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Foreword

The Government of Kuwait and WHO are working together to effectively improve the public health situation in the country with special emphasis on the five key regional priorities:

- health security and prevention and control of communicable diseases;
- noncommunicable diseases, mental health, violence and injuries, and nutrition;
- promoting health through the life-course;
- health systems strengthening; and
- preparedness, surveillance and response.

The strategic directions to address these priorities are broadly in line with WHO's 12th General Programme of Work, the Programme Budget 2016–2017 endorsed in May 2015 by the Sixty-eighth World Health Assembly and the five strategic areas of work endorsed by the WHO Regional Committee for the Eastern Mediterranean in 2012.

Reliable and timely health information is essential for policy development, proper health management, evidence-based decision-making, rational resource allocation and monitoring and evaluation of the public health situation. While the demand for health information is increasing in terms of quantity, quality and levels of disaggregation, the response to these needs has been hampered because of fragmentation and major gaps and weaknesses in national health information systems.

The strengthening of health information systems is a priority for WHO in the Region. Intensive work with Member States since 2012 has resulted in a clear framework for health information systems and 68 core indicators that focus on three main components: 1) monitoring health determinants and risks; 2) assessing health status, including morbidity and cause-specific mortality; and 3) assessing health system response. In order to successfully achieve this important goal, concerted and aligned action at national and international level are required to address the gaps and challenges in the health information systems of all countries. This will ensure the generation of more effective evidence to monitor improvement in the health situation, nationally, regionally and globally.

This comprehensive health profile is intended to serve as a tool to monitor progress in the health of the population. WHO's collaboration with its Member States will strengthen national health information systems and enable the generation of timely and reliable evidence to assess the health situation and trends, and the health system response. Most important, it will provide the information needed by health policy- and decision-makers.

The Kuwait health profile is a useful tool for measuring developments in the health of the population. It will help improve the national health information system and provides reliable data to support effective decision-making for improving the health system. The collaboration between Kuwait and WHO is not a new one, having started decades ago, and it is to be hoped that it will be extended and reinforced in the best interests of Kuwait's population.

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Introduction

The population of the country in 2016 was 4.3 million (1.3 million nationals and 3.0 million non-nationals). It is estimated that 1.7% of the population lives in rural settings (2012), 12.1% of the population (19.0% nationals and 6.9% non-nationals) is between the ages of 15 and 24 years (2016) and life expectancy at birth is 78 years (2012). The literacy rate for youth (15 to 24 years) is 98.8% (adults 95.5%) (2012).

The burden of disease (2012) attributable to communicable diseases is 16.1% (noncommunicable diseases 72.9%, injuries 11.0%). The share of out-of-pocket expenditure is 15.7% (2013). The health workforce density (2014) is 24.0 physicians and 59.0 nurses and midwives per 10 000 population.

The public health issues facing the country are presented in the following sections: communicable diseases, noncommunicable diseases, promoting health across the life-course, health systems strengthening, and preparedness, surveillance and response. Each section focuses on the current situation, opportunities and challenges faced and the way forward. In addition, trends in population dynamics and in selected health indicators are analysed to provide policy-makers with evidence and forecasts for planning.

Communicable diseases

HIV

Tuberculosis

Malaria

Neglected tropical diseases

Vaccine-preventable diseases

Communicable diseases

- The AIDS Statistics and Information Office in the Ministry of Health is responsible for collecting data about HIV-positive cases, counselling of cases and contacts, and health education for the community on prevention and control of HIV.
- The national tuberculosis registry was established in 2013.
- A policy for malaria screening for expatriate workers is in place, with treatment opportunities for all positive cases, with or without manifestation, under the supervision of specialists in tropical diseases.
- No cases of neonatal tetanus or diphtheria have been reported for more than 20 years.

HIV

The HIV prevalence is low. Routine testing is administered on 100% of blood collected (*1*). There is a national strategic plan on HIV and AIDS in place. The prevalence of HIV is very low due to strict regulations, preventive policies and guidelines. HIV is a notifiable disease by law. The notifications are reported to the AIDS Statistics and Information Office. There is a national programme for prevention and control of HIV and there is a strategic plan based upon WHO and UN strategies for HIV. Testing for HIV is done by law for expatriates before getting residence, for blood donors and before recruitment and employment. Premarital HIV testing is also done by law. The AIDS Statistics and Information Office in the Ministry of Health is responsible for collecting data about HIV-positive cases and counselling of cases and contacts as well as health education for the community about prevention and control.

Many of those infected with hepatitis B or hepatitis C are unaware they are infected. Both viruses can produce chronic infections that often remain clinically silent for decades while increasing the risk for liver disease and hepatocellular carcinoma. Other concerns include the cost of treatment. Hepatitis (B and C virus infection) is therefore a priority for screening among certain groups (before marriage for citizens, as a pre-employment measure for both citizens and residents, and for pregnant women) and as part of routine hospital preoperative investigation.

It has been proposed that a national coordinating body for viral hepatitis be established and a comprehensive coordinated national plan for viral hepatitis A–E be developed. The prevalence of hepatitis B and hepatitis C virus in the general population should be determined. To prevent transmission in health care settings, auto-disable syringes and needle-stick injury prevention devices should be introduced in all health care facilities in accordance with WHO safe injection practices.

Tuberculosis

The tuberculosis-related mortality rate is estimated at 1.0 per 100 000 population (*2*). A total of 704 detected tuberculosis cases were reported in 2013, of which 397 were new sputum smear-positive cases (*2*). Drug-resistant tuberculosis is estimated at 0.7% among new cases and 0.0% among previously treated cases (*2*).

Financing issues are well planned and targeted, human resources are well managed and staff are highly qualified. The national tuberculosis registry was established in 2013. The strategic plan aims to eliminate tuberculosis and reach 1 case per 100 000 population in 2025. Integration and collaboration among all stakeholders helps in the identification of undetected cases. The control programme requires that a 5-year national strategic plan is developed that will involve all stakeholders and bring tuberculosis control to the pre-elimination level.

Malaria

The country is considered a low burden and low risk country for malaria. The total number of confirmed malaria cases increased from 228 in 2003 to 358 in 2012, 100% of which were imported (*3*). In 2013 71.5% of confirmed cases were due to *Plasmodium falciparum* (*3*).

Malaria is non-endemic in the country: all reported cases are imported from abroad. A malaria screening policy for expatriate workers is in place, with treatment opportunities for all positive cases (with or without manifestation) under the supervision of tropical diseases specialists. All WHO-recommended treatment policies with radical treatment are followed, along with post-treatment blood testing.

The main priorities for the country are strong vigilance and disease surveillance along with high quality malaria diagnosis and effective treatment, which are available in all health facilities.

Neglected tropical diseases

The country was certified free of dracunculiasis in 1998, but is still endemic for cutaneous leishmaniasis. No autochthonous cases were reported for visceral leishmaniasis (*4*). In 2013, 18 leprosy cases were reported (*4*).

Lymphatic filariasis is not endemic in the country as the infective larva stage and the adult trematode helminths are not present in the environment, but the vector is present, so filariasis is one of the diseases that all expatriates are screened for and positive cases are subject to deportation.

Leprosy may be diagnosed in disadvantaged expatriates who may have been infected some years ago in their country of origin. Expatriates with confirmed infection are subject to deportation. Leishmaniasis is one of the diseases listed for national surveillance; this includes competent management and measures coordinated between the dermatology, tropical diseases, rodent and insect control and prevention sectors.

Surveillance and case-detection of neglected tropical diseases should be maintained in addition to ensuring the management of all detected cases. It has been proposed that compiling an elimination dossier for schistosomiasis be started in view of the establishment of the verification process.

Vaccine-preventable diseases

Immunization coverage with BCG vaccine among 1-year-olds in 2013 was 99.0%. Vaccination coverage improved among 1-year-olds from 1990 to 2013: for DTP3 from 71.0% to 99.0%, measles from 66.0% to 99.0% and polio from 71.0% to 99.0% (*5*). Neonatal tetanus vaccination coverage also increased during the same period from 51.0% to 95.0% (*5*). In 2013, hepatitis B (HepB3) vaccine coverage among 1-year-olds was 99.0% (*5*).

Surveillance of vaccine-preventable diseases included reporting from all health facilities in both the public and private sectors, investigation of all cases reported and confirmation of cases and outbreaks. Monitoring of vaccination coverage is carried out annually supported by field vaccination coverage surveys. No cases of neonatal tetanus or diphtheria have been reported for more than 20 years. Childhood vaccination is conducted through governmental health services; the private health sector is not allowed to administer childhood vaccines except for those not included in the national vaccination schedule, such as rotavirus and chickenpox. The cost of the vaccines is covered in the government budget.

The high reported immunization coverage, which pertains only to nationals, may not give a true picture of the immunity profile of the overall population considering the high turnover of expatriates. The Ministry of Health, therefore, plans to undertake a comprehensive programme review at national and subnational levels in 2016 through the Expanded Programme on Immunization, and to undertake a coverage evaluation survey in 2017 to validate the reported coverage. To further strengthen the immunization programme, the Ministry of Health plans to reinforce measles and congenital rubella syndrome surveillance in 2016 via the Expanded Programme on Immunization, with an emphasis on capacity-building, to undertake an effective vaccine management assessment in line with WHO and United Nations Children's Fund guidelines, and to introduce new vaccines based on the recommendations of the national immunization technical advisory group.

Noncommunicable diseases

Noncommunicable diseases

Mental health and substance abuse

Violence and injury

Disabilities and rehabilitation

Nutrition

Noncommunicable diseases

- A new committee for noncommunicable diseases was established by a ministerial decree in 2012.
- The National Centre for Mental Health was awarded accreditation by the National Accreditation Committee in late 2014.
- The Child Protection Supreme Committee was established by Ministerial Decree 116/2013; it is aimed at studying the legislation, rules and plans needed for child protection.
- Based on the Law on the Rights of Disabled Persons (8/2010), the General Authority for Persons with Disabilities was established as the national coordination mechanism, although it still has no representation from persons with disabilities.
- Efforts are being adopted to improve policies on school canteens to adopt nutrition-friendly schools, working with the industry to eliminate trans-fatty acids and raising the nutrition and health awareness of the community by conducting continuous education programmes.

Noncommunicable diseases

Noncommunicable diseases cause 72.9% of all deaths. Cardiovascular diseases account for 40.8% of all deaths, cancers 13.7%, respiratory diseases 1.9% and diabetes mellitus 3.9% (*6*). As a result, 12.0% of adults aged between 30 and 70 years are expected to die from one of the four main noncommunicable diseases (*7*). In terms of tobacco use, 27.6% of adolescents (13–15 years; 39.3% of boys, 18.3% of girls) have ever smoked cigarettes, while 49.8% live in homes where others smoke in their presence (*8*). Per capita consumption of alcohol is 0.7 litres of pure alcohol (*9*). The prevalence of insufficient physical activity in adolescents (11–17 years of age) is 84.9% (77.0% of boys, 92.9% of girls); age-standardized values are 53.6% (48.3% of males, 62.8% of females) (*10*). Raised blood pressure in adults aged over 18 years affects 20.0% of the population (21.1% of males, 16.5% of females), while obesity affects 42.0% (37.5% of males, 49.8% of females); this is the highest rate in the Region (*7*). All 11 essential medicines required for the treatment of noncommunicable diseases are available in the public health sector.[1]

A multisectoral high-level committee for noncommunicable diseases was established by a ministerial decree in 2012. It is chaired by the Minister of Health and includes stakeholders

[1] WHO Regional Office for the Eastern Mediterranean, unpublished data, 2013.

from within and outside the Ministry. Noncommunicable diseases are a strategic priority for the Ministry and noncommunicable diseases management has been further integrated into post-2015 national developmental plans, in line with the global action plan for the prevention and control of noncommunicable diseases (2013–2020). Discussions are ongoing regarding the establishment of a noncommunicable disease department within the Ministry of Health. The country is working on reducing the burden of noncommunicable diseases by targeting all modifiable risk factors through: health surveys to understand the problem; health promotion and risk reduction by establishing prevention clinics such as smoking cessation, obesity control, promotion of breastfeeding and retinopathy screening; health education for prevention by raising awareness of healthy lifestyles and avoiding serious complications of chronic illness by early diagnosis in clinics; health clinics; clinical practice guidelines; referral policies; screening; counselling; prevention clinics; expansion of specialized clinics for chronic diseases; and providing the necessary medicines in pharmacies and health centres.

The country is a signatory to the WHO Framework Convention on Tobacco Control. A new environmental law has been passed prohibiting tobacco use in all indoor commercial establishments and public sector facilities. There is also a countrywide alcohol ban. Kuwait has a national strategy for the prevention and control of noncommunicable diseases (2015–2025), pursuant to paragraph 45 of the 2011 Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases, covering the four time-bound commitments.

The Ministry of Health has formed a committee on physical inactivity and introduced a national programme for strokes and a national programme for the prevention of cardiovascular disease (including protocols on risk assessment in primary health care and basic life support training for Ministry staff), as well as a national population-based initiative to tackle unhealthy diet, which includes a committee to oversee the reduction of salt content in national bakeries. There is also a committee on noncommunicable diseases in primary health care, which oversees capacity-building of staff and facilities, training, updating of clinical guidelines, and the integration of noncommunicable disease indicators into health information systems. Diabetes control has been integrated in primary health care, with capacity-building of laboratories and pharmacies. Asthma control, smoking cessation, nutrition, well-baby care and health promotion have also been integrated into primary health care clinics. Kuwait has a cancer registry, a palliative care centre, and hospitals for chest and respiratory diseases and allergies.

In 2014, a second STEPwise approach to noncommunicable disease risk factor surveillance (STEPS) survey was completed. The Ministry of Health, through the Department of Health Promotion, has developed a multisectoral plan of action, Towards a Physically Active Kuwait: National Plan of Action 2015–2020. Further plans are being developed to limit free sugar and adopt the WHO nutrient profiling initiative to control advertising to children. The

focus is on moving forward with: implementation of the national strategy for prevention and control of noncommunicable diseases, especially the areas related to health service delivery such as setting up more noncommunicable disease clinics in primary care, staff training and standardizing clinical case management; monitoring and surveillance, including improving the health information system in noncommunicable disease clinics and encouraging research in noncommunicable disease; establishing the new noncommunicable disease department in the Ministry of Health; developing other national programmes, specifically obesity; developing a national plan for physical activity; establishing a diabetes registry; and increasing advocacy for the national cancer screening programme to promote uptake by patients.

Mental health and substance abuse

Neuropsychiatric disorders are estimated to contribute 20.2% to the burden of disease (*11*) and the intentional self-harm rate was 1.8 per 100 000 per year in 2014 (*12*).

The Kuwait Centre for Mental Health is the only facility that provides psychiatric care in the country. It was built in 1940 and has since undergone major developments. It has acute and chronic general psychiatric care units and subspecialty units such as the mood unit, the geriatric unit and the schizophrenia unit run by specialized psychiatrists. The emergency service unit is fully equipped; it has mental health staff with emergency training, emergency facilities and an operationalized psychodynamic diagnosis function as the main patient admission venue. It also holds a specialized child psychiatry facility, Al Manara, and an addiction centre which offers both inpatient and outpatient services. The centre recently expanded its services to offer liaison services at general hospitals and in primary health care clinics. The National Centre for Mental Health was granted accreditation by the National Accreditation Committee in late 2014.

There is a need to develop and implement the mental health policy and legislation which promotes the transition from the current institutional model to a community-based model of mental health service delivery through the involvement of users and their families. The integration of mental health services into primary health care needs to be scaled up by using standardized tools and guidelines like the WHO Mental Health Gap Action Programme materials to enhance the capacities of physicians and nurses working in primary health care, supported by upstream specialist services. There is a need to integrate screening and brief interventions for substance use disorders and related health problems in primary health care intervention packages along with strengthening specialized services for holistic and integrated management of substance use disorders, including psychosocial and pharmacological interventions. It is important to introduce a comprehensive package of services for harm reduction. In order to promote evidence-based decision-making, it

would be helpful to strengthen the mental health component in the health management information system.

Violence and injury

The proportion of deaths caused by injuries in 2012 was 11.0%; unintentional injuries accounted for 93.0% of this (65.7% due to road traffic injuries and 7.2% as a result of falls) and intentional injuries accounted for 7.0% (70.7% as a result of self-harm and 26.5% interpersonal violence) (*6*). In 2014, the estimated road traffic fatality rate was 12.5 per 100 000 population (*12*). For post-injury trauma care there is a universal emergency access telephone number, and 11.0–49.0% of the seriously injured are transferred by ambulance (*13*).

Laws on key road safety risk factors exist but need further strengthening. The Supreme Committee for Child Protection was established by Ministerial Decree 116/2013, with the aim of studying the legislation, rules and plans needed for child protection. Ministerial Decree 127/2014 was issued to prevent child abuse. A major challenge is the inadequate injury information systems reflected by the gaps in information between what is reported and what is estimated.

The government is committed to implementing international laws and regulations, and World Health Assembly/United Nations resolutions, on road safety. Many laws and regulations exist on road traffic safety and for a high-quality road system. However, the country still suffers from high road traffic fatalities, second only to those from cardiovascular diseases (including stroke). There is regular reporting of road traffic data and a national action plan on road safety. Multisectoral cooperation has been established between the Ministry of Health, Ministry of Interior, the Environment Public Authority, the media and nongovernmental stakeholders.

Injury surveillance and vital registration systems need to be strengthened by cross-validation with other data sources, including the Ministry of Interior. Trauma care services need to be assessed to identify and address any possible gaps to improve services. Coordinated action in collaboration with concerned departments in the Ministry of Health (e.g. Health Promotion, Council of Emergency Medicine, Council of Paediatrics and Child Health) and other key government sectors is important. In terms of improving road traffic safety, the focus should be improving public transport services, increasing taxation on vehicle purchases, introducing tolls for traffic congestion, and strengthening implementation of road traffic laws and the severity of penalties.

Disabilities and rehabilitation

The prevalence of disability is 1.1%, and is higher among males (1.2%) than females (1.1%) (*14*). Age-specific disability prevalence is highest in the 65+ age group (8.8%) and lowest among those aged 25–44 years (0.7%) (*14*). The distribution of types of disabilities or difficulties is: those related to difficulty in movement 18.5%, visual 23.6%, learning 11.4%, hearing 6.4% and speech 5.1% (*14*).

The UN Convention on the Rights of Persons with Disabilities was ratified in 2013. The High Commission for the Welfare of Persons with Disabilities is the national coordination body as of 2007 and is chaired by the Minister of Social Development, with representation from persons with disabilities. Based on the Law on the Rights of Disabled Persons (8/2010), the General Authority for Persons with Disabilities was established as the national coordination mechanism but has no representation from persons with disabilities. The Constitution includes articles on disability. Various facilities and departments of the Ministry of Health offer services to persons with disabilities, including occupational medicine, social health, physical medicine and rehabilitation, and those offered by the palliative care hospital and the General Medical Council.

The adoption of the WHO Global disability action plan: better health for persons with disabilities (2014–2021) is an opportunity to strengthen health sector disability action within a broader multisectoral context, building on existing efforts and momentum. Primary eye care and vision screening in schools will be strengthened and a diabetic retinopathy screening programme will be integrated within the diabetes control strategy of the noncommunicable diseases programme, along with the incorporation of eye health indicators.

Nutrition

The estimated prevalence of various conditions due to malnutrition in children under-5 years is summarized in the following indicators: 2.2% underweight, 2.4% wasting, 0.6% severe wasting, 4.3% stunting, 9.5% overweight and 4.1% obesity (*15,16*). Exclusive breastfeeding under 6 months is 26.2% (*16*) and low birth weight was 8.1% in 2014 (*12*).

There are intersectoral nutrition policies, strategies and action plans to accelerate action to improve the nutritional status of vulnerable age groups. Maternal, infant and young child nutrition programmes have been established since 1998, with a focus on supporting, protecting and promoting breastfeeding. The Baby-Friendly Hospitals Initiative is underway in all health facilities providing services. In 2014, the accreditation of the first Baby-friendly Hospitals Initiative hospital in the country was celebrated. The exclusive breastfeeding rate among mothers (nationals) has improved. Iron deficiency anaemia is the second most prevalent nutritional problem after overweight and obesity. In 1997, the government

adopted a national nutrition surveillance system based on WHO recommendations. Data collected identified some of the risk factors, assisted in adopting policies for addressing physical inactivity and unhealthy dietary habits, and helped in developing intervention programmes, such as iron fortification of flour and reducing salt in bread. Efforts are in place to improve school canteen policies by adopting the Nutrition-Friendly Schools Initiative, working with the industry to eliminate trans-fatty acids and raising the nutrition and health awareness of the community through continuous education programmes. The Ministry of Health, in collaboration with the Flour Mills and Bakeries Company, embarked on an action plan in March 2014, achieving the recommended 10% reduction of salt in bread. A review of nutrition programmes and identification of gaps is planned; this will result in recommendations for an accelerated action plan for the nutrition programme.

Promoting health across the life course

Reproductive, maternal, newborn, child and adolescent health

Ageing and health

Gender, equity and human rights mainstreaming

Social determinants of health

Health and the environment

Promoting health across the life course

- The national neonatal screening programme is in place.
- A National Child Protection Committee was formed to develop a strategic plan for protecting children from abuse and neglect.
- In 2014, the Ministry of Health established a new geriatric health services department.
- The Ministry of Health established the Social Health Department in 2009 and, more recently, the School Health Department, a potential platform for addressing social determinants of health issues.
- The government has endorsed the WHO framework for action on health and the environment 2014–2019, and implementation has been initiated to lower the burden of environmental risks on health. Environmental health has been declared one of the top public health priorities for 2014–2015.

Reproductive, maternal, newborn, child and adolescent health

There was an increase in the maternal mortality ratio from 5.2 per 100 000 live births in 2010 to 11.4 per 100 000 live births in 2014, while there was a decrease in the under-5 mortality rate from 10.3 per 1000 live births in 2010 to 8.8 per 1000 live births in 2014 (*12*)[2]. The leading causes of under-5 mortality are acute respiratory infection (8.0%), prematurity (32.0%), intrapartum-related complications (3.0%) and congenital anomalies (39.0%) (*19*). The proportion of women receiving antenatal care coverage (at least one visit) is 100% (*12*).

The increase in maternal mortality ratio was among non-nationals, with all deaths being among non-nationals. The leading causes of maternal mortality are still postpartum haemorrhage and eclampsia. The national neonatal screening programme began in 2008 with two diseases (hypothyroidism and phenylketonuria). In 2010 other diseases were introduced (e.g. congenital adrenal disorders). In 2014 newborn screening extended to include 22 disorders of inborn errors of metabolism. With the introduction of the new WHO growth standards in all health centres, all health providers are using the same tool for assessment of child growth. A child health record for the first five years was also published. Mass training in basic and advanced life support was carried out for all health providers working in the paediatric and neonatal department. A National Child Protection Committee

[2] United Nations estimates for the maternal mortality ratio declined between 1990 and 2015 from 7 to 4 per 100 000 live births (*17*) and for the under-5 mortality rate declined from 18 to 9 deaths per 1000 live births (*18*).

was formed in 2013 to develop a strategic plan for protecting children from abuse and neglect. The committee includes clinical and non-clinical departments of the Ministry of Health as well as other governmental and nongovernmental organizations. Child protection teams were established in governmental hospitals in accordance with Ministerial Decree 127/2014. A neonatal hearing screening programme is in place under the Ear, Nose and Throat Council

In addition to strengthening the quality of care provided, provision of advanced technology in the management of reproductive, maternal, newborn, child and adolescent morbidity is still needed to achieve further progress in reproductive health care. Emphasis should be given to research as an essential tool for programme development and implementation. National policies and strategies on research and reproductive, maternal, newborn, child and adolescent health need to be further strengthened.

Ageing and health

Life expectancy at birth rose by 5 years between 1990 and 2012 from 73 years to 78 years (*19*). In 2016, 6.0% of the population (8.5% nationals and 4.1% non-nationals) was over 60 years of age (*20*). All health providers will require preparation to address the increase in needs resulting from the increase in the ageing population.

The leading causes of death are circulatory system diseases followed by neoplasms. A number of sporadic activities for health care of the elderly are undertaken by the Ministry of Health, the Ministry of Social Affairs and other ministries and institutions. In 2014 the Ministry of Health established a new geriatric health services department under Ministerial Decree 54/2014. Health care services for the elderly are currently mainly provided through outpatient clinics and home health care. There is an agreement with McMaster University in Canada for the postgraduate programme in geriatrics aimed at building up national capacities. The geriatric health services administration is taking steps to apply a comprehensive strategy for improving quality of life for older people.

Exploring the possibility of creating an age-friendly environment in Kuwait City is an important step towards setting a model for joint collaboration among all concerned sectors. This will also enable primary health care centres to check and strengthen their capacity to be age-friendly in accordance with the related WHO criteria.

Gender, equity and human rights mainstreaming

The country falls among the very high human development countries, ranking 50th among 152 countries in terms of gender inequality (*21*). Female adult (above 15 years of age) literacy is relatively high at 95.0% in 2012 (*22*) and participation in the labour force is 43.4% (*21*).

The Constitution requires equal access to health care services for men and women, citizens and residents. The national vision for health set by the Supreme Council of Planning includes several projects that contribute to the health of women, adolescents and younger age groups. A four-month maternity leave period is mandatory, as is a two-hour breastfeeding break. More women are entering the faculty of medicine due to a lack of restrictions.

There is a need for assessment of the situation in terms of institutionalization of the right to health as well as a gender analysis of the health system. This should aid efforts to sustain the achievements already made from a gender, equity and rights perspective in all sections of the health system, including data, capacity-development, programmes, policies, strategies and action plans.

Social determinants of health

The *Human development report 2014* ranked the country 46 out of 187 countries across the world on the human development index (*21*). The urban population remained constant between 1990 and 2012 at 98.0–98.3%. Access of the rural population to improved water sources has also remained constant at 99.0% (*23*). In 2016, the 0–24 years age group accounted for 29.4% of the total population (48.6% nationals and 14.6% non-nationals) (*20*). Adult literacy rates in 2012 were 95.5% (*24*). Overall unemployment was 1.5%; for youth (15–24 years) it was 9.2% (*23*).

To set up a structural framework for systematic programmatic action on social determinants of health, the Ministry of Health established the Social Health Department in 2009 and recently established the School Health Department (172/2012), a potential platform for addressing the issue.

Challenges include the lack of clarity within the health sector on its exact role in practically addressing social determinants of health and the perception that this is not a priority in affluent societies. One opportunity to address this is provided by the WHO tools, strategies and indicators for including social determinants of health in health planning and ongoing programmes. It is important to consider the interconnections between the underlying social determinates of health, in the context of economic affluence, and the root causes of key public health issues such as noncommunicable diseases and road traffic injuries and related risk factors. This should guide the design, implementation, monitoring and evaluation of effective prevention and control interventions in the Ministry of Health and other concerned sectors.

Health and the environment

It is estimated that 1400 people a year die as a result of environmental factors, and the proportion of disability-adjusted life years attributable to the environment is estimated

at 14.0% (*25*). Access to improved sanitation facilities is 100.0% and access to improved drinking water is 99.0% (*19*). It is estimated that 0.0% of the population uses solid fuels (biomass for cooking, heating and other usages) (*26*).

The government uses desalinated seawater as a source of safe water and the process is monitored by the Ministry of Electricity and Water. The Ministry of Public Works is responsible for sewage collection and treatment. All collected sewage goes through five main treatment stations; four stations provide tertiary treatment, and the fifth provides quadruple treatment. Treated sewage water is used for irrigation of crops according to WHO standards. The main environmental risk factors include air pollution, chemical exposures, housing and environmental determinants of injuries. These contribute significantly to the burden of noncommunicable diseases and injuries. Water and air pollution are properly monitored through the newly established environmental information management system (e-MISK). However, the reporting outputs of the system need to be strengthened. Satellite data and global models used by international organizations show high levels of particulate matter in the environment. The government has been working to activate the Healthy Cities programme with a focus on health promotion and strengthening environmental services to cope with the impact of global warming.

The government endorsed the WHO regional environmental health strategy and framework of action 2014–2019. The next step is to initiate a national multi-stakeholder process to develop a strategic environmental health framework for action in 2015–2016.

Health systems

National health policies, strategies and plans

Integrated people-centred health services

Access to medicines and health technologies

Health systems, information and evidence

Health systems

- The country has one of the most modern health care infrastructures, distributed among primary health care centres, six general hospitals and a number of national specialized hospitals and clinics.
- Family practice is a major overarching strategy for service provision in public health facilities.
- The pharmacy at the primary level of care supplies all the required medication to treat patients.
- In 2013, the Health and Vital Division issued the first edition of health indicators for 2012 data and a new system for data quality assurance was adopted for the 2013 database.

National health policies, strategies and plans

The country's national health planning cycle is addressed in the national health policy strategy and plan 2010–2015. Total per capita expenditure on health at the international exchange rate increased from 2005 to 2013 from US$ 833.8 to US$ 1507.2, and general government expenditure on health increased during the same period from US$ 668.0 to US$ 1245.5 (*27*). General government expenditure on health as a proportion of total expenditure on health also increased for the same period from 80.1% to 82.6%. Total expenditure on health as a proportion of the gross domestic product increased over the same period from 2.4% to 2.9% (*27*). In addition, the share of out-of-pocket expenditure in 2013 was 17.4%, a decrease from 19.9% in 2005 (*27*). There are no external sources for expenditure on health (*27*).

The Supreme Council of Planning distributes the framework of the five-year national plan to all ministries, including the Ministry of Health. The Department of Planning and Follow-up in the Ministry of Health in turn distributes the plan to all departments and one comprehensive plan for the Ministry of Health's contribution to the five-year national plan is developed. Health care financing is based on a single-payer system. In July 2016, the retired national insurance plan introduced a new financing model that provides an alternative financing method for the most vulnerable citizens within the population. Non-nationals have an alternative plan that supports the most disadvantaged expatriate workers, though the Patient Support Fund (a nongovernmental organization) in cooperation with the Ministry of Health. It is mandatory for all non-nationals to have a health coverage plan through the private or public sector.

Consideration should be given to reviewing the current health financing arrangement in the country to ensure sustainability.

Integrated people-centred health services

From 2010 to 2014, the health workforce density per 10 000 population decreased for physicians from 25.0 to 24.0, while increasing for nurses from 55.0 to 59.0, for dentists from 5.0 to 6.0 and for pharmacists from 6.0 to 7.0 per (*12*). Heath service delivery data (2014) show the number of hospital beds averages 20 per 10 000 population (*12*), while the number of mental hospitals was 0.03 per 100 000 population in 2011 (*28*). The number of psychiatrists working in the mental health sector in 2011 was estimated at 2.6 per 100 000 population (*29*).

The country is divided into six health areas or regions: Kuwait City, Hawali, Ahmadi, Jahra, Farwania and Al Suabah. The health sector in each region is a decentralized administrative unit with considerable autonomy in terms of financial and administrative affairs, training of the health workforce and management of health delivery. The country has one of the most modern health care infrastructures, distributed among primary health care centres, six general hospitals and a number of national specialized hospitals and clinics. Family practice is a major overarching strategy for service provision at public health facilities. The primary health care centres provide a comprehensive and quality based package of services. The records and data in primary health care centres are computerized and will be soon connected to the secondary and tertiary hospital network.

Challenges in the health delivery system are to reduce the waiting time for patients due to high patient load and overextension of medical staff. Other challenges include structuring a systematic assessment of quality of services delivered by primary health care centres, hospitals and specialized clinics at regular intervals; the referral and follow-up system, which is aided by the new computerized linkages between primary, secondary and tertiary levels; training and development of health promoters and volunteers; and development of home-based and community-based interventions.

The health workforce, as in other Gulf Cooperation Council countries, relies heavily on expatriate workers. It is anticipated that the utilization of non-Kuwaiti staff will continue for many more years. There is a "Kuwaitization" policy which stipulates that over a number of years sufficient national doctors, dentists and pharmacists will be trained to minimize the dependence on foreign professional health staff. However for nursing, the prospects of training enough national graduate nurses are not favourable. Human resources needs assessments and required trainings are undertaken in each department and major health facility.

Human resources development activities are sporadic and are not coordinated. There is a need to develop a carefully considered policy, strategy and plan for human resources for health. A comprehensive human resources system should also be developed to assist in the assessment of human resources needs, production strategies and management systems. The policy, plan and human resources for the health system should be flexible and allow the full participation and active involvement of different departments to tailor the training needs of units and departments, and also allow for better coordination and more cost–effective ways of strengthening the health workforce. Human resources training institutions should be active partners in the human resources for health system and should synchronize their courses to benefit the health sector.

Access to medicines and health technologies

The pharmacy at the primary level of care supplies all the required medication to treat patients. Most importantly, at the secondary and tertiary levels the hospital pharmacies have established different branches to accommodate services near to clinics (outpatient pharmacy), emergency departments (emergency pharmacy) and the central pharmacy to serve inpatients. In some hospitals, there is also a paediatric pharmacy and an internal pharmacy. The reason for this is to reduce waiting times and give a better chance for patient counselling. The pharmacies in these hospitals only supply medications related to the specialties in the hospital. The medical stores administration providing medications to the public sector also supplies the private sector in cases where the local agents do not stock a particular item. For reporting recalls or unwanted side-effects experienced for any medications used by patients, the hospital pharmacy reports to the medical stores administration, which then reports to the quality control department. This department assesses the complaints or recalls and notifies the medical stores and all private and public hospitals and health centres. The facilities should then return the medications to the medical stores in order to return it to the manufacturer through their local agent.

There is a need for policy-makers to accord high priority to health and to promote a national desire to achieve a high standard of health care and a sufficient allocation of resources to the health sector.

Health systems, information and evidence

In accordance with Ministerial Decree 80/2013, the hierarchy of the Directorate of Health Statistics and Medical Records has been restructured and renamed the National Centre of Health Information and the Family of International Classifications Collaborative Centre established to ensure training on International Classification of Diseases (ICD) coding. The government has a national and district level health information system unit and a national health information system strategy. At national level the health information system

unit has several staff with backgrounds in epidemiology, vital statistics and information technology. The availability of registers and paper forms in the health facilities is good, and the national health information system is computerized in a standalone mode to the facility level. Programmes which have been computerized include the Expanded Programme on Immunization, maternal and child health, and tuberculosis and HIV. Data on infrastructure and human resources are also computerized.

The Ministry of Health publishes detailed and informative statistics every year on population, vital events and the disease burden by hospital (public and private) and primary health centre. In 2013, the Vital and Health Statistics Division issued the first edition of health indicators for 2012 data, and a new system for data quality assurance was adopted for the 2013 database. There are clear challenges in unifying the data collection and reporting mechanisms for health care at primary, secondary and tertiary levels. There are issues outstanding regarding the quality and availability of data on morbidity, mortality and other vital events. A webpage has been set up for the dissemination of health statistics. In the past five years, only the household survey has been conducted. There have been problems with the timeliness of reporting indicators, and there are ongoing efforts to shift completely to an electronic web-based system and to promote the annual reporting of indicators using a web-based platform and observatory, with a focus on the quality of data.

Several areas need strengthening: the shift to an electronic, web-based system; strengthening of the vital statistics system, especially in relation to reporting deaths; and improving the reporting of morbidity data. The country priorities are: strengthening the capacity to carry out analysis, validation, interpretation and use of data; improving timeliness on the reporting of indicators on morbidity, especially from hospitals and the primary health care health information system; and streamlining the information flow between the primary, secondary and tertiary levels.

Preparedness, surveillance and response

Alert and response capacities

Epidemic and pandemic-prone diseases

Emergency risk and crisis management

Food safety

Poliomyelitis eradication

Outbreak and crisis response

Preparedness, surveillance and response

- The government has declared that it has met the requirements for the International Health Regulations 2005.
- The Emergency Medical Services Directorate has developed disaster and evacuation plans in coordination with the Ministry of the Interior.
- The country has a well equipped and functioning public health laboratory and food inspection system.
- The country has an established and functioning national eradication certification and national expert group committees for polio with continuous updating of the importation preparedness plan.

Alert and response capacities

The government has declared that it has met the International Health Regulations (IHR) 2005 requirements and has not asked for a second extension.

The government is progressing in implementing the IHR core capacities. Almost all requirements have been met although a few relating to surveillance and response and points of entry capacities have yet to be implemented. In 2013, IHR radio nuclear self-assessment increased significantly to 100 compared with 2012 when it was 21. This reflects an improvement in coordination between the sectors involved. There has been 0% implementation of IHR-related response to chemical events, which might be interpreted as insufficient coordination between the related sectors but is not the actual capability in the country.

The political commitment expressed by the Ministry of Health needs to be expanded to include other governmental sectors. The strong coordination mechanism related to emergency preparedness and response is also a great opportunity to enhance coordination and the sharing of information on a routine basis. Existing agreements with the Gulf Cooperation Council countries and with other countries will have an important role in meeting some of the requirements, particularly those related to cross border surveillance and response, conducting joint risk assessments on potential hazards and updating the national preparedness and response plans accordingly. The country has the potential to play a regional role to enhance the IHR-related radiation capacity. Discussions need to take place between the country, WHO and the International Atomic Energy Agency on possible ways for Kuwait to play such a role.

Epidemic and pandemic-prone diseases

The public health surveillance system remains underfunded and as a result, the effectiveness, national coverage and performance of the system for timely detection and notification of any emerging health threats remain in doubt. Although outbreaks have been rare in the country, the emergence of Middle East respiratory syndrome coronavirus signifies that the country is not immune to threats that may originate elsewhere or that may originate from a novel pathogen.

The priority should be to invest more in a public health surveillance system, building a public health workforce that can effectively support reforming the health systems to address emerging health security threats, including antimicrobial resistance and infection prevention and control in health care settings. An efficient and strengthened network of public health laboratories would be another area that the country could consider as important for long-term investment for health improvement.

Emergency risk and crisis management

The country is susceptible to both natural and man-made disasters that cause a significant loss of life, livelihoods and infrastructure, reversing development gains. The annual loss attributable to natural disasters (based on data from 1994–2013) on average was 0.5 deaths (0.02 per 100 000 inhabitants). Losses in purchasing power parity were US$ 0.2 million (*30*).

The Emergency Medical Services Directorate has developed disaster and evacuation plans in coordination with the Ministry of the Interior. All emergency response bodies in the Government, including the Emergency Medical Services and the Radiation Prevention Department of the Ministry of Health, Civil Defence (Ministry of the Interior), the Fire Department and the National Guard, have adopted their own preparedness plans to be ready for the threats of weapons of mass destruction. These plans were tested in 2014 and all participants were able to assess and analyse their capabilities, strengths and weaknesses in order to improve their skills and competency. The country hosts the Gulf Cooperation Council Disaster Management Centre for disaster risk reduction and mitigation.

A full-scale disaster risk assessment needs to be conducted to contribute an evidence base for the planning process and also for the systematic capacity development of the health workforce. The involvement of all key stakeholders in this capacity development needs to be reinforced through optimum policy support.

Food safety

The country has a well-equipped and functioning public health laboratory and food inspection system. There is exchange of data in foodborne outbreaks and other surveillance and inspection activities.

Strengthening of the food safety inspection system has been identified as a priority. Integration of foodborne disease surveillance with the existing national disease surveillance system should be reinforced.

Poliomyelitis eradication

The country has been free of polio for about 30 years ago: the last case occurred in 1985. An effective acute flaccid surveillance system has been operating since 1994, with the main key indicators (reporting rate greater than 2.0 per 100 000 and stool sample indicator greater than 80%) maintained for many years (*31*). The country has an established and functioning national eradication certification and national expert group committees for polio, with continuous updating of the importation preparedness plan according to WHO regional recommendations. The routine immunization coverage is high: coverage with three doses of oral polio vaccine has been over 90.0% for more than 10 years.

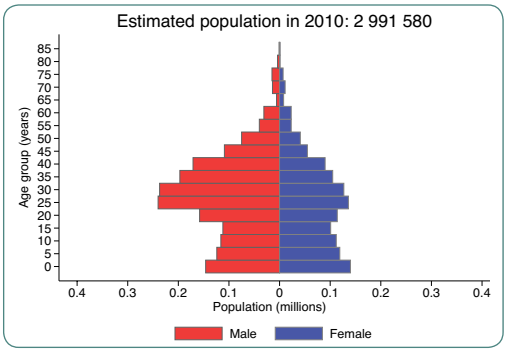
A simulation exercise may be carried out to test the appropriateness of the preparedness and response plan in field conditions.

Outbreak and crisis response

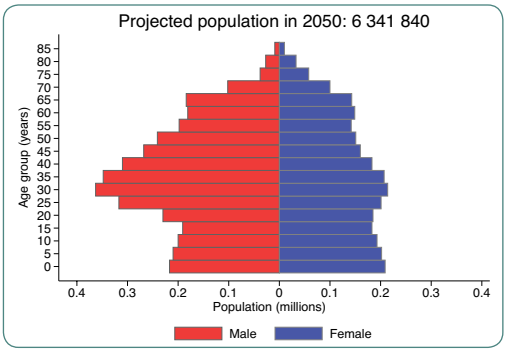
The Environment Public Authority was established in the country in 1995. It is tasked with the prevention, control and monitoring of various types of pollution (air, water, soil). There is a specific department within the Ministry of Health for controlling radiation pollution and other radiation hazards. A coordinated assessment and health sector response plan has been agreed between these bodies as well as with the public health authorities and the medical emergency departments. In late 2014, the government began scaling up its preparedness for Ebola virus disease by assessing and measuring their level of preparedness and readiness for using the WHO assessment checklist and accordingly identifying critical gaps for improvement.

Demographic profile

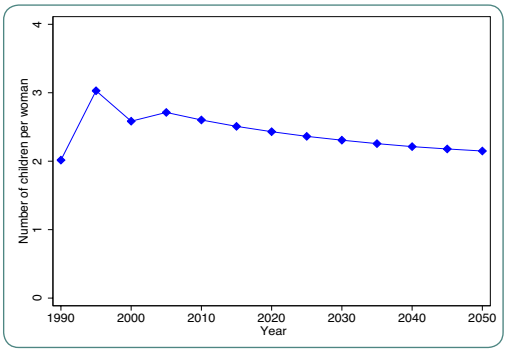
Population pyramid 2010



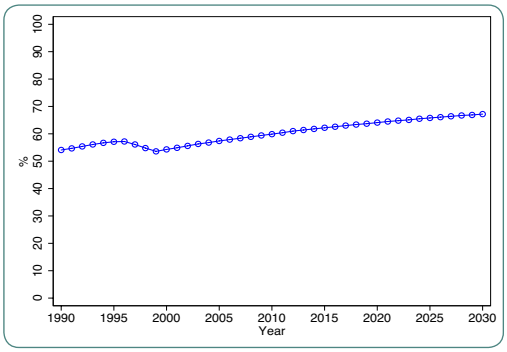
Population pyramid 2050



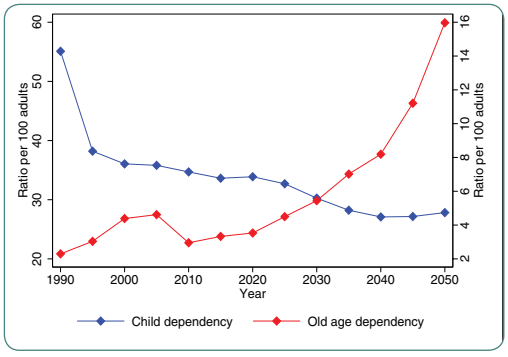
Total fertility rate



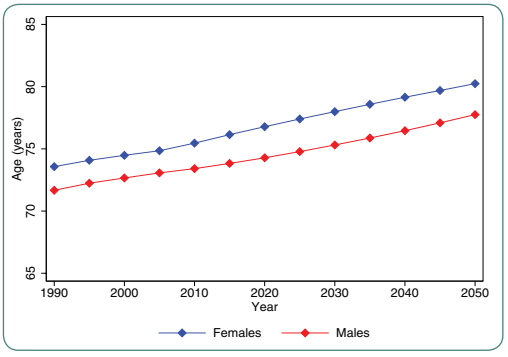
Need for family planning satisfied



Dependency ratio



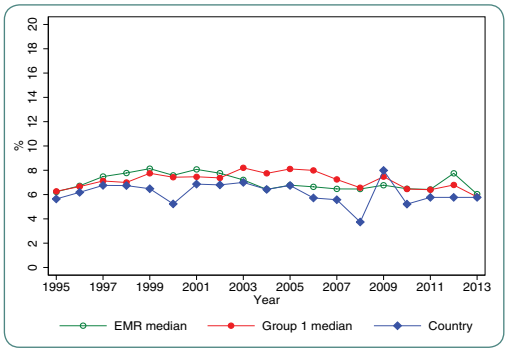
Life expectancy at birth



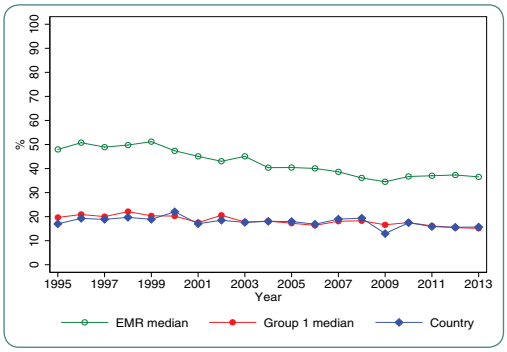
Source for all graphs: *(33)*

Analysis of selected indicators

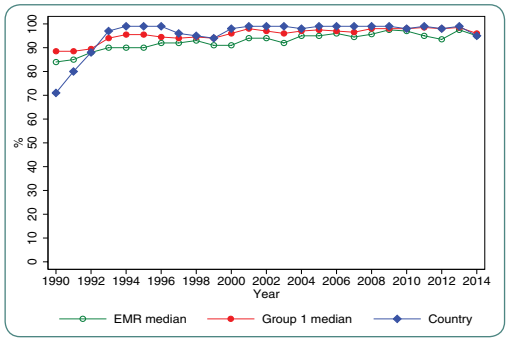
General government expenditure on health as % of general government expenditure (*27*)



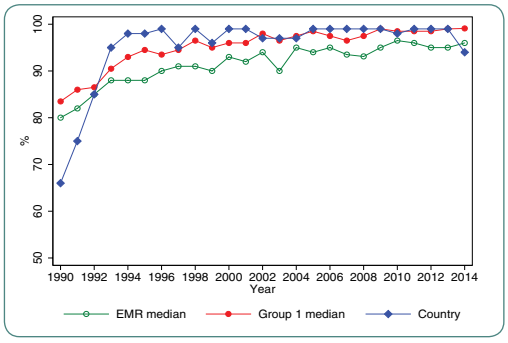
Out-of-pocket expenditure as % of total health expenditure (*27*)



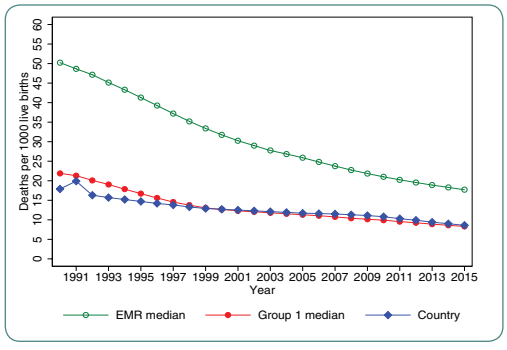
DPT3/pentavalent coverage among children under 1 year of age (%) (*5*)



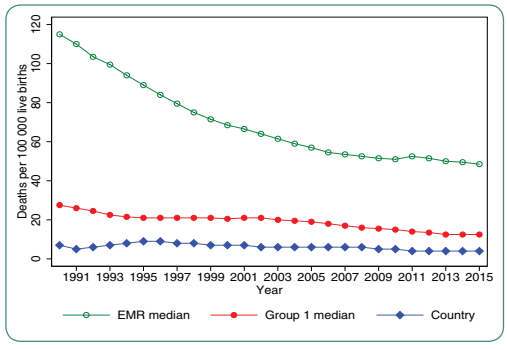
Measles immunization coverage (%) (*5*)



Under-5 mortality (per 1000 live births) (*18*)



Maternal mortality ratio (per 100 000 live births) (*17*)



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