.6	37.0
Primary level or basic schooling—second stage	2.3	7.0	4.4	28.6	35.4	32.0
Higher	0.2	0.7	0.5	6.9	8.8	7.9
Total	100	100	100	100	100	100

Note: (\*) = rural areas.

72% of the pharmaceutical profession, 29% of judges, 50% of teachers, 15% of members of the government and 23% of members of parliament were women). Their life expectancy at birth increased from 51.6 years in 1966 to 76.3 years in 2007. The number of years dedicated to child rearing (pregnancy, breastfeeding) decreased by 15 years and life expectancy at birth of the last child has increased by 20 years since 1966. The number of women entering the labour force is still low (26% in 2007) but their number is increasing rapidly among the younger age groups.<sup>10</sup>

The average age of marriage for women rose from 19.5 years in 1956 to 29 years in 2006 (from 26.3 to 34 years for men), with an associated rise in the number of single people and specific sexual and reproductive health problems. The Tunisian family is increasingly evolving towards the nuclear

family model and the average number of people per family is falling (5.3 in 1990, 4.9 in 2000, 4.53 in 2004), although these trends are more marked in urban areas.<sup>11</sup>

## 2.2 Environment

Promoting sustainable development in a viable environment is a fundamental choice of Tunisian state policy.<sup>8</sup> Its main environmental problems are the management of water resources, soil protection, energy consumption, industrial pollution and protection of biodiversity. Water is a relatively scarce resource. The national water exploitation index is 80.7%. Forecasts suggest that demand will exceed supply in 2015. Agriculture utilizes over 80% of the water for irrigation purposes.<sup>12</sup> This area has a strategic dimension due to constantly increasing food consumption, constraints related to competitiveness, and the use

<sup>12</sup> Document de stratégie 2002–2006 et programme indicatif national 2002–2004. Tunisie, Union européenne Partenariat Euro-Med-Tunisie, 2002.

of fertilizers that could increase the salt content of ground water. The main thrusts of the solutions adopted are rationalization of irrigation water and re-use of treated water.<sup>13</sup>

The phenomena of desertification, erosion, deforestation, overexploitation of agricultural land, and rapid urbanization, place great pressure on soils and the mobilization of land resources has also reached its limits.<sup>1</sup> Tunisia is the only country of the Mediterranean basin to have a negative land balance. Industrial pollution affects large urban areas of the Tunis district and the eastern central region and creates problems of solid-waste disposal, effluents and air pollution.<sup>13</sup> The situation is relatively well controlled by regulations and inspections, but upgrading efforts must be developed to promote preventive measures. Urban residential sectors and the tertiary sector consume large quantities of energy, but industry and transport together consume 70% of the country's energy.<sup>1</sup> Nearly 90% of the country's energy production is thermal (oil, natural gas) and Tunisia has made an undertaking to reduce its greenhouse gas emissions to values that are compatible with its level of development. The carbon dioxide (CO<sub>2</sub>) emission indicator (metric tons of CO<sub>2</sub> per person per year) shows that Tunisia is below average for developing countries, and average for countries in the Region that have about the same GDP per capita. Tunisia is involved in controlling environmental problems, dedicating 1.2% of its GDP to this area. A sustainable development index established in 2002 by the Yale Center for Environmental Law and Policy (Columbia University) ranked Tunisia in the middle among countries of the Mediterranean basin and first among countries on its southern shore.<sup>8</sup>

## 2.3 Analysis of the health situation

### 2.3.1 Communicable diseases

Communicable disease control, which falls to the basic health care sector, has achieved remarkable results, including a particularly dramatic fall in the prevalence of waterborne diseases. While measles, polio and neonatal tetanus are in the eradication or pre-eradication phase, indigenous cases of schistosomiasis and malaria disappeared 25 years ago, although the prevalence of certain zoonotic diseases remains stable (brucellosis, hydatid cyst, leishmaniasis, animal rabies, scorpion stings). This, along with problems related to climate change, justify control maintenance activities, continuation of the programmes and consolidation of the capacity to respond to emerging and re-emerging diseases. The national programme for HIV/AIDS control seems to have stabilized the epidemiological situation for this disease, as numbers of new indigenous cases have remained stable and low. Since the country's first case of HIV/AIDS was reported in 1985, 1499 people living with HIV (PLHIV) have been recorded, 490 of whom have died. Recent trends in the epidemic show an increasing number of affected females; heterosexual transmission in 38.3% of cases and by injecting drug use in 27% of cases.

Recent sero-behavioural surveys conducted in 2009 in at-risk populations showed an HIV prevalence of 4.9% in men who have sex with men (MSM), 3.1% in injecting drug users (IDUs) and 0.4% in illegal

<sup>13</sup> Plan - cadre des Nations Unies pour l'aide au développement. Tunisie, Organisation des Nations Unies, 2002–2006.

sex workers. These surveys highlighted risk factors such as:

- ❖ spread of IDU cases through sharing syringes;
- ❖ expansion of the sex trade;
- ❖ unprotected sex;
- ❖ risky sexual behaviours among MSMs, IDUs and out-of-school youth;
- ❖ the importance of population mobility and the immigration factor;
- ❖ the increase in the age of marriage.

Tunisia set up a national programme for HIV/AIDS control in 1987, with a technical committee (1992) and a control programme for sexually transmitted infections (STIs) in 1998. Blood transfusion has become safer since 1987 and patients have access to antiretroviral drugs free of charge since 2000. Tunisia is supported in its efforts by WHO, UNAIDS and other United Nations agencies, including a Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) project. It will need to focus on combating the above-mentioned risk factors to control risk behaviours in the populations at greatest risk, and also on providing better quality care for people with the disease.

The productivity of the national programme in the management of STIs, carried out in the public primary care sector, is improving (59 497 cases in 2007)<sup>14</sup> but the programme mainly addresses married women of reproductive age. Single people and men seem to be managed primarily by the private practice sector.

### 2.3.2 Maternal health

A national survey conducted in 1993/94 estimated maternal mortality at 68.9 deaths

per 100 000 live births.<sup>14</sup> It was 39.9 in Greater Tunis, the capital, compared with 105.7 per 100 000 in the western central region. Tunisia needs to reduce the maternal mortality rate to 19/100 000 births by 2015 to achieve the target of MDG 5.<sup>8</sup> A steady decrease has been recorded in maternal mortality rates for births in public sector hospitals. There has been progress in the rates of attended births and antenatal care coverage, but maternal mortality remains higher in disadvantaged regions.<sup>8</sup> Studies and surveys would be useful to quantify the disparities and identify the specific causes and true determinants of maternal mortality in each region. Tunisia recently became involved in a programme agreement with the United Nations system (WHO, UNICEF, United Nations Development Programme (UNDP) and the United Nations Population Fund (UNFPA)) to accelerate the reduction in maternal mortality and attain the targets of the MDGs.

For married women of reproductive age the contraceptive prevalence rate was 60.2% in 2006 and maternal and women's health is broadening in scope to address other concerns.<sup>10</sup> Preliminary studies led to the introduction of a cervical cancer and breast cancer programme, within the framework of the national cancer programme. Standardized screening protocols have been defined for these two cancers, screening activities are now running, and about 100 000 clinical breast examinations and 25 000 cervical smear tests have been performed each year since 2003 in primary care facilities of the Directorate of Basic Health Care and the National Office for the Family and Population. However, coverage targets for eligible populations

<sup>14</sup> *Rapports annuels 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007*. Tunis, Direction des soins de santé de base.

have not been achieved, hampered by planning and operationalization failings and the lack of resources (overburdened pathology laboratories and mammography units). There are also public sector primary care initiatives to address other aspects of women's health, such as somatic and psychological menopausal disorders, but they remain limited.

### 2.3.3 Child health

The infant mortality rate has dropped sharply, as has the under-five mortality rate. The infant mortality rate was reported to be 18.7 per 1000 live births in 2007.<sup>8</sup> The steady gains currently recorded are due to the country's firm commitment to a comprehensive, structured policy for the benefit of children, as set out in the document "*Politique nationale de santé de l'enfant MSP/DSSB/OMS Tunis octobre 2006*" (National child health policy, Ministry of Public Health/DSSB/WHO, Tunis, October 2006). It has resulted in improved care during birth and the neonatal period in hospital services, which is expected to reduce the stillbirth rate (11.4 per 1000 live births in 2006) and the low birth-weight rate (3.4% in 2007) in these services.<sup>14</sup> It has also resulted in advances due to several national programmes implemented by the basic health care system to reduce infant and child morbidity and mortality (perinatal programme, diarrhoea control, acute respiratory infections (ARI), national immunization programme, growth-monitoring, etc.), which have been united and reformed within the framework of the

programme for the Integrated Management of Childhood Illness (IMCI). It seems therefore that the MDG objectives (infant mortality rate of 13 per 1000 live births and under-5 mortality rate of 16 in 2015) ought to be achieved, although serious regional disparities persist.<sup>15</sup> At national level, the causes of under-five mortality were primarily perinatal conditions (46.67%), followed by ARIs and diarrhoea (14.02% and 9.65%) and congenital conditions (10.8%).<sup>16</sup> The higher rates recorded in the least favourable governorates are no doubt due just as much to a greater prevalence of perinatal conditions (absence of, and distance from, neonatology services) as to the prevalence of infectious causes, and in particular, in their serious forms, to the major shortcomings that have been reported in the knowledge, attitudes and practice (KAP) of mothers. These shortcomings were related to the use of doctors and recognizing the signs of serious diarrhoea and ARI (only 60% and 47.5% of cases, respectively, according to the 2006 MICS3 survey).<sup>17</sup> Future progress will therefore be dependent on a comprehensive integrated approach to care, as recommended by WHO. This approach would include (in the first place in disadvantaged regions) strengthening primary care activities (control of infectious causes, follow-up of serious forms, antenatal monitoring and health education) and increasing technical capacity in regional hospitals and district hospitals to provide a minimum level of neonatology and antenatal care. It would involve promoting community

<sup>15</sup> *Inégalités régionales de mortalité infantile en Tunisie*. Communication à la cinquième conférence africaine sur la population. Tunisie, Bouchoucha I. Vallin J., INS Tunis/INED Paris, Décembre 2007.

<sup>16</sup> *Enquête nationale sur la santé et le bien être de la mère et de l'enfant. Enquête en grappes à indicateurs multiples 2*. Tunisie, Direction des soins de santé de base/UNICEF, Décembre 2000.

<sup>17</sup> *Enquête en grappes à indicateurs multiples 3*. Tunisie, ONFP/UNICEF, 2007.

participation, the role of families and mothers and appropriate training for health personnel.

The national immunization programme has contributed greatly to the decline in morbidity and mortality in children under the age of five. In 2006, immunization coverage was satisfactory at the national level,<sup>16</sup> with 95.3% of children aged 24 to 35 months fully immunized (83.6% in 2000).<sup>15</sup> Figures in the governorates of Kairouan and Kasserine are somewhat lower, but remarkable gains have been made in disadvantaged governorates since 2000.

Clear progress has also been made in terms of tetanus immunization for pregnant women and the national rate of births protected by at least tetanus immunization of the mother increased to 93% in 2007 from 86% in 2002. Use of the public sector for immunization is almost universal.<sup>14</sup>

There has been a notable and steady improvement in the nutritional status of children aged 0 to 5 years due to improved socioeconomic conditions and efforts in nutrition education, although obesity is becoming a problem and in 2006 the prevalence of obesity in the under-fives was estimated to be 6.3%.<sup>10,17</sup>

### 2.3.4 Disease burden due to chronic and noncommunicable diseases

#### Causes of death

Epidemiological transition and demographic transition have changed morbidity and mortality profiles within the country. Many communicable diseases have declined or have even been eradicated through the various national programmes that have been implemented. The share of infant and child deaths in the total mortality has dropped from 31% and 27.7% to 11.2% and 2.8%, respectively, between 1966 and 1999) while the proportion of deaths in people aged over 50 has risen (from 33% to 70% during the same period).<sup>18,19</sup>

Diseases of the circulatory system, malignancies, endocrine and nutritional diseases, respiratory diseases and perinatal conditions cause 65% of deaths, while infectious diseases are responsible for only 2.8% of cases (Table 3), with some variation between the sexes. Analysis of the age distribution shows that congenital diseases and perinatal conditions are responsible for 70% of deaths before the age of five years.

Between the ages of 5 and 34 years, the leading cause of death is accidental death, which is markedly higher in males. In the 35 to 64-year-old age group, cancer is the leading cause of death. From the age of 65 the leading cause of death is cardiovascular disease.<sup>20</sup> In this age group, 29% of deaths

<sup>18</sup> Ben Hamida A et al. *La transition sanitaire en Tunisie au cours des 50 dernières années*. *Revue de Santé de la Méditerranée orientale*. 2005.

<sup>19</sup> Hsairi M et al. *Années de vie perdue et transition épidémiologique dans le gouvernorat de Sfax*. Tunisie. *Santé publique*, 2003, 15:25-37.

<sup>20</sup> Hajjem S. *Statistiques nationales sur les causes médicales de décès – Tunisie 2001*. Tunis, Institut National de Santé Publique, 2002.

**Table 3. Main causes of death, Tunisia, 2006<sup>21</sup>**

Main disease groups or external causes	Total %	Male %	Female %
Diseases of the circulatory system	28.9	27.1	31.0
Malignancies	16.5	18.8	14.4
Endocrine, nutritional and metabolic diseases	9.9	8.1	12.4
Diseases of the respiratory system	9.5	10.7	7.7
Conditions originating during the perinatal period	6.8	6.9	6.5
External causes of death (accidents, falls, etc.)	3.8	5.1	2.2
Diseases of the urogenital system	3.4	3.4	3.3
Diseases of the digestive system	3.3	3.2	3.5
Trauma and poisoning	3.1	3.3	2.7
Diseases of the nervous system and sensory organs	2.9	2.7	3.3
Infectious and parasitic diseases	2.8	3.1	2.6
Congenital malformations and chromosomal anomalies	2.1	2.1	2.1
Diseases of the blood and haemopoietic organs	0.8	0.7	0.8
Other causes	6.4	4.8	7.5
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

are attributed to diseases of the circulatory system (stroke, myocardial infarction, heart failure, hypertension). Diabetes and renal failure are not classified as circulatory system diseases, but are associated with them and were responsible for over 11.6% of deaths in 2006.<sup>4</sup> Ischaemic heart disease was the leading cause of hospitalization (27.3%) on cardiology wards. These hospitalizations lead to major, costly interventions.<sup>22</sup>

In the over 65 age group cancer is relegated to second place as a cause of death. When crude and standardized incidences are compared with data from other countries, Tunisia has moderately higher rates than developing countries with a similar sociocultural profile (Table 4).<sup>23</sup> The most frequent types of cancer in men are lung cancer, followed by bladder cancer then, depending on the region, prostate or colorectal cancer. In women, breast cancer is

<sup>21</sup> Hajjem S. *Statistiques nationales sur les causes médicales de décès – Tunisie 2006*. Tunis, Institut National de Santé Publique, avril 2009.

<sup>22</sup> Ben Romdhane H. *Synthèse du document sur la stratégie de lutte contre les maladies cardiovasculaires : Travaux préparatoires du « Rapport à Monsieur le Ministre de la Santé Publique sur les orientations stratégiques pour le développement de la prévention et de la promotion de la santé »*. Tunis, décembre 2008 (coordinateur Ben Ammar R.).

<sup>23</sup> Ministère de la Santé publique/Secrétariat d'État à la Recherche scientifique et à la Technologie/Institut Salah Azaiez/Institut National de Santé Publique. *Unité de recherche en épidémiologie des cancers en Tunisie. Registre des cancers Nord Tunisie, 1995–1998*.

the commonest type, followed by cervical or colorectal cancer, depending on the region. Between 10 000 and 12 000 new cases of cancer are recorded in Tunisia per year. A prospective study (*Registre Nord Tunisie*)<sup>23</sup> forecasts an increase in standardized cancer incidence in men to 143.3, 155.7, 169.4 and 184.2 per 100 000 for the four time periods 2004–2008, 2009–2013, 2014–2018 and 2019–2024, respectively, i.e. a 3.5-fold increase in the number of cases in 25 years (between 1998 and 2024). The predicted cancer increase in women is to 106.8, 112.2, 116.6 and 120.3 per 100 000, i.e. a 2.7-fold increase in the number of cases for the same four time periods. A predominantly curative approach to cancer management is used in Tunisia, despite the existence of a national

prevention and screening programme, the operationalization of which remains deficient.

When accidental death (6.9% of the causes of death in 2006) is considered from the perspective of the indicator years of potential life lost (YPLL) this morbidity becomes the primary cause of YPLL (25%), ahead of cardiovascular disease and cancer, because it predominantly concerns young age groups.<sup>21</sup> It is in fact the primary cause of death in the 5–34 year old age group (36.2% of the causes of death in the 15–24 age group, 27.8% in the 25–34 age group in 2006), with a markedly higher mortality rate in males. Among accidental deaths, road traffic accidents<sup>25</sup> were the primary cause of death in the 15–44 year old age group in 2003.<sup>26</sup> Men account for 84% of the deaths

**Table 4. Comparison of crude and standardized cancer incidence with selected countries (data from the country's information systems—all cancers)<sup>24</sup>**

	Male		Female	
	Crude incidence	Standardized incidence	Crude incidence	Standardized incidence
Northern Tunisia (1999–2003)	120.2	133.2	94.8	101.4
Central Tunisia (1998–2002)	120.7	159.6	89.5	106.0
Tunisia, Sfax (2000–2002)	126.6	143.4	93.2	101.9
Oman (2002)	43.7	80.5	40.1	70.4
Algeria Oran (1996–2004)	81.5	102.5	106.0	122.2
Morocco–Casablanca (2004)	84.0	100.3	100.0	104.2
France–Hérault (2002)	631.2	359.1	426.7	247.6
Japan (2000 estimate)	499.3	263.9	342.7	165.0

<sup>24</sup> Ministère de la Santé publique/OMS. *Élaboration d'un programme et d'un plan d'action de mise à niveau des structures de santé du secteur public – Atelier de planification par objectifs PPO – ZOPP – Hammamet 8–10 et 21–23 juillet 2003.*

<sup>25</sup> Somrani N, Bouslama M. *Accidents de la voie publique – Données épidémiologiques – Première journées nationales sur la transition épidémiologique et son impact sur les systèmes de santé en Tunisie.* Tunis, Ministère de la Santé publique, 7–8 avril 2004.

<sup>26</sup> République tunisienne. JORT, 28 février 2006.

and 79.9% of those injured. The average age of the injured was 36.66 years. The problem is becoming worrying because road travel is the main means of transport. The road network doubled between 1997 and 2004, and there has been a fourfold increase in the number of cars and a five-fold increase in the number of drivers. These phenomena are likely to increase further and will have to be managed through active and multisectoral preventive and educational action.

### Risk factors

The general environment fosters the onset or development of risk factors impacting directly on the epidemiological and health transition phase: obesity, sedentary lifestyle, smoking, hypertension, diabetes, dyslipidaemia (Table 5).<sup>27</sup> These factors are interlinked and their effects synergistic.

It has been shown that the population has rather poor knowledge of risk factors. Smoking is the leading one but only for 32.2% of men and 26.7% of women, followed by stress and heredity, despite the attitude to prevention being very positive on the whole.<sup>28</sup> But Tunisians tend to externalize responsibility (mass media, authorities, education system, etc.) and tend to be more reactive than proactive.<sup>28</sup>

Currently, the health care system's response to the increased prevalence of chronic diseases and their risk factors is predominantly based on curative therapy and specialist hospital treatment, while what is needed is an integrated approach to all chronic diseases, based on primary care, and focusing on prevention and health promotion, including provision of palliative care and rehabilitation following

**Table 5. Prevalence (%) among population ≥ 35 years of some noncommunicable diseases and risk factors**

	Male (≥ 35 yrs) (%)	Female (≥ 35 yrs) (%)	Total %
Hypertension (SBP > 140 mmHg, DBP > 90 mmHg)	35	39.7	36.7
Obesity (BMI) ≥ 30 kg/m <sup>2</sup>	5.8	15.3	10.9
Pre-obesity (25 kg/m <sup>2</sup> ≤ BMI < 30 kg/m <sup>2</sup> )	39.3	37.1	38.1
Diabetes (fasting blood sugar > L 7.8 mmol/l)	9.1	10.6	9.8
Hypercholesterolaemia	12.4	15.9	14.3
Hyperglyceridaemia	15	11.3	13.6
Smoking	52.8	5.5	30.0

<sup>27</sup> Ben Romdhane H. Institut National de Santé Publique, sous la direction de Achour N. – Les cardiopathies ischémiques – l'épidémie et ses déterminants - Volume I – Les facteurs de risque – résultats d'une étude épidémiologique auprès de 5771 adultes tunisiens – 1997–1998.

<sup>28</sup> Ben Ammar R. Rapport à Monsieur le Ministre de la Santé Publique sur les orientations stratégiques pour le développement de la prévention et de la promotion de la santé. Tunis, décembre 2008.

specialist management. This would require giving a fresh boost to the basic health care sector, upgrading it, adapting its strategies, increasing its resources and seriously promoting family medicine. The family medicine sector is key to development because it is the only sector with systematic experience of health promotion and can be a driving force in this area. The stock of knowledge and know-how in public health and the population approach acquired by its staff over a quarter of a century makes it an appropriate setting for efficient management of the new health challenges.

### 2.3.5 Young people's health

Among young people, socioeconomic changes and uncertainties of the current situation generate concern about risk factors. The problems clash with taboos and are rather poorly understood, although some surveys have tried to define them.<sup>10</sup> The key points are that among single people aged 18 to 29, 30% smoke, 8% drink alcohol, half of the men and 15% of the women have sexual relations before marriage, knowledge about methods of protection against sexually transmitted infections (STIs)/AIDS is poor (50%), and protected sex is infrequent (20%). Risk factors are more frequent in urban areas and when the socioeducational level is low. The prevalence of tobacco use (8%) and alcohol use (6%) among adolescents is lower. Eating habits reveal some positive aspects (consumption of a variety of fruit and vegetables in 80% of cases) and negative aspects (consumption of fizzy drinks and fast food in 33% of cases, regular consumption of dairy products in only 40% of cases).<sup>29</sup>

<sup>29</sup> Institut National de la Statistique, 2005.

<sup>30</sup> MAFEPPEA, 2005.

There are also concerns about relationships considered as poor with peers (38.5%) and with parents (30% of cases). There is a disturbing level of violence (46% have taken part in fights or have been attacked). Many young people still drop out of school, at the basic education and secondary level (about 10%), especially in rural areas.<sup>30</sup> The cumulative number across cohorts may stretch to thousands of individuals.

These phenomena are starting to be recognized and attempts at solutions have been made, centred on establishing facilities (health clubs; school and university health directorate (DMSU) counselling units; advice, consultations, peer education in ONFP youth facilities set up in 17 governorates). However, they are still too focused on reproductive health, are not accessible enough and are not integrated into a policy structured around a global approach to youth health.

### 2.3.6 Determinants of health

The developments discussed above demonstrate the importance of socioeconomic and cultural determinants on the country's health. The remarkable development that Tunisia has experienced over recent decades is nevertheless associated with persistent economic, social and cultural disparities between geographical areas and between social categories within the population. The result is that certain "residual" health problems that used to be prevalent (child or maternal morbidity and mortality for example) coexist with the onset of new problems arising from demographic and epidemiological

transition (increased prevalence of chronic and noncommunicable diseases, STIs, etc.). In addition, the two trends combined generate “high-risk” groups (the elderly, the young unemployed) and areas (rural areas, disadvantaged peri-urban neighbourhoods, etc.). Health intervention strategies therefore have to take this variability into account. They need to be based on studies capable of bringing out the general characteristics of the population as a whole, as well as the specificities of target groups and of their health problems, to devise more efficient ways of intervening.

### 2.3.7 The health system: actors, resources and functions

The Tunisian health care system is mainly managed by the Ministry of Public Health and its 24 regional directorates in each of the country’s governorates. The private health care sector has expanded rapidly since the late 1980s. This sector is primarily located in the large towns of the capital and the economically prosperous coastal regions. Its heavy medical equipment is very modern and favours outpatient activities. The state’s role in funding health care is gradually shrinking, with the majority still being financed by households. Despite the commendable efforts of the Ministry of Public Health in recent years to encourage the autonomy of hospitals, better quality care and consolidation of the health information system, there is a long way to go before their efforts have a real impact on these aspects.

Certification of health care facilities is not yet standard practice in either the private or the public sector and evaluation of professional practices is still a long way off.

Commendable initiatives are also underway in the basic training of health professionals to comply with international standards, as in nursing sciences and family medicine. Incentives and administrative measures have been taken to encourage specialist doctors to set up practice in the interior regions.

Although 95% of citizens in Tunisia have acceptable geographic access to primary care facilities and good social security cover, nearly 50% of health expenditure continues to fall on households, exposing them to the risks of catastrophic health care expenses.

### 2.3.8 Health care provision

Health care is provided by public sector, parapublic sector and private practice sector facilities. There are four levels within the public health care sector.

#### Public sector basic health care

In 2007, this sector comprised 2079 basic health care centres, distributed throughout the country (1 centre per 4930 inhabitants, compared with 1 centre per 6676 inhabitants in 1982) and 90% of the population lived less than 5 km from a centre. There are 1780 doctors practising in the sector (22% practising in both centres and district hospitals), the vast majority of whom are general practitioners.<sup>14</sup> There are also 12 798 paramedics (including 1282 midwives), 120 pharmacists and 279 dental surgeons. These health care professionals are relatively evenly distributed throughout the country. Among all the health sectors in the country, this is the only one to have this feature and it is a fundamental factor for equitable care. This sector, with the district hospitals,<sup>14</sup> carries out all preventive policy, 60% of the outpatient

medical consultations (10 612 053, including emergency consultations in 2007) performed in the public sector, in addition to about 1 300 000 reproductive health consultations (perinatal consultations, contraception, STIs, screening for cancers in women, etc.) performed by midwives. It takes care of the health activities for over 2 700 000 pupils or students in private and public educational facilities (preschool, primary, secondary, university, professional education and others). This sector serves as the population's interface with, and entry point to, the health care system and, overall, adequately fulfils its role in providing access to curative treatment for common diseases and risk factors, integrated into a preventive health approach. Out in the field, it integrates a multitude of national programmes for both communicable diseases and diseases of the transition, which are managed centrally by various directorates: DMSU, DSSB, Directorate of Environmental Health and Environmental Protection (DHMPE) and ONFP. The remarkable improvement in the country's health indicators has been made possible by this sector and it is extremely cost effective, only absorbing about 10%–15% of national health expenditure and about 10–15% of national spending on medicines.<sup>31</sup> The sector is funded by the Government budget but about 30% of its operating budget (excluding salaries) must be provided by its own income (patients' contributions towards treatment, paying patients). The health insurance reform that has now been implemented does not clearly

address the future and role of this sector within the health care system.

### District hospitals

District hospitals form the second level of health care and their role is to support the primary care provided by the basic health care centres, to which they are organizationally linked within the framework of the 202 health districts that cover the country's 264 administrative divisions. This level comprises 121 district hospitals (or autonomous maternity units) which are often criticized for being underutilized (average occupancy rate: 33.4% in 2006).<sup>32</sup> However, with 17% of the beds in the public sector they nonetheless carry out 16.7% of deliveries and 13.6% of the admissions, but the average length of stay is short (3.4 days in 2006)<sup>32</sup> due to their poor technical facilities, which limits the scope of care that they can offer. Improving their productivity will involve a rational increase in their diagnostic and technical resources and reasoned re-emphasis of the important role of general practice/family medicine in the health care system. Their great potential for community follow-up and management could then be exploited in various situations, particularly following hospitalization in specialist units, rehabilitation, palliative care, etc. This would foster social reintegration and generally reduce psychological, social and eventually economic costs.

<sup>31</sup> *Étude du secteur de la santé*. Tunis, République Tunisienne – Banque Mondiale, Département du Développement humain – Région Moyen Orient et Afrique du nord, mai 2006.

<sup>32</sup> *Commission de mise à niveau de la première ligne de soins – Aspects carte sanitaire – rapport*. Tunis, Ministère de la Santé publique, 2007.

## Regional hospitals

The 33 regional hospitals constitute the third level of public sector health care. They are generally located in the main town of the governorates. The productivity of these hospitals is affected by the lack of specialist medical and paramedical staff, while their technical facilities are satisfactory. The phenomenon is related to the geographical location of these hospitals (governorates in the interior of the country), which is not attractive for specialist doctors. Under these conditions, the third level cannot fully exercise its role as referral centres for the primary care facilities, providing consultations, assessments and specialist inpatient services (particularly surgery).

## Public health institutions

The fourth level of health care is university facilities, which is the highest referral level. Its role is to provide advanced, specialist treatment, training and research. Public health institutions are located in university towns (Tunis, Sousse, Monastir, Sfax). For people living in the country's interior regions, access to them is limited. This level has 70% of the public sector's specialist doctors. Its technical facilities are effective and the greater part of the public sector's heavy equipment is concentrated here.<sup>33</sup> However, it is less well equipped in that respect than the private practice sector, and this poses a serious problem for those institutions responsible for training health cadres. The consequences are increasing demotivation among trainers, who are more and more attracted by additional private practice or

by leaving to join the private sector where incomes are much higher.

## Specialist national institutions

The issue of certain large national health institutions (Pasteur Institute, ONFP, Institut National de Nutrition et de Technologie Alimentaire (National Institute for Nutrition and Food Technology), Institut de Pneumophtisiologie (Tuberculosis Institute), Institut d'Ophthalmologie (Institute of Ophthalmology), Institut National de l'Enfant (National Institute for Children) is that they were initially set up to analyse and define appropriate responses to the country's major health problems. They amassed a body of expertise but did not capitalize on it and gradually, during the course of the structural adjustment plan, their emphasis shifted towards seeking financial revenue and dispensing health care, losing all sight of public health planning. It resulted in deterioration of a national stock of knowledge and experience, a collective intelligence that could have helped inform efficient decision-making in matters of health.

## The private practice sector

The private practice sector has expanded considerably since the early 1990s, encouraged but controlled by the drafting of legislation and regulations, in particular setting out service standards. Between 1987 and 2007,<sup>34</sup> the number of medical offices increased from 1374 to 6505, the number of pharmacies from 987 to 1777, the number of dental surgeries from 561 to 1790, the number of clinics from 28 to 103, the number of inpatient beds from 796 to 2578, and the

<sup>33</sup> Ministère de la Santé publique, 1956–2006.

<sup>34</sup> Bouslama M. *Direction des études et de la planification*, Ministère de la Santé publique, 2006–2007.

number of haemodialysis machines from 141 to 1128 (compared with 420 machines in the public sector). In 2007, there were also 1372 nurses, 33 thalassotherapy centres and 237 testing laboratories. The sector employs 83% of the country's pharmacists, 72% of dentists, but only 7% of paramedics.<sup>34</sup> It has most of the country's heavy medical equipment. No reliable data have been collected on activity within the sector, but it is estimated that it provides about 15% of hospital admissions, 6 000 000 consultations, 6%–10% of deliveries, conducts little preventive health activity but absorbs nearly half of the country's total health expenditure. These centres follow credit-worthy demand and are set up mainly in Greater Tunis, the eastern central region and other coastal regions. The advent of the national health insurance fund (CNAM) is unlikely to alter this distribution, the majority of people with social insurance being concentrated in urbanized regions.

### Other sectors

A parapublic sector exists alongside the public sector and the private practice sector, comprising:

- ❖ Six National Social Security Fund (CNSS) polyclinics (two in Tunis, one in Bizerte, one in Sousse, one in Sfax and one in Metlaoui) that provide outpatient care in general and specialist medicine and diagnostic tests (laboratory tests, imaging, endoscopy, etc.) for persons covered by the CNAM insurance scheme.
- ❖ The autonomous medical services of certain national businesses (SONEDE, STEG, SNT, Tunis Air) that provide outpatient health care for their employees and their families.

- ❖ Occupational medicine services, which in principle mainly have a preventive role in occupational health and safety.

Finally, the Ministry of Defence has three military hospitals for permanent members of the armed forces and their families and for conscripts, but they also accept socially-insured or paying civilians. The Ministry of the Interior has one interior security forces hospital in Tunis.

Overall, health care provision is characterized by a high level of technical expertise but its efficiency is undermined by organizational failings. The referral process does not follow standardized principles. Overburdening of the fourth level of the public sector (due to the weakness of the second and third levels), long appointment delays and the weakness of the patient referral system deeply affect continuity of care. Similarly, the theoretically complementary roles of the public and private sectors, their respective areas, and models for coordinating their activities have not been defined. The reforms undertaken in the funding and operation of regional hospitals and EPSs in the public sector have reduced the share paid by the state to the payment of salaries. The other running expenses are now billed to the CNAM, in the same way as for the private practice sector in principle, but with a fixed upper limit. It results in underpayment of factors of production in the public sector, with a risk of deterioration, while overall health expenditure is increasing with the development of the private practice sector. The operation of the hospital sector is characterized by compartmentalization of services, failings in coordination and in standard operating procedures, and the

absence of a standardized health care quality and safety procedure.<sup>20</sup>

### 2.3.9 Human resources

The training of health cadres was a priority for the authorities, and the four faculties of medicine, the faculty of dentistry, the faculty of pharmacy, the four schools of health sciences and technology, the 19 public schools of nursing sciences and the 22 private schools, mean that from a quantitative perspective the country is now self-sufficient in training.

Unemployment is now becoming a problem,<sup>35</sup> affecting roughly 25% of general practitioners and 50% of senior technicians. The solution envisaged is to export health cadres. However, for this to be achieved, the basic training currently provided, which adheres rigidly to outdated models, will need to evolve to meet both international standards and the country's changing health needs. They must be duly identified and taken into account within the framework of a long-term strategic plan for human resources development

for health. In any case, this process is a prerequisite for achieving progress in the quality of health care. Problems also persist in regional disparities in the distribution of health cadres. In 2007, 78.9% of general practitioners from the private practice sector were concentrated in Greater Tunis (58.5% of practitioners) and the eastern central region (20.4% of practitioners). Only the basic health care plan has restored some balance to the distribution of general practitioners (Table 6). Analysis of the distribution of specialist doctors by governorate shows that the situation has been noticeably improved in certain disadvantaged governorates (Table 7). However, the governorates in the south and west of the country still rank lowest. The improvements observed result from the public sector. There is not such an acute problem of regional disparity in the distribution of paramedics.

**Table 6. Human resources—public and private sectors (2007)<sup>34</sup>**

	Public sector	Private sector	Total	No. inhabitants/ professional
General practitioners	2431	3460	5891	1741
Specialist doctors	2630	3045	5675	1807
Dentists	458	1790	2248	4562
Pharmacists	333	1717	2050	5002
Paramedics	33 249	2011	35 260	291

<sup>35</sup> Mansouri F. *État inventorial des personnels de santé en 2004*. Tunis, 2005.

**Table 7. Number of inhabitants per specialist doctor (public and private) by governorate, 2007 compared with 2000<sup>34</sup>**

Governorates	2007	2000
Greater Tunis	855	1197
Sousse	1092	1477
Sfax	1183	1919
Monastir	1988	2665
Medenine	2938	4484
Bizerte	3063	4249
Mahdia	3120	5385
Nabeul	3174	3902
Gabès	3662	4260
Bèja	3703	8141
Zaghouan	3761	–
Touzeur	4559	4815
Kef	4765	5970
Gafsa	4925	6070
Jendouba	5058	8852
Kebili	5638	5050
Kairouan	6569	9712
Sidi Bouzid	6613	11 081
Tataouine	6871	7014
Siliana	7070	10 220
Kasserine	8 980	13 009
Tunisia	1802	2662

### 2.3.10 Drug policy, medical technology and products

Thanks to the Tunisian central pharmacy's monopoly on the import of medicines,

support for local medicine production and promotion of generic medicines, Tunisia controls their price, availability, quality and accessibility.<sup>36</sup> The value of the country's consumption of medicines covered by local

<sup>36</sup> Maitrise des coûts des médicaments importés – Etude de cas : Tunisie – Gilles Bardelay, Laurent Martin, Lassaad M'sahli, Amor Toumi, Elodie Jambert, Valerio Reggi – Série réglementation pharmaceutique – n°10- OMS, Genève, 2003.

production increased from 8.7% in 1987 to 43.5% in 2002. Efforts in national drug usage are necessary however (information and control), in order to reduce self-medication and inappropriate dispensing and prescribing. WHO regards the entire system as a model for member countries of the Eastern Mediterranean and African regions. The system should be sustained and strengthened in the face of the turbulence and pressures noted in the global market. However, with regard to vaccines, despite the achievements of the Expanded Programme on Immunization (EPI), consideration should be given to modernizing the logistics process (cold chain). Furthermore, the country's production capacity for vaccines and sera has dropped to some extent and the increase in both the range and price of these products on the global market has generated some vulnerability in their supply. An increase in national production capacity should be considered, to meet the country's needs, as well as those of the Eastern Mediterranean and even African region.

### 2.3.11 Health financing and expenditure

The percentage of GDP spent on health expenditure (Table 8) remains at acceptable levels, but is increasing rapidly due to expansion of the private practice sector. The average annual growth rate for health expenditure between 1980 and 2005 was 11.6%, i.e. about double the average annual GDP growth rate,<sup>37</sup> with total expenditure increasing from 143 million TND to 2 250 million TND. Between 2000 and 2005, the increase in expenditure on the private practice sector (66%) was almost twice that on the public and parapublic sectors combined (36.4%).<sup>38</sup> However, in 2005, while the volume of expenditure on the public and parapublic sectors (50.6% of national expenditure) was roughly equal to that for the private practice sector (48.1% of national expenditure), they nevertheless dealt with over 80% of hospitalizations, three quarters of outpatient consultations, and all preventive health policy.

**Table 8. Trend in percentage of GDP spent on health from 1980 to 2005<sup>37</sup>**

Year	1980	1985	1990	1995	2000	2003	2005
Total health expenditure/ GDP (%)	3.2	4.2	5.3	5.5	5.6	5.6	5.9

<sup>37</sup> Arfa C, Souiden A, Achour N. *Les comptes nationaux de la santé en Tunisie – Résultats pour les années 2004 et 2005 (version préliminaire)*. Tunis, Ministère de la Santé publique/INSP/OMS - Bureau régional de la Méditerranée orientale, décembre 2007.

<sup>38</sup> Arfa C, Souiden M.A, Achour N. *Étude relative aux dépenses individuelles catastrophiques et leur impact sur l'appauvrissement des ménages : cas de la Tunisie*. Tunis, OMS - Bureau régional de la Méditerranée orientale, décembre 2008.

**Table 9. Change in the share of health expenditure % coming from various sources of finance, 2000–2005<sup>37</sup>**

Year	2000 (%)	2004 (%)	2005 (%)
Government	33.7	28.9	28.2
Public employers	2.7	4.9	4.9
Private employers	15.4	15.2	15.4
Households	48.1	50.9	51.41

For several years, the proportion of health expenditure financed by the Government budget has fallen relative to social security funding and especially relative to the percentage coming from households (Table 9). The contribution from households may come from optional insurance (group insurance or mutual funds) but in the majority of cases is through out-of-pocket payments that have reached very high levels (51.41%).<sup>38</sup> The increasing financial outlay falling to households and its consequences raise questions about the possibilities for access to adequate care for the 80% most disadvantaged citizens, and especially the 20% most vulnerable,<sup>38</sup> and about the appearance of the risk of “catastrophic expenditures”,<sup>39</sup> and impoverishment.

### Social insurance

In 2005–2006, it was estimated that the entire population was eligible for health insurance through one mechanism or another:<sup>37</sup> 66% of the population is eligible for the régime des caisses scheme (now the CNAM), 25% of the population has medical assistance at reduced rates and 8% has free medical assistance. These two categories are not directly affected by health insurance

reform and they still have access as before to all types of care and investigations in public health facilities that fall under the authority of the Ministry of Public Health. The first implementation of the reform of the health insurance system established by law 2004–71 of 2 August 2004, establishing a health insurance scheme, came into force in July 2007.<sup>26</sup> People covered by the scheme can choose from three sectors: in the “public” sector, all types of interventions are provided exclusively in SSPs. The “private” sector, which involves every year choosing a family doctor (point-of-entry generalist) linked to the state health scheme, and the “reimbursement” sector give access to the private practice sector.

It is estimated that currently only about 20% of people covered by the CNAM scheme chose either the private sector or the reimbursement sector, and in roughly equal numbers. To summarize, about 80% of the population will continue to be treated mainly by the SSPs and parapublic facilities, the financial resources of which are known to be inadequate compared to those of the private practice sector. The existence of the three sectors is the result of negotiations with professional organizations from the

<sup>39</sup> According to WHO “health expenditure is catastrophic if a household’s financial contributions to the health system exceed 40% of income remaining after subsistence needs have been met”.

private practice sector and entails the risk of escalating health expenditure. Among certain vulnerable categories, job instability can also lead to interruptions in individuals' insurance cover. The state's contribution is likely to continue at current levels and the contribution from households at almost unbearable levels. Fears voiced by some before the reform was implemented, about "the appearance of adverse selection whereby the poorest patients tend to stay in the public sector" and where "the cross-subsidization mechanism would not benefit those who need it most" (our translation) are still as pertinent as ever.<sup>31</sup>

### 2.3.12 Quality and safety of care

The Government has declared improving quality of care to be a priority; it is also a key demand within public opinion. This issue is all the more important with the country looking to exporting health care services. Studies conducted in two Tunisian hospitals estimate the prevalence of adverse events to be about 10% of hospitalizations. The maternal mortality surveillance system shows that about 70% of deaths are due to preventable causes. There is therefore a vital and ethical need for the health system to address this issue. A national strategy for improving quality of care has been developed<sup>40</sup> and specific organizations have been set up by the Ministry of Public Health to implement it, but no tangible results have been achieved. Field-based initiatives exist:<sup>41</sup> a programme for high-quality services in the public sector basic health care sector, quality system for

medical laboratories and experiences in the evaluation of professional practices, which constitute a stock of concrete experiences that can serve as a basis for the recent plan to set up a national accreditation/certification body for health facilities and health personnel.

### 2.3.13 Governance

Tunisia's institutions have amassed a great deal of experience in the field of health, and Tunisia has a tradition of planning, organizing services and structuring programmes. As a result, the population's access to health care has expanded, mainly due to public sector basic health care services, and remarkable results have been obtained in the country's main health indicators. However, the health system is experiencing changes and there is a risk of it drifting off course. There is a shift from a situation in which medical technology was predominantly hospital-based to one in which the private practice sector is focusing on curative and hi-tech medicine, without any real strategic management of this sector. This adds to rising health expenditure and undermines the public sector's referral role. In addition, despite a professed determination to decentralize and the existence of geographically decentralized organizations (regional health directorates, hospital administration organizations in the regions), decisions are taken centrally and are often out of step with the realities on the ground, particularly with regard to the distribution of resources and certain strategic choices. Therefore, known

<sup>40</sup> *La stratégie nationale de l'amélioration continue de la qualité des soins et des services de santé*. Tunis, Ministère de la Santé publique/Direction générale de la santé, 2003.

<sup>41</sup> Ben Hamida A et al. Évaluation de la qualité de la prise en charge de l'HTA dans un centre de santé de base public (Ariana-Tunis). *Revue d'Épidémiologie et de Santé Publique*, 1993, 41:200–207, Masson, Paris, 1993.

problems, such as insufficient prominence being given to preventive health – health promotion, the upgrading of basic health care, continuity between health care levels, complementarity between the public sector and private practice sector, do not receive enough attention and are not addressed in a coordinated, sustained fashion. It appears from certain studies<sup>24</sup> that despite excellent levels of professionalism among managers, who are technically proficient in their jobs, the various administrative levels suffer from a lack of a management culture and communication that would make it possible to transcend excessively hierarchical and compartmentalized ways of working and develop a role in analysis and in the development of evidence-based strategies.

### 2.3.14 Main health care policies and objectives

The priority strategic directions of the 11th economic and social development plan, which is in its last biennium (2010–2011), are to:

- ❖ sustain and strengthen achievements in maternal and child health, reproductive health and prevent and control communicable diseases;
- ❖ step up efforts against the spread of diseases associated with transition;
- ❖ reduce regional health disparities, paying particular attention to the specific problems of vulnerable groups (children, young people, people with disabilities and the elderly);
- ❖ increase the country's production capacity for medicines, vaccines, sera, blood and blood derivatives;
- ❖ set up a human resources development programme, ensuring that training is better suited to the country's needs

and more in line with international standards;

- ❖ control the rise in health expenditure through better complementarity between the public and private sectors, while also safeguarding the referral role conferred on the public sector by improving the efficiency of hospitals, developing home care and outpatient care and establishing a national quality-of-care system;
- ❖ upgrade public sector primary care services for more fairness and efficiency in the health system.

The new presidential electoral programme (2010–2014) reaffirms the right to health as a basic right for all citizens and an essential factor for quality of life. It sets out the following objectives, in particular, to support:

- ❖ capacity-building for the prevention and control of emerging and re-emerging diseases;
- ❖ health promotion–prevention, the guarantee of a healthy environment and adoption of healthy behaviour, particularly among adolescents and young people;
- ❖ capacity-strengthening for the prevention, detection and management of the most dangerous cancers;
- ❖ awareness-building for psychological and mental illness;
- ❖ a guaranteed basis for health security in every field (pharmaceutical production and use, emergency networks, etc.);
- ❖ implementation of a programme to integrate the elderly into the social environment and guarantee their health care;
- ❖ the establishment of operational objectives for maternal and newborn

health, with reduction of the maternal mortality ratio to 20 per 100 000 live births in 2014, reduction of the infant mortality rate to 12.5 per 1000 live births in 2014 and to less than 10 per 1000 live births in 2020, and reduction of the stillbirth rate to 8.5 per 1000 births in 2014;

- ❖ improvements in hospital productivity, extending the hospital network to achieve equitable coverage throughout the country;
- ❖ the introduction of a programme to upgrade public-sector primary care, including district hospitals;
- ❖ the upgrading of the training of health cadres to meet international standards, to promote the concept of family doctors and their role in the health system, and to introduce instruction in health economics;
- ❖ the establishment of an independent public body to grant certification and accreditation to health facilities and health cadres;
- ❖ the implementation of a national strategy to boost drug and vaccine production (greater role for the Pasteur Institute), directed towards export;
- ❖ the achievement of 20% annual growth in health exports with the development of health tourism, hydrotherapy and thalassotherapy that meet international standards.

## 2.4 Key health sector challenges

In light of the above analysis, the health system will need to meet challenges resulting from new problems linked to the challenges of globalization, with increased pressure

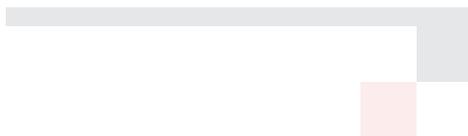
from health needs related to changing lifestyles (demographic and epidemiological transitions); for this, the methods used to manage chronic and degenerative diseases (noncommunicable diseases) will have to evolve and be redefined, and therefore the challenge of redressing the current imbalance that encourages curative responses at the expense of promotional and preventive responses. This will involve developing increasingly ambulatory and community-based management by primary care services, particularly those of the public sector (basic health centres, district hospitals, ambulatory hospital care), accompanied by significant backup from social services.

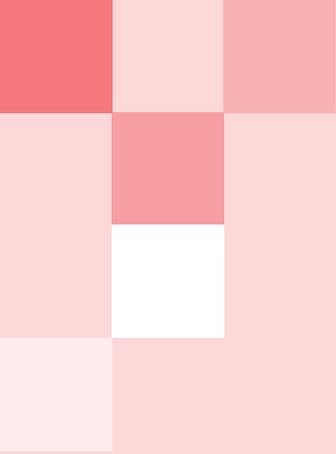
The consequences of environmental problems on health, particularly those related to limited water resources and climate change, require cross-sectoral response plans for disaster preparedness (flooding, drought, etc.).

The impact of the international financial and economic crisis on the population's socioeconomic level and therefore health and its destabilizing effects on the health system, particularly regarding accessibility and equity, which underlines problems of governance, with the regulatory authority's insufficient role in:

- ❖ regulation of health care provision to reduce disparities, organize complementarity between the public and private sectors and that of the patient referral system to achieve effective continuity of care;
- ❖ control of the rapid rise in health expenditure in relation to GDP and the level of social security contributions;

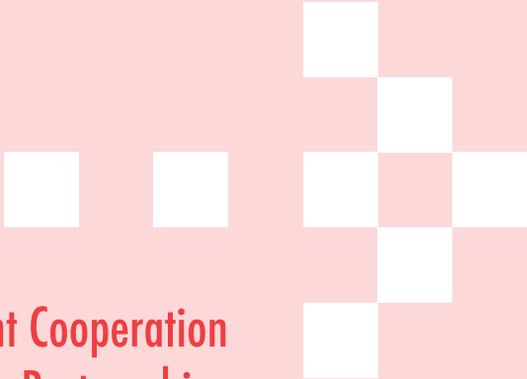
- ❖ use of the most relevant information in evidence-based decision-making;
- ❖ management of human and material resources (particularly as regards unemployment among young health graduates);
- ❖ effective decentralization;
- ❖ mobilization of representatives of civil society for health development;
- ❖ promotion of intersectoral collaboration for the management of health problems;
- ❖ the deployment of solutions to address issues relating to the quality of health services and patient safety.





Section

# 3



Development Cooperation  
and Partnerships





## ❖ Section 3. Development Cooperation and Partnerships

### 3.1 General framework

The considerable growth in GDP and improvement in health indicators has meant that Tunisia is one of the countries whose eligibility for external aid is steadily reducing. Most of the international cooperation will now be coming in the form of loans and technical partnerships. Moreover, the considerable development of human resources, the quality of expertise available, the deployment of a strong infrastructure, the level reached by the cadres' training institutions and acquisition of up-to-date technology will now give Tunisia the chance to take its place as a fully-fledged partner in the fields of cooperation, technology and scientific exchange. Thus, several countries, particularly Arab and African countries, have increasing confidence in Tunisian know-how, and seek Tunisian assistance in their countries or send their cadres and technicians to be trained in Tunisia.

Currently, the Government's two strategic programmes are to upgrade public sector health care and to develop health service exports. They should be the main areas of focus for the development of action for international cooperation in health if the sector is to derive maximum benefit from the available mechanisms and means of both multilateral and bilateral cooperation.

With WHO, and in addition to the biennial programmes, several national institutions have been identified as WHO collaborating centres. Several WHO fellows from sister and friendly countries visit the facilities,

and Tunisia frequently hosts a number of intercountry meetings organized by WHO.

The main sources of external finance for the health sector are the European Investment Bank (110 million Euros (€)), the Islamic Development Bank and the Saudi Development Fund (US\$ 40 million).

### 3.2 United Nations system

Various United Nations cooperation organizations are active in Tunisia: UNICEF, United Nations Development Programme (UNDP), Food and Agriculture Organization of the United Nations (FAO), United Nations Population Fund (UNFPA), United Nations Industrial Development Organization (UNIDO) and International Organization for Migration (IOM).

The country team from the United Nations system in Tunisia supports the country's efforts under the leadership of the Government in promoting sustainable people-focused social and economic development that safeguards present and future generations. It provides support to the country particularly to help it honour the commitments made in signing the Millennium Declaration.

During 2007–2011, an UNDAF was developed in consultation with the Government of Tunisia; this was used as a reference for the strategy of the organizations. Its four main components are to:

- ❖ reduce disparities, promote equality and improve quality of life

- ❖ advocate for young people and adolescents
- ❖ meet the challenges of employment
- ❖ meet the challenges of globalization.

UN agencies emphasize the importance of synergistic and complementary action, and harmonization efforts have led to the launch of theme groups with the full involvement of WHO, especially in the following groups that address health issues.

- ❖ theme group for young people and adolescents
- ❖ theme group for HIV/AIDS
- ❖ theme group on disparity and quality of life.

1. UNICEF's cooperation programme in the health sector (including young people/adolescents and HIV), for the 2007–2011 five-year plan hinges on two projects.

- ❖ Support for national policies and disparity reduction: the aim of this project is to support national policies on maternal and child health, particularly those to reduce maternal mortality and perinatal and neonatal morbidity/mortality. It also aims to improve the quality of maternal and child health services in the Kasserine, Sidi Bouzid, Kairouan and Tataouine regions in order to reduce regional disparities. This includes extending the IMCI strategy in target regions, and strengthening health workers' capabilities in communication, health district management and the quality of maternal and child health services.
- ❖ Young people/adolescents and HIV/AIDS: This project aims to help improve access to high-quality health services for young people and adolescents,

including counselling and voluntary HIV screening, and the promotion of healthy lifestyles; ii) prevention and reduction of parent/child transmission. This project also includes developing life skills and promoting youth and adolescent participation.

The allocated budget is US\$ 475 000 for ordinary resources and US\$ 900 000 for additional funds.

2. For UNFPA and during the 2007–2011 period, reproductive health is a fundamental component of the programme that must promote access to high-quality reproductive health services that meet the needs and fulfil the rights of couples and individuals, including young people and adolescents.

Two areas have been identified for particular attention.

- ❖ Increase the availability of high-quality reproductive health services in basic health centres and referral centres, in both the public and private sectors, targeting disadvantaged areas.
- ❖ Strengthen partnerships for youth and adolescent sexual and reproductive health, and promote the participation of young people in nongovernmental organization, public sector and private sector activities.
- ❖ UNFPA's contribution to the budget for this programme is US\$ 1 150 000, and US\$ 710 000 will be sought from other donors.

3. A joint project to reduce maternal mortality (MDG5) is underway. It involves four agencies (UNDP, UNICEF, UNFPA and WHO), which shows the level of interest in approaches based on harmonization

and effective coordination between these agencies.

This programme has focused its intervention on the following areas in order to strengthen the country's capacity to reduce maternal mortality further and thereby achieve MDG 5.

- ❖ Improve knowledge about maternal mortality at the national and target region level;
- ❖ Improve the quality of services for managing and monitoring maternal health;
- ❖ Strengthen health workers' capacities in communication methods and innovative education on maternal health.

The contribution from the four agencies is estimated to be US\$ 1 032 000.

4. Tunisia also has an OPTIMIZE pilot project that is concerned with improving the logistics of the vaccine cold chain, as part of a partnership between WHO and PATH. The estimate for this project is US\$ 1.7 million.

### 3.3 Bilateral cooperation

An important source of support for the health sector in its endeavour to update and enter into the globalized, free market international economy is bilateral cooperation. Agreements were made with several countries in, inter alia, the areas of exchange of experience and expertise, training managers, medical research, study of organization systems and management methods of health programmes, pharmaceutical industry partnership and direct cooperation between health institutions. Germany, Belgium, Bulgaria, France, Italy and Poland are some of the

countries involved in these agreements in Europe, South Africa, Mali, Niger and Senegal in Africa, Argentina in South America, as well as China and the Islamic Republic of Iran in Asia.

Examples of bilateral cooperation include the following.

The European Investment Bank gave €110 million in the form of a loan for a civil engineering and equipment programme; the Saudi Development Fund gave US\$ 25 million; and the Islamic Development Bank US\$ 40 million.

The Global Fund to Fight AIDS, Tuberculosis and Malaria provided about US\$ 17 million for a project to support HIV/AIDS prevention and control, and about US\$ 7 million for a second project to fight tuberculosis.

Cooperation with the Arab world and countries of the Maghreb in particular deserves a special mention; this has meant that action programmes could be developed with most of the countries in these two areas, either bilaterally (Algeria, Libyan Arab Jamahiriya, Morocco, Mauritania, Syrian Arab Republic, etc.), or multilaterally (League of Arab States and the Arab Maghreb Union).

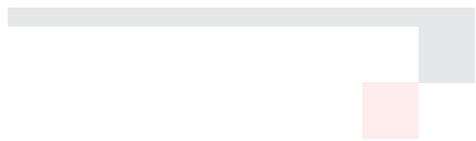
Despite this useful support, cooperation still poses serious coordination problems, as the Tunisian Government deals individually with each partner. The macroeconomic negotiations are beyond the control of the Ministry of Public Health and they have not set up a coordination mechanism to support the sector, which thus has to deal with a wide range of partners.

### 3.4 Tunisian cooperation

Since the 1970s, Tunisia has participated in initiatives with several countries, member countries of the Gulf Cooperation Council (GCC), in particular, and recently increasingly with sub-Saharan African countries. These initiatives offer placements for staff to train them to set up and develop their health systems.

This cooperation continues to look promising as there has been a considerable increase in job offers from member countries of the GCC and some European countries, Italy, in particular.

There are also several institutions, supervised by the Ministry of Public Health (National Office for the Family and Population, National Centre for Health Personnel Training, National Institute of Public Health, etc.) that participate in training managers from African and Arab countries mainly; these are usually triangular programmes supported by organizations such as UNFPA, UNDP, WHO, the Islamic Development Bank and the World Bank.





Section

# 4



**Current WHO Cooperation**





## Section 4. Current WHO Cooperation

### 4.1 Brief historical perspective

WHO has supported health development in Tunisia at various levels of the health system, following the national priorities defined in the economic and social development plans. Just after independence in 1956, when the country started to build a modern national government, WHO provided technical support for the development of the health infrastructure, human resources and various programmes to combat major health scourges – malaria, trachoma, schistosomiasis and other communicable diseases. It supported logistics and health personnel training for prevention programmes.

After the French left Tunisia, there was an acute shortage of medical personnel and WHO contributed to the creation of the first Faculty of Medicine in Tunis, and to feasibility studies for the Sousse and Sfax faculties. The Organization also collaborated in the development of the first nursing school and in the creation of some paramedical schools. During the 1970s, WHO assisted with the development of national prevention programmes and institutional strengthening of the Ministry of Public Health through the establishment of the Directorate of Preventive and Social Medicine.

After the Alma-Ata Declaration, efforts were made to promote integration of the various communicable disease control programmes and during the 1980s, WHO cooperation efforts concentrated on strengthening various programmes,

further developing health decentralization and creating directorates of basic health care, school and university health, and environmental hygiene and protection within the Ministry. From the 1990s, cooperation was focused on a large number of programmes covering the fields of medical technology, strengthening the health system based on basic health care and adapting to the requirements of the epidemiological and demographic transitions. Particular attention was paid to the problem of providing good quality services.

In addition to technical cooperation programmes, WHO is involved in partnership agreements which aim to develop country centres of excellence and their contribution to international cooperation. Seven centres working in various fields such as laboratory services, medicines, blood bank, human resources, reproductive health, etc., have been designated as WHO collaborating centres. They receive fellows from the Eastern Mediterranean Region and the other regions, mainly the African Region, and other countries can benefit from their expertise.

### 4.2 Main activities and cooperation modalities

Until WHO opened an office recently in the country, technical cooperation with WHO was mainly managed by the Regional Office, with assistance from the UNDP office in Tunis for financial aspects.

Programming runs in a biennial cycle; the WHO team and a national team discuss and

decide together the priority areas for the programmes to cover. However, technical cooperation has been mainly limited to programmes directly under the responsibility of the Ministry of Public Health.

WHO provides support for 38 programmes in five fields of activity.

- ❖ Infectious diseases
- ❖ Maternal and child health
- ❖ Environment and nutrition
- ❖ Noncommunicable diseases
- ❖ Health system development.

These programmes cover nearly all the health system's priority areas (prevention, communicable disease control, health surveillance for emerging and re-emerging diseases). Most reinforcement has been given to the programmes for basic health care development, environmental health, sanitation, food safety and water. In response to epidemiological transitions and the emergence of noncommunicable diseases, greater attention is given to strengthening strategies for risk factor prevention and early detection of these diseases, as well as to community-based interventions and the mobilization of civil society.

In view of the magnitude of the challenges and opportunities facing the health system, Tunisia has launched several other initiatives. Some examples are given below.

- ❖ In the field of intersectoral collaboration involving nongovernmental organizations and academic institutions, a healthy urbanization project was launched in the town of Ariana (AHUP). It is an initiative to promote healthy lifestyles among the

urban population, based on community participation, involvement of civil society, and action on determinants of health. The project has been adopted by the Regional Office and WHO Kobe Centre as a pilot project to combat cardiovascular risks and non communicable diseases. Similar projects have been launched in other towns (Sousse).

- ❖ As part of its remit for sustainable development, the Ministry of the Environment has launched studies and a national strategy to control the impact of climate change in collaboration with other international partners; WHO Centre for Environmental Health Activities supported a Tunisian study on the impact of the environment on child health.
- ❖ In terms of partnership, Tunisia is taking steps to develop south-south collaboration projects: the National Office for the Family and Population shares its technical expertise with African countries (Niger, Mauritania, Chad) with the collaboration of French or Japanese cooperation; tackling violence in northern African countries (with Spanish Cooperation); the Tunis Pasteur Institute organizes a course in technology and laboratory services to improve the capabilities of professionals practising in Sub-Saharan Africa.
- ❖ Collaboration has begun with foreign academic institutions, particularly in the field of human resources development: with the University of Montreal, Tunisia's four faculties of medicine have started a Family Medicine development project,

with the Saint Joseph University in Beirut the five new institutes of nursing sciences have developed an exchange and partnership programme to improve nursing training.

- ❖ The United Nations system (all agencies including WHO) has developed a joint programme for young people and adolescents, along with the various ministries concerned. Its aim is to promote their active participation in society, appropriate responses to their needs and create youth-friendly spaces, etc.
- ❖ Tunisia belongs to the Health Metrics Network (HMN) supported by WHO headquarters that calls on main stakeholders within and outside the health sector to develop the health information system.

An analysis of cooperation through the various biennial periods shows that efforts have been concentrated in the areas of training and institutional development. Reliance on foreign consultants is becoming relatively limited and many programmes use national expertise. Areas of cooperation between 2000 and 2009 have included infectious diseases and laboratory services, maternal and child health, environment and nutrition, noncommunicable diseases, and health systems development. The types of activities supported have included training abroad, national training, supplies and equipment, consultant costs and local costs.

Priority is given to health system strengthening activities, particularly those concentrating on human resources development such as family medicine

development and raising the level of nursing care. There has been sustained growth in the area of noncommunicable diseases and techniques and laboratory services. Priority has been given in the various biennia to health system development, and that the interest shown in noncommunicable diseases is increasing in response to the new challenges facing the system. There have been qualitative changes in cooperation because the resources allocated are increasingly directed towards developing the capabilities of professionals through training and technical assistance.

### 4.3 Strengths, weaknesses and prospects for cooperation

WHO has tried to integrate the political, economic and social changes that have occurred globally and in the Region, while taking into account national concerns at the various stages of health development. Reopening the country office has contributed to increasing WHO visibility at national level and has improved the effectiveness of the Organization. Improvements will be based on the achievements and confidence established between WHO and Tunisia, as well as on a more strategically-oriented vision for the cooperation.

Analysis of Tunisia's collaboration with WHO shows a more innovative direction, through new partnerships and collaborations, that integrates national concerns and takes regional and global changes into account and finally strengthens the role that Tunisia must play to share its experiences and expertise with other countries.

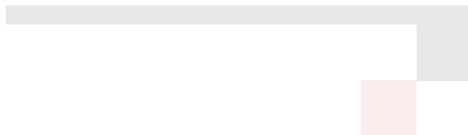
## 4.4 Mediterranean Centre for Health Risk Reduction

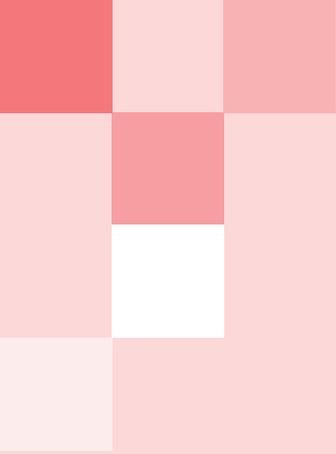
WHO's presence in the country is also reinforced by the WHO Mediterranean Centre for Health Risk Reduction, which contributes to health development both nationally and globally. Established through a memorandum of understanding between the Government of Tunisia and WHO at the end of 1997, the WHO Mediterranean Centre for Health Risk Reduction in Tunis is a global resource for social mobilization, training and operational research. The Government of Tunisia's support for the Centre formally brings Tunisia into the ranks of donor countries working for world health and confirms the country's policy of international solidarity.

The Centre has a specific role within WHO. It is administered by WHO headquarters in Geneva, yet has an inter-regional mandate, serving all the Organization's regions. Between 1998 and 1999, the WHO Mediterranean Centre focused on building capacity for emergency preparedness

and human development, serving as an Eastern Mediterranean Region focal point for emergency and humanitarian activities among others. Between 2000 and 2002 its scope was broadened to include activities aimed at increasing and improving access to health and social services and better management of health risks. In 2003, a range of social mobilization activities and training activities for communicable disease control were transferred from WHO headquarters to the Centre.

The memorandum of understanding between Tunisia and WHO was renewed on 13 May 2008 and its name was changed to the WHO Mediterranean Centre for Health Risk Reduction. Although the Centre has an international mandate, it works specifically with Tunisia by ensuring that the country's programmes benefit from its technical experience and by encouraging their contributions. Since its inception, when requested, the Centre has provided expertise for various health programmes in Tunisia.





Section

# 5



Strategic Agenda for  
WHO Cooperation





## ❖❖ Section 5. Strategic Agenda for WHO Cooperation

### 5.1 Guiding principles and policy framework for WHO work in countries

The guiding principles and overall policy framework for work of WHO as the world's health agency, are set out in the Eleventh General Programme of Work, WHO Medium-term Strategic Plan as well as statements of regional priorities.

The Eleventh General Programme of Work (2006–2015) proposes the following agenda for all stakeholders, and not just WHO.

- ❖❖ Investment in health to reduce poverty
- ❖❖ Building individual and global health security
- ❖❖ Promoting universal coverage, gender equality, and health-related human rights
- ❖❖ Tackling the determinants of health
- ❖❖ Strengthening health systems and equitable access
- ❖❖ Harnessing knowledge, science and technology
- ❖❖ Strengthening governance, leadership and accountability

In fulfilling its role in implementing the above agenda, WHO's comparative advantages lie in its neutral status and nearly universal membership, its impartiality and its strong convening power. WHO's role in tackling diseases is unparalleled. WHO has a large repertoire of global normative work. WHO promotes evidence-based debate, and has numerous formal and informal networks around the world. WHO's regionalized structure provides it

with multiple opportunities for engaging with countries.

In view of the above WHO must respond to important challenges if it is to realize its potential for effective action in the future. In health crisis, WHO has to act rapidly in order to be an effective partner among the numerous other agencies working with governments.

WHO will provide clearer understanding of health equity and health-related human rights. WHO will lead by example in mainstreaming gender equality building this into all its technical guidance and normative work. WHO will do more to focus attention and action on ensuring that countries have sufficient human resources for health, and work to keep this concern at the forefront of national and international policy. WHO will work with ministries of health to strengthen health systems and to build their understanding of what can realistically be done by working with other sectors. WHO will engage more systematically with civil society and industry, including international health care and pharmaceutical industries.

The core functions of WHO will guide the work of the Secretariat, influence approaches for achieving the strategic objectives, and provide a framework for assuring consistency and output at global, regional and country levels. The core functions of WHO are:

- ❖❖ Providing leadership on matters critical to health and engaging in partnership where joint action is needed

- ❖ Shaping the research agenda, and stimulating the generation, dissemination and application of valuable knowledge
- ❖ Setting norms and standards, and promoting and monitoring their implementation
- ❖ Articulating ethical and evidence-based policy actions
- ❖ Providing technical support, catalysing change and building sustainable institutional capacity
- ❖ Monitoring the health situation and assessing health trends.

During the six years of the Medium Term Strategic Plan 2008–2013, WHO will continue to provide leadership in matters of public health, optimizing its impartiality and near universal membership. Guidance from governments through the Regional Committees, Executive Board and Health Assembly ensures legitimacy for the work of the Organization; in turn the Secretariat's reporting to the government bodies ensures its accountability for implementation.

WHO's role in tackling diseases is without equal, whether its acts by marshalling the necessary scientific evidence, promoting global strategies for eradication, elimination or prevention, or by identifying and helping to control outbreaks.

WHO will promote evidence-based debate, analysis and framing of policy development for health through the work of the Secretariat, expert and advisory groups, collaborating centres, and the numerous formal and informal networks in which it participates.

The structure of WHO's secretariat assures involvement with countries. Headquarters focuses on issues of global concern and technical backstopping for regions and countries. Regional offices focus on issues of regional concern and technical support and building of national capacities. WHO's presence in countries allows it to have a close relationship with ministries of health and with its partners inside and outside government. The Organization collaborated closely with bodies of the United Nations system at all its three levels and provides channels for emergency support. Through its decentralized structure and close working relations with governments, the Secretariat is able to gather health information and monitor trends over time, across countries, regions and worldwide.

WHO is operating in an increasingly complex and rapidly changing landscape. The boundaries of public health action have become less clear, extending into other sectors that influence health opportunities and outcomes. The importance of economic, social, and environmental determinants of health has grown. Demographic and epidemiological transitions now combine with nutritional and behavioural transitions, influenced by globalization and urbanization, to create unfavourable new trends.

Expected achievements over the period of the Medium-term strategic plan are reflected in the agenda for action in 13 Strategic Objectives. They provide clear and measurable expected results of the Organization. They also promote collaboration across disease-specific programmes by capturing the multiple links among the determinants of health and

health outcomes, policies, systems and technologies.

## 5.2 Strategic directions for WHO support

WHO cooperation with Tunisia during the 2010–2014 period will focus on six main areas.

1- To support the country's efforts to consolidate health security through strengthening health surveillance, preventive activities and access to appropriate biomedical technology.

2- To support the implementation of a national strategy for health promotion and action on social determinants of health, for a fairer, more effective system.

3- To support the development of appropriate strategies to respond to the various challenges and changes facing Tunisia, in order to consolidate and give a fresh boost to basic health care.

4- To support efforts in the long-term strategic planning of human resource development for health.

5- To support efforts to maintain the achievements of the public sector, upgrade it and increase the efficiency and responsiveness of the health system.

6- To strengthen health system governance by developing evidence-based policies, and strategic planning for effective and efficient responses.

## 5.3 Strategic priorities

### 5.3.1 To support the country's efforts to consolidate health security through strengthening health surveillance, preventive activities and access to appropriate biomedical technology.

WHO will endeavour to contribute to:

- strengthening the capacity to respond to emergencies, natural disasters and the effects of climate change (operation headquarters with regional offices);
- consolidating and strengthening epidemiological and public health surveillance;
- supporting the national programme for vaccine and sera production.

### 5.3.2 To support the implementation of a national strategy for health promotion and action on social determinants of health, for a fairer, more effective system.

WHO will support:

- advocacy for health in all development policy, and for active citizen participation;
- the promotion of action on social determinants of health through cross-sectoral action;
- the development of a national strategy for environmental health and climate change response.

### 5.3.3 To support the development of appropriate strategies to respond to the various challenges and changes facing Tunisia, in order to consolidate and give a fresh boost to basic health care.

- ❖ WHO will participate in the development of the following strategic approaches.
- ❖ redefining the new needs and the range of essential response services;
- ❖ promoting family health-focused practice and the family health care sector and repositioning primary care in the national health system (private sector and public sector);
- ❖ strengthening health promotion activities, including healthy lifestyles (action against risk factors);
- ❖ strengthening community participation in health development activities;
- ❖ preparing health personnel to better respond to the problems associated with the epidemiological and demographic transition, particularly for implementation of a programme to integrate the elderly into the social environment, strengthening capacity to prevent, detect and manage the most dangerous cancers, and achieving objectives for maternal and neonatal health and adoption of healthy behaviour;
- ❖ revising resource requirements to give a fresh boost to basic health care with the introduction of a programme to upgrade public sector primary care, including district hospitals.

### 5.3.4 To support efforts in the long-term strategic planning of human resource development for health.

WHO will provide support in:

- ❖ setting up a national strategy for human resources development for health;
- ❖ setting up a national human resources observatory;
- ❖ developing long-term scenarios for the production and utilization of human resources;
- ❖ improving the quality of the human resources produced so that they meet both international standards and the country's needs, while promoting the concept of family doctors and their role in the health system;
- ❖ analysing the opportunities offered to the country to export its excess human resources, including those involving triangular and south-south cooperation, and through a proactive strategy to promote national expertise.

### 5.3.5 To support efforts to maintain the achievements of the public sector, upgrade it and increase the efficiency and responsiveness of the health system.

To support human resources development, WHO will assist in:

- ❖ safeguarding the country's achievements in access to medicines by strengthening the regulatory role of the Central Pharmacy and increasing self-sufficiency, particularly by implementing a national strategy to boost the production of medicines and vaccines for export;

- ❖ developing capacity for cost-analysis and setting charges for public services;
- ❖ measuring health system performance (public and private) in terms of service provision in reference to the objectives of the national health system, and monitoring outcomes.

### 5.3.6 To strengthen health system governance by developing evidence-based policies, and strategic planning for effective and efficient responses.

To strengthen health system governance, WHO will support:

- ❖ the national strategy to improve quality and patient safety;
  - ❖ the contribution to development in the Ministry of Public Health of a role in analysis and drafting of evidence-based health policies and strategies, with an inclusive approach (civil society, private sector, health professionals);
  - ❖ the update and reinforcement of the national health information system;
  - ❖ development of the national strategy for universal coverage through social protection in health, and sustainable policy for health financing.
- ❖ capacity in analysing the determinants of the rising financial burden on households and catastrophic expenditures, to help choose appropriate responses;
  - ❖ assistance for reform to bring health decentralization and to tighten regulation of service provision to ensure better complementarity between the levels and care providers, and to achieve better continuity of care;
  - ❖ establishment of a national regulatory authority that will also evaluate biomedical technology and give accreditation, and in particular, of an independent public body with the powers to grant certification and/or accreditation to health facilities and health cadres;
  - ❖ implementation of a national school of public health;
  - ❖ the export of health services, as one of the country's comparative advantages.





Section

# 6



**Implementing the Strategic  
Programme: Implications for WHO**





## Section 6. Implementing the Strategic Programme: Implications for WHO

### 6.1 Country office

The current CCS was prepared five years after the reopening of the WHO Representative's Office in June 2004. This office should demonstrate its "added value", as Tunisia's problems are becoming increasingly sophisticated and complex, as are the requirements of cooperation.

Despite numerous contributors coordination is sometimes lacking. It will be vital that the Organization is able to make its voice heard in debates that all too frequently disregard the place of health in development. The country office will need to have the necessary technical and managerial capacity to attract the best expertise available at various levels of the Organization and in other institutions. It will have to be sufficiently visible to assume the leadership expected from the Organization and participate actively and credibility in joint programmes with other United Nations agencies.

Currently, besides the WHO Representative, the personnel of the WHO Office in Tunis consists of three national staff employed permanently by WHO: a programme officer and two assistants. The remaining personnel are either made available by the Government (an administrative assistant, a secretary and two drivers) or are Special Service Agreement (SSA) contract workers (a financial assistant, a public relations assistant, a library assistant, a finance employee and an office assistant).

New premises have been built to accommodate the WHO Representative and the WHO Mediterranean Centre for Health Risk Reduction.

The following is urgently required to render the country office fully operational.

- ❖ the status of contract workers and staff made available by the Ministry of Health needs to be clarified;
- ❖ more staff are required with technical skills (2 National Professional Officers) to provide the Office with the technical capabilities required to implement the priorities identified in the CCS;
- ❖ new administrative and technical personnel are needed for the functionality of the new premises, which have been designated to play a role as a platform for training and wider communication and to accommodate more WHO activities (headquarters);
- ❖ the country office's fleet of vehicles needs to be replaced and the number of new vehicles increased.

### 6.2 Regional Office and headquarters

The strategic programme in the previous section shows the various areas where contribution will be sought. It is important that technical programmes in the Regional Office, headquarters and in the other regions are able to mobilize high-level expertise and technical support in due course; these may be in the form of international guidelines, research findings and technical documents. It is vital that the latter are available in French, and some material in Arabic.

A significant contribution will be required from the Regional Office to strengthen the country office's capacity, and headquarters will need to support this by mobilizing extra-budgetary funds. Moreover, the considerable development of human resources in Tunisia, the quality of expertise available, the deployment of a strong infrastructure, the level reached by the cadres' training institutions and acquiring up-to-date technology will now provide Tunisia with the opportunity of taking its place as a fully-fledged partner in various fields such as technology development and scientific exchange.

The Organization should have the ability to ensure that the international community can benefit from all these assets, as is already happening in some fields.

Dealing with the complex issues of health systems in transition will be helped by using Tunisia's experience in a stable framework over many years.

Very little work has been conducted on noncommunicable diseases and changes in behaviour and most of what has been done is based on the experience of high-income countries. Tunisia's approach could provide valuable lessons, particularly in the area in which the country is seeking to consolidate – basic health care.

Finally, it is important that the WHO Mediterranean Centre for Health Risk Reduction seeks to continue and strengthen its commitment to health goals with the Government of Tunisia as part of the two-way collaborative relationship.





[www.emro.who.int](http://www.emro.who.int)