

WHO

Country Cooperation Strategy

Democratic People's Republic of Korea

2014–2019

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Message from the WHO Regional Director for South-East Asia



The WHO Country Cooperation Strategy (CCS) is the medium-term strategic vision of the World Health Organization to guide its work in a country in support of the country's national health policy, strategy or plan. The CCS is also the main instrument for harmonizing WHO's cooperation and support in countries in tandem with other UN agencies and development partners. It also guides how WHO can best support health development in a country taking into consideration the regional and global agenda and priorities of the Organization.

It is, therefore, important that the formulation of the CCS involves the three levels of WHO with full involvement of all development partners, including UN agencies in the country. An extensive consultation with the government and all stakeholders was undertaken during the process of CCS formulation.

Following the guidelines as briefly described above and based on the latest health situational analysis including national policies and plans, five strategic priorities and their respective focus areas for the CCS were formulated for cooperation with WHO during 2014–2019. It is noted that the five strategic priorities summarized appropriately the country's health development context. The priorities also align well with the regional flagship priority areas and the global health agenda.

The WHO Regional Office for South-East Asia (SEARO) would like to acknowledge the effective cooperation with the Government of the Democratic People's Republic of Korea (DPR Korea) through the Ministry of Public Health, DPR Korea, in the implementation of earlier CCSs. A number of health indicators have shown substantial progress, including strengthening of health-care services. There is strong evidence that demonstrates noticeable improvements in access to reproductive and child health

care, particularly access to emergency obstetric care, immunization and integrated management of childhood illness. We are also aware of the magnitude of challenges facing the country as well as WHO and other partners in our collective efforts to build a stronger public health system in the country. Strengthening of coordination and cooperation among various players would greatly contribute to the success.

I would like to express my appreciation to all those who have contributed to the development of this WHO Country Cooperation Strategy for the Democratic People's Republic of Korea. We appreciate the inputs and suggestions received from the Ministry of Health, key health experts and our health development partners in the country, and will continue to work closely with them. I would like to reiterate here that the WHO Regional Office and headquarters are fully committed to the implementation of the CCS.



Dr Poonam Khetrpal Singh
Regional Director
WHO South-East Asia Region

Message from Honourable Vice Minister of Health and WHO Representative to DPR Korea



The Democratic People's Republic of Korea (DPR Korea) became the member state of the World Health Organization (WHO) in 1973. The collaboration between the Government of DPR Korea and WHO has developed positively and it has further expanded after the establishment of WHO Country Office in DPR Korea in November 2001.



In particular, two cycles of the Country Cooperation Strategy (CCS) and the Medium-term Strategic Plan 2010-2015 have been implemented since 2001, during which the collaborative relationship with WHO has become stronger and further strengthened both in technical aspects and in terms of quality, thus resulting in multiple achievements.

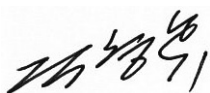
The strategic plans in each area of work have been formulated, the knowledge and technical skills of the health staff have been enhanced through local and international trainings. A telemedicine system has been established and expanded. The health management information system has been strengthened. Besides, with successful implementation of the maternal and child health programme, tens of provincial and county health facilities and hundreds of Ri level health facilities have been upgraded. This contributed to strengthening health infrastructure and health systems.

A number of health indicators are showing tendency for improvement in all areas, including prevention and control of communicable diseases and noncommunicable diseases (NCDs), maternal and child health, health systems strengthening as well as the emergency preparedness and response.

In DPR Korea, health policies are being made and implemented based on the great people-centered *Juche* Idea and on the principle of serving the best interests and health promotion of the people.

We look forward to continuing cooperation between the national authorities and WHO, in the direction of supporting implementation of national people-oriented health policies and to address country needs and priorities. DPR Korea will continue to fulfill its obligations as a Member State of WHO.

We highly appreciate the significant contribution of WHO staff at all levels of the Organization: in the country office, in the Regional office and at Headquarters, with the previous WHO Representative, Dr Stephan Paul Jost, leading the process to completion. We furthermore wish to acknowledge the Ministry of Public Health and the Ministry of Foreign Affairs for their contribution in the development of this corporate document. We strive for successful implementation of the WHO country cooperation strategy 2014-2019, the third of its kind with DPR Korea.



Dr Kim Hyong Hun
Vice Minister
Ministry of Public Health
DPR Korea



Dr. Thushara Eray Indranath Fernando
WHO Representative
WHO Country Office
DPR Korea

Acronyms

AEFI	adverse effects following immunization
CEDAW	convention on the elimination of all forms of discrimination against women
CVCs	core voluntary contributions
DOTS	directly observed treatment and short-course
DPRK	Democratic People’s Republic of Korea
EDL	essential drugs list
ENC	essential newborn care
EU	European Union
EVM	effective vaccine management
GHI	global health initiative
GAVI	GAVI Alliance (formerly Global Alliance for Vaccines & Immunization)
GDF	Global Drug Facility
GDP	gross domestic product
GFATM	Global Fund to fight AIDS, Tuberculosis and Malaria
GMPs	good manufacturing practices
GPW	General Programme of Work
HMIS	health management information system
HRH	Human Resources for Health
HSS	health system strengthening
IDC	Italian Development Cooperation
IFRC	International Federation of Red Cross and Red Crescent Societies
IHR	International Health Regulations (2005)
IMCI	Integrated Management of Childhood Illness

IPV	inactivated polio vaccine
LLINs	long-lasting insecticide treated nets
MDG	Millennium Development Goals
MoFA	Ministry of Foreign Affairs
MoPH	Ministry of Public Health
MPPT	mass primaquine preventive treatment
MTSP	Medium-term Strategic Plan for Development of the Health Sector in DPR Korea
NCDs	noncommunicable diseases
NGO	nongovernmental organization
NPO	National Professional Officer
OECD	Organisation for Economic Cooperation and Development
OPV	oral polio vaccine
PHC	primary health care
RO	Regional Office
RTI	reproductive tract infections
SAGE	strategic advisory group of experts
SOPs	standard operating procedures
STH	soil transmitted helminthiasis
STIs	sexually transmitted infections
TB	tuberculosis
TFR	total fertility rate
UHC	universal health coverage
UN	United Nations
UNSF	United Nations Strategic Framework
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children’s Fund
VPDs	vaccine-preventable diseases
WCHP	Women’s and Children’s Health programme in DPR Korea
WHO	World Health Organization

Executive summary

Health development context and health status of the population

In the past history of 20 years, the Democratic People's Republic of Korea (DPR Korea) has witnessed significant public health challenges. Public health challenges have been associated in large part with external geopolitical factors. These include the collapse of the Soviet Union in the early 1990s and international economic sanctions, and the subsequent decline in gross domestic product (GDP) in the 1990s. This triggered a decline in access to health services and coverage, which was evident from poor nutritional outcomes, outbreaks of communicable diseases and rises in maternal, child and infant mortality in the 1990s. Since this period, there has been a steady and gradual improvement in public health services' access and outcomes, many of which are documented in this CCS. This includes a steady rise in childhood immunization coverage and improved access to healthcare services against TB and malaria. There is evidence tabled in this CCS that demonstrates noticeable improvements in women's and children's health care access, particularly in terms of access to emergency obstetric care, immunization and integrated management of childhood illness. Survey data, including census and population based surveys for nutrition are documenting gradual recoveries in nutritional status and maternal and child mortality reductions. DPR Korea has an aging and highly urbanized population. As a result non communicable diseases now represent the primary determinant of morbidity and mortality in the country. The development context is also dominated by the threat of natural catastrophe in the form of floods and droughts, which poses threats to public health services' access, communicable disease outbreaks and food security.

Despite gains outlined above, there are challenges for optimizing the potential of the health system which is supported by one household doctor for every 130 households. The series of challenges are to secure adequate operational financing for ensuring quality medicines, equipments and referral transport. There are also indications of urban-rural differences in nutritional outcomes, which suggest that policy should focus on meeting the health needs of populations in more difficult to access geographic areas. There are, therefore, significant planning, human resource and health financing

governance challenges to public health. The public health development strategy will need to be carefully balanced between technical efforts for disease control and broader system development for sustainable public health improvement. Attention also needs to be focused on short-term humanitarian emergency preparedness, given the vulnerability of the population and health systems to factors of natural catastrophe and geopolitical tensions.

Partnerships and WHO cooperation

The last planning cycle has witnessed some developments and challenges in the field of partnerships and WHO cooperation. On a per capita basis, due to external factors, DPR Korea has a comparatively low volume of international development assistance. Despite this challenge, including a decline in the volume of financial support to WHO in the last biennium, there are still indications that the development assistance programme is being well targeted towards achievement of public health goals. The last biennium has seen the emergence of increased volumes of support through the global health initiatives (GAVI and the Global Fund) for critical support to the national immunization, TB and malaria programmes. The partnership between WHO and the Government of the DPR Korea, despite some interruptions to funding in the last biennium, has been managing emergency obstetric care and integrated management of childhood illness. WHO also works closely with the European Union supported nongovernment organizations and the International Federation of Red Cross and Red Crescent Societies (IFRC).

A number of frameworks are available, which enhance partnerships and more efficient use of development and humanitarian aid. In particular, WHO, through the United Nations Strategic Framework (UNSF), works closely with UN partners including United Nations Children's Fund (UNICEF) and United Nations Population Fund (UNFPA) to ensure harmonization of efforts in such areas as policy coordination, systems development, equipment and essential medicines supply and emergency preparedness. WHO supported the development of a Medium-term Strategic Plan for Development of the Health Sector in DPR Korea 2010-2015 (MTSP1). This has provided a framework for alignment of development investment, by specifying strategic areas, a national monitoring and evaluation framework and financial gaps for priority interventions. In September 2014, the mid-term review of MTSP 1 included all partners supporting health agenda. The review also included sessions to discuss future directions for MTSP 2 (2016-2020) and has assisted with framing the directions for partnership in the next planning cycle.

Strategic agenda

The strategic agenda for WHO in DPR Korea for the period 2014-2019 is based on a number of criteria. The first is the principle of alignment, which indicates that WHO will align its priorities with those specified in the national health sector strategy. The

second is the principle of harmonization, which will enable WHO to work towards its mandate and areas of strength, including policy and planning, technical guidance and monitoring and evaluation. The strategic agenda will also be informed by the reality of country context, which provides a number of clues to strategic direction. The epidemiological and demographic picture illustrates that the country is confronted by a “triple burden” of disease or public health challenge, which includes communicable diseases, noncommunicable diseases (NCDs) and health emergencies. This means there will need to be a policy and investment balance to ensure that strategic directions address these triple threats to public health.

Another important facet of the strategic direction is getting the balance right between long-term health system development strategy, and immediate challenges presented in responding to humanitarian health needs of population in all hazard emergencies. These are historic and current reality of the DPR Korea context. This strategic agenda is also aligned with directives of the Regional Director and regional health goals, thematic directions for the post 2015 global health agenda, universal health coverage (UHC) and intersectoral collaborations. Based on the above factors, this CCS outlines in more detail strategic directions in the following key areas:

- (1) Prevent and control of NCDs.
- (2) Address women’s and children’s health to reduce vulnerability and promote disaster risk reduction.
- (3) Prevent and control communicable diseases.
- (4) Strengthen health systems to improve service delivery.
- (5) Ensure WHO country presence to support sustainable national health development.

Implementation of the strategic agenda and its implications for WHO

The implementation of the strategic agenda has important implications for WHO. Due to constraints of context, the role of WHO in supporting the Ministry of Public Health (MoPH) to coordinate the sector will be critical given the scarcity of resources and the scale of public health needs. Resources for technical support will need to be carefully balanced between meeting the technical requirements for disease control. The governance system required to sustain and expand access to quality service delivery in areas, such as health planning, human resources management, health financing and sector coordination.

Section 1:

Introduction

1.1 Policy framework and guiding principles

The policy framework outlined in this Country Cooperation Strategy (CCS) is guided principally by the strategic priorities established by the Ministry of Public Health (MoPH) in the Democratic People's Republic of Korea (DPR Korea). The framework also considers the Medium-term Strategic Plan for Development of the Health Sector in DPR Korea 2010-2015 (referred to hereafter as MTSP). Both MTSP, and the subsequent report of mid-term review conducted in September 2014, identify five strategic areas for health sector development. They are health systems strengthening, communicable and non-communicable disease control, women's and children's health and WHO country presence to support sustainable national health development. In accordance with the principle of alignment, the strategic priorities of this CCS are closely related to the five strategic areas identified in the MTSP. The strategic priorities are also aligned closely to regional and global goals for the control and prevention of both communicable and noncommunicable diseases (NCDs). These are also aligned to regional and Millennium Development Goals (MDGs) and targets for reductions in maternal, child and infant mortality.

The other important principle underlying this CCS is that of harmonization of investment with other sectoral stakeholders and other international partners for health. This harmonization of effort is critical for a number of reasons relating to the country context. Due to external geopolitical factors, there are severe constraints placed on the volume of development assistance. In this context, **effective collaborations in the sector and across sectors are vital, in order that the minimal resources that are available are targeted most efficiently for maximum public health gain.** This concept of harmonization and role of WHO in supporting the government to lead this effort is a fundamental guiding principle of this CCS strategy.

Finally, the concept of UHC is an overarching guiding principle shaping WHO's programme of work, as it seeks to provide technical support to the MoPH in its efforts towards ensuring universal access to quality health care for all populations.

1.2 Country context

Throughout this CCS, strategies are shaped by careful adaptation to the challenging governance and disease control context of the country. The WHO CCS strategy will enable technical support be directed towards building the institutional capacity of the MoPH to connect to regional and global best practices for health sector governance in resource-constrained settings.

The critical aspect of the DPR Korea context is that humanitarian challenge presented by the impacts on public health and food security of natural disasters (floods and droughts). Natural catastrophes in tandem with constrained economic and trade opportunities have resulted in periods of food insecurity and communicable disease outbreaks. The risk of these hazards increases emphasis on risk assessment, vulnerability and emergency preparedness.

1.3 Process of CCS development

This CCS was developed in 2014 and was a result of both internal and external consultations. Internal consultations involved review of technical programmes and strategies with WHO country staff, incorporating within the document the strategic and technical directions outlined in technical guidelines, strategic plans, reports of the review missions and the post- MDG agenda. The draft CCS was also reviewed at WHO regional and headquarters to ensure wider conformance to WHO regional and global health goals. The WHO guideline on CCS development was utilized to develop the initial structure of the CCS. This was further supported by guidance on emergency preparedness and response to priority health needs in all-hazard emergencies.

Externally, consultations were undertaken with the MoPH through multiple collaborative workshops between MoPH and WHO and the mid-term review of the current health sector plan. This provided the opportunity to seek better alignment of the CCS with the MTSP, as well as to commence discussion on the future directions of the MTSP 2 (2016–2020).

Chapter 2

Health and development challenges, attributes of the national health policy, strategy or plan and other responses

2.1 Macroeconomics, political and social context

2.1.1 Demographic profile

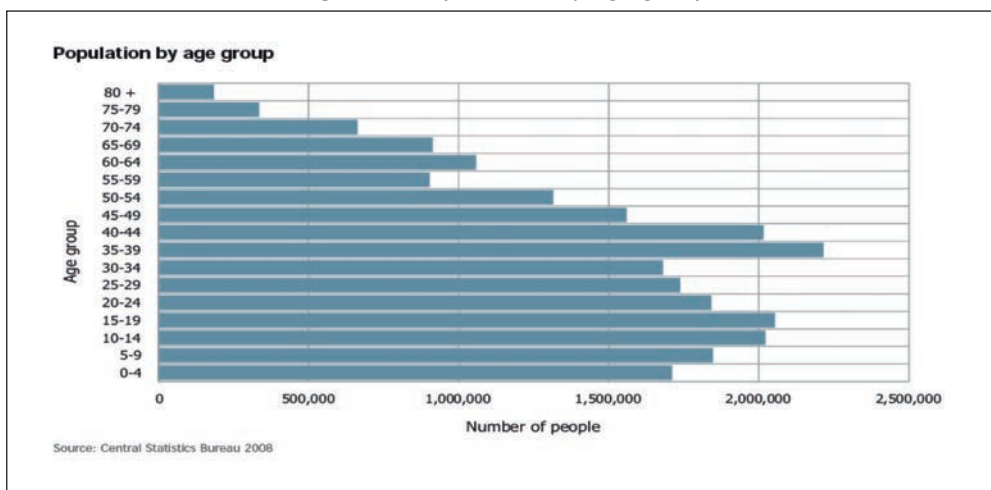
DPR Korea is situated in the north-eastern part of Asia. It has a total land area of about 123138 Sq Km of which 80% is hilly or mountainous. Administratively, the entire country is divided into nine provinces and two special cities: the capital city of Pyongyang and Nampo. Provinces are divided into cities (districts) and counties. A county is further subdivided into smaller geographic areas called *ri*, (*gu*, *dong*) and Cities (districts), on the other hand, consist of administrative areas known as *dong*. In big cities, the *dongs* are grouped into administrative units called districts.

The climate is temperate with extremely cold weather during the winter and high rainfall during June–August. The country has a homogenous population who speak one national language.

In 2008, the National Census identified that 490 000 new infants are born every year from an estimated total population of 24 052 231 (with annual growth rate of 0.54%). Women are in a small majority, with the sex ratio of 95.1 males to 100 females. Women also outlive men by an average of 7.4 years; the average life expectancy being 74.5 for females and 67.1 for males. The crude birth rate is 13.9 per 1 000 population, and the total fertility rate (TFR) is 1.9 per woman. About 61% of the population lives in urban areas. Figure 1 and table 1 provides population distribution by age groups and age respectively.

At the end of 2014, population of DPR Korea was 12 004 633 males and 12 620 006 females. Female population was slightly larger than male population with the ratio of 95.1 males to 100 females. Population density was 215 per Sq Km at the end of 2014. The number of population increased to 128 3000 with 0.53% of annual average growth rate for 10 years during 2002-2014. The total fertility rate has reduced to 1.9 in 2014. Table 2 provides various health indicators for better understating of the health situation in the country.

Figure 1: Populations by age group



(Note: This section uses government-approved data, although the figures are not always consistent with those from other sources such as the World Health Statistics 2014).

Table 1: Population distribution by age

Age	0–15 years	16–59 years	60+ years	Total
Percent of population (%)	21.5	65.1	13.4	100.0

Source: Annual Health Report, 2014

The life expectancy at birth is 67.1 years in male and 74.5 years in female. The crude birth rate is 13.9 per 1,000 population and the total fertility rate is 1.9 per woman. With 13.4% of population aged over 60 years, DPR Korea has the largest proportion of the elderly age group of the national population in the South-East Asia (SEA) region. Above 60% of the population live in urban areas.

Table 2: Health indicators

Indicator	Data
Average life expectancy at birth	71.7 years (Annual Health Report 2013)
Male life expectancy at birth	67.1 years (Annual Health Report 2013)
Female life expectancy at birth	74.5 years (Annual Health Report 2013)
Crude birth rate	13.9 per 1 000 population (Annual Health Report 2013)
Crude death rate	8.4 per 1 000 population (Annual Health Report 2013)
National population growth rate	0.53% (Annual Health Report 2014)
Total fertility rate	1.9 per woman (Annual Health Report 2014)
Population under 15 years	20.8% (Annual Health Report 2014)
Population above 60 years	13.3% (Annual Health Report 2014)
Urban population	61% (Annual Health Report 2014)

Source: Ministry of Public Health, 2014

2.1.2 Socioeconomic situation

DPR Korea’s self-reliant development strategy assigned top priority to developing heavy industry, with parallel development in agriculture and light industry. The Government of DPR Korea is the dominant force in the development and management of the economy. This economic system is administered at provincial, county and *Ri* levels by a system of administration including People’s Committees, Bureaus and Departments.

In terms of the humanitarian emergency and population vulnerability context, over the last 20 years, the country has been affected by a series of floods and droughts that has impacted severely on food security and public health. Recent extreme events such as torrential rains, flooding and storm surges are reported to occur annually. As 80% of the country is mountainous, recent deforestation in tandem with these extreme weather events has contributed to soil erosion and landslides. Therefore, agriculture is highly sensitive to extreme weather events in DPR Korea. There were severe floods in 2007 and 2010, resulting in loss of life and infrastructure damage, particularly in the south of the country, which is more prone to flooding. This, however, has impact on the population of the whole country, particularly in terms of food security, as it is in these southern plain areas where the majority of food production takes place (only 17% of DPR Korea is arable).

The infrastructure has also been affected by the country’s paucity of financial resources. The pressing problems include irregular power supply, the rundown water

and sanitation coverage and the degree of disrepair of roads in rural areas. Inconsistent power supply is a common problem, particularly at the county and *Ri* levels, and also particularly in the winter when heating is a necessity. The poor water and sanitation coverage has contributed to diarrheal diseases and cases of malnutrition. The lack of power supply hinders the cold chain effectiveness for EPI vaccines, and is a barrier to normal functioning of laboratories.

Prior to the 1990s, the country had impressive health status of the people. However, since the early 1990s, the collapse of the socialist economy, numerous natural disasters (severe drought and flooding) and economic sanctions have challenged economic development in the country. The gross domestic product (GDP) per capita declined during 1990–2000 and subsequently increased during 2000–2011 as shown in table 3.

Table 3: GDP projections 2000–2011

	2000	2004	2007	2009	2011
GDP (US\$)	463	545	683	798	904
Annual average growth rate (%)		4.9	7.8		7.3

Source: Annual Health Report 2014

2.1.3 Political and governance structure

The country is committed to the people-oriented *Juche* philosophy of the government, which teaches independence, self-sustenance and self-defense. As such, DPR Korea has relied heavily on its own resources and capacity for development. Consistent with this philosophy, the health system is funded entirely by the public sector and is administered as a socialist health system. The *Juche* philosophy underpins the government’s health policy and strategy—articulated in the Public Health Law adopted in April 1980—that defines the right to health as one of the basic requirements for ensuring people’s well-being and sets policy directions to reduce health inequalities among the population.

Universal and free health care is guaranteed in the country’s Constitution of 1960 and Public Health Law of 1980. The Public Health Law particularly emphasizes on commitment to a health care system that is equally preventive and curative and gives special priority to women’s and children’s health. The basis of DPR Korea’s health system is the primary health care (PHC) provided by household doctors.

The Government of DPR Korea is responsible for the health of people in the country. It provides administrative guidance to provincial and county level health divisions, all hospitals and hygiene and anti-epidemic stations, ensuring medicines and equipment supplies for institutions. It coordinates with other ministries for improving health under guidance of the cabinet. The main administrative guiding institution

comprises the MoPH at the central level, health bureaus of the provincial people's committee at provincial level and health department of city/county people's committee at city/county level.

2.2 Other major determinants of health

2.2.1 Income distribution and poverty and vulnerability

No detailed data is available in DPR Korea on the issue of income distribution, inequality and poverty. However, data is available on province-wide nutritional status and immunization access. Immunization coverage evaluation survey of 2008 indicated that five provinces with 92 counties, largely in the north-east of the Country, have coverage below the national average of 88%. The national nutrition survey conducted in 2012 presented a similar picture of health outcomes, with 12.1% of children aged 0–59 months in Ryanggang suffered severe chronic malnutrition compared with 4% in Pyongyang. Similarly, a Multi Indicator Cluster Survey (MICS Survey 2009, Page 12) indicated urban and rural differences in health outcomes, with 45% of children living in rural areas were too short for their age compared with 23% in urban areas. These health outcomes pointed the need to further strengthen targeted health investments towards geographic areas of need. These include:

Gender equality is a priority in DPR Korea. The country has acceded to the major international security conventions. These include:

- (1) the International Covenant on Economic, Social and Cultural Rights (ICESCR) 1981;
- (2) the International Covenant on Civil and Political Rights 1981;
- (3) the Convention on the Rights of the Child 1990; and
- (4) the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) 2001.

Adult literacy has reached 100% for both men and women. Similarly, school enrolment for children aged 11 years is 100% for males and females. Awareness of health issues is, consequently, high.

Despite these significant achievements in literacy and school enrolment, this CCS documents significant access issues for women to reproductive health care (emergency obstetric care and family planning services in particular. This area will remain a major strategic focus of WHO and the MTSP in the next planning cycle. On the positive side, the immunization coverage evaluation survey conducted in 2008 illustrated equitable access to immunization services between boys and girls.

Over the last two decades, natural disasters in DPR Korea have disrupted the agricultural and energy sectors, further compounding the economic situation and triggering food insecurity. Lack of food security has led to a high prevalence of malnutrition, particularly among women and children. Improved agricultural production more recently has, however, ameliorated the nutritional status of the population, particularly the urban population. Natural disasters expose populations to the risk of communicable diseases along with nutritional related disorders. Outbreaks of malaria (2002–2003) and measles (2007) indicated the high level of vulnerability of the population to the communicable diseases, particularly in the context of humanitarian emergency, with severe flooding experienced in the country in 2007 and 2010 and again in 2012 which caused deaths, infrastructure damage and internal displacement.

2.2.2 Sociocultural determinants

The model of health service management and delivery is based on the socialist political and economic model. This involves a high level of centralization in terms of planning, resource allocation and decision-making. The socialist model has also shaped the structure of the health care system, where provincial and County Health Bureaus are linked managerially to People's Health Committees. The household doctor system, with the extensive network of primary care doctors, also stems from the socialist ideal for universal access and a focus on preventive health care services' access for the rural population.

2.2.3 Environmental determinants

Environmental protection and sustainable development are long-term imperatives that require integrated and proactive planning and action. Understanding the current state of environment and the natural and anthropogenic pressures that cause unwanted environmental change are important for decision-making. Socioeconomic well-being is closely related to the condition of natural resources and the provision of ecosystem services.

DPR Korea uses coal for producing its electricity and as a fuel for industrial processes. This is affecting air quality, particularly in areas in close proximity to thermal electrical and energy-intensive industries as measured by levels of sulfur dioxide, precipitated dust and other pollutants. Air quality at emission intensive sites tends to be worse in the winter months when electricity demands are greater and meteorological conditions are less favourable to pollutant dispersal. In cold periods, coal is also burned in greater quantities in urban residences for heating and cooking. Air quality in rural areas is more affected by the combustion of wood for cooking and heating since it is the predominant fuel. As a result, indoor air quality may be a concern although no studies have been undertaken to date.

2.2.4 Urbanization and health

According to the most recent Census conducted in 2008, 61% of the population is urbanized. The government has adopted a slogan of “City in a Park” and is implementing a project in full swing to develop Pyongyang city into a model city of the world through building and upgrading basic service, infrastructures and apartment houses, creating more green areas and improving transportation. The idea of the “City in a Park” is in essence ensuring a clean environment and fresh air by planting many trees and flowerbeds in various places. In addition, new trees are being planted. The trees that are not environment friendly and affecting health like willow trees produces cotton seeds in spring are supposed to be one of the contributing factors to respiratory ailments are being replaced by trees with broad leaves.

2.3 Health status of the population

DPR Korea gives great importance to reducing maternal, child and infant mortality, prevention and control of communicable diseases, and responding to NCDs. Overall, some steady gains have been reported in the last planning cycle, in terms of maternal and child mortality reductions, gradual improvements in nutritional outcomes and improved control of communicable diseases such as TB, malaria and vaccine-preventable diseases (VPDs). The sections below describe current health status according to each of these main headings.

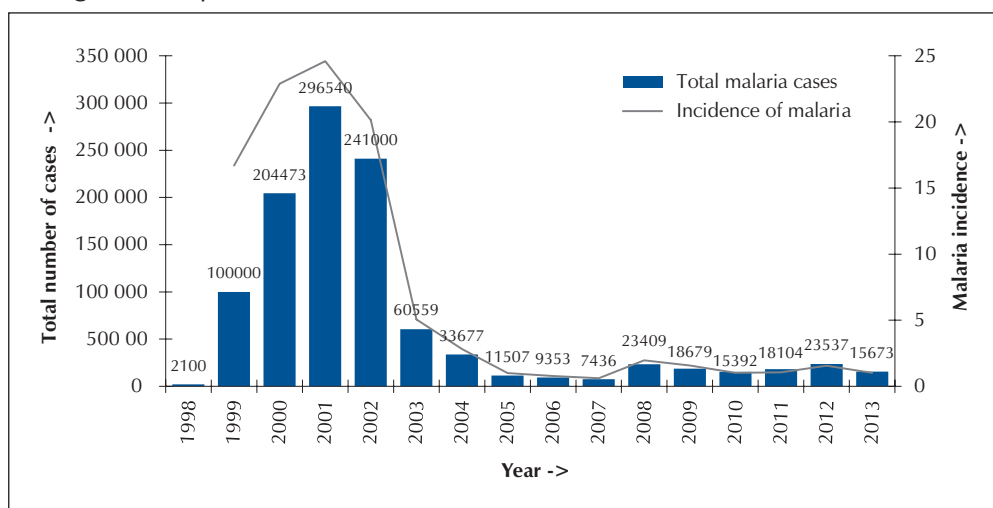
2.3.1 Communicable and re-emerging diseases

Control of communicable diseases is one area in which the progress has been substantial. Disease-specific strategic plans provide framework for national disease programmes. The national Strategic Plan for TB Control in DPR Korea (2015-2018) was endorsed in 2014. The TB programme has managed to achieve disease notification rates and treatment success (>85%) rates in line with global targets. Multi-drug resistance-Tuberculosis (MDR-TB) management has been initiated in the country and at present over 200 cases are on treatment under programmatic conditions. The national TB reference laboratory capacity has been enhanced to conduct accurate culture and drug sensitivity tests. Similarly a GeneXpert machine is functional and is aiding in the studies and diagnosis of MDR-TB in the country.

Sustained programmatic attention to malaria prevention and control reduced cases from as high as 296540 in 2001 to 15 673 in 2013 (see figure 2 below for trend in reported malaria cases and its incidence). The National Malaria Programme collects and analyzes data from all *Ris* (villages) with malaria transmission. Based on the *Ri* level data, malaria transmission sites have been identified. The current national strategy focuses on reducing malaria transmission at the *Ri* level. An international review of the

malaria and Tuberculosis programme in 2014 will be the first of its kind in the country. The country continues to maintain HIV-free status. Nevertheless, communicable diseases remain a potential threat to the vulnerable population in DPR Korea.

Figure 2: Reported malaria cases and its incidence in DPR Korea 1998–2013



Source: MoPH, 2014

In DPR Korea, surveillance of communicable diseases and outbreak response and monitoring are undertaken by a network of hygiene and anti-epidemic stations – one at the central level, one in each of the 10 provinces, and 217 across the county. At the community level, *Ri* hospitals in rural areas and *dong* clinics in urban areas are responsible for collection and reporting of information regarding disease occurrence and outbreak response through the household doctors’ system.

Due to the presence of a strong system of control and prevention of communicable diseases and of high coverage in routine immunization, the incidence of communicable diseases including that of VPDs are perceived to be on the lower side and disease outbreaks are rare. However, **there are some weaknesses in the epidemiologic and laboratory surveillance, due to which detection of emerging and re-emerging infectious diseases could be delayed.** This could lead to large outbreaks and be associated with compromised health security.

There is an effort to strengthen surveillance of priority communicable diseases through introduction of integrated disease surveillance programme (IDSP), which has been piloted in two provinces including Pyongyang city.



Oversight of preventive health care and integrated disease surveillance are conducted by the Central Hygiene and Anti-Epidemic Institute (CHAEI) at the national level and Provincial Hygiene and Anti-Epidemic Institutes (PHAEI) at provincial level.

The CHAEI has different sections. These include information section, an epidemiology section, which investigates outbreaks, microbiology and virology laboratories (polio, measles, influenza and avian influenza), and sections that support surveillance of malaria and parasitic diseases, as well as food safety. However, there are gaps in the surveillance system. These include: the absence of disaggregated data, which limits identification/tracking of actual cases; non-standardized definitions and forms for data collection at different levels; and non-availability of threshold values for outbreak. The supervision system is not optimal and standard surveillance manuals are not available at all levels. Laboratory surveillance is also weak, compounded by the absence of epidemiological data.

Another concern is the impact of inadequate running water and electricity on infection control in hospitals. Inadequate patient care practices (e.g. inadequate hand washing and aseptic techniques) as well as inadequate cleaning and handling of contaminated instruments, poor biological waste management, increase the risk of contamination and spread of bacteria and pathogens. This also trigger blood-borne transmission, particularly in operating theatres, delivery and neonatal units and patient wards.

In DPR Korea, immunization activities are being taken up nationally. To further strengthen the National Immunization Programme, the government has requested the support of international health agencies namely WHO and UNICEF. Since 1997, WHO and UNICEF have been providing technical and operational support in the form of vaccines, logistics, cold chain equipment, transport and capacity-building of local human resources.

There are three overall functions that relate to the structure of the immunization system. These are technical guidance, delivery systems and logistics management. The network of Hygiene and Anti-Epidemic Institutes (HAEI) from central to county level provides the overall technical guidance (including surveillance and response) for communicable disease control including VPDs. Provincial and County Health Bureaus and vaccination units at County and *Ri* clinics provide front line immunization services. Logistics and supplies are managed through the network of central, provincial and county medical warehouses.

A major overhaul of the cold chain system in DPR Korea was undertaken in 2009–2010 with major support from UNICEF and following which an effective vaccine management (EVM) assessment was carried out in 2011. The following was stated in the EVM report, “Overall the results were very positive with major advances made in the last three years including the rehabilitation and replacement of cold chain equipment, repair and maintenance of buildings and the acquisition of delivery vehicles at central and provincial levels.” The present status of cold chain facilities will allow IPV introduction across DPR Korea without any hindrance.

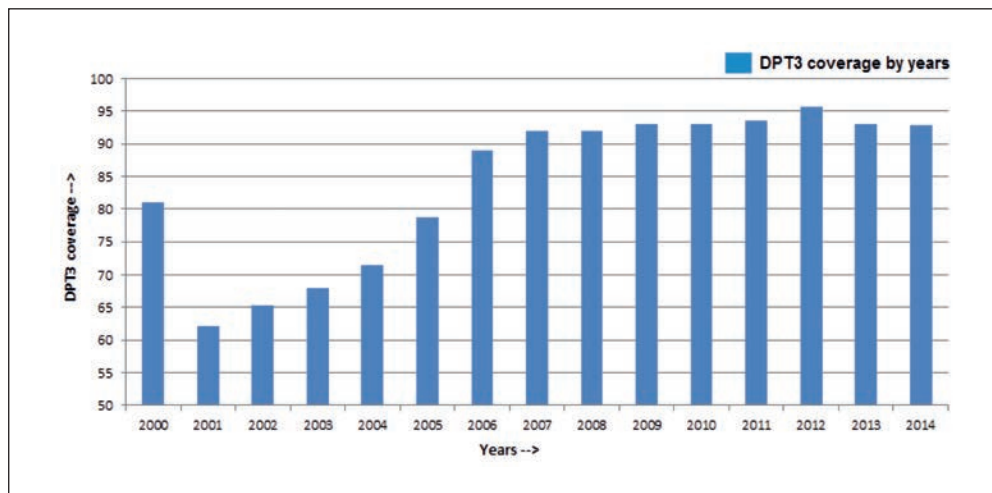
Significant public health gains have been achieved from improved immunization coverage. Since 1997, DPR Korea has been conducting “National Child Health (Immunization) Days” with oral polio vaccine (OPV) along with routine immunization. As a result, no polio case has been reported since 1996 and the country has maintained polio-free status since 2006. On 27 March 2014, DPR Korea along with other Member States of WHO SEA Region has been officially declared as polio-free. The focus will be on poliovirus containment, laboratory safety and implementation of the polio-endgame strategy, including replacement of tOPV with bOPV and introduction of IPV prior to tOPV–bOPV switch in accordance with recommendations by Global Strategic Advisory Group of Experts (SAGE) for polio eradication.

Another achievement is the absence of neonatal tetanus cases in the country. In recent years, 97% of deliveries take place in the care of trained health staff and 92% coverage for TT2 indicates that the country has likely been maintaining the maternal and neonatal elimination status. More than 98% coverage of two doses of measles containing vaccine, 99% coverage in the measles catch-up campaign in 2007 indicated that the country has probably achieved measles elimination, which has to be verified in near future, as recommended by the South-East Asia Regional Technical Advisory Group on Immunization in August 2014.

A major milestone in the National Immunization Programme was the successful introduction of Hib containing pentavalent vaccine in routine immunization in July 2012. Planned activities were implemented which include revision of guidelines and extensive training of vaccinators and health care service providers including house-hold doctors. Training was imparted on the introduction of new vaccine, dosage, mode of administration, possible side-effects and adverse events following immunization (AEFI), communication materials development and distribution within first six months of introduction. As a result, the coverage reached as high as 97.5% (JRF 2012). The intensive preparatory activities also meant that not a single case of severe AEFI was reported in relation to pentavalent vaccine introduction.

International Health Regulations (IHR) (2005) core capacity development has been a continuous process of improvement. While in some areas like legislation and communication it has made remarkable progress, other areas such as surveillance and laboratory capacity, port of entry, preparedness against other hazards (radiological, chemical) need to be strengthened. DPR Korea has not yet reached the level in all IHR core capacities needed to declare itself to be IHR compliant. Further extension of the time period up to June 2016 has been submitted with new plan of activities based on deficiencies identified through IHR self-assessment (2014).

Figure 3: DPT 3 Coverage WHO/UNICEF Estimates 2000–2014



Source: World Health Organization Immunization Monitoring data base 2014

2.3.2 Noncommunicable diseases

NCDs account for an **increasing burden of morbidity and mortality**. This is especially the case with cerebrovascular and cardiovascular diseases as well as cancers and respiratory illnesses. High prevalence rate of smoking tobacco (54.5% of the adult male population) is also a major contributor to the burden of NCDs.

Prevention and control of NCDs has been integrated into national health policy and programme as a priority agenda. The National Strategic Plan for the Prevention and Control of NCDs (2014-2020) have been developed with support from WHO in line with Global and Regional action plans for prevention and control of NCDs.

NCDs are one of the strategic priorities incorporated within MTSP (2010-2015) in which indicators and targets have been set forth for implementation. A focal point has been appointed for NCD prevention and control at the department of prevention and treatment of the MoPH. Main functions of the department and focal point are to plan, coordinate, implement, monitor and evaluate NCD prevention and control activities in the country.

Legislation addressing NCD risk factors had been adopted, such as the National Law on Tobacco Control, physical activity, food safety, road safety and driving. The Government of DPR Korea signed the WHO FCTC on 17 June 2003 and it was ratified on 27 April 2005. A comprehensive ban on tobacco and alcohol advertising, promotion and sponsorship has been carried out according to the National Law on Tobacco Control which was adopted in July 2005 and amended in December 2009.



NCD risk factor survey at sub-national level had been conducted in 2008 and 2010. The survey identified high prevalence of risk factors, especially for smoking and alcohol intake. However, lack of effective partnerships among different development sectors at the national level and within various developmental partners has been one of the major weaknesses of NCD programming. Lack of availability of integrated NCDs and risk factors surveillance systems and research data on NCDs is an important barrier to the effective planning and implementation of prevention and control programmes. An uninterrupted and sustained supply of quality assured essential drugs for NCDs is another major issues effecting the quality of the management and treatment of NCDs.



Given the risk factors for NCD, a cross-ministry NCD working group/mechanism has been established to oversee development, implementation and periodic evaluation of national NCD plans. Multisectoral collaborations requires further strengthening, including whole of government approaches across sectors such as health, education, mass media, agriculture, sports, transport, urban planning, environment, labour, industry and trade, finance and social organizations.



Furthermore, various development partners in DPR Korea have yet to include NCD or its related activities despite being included as an UNSF outcome. Scaling up of implementation of the WHO FCTC, WHO Action Plan for the Global Strategy on NCDs, Global Strategy on Diet, Physical Activity and Health and the Global Strategy to Reduce the Harmful Use of Alcohol needs to be accelerated.



Health promotion for reducing the smoking rate needs to be enhanced. This can be achieved through activities such as implementation of national law and MPOWER, multisectoral mechanisms, tobacco cessation services with nicotine dependence treatment, monitoring and evaluation, development and expansion of smoke-free places and interference with the tobacco industry. Advocacy and awareness-raising on adequate breast feeding and complimentary feeding needs to be one of the most important agendas of a national health promotion plan.



The MoPH, in collaboration with WHO, has in recent years commenced a pilot of the package of essential services for prevention and control of NCDs. A comprehensive review of the pilot in 2015 will chart ways forward for National authorities to scale up the initiative in the next medium-term strategic planning cycle.



2.3.3 Reproductive, maternal, neonatal, child and adolescence health

Since the end of the 1990s, the fertility rate has been stable at below 2.0. According to a recent reproductive health survey supported by UNFPA, the contraceptive prevalence rate is 69.1%. The majority of couples prefer modern methods (58.5%) of contraception over traditional ones (10.6%). Popular methods of contraception include intrauterine devices (48%) and periodic abstinence (9.4%). Condom use among couples is low (2.5%) and likely to be lower again where use is not for family planning purposes. This

is, nonetheless, a marked increase from the 0.4% in 1997. Limited use of condoms and other supply-based methods including the pill is inevitable due to lack of availability and inadequate counselling.

Shortage of equipment and supplies is a major reason for the non-uptake of family planning services and combined with access-to-information constraints are likely to explain the high (4.6%) unmet need for family planning. According to a 2004 survey, 85% of these abortions were surgical and could have been avoided with adequate provisions of contraceptive resources. Maternal anaemia is directly associated (because of extra demand on nutrients and potential risks of excess bleeding) with high levels of maternal morbidity and mortality and with intra-uterine growth retardation of fetuses.

Reproductive issues-related health knowledge was found to vary substantially by gender and marital status. The study revealed men to be more knowledgeable about HIV and contraceptive methods than women. According to the UNFPA-supported Reproductive Health Survey, unmarried women receive limited information about family planning methods and about HIV and sexually transmitted diseases.

Although not limited to women and children, goitre (caused by iodine deficiency) is endemic in mountainous regions of two provinces. In 2000, less than 2% of all surveyed households were using iodized salt. The 2004 National Nutrition Assessment found that 40% of households were using salt with some level of iodine. The 2010 Iodine Deficiency Survey, supported by WHO confirmed less consumption of iodized salt in the northern mountainous provinces. The government of DPR Korea has notably prioritized universal salt iodization through its National Programme of Action for Children. The Government of DPR Korea has also initiated the distribution of iodine capsules with assistance from the United Nations Children's Fund (UNICEF).

In recent years, improving women's and children's health under WHO collaborative programmes as well as through other programme supported through UNICEF and UNFPA, has undertaken important initiatives to strengthen basic and comprehensive packages of support for emergency obstetric and neonatal care. As of 2014, 87% of the Ri hospitals in the country now has basic emergency obstetric care capacity (compared with 30% at the 2009 baseline).


Given the susceptibility to extreme weather events and in the context of food insecurity, pregnant women and lactating mothers and children under the age of five are highly vulnerable to the public health impacts generated by these external shocks. External shocks contribute to increasing rates of communicable diseases and food insecurity risk for a group that is already vulnerable, as demonstrated by survey data from the 2012 Nutrition Survey.

Access of women to reproductive health services in DPR Korea remains limited. Only national and two provincial maternity hospitals are providing quality services in cervical cancer control. Other eight provincial maternity hospitals have limited capacities



in diagnostic and quality treatment of cervical disorders and reproductive tract cancer. Quality Care in Reproductive, Maternal, Newborn, Child and Adolescence Health is another concern.




There is **insufficient essential diagnostics equipment and drugs for identification and treatment of reproductive tract infection at all levels of health care.** Abortions are legally permitted and abortion services are available at county, provincial and national levels. But quality and safety of abortion services remains poor. Pre-abortion counselling and post-abortion care and prevention of post-abortive complications are completely dependent on availability of essential diagnostics, essentials drugs for medication and antibiotics. Medical abortion does not exist, only surgical abortion services are provided to women in DPR Korea. 



Antenatal care coverage is very high in the country. However, there is lack of diagnostic tests and micronutrients for prevention and treatment of anemia among pregnant women. Neonatal care services are available at all levels. However, quality care for newborns is heavily dependent on availability of essential drugs and basic equipment at all level hospitals. Postnatal care has to be revised in accordance with new WHO recommendations.

Integrated Management of Child Illnesses (IMCI) is being implemented in the country with remarkable results. The guidelines developed in 2004-2005 were revised in 2014 in accordance with new WHO/UNICEF recommendations and new forms of essential drugs. However, treatment of children as per IMCI strategy is heavily dependent on international support.

Adolescent health has to be addressed in the country. There are not appropriate textbooks and national standards on adolescence health in DPR Korea. Although recent national data with support from UNFPA have shown high level of knowledge of adolescence in HIV, reproductive tract infections (RTIs) and other reproductive tract disorders, there is no relevant survey of reproductive health status of adolescence in the country. 

2.4 National responses to overcoming health challenges

2.4.1 National development process and policies

DPR Korea's long-standing pledge to universal and free health care has been reaffirmed through the adoption of a number of international instruments and the international goals and targets of major conferences over the past decade. DPR Korea recognizes the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. The recent accession to the Convention on the Elimination of all forms of Discrimination against Women (CEDAW) in early 2001 affirms the government's legally binding commitment towards guaranteeing women's reproductive rights as well

as recognizing that women's equal social and biological status underpins good health. DPR Korea's notable commitment to reproductive health rights is further demonstrated by its adoption and partial implementation of the platform of action of the International Conference on Population and Development (ICPD) in 1994.

2.4.2 Health policy and health systems

Under Article 72 of the Constitution of DPR Korea, the State bears full responsibility for the life and health of all its citizens and guarantees: 1) implementation of universal free medical care for the people; 2) that priority is given to preventive medicine; and 3) the establishment of a well-regulated health system from the central down to the *Ri* level, and a predominant section doctor system.

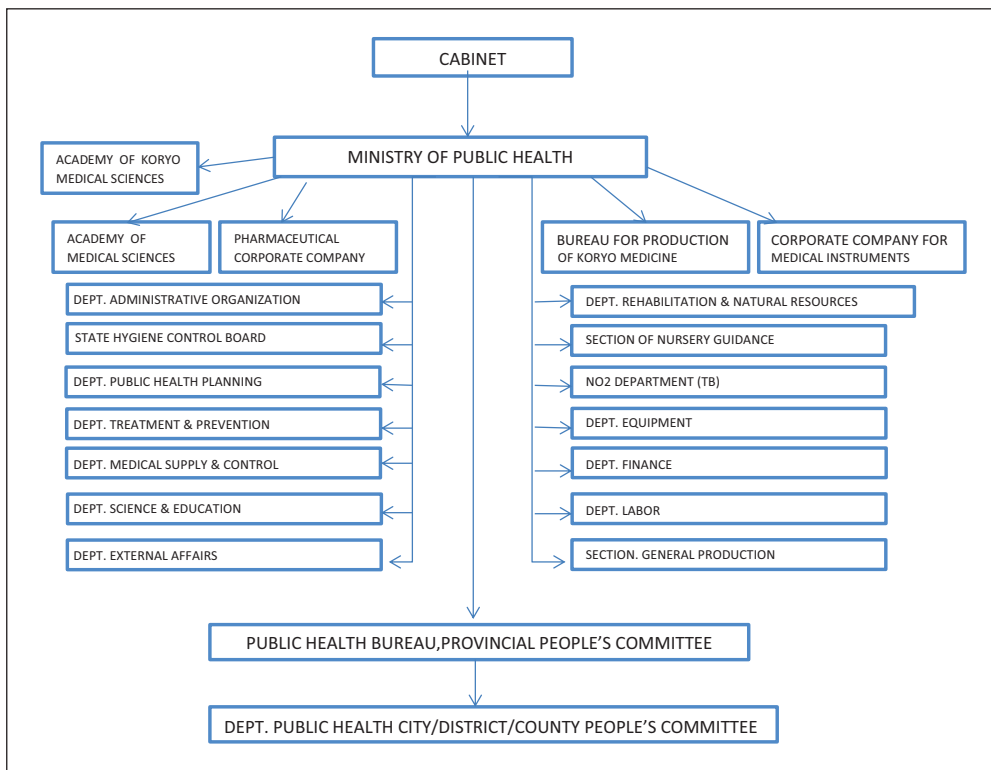
The country has an elaborate health policy, which is enunciated in the Public Health Law adopted in April 1980. It has formulated policy directions to reduce inequality in the health status of the population. **At the core of the public health policy in DPR Korea is the directive to realize and adopt preventive medicine in all health activities** and to strengthen the free universal medical care system. The Government is committed to ensuring a more rational provision of health facilities to narrow down regional differences in PHC, further strengthening international cooperation as well as exchanges between partners within the country. This also includes enhancing activities to prevent common diseases and injuries and strengthened the provision of resources and research on PHC. While there are integrated microplans for household doctors at the county level, a comprehensive medium-term plan for development of health sector is being currently developed.

The **MoPH has the ownership of national health programmes.** Long and medium-term health plans and national disease control strategies guide implementation of collaborative health programmes. **At all levels, health programmes are implemented under the guidance of the people's committees,** at the respective level, in nine provinces and two cities of special status.

Public sector procurement of health services is undertaken centrally by the Ministry of Public Health. The national logistic management system has a Central Medical Warehouse (Store) at national level. There are an additional 12 provincial and 220 county medical warehouses supporting the logistic management network in the health sector. Through the network of medical ware houses, pharmaceutical products are distributed to health facilities in the country.

Health service delivery to the population is reported to be free of charge. Health infrastructure is present in villages, counties, provinces and the cities of DPR Korea. A vast network of 1 708 hospitals and 6 263 PHC units exists. Every village has one or two *Ri* clinics or hospitals. Limited laboratory facilities are available in some *Ri*, most county and all provincial and central hospitals. Most county hospitals have X-ray facilities, though not necessarily functional ones.

Figure 4: Organization and structure of MoPH



Poor management practices have been reported at county hospitals and *Ri* clinics and a lack of adequate tools for monitoring of essential equipment at the facility level. Lack of transfusion capacity including storage, blood testing and availability of transfusion sets were all cited as reasons that contributed to maternal deaths (Independent WCHP Evaluation 2008). Although the blood safety has improved substantially in recent years through establishment of Blood Units at County level, however, not many counties have these units established.

Another significant policy challenge in the context of DPR Korea is the effective functioning of a health referral system. Despite the fact that there is a substantial network of health facilities, movement between facility levels is often compromised by a range of barriers relating to limitations of transport, road and communications systems, exacerbated by extreme weather conditions in the winter season.



Despite these challenges with the referral system, in recent years, there have been improvements to networking across the health system. The telemedicine network in DPR Korea covers the country connecting four central levels, all provincial levels

(13 provincial maternity hospitals and 11 provincial paediatric hospitals) and 210 county/city hospitals. A total of 238 sites are now covered by a telemedicine and telementoring for the surgery network system. Implementation of the system was actively supported by WHO and the Government of DPR Korea in four phases. Efforts are underway to expand the scope of telemedicine network to include traditional medicine facilities.

In the first phase, the MoPH with technical and financial support from WHO, initiated a telemedicine programme in 2007. The main aim was to improve access to clinical advice and diagnostic services for remote areas. A total of 60 sites were equipped at the time. In the second phase, WHO supported the implementation of tele-mentoring for surgery facilities in DPR Korea. The government hosted the SEA Regional Consultation on Telemedicine on 30 July–1 August 2013 in Pyongyang, where the use of the system was demonstrated to delegates from 10 Member States of SEA and visiting experts. It was the first regional consultation to be held in the country in seven years. The third phase of the project linked pediatric hospitals to the system. The “National eHealth Control Centre” will complete the telemedicine project in DPR Korea.

Specific aspects of health systems and policies are outlined in the following pages.

(a) health workforce



As of 2014, almost 87 780 physicians, 93 400 nurses, 7 368 midwives, 9 463 pharmacists and pharmaceutical technicians and assistants are serving the public sector. This workforce is reported to be divided uniformly across the country. Villages have between 6 and 10 doctors. Each doctor provides service to 250 household members in the capacity of household doctors. WHO has consistently supported capacity-building of the health workforce. Both men and women have been observed as care providers, which may indicate that gender equity is respected by the government.

With one of the highest health workforce to population ratios in the Region, DPR Korea is well positioned to provide universal access to health care in both rural and urban areas. Data presented by the MoPH at recent mid-term review consultation indicated that there are 3.5 doctors per 1 000 population and 3.9 nurses per 1 000. There is a small number of midwives (0.3 per 100) as per MTSP monitoring and evaluation framework. Despite the opportunity presented by this large health care workforce, opportunities for service improvement are constrained. This is because of lack of exposure of health workforce to international standards and practices and underinvestment in development of updated curriculum and methods at training institutions centrally and in the provinces for medicine, midwifery and nursing.




¹ HRH strategy 2011–2015

(b) Health care financing



Health care in the country is reported free of charge to permanent residents in the country. According to the Annual Report of 2014, 6.4% of the total government budget is allocated for health. In addition, greater domestic spending on health is required to provide better health care to the population.

Costing analysis undertaken in MTSP 1 identified substantial financing gaps for basic health service delivery for priority interventions such as women's and children's health and NCD control. No data is available for out-of-pocket private health care expenditure. 

(c) Essential medicines and health technology

The drug management law in DPR Korea was developed in 1998 and includes a policy relating to clinical laboratories. The drug management law (1998) contains provision for national good governance for both pharmaceutical and other sectors. Access to essential medicines and technologies, as part of fulfilling the right to health, is recognized by the constitution.



The public health system provides essential medicines free of cost. The essential medicines list was last updated in 2014. It currently contains over 300 medicines. However, insufficient essential drugs and medicines in the country have been reported in a series of evaluations and research studies undertaken under women and child health project.

(d) Infrastructure and service delivery

Health facilities to provide health services are distributed throughout the country. All health facilities are from public sectors governed by the Government. There are 1708 hospitals in central, provincial and county level, which provide medical services to patients. A total of 6263 polyclinics and clinics provide PHC to the community, which includes both preventive and curative aspects of health care.

The service delivery system through primary, secondary and tertiary health facilities is given below.

Table 4: Health facilities in DPR Korea

Health facility	Number
Central and provincial hospital (tertiary care)	133
County/Ri-hospital (secondary care)	1 608
Polyclinics/Clinics (primary care)	6 263
Hygienic and anti-epidemic station	235
Preventive station	55
Sanitorium	682
Blood centre	12
Total	8 988

Source: Ministry of Public Health, 2014. The figures do not include health facilities under other Ministries, for example, Mining, Industries, Railways or Defence.

Primary health care services: Household doctor system is the foundation of the health system in DPR Korea. This system is to provide PHC service to community by household doctors in their responsible section. One household doctor is responsible for managing 130 households and provides preventive, promotive, curative and rehabilitative care. This system makes sure that all people can access health service delivery effectively. This PHC service is delivered based on a variety of PHC facilities including the polyclinic or clinic in urban areas and the Ri-hospital or Ri-clinic in rural areas.



Secondary health care services: District/county people's hospitals are general hospitals which include a number of special departments and which provide specialized medical services. These hospitals also function as a referral hospital for PHC settings.



Tertiary health care services: These types of facilities are located in cities and function as referral hospitals. These facilities include central and provincial people's hospitals, medical school hospitals, pediatric and maternity hospitals and several medical specialty institutes. The services provided at these facilities are for preventive and curative care, particularly in medical specialty services. A range of health staff, including medical specialists, are made available.

(e) Information for health planning and management

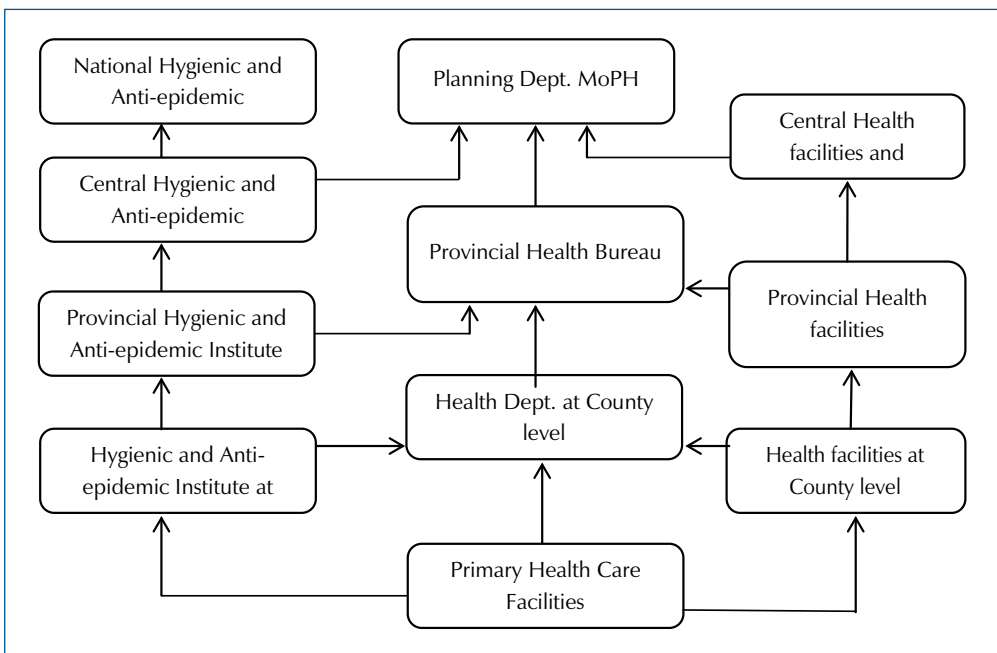
Strict health information system functions in DPR Korea. It is based on routine health reporting system from peripheral to central levels. Health information of the population is collected at PHC level and reported to county and provincial level and collated and

recorded in MoPH in various forms of daily report, 10-days report, monthly report, quarterly report, semi-annual and annual report according to various indicators and requirements.

Recently, MoPH successfully established telemedicine systems, covering all areas of the country through an optic fiber network. This system is beneficial to the country, as more than 80% of area is mountainous. Based on achievements and experience of this telemedicine system, MoPH plans to expand scope of application of telemedicine services, to update the existing health information system, including application of an e-health information system throughout the country. **Data generated from Ri level hospitals are to be compiled by the CHAES, a MoPH body responsible for data management.** Availability and quality of data is donor-driven. WHO has been providing the MoPH with health resources' materials through HINARI network, WHO and other scientific publications, in addition to the technical support provided by WHO.

Efforts for a more robust health management information system are being strengthened. Currently, the integrated Health Management System, Logistics Management Information System (LMIS) 2, and Health Information System are being developed through the women and child health project and GAVI health systems strengthening. Efforts continue to address these and improve the use of health information and skills in health planning; particularly at county level, where attention is needed. UNFPA, UNICEF and WHO support the LMIS through the Central Medical

Figure 5: Information reporting system in DPR Korea



Warehouse and all provincial medical warehouses, which are likely expanded to county medical warehouses. In addition, operational research is perceived as increasingly important to facilitate implementation of public health activities in DPR Korea. As such, WHO is working closely with the National Institute of Public Health Administration, a designated WHO collaborating centre in PHC. Areas of collaboration include capacity-building for planning and management, incorporating in-service training, coordination of endline survey for the MCH programme, NCD risk factor surveys. The National Institute of Public Health Administration has been involved in initiating public health management courses since its designation as a WHO collaborating centre. Health research, too, is an area of collaboration which can be further built on.



2.4.3 Contributions of the country to the global health agenda

The SEA Region is a large and heterogeneous Region of the world. DPR Korea is part of WHO SEA Region. DPR Korea has just joined the WHO Executive Board for three years from January 2014. The country is sharing interest in and acceptance of, health-related millennium development issues. Efforts are underway to accelerate implementation in 2014–2020.

Health clearly features in DPR Korea, and improving child and maternal health and combating TB, malaria and possibly HIV/AIDS, all important components in health-related MDGs, have been emphasized in the health sector. DPR Korea is aware of MDGs 4, 5 and 6 agendas, acknowledging progress and expressing WHO technical support to help attain UHC through better quality of health care. Aspiring to UHC resonates well with DPR Korea for the post-2015 development agenda.

WHO is implementing the “Improving Women’s and Children’s Health” programme with significant progress in reducing maternal, infant and child mortality. The programme is contributing to strengthen the health system through provision of safe blood transfusion, basic laboratory services, upgrading capacities of human resources, including household doctors, nurses and midwives, by training in-country as well as overseas.



Noncommunicable diseases account for an increasing burden of morbidity and mortality. Very high prevalence rates of smoking tobacco (43.9 %) are a major contributor to the burden of NCDs, especially among males. Controlling risk factors for NCDs, especially tobacco use, alcohol consumption, salt intake, are highly challenging to the country, Region and the world. DPR Korea’s ratification of the WHO Framework Convention on Tobacco Control is an opportunity to make a difference. WHO has also supported the pilot testing of the “package of essential NCD interventions” (PEN), and it is proposed that this strategy will be scaled up in the next government health planning cycle 2016-2020, provided adequate resource can be mobilized.



Summary of section 2

In the last CCS and health sector planning period, substantial gains have been achieved in public health and related implementation of health systems strategy. Despite ongoing challenges of the geopolitical context and related economic sanctions, the country has taken good advantage of national and international resources to advance public health status. This is, particularly the case in relation to aspects of communicable disease control (TB, Malaria, VPDs) and to a growing extent to women's and children's health. The substantial network of health facilities and health human resources puts the country in a strong position to advance public health status in the coming planning cycle. With the vulnerability of the population to external environmental as well as advancing governance strategy and public health technical programme, due planning attention will also be required to manage the risk of intermittent humanitarian emergencies.

Chapter 3

Development cooperation and partnerships

3.1 Overview of aid environment in the country

Over the last 10 years, WHO Country Office in DPR Korea, with the support of the Regional Office (WHO SEARO) and headquarters (WHO HQ) and in close coordination with UN system agencies, has mobilized a considerable amount of voluntary contributions from various donors to provide technical and commodity support to the health sector development in DPR Korea.

Cooperation from WHO, other resident and non-resident UN agencies (UNICEF, UNFPA, WFP and FAO; and UNDP, UNIDO and UNESCO respectively), international agencies and INGOs (such as IFRC) and some donors (e.g. Italian Development Cooperation, Finnish Development Cooperation, Swiss Development Cooperation, European Union) have contributed conspicuously to national health development.

WHO is currently providing financial and commodity support through a medium-term initiative called IWCHP to improve maternal and child health with support of average US\$ 14 million per year under its 2008–2010 cycle which is continuing till date.



GAVI Alliance – HSS (GAVI- HSS 1) activities commenced in 2008 with support of US\$ 4.36 million contributing to (a) development of a costed sector plan in 2011 (b) extension of the clinical IMCI initiative to 100% of counties nationally in collaboration with other development partners (c) introduction of middle level management programme for micro planning, integrated surveillance and more recently AEFI and DQS and (d) extension of the cold chain and vaccine management system to county level with significant improvements to vaccine management capacity.

GAVI-HSS 2 proposal pledges cash support of US\$ 26 million for DPR Korea from 2014 to 2018. The strategic goals are to contribute to strengthening the capacity of integrated health systems to deliver immunization.

In addition, under the Global Fund grants, UNICEF is the principal recipient and WHO is the subrecipient (SR). As subrecipient, for Malaria in phase I (March 2010–February 2012) of the Round 8 grant, the Memorandum of Understanding (MoU) signed was for US\$ 2 349 970 and phase II of Round 8 (March 2012–February 2015) for US\$ 3 264 504 covering a total of five years from March 2010 to February 2015. Similarly, for TB, the MoU was signed for phase I amounting to US\$ 2 247 697 and in phase II for an additional US\$ 2 783 765 covering a total of five years since June 2010. In 2014, country has submitted concept notes for further funding under the Global Fund’s new funding model.

Over the years, the international community has provided humanitarian and development assistance to DPR Korea including UN consolidated and flash appeals (CAP), UN’s strategic framework for cooperation with DPR Korea (UNFS) and need assessment processes.

3.2 Stakeholder analysis: partners for health in DPR Korea

The main partners for health in DPR Korea are described below:

UN partners: FAO, UNCERF, UNDP, UNFPA, UNICEF and WFP.

Bi-laterals: Italian Cooperation and Development (ITDC) and Swiss Agency for Development and Cooperation (SDC).

Multilaterals: GAVI Alliance, The Global Fund to fight against AIDS, Tuberculosis & Malaria (TGF), The International Committee of the Red Cross (ICRC), The International Federation of Red Cross and Red Crescent Societies (IFRC), European Union Programme Support (EUPS).

INGOs: The Asia Pacific Malaria Elimination Network (APMEN), Christian Friend of Korea, Eugene Bell’s Foundation, University of Stanford, California, USA.

3.2.1 Alignment and harmonization as part of the principles of Paris Declaration

There is no formal mechanism or partnerships platform for the coordination of external resources at large. Collaboration between these agencies through more informal processes has enabled effective sharing of information and adoption of common strategies for the work of the partner community in the country.

As per the donor requirement, the Inter-agency Coordination Committee (ICC) on Immunization, the Health System Coordination Committee (HSCC) for GAVI and the Country Coordination Mechanisms (CCM) for Global Fund are the only formal platforms for specific donor fund coordination. Any duplication or overlap could be mitigated if a donor coordination platform was formally established.



There exists a cohesive UN Country Team with active thematic groups and task forces. It appeared that **there is a strong partner commitment to harmonizing UN and other programmes to avoid duplication and enhance complementarity** (Paris Declaration). The country is a good example of coordinated partner response—particularly to emergencies and epidemics such as the avian influenza, drought and flood. The UN agencies have made joint efforts to mobilize resources for the health sector (e.g. GAVI, GFATM). WHO is credited as a health agency with a broad mandate and hence, a good working relationship exists between WHO and other partners. **Government agreement on the renewal of a Medium-term plan for the development of health sector beyond 2015 will help clarify the roles of different partners.**

3.2.2 The United Nations Collaboration Framework

The United Nations System has been operating within the United Nations Strategic Framework—equivalent to the United Nations Development Assistance Framework (UNDAF) and focusing specifically on humanitarian assistance and the Millennium Development Goals. The UNSF is seen as a joint UN response to support the national development priorities of DPR Korea. Although envisaged as cross-cutting, health is not prominent enough in the current UNSF and is included within the social sector.

The United Nations Strategic Framework (UNSF) provides a common strategy for the programmes and operational activities through which the United Nations system supports the Democratic People’s Republic of Korea over five years. The outcomes and outputs it sets out are the result of a consultative process between the UNCT and its national counterparts at both ministerial and operational levels. They have been informed by data findings from the 2008 National Population Census and Housing, the 2009 MICS and other relevant data collection efforts supported by the United Nations.

The UN agencies coordinate their work within the UN Resident Coordinator System through various theme groups and task forces. Currently, WHO chairs the Health thematic group and Health Cluster Coordination; UNICEF chairs the nutrition, and water and sanitation thematic groups; WFP the food security thematic group; and FAO the Agriculture thematic group.

The role of WHO as the specialized agency for health is recognized within the UN country team. Agencies with health-related programmes – particularly UNICEF and UNFPA – seek technical advice and actively engage in partnerships with WHO.

Stakeholder perceptions of WHO cooperation in and with DPR Korea are as follows:

- Excellent coordination between WHO, UNICEF, UNFPA and other partners: the situation in DPR Korea is very advantageous to good partner coordination.

- The MDGs, for which WHO has a major stake, serve as an overarching umbrella for the UN programmes and help to harmonize the work of all the agencies/organizations.
- Successful relationships with the Government provide partners with a good opportunity to achieve their goals.
- Medium-term strategic plan of development of health sector has facilitated a shift away from humanitarian assistance.
- Having long-term staff in the Country Office ensures good institutional memory and understanding of country needs. The partnership environment makes for a very tight-knit UN Country Team (UNCT).

3.2.3 Implications of aid environment for WHO:

Social development and consequently progress towards achieving related MDGs, presents a mixed picture in the DPR Korea with some of the goals reportedly achieved while others lag behind. Lack of access to quality reproductive health, including family planning and newborn and child health services will be the main constraints but additional challenges are lack of resources to expand essential service packages throughout the country. The GAVI and the Global Fund provisioned for the country suggest a shift from emergency to health sector development assistance are now feasible. WHO, thus, has an important role to play in helping DPR Korea to mobilize additional resources, and sustain improvements achieved through these (and other emerging) initiatives.

Summary of Section 3

In close collaboration with the government of DPR Korea, WHO, along with the partners, is committed to sustained and continued development of health sector in the country in alignment with the national health policies and strategies and UN collaboration framework in a coordinated manner.

Chapter 4

Review of WHO Cooperation over the past CCS cycle

4.1 Review of WHO's cooperation with stakeholders

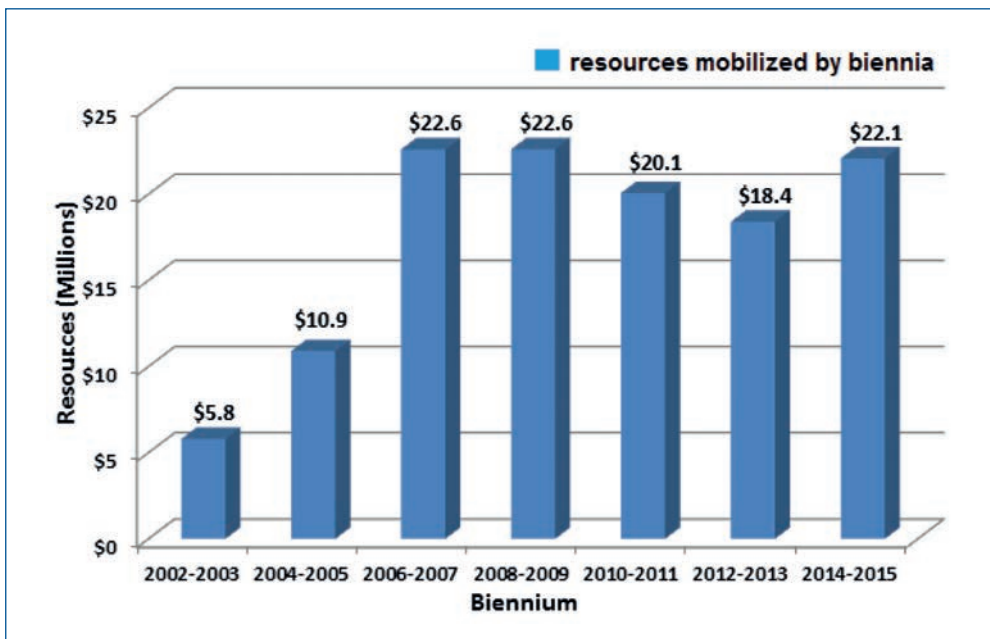
The cooperation between WHO and the Government of DPR Korea has become more activated and accelerated since the establishment of the WHO Representative Office in DPR Korea (WR-DPR Korea) in 2001. The WHO's assistance in DPR Korea is considered by the MoPH as one of the important and significant contributors to improve overall health status of the population and health sector development in the country.

Over the last CCS cycle, a variety of the technical support and evidence based recommendations provided by WHO have played bridging roles in developing, updating, and implementing the National Health Policies, Strategies and Plans in all areas of health development to properly and timely respond to cope with health challenges of the country. WHO has also been actively involved in mobilizing resources both direct financial contributions as well as commodity assistance from multilateral donors including the Global Fund and GAVI and also bilateral donors. WHO has successfully assisted the MoPH in implementing these large grants which have met the donor expectations.

Overall, the WHO's technical, financial and operational support, in line with the Organization's mandate as a lead technical agency and with the Strategic Agenda jointly agreed upon with the MoPH in 2010, have contributed to the further progress towards achieving global targets including those related to MDGs.

As the figure below illustrates, despite the resource mobilization efforts of the WCO, **sustaining historical rates of international financing of health priorities in DPR Korea remains a significant challenge.**

Figure 6: Trends of resource mobilization



Over the last five years, WHO focused its strategic priorities on (1) health systems strengthening to further develop capacity for policy development and implementation, planning and improve service delivery, (2) addressing women’s and children’s health, (3) sustaining achievements made and further addressing communicable diseases, (4) addressing the risk factors leading to increased prevalence of NCDs, and (5) addressing environmental determinants of health, through which the considerable assistance has been provided to help the Government to make continuous advance forwards.



Strategic Priority 1: Strengthening the health system to further develop capacity for policy development and implementation and planning, and improve services delivery

WHO has provided technical support and facilitated financial assistance in the areas of health policy and planning, health workforce development and for fostering partnership in health.

WHO supported technically the development of an inclusive and comprehensive Medium term Strategic Plan for development of the health sector, which serves as a main strategic document to articulate the mid-term vision for health development in

the country (MTSP, MOPH and WHO 2010). WHO has also partnered with the MoPH to conduct a mid-term review of this MTSP, which includes updating the national monitoring and evaluation framework and commencing discussions on strategic directions for MTSP 2 2016-2020 (MOPH, WHO 2014). With WHO assistance during the last five years, the national capacities for the local production of generic medicines and other medical supplies and international cooperation in health and resource mobilization have been strengthened. WHO has also delivered its support to strengthen the comprehensive, integrated and sustainable health management information system (HMIS). The Organization has further supported development of the health workforce, especially for midlevel health managers and primary health-care providers, to achieve free universal coverage. WHO's support contributed to strengthening capacity for research and use of the results of this research to inform evidence-based policy, planning and decision-making.

Strategic Priority 2: Addressing women's and children's health

The health of women and children has been considered as one of the priorities in DPR Korea. Over the last CCS period, the area of the health of women and children had achieved success particularly through WCHP and GAVI HSS projects. WHO has facilitated the implementation of capacity-building and institutional strengthening activities. It has also endeavoured to improve the quality of maternal and child health care by supporting the improvement of infrastructure, enhancing the skills of the health workforce, as well as the bolstering of surveillance, monitoring and evaluation and capacity for humanitarian emergency response.

As has been reported in the recent mid-term review of the MTSP, this has resulted in some significant expansion in the capacity of the health system to extend the reach of quality MCH services across the country. The areas include basic and comprehensive emergency obstetric care, integrated management of childhood illnesses, essential neonatal care services and reproductive health care (MOPH, WHO 2014). Evaluation of the women's and children's health project supported through WHO has demonstrated that a systems approach to service development has resulted in improved access to quality care (WHO Evaluation, 2014). The table no 5 below illustrates a summary of main health indicators from the recently updated national monitoring and evaluation framework, which describes critical data in women's and children's health (including other strategic areas of the CCS and MTSP). The current RMNCAH activities adopts the "1 000 days of life concept". Nutrition and food safety and Water and Sanitation Health will receive additional attention in the current CCS cycle compared with the previous to progress to the national targets.

Table 5: Summary of Selected Indicators from MTSP 1 for 2010–2012

Indicator	Baseline 2010	Progress 2012	Target 2015
% Govt. Expenditure on health as a % GDP	6.1%	6.1%	7%
Midwives per 1000 population	.3/1000	.35/1 000	.4/1 000
No of counties implementing IMCI	88	124	208
% Ri clinic provide BEMONC	30%	87%	
% County Hospitals providing BEMONC		100%	
% Ri Clinics with emergency drugs	-	58%	100%
No. of Counties Implementing PEN strategy	0	3	
Early Initiation of Breast Feeding	-	33%	40%
DPT 3- Hepatitis B Immunization coverage	92%	93%	96%
% laboratory confirmed malaria cases	20%	88%	80%
Coverage of cancer screening (women 25-49)		55%	>50%
% Adult Males smoking	52.3%	49.9%	45%
% stunting in children under 5	32.4%	20%	<10%

Source: Midterm Review MoPH WHO 2014

Strategic Priority 3: Sustaining achievements made and further addressing communicable diseases

Over the last CCS cycle, WHO has provided technical and commodity assistance to support and improve disease control and surveillance, introduce new vaccines, as well as facilitate and build national capacity for implementation of IHR and emergency preparedness. WHO has made significant contribution towards sustaining achievements made in health over the last decade, particularly in the prevention and treatment of P. Vivax malaria and VPDs, the detection and treatment of TB.

TB control is a priority for the Government of DPR Korea. The country started implementing the directly observed treatment (DOTS) Strategy in 1998 which was expanded nationwide by 2003. The NTP, with support from the WHO developed a multi-year strategic plan 2008–2015, in line with the Global Plan to Stop TB.

TB case detection occurs at community level through the nation’s extensive public health network including with support from the House-hold doctors at the ri/dong level. Smear microscopy is widely available and accessible across the country through a network of over 320 laboratories established at county, province and central levels.

Designated algorithms and a well-established referral mechanism aid the diagnosis of smear-negative, extra-pulmonary and childhood TB. Treatment is provided at the Dong / Ri level with patients travelling to the clinic for (DOTS) daily in the intensive phase (IP) and thrice weekly in the continuation phase (CP). Sanatorium treatment is offered to patients who are smear positive. Treatment success for successive cohorts of new sputum smear positive (SS+) patients registered for treatment have consistently exceeded 85% since 2001 and 90% since 2009.

Guidelines on Programmatic Management of Drug-Resistant TB (PMDT) and a plan to expand treatment for drug-resistant TB (DR-TB) patients is in place. From June 2012, enrolment under PMDT has been initiated and is planned to be expanded in a phased manner. Paediatric anti-TB medicines are currently provided for the entire country through the GDF. The GF grant also supports limited procurement of second line drugs (SLDs) for patients treated through the PMDT.

There is no reported case of HIV in the country. Sentinel surveillance is coordinated for nationals returning after foreign travel.

Strategic Priority 4: Addressing the risk factors leading to increased prevalence of noncommunicable diseases

WHO had played a key role in supporting the MoPH with integrated planning, surveillance, and coordination of partners to address numerous NCD risk factors, since the increasing prevalence of NCDs (particularly cancers and cardiovascular and cerebrovascular ailments) is another significant health challenge facing the country, as well as an important health priority. Over the last CCS planning cycle, WHO has supported the MOPH in the following areas: (a) Including of NCD as a strategic area in the MTSP (b) Conducted a series of intersectoral consultations to support implementation of NCD strategies including health promotion activities (c) assisted with the development of a multiyear strategic plan for prevention and control of NCDs (d) assisted with the design and pilot test of the package of essential NCD interventions in two urban areas.



Strategic Priority 5: Addressing environmental determinants of health

Since the early 1990s DPR Korea has been affected by numerous environmental determinants that have compromised the national health system's capacity to respond to the health needs of the population. As health development partners have shifted their support to development and away from humanitarian assistance, environmental determinants of health have become a key area for WHO contribution. Over the last CCS cycle, WHO had supported the Government to build awareness of the relationship between environment and health, and bolster operational capacity for preparedness and response to environmental emergency as well as national capacity to address other environmental determinants of health.

Table 6: Summary of Strategic Directions and priority problems 2009–2013

1. Strengthening Health Systems

- Development of Medium-term Health Sector Strategic Plan.
- Mobilization of resources for health system strengthening.
- Establishment of nation-wide e-health communication network.
- Strengthening integrated HMIS systems.

2. Addressing women’s and children’s health

- Expanding basic and emergency obstetric care capacity across DPR Korea.
- Policy development for safe blood supply.
- Enhancing transport capacity of the health referral system.
- Research and policy development for reproductive tract infections and safe abortion.
- Enhancing essential neonatal care capacity at provincial hospitals and other facilities.
- Expansion of IMCI strategy to *Ri* level.

3. Sustaining and Improving on achievements in communicable disease control

- Expanding access of the population to quality testing and laboratory services for TB and malaria.
- Maintaining high detection and treatment completion rates for TB control.
- Expanding rapid testing and treatment facilities (including LLIN supply) in high risk areas for malaria transmission.
- Maintaining high immunization coverage and introducing new vaccines.
- Development of multiyear strategic plans for TB, Malaria, HIV and immunization.

4. Addressing risk factors leading to non-communicable diseases

- Development of a strategic plan for NCD prevention and control.
- Conducting national consultations on strengthening of intersectoral collaborations.
- Technically supporting the test and trial of the PEN initiative in two urban areas.
- Technically supporting implementation of the tobacco control initiative.

5. Addressing the environmental determinants of health

- Supporting development of emergency preparedness planning and operational capacity

4.2 Internal review

WHO country team established an internal timeline for the development of the CCS. This commenced in late 2012, with a desk review by priority area, commencing with an analysis of the MTSP. This was followed by more detailed programmatic analysis using published plans, reports and surveys, which are mentioned in this CCS. In early 2013, a qualitative review of the strengths and weaknesses of the previous CCS was undertaken, after which the early draft of this CCS was prepared. Based on the mid-term review of the MTSP conducted in September 2014, the CCS was reviewed and updated to reflect on the latest published data as well as overall strategic directions of the new MTSP. This updated version was, then, forwarded to WHO regional and headquarters offices to assess alignment with regional and global health goals and strategies. The CCS was, then, forwarded to the MoPH in Pyongyang for their review and comments, after which the CCS was finalized and approved. In addition to the above process, the Country Office has been undertaking a systematic review of the progress of each biennium and documenting the findings. These documents have also been main reference documents for supporting the development of this CCS.

4.3 Synthesis of key findings

Solid public health gains have been made in the last planning cycle, particularly in communicable disease control and women's and children's health. TB and malaria prevention and control, and immunization services, have performed strongly during the last planning cycle and have demonstrated significant improvements in access to public health services and potential impact. Developments in women's and children's health (particularly through the joint WHO ROK and MOPH project) have also demonstrated excellent potential for public health impact. In the last cycle of the CCS, important steps were also undertaken on strategy development for the control of NCDs, with the development of the first strategic NCD strategic plan and pilot test of the PEN initiative.

WHO has been active in the last cycle in supporting the MoPH to develop health sector strategic plan (MTSP 1) including a national monitoring and evaluation framework. This national monitoring and evaluation framework was recently updated during the mid-term review of the MTSP conducted in September 2014.

Chapter 5

Strategic agenda for WHO cooperation

The strategic agenda identifies five strategic priorities for WHO's cooperation with the Government of DPR Korea:

- (1) **Prevention and control of NCDs**
- (2) Addressing women's and children's health to reduce vulnerability and promote disaster risk reduction.
- (3) Prevention and control of communicable diseases.
- (4) Strengthening health systems to improve service delivery.
- (5) Ensuring WHO country presence to support sustainable national health development.

Under each strategic priority, the Organization will focus on certain areas based on its core functions and identify a strategic approach to address each of these areas. These approaches are consistent with the recent Medium-term Strategic Plan for Development of the Health Sector in DPR Korea (2010 – 2015) prepared in 2011 by the MoPH in partnership with WHO.

Strategic Priority 1: Prevention and control of noncommunicable diseases.

- 1.1 Main focus:** Strengthen NCD surveillance and support the implementation of the national Strategic Plan for integrated prevention and control of NCDs.
 - 1.1.1 Strategic Approach: **Engage with the MoPH to build capacity for implementation of the national plan** and other multisectoral NCD policies and programmes.
 - 1.1.2 Strategic Approach: Advocate the importance of addressing the increasing national burden of NCDs and the **key role of prevention**;
 - 1.1.3 Strategic Approach: Support **monitoring of the prevalence of NCDs and related risk factors**;

- 1.1.4 Strategic Approach: Support MoPH in the adaptation of WHO PEN (Package of Essential NCD interventions in PHC settings) into local context.
 - 1.1.5 Strategic Approach: Support development of national strategy for prevention and control of cancer.
 - 1.1.6 Strategic Approach: Support DPR Korea to establish a Cancer Registry with the involvement of WHO/IARC in Lyon.
- 1.2 Main focus:** Support national authorities in tobacco control through intersectoral action and implementation of MPOWER measure package. These measures are intended to assist in the country-level implementation of effective interventions to reduce the demand for tobacco, contained in the WHO FCTC.
- 1.2.1 Strategic Approach: Provide technical support to MoPH to implement the provisions of the WHO FCTC to which the country is signatory to.
 - 1.2.2 Strategic Approach: Provide support to MoPH to develop and update implementation plans for tobacco control and policy thereto, as well as health promotion materials, and use of standard tobacco questions for surveys (TQS) in national level surveys.

Strategic Priority 2: Addressing women’s and children’s health to reduce vulnerability and promote disaster risk reduction.

- 2.1 Main focus:** Support efforts to improve maternal health, emergency obstetric care and neonatal care, and reduce mortality and achieve the MDGs 4 and 5.
- 2.1.1 Strategic Approach: Provide support to improve infrastructure (through the WCHP and other initiatives) for better maternal, newborn and child health.
 - 2.1.2 Strategic Approach: Provide support to increase opportunities to improve skills for safe delivery, essential and specialized newborn care and referral care.
 - 2.1.3 Strategic Approach: Provide technical support to government/partner-led initiatives addressing micronutrient deficiencies among women to improve maternal health and reduce the number of low-birth-weight infants.
 - 2.1.4 Strategic Approach: Provide technical advice, tools and guidelines for the prevention and management of malnutrition in children and promotion of appropriate infant and young child feeding practices.

- 2.2 Main focus:** Support efforts to further improve the integrated management of childhood illnesses (IMCI) at the primary care and hospital levels. Reduce diarrheal diseases and pneumonia, the main causes of death in children below five years.
- 2.2.1 Strategic Approach: Provide support to expand IMCI at the hospital level and further improve the quality of child health services.
 - 2.2.2 Strategic Approach: Provide technical support to strengthen supportive supervision, monitoring and evaluation of IMCI implementation and other child health interventions.
- 2.3 Main focus:** Provide technical support towards the implementation and further development of the national reproductive health strategy.
- 2.3.1 Strategic Approach: Support surveillance and screening of diseases contributing to reproductive morbidity and engage with the MoPH to agree on steps for the surveillance of maternal and reproductive morbidity.
 - 2.3.2 Strategic Approach: Engage with the MoPH and partners in addressing the unmet need for family planning services and assist the MoPH in expansion of safe abortion services.
 - 2.3.3 Strategic Approach: Provide technical support to assess and facilitate the availability of services to prevent and treat reproductive cancers, sexually transmitted infections (STIs) and reproductive tract infections (RTIs).
 - 2.3.4 Strategic Approach: Engage the MoPH and other relevant ministries/ stakeholders in addressing and developing adolescent and youth health and development strategies and programmes.
 - 2.3.5 Strategic approach: In collaboration with UNFPA, UNICEF and Ministry of Education to strengthen school based health education of students in adolescent health, including reproductive health, mental health, nutrition, tobacco, alcohol use or preventive interventions on these issues.
- 2.4 Main focus:** Strengthening coordination of health cluster and building partnership with health, nutrition and water sanitation stakeholders.
- 2.4.1 Strategic Approach: Support the Government to further build existing capacity for emergency preparedness and response at all levels.
 - 2.4.2 Strategic Approach: Continue to provide support to the development of norms, standards and guidelines for strengthening national emergency preparedness plans and programmes

(including safety in health facilities during emergency) to ensure a timely response to natural and other disasters.

- 2.4.3 Strategic Approach: Establish a foodborne diseases and risk factors surveillance system.
- 2.4.4 Strategic Priority: Provide technical support and training to strengthen capacity for analysis of the impact of different environmental factors on the health of the population.
- 2.4.5 Strategic Approach: to strengthen the capacity of central laboratories to detect threats to food safety (i.e. test for pesticides, other chemicals and toxins; conduct microbial analyses; and undertake surveillance of foodborne diseases).
- 2.4.6 Strategic Approach: Provide technical support and training to increase national standards for food safety (Codex Alimentarius) and supply rapid response kits for food poisoning and other food safety issues.
- 2.4.7 Strategic Approach: Work along with other sectors and partners.

2.5 Main focus: Integrate all-hazard emergency and disaster risk management for health into new WHO, the United Nations Strategic Framework and national health strategies.

- 2.5.1 Incorporate population vulnerability assessments and functional assessment of health facilities into agency and health sector plans.
- 2.5.2 Utilize assessments to develop all-hazard emergency and disaster risk management plans

2.6 Main focus: Support DPR Korea to apply the WHO survey tool to document the status of all-hazard emergency and disaster risk management for health at country level based on Regional benchmarks.

- 2.6.1 Incorporate population vulnerability assessments, and functional assessment of health facilities into agency and health sector planning.

Strategic Priority 3: Prevention and control of communicable diseases.

3.1 Main focus: Provide technical support to build capacity for the strengthening of integrated disease surveillance.

- 3.1.1 Strategic Approach: Continue support and expand the implementation of the strategic integrated disease surveillance programme established and piloted in 2009.

- 3.1.2 Strategic Approach: Provide support to the MoPH to ensure the availability of guidelines and standard surveillance and data-reporting forms at all levels.
 - 3.1.3 Strategic Approach: Provide technical support to assist the MoPH to develop applied epidemiological capacity and obtain disaggregated data.
 - 3.1.4 Strategic Approach: Utilize the established telemedicine facilities for collection of epidemiological data on communicable diseases throughout the country.
 - 3.1.5 Strategic Approach: Strengthen laboratory capacities for surveillance of communicable diseases. This has to include blood banks facilities too.
- 3.2 Main focus:** Provide technical and financial support to sustain high immunization coverage reached with measles, polio, hepatitis B and the pentavalent vaccines and provide support in introduction of new priority vaccines as identified in the comprehensive multi-year plan on (cMYP) immunization.
- 3.2.1 Strategic Approach: Introduce one dose of IPV in routine immunization in 2015 and switch over to bOPV from tOPV as would be recommended by SAGE.
 - 3.2.2 Strategic Approach: In order to attain the Regional Goal of Measles Elimination and Rubella Control by 2020 introduce rubella vaccine into routine immunization after a mass campaign with MR; introduce measles case- based surveillance and sentinel surveillance of congenital rubella syndrome.
 - 3.2.3 Strategic Approach: In order to reduce the incidence and prevalence of Hepatitis B, improve coverage in adult, particularly for population at risk.
 - 3.2.4 Strategic Approach: Introduce japanese encephalitis (JE) vaccine in endemic areas.
 - 3.2.5 Strategic Approach: Introduce other new vaccines like Pneumococcal vaccine, rotavirus vaccine, HPV vaccine, etc. into routine immunization in accordance with country priorities.
 - 3.2.6 Strategic Approach: Assist the MoPH with resource mobilization and build government capacity for management, implementation and monitoring of GAVI HSS funds.
 - 3.2.7 Strategic Approach: Provide continued support to improve capacity of the vaccine production factories with the goal of attaining standards for WHO prequalification.

- 3.3 Main focus:** Strengthen health system capacity for improved detection and treatment of TB.
- 3.3.1 Strategic Approach: Support and strengthen country capacity in the adaptation and implementation of guidelines, tools and the post-2015 global strategy based on national strategic plans.
 - 3.3.2 Strategic Approach: Support the collection, analysis, dissemination and use of TB data and monitor the national TB situation and response including through evaluation of TB policies and programmes.
 - 3.3.3 Strategic Approach: Facilitate national efforts to provide quality TB care and management including for DR-TB in the country.
 - 3.3.4 Strategic Approach: Strengthen capacity of the laboratories and phased introduction of newer technologies at appropriate levels.
 - 3.3.5 Strategic Approach: Strengthen advocacy efforts, awareness generation and health promotion activities related to TB.
- 3.4 Main focus:** Provide further support to reduce morbidity of malaria and build capacity towards its elimination.
- 3.4.1 Strategic Approach: Strengthen national capacity for prevention, control and research on malaria.
 - 3.4.2 Strategic Approach: Provide continued technical support and expertise to all activities aimed at eliminating P. Vivax malaria.
 - 3.4.3 Strategic Approach: reduce the risk and/or intensity of transmission during the transmission season. Facilitate mass distribution of LLINs especially to pregnant women and children.
- 3.5 Main focus:** Support national efforts for prevention and control of sexually transmitted diseases (STDs) including HIV/AIDS.
- 3.5.1 Strategic Approach: Provide support to develop, implement, monitor and evaluate HIV prevention initiatives including information, education and communication and behaviour change strategies.
 - 3.5.2 Strategic Approach: Extend support for the introduction, strengthening and expansion of quality HIV testing and counselling services, and continuum of care.
- 3.6 Main focus:** Support implementation of national strategic plan for prevention and control of viral hepatitis.
- 3.6.1 Strategic Approach: Build the capacity of health institutions to improve services for prevention, diagnosis surveillance and treatment of viral hepatitis B and C.

- 3.6.2 Strategic Approach: Sustain high immunization coverage of Hep B and expand immunization to populations at risk.
 - 3.6.3 Strategic Approach: Strengthen blood bank capacity for screening of blood in order to exclude blood of hepatitis B, hepatitis C and eventually HIV carriers.
 - 3.6.4 Strategic Approach: Strengthen capacities for sterilization of medical instruments and proper use of disposable syringes.
 - 3.6.5 “Support promotion of drinking water safety and adequate sanitary facilities in communities”.
- 3.7 Main focus:** Support implementation of International Health Regulations (IHR 2005) to strengthen national preparedness in detection and response to public health event of international concerns.
- 3.7.1 Strategic Approach: Support strengthening core capacities required for International Health Regulations (IHR 2005) and maintenance of them beyond 2016.
 - 3.7.2 Strategic Approach: Support building of capacities to meet IHR (2005) requirements based on all hazard approach.
 - 3.7.3 Strategic Approach: Provide support for building intersectoral coordination mechanism required for IHR (2005).
 - 3.7.4 Strategic Approach: Provide support for building capacity for appropriate and timely response to any hazard that may constitute public health event of international concern.

Strategic Priority 4: Strengthening health systems to improve service delivery.

- 4.1 Main focus:** The comprehensive Medium term strategic plan of development of health sector in DPR Korea provides the policies and strategic directions for partners in health.
- 4.1.1 Strategic Approach: Continue to provide technical and policy support for a comprehensive assessment of the health sector to support the implementation of the Medium-term plan of development of health sector.
 - 4.1.2 Strategic Approach: Support strengthening of health systems policy, legislation and health-care delivery for universal coverage.
 - 4.1.3 Strategic Approach: Provide technical support to strengthen capacity of human resources for health regulatory bodies and to help ensure quality of human resources for health education and ethical practice.

- 4.1.4 Provide technical support to establish and strengthen health sector review and coordination processes.
- 4.2 Main focus:** Strengthen national regulatory authority (NRA) and national control laboratory (NCL) in updating national standards and revising standard operating procedures (SOPs).
 - 4.2.1 Strategic Approach: Provide technical and policy support to strengthen the NRA and national control laboratory (NCL) in revising the standard operating procedures (SOPs) for all their functions. Translate all legislation, regulation and the SOPs into English.
 - 4.2.2 Strategic Approach: Provide technical advice, tools and guidelines to support and upgrade local production of GMP-compliant generic medicines and vaccines; drug testing laboratory procedures; drug registration and GMP inspections; monitor adverse drug reactions.
 - 4.2.3 Strategic Approach: Provide support in improving rational use of drugs in primary health settings and update standard treatment guidelines.
 - 4.2.4 Strategic Approach: Strengthen monitoring of drug quality and expiry in all facilities.
 - 4.2.5 Strategic Approach: Facilitate MoPH to advocate for resource mobilization to support capacity strengthening for GMP compliant local production and facilitate availability of essential medicines in collaboration with other international agencies.
 - 4.2.6 Strategic Approach: Facilitate better understanding of Korean traditional medicine through involvement of international institutes with similar experience.
- 4.3 Main focus:** Strengthen HMIS towards developing a comprehensive, integrated and sustainable system.
 - 4.3.1 Strategic Approach: Provide technical assistance to support the integration of vertical health information systems for a comprehensive horizontal HMIS.
 - 4.3.2 Strategic Approach: Engage with the MoPH and other relevant ministries to agree on practical steps for integrated disease surveillance for the generation of reliable and disaggregated disease-specific data.
 - 4.3.3 Strategic Approach: Develop a master plan for integration of health information system.

- 4.4 Main focus:** Further development of human resources for health, especially mid management and primary health-care provider levels.
- 4.4.1 Strategic Approach: Improve training, reorientation, placement, monitoring and evaluation of health workers.
 - 4.4.2 Strategic Approach: Provide technical support for in-service training to build knowledge of public health management and information technology among planners and managers.
 - 4.4.3 Strategic Approach: Engage with the MoPH and national institutions to support further development of public health education, including the provision of short- and long-term courses.
 - 4.4.4 Strategic Approach: Use the recently introduced telemedicine facilities for mentoring purposes.
 - 4.4.5 Provide technical support to strengthen human resources management planning.
- 4.5 Main focus:** Update quality standards for medical services in health facilities especially at primary level.
- 4.5.1 Strategic Approach: Provide technical advice, up-to-date guidelines, tools and manuals/material for health promotion and prevention, diagnosis, treatment and infection control through patient safety and essential and emergency hospital care.
 - 4.5.2 Strategic Approach: Provide support (technical/financial or measurement tools) for supervision and quality assurance at all levels of the health system.
 - 4.5.3 Strategic Approach: Provide support to strengthen capacity of health facilities, laboratories and blood centres, both in terms of equipment and diagnostics.
 - 4.5.4 Provide support in improving water, sanitation and waste management in health facilities
- 4.6 Main focus:** Building medical science and traditional medicine research, to assist evidence-based policy, planning and decision-making.
- 4.6.1 Strategic Approach: Provide technical support for health systems research to inform the development of national plans and programmes and integration of the different health information systems.
 - 4.6.2 Strategic Approach: Build capacity through technical support/training for operational and clinical care research.

Strategic Priority 5: WHO country presence to support sustainable national health development.

- 5.1 **Main focus:** Promoting partnerships for health with regional and international cooperation, facilitated by WHO.
 - 5.1.1 Strategic Approach: Provide technical support to enhance MoPH capacity to work in a “partnerships environment”, especially to engage, coordinate and improve international health development cooperation.
 - 5.1.2 Strategic Approach: Facilitate joint efforts with the UN and other partners to mobilize additional resources for sustainable development of health in the country.
- 5.2 **Main focus:** Promoting mutual support towards sustainable national development of health.
 - 5.2.1 Strategic Approach: Facilitate government efforts to mobilize resources to address health sector financing needs.
 - 5.2.2 Strategic Approach: Strengthen the tools and skills to enable the MoPH to conduct meaningful policy dialogue.

Chapter 6

Implementing the strategic agenda: implications for WHO Secretariat

The proposed shift in the strategic agenda may have implications for functions in the WHO Country Office and the support needed from other levels of the Organization. It is a part of collaborative response to the enormous health and other challenges currently facing the country.

WHO will have to sustain and consolidate the current technical cooperation in the areas of maternal and child health, TB and malaria control and strengthening of health systems. It will need to increase its levels of cooperation to build capacity for health policy, planning, and management by supporting, integrated HMIS, integrated disease surveillance, improved quality of care, and health promotion to address risk factors for NCDs.

The normative functions will be strengthened and efforts will be made to mobilize additional funding, particularly for health systems strengthening, health information system, and implementation of IHR. WHO's leadership and engagement with partnership in matters critical to health will be provided through extensive support to monitor the health situation and assessing health trends.

The existing Country Office capacity and competencies, including the back up from the Regional Office and headquarters, was reviewed to identify gaps, if any, to adjust the current arrangements for implementation of the CCS Strategic Agenda more effectively. The strategic priorities in this CCS cover a range of technical expertise available at the WHO Regional Office for South-East Asia and headquarters. A close working relationship between the country office and relevant technical units at WHO Regional Office and headquarters will add value to the work of WHO in DPR Korea.

In addition, valuable technical assistance of WHO experts through horizontal collaboration would greatly contribute to quality implementation of WHO collaborative activities in DPR Korea.

6.1 The role and presence of WHO according to the strategic agenda

Countries, with support from WHO and other partners, have increasingly developed the capacity to deal with the health needs of their populations. Some countries' economies are growing faster than others, and these countries have further developed the capacity to contribute more to health development in other countries. This has increasingly led, in addition to North–South cooperation, to South–South, triangular and other forms of cooperation. WHO needs to adjust its role, presence, policies and practices to respond to this evolution. The team defines WHO's role and presence as follows.

6.1.1 WHO Human resources

WHO Country Office has seven fixed-term international, two short-term international staff and 25 national seconded staff including 15 National Professional Officers and one Receptionist, one Secretary and eight other support staff (five Drivers, two Cleaners and one Gardner). In order to more effectively address the strategic and technical role outlined in the strategic agenda, additional technical support is required contracting of short-term international expertise.

Some of the current staffing constraints which require consideration in the biennial workplan are:

- (1) International technical expertise, short or long-term, in the area of human resources for health is lacking considering the huge disparity in the health workforce skill mix and the need to update medical, nursing and midwifery accreditation and curriculum to international standards.
- (2) Short-term international expertise on NCDs, especially for the development of a national cancer prevention and control strategy.
- (3) There is a pressing need for exposure to international best practices and standards for health systems strengthening and women's and children's health. This includes such areas as health information systems, human resources planning, health financing and financial management systems and health sector coordination.
- (4) In response to the countries broader development needs, and the constant threat of humanitarian emergency, in addition to the challenge of long-term adaptation to climate change, long-term support for improved environmental health policy and strategy will required, as well as strategies supporting intersectoral coordination and health in all policies.

As the Country Office is seen as the key health sector adviser to the Government, it is important for it to engage with other sectoral ministries to address the social determinants of health and continue to play an active role among a broader set of

partners and stakeholders. This will enhance coordination and synergies between the activities of different partners.

The Country Office shall use its privileged position to foster closer and more horizontal collaboration between partners as well as the MoPH. Facilitating partnerships and performing coordination roles are the key approaches that the Country Office shall pursue to fulfil the CCS agenda. To fulfil this role effectively, it is important to ensure that Country Office staff has the necessary skills in areas such as advocacy, sectoral approaches and resource mobilization.

6.1.2 The working environment

Current office space of WHO Country Office is limited due to the configuration of the building. Plans are underway to make it a more productive and conducive work environment for active collaboration between WCO staff. Efforts to further improve communication and facilitate collaboration with other levels of WHO as well as partners outside of the country are ongoing.

6.1.3 Implications for the Regional Office and HQ

Given the type and volume of technical support required to implement the strategic agenda, the recruitment of technical staff for the Country Office does not preclude the need for continued backstopping from the Regional Office and Headquarters.

Table 7: Backstopping and collaboration required for successful implementation of the key areas of the strategic agenda.

Strategic agenda	Backstopping	Collaboration
Prevention and control of noncommunicable diseases	NCD/TFI/HPR SEARO, NMH/HQ	Handicap International and other partners working in this area.
Addressing women’s and children’s health to reduce vulnerability and promote disaster risk reduction.	FCH/RO, FCH/HQ	UNICEF, UNFPA, IDC, ROK, WFP, GAVI, IFRC.
Prevention and control of communicable diseases.	CDS/RO, HTM/ HQ, HSE/HQ	UNICEF, Global Fund, UNDP, FAO, IFRC.
Strengthening health systems to improve service delivery.	HSD/RO, HSS/HQ PPC/RO, PUN/HQ HSD/RO, MHI/HQ	GAVI HSS, Global Fund, HMN, UNFPA, Unicef, IFRC, EUPS, other external institutions.
WHO country presence to support sustainable national health development.	Cross-cutting departments, DAF/SEARO	Cross-cutting.

The required technical support will be identified and agreed with the Regional Office at the beginning of each biennium during the workplan development. The Regional Office will also need to facilitate inter-regional multi-country collaboration; particularly in the areas of: IHR, environmental health (e.g. testing air and water quality); food safety; educational fellowships; traditional medicine; malaria and other communicable diseases. Additionally, efforts will need to be made across all levels, to address financial, supply/procurement and IT issues that will constrain the implementation of strategic agendas. Table 6 below summarizes the major type and nature of backstopping required from other levels of WHO and collaboration from partners.

6.1.4 Resource mobilization

During this biennium, WHO has successfully mobilized important voluntary contributions for donor-preferred priority disease interventions TB, malaria (from the GFATM), and vaccines and immunization (from GAVI). Additional resources mobilized have approximated US\$ 20 million US\$ per biennium. To achieve the ambitious agenda of this CCS, additional resources will need to be mobilized for the country office, the Government and CCS priorities. In the context of the global financial crisis, this will be a challenging task and the Regional Office and headquarters will need to support the country team to develop capacity to mobilize resources drawing on lessons from GAVI HSS and GFATM experiences as well as new and innovative methods. The country office will need to provide necessary support to the Government not only to build their capacity for mobilizing resources, but also their capacity for coordinating external resources for effective and efficient use of mobilized external resources.

6.1.5 Use of the WHO CCS

The CCS document will be used to support close alignment of WHO country strategy with the MTSP and recent sector mid-term review, as well as providing an input to strategy development for the next multi-year health sector plan.

The WHO DPR Korea country office intends to:

- (i) Widely disseminate the CCS document to the government and other partners working in and with the country;
- (ii) Apply CCS priorities, main focus areas and strategic approaches to guide future collaborative workplans;
- (iii) Use the content of the CCS to coordinate the health component of UNSF and other partnership platforms, keeping in mind partners' contributions; and
- (iv) Use the CCS for advocacy and resource mobilization for health.

6.1.6 Monitoring and evaluation of the country cooperation strategy

WHO will monitor programme implementation using established procedures. Efforts will be made to align the monitoring of priority programmes with the agreed-upon processes for their oversight and accountability.

These procedures will include a mid-term review and end-of-biennium review of collaborative programmes. These also contribute to WHO's biennial programme budget performance assessment. The mid-term review may consider curtailing or phasing out some programmes, while identifying and initiating activities in new priority areas, in which case WHO will adjust collaborative activities accordingly.

WHO will undertake a mid-term review of the CCS cycle 2014–2019, in order to ensure that collaborative workplans and activities are in line with the strategic priorities and with any emerging needs, allowing for lessons learnt during implementation and for making required adjustments in future programming.

Annex 1

Health Indicators

The indicators are from the updated national monitoring and evaluation framework, first established in 2010, and then updated during the midterm review in September 2014 in Pyongyang. Targets for 2020 will be set during the development of the next cycle of MTSP in 2015 for 2016–2020.

Inputs	Indicator definition	Source	Baseline	Year	2012	2013	2014	Target 2015
Health financing	% of Govt. Expenditure on health as a % of GDP	WHO NHA	6.1%	2008	6.1%	6.1%	6.4%	7%
Health workforce	Doctors per 1000 population	HR plan	3.2	2007	3.47	3.5	–	3.3
	Nurses per 1000 population	HR plan	3.9	2007	4	–	–	4.8
	Midwives per 1000 population	HR plan	0.3	2007	0.35	0.37	–	0.4
	% of Staff trained in IT	MOPH	40%	2009	60%	70%	–	90%
	% of health workers trained with WHO standard guidelines of SoPs on emergency preparedness and response	MOPH	30%	2009	60%	76%	–	100%

Inputs	Indicator definition	Source	Baseline	Year	2012	2013	2014	Target 2015
% of planner and health manager trained through routine system	% of staff trained	MOPH	40%	2009	60	89		90%
Coverage of HH Doctor	No of households per household doctor	MOPH	130 HH	2009	130	130		120 HH
Outputs	Indicator definition	Source	Baseline	Year	2012	2013	2014	Target 2015
Service Access	% Ri clinic that provide BEMONC and CMENOC to agreed standard	UNSF	30%	2009		Ri 86.2% County-100		90%
	% county hospital with functional referral system between Ri and county level	MoPH	35%	2009		C-100 T-72.7		100%
	No. of counties implementing IMCI	UNSF	88%	2009	124	180		208
	Number of registered and treated tuberculosis cases	UNSF	8 8700	2009		104 912		10 0000

Outputs	Indicator definition	Source	Baseline	Year	2012	2013	2014	Target 2015
Coverage of blood screening against HIV in health settings	% of counties that have testing facility for HIV for blood screening	MoPH	-	2009				75%
% of household doctor trained in recently developed national section doctor's training package	% of household doctor that has received standard training programme in the last five years	UNSF	0	2009	0.5			90%
Service quality and safety	TB treatment success rate (DOTS)	Global TB report	86%	2008	90%			>86%
County hospitals and clinics with regular water supply and adequate sanitation	% of county and Ri clinics that have water and sanitation according to agreed standard	Survey	-	2009	100			county 100% ri50%
% of county facility with low levels of laboratory services	% of county that have low level of laboratory service according to criteria established in the baseline survey	NIPHA survey	90%	2009				30%
Coverage of access to quality mental health care	No of facilities that have mental health care services according to agreed standards	MoPH	-	N/A				80%

Outputs	Indicator definition	Source	Baseline	Year	2012	2013	2014	Target 2015
Coverage of access to quality aged health care and disability services	No of facilities that have aged and disability care services according to agreed standards	MoPH	–	N/A				80%
Supplies	% of county that have low level of consumables according to criteria established in the baseline survey	NIPHA survey	82%	2008		Provision of emergency drugs 58%		30%
	% of county facilities with low levels of blood services capacity	NIPHA survey	90%	2008	40%			0%
	% of province and county with effective use of component blood	MoPH	70%	2009	75%			100%
	% of facilities with access to safe blood services	MoPH	75%	2009	80%			100%
No of counties implementing water safety plans (WHO standard)	No of facilities implementing safe water plans according to WHO international standards	WHO	0	2009				30

Outcomes	Indicator definition	Source	Baseline	Year	2012	2013	2014	Target 2015
Coverage	Antenatal care coverage (including blood test)	MoPH	99%	2009	99.50%	99.60%		100%
	Skilled birth attendance	MICS	100%	2009	99.40%			100%
	DPT 3 - Hepatitis B Immunization coverage	MoPH survey	92%	2009	93.3	94% (Pentavalent V)		>96%
	Measles coverage	MoPH survey	98%	2009	99%	99%		98%
	Contraceptive prevalence rate	WHO	68%	2009	70.70%			68%
	TB smear+ case detection rate	Global TB rep	69%	2008	85%+	85%+		> 80%
	Coverage of MDR-TB treatment	MoPH	0%	2009	65% (Successful treatment rate)			40%
	Coverage of de-worming among children	MoPH	98%	2009	99%			100%

Outcomes	Indicator definition	Source	Baseline	Year	2012	2013	2014	Target 2015
Coverage of household by either LLIN or IRS	% of household in high risk area covered by either LLIN or IRS	MoPH	25%	2009	100%			>80%
Coverage of laboratory confirmed cases		MoPH	50%	2009	88%			>80%
Iodized salt consumption	(% of households consuming iodized salt < 15 ppm)	MICS	44%	2009	55%			10%
Coverage of cancer screening (coverage of screening in 25–49 of age	% of women aged 25–45 screened for cervical cancer	MoPH	–	2009				>50%
Coverage of treatment service	% of detected cancer cases treated	MoPH	–	2009	100%			>50%
Risk factors	Tobacco use (adults smoking rate)	MoPH	52.30%	2008		43.90%		45%
	Access to improved water sources (tap and non tap)	MICS	99%	2009	99%			100%
	% of families required to fetch water to meet domestic needs	Survey	15%	2009	2%			0%

Outcomes	Indicator definition	Source	Baseline	Year	2012	2013	2014	Target 2015
% of health facilities have running water and soap available for practicing handwashing.		UNSF	–		100%			>70%
Access to improved sanitation		MICS			97%			
Low birth weight newborns	% of newborns with weight < 2.5 Kg	MICS	6%	2009	5%			4%
Breastfeeding exclusive for 0–5 months	% of mothers exclusively breastfeeding their infants until 5 months of age	MICS	91%	2009	65.10%			97%
Early initiation of breastfeeding		MOPH			28.10%			
Rates of stunting in children		MICS	32%	2009	20.70%			>10%
Mid-upper arm circumference of mother	% of mothers whose MUAC is less than 22.5	MICS	27.70%	2009	5.30%			>5%
Rate of male alcohol consumption	% of male adults consuming alcohol	MoPH	25.90%	2009				2/3 of present figure

Outcomes	Indicator definition	Source	Baseline	Year	2012	2013	2014	Target 2015
Hypertension in males	25-64years olds	MoPH	20.4	2009				2/3 of present figure
Hypertension in females	25-64years olds	MoPH	17.1	2009				2/3 of present figure
IMPACT		Source	Baseline	Year	2012	2013	2014	Target 2015
Mortality	Child mortality rate	CENSUS	26.7/1 000	2009	22.70%			16/1 000
	Infant mortality	CENSUS	19/1 000	2009	16.70%			12/1 000
	Maternal mortality ratio	CENSUS	85/100 000	2009	68.10%			50/100 000
Morbidity	TB Prevalence	WHO	411.8	2009	420			2/3 of present
	Incidence of malaria cases	UNSF	1.6/1000	2009	0.9/1000	0.7/1000		0.5/1 000
	HIV prevalence among adults aged 15–49 years	MoPH	0	2009	0	0		0

IMPACT	Source	Baseline	Year	2012	2013	2014	Target 2015
Prevalence diabetes mellitus	MoPH	7/10 000	2002	 4.50%			1/5 of present figure
Prevalence CVD 	MoPH	172.1 /10 000	2002				1/5 of present figure
Prevalence cancer	MoPH	14.4/ 10 000	2002				1/5 of present figure
Prevalence CRD	MoPH	26.5/ 10 000	2002				1/5 of present figure
Prevalence of injury	MoPH	20.9/ 10 000	2002				15/10000
Incidence of acute respiratory infection (ARI) in under five children	ARTI survey/ UNSF	13%	2009	6.50%			10%
Diarrhea incidence	MICS survey	14%	2009	8.50%			10%

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This Country Cooperation Strategy (CCS) is a corporate document setting forth a medium-term vision of the World Health Organization's effort to support health development in DPR Korea. It is based on the analysis of the health situation in the country, health policies and programmes of the Ministry of Public Health, the work of other health development partners in the country, and also the work of WHO. The Strategic Agenda outlined in the document presents the Strategic Priorities, Strategic Focus Areas and Strategic Approaches that WHO can most effectively implement to support health development.

The five Strategic Agendas with the five Strategic Priorities deal with the challenges of noncommunicable diseases and their modifiable risk factors; women's and children's health to reduce vulnerability and promote disaster risk reduction; communicable diseases; health systems strengthening and ensuring WHO country presence to support sustainable national health development.

The final section of this document deals with matters related to implementing the Strategic Agenda in DPR Korea and its implications on the Secretariat, i.e. WHO. These include, among others, emphasis on technical support; involvement with the Ministry of Health and partners as necessary; resource mobilization; and plans to update and evaluate the CCS.



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