EMRO Technical Publications Series 43

Noncommunicable diseases in the Eastern Mediterranean Region

World Health Organization
Regional Office for the Eastern Mediterranean

EMRO Technical Publications Series 43

Noncommunicable diseases in the Eastern Mediterranean Region

World Health Organization
Regional Office for the Eastern Mediterranean

WHO Library Cataloguing in Publication Data

World Health Organization. Regional Office for the Eastern Mediterranean
Noncommunicable diseases in the Eastern Mediterranean Region / World Health Organization. Regional Office for the Eastern Mediterranean
p. .- (EMRO Technical Publications Series; 43)
ISBN: 978-92-9274-590-5 (online)
ISSN: 1020-0428
1. Chronic Disease – mortality - Eastern Mediterranean Region 2. Chronic Disease – epidemiology - Eastern Mediterranean Region 3. Health Care Facilities, Manpower, and Services 4. Risk Factors - Eastern Mediterranean Region 5. Chronic Disease – economics I. Title II. Regional Office for the Eastern Mediterranean III. Series

(NLM Classification: WT 500)

This publication was originally published under ISBN: 978-92-9022-004-6

Contents

Foreword

Noncommunicable diseases now account for the largest burden of morbidity, disability and mortality, as well as health care utilization and costs worldwide and in most countries of the WHO Eastern Mediterranean Region. The Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases in September 2011 clearly identified these diseases as a threat to socioeconomic development, and called for inclusion of their prevention and control in all governmental programmes. The Declaration commits Member States to creating a clear governance structure integrating all aspects of noncommunicable disease control: surveillance, prevention and quality health care. They have also recognized the need for multisectoral cooperation between health and non-health government agencies, private industry, academic institutions and civil and international organizations.

This report is based on data drawn from the *Global status report on noncommunicable diseases 2010*, country capacity surveys conducted in the Region, and updated STEPS surveys in the Eastern Mediterranean Region. It provides the baseline upon which action in the Region can be built.

In all countries, maintenance of healthy lifestyles and promotion of safe and healthy environments can, and should be, implemented now for all population strata. Similarly, plans should be drawn up to establish or reinforce a health information system to register noncommunicable diseases, such as cancers, strokes or diabetes, as well as causes of death and risk factors, and to monitor health care utilization. WHO is fully aware that national capacities vary, and that competing development or health priorities may impede the emergence of a full-blown action plan. WHO will support Member States at the level of commitment they are willing to sustain, knowing fully that socioeconomic development is at any rate an important determinant of health. However, we will continue to press for planned action, even in countries with struggling economies. Noncommunicable diseases in these countries are still a "submerged iceberg" and it would not be responsible to postpone action until their burden has become undeniably visible and unbearably expensive.

The Regional Office stands ready to provide technical support on all aspects of prevention and control. Noncommunicable diseases are the main threat to health and wellness in this century: they deserve to be confronted fully and without delay.

Ala Alwan

WHO Regional Director for the Eastern Mediterranean

Acknowledgements

This report is based on data drawn from the *Global status report on noncommunicable diseases 2010*, country capacity surveys conducted in the Region, and updated STEPS surveys in the Eastern Mediterranean Region. The report was coordinated and prepared by Ibtihal Fadhil, WHO Regional Office for the Eastern Mediterranean. Salim Adib provided additional analysis and review and Samer Jabbour contributed to the final review. Haifa Madi provided support in coordinating the work. Dalia Attia liaised with countries to support the completion of the questionnaires and Tatyana Elkour supported the validation of data on the country profiles. National focal points from countries and colleagues from WHO country offices that took part in the country capacity survey provided helpful input and supported implementation of the survey and the reporting of the results. Leanne Riley and Melanie Cowan, WHO headquarters, coordinated implementation of the survey and validation of the results. Ala Alwan, WHO Regional Director for the Eastern Mediterranean, led the work on a global and regional level, provided guidance and ensured technical review and validation of data.

Executive summary

Noncommunicable diseases are increasingly the most prominent cause of morbidity and mortality across the Region. Four major categories of noncommunicable diseases lead the list: cardiovascular diseases, cancers, chronic respiratory conditions and diabetes. These share well-identified behavioural risk factors which, if addressed through effective preventive and control measures, could result in a decrease in disease incidence and premature mortality.

The Region is characterized by remarkable variations in noncommunicable disease premature mortality, ranging from 24% in Tunisia to 63% in Afghanistan. The availability of adequate resources for prevention and management of noncommunicable diseases and their risk factors is arguably associated with the overall socioeconomic development of any given country. The countries of the Eastern Mediterranean Region have been categorized into three broad health system groups based on population health outcomes, health system performance and level of health expenditure.

This report has analysed the availability of various components of noncommunicable disease control in the three groups of countries.[1] Group 3 countries clearly showed gaps in noncommunicable disease governance, planning, funding, services and monitoring. However, gaps have also appeared in group 1 countries, reflecting the fragmentation of noncommunicable disease control into disease-specific or risk-specific programmes. This fragmentation leads to suboptimal use of resources, and delayed multisectoral collaboration, which is required to tackle noncommunicable disease control in its various health and non-health aspects.

With the exception of cancer registries, noncommunicable disease information systems are inadequate, regardless of development levels. This is an indicator of lack of commitment to monitoring and evaluation which has long been a salient feature of health care systems in the Region. Without a good health information system, no valid baseline indicators can be established, nor progress monitored.

The report is based largely on the results of a 2010 country capacity survey for the prevention and control of noncommunicable diseases in the WHO Eastern Mediterranean Region, as well as the *Global status report on noncommunicable diseases 2010*. Some countries in the Region have updated their survey data since 2010, and these updates have been incorporated in the report and the country profiles where relevant.

The aim of *Noncommunicable diseases in the Eastern Mediterranean Region* is to highlight areas on which countries can focus in order to scale up national capacity for prevention and control of noncommunicable diseases across all relevant sectors, and thus fulfil their commitments under the United Nations General Assembly Political Declaration on Prevention and Control of Non-communicable Diseases (2011).

[1] Group 1: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates. Group 2: Egypt, Islamic Republic of Iran, Iraq, Jordan, Lebanon, Libya, Morocco, occupied Palestinian territory, Syrian Arab Republic and Tunisia. Group 3: Afghanistan, Djibouti, Pakistan, Somalia, Sudan and Yemen.

1. Introduction

Noncommunicable diseases account for almost two thirds of all deaths globally, which constitute about 36 million deaths in 2010 (*1*). In some countries of the WHO Eastern Mediterranean Region, the four major groups of noncommunicable diseases (cardiovascular diseases, cancers, chronic respiratory diseases and diabetes) account for nearly 60% of deaths and/or 70% of the disease burden. In all countries, the noncommunicable disease burden will negatively affect socioeconomic development. These four groups of diseases share some risk factors: tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol. The magnitude of these diseases has been rising in recent years, and so has the knowledge and understanding of their control and prevention. Evidence shows that noncommunicable diseases are largely preventable by means of a few cost-effective interventions.

The United Nations convened a High-level Meeting of the General Assembly on the prevention and control of noncommunicable diseases, 19–20 September 2011 in New York, with a particular focus on development challenges for developing countries. The resulting Political Declaration (resolution A/RES/66/2) acknowledges that noncommunicable diseases constitute a major challenge for development in the 21st century. It highlights the rapidly growing magnitude of noncommunicable diseases in developing countries, recognizes their contribution to poverty and hunger in those countries, and outlines ways to strengthen national capacities and international cooperation to respond to the challenge.

This report presents an updated overview of the current noncommunicable disease situation with regard to mortality, morbidity, risk factors and country capacity for prevention and control in order to scale up the implementation of the United Nations Political Declaration and effective national noncommunicable disease policies and programmes.

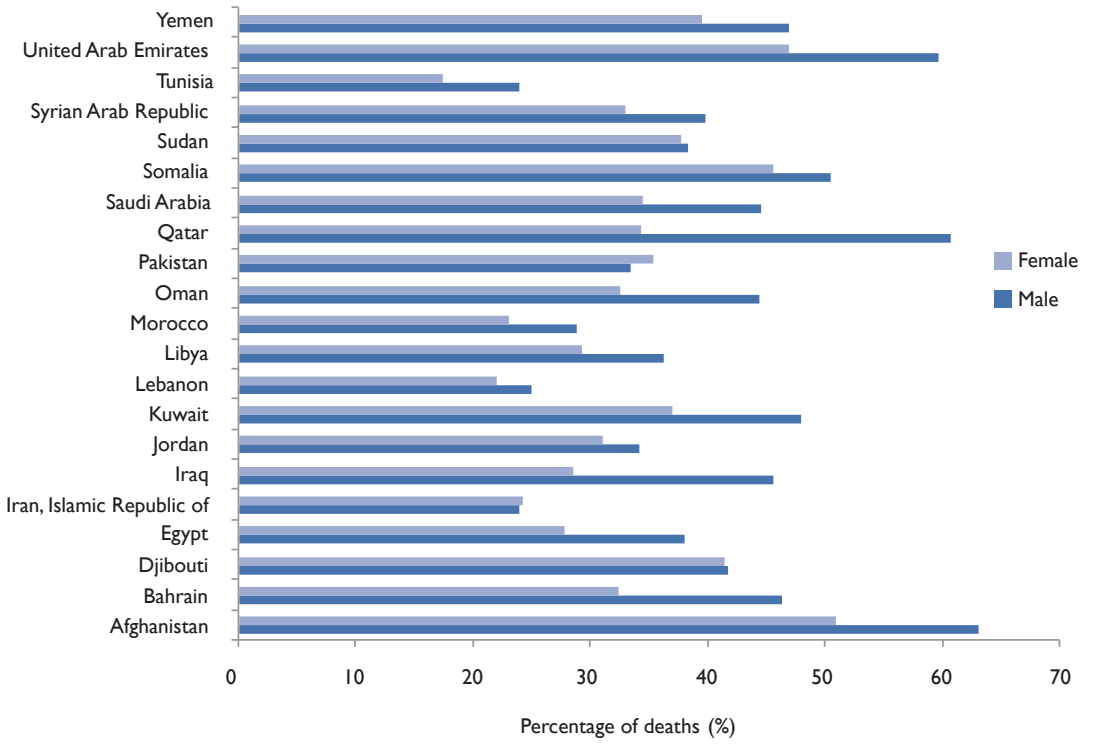
2. Burden of noncommunicable diseases

2.1 Mortality

More than 28 million people died from noncommunicable diseases in developing countries in 2008. More than 8 million of these deaths occurred before the age of 60 and could largely have been prevented. Wide disparities exist among developed and developing countries: premature deaths from noncommunicable diseases range from 58% among women in Sierra Leone to 6% in Italy, and 61% in males in Burkina Faso to 9% in Sweden.

The four major groups of noncommunicable diseases make the largest contribution to mortality in the majority of countries of the Eastern Mediterranean Region. It is estimated that more than 2.2 million people died from noncommunicable diseases in 2008 in the Region, representing 53% of the total number of deaths. Furthermore, an estimated 35% of people who died from noncommunicable diseases in the Region in 2008, died before the age of 60, representing more than 768 000 people who lost their lives prematurely. Only the WHO African Region has a higher premature mortality rate from these diseases (43%).

Huge disparities exist across the Region, which parallel disparities in socioeconomic development. For example, premature death (under age 60) from noncommunicable diseases among men ranges from 24% in Tunisia to 63% in Afghanistan. Similarly, premature mortality from noncommunicable diseases among women ranges



No data available for occupied Palestinian territory
Source: reference (*1*)

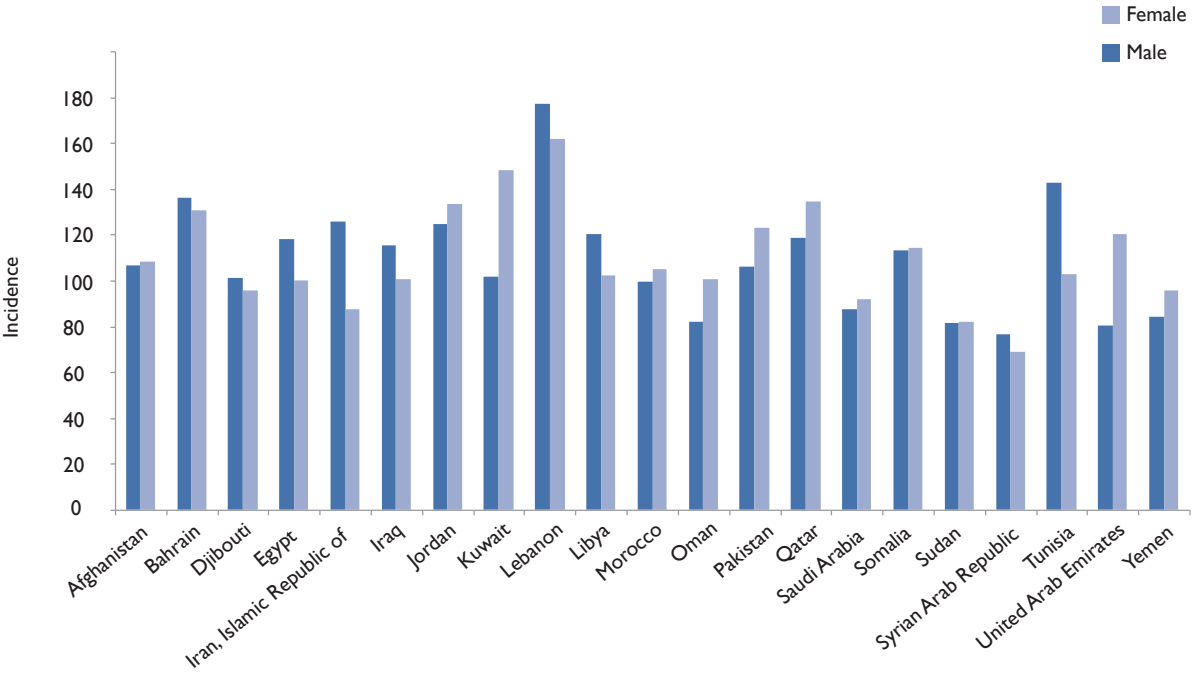
Fig. 1. Deaths due to noncommunicable diseases under 60 years of age, by sex (%)

from 17.4% in Tunisia to 51% in Afghanistan (Fig. 1).

2.2 Morbidity

Morbidity due to noncommunicable diseases accounts for over 60% of the regional disease burden. Limited and incomplete morbidity data on the four main noncommunicable diseases is a challenge. While cancer incidence is well reported in most countries, registries and reporting systems for other noncommunicable diseases are not well established. A recent report shows that the Region has very high rates of diabetes (*2*). Six out of 10 countries with the highest prevalence of diabetes in the world are reported to be from the Region with rates about 20%.

Cancer is the fourth most common cause of death from noncommunicable diseases in most countries of the Region, accounting for about 272 000 deaths every year (*3*). The most common types of cancer are lung and bladder cancer among men and breast cancer among women. Wide variations exist in cancer incidence across countries, ranging from around 51.2 per 100 000 among men in Qatar and 36.7 among women in Oman, to about 200 per 100 000 in both sexes in Lebanon (Fig. 2). Relatively higher rates in some countries may be attributed to better detection and reporting, increased exposure to risk factors, and population ageing. Higher case-fatality cancer rates (70%) are observed in countries of the Region compared to other regions (40–55%), and this has been attributed to late stage at diagnosis and inadequate access to health care. Low-income countries in the Region lack adequate capacity for early diagnosis and treatment in the public sector.



No data available for occupied Palestinian territory
Source: GLOBACAN 2008

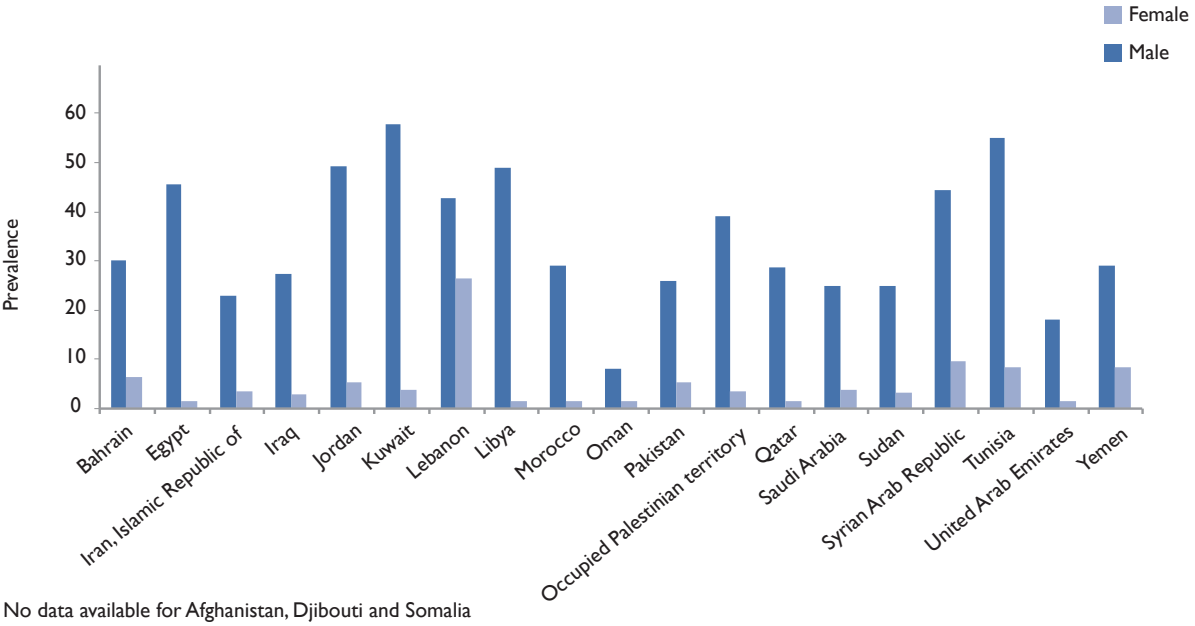
Fig. 2. Age-standardized cancer incidence per 100 000 population, by sex

3. Risk factors for noncommunicable diseases

A large percentage of noncommunicable diseases is preventable through the reduction of four shared behavioural risk factors: tobacco use, physical inactivity, unhealthy diet and harmful use of alcohol. Interventions to reduce exposure on a population-wide basis are not only achievable but also cost-effective.

3.1 Tobacco use

Tobacco use, both of cigarettes and water-pipe, represents a great health challenge in the Region. The prevalence of smoking among adult men varies considerable by country, with a rate ranging from 12% to 60% compared with 0.2% to 30.7% in women (Fig. 3). Surveys in the Region have reported equally alarming prevalence rates of current water-pipe smoking, ranging among adults from 4% to 12% (1). The Global Youth Tobacco Survey (ages 13–15) in some countries showed that water-pipe smoking is becoming more prevalent than cigarette smoking in both sexes, with higher rates in boys than girls (*4*). Generally, across the countries, men admit to smoking more than women. The smallest gender disparity is in Lebanon, where 44.6% of men and 30.7% of women (highest among women in the Region) were daily smokers (Table 1).



No data available for Afghanistan, Djibouti and Somalia

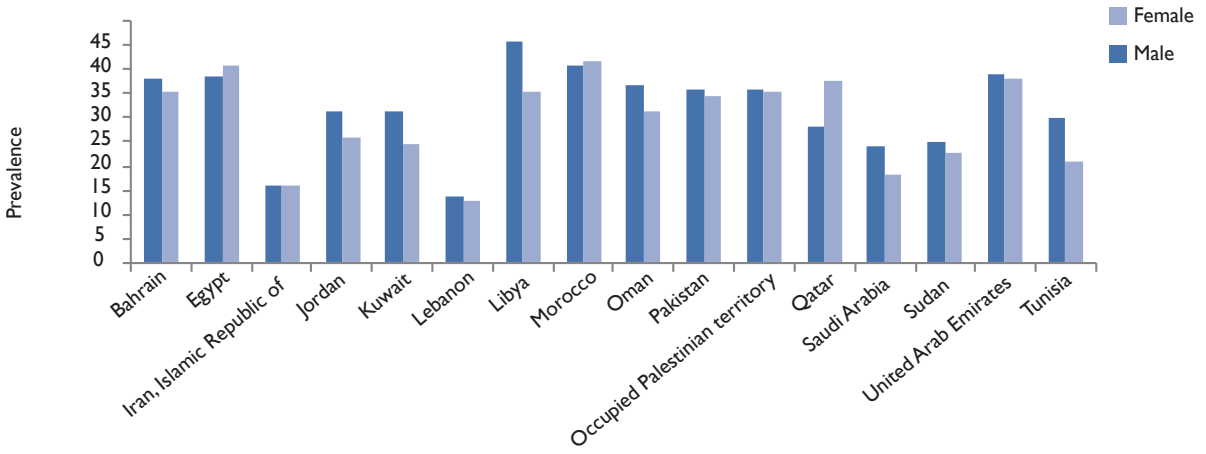
Fig. 3. Prevalence of current daily tobacco smoking in adults (≥15 years) in selected countries, 2008

Table 1. Prevalence of daily tobacco smoking by sex (≥15 years) in selected countries

Country	Age-standardized estimates (%)		
	Males	Females	Total
Afghanistan	–	–	–
Bahrain	31.4	6.2	21.2
Djibouti	–	–	–
Egypt	44.3	0.3	23.5
Iran, Islamic Republic	22.0	2.7	12.5
Iraq	25.3	2.0	13.7
Jordan	48.8	4.1	27.1
Kuwait	34.6	2.6	22.6
Lebanon	42.9	26.3	34.3
Libya	47.6	0.1	23.8
Morocco	28.7	0.2	14.0
Oman	6.6	0.2	4.0
Pakistan	25.4	3.8	15.0
Occupied Palestinian territory[a]	36.2	2.2	19.3
Qatar	29.0	0.6	14.7
Saudi Arabia	24.7	1.4	12.9
Somalia	–	–	–
Sudan	24.7	2.9	12.0
Syrian Arab Republic	44.3	8.0	26.5
Tunisia	56.5	6.8	31.6
United Arab Emirates	15.4	1.2	11.3

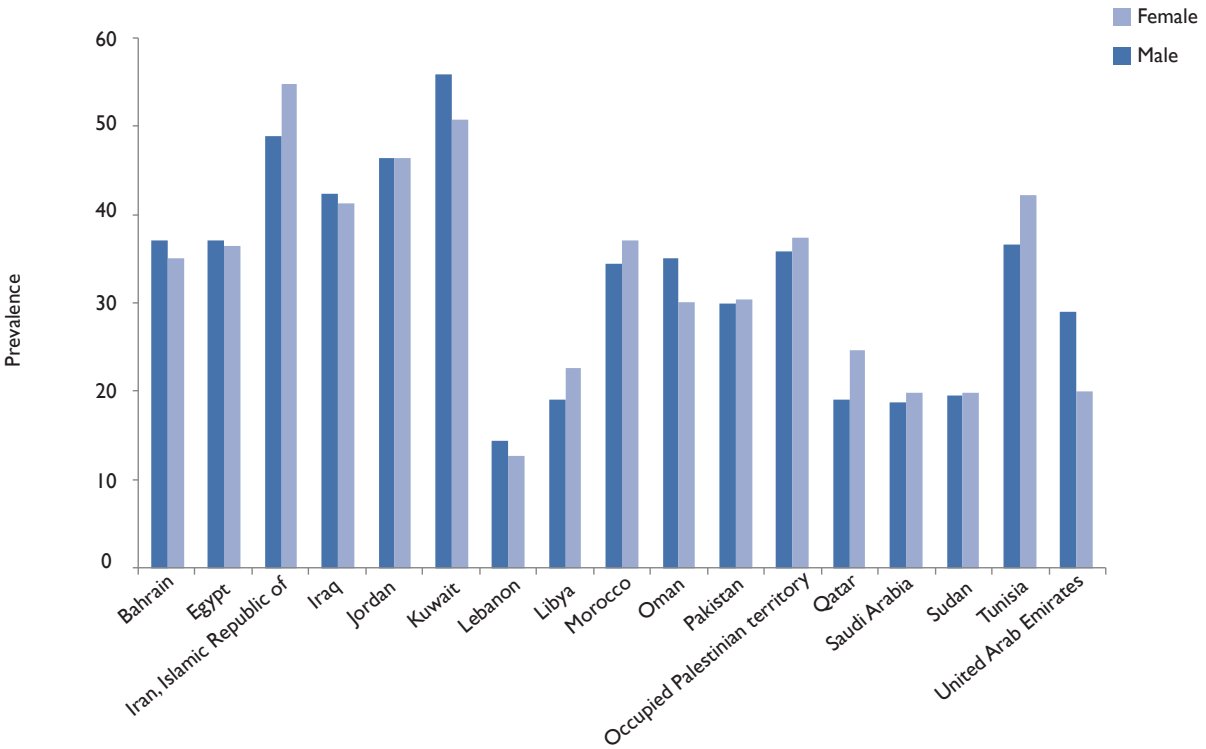
Source: Reference (*1*)

[a] STEPS Survey 2010–2011



SBP≥140 and/or DBP≥90
No data available for Afghanistan, Djibouti, Somalia, Syrian Arab Republic and Yemen
Source: Reference (*1*)

Fig. 4. Prevalence of hypertension among adults (≥25 years), by sex, in selected countries



Fasting blood cholesterol ≥5.2 mmol/l
No data available for Afghanistan, Djibouti, Somalia, Syrian Arab Republic and Yemen
Source: Reference (*1*)

Fig. 5. Prevalence of elevated blood cholesterol among adults (≥25 years), by sex

3.2 Hypertension

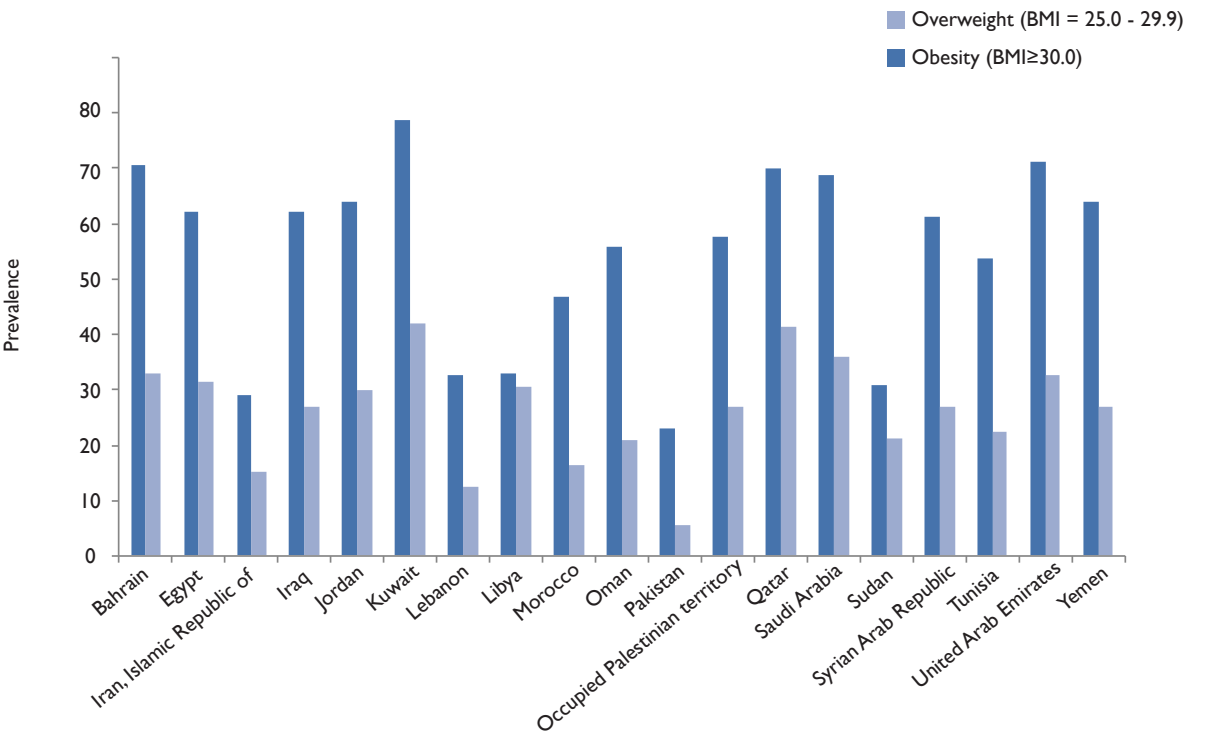
Data indicate that more than one quarter of the adult population of the Region may be affected by high blood pressure. Prevalence of hypertension ranges from 27.5% (United Arab Emirates) to 42.6% (Libya). Rates among women are almost as high as among men in most countries where data are available (Fig. 4).

3.3 Raised blood cholesterol

Hypercholesterolaemia is reported at rates ranging from 20% to 40% among adults aged 15–65 years in the Region, equally among men and women (Fig. 5).

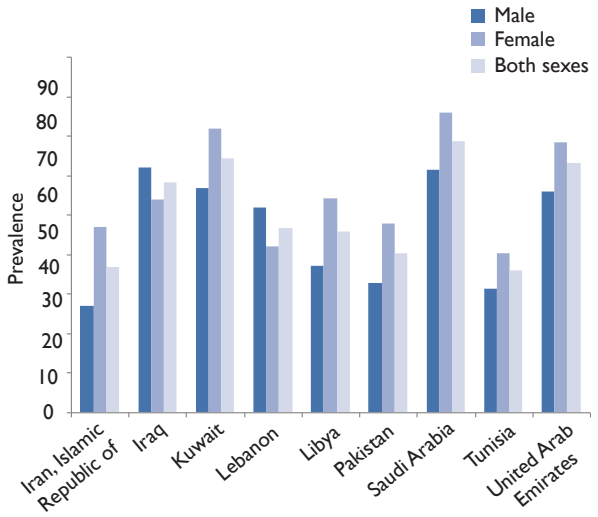
3.4 Overweight and obesity

The prevalence of overweight among adults in the Region is one of the highest globally. Women are more likely to be overweight than men. Compiled data for adults (≥20 years) from some countries (Bahrain, Egypt, Jordan, Kuwait, Saudi Arabia and United Arab Emirates) show a prevalence of overweight/obesity over 70%, particularly among women (Fig. 6). Overall, more than 50% of women in the Region are overweight. The escalating level of overweight and obesity among children is of particular concern, with an estimated 25%–40% of children and adolescents (<18 years) overweight or obese.



No data available for Afghanistan, Djibouti and Somalia
Source: Reference (*1*)

Fig. 6. Prevalence of overweight and obesity among adults (≥20 years) in the Eastern Mediterranean Region



Insufficient physical activity is defined as engaging in less than 30 minutes of moderate activity five times per week or less than 20 minutes of vigorous activity three times per week, or the equivalent.
Source: Reference (*1*)

Fig. 7. Prevalence of insufficient physical activity among adults (≥15 years) by sex

3.5 Physical inactivity

Compared to other WHO regions, the Eastern Mediterranean Region has the highest prevalence of insufficient physical activity, with 50% of women and 36% of men insufficiently active (Fig. 7). Sex disparities are largely attributable to conservative social and cultural norms which restrict outdoor physical activities for women, and the lack of female-only sports facilities. Barriers to physical activity affecting both sexes include climatic conditions of extreme heat in the summer and limited access to sports facilities.

4. National capacity to address prevention and control

WHO conducted surveys in 2000–2001, 2005–2006 and 2009–2010 to update information on individual country capacity to address noncommunicable disease prevention and control (*1*). All countries in the Region responded more or less completely to the 2010 survey[2] Disparities in noncommunicable disease preparedness are expected to be dependent on the overall economic development of each country. In the Eastern Mediterranean Region, countries have been classified into three broad health system groups, based on population health outcomes, health system performance and level of health expenditure (*5*).[3] This classification will be considered in analysing some of the items obtained through the country capacity surveys.

4.1 Governance

Fig. 8 shows results on governance parameters in 2010. These include: establishing a dedicated noncommunicable disease unit in the national ministries of health or equivalent, and building an integrated policy or action plan which is operational, funded and includes a monitoring and evaluation system. While most countries have established a specific noncommunicable disease unit, few have integrated policies. Even when integrated policies exist, they were often either not operational at the time of survey, or insufficiently funded. The absence of an integrated policy or action plan is often due to the fact that countries had previously developed programmes to address specific disease entities

[2]The country assessments that inform this report were conducted in 2010, before South Sudan became an independent Member State in the Region in September 2011. Thus, the information contained in the report does not provide disaggregated data for Sudan and South Sudan. As of June 2013 South Sudan is a Member State of the WHO African Region.

[3]Group 1: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates. Group 2: Egypt, Islamic Republic of Iran, Iraq, Jordan, Lebanon, Libya, Morocco, occupied Palestinian territory, Syrian Arab Republic and Tunisia. Group 3: Afghanistan, Djibouti, Pakistan, Somalia, Sudan and Yemen.

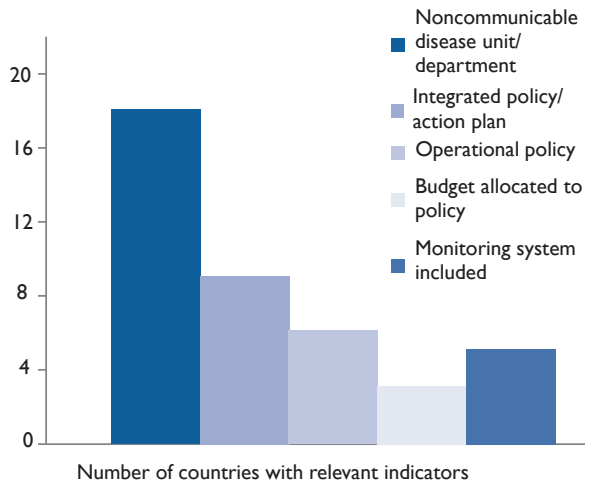


Fig. 8. Noncommunicable diseases governance indicators, Eastern Mediterranean Region, 2010 (*n* = 22)

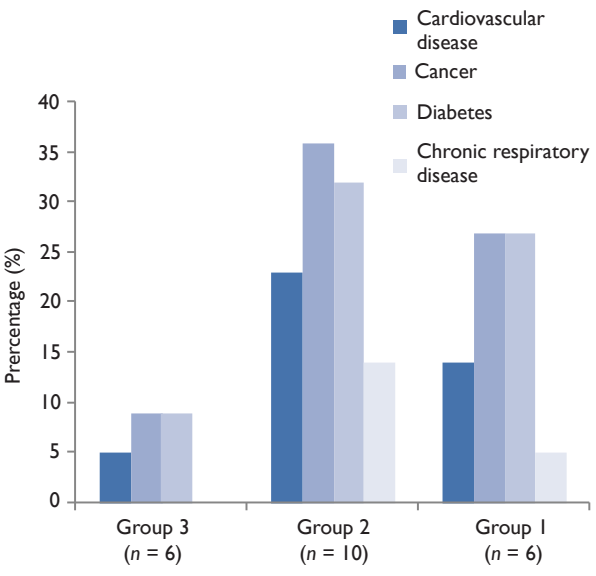


Fig. 9. Availability of policy/strategy/action plans for specific noncommunicable disease, by regional health system group

(Fig. 9) or risk factors (Fig. 10), and were reluctant to affect the momentum already in place on those issues. The availability of specific programmes in the figures is presented by group of countries to illustrate the correlation between these two issues.

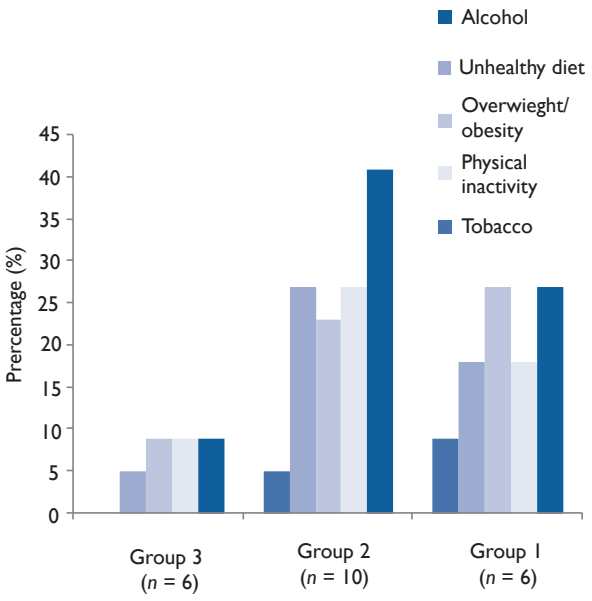


Fig. 10. Availability of policy/strategy/action plans for specific noncommunicable disease risk factors, by regional health system group

4.2 Funding for activities

General government revenues remain the main source of funding for noncommunicable diseases activities in 83% of countries. However, it appears that various nongovernmental sources are also contributing to noncommunicable disease surveillance, prevention and control activities in any given country. These sources include international donors (50%), health insurance schemes (40%) and earmarked taxes on tobacco and alcohol (18.2%). Table 2 indicates the ranking order of importance for various sources of funding in each of the countries.

4.3 Surveillance

Gaps exist in integrated monitoring and surveillance systems across the Eastern Mediterranean Region (Table 3). Of the countries responding, 72% have incorporated

Table 2. Ranking order of sources of funding for noncommunicable disease activities, Eastern Mediterranean Region, 2010

Country	Funding source				
	Government	Health insurance	Earmarked taxes	International donors	Industry/ nongovernmental organizations
Bahrain	1	3	-	-	2
Djibouti	1	3	-	2	-
Egypt	1	-	-	2	3
Iran, Islamic Republic of	1	3	2	-	-
Iraq	1	-	-	2	-
Jordan	1	2	-	3	-
Kuwait	1	2	3	-	4
Lebanon	1	2	-	3	4
Libya	1	-	-	-	-
Morocco	1	-	-	2	-
Oman	1	-	3	-	2
Occupied Palestinian territory	1	-	-	2	-
Qatar	1	2	-	-	-
Saudi Arabia	1	3	-	2	-
Sudan	2	3	-	1	-
Syrian Arab Republic	1	-	-	2	-
Tunisia	1	3	-	2	-
United Arab Emirates	1	2	-	-	-
Yemen	1	-	2	-	-

some cause-specific mortality and 77.3% some morbidity outcomes (Fig. 11) in their national health reporting system. The morbid entity most frequently under surveillance is cancer, for which special registries exist in many countries (Table 3/Fig. 11). Risk factors related to noncommunicable diseases are less often included (36.4%) in the national health reporting system. The various components of a national noncommunicable disease surveillance system may be either population-based or hospital-based (Table 3). In addition to ongoing surveillance, 18 countries have conducted STEP wise surveys (STEPS) to investigate the magnitude of risk factors. Table 4 shows the date of completion of the last STEPS round, and whether that was the first or the second.

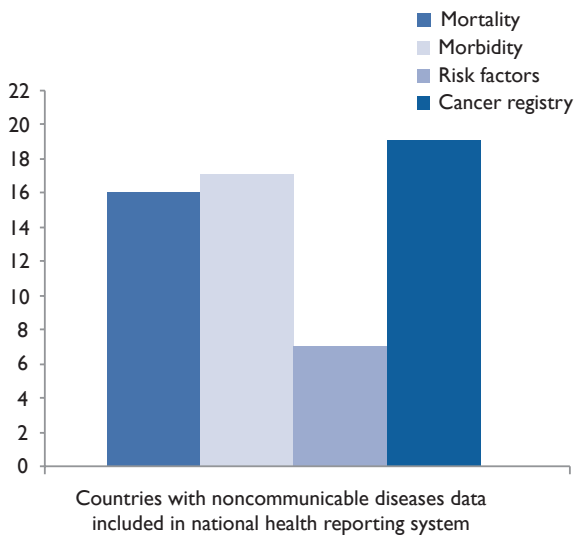


Fig. 11. Noncommunicable disease reporting and surveillance, Eastern Mediterranean Region, 2010 (*n* = 22)

Table 3. Components and structure of noncommunicable disease reporting systems, Eastern Mediterranean Region, 2010

Country	Mortality		Morbidity (except cancer)		Risk factors		Cancer registry	
	Reported	Structure	Reported	Structure	Reported	Structure	Present	Structure
Group 3								
Afghanistan	N		Y	Hosp	N		N	
Djibouti	Y	Hosp	Y	Hosp	N/A		N	
Pakistan	N		N		N		N	
Somalia	N						N	
Sudan	N		Y	Hosp	N		Y	Reg
Yemen	N		Y	Hosp	N		N	
Group 2								
Egypt	Y	Pop	Y	Hosp	N		Y	Reg
Occupied Palestinian territory	Y	Hosp	Y	Pop	Y	Pop	Y	Hosp
Iran, Islamic Republic of	Y	Pop	N		Y	Pop	Y	Pop
Iraq	Y	Other	Y	Hosp	N		Y	Reg
Jordan	Y	Pop	Y	Hosp	Y	Pop	Y	Pop
Lebanon	Y	Hosp	Y	Hosp	N		Y	Hosp
Libya	Y	Hosp	Y	Hosp	Y	Pop	Y	Pop
Morocco	N		N		N		Y	Pop
Syrian Arab Republic	Y	Hosp	Y	N/A	N		Y	Hosp
Tunisia	Y	Pop	Y	Pop	Y	Pop	Y	Pop
Group 1								
Bahrain	Y	Pop	Y	Hosp	Y	Pop	Y	Pop
Kuwait	Y	Pop	Y	Hosp	Y	Pop	Y	Pop
Oman	Y	Hosp	Y	Hosp	N		Y	Pop
Qatar	Y	Pop	N/A		N/A		Y	Pop
Saudi Arabia	Y	Pop	Y	Other	Y	Pop	Y	Hosp
United Arab Emirates	Y	Pop	Y	Pop	N		Y	Hosp

Table 4. Implementation of STEPS survey in Eastern Mediterranean Region

Country	Last conducted STEPs survey on risk factors	Country	Last conducted STEPs survey on risk factors
Afghanistan	Never implemented	Pakistan	Never implemented
Bahrain	2006/2007	Occupied Palestinian territory (Gaza Strip)	2010/2011
Djibouti	Never implemented	Occupied Palestinian territory (West Bank)	2010/2011
Egypt	2011/2012	Qatar	2012
Iran, Islamic Republic of	2009	Saudi Arabia	2005
Iraq	2006	Somalia	Never implemented
Jordan	2007	Sudan	2005/2006
Kuwait	2006	South Sudan	Never implemented
Lebanon	2009	Syrian Arab Republic	2003
Libya	2009/2010	Tunisia	2005
Morocco	2000	United Arab Emirates	2005,2008
Oman	2006 (subnational)	Yemen	Never implemented

4.4 Collaborative arrangements and partnerships

The importance of multisectoral collaboration in noncommunicable disease prevention and control has been highlighted in all related documents since 2000, and especially in the United Nations Political Declaration (2011). In the Eastern Mediterranean Region, these collaborations exist but are most developed in countries in group 2. For different reasons, collaborative efforts are less frequently signalled in groups 1 and 3. Efforts, whether unilateral or collaborative, are generally lacking in group 3 where the capacities present within ministries of health may make them less conducive to collaborative efforts and less aware of the importance of creating partnerships against noncommunicable diseases. Table 5 shows the various types of partnership established by ministries of health: other ministries, United Nations agencies, international institutions, academic research centres, nongovernmental organizations and the private sector.

4.5 Integration of noncommunicable disease services in primary health care facilities

In the majority of countries, various components of noncommunicable disease control, such as prevention, screening and management, self-care and home-based care, and data reporting to a central surveillance system, have started to be included in primary health care (Table 6). Countries varied also in completeness of coverage: only 50% of countries have total or partial health insurance coverage for those services.

Overall, more than 80% of the countries have evidence-based national guidelines, protocols and/or standards for diabetes and 73% for hypertension, protocols for other risk factors or morbid entities being less available (Table 7, Fig. 12).

Results of the survey showed wide variation in the availability of basic laboratory tests required for noncommunicable disease screening and

management in primary health care facilities. Almost all countries (95%) reported blood pressure testing to be available, which is not surprising as this test is usually a routine part of most clinical encounters in primary health care. While 82% reported they have blood glucose tests, only 32% offered HbA1c testing in primary health care facilities. Of all countries, 63% provided lipid profile tests, but only 27% had peak flow meters, an indicator of poorer management of asthma in primary health care facilities in the Region. Mammograms were reported as available by 27.3% of countries (Table 8).

Overall most countries have adopted the list of essential medicines in public primary health care facilities. However, not all noncommunicable disease medicines in that list are available everywhere (see Table 9).

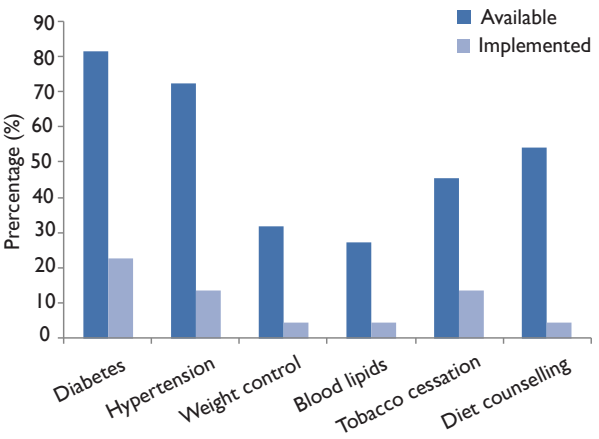


Fig. 12. Availability and implementation of national guidelines/protocols for managing noncommunicable diseases and their risk factors (*n* = 22)

Table 5. Partnerships on noncommunicable disease activities between ministries of health and key stakeholders, Eastern Mediterranean Region, 2010

Country	Key stakeholders					
	Other ministries	United Nations agencies	International institutions	Academic research centres	Nongovernment organizations	Private sector
Group 3						
Bahrain	Y	Y	Y	Y	Y	Y
Djibouti	Y	Y	N	N	N	N
Pakistan	N/A	N/A	N/A	Y	N/A	N/A
Somalia	N	Y	N	N	Y	N
Sudan	N	Y	Y	Y	Y	N
Group 2						
Egypt	Y	Y	Y	Y	Y	N/A
Iran, Islamic Republic of	Y	Y	N	Y	Y	Y
Iraq	Y	Y	N/A	Y	Y	N
Jordan	Y	Y	Y	N	Y	N/A
Lebanon	Y	Y	Y	Y	Y	Y
Libya	N/A	N/A	N/A	N/A	Y	N/A
Morocco	Y	Y	Y	Y	Y	Y
Occupied Palestinian territory	Y	Y	Y	Y	Y	N
Syrian Arab Republic	Y	Y	Y	N	Y	N
Tunisia	Y	Y	Y	Y	Y	Y
Group 1						
Bahrain	Y	Y	Y	Y	Y	Y
Kuwait	Y	Y	Y	Y	Y	Y
Oman	Y	Y	N	Y	Y	N
Qatar	Y	Y	Y	Y	Y	Y
Saudi Arabia	Y	Y	Y	Y	Y	Y
United Arab Emirates	Y	Y	N	Y	N	Y

N = not available; Y = available; N/A = no data available
Data on this section of the survey were not available for Afghanistan and Yemen

Table 6. Noncommunicable disease components included in the primary health care system, Easter Mediterranean Region, 2010

Country	Noncommunicable disease components included in primary health care					
	Prevention Promotion	Risk factors Screening	Risk factors management	Self-help Self-care	Home-based care	Surveillance and reporting
Group 3						
Afghanistan	N	N	N	N	N	N
Djibouti	Y	N/A	N/A	N/A	N/A	N/A
Pakistan	N	N	N	N	N	N
Somalia	N	N	N	N	N	N
Sudan	N	N	N	N	N	N
Yemen	N	N	N	N	N	N
Group 2						
Egypt	N/A	N/A	Y	N/A	N	Y
Iran, Islamic Republic of	Y	Y	Y	Y	N	Y
Iraq	Y	Y	Y	N	N	Y
Jordan	Y	N	Y	N	N	N
Lebanon	Y	Y	Y	N	N	Y
Libya	Y	Y	Y	N/A	N	Y
Morocco	Y	Y	Y	Y	N	Y
Occupied Palestinian territory	Y	Y	Y	Y	Y	Y
Syrian Arab Republic	Y	N	N	N	N	Y
Tunisia	Y	Y	Y	Y	Y	Y
Group 1						
Bahrain	Y	Y	Y	Y	Y	Y
Kuwait	Y	Y	Y	Y	Y	N
Oman	Y	Y	Y	N	N	Y
Qatar	N	Y	Y	Y	N	N
Saudi Arabia	Y	Y	Y	Y	Y	Y
United Arab Emirates	Y	Y	Y	N	Y	Y

N = not available; Y = available; N/A = no data available

Table 7. Availability and implementation of management guidelines for noncommunicable diseases and their risk factors in the primary health care system, Eastern Mediterranean Region, 2010

Country	Guidelines available					
	Diabetes	Hypertension	Weight control	Blood lipids	Tobacco cessation	Diet counselling
Group 3						
Afghanistan	I	N	N	N	N	N
Djibouti	N	N	N	N	I	Y
Pakistan	N	N	N	N	N	N
Somalia	N	N	N	N	N	N
Sudan	I	Y	N	N	N	I
Yemen	N	N	N	N	N	N
Group 2						
Egypt	I	I	N	N/A	I	N/A
Iran, Islamic Republic of	I	I	I	I	I	I
Iraq	I	I	I	N	N	I
Jordan	I	I	N	N	N	N
Lebanon	I	I	N	N	N	N
Libya	I	I	N	N	N/A	N
Morocco	I	I	N/A	N/A	Y	N
Occupied Palestinian territory	I	I	N	I	Y	I
Syrian Arab Republic	I	Y	N	N	N	Y
Tunisia	I	I	I	I	I	I
Group 1						
Bahrain	I	I	I	I	I	I
Kuwait	I	I	I	N/A	I	I
Oman	I	I	N	I	N	I
Qatar	Y	N	Y	N	Y	Y
Saudi Arabia	Y	Y	N	N	N/A	I
United Arab Emirates	I	I	I	I	I	N/A

N = not available; Y = available but not yet implemented; I = implemented

Table 8. Availability of selected tests and procedures needed for noncommunicable disease management in primary health care, Eastern Mediterranean Region, 2010

Country	Guidelines available				
	Blood glucose	HbA1c	Lipids profile	Asthma peak-flow	Mammograms
Group 3					
Afghanistan	N	N	N	N	N
Djibouti	Y	N	Y	Y	Y
Pakistan	Y	N	N	N	N
Somalia	Y	N	Y	N	N
Sudan	Y	N	N	N	N
Yemen	Y	N	Y	N	N
Group 2					
Egypt	N	N/A	N/A	N/A	N/A
Iran, Islamic Republic of	Y	N	Y	N	N
Iraq	Y	N	Y	N	N
Jordan	N	N	N	N/A	Y
Lebanon	Y	N	Y	N	N
Libya	Y	Y	Y	Y	Y
Morocco	N	N	N	N/A	N/A
Occupied Palestinian territory	Y	Y	Y	N	Y
Syrian Arab Republic	Y	N	N	N	N
Tunisia	Y	N	Y	N	N
Group 1					
Bahrain	Y	Y	Y	Y	Y
Kuwait	Y	Y	Y	Y	N
Oman	Y	Y	Y	Y	N
Qatar	Y	Y	Y	Y	N
Saudi Arabia	Y	N	Y	N/A	N
United Arab Emirates	Y	Y	Y	N	Y

N = not available; Y = available; N/A = no data available

Table 9. Availability of basic noncommunicable disease medicines in primary health care public facilities, Eastern Mediterranean Region, 2010

Country	Guidelines available					
	Oral hypoglycaemic	Insulin	ACE inhibitors	B-blockers	Statins	Steroid inhalors
Group 3						
Afghanistan	N	N	N	N	N	N
Djibouti	Y	Y	Y	Y	Y	Y
Pakistan	N	N	N	N	N	N
Somalia	Y	N	Y	N	N	N
Sudan	Y	Y	Y	Y	N	N
Yemen	N	Y	N/A	N/A	N/A	N/A
Group 2						
Egypt	N/A	N/A	N/A	N/A	N/A	N/A
Iran, Islamic Republic of	Y	Y	Y	Y	Y	Y
Iraq	Y	Y	Y	Y	Y	Y
Jordan	Y	Y	Y	Y	Y	Y
Lebanon	Y	Y	Y	Y	Y	Y
Libya	Y	Y	Y	Y	Y	Y
Morocco	N	Y	N	N	N	N/A
Occupied Palestinian territory	Y	Y	Y	Y	Y	Y
Syrian Arab Republic	Y	Y	N	N	N	N
Tunisia	Y	Y	Y	Y	N	Y
Group 1						
Bahrain	Y	Y	Y	Y	Y	Y
Kuwait	Y	Y	Y	Y	Y	Y
Oman	Y	Y	Y	Y	Y	Y
Qatar	Y	Y	Y	Y	Y	Y
Saudi Arabia	Y	Y	Y	Y	Y	Y
United Arab Emirates	Y	Y	Y	Y	Y	Y

N = not available; Y = available; N/A = no data available

5. Conclusion

5.1 Overall view

The response of countries to the mounting epidemic of noncommunicable diseases and their determining behavioural factors is still largely inadequate. This report has revealed important gaps and challenges across the countries of the Region. Structural noncommunicable disease units have been set up in 19 countries, but the majority are challenged by inadequate funds to support effective implementation of the plans. National information systems, needed to monitor the noncommunicable disease situation and evaluate control measures, are also at various levels of inadequacy, ranging from total absence in some countries in regional health systems group 3, to improving in some group 2 and group 1 countries. Other gaps exist in noncommunicable disease-related policies, multisectoral coordinated activities, and integration within the primary health care system.

5.2 Opportunities for regional improvement

In considering the way forward, it has become clear that economic development has direct impact on various components of the noncommunicable disease prevention and management capacity of any given country. This determinant has to be taken in account when planning the regional strategy to improve noncommunicable disease capacities. Different approaches need to be considered for the three development groups that have been defined in the Region.

1. In countries in group 3, support is very likely needed to create an adequate noncommunicable disease governance system almost from nothing. In these countries, the continued prominence of communicable diseases and of diseases related to malnutrition and poverty (group 1 in the burden of disease classification) will continue to monopolize the attention of health policy-makers for several years to come. WHO has a major role in providing support for noncommunicable disease control, but preferably when and as random opportunities appear. This "opportunistic" approach would minimize negative reactions from important national stakeholders, and optimize the positive impact of any incoming contribution. Defining a "champion", whether an individual or a community group, willing to carry one or the other noncommunicable disease-related "cause" seems to be an essential first step towards activating the entire agenda successfully "from within" in resource-poor countries.

2. In countries in group 2, continued pressure as well as technical support should be provided from WHO to obtain "all-of-government" adoption of the noncommunicable disease agenda. Ministries of health may be reluctant to jeopardize existing programmes in an attempt to integrate all activities aimed at noncommunicable diseases. An incremental approach, based on complementing rather than restructuring existing programmes would avoid active, or more likely passive, resistance to adopting and implementing the WHO vision on noncommunicable disease prevention and management. The sustainability of efforts in this group is predicated on the speed of training human resources among health care professionals so they are well-equipped with skills and knowledge to respond to the needs. Also important is generating political awareness regarding noncommunicable disease dimensions and requirements in the non-health sectors, and encouraging the emergence of a civil and professional alliance which will demand and contribute to noncommunicable disease control.

3. Countries in group 3 are the member countries of the Gulf Cooperation Council. In these countries, ministries of health have already responded in a relatively positive fashion to the vision proposed by WHO, even to the point of coordinating their response across national boundaries. Increasingly, non-health public sectors are becoming willing and effective partners in a multisectoral approach to noncommunicable disease control. In these countries WHO will have to provide a consultative role when needed. WHO should also be nudging these countries to play a leading role as regional and even international resource centres, providing training, material support and evidence-based know-how, towards global action against noncommunicable diseases.

The way forward in noncommunicable disease prevention and management in the Region is still a long and difficult one, but along the way it is important to recognize that major stakeholders at national levels are becoming more and more aware of the importance of the noncommunicable disease burden and the crucial need to confront it. National civil and political awareness and willingness to act, added to vision, persistence and tailored intervention from WHO can result in measurable advances on noncommunicable disease control across the Region in the coming years.

References

1. Global status report on noncommunicable diseases, 2010. Geneva: World Health Organization; 2011 (http://www.who.int/nmh/publications/ncd_report2010/en/ , accessed 26 March 2014).

2. International Diabetes Federation. IDF Diabetes Atlas, 4th edn. Brussels, Belgium: International Diabetes Federation; 2009 (http://www.idf.org/sites/default/files/da5/IDF%20Diabetes%20Atlas%204th%20edition.pdf , accessed 26 March 2014).

3. Strategy for cancer prevention and control in the Eastern Mediterranean Region 2009–2013. Cairo: World Health Organization Regional Office for the Eastern Mediterranean; 2010 (http://applications.emro.who.int/dsaf/EMRPUB_2010_1278.pdf, accessed 26 March 2014).

4. Global youth tobacco survey: country reports. (http://www.emro.who.int/tobacco/gtss-youth-survey/gyts-factsheets-reports.html#gyts-country-reports, accessed 25 March 2014)

5. Health systems strengthening in countries of the Eastern Mediterranean Region: challenges, priorities and options for future action. Cairo: World Health Organization Regional Office for the Eastern Mediterranean; 2012 (EM/RC59/Tech. Disc.1, http://applications.emro.who.int/docs/RC_technical_papers_2012_Tech_Disc_1_14613_EN.pdf, accessed 25 March 2014).

Country profiles

Afghanistan

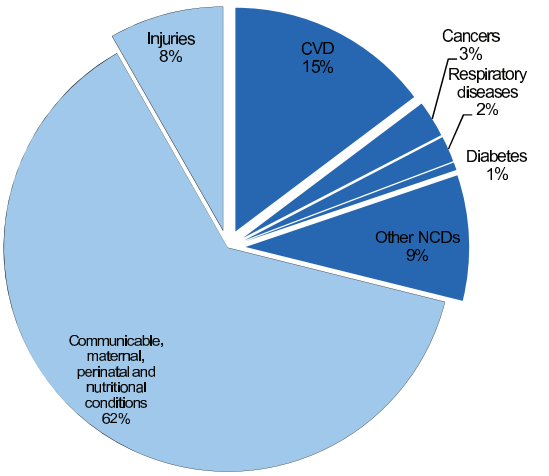
2010 total population: 31 411 743
Income group: Low

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	75.8	50.8
NCD deaths under age 60 (percent of all NCD deaths)	63.2	51.0
Age-standardized death rate per 100 000		
All NCDs	1285.0	952.7
Cancers	108.4	96.8
Chronic respiratory diseases	88.5	54.7
Cardiovascular diseases and diabetes	765.2	578.2

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	…	…	…
Physical inactivity	...	...	...

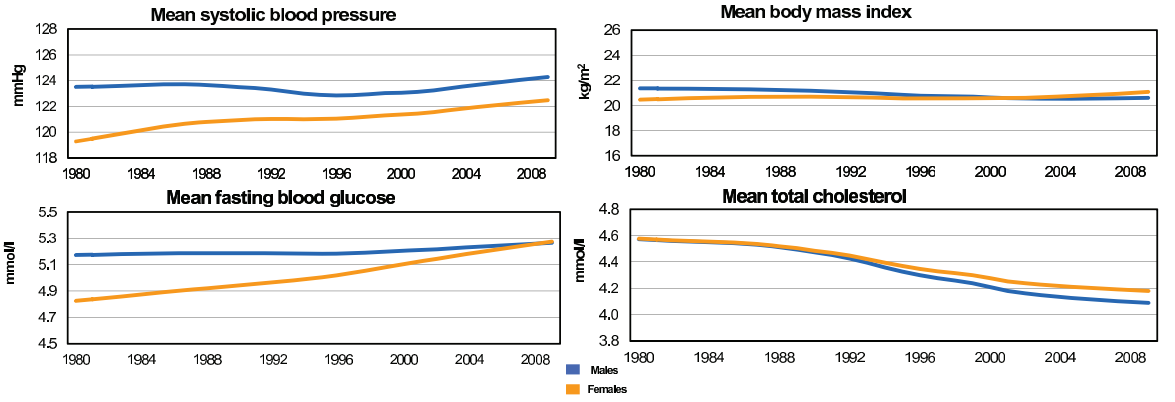
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	...	...	...
Raised blood glucose	...	...	...
Overweight	...	...	...
Obesity	...	...	...
Raised cholesterol	…	…	…

Proportional mortality (% of total deaths, all ages)*



NCDs are estimated to account for 29% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**No**	*6 Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**No**
NCD treatment and control	**No**	b. is it operational?*	…..
NCD prevention and health promotion	**No**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**No**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	…..
NCD cause-specific mortality	**No**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**0/5**
NCD morbidity	**Yes**		
NCD risk factors	**No**		
		9. Does your country have any population-based salt reduction strategies?	…..
4. Has a national, population-based cancer registry	**No**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	…..
5. Is the HBA1C screening available at PHC level?	**No**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**No**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%** **(6b) 27.3%** **(6d) 22.7%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

Bahrain

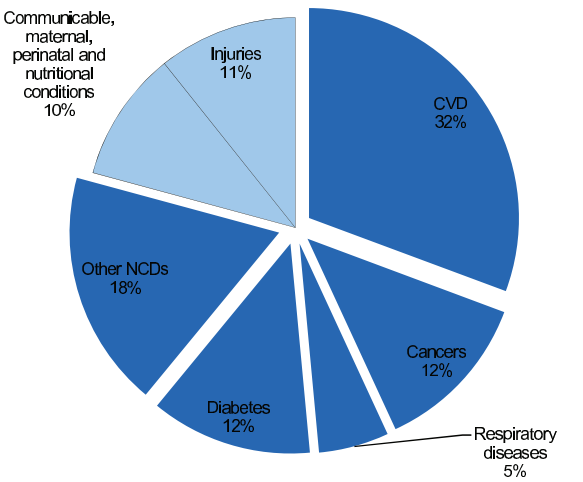
2010 total population: 1 261 835
Income group: High

NCD mortality		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	1.1	0.7
NCD deaths under age 60 (percent of all NCD deaths)	46.4	32.4
Age-standardized death rate per 100 000		
All NCDs	641.9	551.8
Cancers	98.4	85.2
Chronic respiratory diseases	60.9	36.4
Cardiovascular diseases & diabetes	357.0	311.3

Behavioural risk factors			
2008 estimated prevalence (%	***males***	***females***	***total***
Current daily tobacco smoking	31.4	6.2	21.2
Physical inactivity	...	...	...

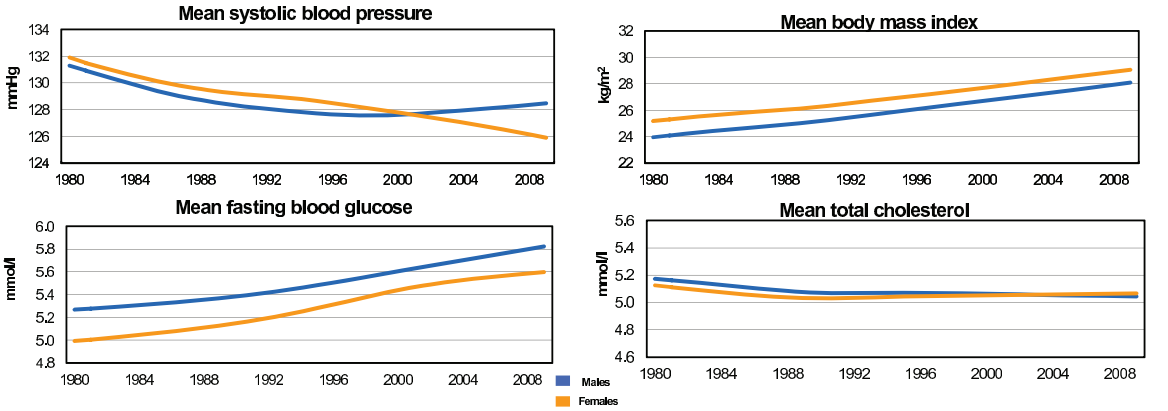
Metabolic risk factors			
2008 estimated prevalence (%	***males***	***females***	***total***
Raised blood pressure	38.3	35.3	37.1
Raised blood glucose	11.6	10.2	11.0
Overweight	70.9	70.3	70.6
Obesity	29.5	38.0	32.9
Raised cholesterol	...	...	...

Proportional mortality (% of total deaths, all ages)



NCDs are estimated to account for 79% of all deaths.

Metabolic risk factor trend



Country capacity to address and respond to NCDs

1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan exists*	**Yes**
NCD treatment and control	**Yes**	b. is it operational?*	**Yes**
NCD prevention and health promotion	**yes**	c. is there a dedicated budget for implementation?*	**No**
NCD surveillance, monitoring and evaluation	**yes**	d. is there a monitoring and evaluation component?*	**yes**
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**.....**
NCD cause-specific mortality	**Yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**1/5**
NCD morbidity	**Yes**		
NCD risk factors	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	**.....**
4. Has a national, population-based cancer registry	**Yes**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	**.....**
5. Is the HBA1C screening available at PHC level?	**Yes**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?*	**Yes**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%** (6b) 27.3% **(6d) 22.7%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

Djibouti

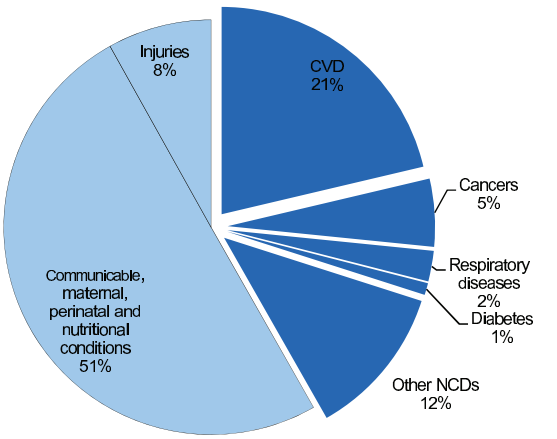
2010 total population: 888 716
Income group: Lower middle

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	1.6	1.6
NCD deaths under age 60 (percent of all NCD deaths)	41.8	41.4
Age-standardized death rate per 100 000		
All NCDs	878.1	748.9
Cancers	95.1	80.4
Chronic respiratory diseases	56.4	43.8
Cardiovascular diseases & diabetes	525.6	452.8

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	…	…	…
Physical inactivity	...	...	...

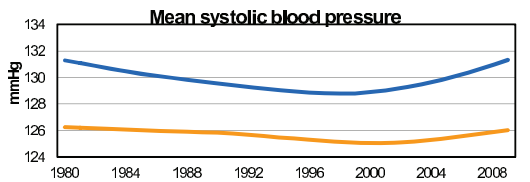
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	...	...	...
Raised blood glucose	...	...	...
Overweight	...	...	...
Obesity	...	...	...
Raised cholesterol	…	…	…

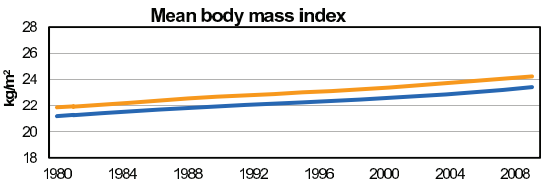
Proportional mortality (% of total deaths, all ages)*

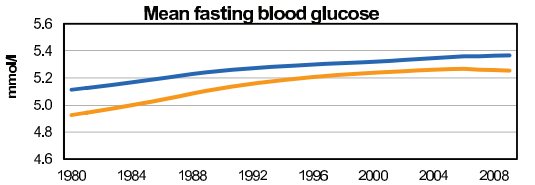


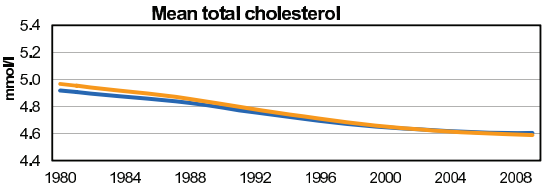
NCDs are estimated to account for 42% of all deaths.

Metabolic risk factor trends









Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan exists*	**No**
NCD treatment and control	**Yes**	b. is it operational?*	…..
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	…..
NCD cause-specific mortality	**Yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**2/5**
NCD morbidity	**Yes**		
NCD risk factors	**DK**	*9. Does your country have any population-based salt reduction strategies?*	…..
4. Has a national, population-based cancer registry	**No**	*10. Does your country have any policy related to trans - fat voluntary or mandatory labeling?*	…..
5. Is the HBA1C screening available at PHC level?	**No**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?*	**Yes**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6b) 27.3%** **(6c) 13.6%** **(6d) 22.7%** **(7) 18.2%** **(11) 45.5%**

DK= No available data

World Health Organization - *NCD Country Profiles*, 2012.

Egypt

2010 total population: 81 121 077
Income group: Lower middle

NCD mortality		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	198.9	172.2
NCD deaths under age 60 (percent of all NCD deaths)	38.1	27.8
Age-standardized death rate per 100 000		
All NCDs	829.7	660.0
Cancers	107.3	76.1
Chronic respiratory diseases	33.2	24.3
Cardiovascular diseases &diabetes	427.3	384.0

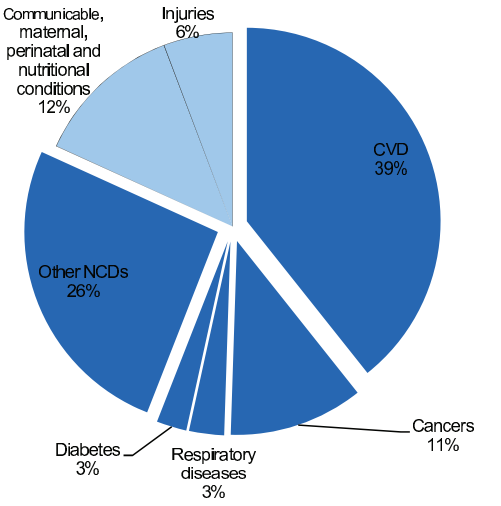
Behavioural risk factors			
2011 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	44.3	0.3	23.5
Physical inactivity	23.3	42.0	32.0

Source: STEPwise Survey 2011

Metabolic risk factors			
2011 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	38.7	40.8	39.7
Raised blood glucose	20.7	13.3	17.2
Overweight	58.8	66.2	62.2
Obesity	22.4	41.6	31.3
Raised cholesterol	37	36.4	36.8

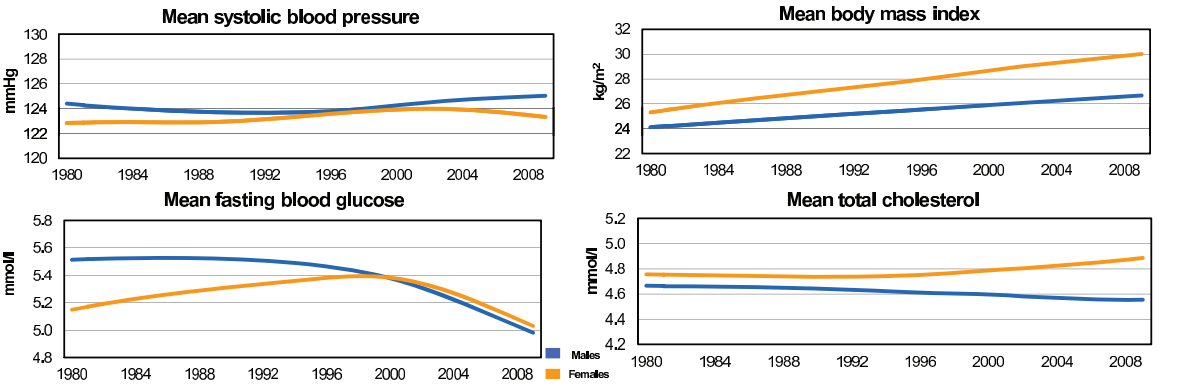
Source: STEPwise Survey 2011

Proportional mortality (% of total deaths, all ages)



NCDs are estimated to account for 82% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**DK**
NCD treatment and control	**Yes**	b. is it operational?*	…..
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**DK**
NCD cause-specific mortality	**Yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**1/5**
NCD morbidity	**Yes**		
NCD risk factors	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	…..
4. Has a national, population-based cancer registry	**No**	*10. Does your country have any policy related to trans - fat voluntary or mandatory labeling?*	…..
5. Is the HBA1C screening available at PHC level?	**DK**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**Yes**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6b) 27.3%** **(6c) 13.6%** **(6d) 22.7%** **(7) 18.2%** **(11) 45.5%**

DK= No available data

Iran (Islamic Republic of)

2010 total population: 73 973 630
Income group: Lower middle

NCD mortality		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	163.5	118.2
NCD deaths under age 60 (percent of all NCD deaths)	24.0	24.2
Age-standardized death rate per 100 000		
All NCDs	661.2	506.7
Cancers	112.7	69.8
Chronic respiratory diseases	41.8	28.8
Cardiovascular diseases & diabetes	420.8	348.0

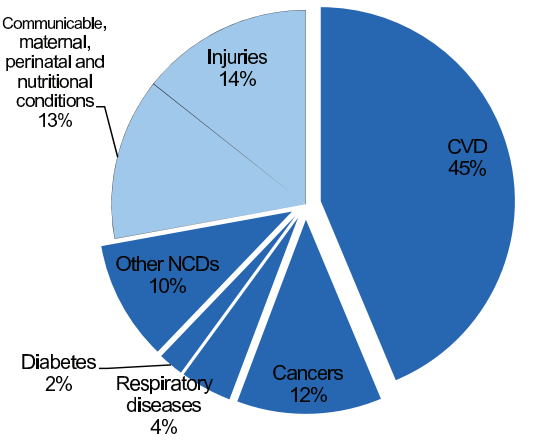
Behavioural risk factors			
2009 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	22.0	2.7	12.5
Physical inactivity	52.0	88.0	69.7

source: STEPwise Survey 2009

Metabolic risk factors			
2009 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	16.0	16.1	16.1
Raised blood glucose	6.8	5.6	4.4
Overweight	29	28.6	29
Obesity	10	20	15.2
Raised cholesterol	48.8	54.7	51.7

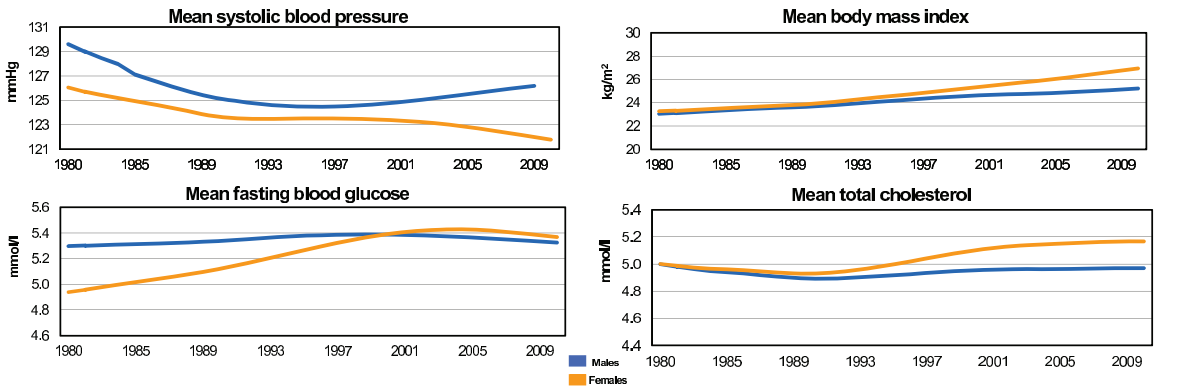
source: STEPwise Survey 2009

Proportional mortality(% of total deaths, all ages)



NCDs are estimated to account for 72% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs

1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan*	**No**
NCD treatment and control	**Yes**	b. is it operational?*	…..
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**Yes**
NCD cause-specific mortality	**Yes**		
NCD morbidity	**No**		
NCD risk factors	**Yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**4/5**
4. Has a national, population-based cancer registry	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	…..
		10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?	…..
5. Is the HBA1C screening available at PHC level?	**Yes**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**Yes**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%** **(6b) 27.3%** **(6d) 22.7%** **(11) 45.5%**

Iraq

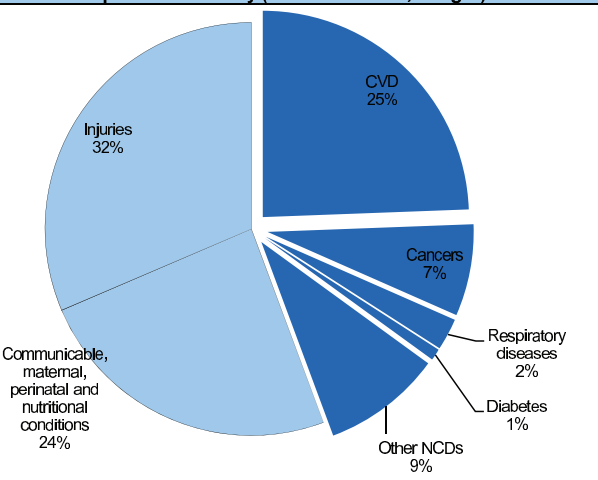
2010 total population: 31 671 591
Income group: Lower middle

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	45.5	48.8
NCD deaths under age 60 (percent of all NCD deaths)	45.7	28.5
Age-standardized death rate per 100 000		
All NCDs	779.5	592.9
Cancers	120.6	81.7
Chronic respiratory diseases	50.6	33.0
Cardiovascular diseases and diabetes	470.7	376.1

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	25.3	2.1	13.7
Physical inactivity	59.1	51.3	55.2

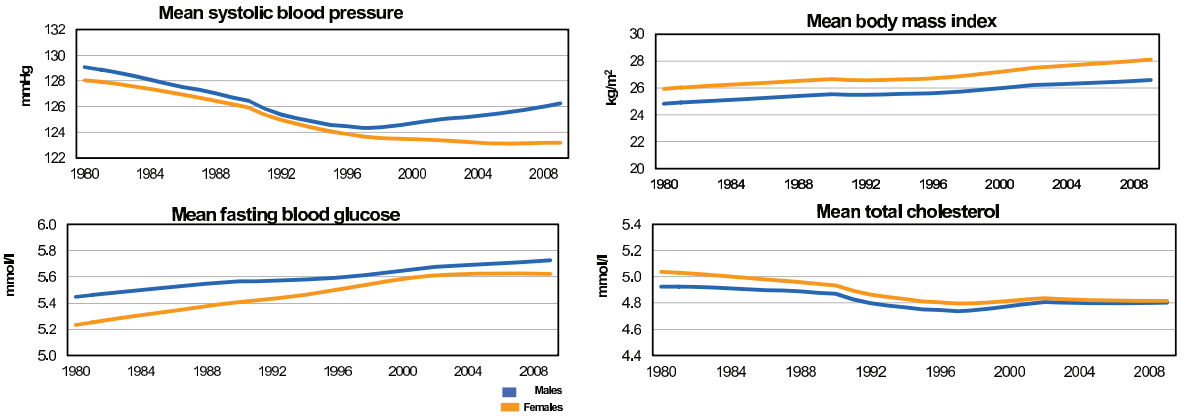
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	...	...	...
Raised blood glucose	10.7	10.6	10.6
Overweight	59.5	65.1	62.3
Obesity	20.6	33.4	27.0
Raised cholesterol	42.3	41.3	41.8

Proportional mortality (% of total deaths, all ages)*



NCDs are estimated to account for 44% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**Yes**
NCD treatment and control	**Yes**	b. is it operational?*	**yes**
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	**DK**
NCD surveillance, monitoring and evaluation	**No**	d. is there a monitoring and evaluation component?*	**Yes**
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**....**
NCD cause-specific mortality	**Yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**0/5**
NCD morbidity	**Yes**		
NCD risk factors	**No**	*9. Does your country have any population-based salt reduction strategies?*	**.....**
4. Has a national, population-based cancer registry	**Yes**	*10. Does your country have any policy related to trans-fat voluntary or mandatory labeling?*	**.....**
5. Is the HBA1C screening available at PHC level?	**No**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**No**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%** **(6b) 27.3%** **(6d) 22.7%** **(11) 45.5%**

DK= No available data

World Health Organization - *NCD Country Profiles*, 2012.

Jordan

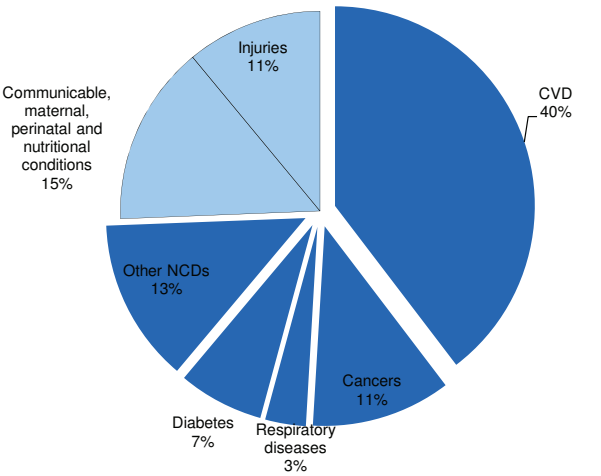
2010 total population: 6 187 227
Income group: Lower middle

NCD mortality		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	12.9	9.2
NCD deaths under age 60 (percent of all NCD deaths)	34.2	31.1
Age-standardized death rate per 100 000		
All NCDs	817.8	568.4
Cancers	109.8	89.2
Chronic respiratory diseases	45.7	17.5
Cardiovascular diseases & diabetes	550.4	379.8

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	48.8	4.1	27.1
Physical inactivity	...	...	...

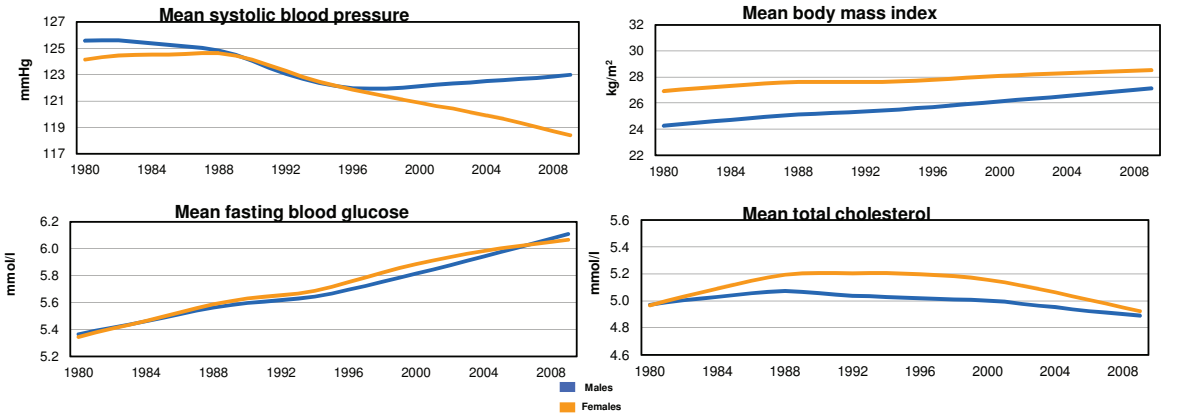
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	31.4	25.9	28.8
Raised blood glucose	14.2	14.7	14.4
Overweight	62.3	66.0	64.1
Obesity	24.0	36.4	30.0
Raised cholesterol	46.3	46.4	46.4

Proportional mortality (% of total deaths, all ages)



NCDs are estimated to account for 74% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**Yes**
NCD treatment and control	**Yes**	b. is it operational?*	**No**
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	**No**
NCD surveillance, monitoring and evaluation	**No**	d. is there a monitoring and evaluation component?*	**Yes**
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	
NCD cause-specific mortality	**yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**1/5**
NCD morbidity	**Yes**		
NCD risk factors	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	**No**
4. Has a national, population-based cancer registry	**Yes**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	**No**
5. Is the HBA1C screening available at PHC level?	**Yes**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**No**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%** **(6b) 27.3%** **(6d) 22.7%** **(11) 45.5%**

Kuwait

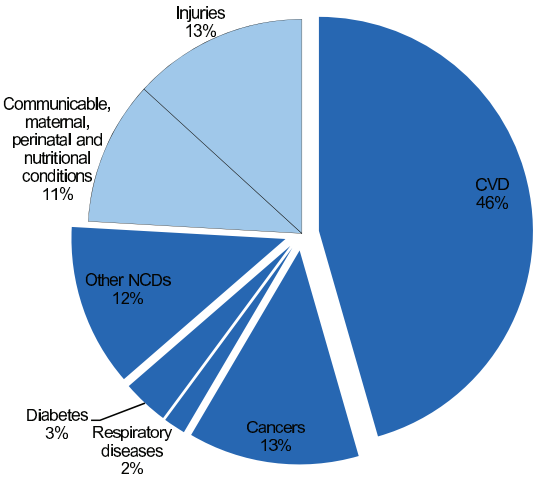
2010 total population: 2 736 732
Income group: High

NCD mortality		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	2.3	1.6
NCD deaths under age 60 (percent of all NCD deaths)	48.1	36.9
Age-standardized death rate per 100		
All NCDs	395.0	393.6
Cancers	61.9	69.6
Chronic respiratory diseases	7.8	12.1
Cardiovascular diseases & diabetes	281.8	263.4

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	34.6	2.6	22.6
Physical inactivity	58.0	71.3	63.0

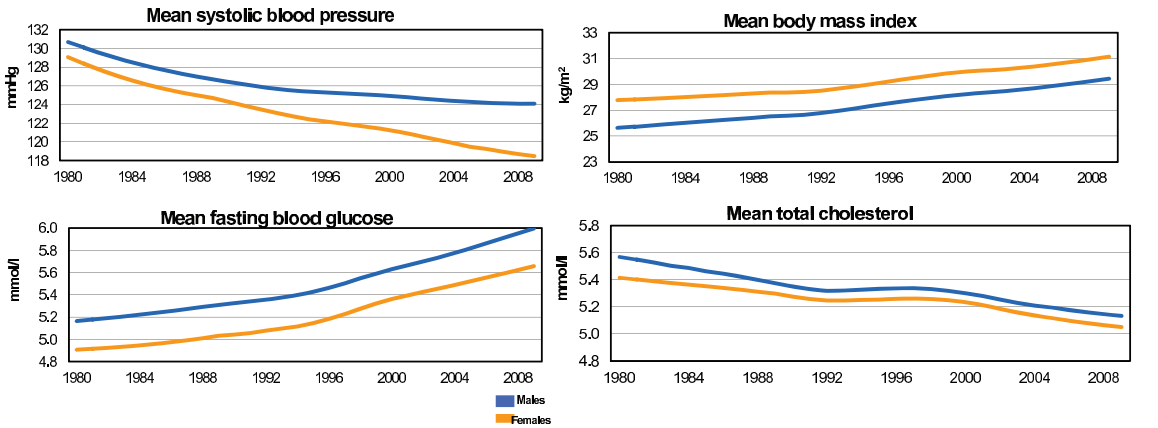
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	31.5	24.7	29.1
Raised blood glucose	12.7	10.4	11.9
Overweight	78.4	79.5	78.8
Obesity	37.5	49.8	42.0
Raised cholesterol	55.8	50.7	54.0

Proportional mortality (% of total deaths, all ages)



NCDs are estimated to account for 76% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs

1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**No**
NCD treatment and control	**Yes**	b. is it operational?*	.....
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	.....
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?*	.....
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**Yes**
NCD cause-specific mortality	**Yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**1/5**
NCD morbidity	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	.....
NCD risk factors	**Yes**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	.....
4. Has a national, population-based cancer registry	**Yes**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**Yes**
5. Is the HBA1C screening available at PHC level?	**Yes**		

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%** **(6b) 27.3%** **(6d) 22.7%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

Lebanon

2010 total population: 4 227 597
Income group: Upper middle

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	12.5	9.1
NCD deaths under age 60 (percent of all NCD deaths)	25.0	21.9
Age-standardized death rate per 100 000		
All NCDs	717.4	465.0
Cancers	151.2	113.2
Chronic respiratory diseases	43.9	22.8
Cardiovascular diseases & diabetes	404.4	262.7

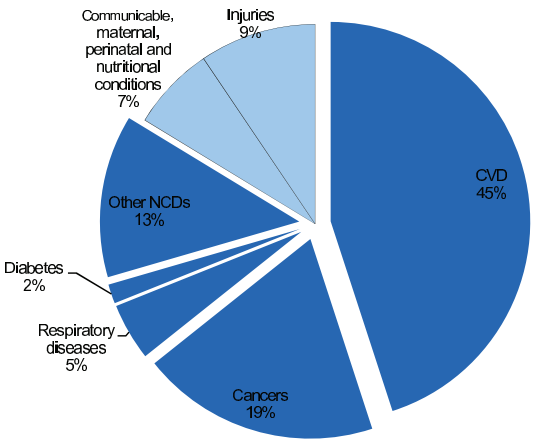
Behavioural risk factors			
2012 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	42.9	26.3	34.3
Physical inactivity	38.7	37.5	38.0

Source: STEPwise survey 2012

Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	13.7	12.9	13.3
Raised blood glucose	6.8	4.5	5.6
Overweight	27.9	37	32.7
Obesity	8.3	16	12.3
Raised cholesterol	14.4	12.7	13.5

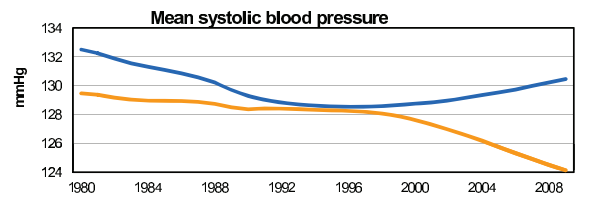
Source: STEPwise survey 2012

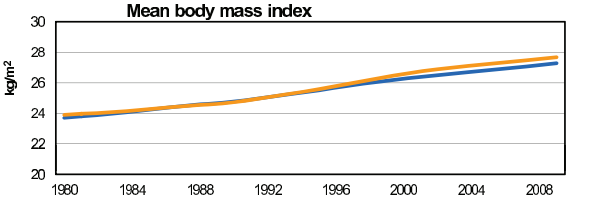
Proportional mortality (% of total deaths, all ages)*

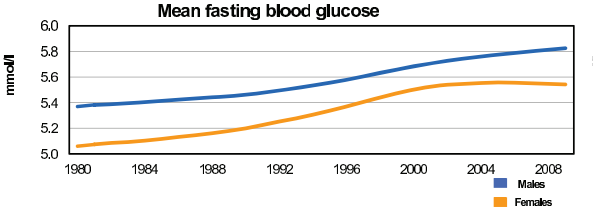


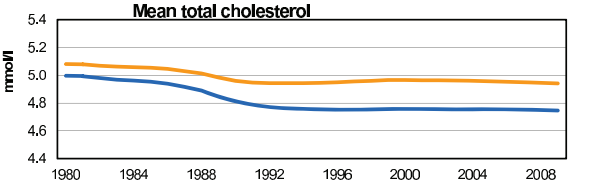
NCDs are estimated to account for 84% of all deaths.

Metabolic risk factor trends









Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**Yes**
NCD treatment and control	**Yes**	b. is it operational?*	**Yes**
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	**yes**
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?*	**No**
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**Yes**
NCD cause-specific mortality	**Yes**	*8. INumber of tobacco (m)POWER measures implemented at the highest level of achievement*	**0/5**
NCD morbidity	**Yes**		
NCD risk factors	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	…..
4. Has a national, population-based cancer registry	**No**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	…..
5. Is the HBA1C screening available at PHC level?	**No**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**Yes**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** (6b) 27.3% **(6c) 13.6%** **(6d) 22.7%** **(7) 18.2%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

Libya

2010 total population: 6 355 112
Income group: Upper middle

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	13.5	9.6
NCD deaths under age 60 (percent of all NCD deaths)	36.3	29.3
Age-standardized death rate per 100 000		
All NCDs	743.5	525.9
Cancers	114.3	79.6
Chronic respiratory diseases	41.1	25.7
Cardiovascular diseases and diabetes	458.8	330.1

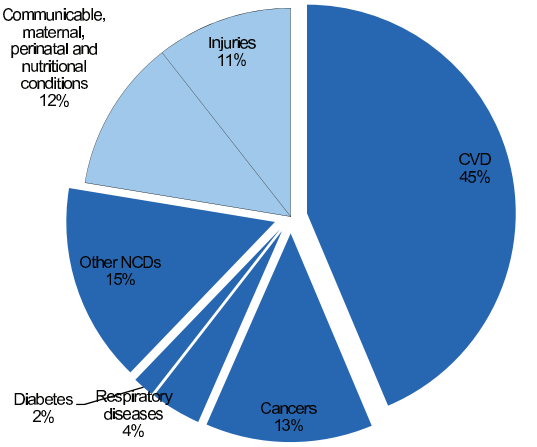
Behavioural risk factors			
2009 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	47.6	0.1	23.8
Physical inactivity	36.0	51.7	43.9

Source: STEPs survey 2009

Metabolic risk factors			
2009 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	45.8	35.6	40.6
Raised blood glucose	17.6	15	16.4
Overweight	36	29.7	33
Obesity	21.4	40	30.5
Raised cholesterol	19	22.7	20.9

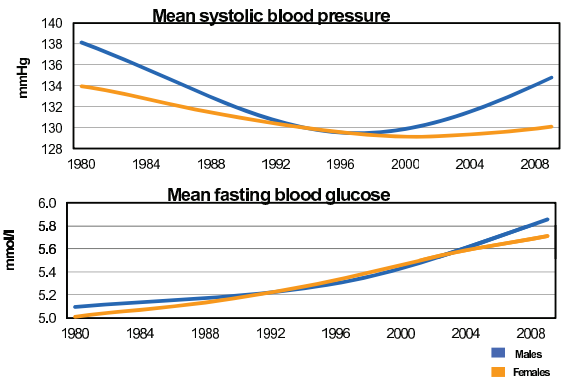
Source: STEPs survey 2009

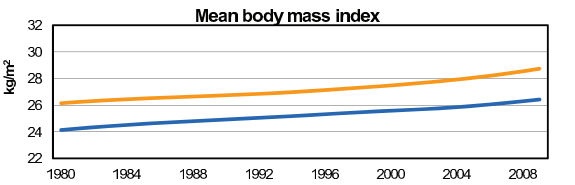
Proportional mortality (% of total deaths, all ages)*

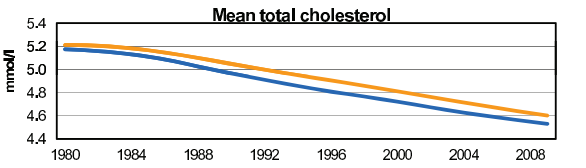


NCDs are estimated to account for 78% of all deaths.

Metabolic risk factor trends







Country capacity to address and respond to NCDs

1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**No**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**No**
NCD treatment and control	**Yes**	b. is it operational?*	…..
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	…
NCD cause-specific mortality	**Yes**		
NCD morbidity	**Yes**		
NCD risk factors	**Yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**1/5**
		9. Does your country have any population-based salt reduction strategies?	…..
4. Has a national, population-based cancer registry	**No**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	…..
5. Is the HBA1C screening available at PHC level?	**Yes**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**Yes**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6b) 27.3%** **(6c) 13.6%** **(6d) 22.7%** **(7) 18.2%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

Morocco

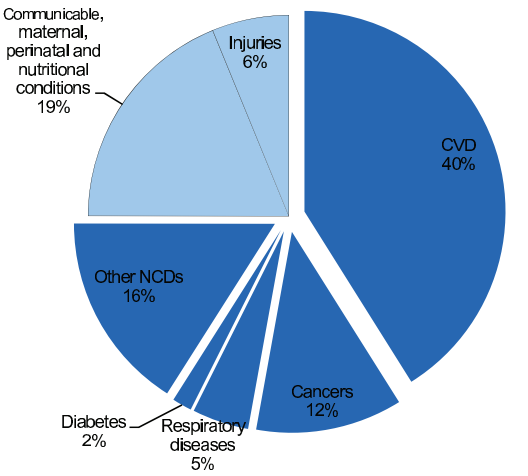
2010 total population: 31 951 412
Income group: Lower middle

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	66.2	59.0
NCD deaths under age 60 (percent of all NCD deaths)	28.8	23.0
Age-standardized death rate per 100 000		
All NCDs	665.2	523.6
Cancers	90.5	74.5
Chronic respiratory diseases	45.8	29.8
Cardiovascular diseases & diabetes	391.8	319.0

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	28.7	0.2	14.0
Physical inactivity	...	...	...

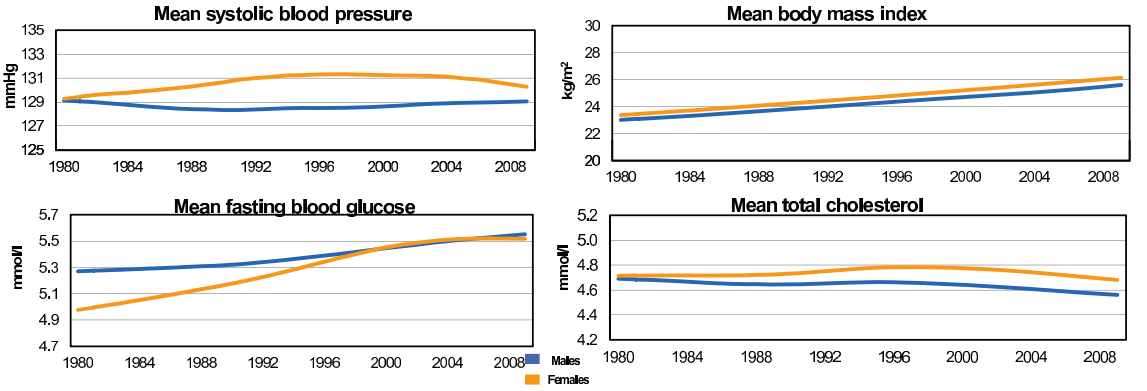
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	40.7	41.7	41.2
Raised blood glucose	9.8	10.0	9.9
Overweight	41.4	51.7	46.8
Obesity	10.5	21.9	16.4
Raised cholesterol	34.4	37.0	35.7

Proportional mortality (% of total deaths, all ages)*



NCDs are estimated to account for 75% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**No**
NCD treatment and control	**Yes**	b. is it operational?*	.....
NCD prevention and health promotion	**No**	c. is there a dedicated budget for implementation?*	.....
NCD surveillance, monitoring and evaluation	**No**	d. is there a monitoring and evaluation component?*	.....
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	.....
NCD cause-specific mortality	**No**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**0/5**
NCD morbidity	**No**		
NCD risk factors	**No**	*9. Does your country have any population-based salt reduction strategies?*	.....
4. Has a national, population-based cancer registry	**Yes**	*10. Does your country have any policy related to trans-fat voluntary or mandatory labeling?*	.....
5. Is the HBA1C screening available at PHC level?	**No**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**No**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%** **(6b) 27.3%** **(6d) 22.7%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

Oman

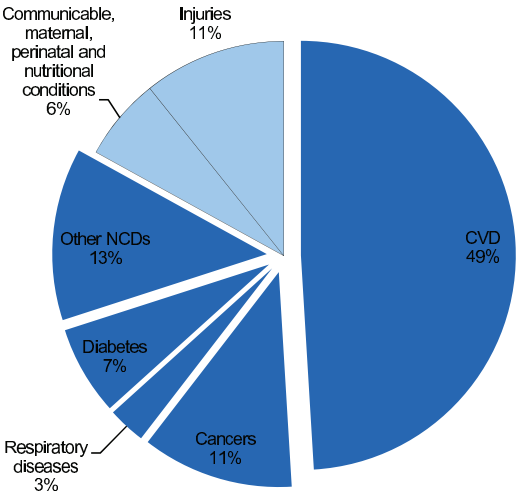
2010 total population: 2 782 435
Income group: High

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	5.0	2.7
NCD deaths under age 60 (percent of all NCD deaths)	44.5	32.6
Age-standardized death rate per 100		
All NCDs	757.8	494.2
Cancers	81.1	71.8
Chronic respiratory diseases	31.5	19.1
Cardiovascular diseases & diabetes	545.7	333.3

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	6.6	0.2	4.0
Physical inactivity	...	...	...

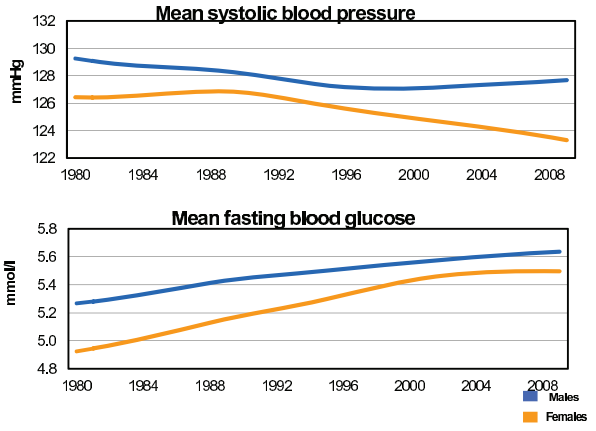
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	36.6	31.3	34.5
Raised blood glucose	9.9	9.6	9.7
Overweight	56.9	54.2	55.8
Obesity	18.9	23.8	20.9
Raised cholesterol	...	...	...

Proportional mortality (% of total deaths, all ages)*



NCDs are estimated to account for 83% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**Yes**
NCD treatment and control	**Yes**	b. is it operational?*	.....
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	.....
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?*	.....
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**Yes**
NCD cause-specific mortality	**Yes**	*8. INumber of tobacco (m)POWER measures implemented*	**0/5**
NCD morbidity	**Yes**		
NCD risk factors	**No**	*9. Does your country have any population-based salt reduction strategies?*	.....
4. Has a national, population-based cancer registry	**Yes**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	.....
5. Is the HBA1C screening available at PHC level?	**Yes**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**No**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%** **(6b) 27.3%** **(6d) 22.7%** **(11) 45.5%**

Pakistan

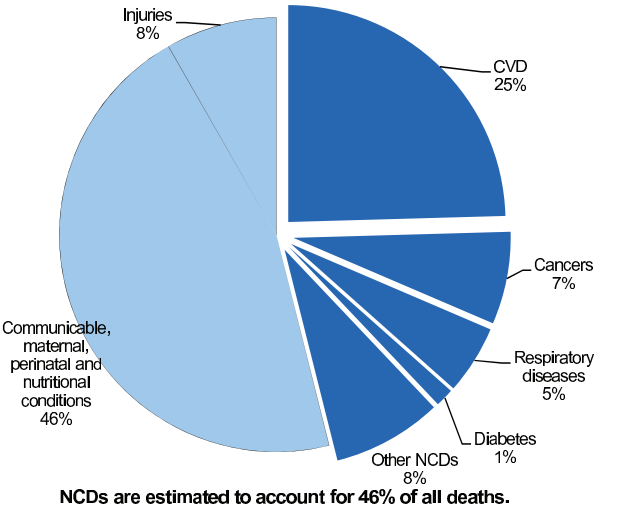
2010 total population: 173 593 383
Income group: Lower middle

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	379.8	301.2
NCD deaths under age 60 (percent of all NCD deaths)	33.4	35.4
Age-standardized death rate per 100 000		
All NCDs	746.9	637.8
Cancers	94.6	94.2
Chronic respiratory diseases	89.2	71.2
Cardiovascular diseases & diabetes	454.6	387.6

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	25.4	3.8	15.0
Physical inactivity	30.6	46.6	38.4

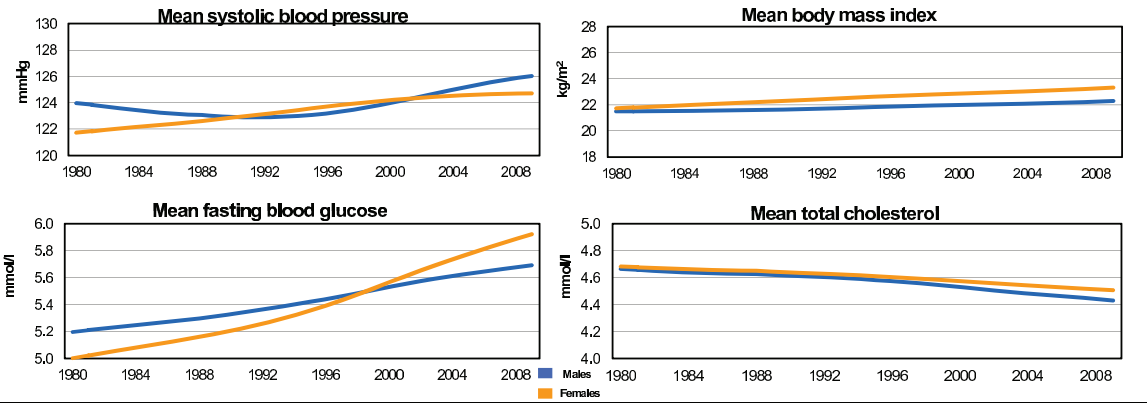
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	36.1	34.5	35.3
Raised blood glucose	10.6	12.9	11.7
Overweight	19.1	27.1	23.0
Obesity	3.3	7.8	5.5
Raised cholesterol	29.9	30.4	30.1

Proportional mortality (% of total deaths, all ages)*



NCDs are estimated to account for 46% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**No**
NCD treatment and control	**No**	b. is it operational?*	…..
NCD prevention and health promotion	**No**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**No**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	…..
NCD cause-specific mortality	**No**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**1/5**
NCD morbidity	**No**	*9. Does your country have any population-based salt reduction strategies?*	…..
NCD risk factors	**No**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	…..
4. Has a national, population-based cancer registry	**No**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**No**
5. Is the HBA1C screening available at PHC level?	**No**		

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%** **(6b) 27.3%** **(6d) 22.7%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

Occupied Palestinian territory

2010 total population : 4,169,000
Income group: Lower middle

NCD mortality		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	…..	…….
NCD deaths under age 60 (percent of all NCD deaths)		
Age-standardized death rate per 100 000		
All NCDs	…..	……
Cancers	…..	……
Chronic respiratory diseases	…..	……
Cardiovascular diseases &diabetes	…..	……

Proportional mortality (% of total deaths, all ages)

No data available

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	36.2	2.2	19.3
Physical inactivity	33.8	59.2	46.5

Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	36.0	35.6	35.8
Raised blood glucose	9.5	7.6	8.5
Overweight	55.2	60.7	57.8
Obesity	23.3	30.8	26.8
Raised cholesterol	35.8	37.3	36.5

Metabolic risk factor trends

Mean systolic blood pressure

No data available

Mean body mass index

No data available

Mean fasting blood glucose

No data available

Mean total cholesterol

No data available

Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**yes**
NCD treatment and control	**Yes**	b. is it operational?*	No
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**…..**
NCD cause-specific mortality	**Yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**0/5**
NCD morbidity	**Yes**		
NCD risk factors	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	…..
4. Has a national, population-based cancer registry	**yes**	*10. Does your country have any policy related to trans - fat voluntary or mandatory labeling?*	…..
5. Is the HBA1C screening available at PHC level?	**yes**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**Yes**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6b) 27.3%** **(6c) 13.6%** **(6d) 22.7%** **(7) 18.2%** **(11) 45.5%**

DK= No available data

World Health Organization - *NCD Country Profiles*, 2012.

Qatar

2010 total population: 1 758 793
Income group: High

NCD mortality		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	0.9	0.4
NCD deaths under age 60 (percent of all NCD deaths)	60.8	34.4
Age-standardized death rate per 100 000		
All NCDs	367.5	433.7
Cancers	101.1	84.3
Chronic respiratory diseases	26.2	30.6
Cardiovascular diseases and diabetes	179.8	239.3

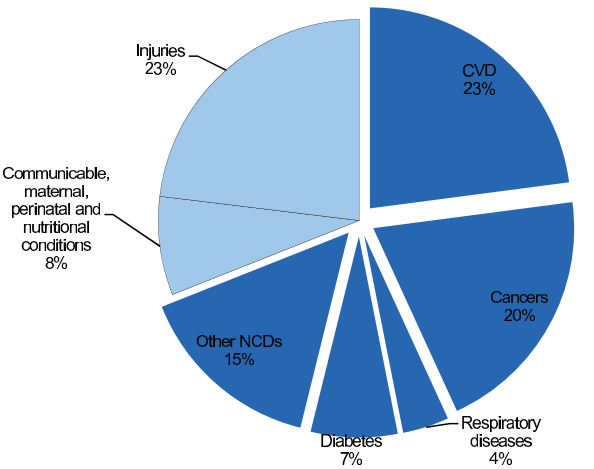
Behavioural risk factors			
2012 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	29.0	0.6	14.7
Physical inactivity	37.4	54.2	45.9

Source: STEPs survey 2012

Metabolic risk factors			
2012 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	28.0	37.7	32.9
Raised blood glucose	17.6	15.9	16.7
Overweight	71.8	68.3	70
Obesity	39.5	43.2	41.4
Raised cholesterol	19	24.6	21.9

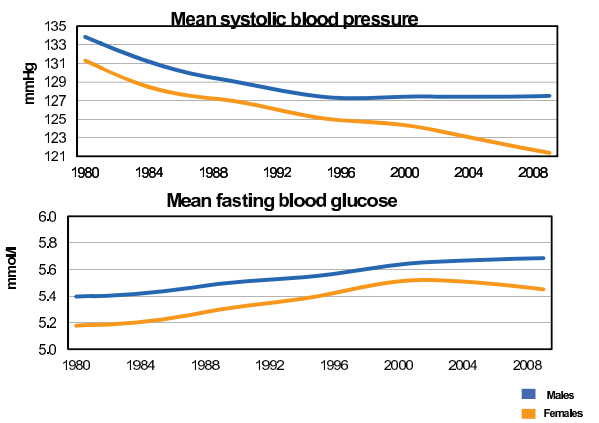
Source: STEPs survey 2012

Proportional mortality (% of total deaths, all ages)



NCDs are estimated to account for 69% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**No**
NCD treatment and control	**Yes**	b. is it operational?*	…..
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	….
NCD cause-specific mortality	**Yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**1/5**
NCD morbidity	**DK**	*9. Does your country have any population-based salt reduction strategies?*	…..
NCD risk factors	**DK**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	…..
4. Has a national, population-based cancer registry	**Yes**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?*	**Yes**
5. Is the HBA1C screening available at PHC level?	**Yes**		

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%**
(6b) 27.3% **(6d) 22.7%** **(11) 45.5%**

DK= No available data

World Health Organization - *NCD Country Profiles*, 2012.

Saudi Arabia

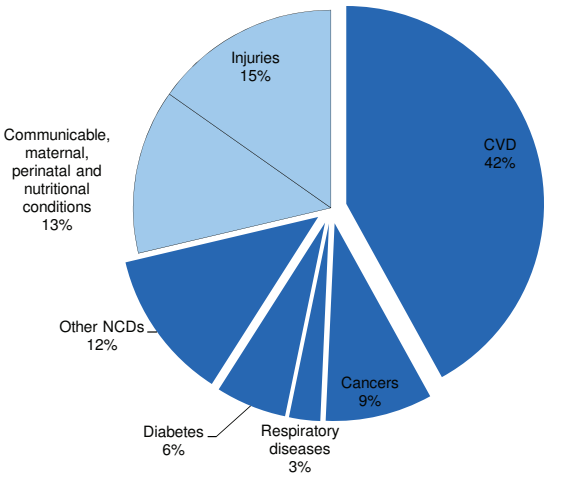
2010 total population: 27 448 086
Income group: High

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	46.0	26.6
NCD deaths under age 60 (percent of all NCD deaths)	44.6	34.5
Age-standardized death rate per 100		
All NCDs	753.1	510.0
Cancers	80.0	84.2
Chronic respiratory diseases	31.0	20.3
Cardiovascular diseases & diabetes	540.6	347.6

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	24.7	1.4	12.9
Physical inactivity	34.4	33.2	33.8

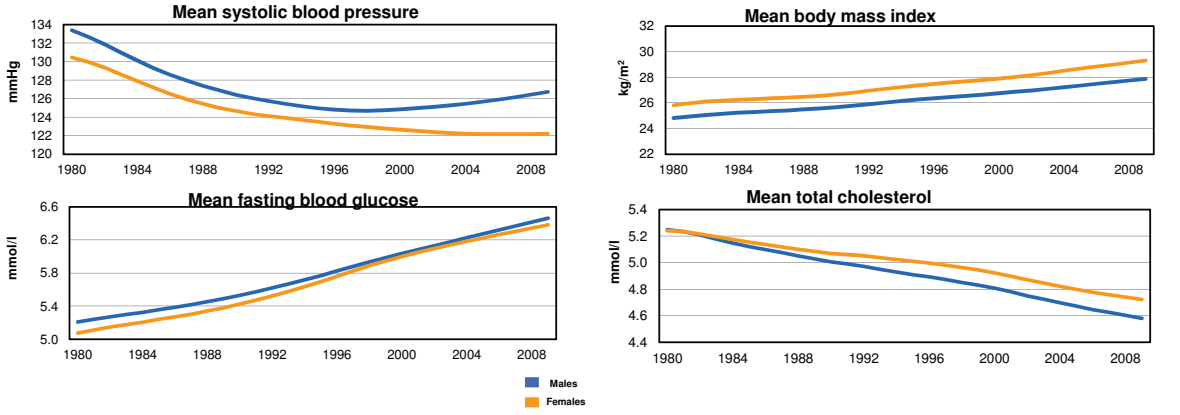
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	24.0	18.3	21.1
Raised blood glucose	19.2	16.6	17.9
Overweight	69.1	68.8	69.0
Obesity	28.6	43.3	36
Raised cholesterol	18.7	19.9	19.3

Proportional mortality (% of total deaths, all ages)*



NCDs are estimated to account for 71% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:*	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan	**Yes**
NCD treatment and control	**Yes**	b. is it operational?	**Yes**
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?	**Yes**
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?	**Yes**
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.*	**.....**
NCD cause-specific mortality	**Yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**1/5**
NCD morbidity	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	**.....**
NCD risk factors	**Yes**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	**.....**
4. Has a national, population-based cancer registry	**Yes**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?*	**Yes**
5. Is the HBA1C screening available at PHC level?	**Yes**		

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6b) 27.3%** **(6c) 13.6%** **(6d) 22.7%** **(7) 18.2%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

Somalia

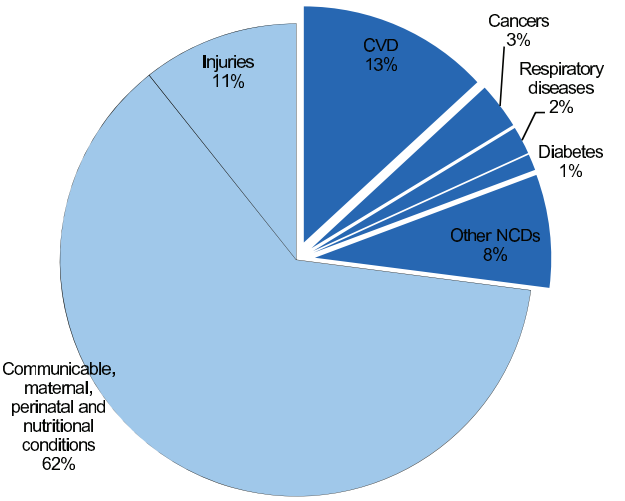
2010 total population: 9 330 872
Income group: Low

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	18.4	19.3
NCD deaths under age 60 (percent of all NCD deaths)	50.6	45.6
Age-standardized death rate per 100		
All NCDs	996.6	932.9
Cancers	105.3	97.1
Chronic respiratory diseases	88.4	57.8
Cardiovascular diseases &diabetes	570.7	573.4

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	…	…	…
Physical inactivity	…	…	…

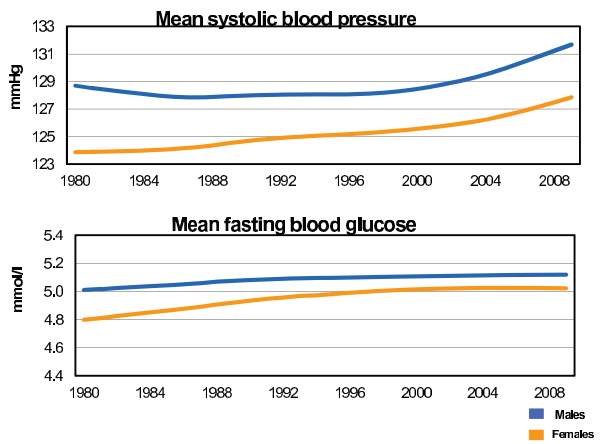
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	…	…	…
Raised blood glucose	...	...	...
Overweight	...	...	...
Obesity	...	...	...
Raised cholesterol	…	…	…

Proportional mortality (% of total deaths, all ages)*



NCDs are estimated to account for 27% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**No**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**No**
NCD treatment and control	**No**	b. is it operational?*	…..
NCD prevention and health promotion	**No**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**No**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	…..
NCD cause-specific mortality	**No**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**0/5**
NCD morbidity	**NR**		
NCD risk factors	**NR**	*9. Does your country have any population-based salt reduction strategies?*	…..
4. Has a national, population-based cancer registry	**No**	*10. Does your country have any policy related to trans - fat voluntary or mandatory labeling?*	…..
5. Is the HBA1C screening available at PHC level?	**No**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**No**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%**
(6b) 27.3% **(6d) 22.7%** **(11) 45.5%**

NR= No specific answer

South Sudan

2010 total population : 42,272,000
income group: Low income

NCD mortality		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	…..	…….
NCD deaths under age 60 (percent of all NCD deaths)		
Age-standardized death rate per 100 000		
All NCDs	…..	……
Cancers	…..	……
Chronic respiratory diseases	…..	……
Cardiovascular diseases &diabetes	…..	……

Proportional mortality (% of total deaths, all ages)

No data available

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	……	……	……
Physical inactivity	……	……	……

Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	……	……	……
Raised blood glucose	……	……	……
Overweight	……	……	……
Obesity	……	……	……
Raised cholesterol	……	……	……

Metabolic risk factor trends

Mean systolic blood pressure

No data available

Mean body mass index

No data available

Mean fasting blood glucose

No data available

Mean total cholesterol

No data available

Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**DK**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**DK**
NCD treatment and control	**DK**	b. is it operational?*	**DK**
NCD prevention and health promotion	**DK**	c. is there a dedicated budget for implementation?*	**DK**
NCD surveillance, monitoring and evaluation	**DK**	d. is there a monitoring and evaluation component?*	**DK**
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**DK**
NCD cause-specific mortality	**DK**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**DK**
NCD morbidity	**DK**		
NCD risk factors	**DK**	*9. Does your country have any population-based salt reduction strategies?*	**DK**
4. Has a national, population-based cancer registry	**DK**	*10. Does your country have any policy related to trans - fat voluntary or mandatory labeling?*	**DK**
5. Is the HBA1C screening available at PHC level?	**DK**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**DK**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6b) 27.3%** **(6c) 13.6%** **(6d) 22.7%** **(7) 18.2%** **(11) 45.5%**

DK= No available data

World Health Organization - *NCD Country Profiles* , 2012.

Sudan

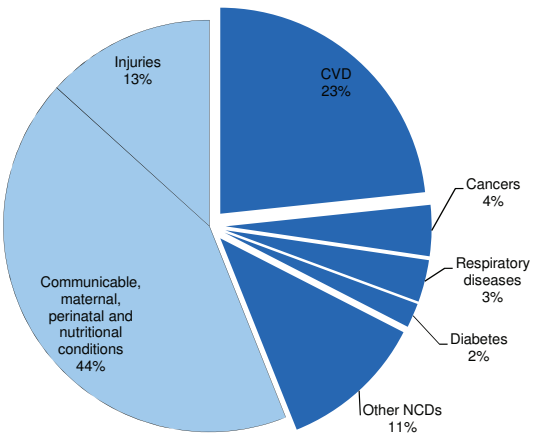
2010 total population: 43 551 941
Income group: Lower middle

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	89.0	95.1
NCD deaths under age 60 (percent of all NCD deaths)	38.3	37.7
Age-standardized death rate per 100		
All NCDs	920.3	859.8
Cancers	78.8	67.6
Chronic respiratory diseases	84.6	55.0
Cardiovascular diseases & diabetes	549.5	545.6

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	24.7	2.9	12.0
Physical inactivity	31.6	31.7	31.6

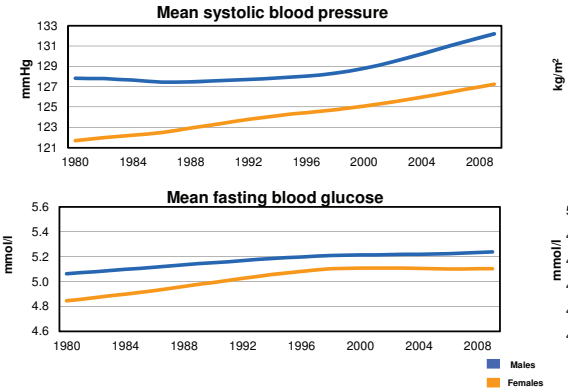
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	24.8	22.7	23.7
Raised blood glucose	22.2	17.8	19.2
Overweight	29.8	31.8	30.8
Obesity	11.7	30.7	21.2
Raised cholesterol	19.6	19.9	19.7

Proportional mortality (% of total deaths, all ages)*



NCDs are estimated to account for 44% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**Yes**
NCD treatment and control	**Yes**	b. is it operational?*	**No**
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**No**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	.....
NCD cause-specific mortality	**No**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**1/5**
NCD morbidity	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	…..
NCD risk factors	**No**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	…..
4. Has a national, population-based cancer registry	**Yes**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**DK**
5. Is the HBA1C screening available at PHC level?	**No**		

*** Regional avarage for 22 Member States:** **(6a) 40.9%** (6b) 27.3% **(6c) 13.6%** **(6d) 22.7%** **(7) 18.2%** **(11) 45.5%**

DK= No available data

World Health Organization - *NCD Country Profiles*, 2012.

Syrian Arab Republic

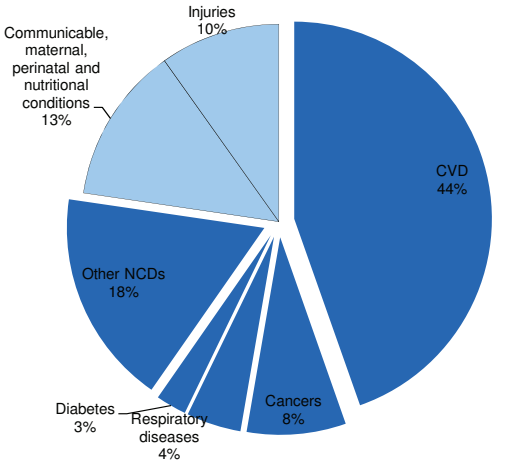
2010 total population: 20 410 606
Income group: Lower middle

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	33.7	26.1
NCD deaths under age 60 (percent of all NCD deaths)	39.8	33.1
Age-standardized death rate per 100		
All NCDs	730.4	503.5
Cancers	65.7	47.2
Chronic respiratory diseases	46.5	28.8
Cardiovascular diseases & diabetes	471.7	326.1

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smokir	36.8	...	...
Physical inactivity	...	...	...

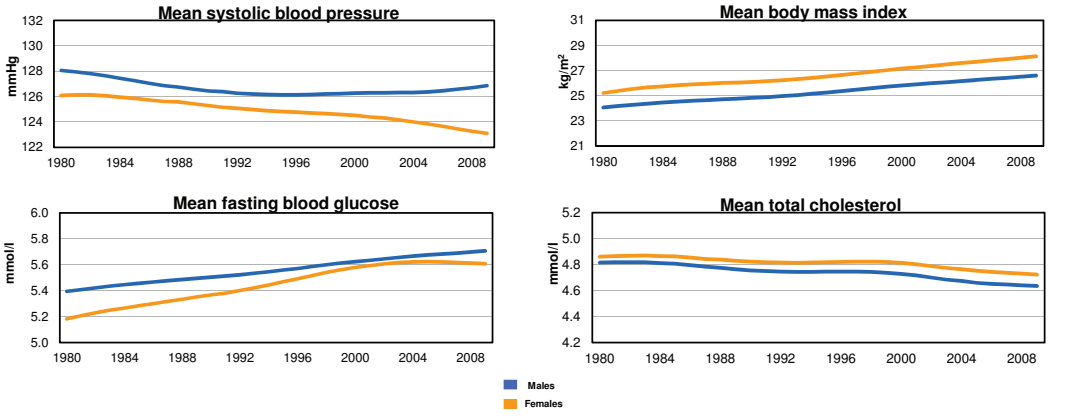
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	...	...	...
Raised blood glucose	...	...	...
Overweight	58.7	63.6	61.2
Obesity	20.7	33.5	27.1
Raised cholesterol	...	...	...

Proportional mortality (% of total deaths, all ages)*



NCDs are estimated to account for 77% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**yes**
NCD treatment and control	**Yes**	b. is it operational?*	**No**
NCD prevention and health promotion	**No**	c. is there a dedicated budget for implementation?*	.....
NCD surveillance, monitoring and evaluation	**No**	d. is there a monitoring and evaluation component?*	.....
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**.....**
NCD cause-specific mortality	**Yes**	*8. INumber of tobacco (m)POWER measures implemented at the highest level of achievement*	**1/5**
NCD morbidity	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	.....
NCD risk factors	**No**	*10. Does your country have any policy related to trans - fat voluntary or mandatory labeling?*	.....
4. Has a national, population-based cancer registry	**No**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**No**
5. Is the HBA1C screening available at PHC level?	**No**		

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%**
(6b) 27.3% **(6d) 22.7%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

Tunisia

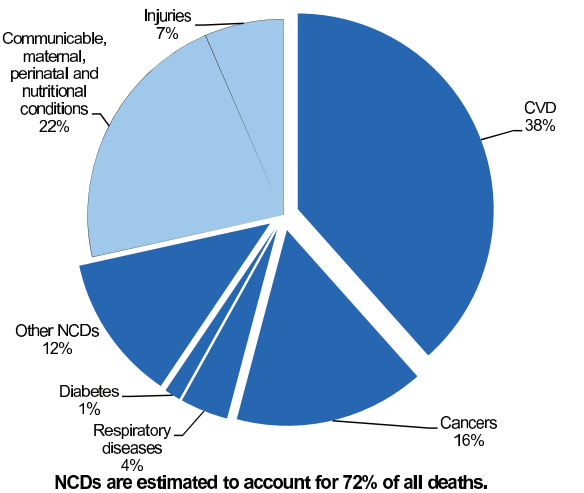
2010 total population: 10 480 934
Income group: Lower middle

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	20.5	18.1
NCD deaths under age 60 (percent of all NCD deaths)	24.0	17.4
Age-standardized death rate per 100 000		
All NCDs	505.4	404.2
Cancers	122.6	71.7
Chronic respiratory diseases	30.1	21.5
Cardiovascular diseases and diabetes	267.8	245.4

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	56.5	6.8	31.6
Physical inactivity	30.0	39.1	34.6

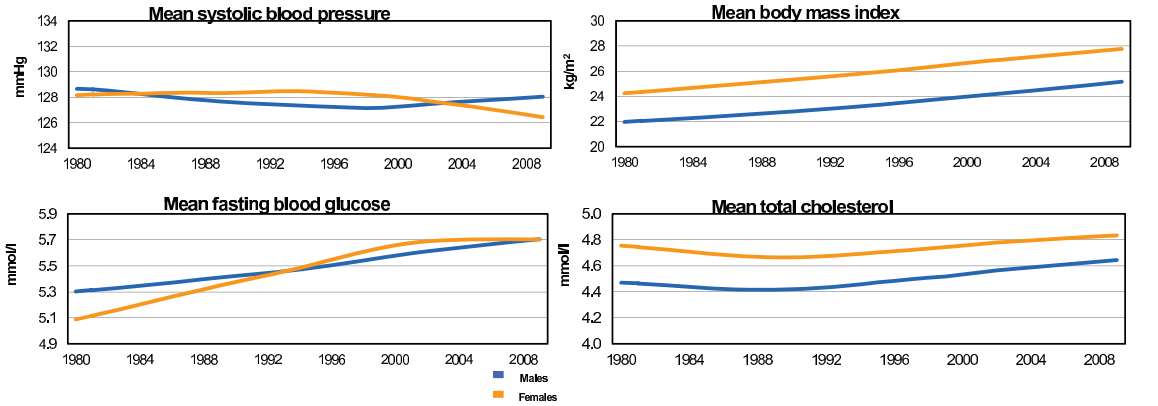
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	39.0	38.1	38.5
Raised blood glucose	11.0	11.9	11.4
Overweight	45.1	62.3	53.7
Obesity	12.8	31.7	22.3
Raised cholesterol	36.6	42.2	39.4

Proportional mortality (% of total deaths, all ages)*



NCDs are estimated to account for 72% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**Yes**
NCD treatment and control	**Yes**	b. is it operational?*	**Yes**
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	**Yes**
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?*	**Yes**
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**…..**
NCD cause-specific mortality	**Yes**	*8. Number of tobacco (m)POWER measures implemented at*	**0/5**
NCD morbidity	**Yes**		
NCD risk factors	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	**…..**
4. Has a national, population-based cancer registry	**No**	*10. Does your country have any policy related to trans-fat voluntary or mandatory labeling?*	**…..**
5. Is the HBA1C screening available at PHC level?	**No**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**No**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6b) 27.3%** **(6c) 13.6%** **(6d) 22.7%** **(7) 18.2%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

United Arab Emirates

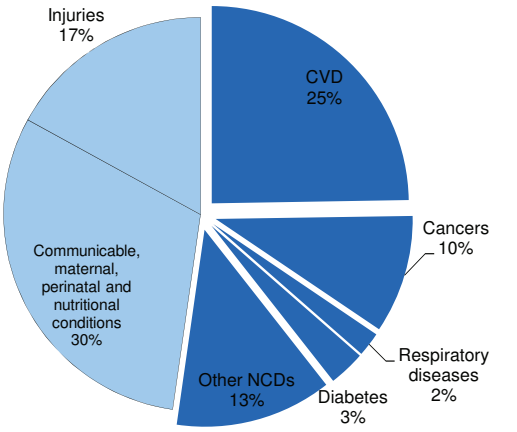
2010 total population: 7 511 690
Income group: High

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	3.2	1.4
NCD deaths under age 60 (percent of all NCD deaths)	59.7	47.1
Age-standardized death rate per 100		
All NCDs	448.0	340.0
Cancers	63.4	64.4
Chronic respiratory diseases	11.6	23.1
Cardiovascular diseases & diabetes	308.9	203.9

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	15.4	1.2	11.3
Physical inactivity	54.6	67.5	58.3

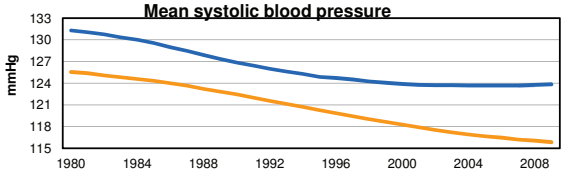
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	29.9	20.7	27.5
Raised blood glucose	10.2	10.4	10.2
Overweight	71.3	71.2	71.3
Obesity	30.0	39.9	32.7
Raised cholesterol	…	…	…

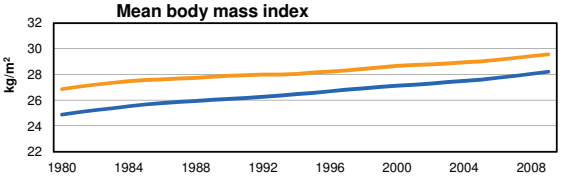
Proportional mortality (% of total deaths, all ages)*

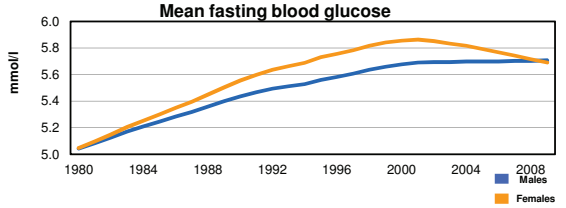


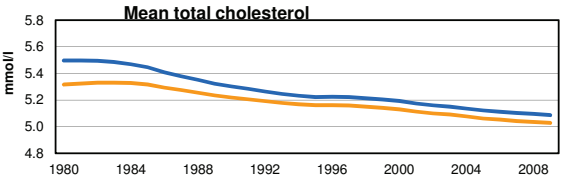
NCDs are estimated to account for 52% of all deaths

Metabolic risk factor trends









Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**Yes**
NCD treatment and control	**Yes**	b. is it operational?*	…..
NCD prevention and health promotion	**Yes**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**Yes**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**…..**
NCD cause-specific mortality	**Yes**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**2/5**
NCD morbidity	**Yes**	*9. Does your country have any population-based salt reduction strategies?*	…..
NCD risk factors	**Yes**	*10. Does your country have any policy related to trans -fat voluntary or mandatory labeling?*	…..
4. Has a national, population-based cancer registry	**No**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**Yes**
5. Is the HBA1C screening available at PHC level?	**Yes**		

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%** **(6b) 27.3%** **(6d) 22.7%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

Yemen

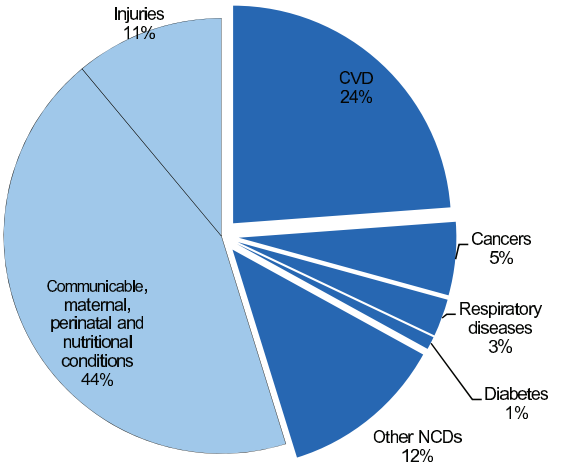
2010 total population: 24 052 514
Income group: Low

NCD mortality*		
2008 estimates	***males***	***females***
Total NCD deaths (000s)	36.2	31.4
NCD deaths under age 60 (percent of all NCD deaths)	47.0	39.5
Age-standardized death rate per 100		
All NCDs	886.8	721.3
Cancers	87.1	80.6
Chronic respiratory diseases	62.8	42.5
Cardiovascular diseases & diabetes	541.8	445.7

Behavioural risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Current daily tobacco smoking	28.5	7.6	18.1
Physical inactivity	…	…	…

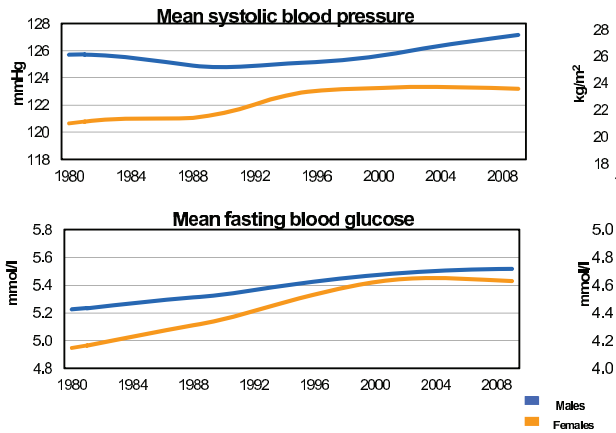
Metabolic risk factors			
2008 estimated prevalence (%)	***males***	***females***	***total***
Raised blood pressure	...	...	...
Raised blood glucose	...	...	...
Overweight	...	...	...
Obesity	...	...	...
Raised cholesterol	…	…	…

Proportional mortality (% of total deaths, all ages)*



NCDs are estimated to account for 45% of all deaths.

Metabolic risk factor trends



Country capacity to address and respond to NCDs			
1. Has a Unit / Branch / Dept in MOH with responsibility for NCDs	**Yes**	*6. Does the country have the following:**	
2. There is funding available for:		a. Integrated policy/ strategy/ action plan *	**No**
NCD treatment and control	**Yes**	b. is it operational?*	…..
NCD prevention and health promotion	**No**	c. is there a dedicated budget for implementation?*	…..
NCD surveillance, monitoring and evaluation	**No**	d. is there a monitoring and evaluation component?*	…..
3. National health reporting system includes:		*7. Does the country adopt earmarked taxes on alcohol, tobacco, etc.**	**Yes**
NCD cause-specific mortality	**No**	*8. Number of tobacco (m)POWER measures implemented at the highest level of achievement*	**0/5**
NCD morbidity	**Yes**		
NCD risk factors	**No**	*9. Does your country have any population-based salt reduction strategies?*	…..
4. Has a national, population-based cancer registry	**No**	*10. Does your country have any policy related to trans-fat voluntary or mandatory labeling?*	…..
5. Is the HBA1C screening available at PHC level?	**No**	*11. Is your country implementing any initiatives to regulate the marketing of foods to children?**	**No**

*** Regional avarage for 22 Member States:** **(6a) 40.9%** **(6c) 13.6%** **(7) 18.2%**
(6b) 27.3% **(6d) 22.7%** **(11) 45.5%**

World Health Organization - *NCD Country Profiles*, 2012.

Noncommunicable diseases are increasingly the most prominent cause of morbidity and mortality across the Region. Four major categories of noncommunicable diseases lead the list: cardiovascular diseases, cancers, chronic respiratory conditions and diabetes. These share well-identified behavioural risk factors which, if addressed through effective preventive and control measures, could result in a decrease in disease incidence and premature mortality. The aim of Noncommunicable diseases in the Eastern Mediterranean Region *is to highlight areas on which countries can focus in order to scale up national capacity for prevention and control of noncommunicable diseases across all relevant sectors, and thus fulfil their commitments under the United Nations General Assembly Political Declaration on Prevention and Control of Non-communicable Diseases (2011).The report is based largely on the results of a 2010 country capacity survey for the prevention and control of noncommunicable diseases in the WHO Eastern Mediterranean Region, as well as the* Global status report on noncommunicable diseases 2010. *Some countries in the Region have updated their survey data since 2010, and these updates have been incorporated in the report and the country profiles where relevant.*

9 789292 745905