

**SITUATION ANALYSIS OF
CHILDREN AND WOMEN IN
THE DEMOCRATIC PEOPLE'S
REPUBLIC OF KOREA – 2017**

Report prepared by

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CONTENTS

Acronyms	iv	Illness and Diseases Affecting Children in DPR Korea	37
Acknowledgements and Contributions	vi	Nutrition	40
Executive Summary	1	Water, Sanitation, and Hygiene (WASH)	45
Key Findings	2	Key Determinants Analysis – Bottlenecks and Barriers	48
Summary of the Way Forward for UNICEF and Partners	4	Key Data Gaps	54
Chapter One – Introduction	8	The Way Forward	55
Introduction	8	Chapter Four – Education and Adolescence	58
Background	8	Assessment of the State of Education in DPR Korea	59
Objectives of the Situation Analysis	9	Education for Children with Disabilities	63
Process	9	Gender Considerations in Education	64
Methodology and Conceptual Approach	10	Educational Quality	65
Conceptual Framework	11	Outcomes	66
Chapter Two – National Context for Children and Women’s Rights	14	Adolescence	67
Introduction	14	Key Data Gaps	69
Demographic Context	14	The Way Forward	69
Urbanization	15	Chapter Five – Conclusions and Implications for Action	72
Socio-economic Context	15	Implications for Action	73
Housing Characteristics and Amenities	17	Annex One – References	75
People with Disabilities	19	Annex Two – Key Informants Interviewed (Alphabetical)	79
Climate and Disaster Risks	20	Annex Three – Methodological Framework	80
National Legislative Environment and Mechanisms for Monitoring, Reporting, and Evaluation	22	Annex Four – Summary of Key Data Gaps	82
Gender Equality and Women’s Empowerment	25	Annex Five – Status of SDG Child-Relevant Indicators in DPR Korea	83
Chapter Three – The Right to Survive and Thrive	30		
Introduction	30		
Assessment of Survival Status	31		
Maternal Mortality	34		

LIST OF FIGURES

Figure 1: Conceptual Framework for the Situation Analysis in DPRK	11
Figure 2: Infant, Child, and Maternal Mortality Survival Diagram	30
Figure 3: Global Estimates of Under-Five, Infant, and Neonatal Mortality Rates in DPRK 1990–2015	32
Figure 4: Infant, Child, and Maternal Mortality Survival Diagram	33
Figure 5: DPRK Maternal Mortality Ratio	35
Figure 6: Trends in malaria cases and incidence, DPR Korea (2009–2015)	38
Figure 7: Trends in key Tuberculosis indicators, DPR Korea	39
Figure 8: Trend Analysis of Nutrition Indicators in DPRK 2000–2012 (%)	41
Figure 9: Advanced Educational Attainment of DPRK Population 5+ Years	63
Figure 10: Tertiary Educational Attainment of DPRK Population 5+ Years	64
Figure 11: Key Determinants Framework for Situation Analysis	81

LIST OF TABLES

Table 1: Percentage of Dwellings by Household Conditions and Amenities according to Place of Residence	18
Table 2: Key Legislation in Support of Women’s and Children’s Rights in DPR Korea	24
Table 3: Per Capita ODA among Selected Countries of East Asia and the Pacific Region (US\$)	26
Table 4: Infant Mortality Rate by Sex and Location, 1993 and 2008	33
Table 5: Comparative Outcomes and Performance-Reduction in U5MR in East Asia and the Pacific (1990–2015).	34
Table 6: Delay Factors Urban/Rural (%)	36
Table 7: Comparative Outcomes and Performance-Reduction in MMR in East Asia and the Pacific (1990–2015).	37
Table 8: Incidence Rate of Diarrheal Disease and Respiratory Illness	38
Table 9: Notified New and Relapse Cases of TB per 100,000 by Age and Sex in DPRK, 2014	39
Table 10: Comparative Outcomes and Performance in Nutrition – East Asia and the Pacific (1990–2015)	43
Table 11: Health Facilities in DPR Korea	50
Table 12: Percent Distribution of School Attendance of Persons 5 to 24 Years by Location and Gender	59
Table 13: Key Early Childhood Development (ECD) Indicators	60
Table 14: DPR Korea Enrolment Data – 2008 and 2012	62
Table 15: Number of Schools, Students, and Teachers in DPR Korea	62

Acronyms

ARI	Acute Respiratory Infection	FAO	United Nations Food and Agriculture Organization
ARR	Annual Rate of Reduction		
C4D	Communications for Development	GAVI	Global Alliance for Vaccines and Immunization
CA	Conservative Agriculture	GFATM	Global Fund to Fight AIDS, TB, and Malaria
CEDAW	Convention on the Elimination of all forms of Discrimination Against Women	GFS	Gravity-Fed Water Systems
CERF	Central Emergency Response Fund	GPSH	Grand People's Study House
CFS	Child-Friendly Schools	IASC	Inter-Agency Standing Committee
CMAM	Community Management of Acute Malnutrition	ICCPR	International Covenant on Civil and Political Rights
CRC	Convention on the Rights of the Child	ICESCR	International Covenant on Economic, Social, and Cultural Rights
CRPD	Convention on the Rights of Persons with Disabilities	IDD	Iodine Deficiency Disorder
CBS	Central Bureau of Statistics	IFA	Iron, Folate, and Vitamin A
DEWATS	Decentralized Wastewater Treatment Systems	IFRC	International Federation of Red Cross and Red Crescent Societies
DHS	Demographic Health Survey	IGCME	United Nations Interagency Group for Child Mortality Elimination
DPR	Democratic People's Republic	IMNCI	Integrated Management of Newborn and Childhood Illnesses
DPRK	Democratic People's Republic of Korea	IMR	Infant Mortality Rate
EC	Education Commission	IUD	Intrauterine Device
ECD	Early Childhood Development	IYCF	Infant and Young Child Feeding
ECDI	Early Childhood Development Index	KFPD	Korean Federation for the Protection of the Disabled
ECE	Early Childhood Education	LBW	Low Birth Weight
EFA	Education For All	MDGs	Millennium Development Goals
EmONC	Emergency Obstetric and Neonatal Care	MDR	Multi-Drug Resistant
		MICS	Multiple Indicator Cluster Survey

MMR	Maternal Mortality Rate	UNCT	United Nations Country Team
MNP	Multi-Micronutrient Powder	UNDP	United Nations Development Programme
MNT	Multi-Micronutrient Tablets		
MoCM	Ministry of City Management	UNESCO	United Nations Educational, Scientific and Cultural Organization
MoPH	Ministry of Public Health		
MoU	Memorandum of Understanding	UNFPA	United Nations Population Fund
MPPT	Mass Primaquine Preventative Treatment	UNHRC	United Nations Human Rights Council
MTSP 1	Medium Term Strategic Plan	WASH	Water, Sanitation, and Hygiene
MUAC	Mid-Upper Arm Circumference	WFP	World Food Programme
NCC	National Coordinating Committee	WHO	World Health Organization
NNMR	Neonatal Mortality Rate		
OCHA	Office for the Coordinator of Humanitarian Affairs		
ODA	Official Development Assistance		
PDS	Public Distribution System		
PISA	Programme for International Student Assessment		
PSPA	Presidium of the Supreme People's Assembly		
RHS	Reproductive Health Survey		
SAM	Severe Acute Malnutrition		
SCEDM	State Committee for Emergency and Disaster Management		
SDGs	Sustainable Development Goals		
SDHS	Socio-Demographic Health Survey		
Sit-An	Situation Analysis		
TB	Tuberculosis		
TGR	Total Goiter Rate		
U5MR	Under-Five Mortality Rate		
UN	United Nations		
UNCRPD	United Nations Convention of the Rights of People with Disabilities		

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Under the overall direction of Ms. Oyunsahain Dendevronov, UNICEF Country Representative for DPR Korea, the Sit-An was developed through a participatory and collaborative process under the guidance of Mr. Murat Sahin, UNICEF Deputy Representative, Mr. Shailesh Kumar Nayak, UNICEF M&E Specialist for DPR Korea, and Ms. Stephanie Kleschnitzki, UNICEF EAPRO.

The study was carried out by The Bassiouni Group (TBG), a global development firm based in New York, comprised of senior international development professionals, including Mr. Christopher Davids (Team Leader), Ms. Sylvie Morel-Seytoux, Ms. Laura Wicks, and Mr. David Solomon Bassiouni. TBG worked in close collaboration with the UNICEF Country Office in DPR Korea, and the UNICEF East Asia and Pacific Regional Office (EAPRO) throughout the development of the analysis.

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The data selected in this report, its interpretation, and the recommendations provided are those of the authors and do not necessarily reflect the opinions of the United Nations Children's Fund.

Executive Summary

Over the period of the Millennium Development Goals (2000–2015), the people of the Democratic People’s Republic of Korea (DPR Korea), especially women and children, have suffered tremendously from factors beyond their control. These include the breakup of the Socialist bloc, leading to serious shortages of food, energy, and a reduction in economic growth rates, as well as recurring climate-related challenges resulting in a severe, chronic, and underfunded humanitarian emergency. Despite the exemption granted to humanitarian assistance, the imposition of sanctions, coupled with donor fatigue, has reduced the availability of resources to address even the most pressing of life-threatening situations. As a result of many complex factors, several key social indicators, such as under-five mortality and maternal mortality, are worse than before 1990 (despite significant improvements since the year 2000).

This Situation Analysis (Sit-An) is based upon a detailed review of all available sources of data and information, complemented by a series of key informant interviews carried out in collaboration with government and development partners to better ground the analysis in the realities of the country (as listed in Annex 2). Key stakeholders at the country and regional levels have reviewed the draft document for quality assurance and validation. It was prepared as part of the UNICEF Programming process that contributed to the UN Strategic Framework 2017–2021), which aims to support and reinforce national efforts to improve the well-being of the people of DPR Korea – paying attention to the most vulnerable groups. In the context of human rights-based

programming, the essence of UNICEF’s work in DPR Korea is about sharing international lessons learned, and the provision of technical expertise and resources for life saving interventions.

As a Member State of the UN, DPR Korea has committed itself to the Sustainable Development Goals and their targets, adopted by the General Assembly in October 2015.¹ At the country level, however, there is a need to carefully prioritize and sequence them. In the jointly agreed Strategic Framework, the Government and the United Nations Country Team (UNCT) chose to focus their efforts on Sustainable Development Goals (SDGs) 2, 3, 4, 5, 6, 7, 11, 12, 13, and 15, with goal 10 (on reducing inequality) and goal 17 (on global partnerships) as cross-cutting considerations. This document provides supporting data and analysis relating to SDGs 2, 3, 4, 5, 6, and 10, to which UNICEF specifically contributes.

The objectives of the Situation Analysis are as follows:

- Document progress made and identify key challenges hindering the realization of the rights and welfare of children and women, as well as their causes, as a means to strengthen planning and programming for child rights;
- Identify humanitarian and development barriers and bottlenecks, which, if addressed, could have a multiplier effect on improving the situation of children and women;
- Provide evidence and analysis relating to climate and disaster risks, as well as the

1 UN Strategic Framework (2017–2021) p.10

national capacities to address them, in order to support UNICEF's contributions towards joint efforts aimed at strengthening the resilience of children and women in the face of recurrent crises;

- Serve as a comprehensive reference on the situation of children and women in DPR Korea, which will provide a source of advocacy, a tool for resource mobilization, and contribute to national decision-making processes; and,
- Offer programmatic recommendations to address geographical, gender, age, disability, and other disparities, and accelerate progress towards the SDGs and fulfillment of human rights conventions, with an emphasis on the Convention on the Rights of the Child (CRC), women's health and well-being, and reducing vulnerability to hazards.

As such the Situation Analysis will serve to inform planned surveys and studies, such as MICS 2017 and the Census 2018, through identifying data gaps in the various dimensions of women and children's rights.

DPR Korea has a well-articulated network of social services reaching down to the village level, and has made significant progress in increasing enrolment in both primary and secondary education, as well as decreasing mortality due to preventable causes. However, progress on key social indicators has been uneven across regions, with Pyongyang city generally faring the best, and provinces in the Northeast faring less well. Noticeable gender and age inequities in health and welfare among men, women, and children were also identified. As a result, there is still much work to be done to ensure full and equitable achievement of children's and women's rights.

Having reviewed a wide range of qualitative and quantitative data, this Sit-An has identified

four overarching challenges, and several supplementary challenges, that are preventing the full realization of children's and women's rights in DPR Korea. These include:

1. Insufficient availability of resources for the social sectors resulting in deteriorating health, education and WASH infrastructure, which is compromising the accessibility and quality of social services.
2. Recurring humanitarian crises causing loss of life, increased illness and malnutrition, and interruptions to schooling reinforced by damage to WASH, and education and health infrastructure.
3. Socio-economic, education, and health disparities between urban and rural areas, between males and females, and between households and provinces.
4. Inadequate gender-disaggregated and geographically specific qualitative and quantitative data in key areas, making it difficult to fully assess, plan, and monitor interventions to address gaps in achievement.

Key Findings

- Overall infant, child, and maternal mortality have decreased significantly. The major success in this regard has been the strengthening of the Integrated Management of Neonatal and Childhood Illnesses (IMNCI), and the sharp increase in immunization coverage from 43 percent in 1998 to 96 percent in 2016. However, neonatal and maternal mortality have decreased at a slower pace, and neonatal mortality now constitutes approximately 56 percent of under-five mortality (U5MR).
- Estimates of the Maternal Mortality Ratio (MMR) have declined from roughly 97 deaths per 100,000 live births in 1990, to 66

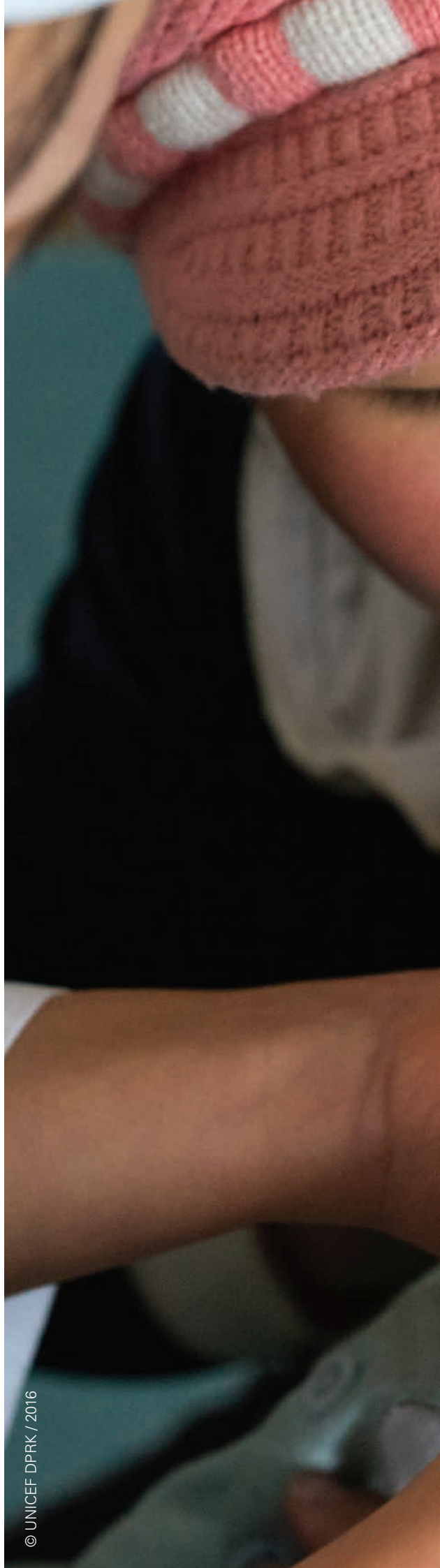
per 100,000 in 2014. Ninety-two percent of births occur in hospitals and eight percent at home. However, two-thirds of maternal deaths, 74.3 percent in rural areas, occur at home.² Maternal mortality in rural areas is 50 percent higher than in urban areas, largely due to insufficient transportation, medical supplies, and training.

- Between 2000 and 2012, stunting decreased by 38 percent to reach 27.9 percent of under-five children. However, this ranged from 39.6 percent in Ryanggang Province to 19.6 percent in Pyongyang city. Wasting decreased by 62 percent to reach 4 percent. However, during times of emergency, rates of wasting increase significantly. The proportion of underweight children decreased by 46 percent during the same time. Of these three key outcome indicators, stunting remains an issue of medium public health concern.
- Key contributory factors include poor maternal nutrition status and household food security, leading to challenges in nutrient intake and feeding practices. Thirty-two percent of women of reproductive age have poor nutritional status, as measured by mid-upper arm circumference, while 23 percent are underweight. Protein and fat are in limited supply and micronutrient deficiencies are common. Sixty-nine percent of mothers exclusively breastfeed for six months, while 66 percent of children aged six to eight months benefit from the timely introduction of complementary foods. Only 27 percent of children under age two have adequate dietary diversity, with the average number of food groups consumed to be 2.5 out of seven compared to a suggested minimum of four different food groups consumed per day.
- Approximately 82 percent of households, 55 percent of schools and health facilities, and only 38 percent of nurseries have access to piped water. Insufficiency of electricity, leakages, and non-functional systems, which result from lack of investment in maintenance, mean that the actual availability of piped water is far less than one might expect, especially in rural areas. The situation is similar with respect to sanitation. While access to flush toilets has increased (albeit to a lesser extent in rural areas), insufficient maintenance and poor hygienic practices still contribute to contaminated water and diarrhoea, thus negating their positive impact.
- Twelve years of compulsory and free education has meant that there is universal literacy with no statistically significant regional or gender variations. Over 75 percent of men and women have completed secondary, senior-level education, and early childhood education (ECE) enrolment for children under-five years is estimated at 97 percent. The main challenge has been a lack of quality and learning assessment improvements, resulting from limited resources. For instance, only 68 percent of students in the education system have access to textbooks. Furthermore, substantive gender and regional educational disparities remain at the tertiary and advanced university levels. This disparity is most notable in rural areas, where only 1.9 percent of females over the age of 19 are still engaged in education, compared to 14.4 percent of males of the same age group. The consequences of this disparity to the health and wellbeing of pregnant women, mothers, and their children (in terms of education, nutrition, birth spacing, and other variables and vulnerabilities) remains under-assessed.

2 DPR Korea – Maternal Mortality Validation Study, MOPH and UNFPA, 2009.

Summary of the Way Forward for UNICEF and Partners

- Continue to focus on life-saving humanitarian programming, including building resilience, through improved collection and analysis of qualitative and quantitative gender-disaggregated and geographically specific information at the household level.
- Give priority focus to neonatal and maternal health, and mortality reduction. In support of this endeavor, promote the implementation of the 1,000-day multi-sectoral nutrition strategy.
- Strengthen efforts in communication for development focusing on early childhood development, infant and young child feeding (IYCF), and hygienic practices (including both male and female engagement). Also, develop an advocacy agenda and communication strategy to focus attention on outstanding issues, such as inclusive education and absence of data.
- Promote the extension of safe water, improved sanitary facilities and hygienic practices to households, places of work, schools, health facilities, and nurseries.
- In the spirit of the SDGs, the CRC, and the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW), focus efforts and advocacy on overcoming provincial, gender, age, disability and urban/rural disparities affecting children and their families. Incorporate the empowerment of girls and women, and overall messages of gender understanding and inclusion, as a cross-cutting strategy to improve women and children's health and rights and that of their families.
- Collaborate with the Central Bureau of Statistics (CBS) Child Data Monitoring Unit to identify and collect essential data needed to fill vital information gaps for inclusion in the 2017 Multiple Indicator Cluster Survey (MICS).









Chapter One

Introduction

Chapter One

Introduction

Introduction

Over the period of the Millennium Development Goals (1990–2015), the people of DPR Korea, especially the women and children, have suffered tremendously from a series of events beyond their control. These include the breakup of the Socialist bloc, leading to serious shortages of food and energy as well as a reduction in economic growth rates; recurring climate related challenges; and, the imposition of sanctions, which reduced the availability of resources, including Official Development Assistance (ODA). Since then, the people of DPR Korea have continually faced a severe, chronic, and under-funded humanitarian emergency. Consequently, key social indicators (despite significant improvement since the year 2000) are worse than before 1990. Severe food insecurity and malnutrition continue to define life for most people in the country.

However, as the country enters the era of the SDGs, there is greater reason for optimism. The Government has accepted 113 out of 185 recommendations of the Universal Periodic Review. Fifty of the recommendations that enjoy Government support can be directly or indirectly linked to UNICEF's mandate. In accepting the recommendations, DPR Korea has reaffirmed the rights of the child to safe drinking water, improved hygiene and sanitation, and increased resources to the health system. It also indicates a commitment toward lowering child and maternal mortality, improved training of medical personnel, and toward ensuring that children in the most disadvantaged areas enjoy equitable

benefits in health and education. The advent of the 2030 Development Agenda, including the SDGs, provides a strategic opportunity to advance the rights of girls, boys, women, and men throughout the country.

Implementation of the SDGs will require localization and adaptation of the most relevant targets and indicators, and reinforcement of monitoring systems that can establish baselines and facilitate the monitoring of progress and assessment of lessons learned along the way. The Government has expressed interest in the SDGs, and there is a growing acceptance of the need to generate data to strengthen a culture of evidence-based planning and tracking of results. This Situation Analysis is expected to facilitate the process by consolidating currently available child-relevant data, while identifying progress, opportunities and critical gaps that need to be filled to move forward.

Background

The Situation Analysis (Sit-An) is an essential part of programming for children and women. It is only by having a clear understanding of the key challenges affecting their rights and welfare, and the potential causes, that one can develop programmes that are contextually grounded and can effectively contribute to sustainable and equitable solutions. For such an analysis to be useful there is a need for sufficient data to enable appropriate analysis and action. Limited sources, and the availability and verification of data pertaining to DPR Korea have made it challenging to assess and analyze progress to date. However,

over the past few years there have been several significant national and programme specific data collection exercises, which have allowed for a trend analysis and the identification of data gaps.

The most significant among these are the Census (2008), the Multiple Indicator Cluster Survey (2009), the Nutrition Survey (2012), the Socioeconomic, Demographic and Health Survey (2014), and the Disability Sample Survey 2014. In addition, there have been a series of UNICEF Programme consultations conducted with Government counterparts and other national reporting exercises including the Education for All national report (2015), the Universal Periodic Human Rights Report (2014), and the CRC and CEDAW Reports (2016). The latter reports provide a valuable insight into the Government's perspectives on progress and challenges.

These sources have been complemented by several planning exercises, such as the Medium Term Strategic Plan for Health, the UN Strategic Framework, as well as agency specific exercises. The existence of these documents and complementary planning roadmaps have made it possible to undertake an assessment and analysis which identifies both the challenges and opportunities to be addressed to accelerate improvements in children's and women's rights in DPR Korea.

Objectives of the Situation Analysis

The overall objective of the Sit-An is to develop a common analysis and understanding of the successes, challenges, opportunities, and risks affecting the achievement of children's and women's rights in DPR Korea.

The objectives of the Sit-An are as follows:

- Identify and document progress made and key challenges hindering the achievement of

rights and welfare of children and women, and their causes, to facilitate planning and programming for child rights;

- Identify humanitarian and development barriers and bottlenecks that, if addressed, could have a multiplier effect on improving the situation of children and women;
- Provide the evidence and analysis relating to climate and disaster risks and national capacities to address these issues, which can support UNICEF's contribution towards efforts aimed at strengthening the resilience of children and women in the face of recurrent crises;
- Serve as a comprehensive reference about children and women in DPR Korea, which will serve as a source of advocacy, a tool for resource mobilization, and will contribute to national decision-making processes; and,
- Offer programmatic recommendations to address geographical, gender, age, disability, and other disparities, and accelerate progress towards the SDGs and fulfillment of human rights conventions, with an emphasis on the CRC, women's health and wellbeing, and reducing vulnerability to hazards.

Process

The Sit-An is based on a detailed desk review of all available sources of data and information, complemented by a series of key informant interviews carried out during field work in DPR Korea to better ground the analysis in the country context. Key stakeholders at the country and regional levels then reviewed the draft document for quality assurance and validation. It was prepared as part of the UNICEF Programming process that contributed to the UN Strategic Framework (2017–2021), which aims to support and reinforce national efforts to improve the well-being of the people of DPR Korea,

paying attention to the most vulnerable groups. The essence of UNICEF's work in DPR Korea is about sharing international lessons learned, and providing technical support and resources for lifesaving interventions in the context of human rights-based development.

As a Member State of the UN, DPR Korea committed itself to all 17 SDGs and 169 targets, which were adopted by the General Assembly in October 2015. At the country level, however, the SDGs and targets need to be carefully prioritized and sequenced. In the jointly agreed-upon Strategic Framework, the Government and the UNCT chose to focus their efforts on SDG 2, 3, 4, 5, 6, 7, 11, 12, 13, and 15, with goal 10 (on reducing inequality) and goal 17 (on global partnerships) as cross-cutting considerations. This document provides supporting data and analysis relating to SDGs 2, 3, 4, 5, 6, and 10, to which UNICEF specifically contributes.

Methodology and Conceptual Approach

The methodological approach for preparing the Sit-An is based on the steps suggested in UNICEF's global Guidance on Conducting Situation Analysis of Children's and Women's Rights (2011), UNICEF's Guidance on Conducting Risk-Informed Situation Analyses (2012), updated in 2015, the Human Rights Based Approach to Programming, and the equity focused key determinants analysis.

The Sit-An, overall, has three broad components: assessment, analysis, and implications for action, traditionally referred to as the "Triple A Approach," which are reflected in all substantive chapters. These have been broken down into the following six key steps (see Annex One for more detail): literature review and trend analysis; human rights-based key determinants analysis; gender analysis; risk mapping; and, analysis of the enabling environment and development of evidence-based solutions.

Limitations

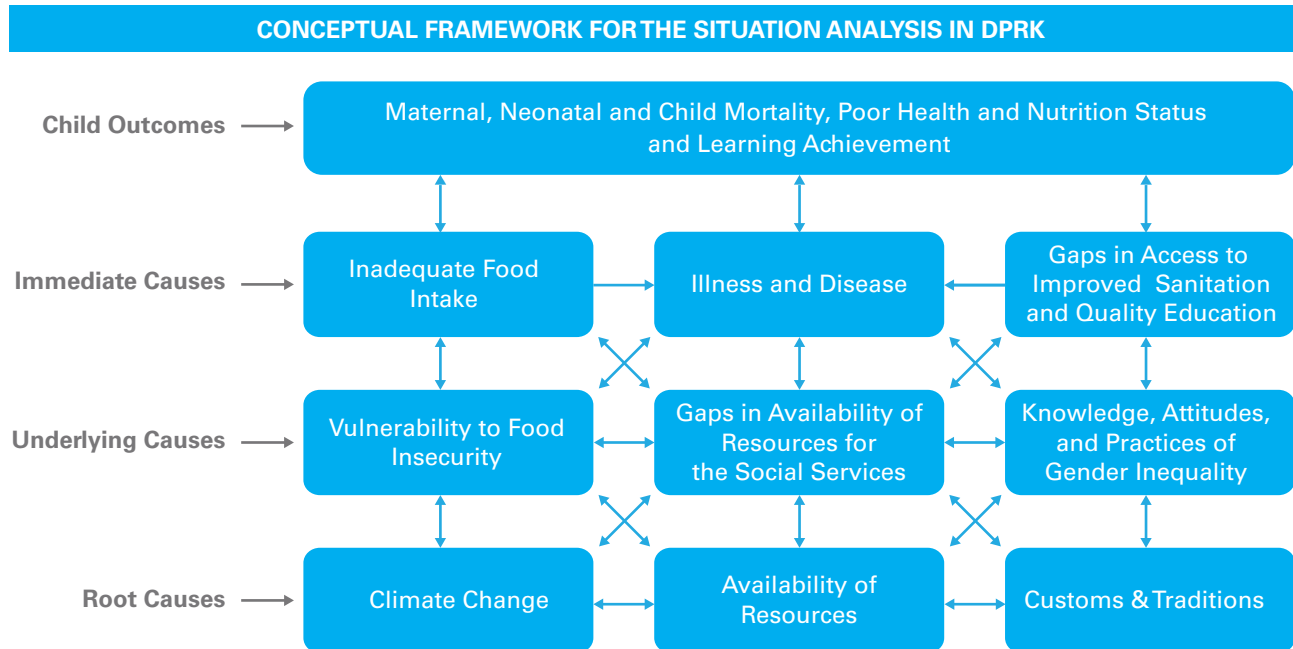
- Significant historical and current data and information gaps made it challenging to undertake a comprehensive trend analysis or to have a clear picture of the distribution and depth of disparities, risks, and humanitarian needs.
- Limited availability and analysis of survey data made it difficult to fully assess performance related to the Millennium Development Goals (MDGs), or to establish a baseline for the SDGs.
- A relatively limited number of primary and secondary data sources made it difficult to triangulate some important data points.
- A general lack of gender-disaggregated data across all sectors, and especially within households at the decision-making level, restricted the level of analysis possible pertaining to causes and solutions with respect to vulnerabilities, opportunities, and solutions for improving women and children's rights and welfare.



Causality Analysis

Figure 1: Conceptual Framework for the Situation Analysis in DPRK

Causality Analysis



Conceptual Framework

A well-designed Sit-An requires a clear conceptual framework to facilitate the process of analysis. The Conceptual Framework adopted for the Sit-An identifies the key causal linkages that need to be documented and analyzed to provide information on the nature and extent of the challenges to be addressed. There are two broad conceptual approaches applied, including causality analysis and key determinants analysis.

Analytical Framework for Assessing Bottlenecks and Barriers to Achieving Child Rights

The analysis builds on the causality analysis. Key determinants of achieving child rights are generally clustered into four groups, as follows:

1. The Enabling Environment includes social norms; legislation or policy; budget and expenditure; and, management and coordination.

2. The determinants of supply include availability of essential commodities or inputs and access to adequately staffed services, facilities, and information.
3. The determinants of demand include financial access, social and cultural practices, and beliefs and continuity of use.
4. The quality of services provided is another determinant in achieving child rights, including criteria such as adherence to required national or international quality standards or norms.

By examining these determinants, it is possible to identify what key bottlenecks and barriers are to be addressed. They are further elaborated in the diagram in Annex 3.

The above two analytical approaches primarily used in Chapters 3 to 4 are complemented with gender, environmental, and risk analyses in different sections of the document. Together, they constitute the normative framework for the Sit-An.



Chapter Two

National Context for Children and Women's Rights



Chapter Two

National Context for Children and Women's Rights

Introduction

DPR Korea is a country located in East Asia on the northern half of the Korean Peninsula. It shares a border with three countries: China along the Amnok River, Russia along the Tumen River, and South Korea along the Korean Demilitarized Zone (DMZ). DPR Korea is a socialist country in which the State is the owner of all land and productive assets, and virtually the sole provider of food, shelter, health, education, and other social and economic services. Its unique brand of socialism is driven by the Juche ideology, which places emphasis upon the principles of economic and political independence, self-reliance, and self-defense, most notably in the form of a strong national defense force.

The country has tried to the maximum extent possible to rely on its own strengths and resources for development. Despite being a member of the UN, DPR Korea is not a member of the Bretton Woods Institutions (which include the World Bank, the Asian Development Bank, and the International Monetary Fund (IMF)). Life in DPR Korea is highly structured, and is governed by an extensive network of institutions, committees, and coordinating bodies at all levels of society, which are responsible for overseeing all aspects of life. For the people of the country, this has meant a highly structured and regulated approach to life.

Demographic Context

The people of DPR Korea are ethnically homogenous and speak Korean. As of 2014, the population of DPR Korea was estimated at 24.9 million (51.1% females and 48.9% males). This includes 7.6 million children,³ of whom 1.7 million were under the age of five.⁴ More specifically, 21 percent of the population is less than 15 years of age, 66 percent of the population is between 15 to 59 years, and the remaining 13 percent is over 60 years old.⁵ As of the most recent census, the median age was 33.6 years.

The Total Fertility Rate in DPR Korea was estimated at 1.91 in 2014, reflecting a decrease from 2.01 in 2008. The population has grown only marginally over the past six years, from an estimated 23.3 million in 2008. The average annual rate of population growth has been 0.61 percent in urban areas, increasing at a rate of 0.75 percent, in contrast to 0.38 percent in rural areas.⁶ Average household size was estimated at 3.9 in 2014.

³ It is worth noting that the current age of majority is 17 although it is considered likely that this will be raised to age 18 to conform to the 12-year compulsory education cycle.

⁴ UNICEF Country Programme Document for the DPRK. August 16, 2016.

⁵ DPRK Socio-Economic, Demographic and Health Survey 2014. Central Bureau of Statistics, Pyongyang, DPRK and UNFPA, 2015.

⁶ DPRK Socio-Economic, Demographic and Health Survey 2014. Central Bureau of Statistics, Pyongyang, DPRK and UNFPA, 2015.

Improvements in young child mortality have led to average life expectancy increasing from 69.3 years in 2008 to 72 years in 2014 (68 years for males and 76 years for females).⁷ In terms of the geographical distribution, a majority of the country’s population resides in four provinces, with South Pyongan having the highest population density (comprising 17 percent of the national population), followed by Pyongyang (14%), South Hamgyong (13%), and North Pyongan (12%).⁸ As of the most recent census, males headed 91.8 percent of households.

Urbanization

Recent data (SDHS 2014) estimates the degree of urbanization in DPR Korea at 61 percent. However, the percent of younger and working age population is higher in rural areas than in urban areas. Pyongyang, which is the capital of the country and the seat of political, cultural and economic affairs, is the most urbanized province with more than 85 percent of its population living in areas classified as urban. North Hamgyong Province, home to the country’s second largest city and located in the northern part of the country, has the second highest proportion of urban dwellers (70.7%). North Hwanghae Province and South Hwanghae Province, located in the southern and least mountainous part of the country, have the lowest proportion of urban dwellers. These southern areas are largely agricultural, consisting of plains and flatlands where the population is more dispersed and less urbanized.

On the other hand, Ryanggang Province and Jagang Province, with their high peaks, have nearly two-thirds of their respective populations living in urban areas. The rugged terrain in these provinces offers very limited space for residential purposes, and a majority of the population is clustered around the few relatively flat lands that have developed into town centers.

Administratively, the country is divided into nine provinces and one municipality, Pyongyang. Provinces are divided into 210 cities or counties. The county is further subdivided into smaller geographic areas called Ri and county towns called Up. Cities consist of administrative areas known as dong. In big cities, the dongs are grouped into administrative units called districts.

Socio-economic Context

DPR Korea’s economy is centrally planned, with the role of market allocation being limited. The Government manages and allocates food, employment, housing, health care, and education. State-owned industries and agriculture account for most of the national revenue in the absence of a significant private sector. Agriculture is the foundation of the economy, and remains dependent on rainfall and traditional farming methods, which leaves the sector and the economy extremely vulnerable to the impacts of climate change and to environmental shocks.⁹



⁷ Ibid.

⁸ Ibid.

⁹ UNICEF Country Programme Document for the DPRK. August 16, 2016.

DPR Korea has experienced recurring natural disasters leading to widespread and chronic shortages of food, water & sanitation services, as well as protracted food insecurity and under-nutrition for a majority of the population since the mid-1990s. Variable agricultural production is a major challenge to maintaining a stable economy and improving living standards. Other challenges include a lack of arable land, climate shocks, a short growing season, topography, over-cultivation, and severe winters. There is also a serious lack of inputs, including machinery, irrigation, fertilizers, and pesticides¹⁰ On the global front, international trade and investments are restricted due to United Nations Security Council sanctions. Consequently, key social indicators (despite significant improvement since year 2000) are worse than before 1990.

Major industries in DPR Korea are geared towards its domestic resource base and include iron and steel production, mining, machinery, and other heavy industries. DPR Korea is endowed with substantial mineral wealth, which could form the basis for strong growth and employment. However, shortages of equipment and energy, along with restrictions on foreign investment, have meant that the mineral sector (with the possible exception of coal) is operating well below capacity.¹¹

This economic context affects the rights and welfare of the people of DPR Korea, especially women and children, through several pathways that are further explored in the sections below. An effort has been made in this analysis to uncover geographic, gender, age, disabilities, and other inequities in the context of the population's human rights and welfare.

¹⁰ World Food Programme PRRO DPRK, June 13, 2016.

¹¹ Choi, Kyung-soo "The Mining Industry of North Korea." Nautilus Institute. August 2011.

Economic Participation and Living Standards

Forty-two per cent of the DPR Korea population is engaged in the primary sector (agriculture and allied activities), with the rest of the population equally split between engagement in secondary (manufacturing) activities (29%), and the tertiary (services) sector (29%).¹² In terms of labor participation, women comprise almost half (47.8%) of the workforce.¹³ However, there is a gender differential in that more males than females are actively engaged in work – both in urban and rural areas.

While four-fifths of males are engaged in work, three-fifths of females are engaged in work. However, work participation for females *starts early and is higher* than males until age 29.¹⁴ Given that the retirement age for men is 60, and 55 for women, this accounts for some of the gender disparity in work participation.¹⁵ Women constitute more than half of the population and almost half the workforce, and therefore improving their educational opportunities at the tertiary level and higher will benefit the country's development.

In terms of gender differences in occupation, for those working in the secondary and tertiary sectors, the SDHS-2014 found that there are more females in the service sector, with more males in the secondary (manufacturing) sector. When disaggregated by urban and rural locations, more than half of urban females work

¹² DPRK Socio-Economic, Demographic and Health Survey 2014. Central Bureau of Statistics, Pyongyang, DPRK and UNFPA, 2015. Data adjusted by CBS on Monday 19 September 2016.

¹³ Combined second, third and fourth periodic reports of States parties due in 2014 to the Committee on the Elimination of Discrimination against Women (CEDAW). April 15, 2016.

¹⁴ DPRK Socio-Economic, Demographic and Health Survey 2014. Central Bureau of Statistics, Pyongyang, DPRK and UNFPA, 2015.

¹⁵ Ibid.

in the tertiary sector. In terms of living standards, gross domestic product per capita (average income) was estimated at USD \$1,013 in 2013.¹⁶ Given the unavailability of sex-disaggregated data, income-related gender disparities could not be analyzed.

Finally, DPR Korea has initiated various economic reforms over the past decade, which now allow for a limited amount of market-based activity (outside of state-run places of work). Recent studies indicate that female participation in market-based activities has increased more than male participation. While this transition has, and will continue, to impact the well-being of women and their families, adequate data is not yet available to analyze outcomes.¹⁷

At present, there is no nationally defined poverty line, and vital data on poverty, household income or expenditure is not collected. However, there is some data available on provincial, urban/rural, and gender inequalities, as well as proxy indicators such as ownership of amenities, which are provided in subsequent sections and chapters.

Housing Characteristics and Amenities

Dimensions of rights and wellbeing of children and women can also be gleaned by housing characteristics, conditions, and patterns of ownership and access to household and personal assets. The SDHS 2014 analysis found inequities in access to various household amenities and rural-urban differentials, with urban areas overall having better access. A promising finding was that access to drinking water, flush toilets,

and heating systems has improved for most households since 2008. Access to private flush toilets has increased, including among households in rural areas between the 2008 Census and the SDHS 2014.¹⁸

Heating and Cooking Fuel



Most households surveyed for the SDHS in 2014 were found to utilize coal and wood heating systems, with only one-tenth of dwellings largely confined to urban areas using central or local heating systems. This has important implications for the well-being of children (boys and girls) in households with poor heating systems. For instance, hypothermia and pneumonia have been identified as important causes of neonatal and under-five deaths in DPR Korea.¹⁹

In terms of cooking fuel, Most dwellings were found to be dependent upon coal and wood as sources for cooking fuel – with urban areas largely dependent upon coal and rural areas dependent upon wood. Very few households use electricity, gas, or petroleum as cooking fuel in their place

¹⁶ UNICEF Country Programme Document for the DPRK, 2016.

¹⁷ Zellweger, Katharina. *People with Disabilities in a Changing North Korea*. Walter Shorenstein Asia-Pacific Research Center (APRC), March 2014.

¹⁸ Ibid.

¹⁹ UNICEF Country Programme Document for the DPRK, August 16, 2016.

of residence.²⁰ Certainly, given that the SDHS 2014 survey indicated that women reported doing housework (while men did not), it can be inferred that the types of cooking arrangements and sources for cooking fuel might impact the daily lives of women more directly than that of men. Additional analysis regarding the impact of the use of coal or wood as sources for cooking fuel on women would be beneficial in terms of assessing workload and health conditions.

Table 1: Percentage of Dwellings by Household Conditions and Amenities according to Place of Residence

Household Conditions and Amenities	Place of Residence		
	Urban	Rural	Total
Electricity	100.0	100.0	100.0
A radio	89.7	83.9	87.5
A television	99.5	98.8	99.2
A bicycle	82.4	84.3	83.1
A landline telephone	60.7	11.8	42.0
A refrigerator/deep freezer	60.8	19.4	44.9
A rice cooker	69.3	45.4	60.1

Source: SDHS-2014 DPRK

Irrespective of place of residence (rural or urban), the 2014-SDHS concluded that most households have electricity connections, but little is known about the frequency of electricity supply. The study found that urban households were far more likely to possess a landline telephone (60.8% urban compared to 11.8% rural), a refrigerator (60.8% urban compared to 19.4% rural), and a rice cooker (69.3% urban compared to 45.4% rural).²¹ Even though possession of household effects is higher in urban areas, there

is very little difference in the possession of a television, a radio, and a bicycle, which was marginally higher in rural areas. However, as the table below illustrates, for items such as a landline telephone, a refrigerator/deep freezer, and a rice cooker, the urban/rural differentials are significant.

From the foregoing, it can be inferred that, on aggregate, possession of amenities is better among urban households than among rural households. Given that gender and age differentials between ownership and access were not reported as part of the survey, the potential disparities in impact on specific individuals (women, men, adolescents, girls, and boys) within the household are unknown. Further, the survey did not disaggregate overall differences between male and female-headed households in terms of ownership of amenities and household conditions. As such, information regarding the specific circumstances of families headed by females cannot be analyzed from the existing data sets.

Finally, recent studies suggest that mobile phones have become a “common form of communication,” and that the number of motor vehicles has increased among households across DPR Korea. However, data on mobile phones and automobiles were not collected as part of the SDHS 2014.²² Other sources suggest mobile phone ownership more than of 2 million. Going forward, collecting additional data on these assets will be important, including any geographical, age, or gender disparities in terms of household and individual access and ownership.

²⁰ DPRK Socio-Economic, Demographic and Health Survey 2014. Central Bureau of Statistics, Pyongyang, DPRK and UNFPA, 2015.

²¹ Ibid.

²² Zellweger, Katharina. People with Disabilities in a Changing North Korea. Walter Shorenstein Asia-Pacific Research Center (APRC), March 2014.

People with Disabilities

A transition has been taking place in DPR Korea with respect to understanding and addressing the needs of women, men, and children living with disabilities. Attitudes towards people with disabilities are changing in the country. The literature suggests that “services for people with disabilities are increasing; public awareness of the needs and rights of the disabled is growing; and the integration of people with disabilities into mainstream society is occurring, albeit gradually.”²³

Prevalence and Context

The 2014 Disability Survey²⁴ estimates the disability rate in DPR Korea at 6.2 percent – with the total number of individuals living with a disability being 1,490,000, comprised of 670,000 males and 820,000 females. This proportion varies with age, with women having higher prevalence of disabilities in the above-60 years age group, and males having a higher prevalence in the 0–14 (infants and children) and 15–59 years’ age groups. This compares to a global disability rate of 15 percent, which is higher than previous global estimates of the 1970s (due largely to an ageing population and the rapid spread of chronic diseases, as well as improvements in the methodologies used to measure disability).²⁵ Given the unusually low disability rate reported for the country, additional research is required to ascertain if DPR Korea data collection methods in this area are meeting international standards.

In terms of disability type, the population with a physical disability is estimated at 674,000 (2.8%); hearing disability estimates are 361,000 (1.5%); visual disability is reported as 313,000 (1.3%); mental and speech disability is estimated at 96,000 (0.4 per cent); intellectual disability is estimated at 72,000 (0.3%); and, compound disability is estimated at 120,000 (0.5%).²⁶

When disaggregated geographically, the population living with a disability was found to be significantly higher in urban areas at 7.3 percent of the population (1,050,000 individuals), compared to 4.8 percent of the population (440,000 individuals) in rural areas.²⁷ TA recent study indicated this as being “due to labor accidents and other disasters along with rapid development of industry.”²⁸ For instance, South Hamgyong Province has an especially high number of persons with disabilities, which was reported as being “due to labor accidents within this chemical industrial zone which houses many factories and enterprises.”²⁹

The disability survey also found disparities linked to age, sex, and occupation. By sex, the proportion of males of working age with a disability is 45%, and 55% for females. The proportion of the working population with a disability disaggregated by occupation includes the highest group comprised of workers at 49.0 percent, the second highest group comprised of farmers at 28.9 percent, and finally, officers at 22.1 percent.³⁰

Disability Rights

In most countries, the gap between commendable principles and laws supporting the disabled and

²³ Ibid.

²⁴ Disability Sample Survey 2014 DPR Korea. Korea Federation for the Protection of the Disabled, July 2015

²⁵ World Report on Disability, World Health Organization, Geneva, 2011

²⁶ Disability Sample Survey 2014, DPR Korea. Korean Federation for the Protection of the Disabled, July 2015

²⁷ Ibid.

²⁸ Ibid.

²⁹ Ibid.

³⁰ Ibid.

actual practice is great. A 2014 study concluded this to be the case for DPR Korea. “People with disabilities run the risk of becoming targets of stigmatization and discrimination; all too often they remain out of sight and may be neglected by both their home communities and the authorities.”³¹ While strides have been made, the way ahead remains challenging, with critical issues still needing to be addressed. These issues include ensuring adequate health care, education, and employment, but also matters related to communication, technology, barrier-free access, civic participation, and arts and culture.

On a positive note, the Government established the Korean Federation for the Protection of the Disabled (KFPD) to represent the rights and interests of people with disabilities. KFPD relies on both local and international donations for specific projects and programs. Its charter states: “The mission of the KFPD is to advocate and represent the rights and interests of people with disabilities in DPRK. Among its major tasks, contributions to the mental and physical rehabilitation of the people with disabilities, the establishment of a barrier-free environment, prevention of disabilities and ensuring a social status of respect for people with disabilities will be the top priority of the federation. The federation shall undertake various kinds of support services and advocate and disseminate public information to enable people with disabilities to play their role as the true masters of the society and community.”³²

Despite many challenges, the achievements already attributed to the KFPD form the basis for future development and progress. In 1999, for the first time in history, a national survey about people with disabilities was conducted. Additional surveys have followed, including

the 2014 Disability Survey (described above). The provision of assistive devices, such as wheelchairs, crutches, and hearing aids, has been initiated, as well as the production of prostheses to help those with missing limbs. Also, a Memorandum of Understanding (MOU) was signed with Handicap International, the China Disabled Persons’ Federation, and the World Federation of the Deaf, signaling an increased willingness to form partnerships and collaborations with foreign partners. Additional data collection and analysis will be important going forward to ascertain the needs and vulnerabilities of children and women with disabilities within the context of the country’s protracted food security and humanitarian crisis.

Climate and Disaster Risks

Climate change is a significant concern in DPR Korea since many human and environmental systems are already vulnerable to climate variability, including droughts and floods. Heavy rainfall events have exacerbated soil erosion in areas where forest cover has been removed and increased sediment loads in waterways and reservoirs. Forest quality is likely to be impacted by climate change because of more frequent extreme temperature and precipitation events, as well as forest fires and an increase in pests and diseases. This will have follow-on effects on local livelihoods and biodiversity. Given that much of DPR Korea is mountainous and forested, changes in the quality of forest ecosystems and warming at higher altitudes will alter species composition, to the disadvantage of some flora and fauna. Many species that are already endangered will be at greater risk from changing climate conditions.³³

³¹ Ibid.

³² Ibid.

³³ Democratic People’s Republic of Korea, Environment and Climate Change Outlook, Ministry of Lands and Environment – Pyongyang 2012

Climate projections indicate that, on balance, precipitation will increase across the country although changes are not expected to be uniform. Higher average precipitation could lead to increased flooding, landslides, and mud flows if it occurs in the already wet summer months, or if it comes in the form of heavier rainfall events (as has been observed in recent years). Extreme rainfall events are projected to increase in frequency, as are average minimum and maximum temperatures. Given that the vast majority of the population is engaged in or dependent on climate-sensitive activities, this will place considerable stress on crops and livestock, human health, infrastructure, and ecosystems such as forests and waterways.³⁴ The economic and social costs are already being felt in terms of a sustained and underfunded humanitarian crisis reflected in loss of life, crop losses, and infrastructural damage. At the time of writing, floods in North Hamgyong Province affected more than 600,000 people, washing away crops, health facilities, schools, roads and bridges, and water and sanitation facilities, causing heavy loss of life.

DPR Korea is ranked 39 out of 191 countries in terms of disaster risk, according to the Inter-Agency Standing Committee Index for Risk Management. High levels of vulnerability combined with exposure to seasonal hazards such as floods and droughts make disasters a recurrent threat, with severe impacts on children. More than 5.6 million people were affected by natural disasters between 2004 and 2015.³⁵ With climate change threatening to make extreme weather events more frequent and severe, risk reduction is a priority. DPR Korea has been engaging with the UN Framework Convention on Climate Change (UNFCCC), and has already submitted a report on Environment

Change and Climate Outlook (2012) and two National Communications. A National Coordinating Committee on the Environment has also been established, and the United Nations Development Programme (UNDP) is currently supporting a number of environment relevant projects.

The United Nations Country Team (UNCT) in DPR Korea, composed of six resident UN Agencies,³⁶ is providing support to DPR Korea to respond to the humanitarian needs. An integrated approach is being utilized to address issues surrounding nutrition, health, family planning, water and sanitation, and agriculture, in an effort to build resilience and sustainable livelihoods. The UNCT is working in partnership with the State Committee for Emergency and Disaster Management (SCEDM), established in 2012, to support disaster risk reduction, response, management, and preparedness. The UNCT has invested in improving capacities of technical officers of the SCEDM through various activities, including contingency planning, study tours, Rapid Assessments, and training workshops.³⁷

The Government of DPR Korea adopted the Law on Disaster Prevention, Rescue and Recovery in 2014. This law gives priority to the delivery of relief goods to children, women, persons with disabilities, and those critically in need of assistance in disaster-affected areas, and on setting stronger criteria for the design, construction, supervision and maintenance of buildings, such as schools and hospitals. The law secured a legal guarantee for the protection of the lives and property of people, including children, in disaster prevention, rescue and recovery.³⁸ In addition, the Law on

³⁴ Ibid

³⁵ UNICEF Country Programme Document for the DPRK, 2016.

³⁶ UNICEF, FAO, UNFPA, UNDP, WFP, OCHA and WHO.

³⁷ Ibid.

³⁸ Fifth and sixth combined report of the DPRK on the implementation of the Convention on the Rights of the Child. Pyongyang, DPRK. April 2016.

Disaster Management is being drafted. This law will support and strengthen the SCEDM, as well as disaster preparedness and response mechanisms, to more closely reflect international standards for disaster management. While these are all laudable efforts, information gaps remain regarding the specific needs, vulnerabilities, and impacts of climate change and disaster on women, children, the elderly, and those living with disabilities.

National Legislative Environment and Mechanisms for Monitoring, Reporting, and Evaluation

The Legal Framework

DPR Korea has achieved notable progress towards strengthening the legal and policy framework for women's and children's rights in recent years. The Government has ratified a number of global conventions, including the CRC and CEDAW, and has signed the UN Convention on the Rights of People with Disabilities (UNCRPD). DPR Korea is also party to other international human rights treaties, including the International Covenant on Civil and Political Rights (ICCPR), and the International Covenant on Economic, Social and Cultural Rights (ICESCR).³⁹

The Constitution contains a number of provisions safeguarding the rights of the child, as well as safeguards for women who are guaranteed equal treatment and non-discrimination based on gender or marital status. Article 65 of the constitution provides that "citizens enjoy equal rights in all spheres of State and public

activities," and the Law on the Protection of the Rights of Children stipulates in Article 3 that "all the children in the DPRK shall be ensured equal rights irrespective of their parents' or legal guardians' social origin, sex, position, property, disability or other status."⁴⁰

The constitution is operationalized through a series of laws, which are further implemented through plans, policies, and regulations. In 2014, DPR Korea endorsed 113 out of 185 recommendations of the Human Rights Council through the Universal Periodic Review.⁴¹ Many of the recommendations aim to achieve progress in the areas of maternal and child health, nutrition, water, sanitation, and hygiene (WASH), and social inclusion – as well as the broader rights of children and women as articulated in the CRC, the CEDAW, and the UNCRPD, which are described further below.

Convention on the Rights of the Child (CRC)

The Government submitted the Fifth and Sixth Combined Report on the Implementation of the CRC in March 2016, which builds on the Third and Fourth Combined report, submitted in 2007. The report covers the period of 2008–2015, and describes the legislative and practical measures taken, and progress achieved during the reporting period, for the protection and promotion of rights of the child. Further, in 2014, DPR Korea ratified the Optional Protocol to the CRC on the Sale of Children, Child Prostitution and Child Pornography and adopted the DPRK Law on the Protection of the Rights of Children in 2010. This law aims to ensure the rights and best interest of the child in their social life, education, health,

³⁹ Greg, Froniga. Gender Assessment of the United Nations Humanitarian and Development Programmes in DPRK. May, 2014.

⁴⁰ Fifth and sixth combined report of the DPRK on the implementation of the Convention on the Rights of the Child. Pyongyang, DPRK. April 2016.

⁴¹ Resident Coordinator's Annual Report 2014. DPRK – Annual Letter to the Secretary General.

family and justice, and matters related to the guidance of and supervision over the work for the protection of the rights of children. Adoption of this law has provided a legal basis for children to fully exercise their rights, as well as legalized and clarified the obligations of institutions, enterprises, organizations, and officials for the protection of children’s rights.⁴²

Convention on the Elimination of all Forms of Discrimination against Women (CEDAW)

DPR Korea presented their first report to the CEDAW Committee in 2005.⁴³ In April 2016, the Government submitted its Combined Second to Fourth Periodic Report on the Implementation of the CEDAW. The report covers the period of 2002–2015, and describes the legislative, administrative, and other measures adopted for the advancement of women and protection and promotion of their rights, as well as progress achieved.⁴⁴ DPR Korea further clarified its commitment to ensuring gender equality and non-tolerance of discrimination against women by adopting, in 2010, the Law on the Protection and Promotion of the Rights of Women. This law stipulates that DPR Korea “maintains the consistent policy of ensuring full equality of women with men and that the State shall prohibit all forms of discrimination against women.” “All forms of discrimination” in this article means the discrimination in all fields as covered by the Convention.⁴⁵

⁴² Fifth and sixth combined report of the DPRK on the implementation of the Convention on the Rights of the Child. Pyongyang, DPRK. April 2016.

⁴³ Gender Assessment of the United Nations Humanitarian and Development Programmes in DPRK. May, 2014.

⁴⁴ Combined second, third and fourth periodic reports of States parties due in 2014 to the Committee on the Elimination of Discrimination against Women (CEDAW). April 15, 2016.

⁴⁵ Ibid.

UN Convention on the Rights of Persons with Disabilities (UNCRPD)

DPR Korea also signed the UN Convention on the Rights of Persons with Disabilities (CRPD) in July 2013. It was further amended on November 21, 2013, and the Government is now doing the groundwork for ratification, including by incorporating the requirements of the Convention into domestic laws and securing necessary material conditions.⁴⁶ Importantly, on November 21, 2013, the Law on Protection of Persons with Disabilities was amended by the Presidium of the Supreme People’s Assembly (PSPA) Decree No. 3447, thus upgrading the legal system for the protection of children with disabilities and promotion of their welfare. The amended law brought the definition on persons with disabilities into line with the CRPD.

DPR Korea is taking positive steps to meet its obligations under these Conventions with a process of legal reform. The Constitution and these new laws (Figure 3), along with others already in place, are making progress towards fulfilling global agreements. However, there are several factors impeding the process of fully achieving the rights of children and women. These factors are discussed further in the sections and chapters that follow.

⁴⁶ Fifth and sixth combined report of the DPRK on the implementation of the Convention on the Rights of the Child. Pyongyang, DPRK. April 2016.

Table 2: Key Legislation in Support of Women's and Children's Rights in DPR Korea

Legislation	Strategic Intent and Implementation Status
Family Law, Citizenship Law, Nationality Law, Criminal Law	The Citizenship Law, Nationality Law, and the Law on the Protection of the Rights of Children guarantee birth registration and nationality of the children of DPR Korea. Under the Family Law, a child born out of wedlock is guaranteed the full enjoyment of the right to nationality (with all state benefits, such as food, housing, and healthcare by a household doctor). ⁴⁷ Article 9 of the Family Law stipulates the age of marriage as 18 for boys and 17 for girls. The Family Law stipulates that the husband and wife shall have equal rights within the family. ⁴⁸ The Criminal law provides that the death penalty shall not be imposed on persons who have not reached the age of 18. ⁴⁹
DPRK Law on the Protection of the Rights of Children (December 22, 2010)	This law provides for principles and issues on fully ensuring the rights and best interest of the child in their social life, education, health, family and justice, and matters related to the guidance and supervision over the work for the protection of rights of children. Adoption of this law provides a legal basis for children to fully exercise their rights, and legalizes and clarifies the obligations of institutions, enterprises, organizations, and officials for the protection of children. ⁵⁰ Article 48 of the law stipulates the age of 14 as the minimum age of criminal responsibility, while article 19 bans child labor, which can be deduced to be from the age of 16.
Law on the Protection and Promotion of the Rights of Women (December 22, 2010) and Law on Sex Equality (1946)	This law stipulates that the DPRK ensures the full equality of women with men and that the State shall prohibit all forms of discrimination against women. "All forms of discrimination" in this article means discrimination in all fields as covered by the Convention. ⁵¹
Ordinance on the Enforcement of Universal 12-year Compulsory Education (September 25, 2012)	This law specifies that all children have access to general basic knowledge and modern, basic technical knowledge free of charge throughout the 12-year education period from a 1-year preschool course at kindergartens and primary schools, to junior and senior secondary schools. It also brought about a significant improvement in the quality of general secondary education. ⁵²
Law on General Secondary Education (Adopted January 10, 2011)	This law put into place an improved system for the provision of free compulsory education.
Korean Disability Law (KDL) (November 21, 2013)	The Law on Protection of Persons with Disabilities was amended by PSPA Decree No. 3447, upgrading the legal system for the protection of children with disabilities and the promotion of their welfare. The amended law brought the definition on persons with disabilities into line with the Convention on the Rights of Persons with Disabilities. ⁵³

⁴⁷ Ibid.

⁴⁸ Combined second, third and fourth periodic reports of States parties due in 2014 to the Committee on the Elimination of Discrimination against Women (CEDAW). April 15, 2016.

⁴⁹ Fifth and sixth combined report of the DPRK on the implementation of the Convention on the Rights of the Child. Pyongyang, DPRK. April 2016

⁵⁰ Ibid.

⁵¹ Combined second, third and fourth periodic reports of States parties due in 2014 to the Committee on the Elimination of Discrimination against Women (CEDAW). April 15, 2016.

⁵² Fifth and sixth combined report of the DPRK on the implementation of the Convention on the Rights of the Child. Pyongyang, DPRK. April 2016.

⁵³ Fifth and sixth combined report of the DPRK on the implementation of the Convention on the Rights of the Child. Pyongyang, DPRK. April 2016.

Legislation	Strategic Intent and Implementation Status
Law on Disaster Prevention, Rescue and Recovery (Adopted by the PSPA Decree No. 76 on June 27, 2014)	This law provides for giving priority to delivering relief goods to children, women, persons with disabilities, and those critically in need of assistance in disaster-affected areas; on setting higher criteria for design, construction, and supervision of buildings like schools and hospitals; and, ensuring the proper maintenance thereof. It secured a legal guarantee for the protection of lives and property of people, including children, in disaster prevention, rescue, and recovery. ⁵⁴
Law on Disaster Management (Currently being drafted)	This law will support and strengthen the State Committee for Emergency and Disaster Management (SCEDM) and disaster preparedness and response mechanisms to more closely adopt international standards for disaster management.

Gender Equality and Women’s Empowerment

DPR Korea upholds gender equality and women’s empowerment in the Constitution, as well through a number of laws, most notably the Law on Sex Equality (1946), and the December 2010 Law on the Protection and Promotion of the Rights of Women (see above).⁵⁵ To comply more closely with CEDAW standards, the DPR Korea Combined Periodic Report in 2016 provided an updated definition of the meaning of “all forms of discrimination” which applies to the 2010 law, as follows: “The discrimination in all fields as covered by the Convention, that is, the discrimination on the basis of marital status, as well as direct and indirect discrimination. Stipulations in this law, such as the ensuring of equal rights of women with men in the public and political life, education, health care, employment, property, marriage and family, non-discrimination because of being woman, marriage and pregnancy and special protection of the rights and interests of elderly women, women with disabilities and girls are in line with the extent of the definition provided in the Convention.”⁵⁶

However, key gender equality and women’s empowerment issues persist. Data collected from various socio-demographic surveys and other studies indicate that more progress is merited in many areas. There is an urgent need for the systematic collection of gender-disaggregated data in DPR Korea across all sectors (health, nutrition, WASH, education, humanitarian assistance, political participation, legal rights, income, sexual and gender-based violence, cultural norms and attitudes, household conditions and decision-making, employment) and at all levels to accurately analyze, evaluate, and monitor the well-being of women, their children, and their families.

In-country interviews indicate that Koreans believe very strongly in family, community, and society. Socio-cultural norms include that the father is typically considered to be the head of the household, and women are “not supposed” to be involved in decision-making. The father is expected to provide for the health, shelter, and food needs of the family. As in many cultures around the world, women carry a double workload, conducting both work outside the home as well as the majority of the domestic chores within the home (including duties such as cooking, cleaning, and collecting water).

The empowerment and independence of women in decision-making roles appears to be slowly improving, with more women engaging in business

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Combined second, third, and fourth periodic reports of States parties due in 2014 to the Committee on the Elimination of Discrimination against Women (CEDAW). April 15, 2016.

and leadership activities. However, in terms of political participation, the statistics reveal there is more ground to cover. As of 2015, women held only 20.2 percent of the seats in the Supreme People's Assembly, 16.1 percent of the director or higher-level seats at the ministerial level, and 11.9 percent of seats on the bench as judges.⁵⁷ Given that women's education, health, and status correlates closely with child well-being, the consideration and analysis of gender variables across all humanitarian and development efforts will continue to play a central role in the country's ability to achieve sustainable and equitable development objectives.

Resources for Children

Resources for children come from donor allocations and the Government. However, due to sanctions imposed on DPR Korea, bilateral and multilateral donor support plummeted in 2015 to the lowest level in the region, as seen below:

Table 3: Per Capita ODA among Selected Countries of East Asia and the Pacific Region (US\$)

Country	Per capita ODA
DPRK	1.21
Viet Nam	25.97
Cambodia	35.47
Laos	39.43
Myanmar	67.60
Timor Leste	182.33

Source: Grundy J, et al. Public Health and International Partnerships in the Democratic People's Republic of Korea. *PLoS Med* 12(12): e1001929. Dec. 29, 2015.

Most notably, the UN Humanitarian Appeal for 2015 was only 31 percent funded.⁵⁸ The lack of

funds hindered the UN in supporting DPR Korea's implementing agencies to relieve the suffering brought about by drought, which resulted in a sharp increase in malnutrition and hunger. In 2015, the UNCT could access USD \$6.3 million from the Central Emergency Response Fund (CERF) to scale-up operations to deliver supplementary food and medicine to malnourished children under five and pregnant and lactating women, as well as to deliver emergency health kits and hygiene and sanitation items to those most in need.⁵⁹ This, however, is just a small proportion of the actual needs.

The sanctions have also resulted in the closure of many banking channels, further hindering the transfer of funds in and out of the country to support staff and activities. From 2004 to 2014, UN agencies in DPR Korea experienced a USD \$250 million drop in funding.⁶⁰ The continued decrease in funds has led to the UN having to suspend some programmes and operations targeting the needs and supporting the rights of women and children.

It is challenging to identify and analyze DPR Korea's allocation of resources for children, given that funding information released by the Government is not sector-specific. Rather, fiscal spending information is divided into three broad categories: social and cultural activities, national defense, and management.⁶¹

⁵⁷ UNICEF Country Programme Document for the DPRK, 2016.

⁵⁸ UN (2016), Secretary General Letter – DPR Korea 2015.

⁵⁹ UN (2016), Secretary General Letter – DPR Korea 2015.

⁶⁰ United Nations (2015), Needs and Priorities 2015 – DPRK.

⁶¹ Humanitarian and Development Working Group Paper on Economic Reforms, Pyongyang, 6 August 2002.







Chapter Three

The Right to Survive and Thrive

Chapter Three

The Right to Survive and Thrive

Children have the right to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health. States Parties shall strive to ensure that no child is deprived of his or her right of access to such health care services.

– UNCRRC, Article 24

Introduction

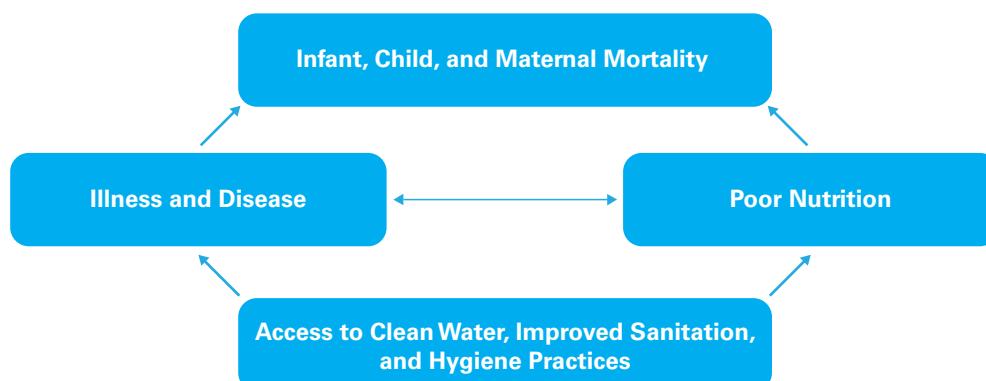
A healthy start to life enabled by easy access to quality health care, adequate nutrition, a nurturing environment, and access to safe water, sanitation, and hygiene is a pre-condition for any child to achieve his or her full potential and contribute to sustainable national development.

In DPR Korea, despite its low-income status and a series of external shocks, there have been noteworthy achievements in the move towards reducing preventable deaths. However, persistent challenges have made it difficult to fully achieve the targets of the MDGs in this area. At the same time, malnutrition remains an area of serious public

health concern. In the context of DPR Korea, there are significant risks of climatic extremes and other external factors, which have a strong negative impact on nutrition and health status.

The key focus of this chapter is on early childhood, which is the period of most rapid development in the human lifecycle. It is the time when the foundations of physical growth, and cognitive and emotional development are laid. It is also a time of extreme vulnerability, when malnutrition and disease may interact with gaps in caring practices to seriously undermine that foundation, often resulting in compromised growth and development, and even death.

Figure 2: Infant, Child, and Maternal Mortality Survival Diagram



Assessment of Survival Status

The survival of children and their mothers is an outcome of several factors in society and is often considered to be a broad indicator of overall population well-being and gender equality. The key indicators for assessing survival are infant, under-five (U5MR), and maternal mortality. Critical factors that directly affect mortality are illness and disease, nutrition status, water, sanitation, and hygiene.

The Institutional and Policy Framework

In DPR Korea, the Ministry of Public Health (MoPH) is directly in charge of the implementation of the Public Health Policy, and is responsible for treatment, prevention, and central and specialist hospitals. Sub-nationally, there are Health Bureaus at Provincial People's Committee level and the Health department at the County and Ri People's Committee levels. In 2009, MoPH developed the first Annual Health Report towards the MDGs.⁶² This report highlighted many of the challenges faced by children and women throughout DPR Korea, and has allowed the MoPH, its national partners (including the Academy of Medical Sciences and the Institute of Child Nutrition), along with its development partners, including UNICEF and the Global Alliance for Vaccines and Immunization (GAVI), to better assess and target health, nutritional, and WASH needs within the country.

DPR Korea has demonstrated strong commitment to promoting the development of young children. The Public Health Law, adopted in April 1980, governs health policy. The law elaborates 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 adopt preventive medicine in all health activities and

to strengthen the free universal medical care system.⁶³ The Law on Nursing and Upbringing of Children adopted in 1976 articulates the State's commitment to the financing of early childcare and defines the basic requirements of satisfactory/humane nursery conditions. Institutional care during early childhood is the norm in DPR Korea. The Government's conceptual approach towards early childhood care is multi-sectoral, although nurseries fall under the umbrella of the MoPH.

The policy environment for child survival is generally positive. Several supportive laws and policies to support child and maternal health are in place. They include the Plan for Child Health Improvement (2001-2010); the Strategy for Expansion of IMCI (2005-2020); and, the Strategy and Action Plan to control Child and Maternal Mortality (2014-2018). However, there is room for further improvement based on the outcomes of operational research and international best practices. Health strategies are reflected in the Medium Term Strategic Plans for Health (MTSP). The first health strategy covers the period of 2010-2015, and has already been reviewed. The second plan covers the period of 2016-2020, and is in the process of finalization. Importantly, the government of DPR Korea works with multiple partners on health considerations, including various UN agencies such as WHO, UNICEF and UNFPA, as well as the International Federation of Red Cross and Red Crescent Societies (IFRC), the Italian Development Cooperation, the Finnish Development Cooperation, and the Swiss Development Cooperation and the European Union. There are also active international partnerships which have been established with Global Health Initiatives (GAVI and the Global Fund), and a multilateral programme has been established, called "Improving Women's and Children's Health in DPRK." Combined, the efforts of the government, along with partnering entities, have improved the environment for progress with respect to child survival.

62 DPR Korea (2013), Universal Periodic Review

63 Country Cooperation Strategy (2014-2019) –WHO, 2014

Infant and Young Child Mortality

There are a variety of estimates of neonatal, infant, and child mortality for DPR Korea. Broadly speaking, there are the global estimates prepared by the UN Interagency Group for Child Mortality Estimation (IGCME), and the local estimates based on surveys technically supported by UN Agencies and implemented by the CBS. There are also relatively complete vital statistics records for the country, which may be compared to local survey data. Whichever set of data one analyzes, some clear trends and a few areas of divergence are discernible.

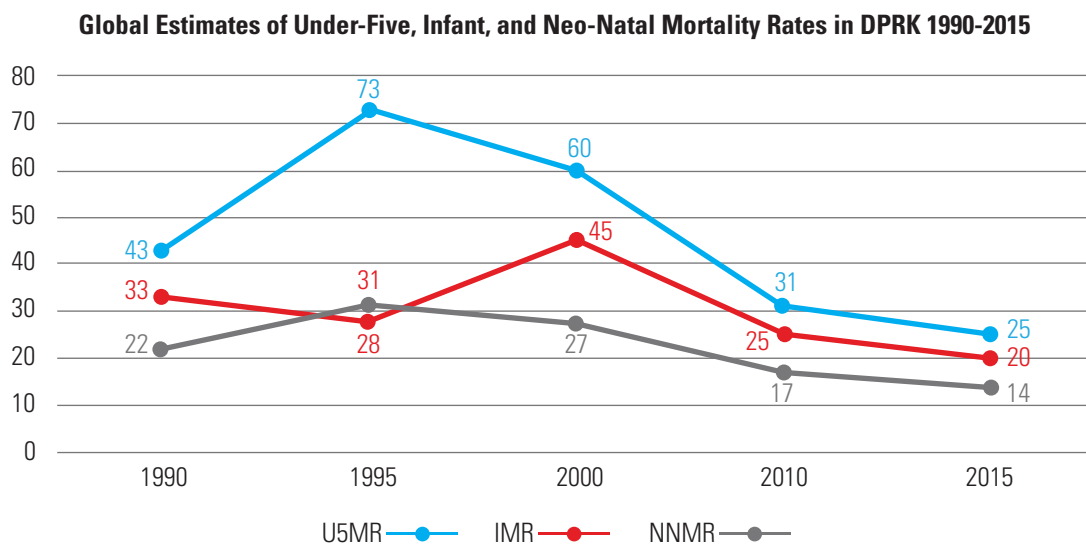
All estimates agree that despite a significant uptick in mortality during the mid-1990's (due to challenges facing the country in that period), there has been a significant decline in infant and child mortality between 1990 and 2015. However, data from the ICGME suggests that the MDG target of two-thirds reduction in U5MR was not achieved. According to the same data source, over the period 1990–2012, there was an average annual reduction of 1.9 percent compared to 6.1

percent between 2000 and 2012 in the U5MR. This is a cause for optimism going forward.⁶⁴

Between 1990 and 2015, the number of under-five deaths decreased from 16,000 to 9,000 (or 25 per day). Neonatal deaths decreased from 8,000 in 1990 to 5,000 in 2015 (or 14 per day). From this, it is clear that neonatal mortality is a high and increasing proportion of the overall U5MR, and reducing child mortality requires that efforts be focused on the first 28 days of life.⁶⁵

According to local estimates, a similar pattern of reduction in infant and child mortality occurred, but despite difficulties in comparing diverse sources of data, it appears that the MDG target for U5MR may have been reached. Although there is only one data point for neonatal mortality, it appears that by local estimates neonatal mortality is approximately 34 percent of infant mortality, and the U5MR is based on civil registration data. This compares to 56 percent in the ICGME data. Reducing neonatal mortality is the clearest pathway to reducing U5MR.

Figure 3: Global Estimates of Under-Five, Infant, and Neonatal Mortality Rates in DPRK 1990–2015

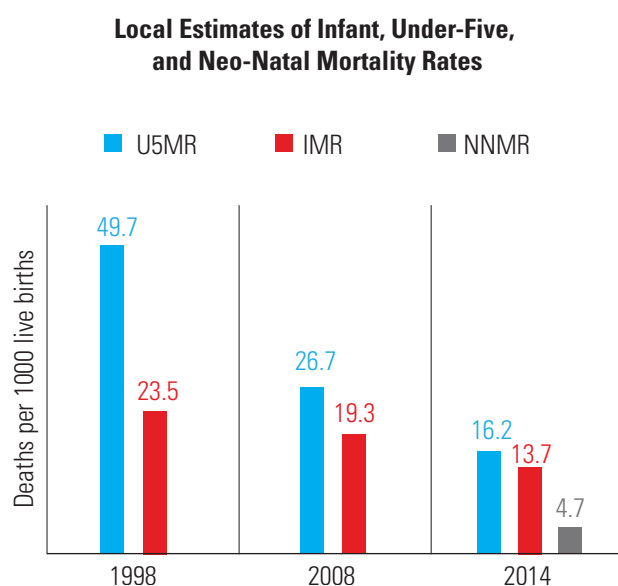


Source: Interagency Group for Child Mortality estimates 2015

⁶⁴ Levels and Trends in Child Mortality Report 2015. UN Interagency Group for Child Mortality Estimates. UNICEF, WHO, World Bank Group and the United Nations 2015.

⁶⁵ Ibid.

Figure 4: Infant, Child, and Maternal Mortality Survival Diagram



Sources: 1998 MICS, 2008 Census, 2014 SDHS

Among the key drivers of this reduction in U5MR is a steady improvement in both access to, and the quality of available health services. This has occurred since the steep decline experienced in the decade of the 1990s. This strengthening included the acceleration of the Integrated Management of Newborn and Childhood Illnesses (IMNCI) programme, which focused on the major causes of U5MR, including pneumonia, diarrhea and under-nutrition, vaccination, and emergency obstetric care. For example, there was a sharp increase in immunization coverage from 43 percent in 1998 to 94 percent in 2014. Thus, there are no longer any reported deaths from tetanus and measles, and the increased immunization coverage has meant a 2.5 percent decline in U5MR per year (EPI, 2015). Under-five deaths from diarrhea have been reduced from 15 percent of the total in 2009, to 5 percent in 2014. This is a very good outcome for a low-income country with limited resources and limited external support.

Equity Dimensions

Table 4: Infant Mortality Rate by Sex and Location, 1993 and 2008

Census	Area of Residence	Both sexes	Male	Female
1993	DPR Korea	13.9	14.9	12.8
	Urban	11.8	12.7	10.8
	Rural	16.6	17.7	15.4
2008	DPR Korea	19.3	20.4	18.3
	Urban	17.6	18.5	16.7
	Rural	21.7	23.0	20.5

Source: Census 2008

Differentials in mortality rates were found based upon gender and geographic location. Table 4 above illustrates the increase in mortality rates between 1993 and 2008 (for which the causal factors are discussed in chapter 2). The data also indicates that males are more prone to infant mortality, though the reasons for why this is the case merits further study. Finally, the data shows that infant mortality rates are substantially higher in rural than urban areas. This is due in large part to the relatively limited availability of key inputs and services in the rural areas (and possibly a lack of transportation to seek medical assistance.) See the analysis of Supply below for more detail.

The data also suggests that there is not much variation in the rate of infant and under-five mortality between provinces. Infant mortality ranges from 18.6 deaths per 1,000 live births in Pyongyang to 21.3 in South Hwangae. Under-five mortality ranges from 25.7 deaths per 1,000 live births in Pyongyang to 29.5 in South Hwangae. The higher rates in South Hwangae are attributed to the largely rural nature of the province.⁶⁶

⁶⁶ MDG Progress Report and Annual Health Status Report, MoPH 2011.

Table 5: Comparative Outcomes and Performance-Reduction in U5MR in East Asia and the Pacific (1990–2015)

	Cambodia	China	DPRK	Indonesia	Lao PDR	Myanmar	Thailand	Viet Nam	EAP aver.
U5MR	29	11	25	27	67	50	12	22	18
ARR*	8.9%	8.3%	5.9%	4.4%	3.8%	3.3%	4.0%	3.0%	5.6%

Source: State of the World's Children, UNICEF 2016

*ARR – Annual Rate of Reduction 2000–2015

The MoPH has set an U5MR target of 14.0 deaths per 1,000 live births and an IMR target of 10.0 deaths per 1,000 live births by 2020. These targets should contribute to a discussion on SDG targets given the commitment of the Government to focus on the SDGs. The MoPH, with the support of UN agencies, is collecting data against a number of the SDG targets.

Immediate Causes of Child Mortality

More than half of under-five deaths occur during the first 28 days of life. The top four causes of neonatal death in DPR Korea are pre-term birth, intra-partum factors, congenital defects, and sepsis and hypothermia. In the post neonatal period, pneumonia and diarrhea are also major contributors. Under-nutrition is also recognized as a major underlying cause and co-factor of both maternal and child mortality and morbidity. Immediate causes of poor nutrition are inadequate nutrient intake, illness, and disease. These two causes are mutually reinforcing.

Regional Comparisons

As evidenced in Table 5 below, DPR Korea is among the countries with an U5MR in the 20–30/1,000 range and has outperformed some countries with higher income and access to external resources. Nevertheless, there is still work to be done for the country to catch up with Thailand and China, and fully achieve the right to life. Maintaining and increasing the annual rate of reduction would ensure that fewer children

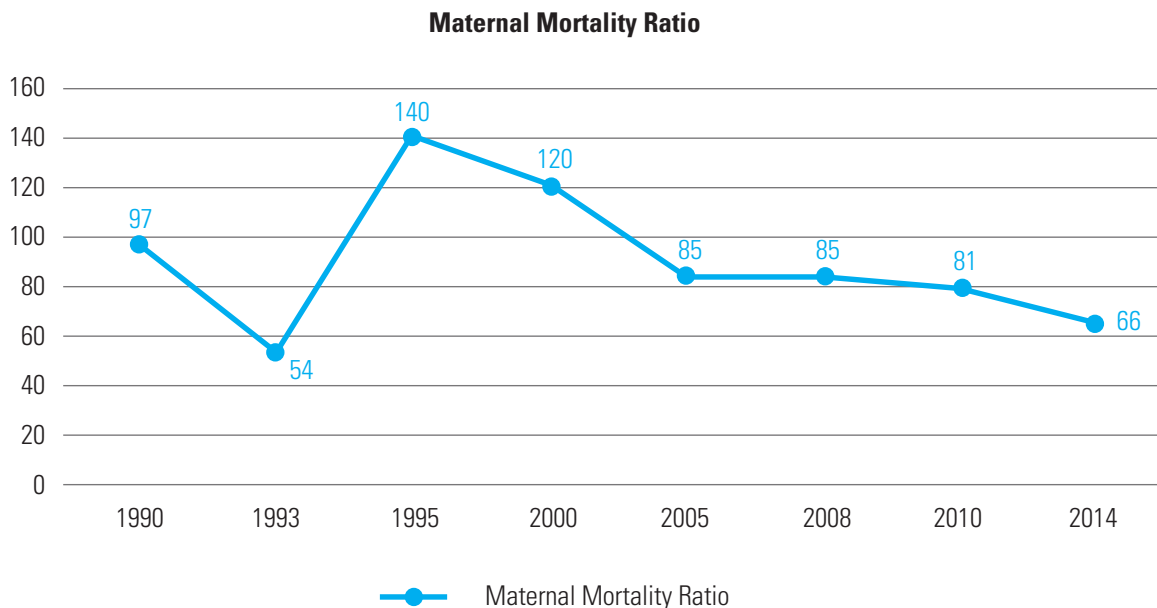
died and more children would enjoy a fulfilled and healthy life. Although DPR Korea did not achieve the MDGs, it could still be on track to achieve the SDGs.

Maternal Mortality

Health outcomes for children are largely tied to health outcomes of the mother. The Maternal Mortality Ratio (MMR), which was estimated at 97 deaths/100,000 live births in 1990, was measured at 58 in the 1993 census. Because of the severe economic and social stress experienced in the 1990s, there was a sharp increase in the MMR, which peaked at 140 deaths/100,000 live births in 1995. Subsequently, it reduced rapidly as the country adjusted to the new realities and was able, with support of international partners, to implement a series of measures that ultimately led to an estimated rate of 65.9 in 2014. The MMR as tabulated during the Census in 2008 is much higher in rural areas (105) than in urban areas (70.7), and more than half of maternal deaths occur at home.⁶⁷

The estimation of maternal mortality in the SDHS 2014 was based on the use of civil registration data with adjustments calculated through a maternal mortality validation exercise undertaken in 2009. The MMR thus obtained through this method has depicted a decline in trends from 85.1 in 2008 (adjusted after the MMR Validation

⁶⁷ Maternal Mortality Validation Study by Central Bureau of Statistics and UNFPA (2009).

Figure 5: DPRK Maternal Mortality Ratio

Sources: Population census 1993, 2008, the Social Demographic Health Survey 2014 and UNICEF Fact Sheet 2013

Study, 2009) to 65.9 in 2014, which is also reinforced by the two decadal MMR analysis published by the United Nations (2015).⁶⁸ The MoPH has set a target of 45 deaths per 100,000 live births for 2020. This should form the basis for a discussion on an SDG target for MMR.

Despite missing the MDG target of 21 deaths per 100,000 live births, the significant progress since 1995 bodes well for further progress – if risks can be managed, and resources are made available and are equitably accessible.

Causes of Maternal Mortality

Women in DPR Korea receive free antenatal checks from health workers, including home visits, and typically give births in clinics or hospitals. However, inadequate knowledge, practices, and a lack of equipment for testing is an obstacle for reducing the Maternal Mortality Ratio (MMR). Direct and indirect causes of the MMR in DPR Korea include eclampsia, sepsis, hemorrhage, and under-nutrition (for instance,

28 percent of pregnant and lactating women are undernourished).⁶⁹ Leading direct causes of maternal mortality include hemorrhage (28.9%), sepsis and infection (8.9%), and eclampsia (7.8%), while indirect causes include cardiovascular disease (8.8%), digestive system disease (8.2%), and respiratory system disease (7.5%).

Complications during pregnancy can affect both the mother's and the baby's health. Health problems a woman may experience during pregnancy include: anemia, urinary tract infections, hypertension, gestational diabetes mellitus, overweight and obesity, infections, and specific mental health conditions. Some of these health conditions may lead to serious complications, jeopardizing the life of both the mother and the child. For instance, hypertension may lead to eclampsia, a life-threatening condition during which the mother develops convulsions, and which is often followed by a coma.⁷⁰

⁶⁸ Socio-economic, Demographic and Health Survey 2014. CBS/UNFPA, 2015.

⁶⁹ *Knowledge, Attitude Practice Study on Reproductive Health in DPRK*. Central Bureau of Statistics and UNFPA (2011).

⁷⁰ Socio-economic, Demographic and Health Survey. CBS and UNFPA 2014.



Other factors affecting maternal health include a very high rate of abortion, and child loss due to miscarriage or stillbirth. Approximately 11.5 percent of women surveyed in the SDHS 2014 reported having had an abortion, miscarriage, or stillbirth over the previous five years. Further calculations of the data led to an estimate that 202 pregnancies for every 1,000 live births were lost, with a higher rate in urban areas as compared to rural areas.⁷¹

Data from the most recent census clearly indicates that *maternal mortality declines with a rise in a woman's level of education*. For those with secondary education or less, the MMR is estimated at 91.2; for those with vocational or specialized school education the rate drops to 72.6; and, for those with university or higher education, the rate further drops to 39.0. These striking statistics highlight the vital importance of women's education to maternal mortality and overall child survival and health.

A little more than half of all births occurred among mothers in the 25–29 years age group, which also has the lowest MMR at 67 deaths per 100,000 live births. The risk of dying due to complications of pregnancy is highest at 185 per 100,000 live births in mothers above 35 years of age.

A DPR Korea Maternal Mortality Validation Study indicated that two-thirds of maternal mortality occurred at home with a much higher ratio of 74.3 percent in rural areas compared to 58.5 percent in urban areas. One-third (33.3%) of deaths occurred during pregnancy, 10.9 percent during or after abortion, and 55.8 percent during or after childbirth. Other contributing factors included delays in seeking health care; delays in reaching care (caused partially by lack of accessible facilities and difficulty of accessing transportation); and, delays in treatment (as outlined in Table 6 below). Clearly, further qualitative research is needed to better understand the reasons for the delays in accessing this vital health care – which may include transportation barriers to women, a lack of information and knowledge regarding symptoms, lack of mediations and equipment, or any number of socio-cultural, gender, or economic factors.

Table 6: Delay Factors Urban/Rural (%)

Type of Delay	Total	Urban	Rural
Delay in deciding to seek health care	58.2%	55.6%	60.5%
Delay in reaching care	19.4%	12.0%	26.3%
Delay in treatment	28.9%	27.5%	30.3%

Source: DPR Korea Maternal Mortality Validation Study 2009. CBS/UNFPA 2012

71 Ibid.

Equity Dimensions

The levels of maternal mortality vary by province. Maternal mortality is lowest in Pyongyang (68) where maternal health facilities and services are much more accessible to pregnant mothers. North Hwanghae, likewise, has a low MMR, estimated at 71. Its proximity to Pyongyang gives pregnant women the advantage of the improved maternal care services available in the capital city. On the other end of the spectrum, high maternal mortality prevails in the two northernmost provinces, Ryanggang and North Hamgyong, with estimates of 86 and 84 respectively. The ruggedness of the terrain and the difficulty of road transportation (or lack of access to a vehicle) in these parts of the country are possible contributory factors, which make services, especially emergency obstetric care, less accessible to many pregnant women in these areas. Additional qualitative research is needed to better ascertain the reasons for higher levels of maternal mortality in rural areas.

Regional Comparisons

Table 7: Comparative Outcomes and Performance-Reduction in MMR in East Asia and the Pacific (1990–2015)

	MMR*	Lifetime Risk**
Cambodia	161	210
China	27	2,400
DPRK	82	660
Indonesia	126	320
Lao PDR	197	150
Myanmar	178	260
Thailand	20	3,600
Viet Nam	54	870
EAP aver.	62	880

Source: State of the World's Children, UNICEF 201

*Maternal deaths per 100,000

** Of maternal death (1 in)

The country has not yet managed to achieve the MDGs, but is well positioned to build on and accelerate recent progress. As seen in Table 7 above, DPR Korea is performing better than four of the countries in the region (including Cambodia, Indonesia, Lao PDR and Myanmar), and trailing three other countries (China, Thailand, and Viet Nam). DPR Korea's MMR is higher than the East Asia Pacific country average of 62 maternal deaths per 100,000. Recent policy changes supported by additional resources can ensure that DPR Korea moves up the ladder of achievement.

Illness and Diseases Affecting Children in DPR Korea

Pneumonia and Diarrhea are the two leading killers of children in DPR Korea, between them accounting for roughly 22 percent of under-five deaths. The incidence rate of pneumonia was estimated at 51.3 per 1000 children in 2013, while that for enteritis or diarrhea was estimated at 74.1 per 1000 children. According to the latest WHO data published in May 2014, influenza and pneumonia deaths overall reached 12,490 or 5.98 percent of total deaths in the country – making it the fourth largest cause of death among all age groups. Lack of access to safe drinking water and adequate sanitation services are key contributing factors to the higher incidence of diarrhea, respiratory tract infections, and waterborne diseases.⁷²

The MoPH set targets for the reduction in diarrhea from a baseline of 8.5 percent in 2016 to six percent by 2020, and for Acute Respiratory Infections (ARI) from a baseline of 6.5 percent in 2016 to five percent in 2020.

⁷² Annual Health Report of DPR Korea 2014 – MoPH, 2015.

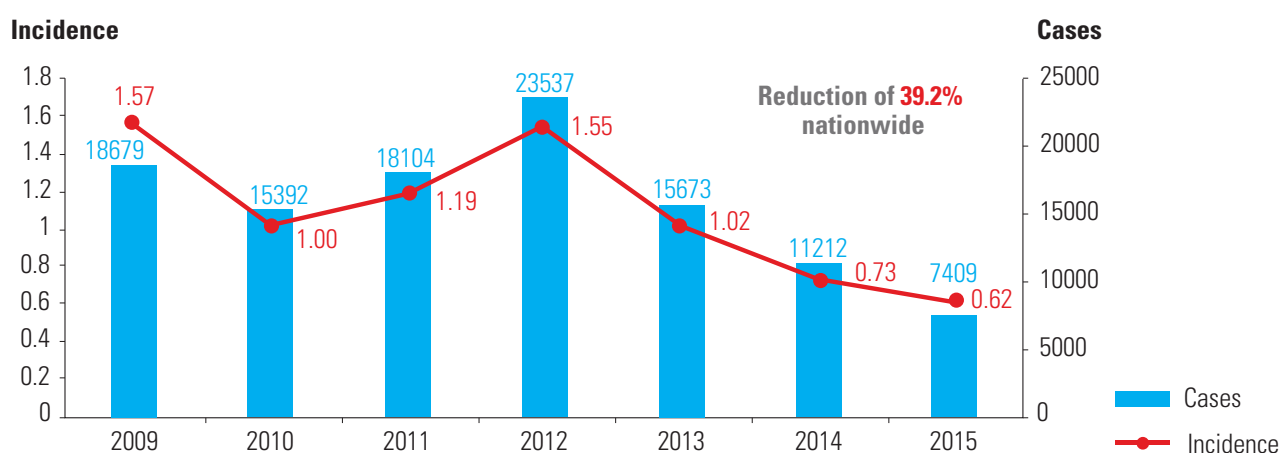
Table 8: Incidence Rate of Diarrheal Disease and Respiratory Illness

Description	Diarrheal Disease	Respiratory Infections
Total	8.5	6.5
Male	9.3	6.7
Female	7.7	6.3
Ryongyang	9.0	5.6
N. Hamgyong	12.3	7.0
S. Hamgyong	8.9	6.2
Kangwon	8.5	8.6
Jagang	9.5	6.2
N. Phyongan	7.9	7.5
S. Phyongan	8.0	4.6
N. Hwanghae	7.4	8.0
S. Hwanghae	7.0	6.3
Pyongyang City	8.1	6.5

Source: Annual Health Report of DPR Korea 2014. MoPH, 2015

Malaria was a major issue in DPR Korea from the late 1990s to the early 2000s. The MoPH, with support from WHO and UNICEF, has contributed to a 95 percent reduction in cases between 2000 and 2015, as the reported malaria cases

declined from 115,615 in the year 2001 to 7,409 in the year 2015.⁷³ DPR Korea now has one of the lowest malaria incidence rates in the WHO South East Asia Region, and the country is in the pre-elimination phase with a target of elimination by 2025. Malaria transmission season is from May to October, and the disease remains endemic in six provinces and two cities, where over 62 percent of the country population resides. Adults are the most affected, and the incidence among under-five children and pregnant women is low at 2.1 percent. The proportion of malaria cases among children under five years of age is estimated at 0.6 percent. Fifty-six percent of malaria-endemic areas with most at-risk populations, as identified and targeted for LLINs, have already received LLINs with 99.9% coverage. The 2015 KAP survey indicated that the awareness rate of malaria (among this most-at-risk population) was high at 99.6 percent; the correct knowledge on transmission route of malaria was 97.3 percent; and, the proportion of children under five sleeping under bed-nets was 98.3 percent (higher than that of 2011). Continued pre-elimination efforts with transition to elimination is vital to realize successful malaria elimination with minimal risk of resurgence.

Figure 6: Trends in malaria cases and incidence, DPR Korea (2009–2015)

Source: Programme Management Unit, Ministry of Public Health

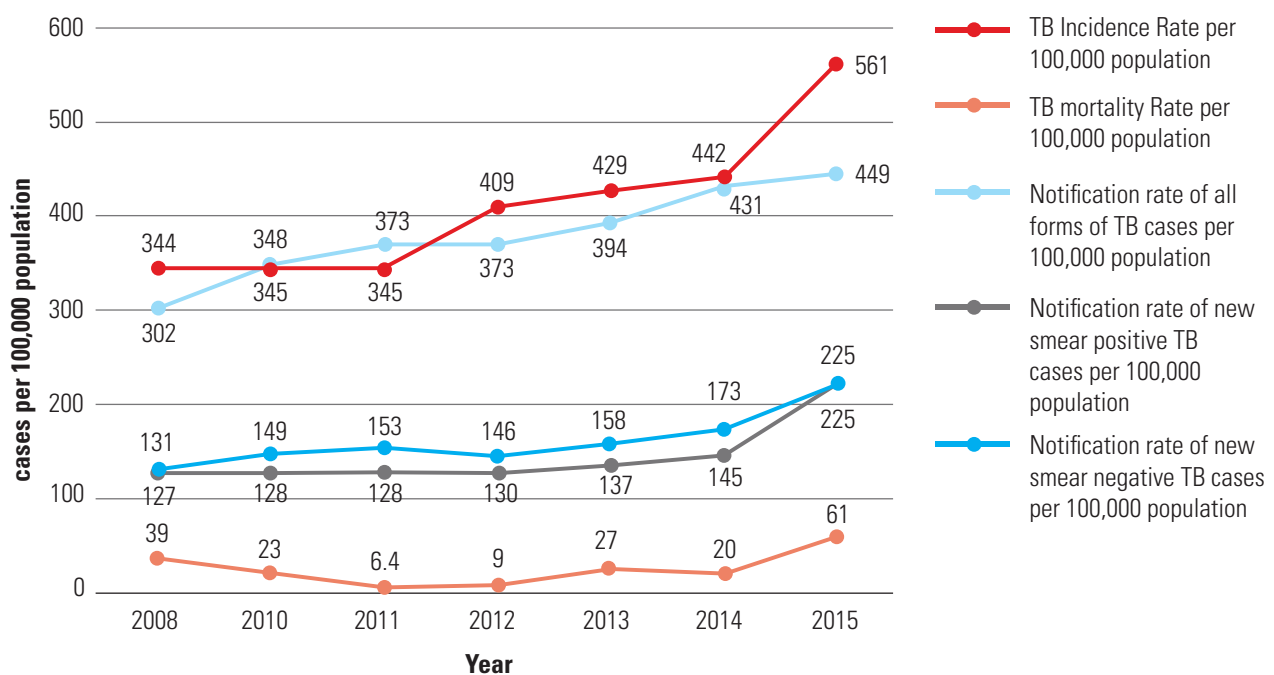
73 World Malaria Report 2015, WHO Geneva.

Tuberculosis (TB) remains a major public health problem in DPR Korea. According to the most recent WHO estimates for 2015, TB incidence has increased from 345 per 100,000 (2010) to 561 per 100,000 (est. 141,000 new cases) in 2015, while the TB prevalence has increased from 399 per 100,000 in 2010, to 587 per 100,000 in 2015. An estimated 15,000 deaths (61 per 100,000) were attributed to TB in 2015. The total of TB cases (all forms) officials were notified of was 120,722 in 2015. The country has already met the international target of a 50 percent reduction in TB mortality rates between 1990 and 2015, suggesting relatively good case management. Complicating matters, however,

is the growing proportion of multi-drug resistant (MDR) TB strains, which are more complicated and expensive to combat. The Global TB Report of 2016 indicated that 125 new MDR cases were enrolled on treatment under the Global Fund programme in DPR Korea during 2015, and that there was an 84 percent treatment success rate.⁷⁴

From the above Table 9 we can observe that TB affects men more than women, and that it increases with age up to age 44, where it starts reducing. Children under the age of 15 are reportedly relatively less affected than adults.

Figure 7: Trends in key Tuberculosis indicators, DPR Korea



Source: Global TB Reports and Programme Management Unit, Ministry of Public Health

Table 9: Notified New and Relapse Cases of TB per 100,000 by Age and Sex in DPRK, 2014

	0–4	5–14	15–24	25–34	35–44	45–54	55–64	65+
Female	44	121	238	405	456	395	330	115
Male	49	144	367	632	739	671	667	377

Source: Global Tuberculosis Report, WHO 2015

⁷⁴ Global TB Report, 2016. WHO Geneva.

Since 2010, UNICEF DPRK has been working as Principal Recipient for the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), which supported malaria and TB programmes in DPR Korea with WHO as the sub-recipient and MoPH as the implementing partner in this capacity, UNICEF received a total of approximately USD \$24.8 million for anti-malaria activities since 2010, and is expecting to receive a further USD \$8.86 million to cover the period 2015–2018. It also received USD \$47.1 million for anti-TB activities. Another USD \$28.44 million is expected for the period 2015–2018 for scaling up TB services, including enhancing coverage in children by strengthening diagnostic capacities and treatment for pediatric TB.

The programme is being implemented in all provinces except Jagang. There are regional differences; inland western provinces show lower notification rates when compared to east coast areas, and notification rates have unexpectedly declined in some provinces. In some cases, the effectiveness of community health activities may explain higher rates resulting from better access to services, whereas lower rates are reported for more rural and dispersed populations.⁷⁵ Gender-disaggregated information was not fully available to further analyze if there are gender-specific differences in community health activities or access to services within these populations.

Nutrition

The State of Child and Maternal Nutrition in DPR Korea

Poor nutrition is a major public health concern and a primary underlying cause of maternal and child mortality in DPR Korea. Women and children are particularly at risk, as they have special nutritional needs. Overall, approximately 10.5 million people

or 42 percent of the population are considered undernourished, while 18 million are highly vulnerable to fluctuations in food production. Only 16 percent of households in DPR Korea experience acceptable food consumption standards, and serious gaps remain between the recommended and actual nutrient intake.⁷⁶

In DPR Korea, malnutrition tends to spike during periods of climatic extremes, which affect the availability of food for distribution through the Public Distribution System (PDS). Food distribution through the PDS system is the primary source of food for 70 percent of the population. An estimated 2.4 million people in the most food insecure provinces, among them children, pregnant and lactating women, and the elderly, need regular food assistance. There is a severe lack of protein, fat, and micronutrients in the national diet. Fluctuations in production due to climatic factors, such as drought and floods, significantly increase the risk of malnutrition.

This was well illustrated during the crisis of the 1990s, when there was a sharp increase in malnutrition and mortality. More recently, El Niño weather patterns led to a serious drought in 2014 and 2015, the effects of which are still being felt. According to the UN, severe acute malnutrition among DPR Korean children was up 38 percent in 2014. Between January and May 2015, there was a sharp spike in diarrhea cases affecting children in North Hamgyong Province. Diarrhea cases were up significantly in other parts of the country from the previous year: 71 percent in North Hwanghae Province, 52 percent in South Phyongan Province, and 34 percent in South Hamgyong Province. The lack of safe drinking water during droughts and floods is linked to increases in cases of diarrhea.

In 2014–2015, eighteen months of abnormally dry weather affecting the country resulted in

⁷⁵ Global Fund/UNICEF TB and Malaria Programme in DPRK – Working Document 2, April 2016.

⁷⁶ DPR Korea 2016 Needs and Priorities Report – UNCT, 2016.

a drought. This affected 18 million people in PDS-dependent households vulnerable to food insecurity and malnutrition, including 1.7 million already-malnourished children, and pregnant and lactating women. In the most affected areas, the combination of underlying vulnerability and the impact of the drought resulted in a 72 percent increase on average in cases of diarrhea from the previous year and a significant increase in malnutrition.⁷⁷

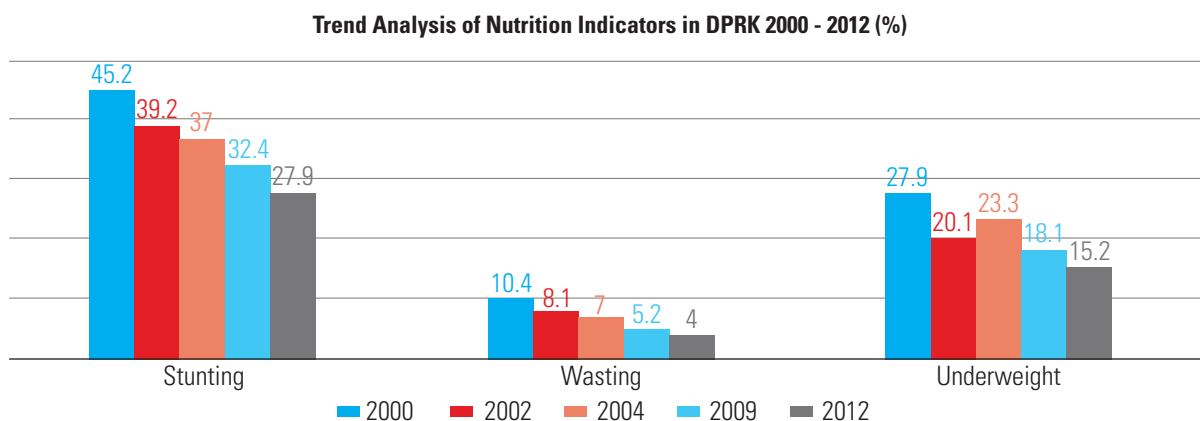
Before 2015, only 16 percent of children under five had access to treatment services of severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) presenting with other medical conditions. With UNICEF support, in 2015, the CMAM programme witnessed geographical expansion and outreach to 149 delivery sites for the Community Management of Acute Malnutrition (CMAM) in 149 counties with the highest burden, making nutrition services accessible to about 60 per cent of under-five population. There has been no reduction in SAM (0.5 percent in 2009, and 0.6 percent in 2012), illustrating that the underlying causes of malnutrition such as access to essential medicines, quality water, and sanitation, or food diversity, are still challenging the health and growth of children. At the time of writing, some 25,000 children with severe acute malnutrition were in



need of immediate treatment as a result of the drought crisis in 2015. More than 350,000 children have not been vaccinated and now have worryingly low immunity profiles, because malnutrition leaves them even more vulnerable to infections.

Despite the modest improvement, malnutrition rates in DPR Korea, notably for stunting and underweight, remain at levels too high to ensure good health. The National Nutrition Survey (2012) also found that around 85 percent of children under the age of two, as well as half of their mothers, did not have sufficient dietary diversity to protect against the irreversible consequences of food insecurity. Stunted and wasted children suffer poor growth without proper nutritional

Figure 8: Trend Analysis of Nutrition Indicators in DPRK 2000–2012 (%)



Source: Final Report of the National Nutrition Survey 2012 – CBS, DPRK

care, due to decreased intake of protein, vitamins, and minerals. Evidence shows that the effects often carry over to the next generation, as inadequately nourished mothers tend to have low birth weight children.

Equity Dimensions

There exists a huge regional disparity in childhood malnutrition. The five provinces located in the northeast area, Ryanggang, North Hamgyong, South Hamgyong, Kangwon, and Jagang, exhibited significantly higher rates of children with stunting and underweight than other region.⁷⁸ The rates of stunted and underweight children in Ryanggang, specifically, were 45 percent and 25 percent respectively – even as MoPH has set a target to decrease stunting to below 25 percent by 2020.

Pyongyang, on the other hand, recorded about half the estimates of the stunting and malnutrition rates for Ryanggang. Such regional differences in child malnutrition status are due to the differences in food security among different regions. Mountainous areas, such as Jagang, Ryanggang, and North Hamgyong, are known to be most vulnerable to food security issues. In other words, these provinces benefit relatively less from international food aid.⁷⁹

Given that half of the children under five in DPR Korea live in those regions, and child malnutrition increases vulnerability to almost all diseases, the burden of disease that will be experienced in the future by the malnourished children of such areas must be reduced and, eventually, eliminated. In terms of gender differentials, the National Nutrition Survey of 2012 did not find any statistically significant difference in stunting rates between boys and girls.

Maternal Nutrition Status

Two key measures of maternal nutrition used in DPR Korea that demonstrate an impact on both maternal health and pregnancy outcomes are anemia and acute malnutrition (as defined by either low mid upper arm circumference (MUAC) or low body mass index (BMI)). Data for BMI and low stature are not available at present. MUAC below 22.5 cm is considered as a risk factor, while that below 21.0 cm is considered as an elevated risk, and below 18.0 cm is considered as high risk. Data from the 2012 Nutrition Survey indicated that 32 percent of women aged 15–49 are considered to have poor nutrition status based on MUAC below 22.5 cm.⁸⁰

Iron deficiency anemia in pregnancy is a risk factor for preterm delivery, which is the largest cause of neonatal death, and subsequent low birth weight, and possibly for inferior neonatal health. The anemia prevalence in women of childbearing age was estimated at 31 percent in the National Nutrition Survey 2012, continuing the slow but steady decline from 34.7 percent in 1998. Maternal anemia may result in childhood anemia with adverse consequences on child development.

Iron and folic acid supplementation for women has been introduced towards promoting the nutritional and physical status of women and prevention of maternal anemia, which is regarded as a key contributing factor of neonatal mortality. In 2014, the estimated coverage of the targeted group reached 76 percent with iron folate supplements. It should also be noted that improvement of maternal nutritional health is also closely related to non-nutritional factors such as workload, education (among other gender considerations) and disease burden.

⁷⁸ DPRK National Nutrition Survey - CBS 2012.

⁷⁹ Ibid

⁸⁰ DPRK National Nutrition Survey – CBS 2012.

Low Birth Weight

Low birth weight (LBW) babies, weighing less than 2,500 grams at birth, are at risk of adverse outcomes. The three main causes of LBW are the mother's poor nutritional status before conception, short stature (due mostly to maternal under-nutrition, and her childhood infections), and poor nutrition during pregnancy. Inadequate weight gain during pregnancy accounts for a large proportion of foetal growth restrictions, as stunted mothers are more likely than others to produce stunted children with LBW, thus transmitting malnutrition to the next generation. Moreover, diseases such as diarrhoea, worm infestations (Soil Transmitted Helminths – STH), tuberculosis, and malaria can significantly impair foetal growth, if the mother becomes infected while pregnant. Likewise, the use of coal or wood for heating and/or cooking inside the house may also contribute to this outcome. (Note that household use of coal and wood for cooking and heating is described in chapter 2.)

Children with LBW may be more susceptible to infectious disease and death. Weight at birth is a proxy indicator of maternal health and nutritional status and impacts a new-born's chances for survival, growth, long-term health, and psychosocial development. An estimated 60 to 80 percent of neonatal deaths occur among LBW babies.¹⁹ Those who survive tend to have impaired immune functions and an increased risk of disease; they are likely to remain undernourished, with reduced muscle strength, cognitive abilities, and IQ throughout their lives. As adults, they suffer a higher incidence of diabetes and heart disease. Appropriate nutrition and adequate weight gain during pregnancy is essential to break the intergenerational cycle of malnutrition. In DPR Korea, the latest estimates on LBW suggest a rate of approximately six percent in 2009 (MICS 2009) declining to around five percent in 2012 with a target of four percent set for 2015.⁸¹

Comparative Perspective

Table 10: Comparative Outcomes and Performance in Nutrition – East Asia and the Pacific (1990–2015)

	Stunting*	LBW**
Cambodia	32	11
China	9	N/A
DPRK	28	6
Indonesia	36	9
Lao PDR	44	15
Myanmar	35	9
Thailand	16	11
Viet Nam	19	5
EAP avg.	11	N/A

Source: State of the World's Children, UNICEF 2016

* Height for Age

** Low Birth Weight

As outlined in Table 10 above, DPR Korea appears to have performed better in reducing stunting than four countries in the East Asia and Pacific region, but is lagging behind three other countries. With respect to LBW, DPR Korea appears to have performed better than all countries except Viet Nam. Note, however, that LBW data for China was not reported.

Iodine, Vitamin A, and Iron Deficiency

Data on micronutrient deficiencies is relatively scarce in DPR Korea. The two most recent sources of data include an Iodine Deficiency Disorders (IDD) Survey carried out by CBS, ICN, and MoPH in 2010, and the National Nutrition Survey of 2012. Healthy levels of Urinary Iodine Concentration are above 100 for school children and above 150 for pregnant women. The IDD survey concluded that 51.3 percent of schoolchildren in DPR Korea had less than the minimum required for healthy nutrition. Total Goiter Rate (TGR) is another indicator of IDD. In the same survey, it was found that the

⁸¹ Country Cooperation Strategy 2014–2019 – (WHO 2013).

national average of TGR was 19.5 percent (mild), and reached 31 percent (severe) in the Northern and mountainous provinces. Girls (21.5%) had a notably higher rate than boys (16.5%). Further study is needed to ascertain the reasons for this disparity. At the same time, 95 percent of the population were aware of the importance of iodized salt, but only 23 percent of surveyed households were found to be consuming adequately iodized salt (above 15ppm). Again, further survey data is needed to uncover the reasons for inadequate consumption of iodized salt.

Iron Deficiency Anemia is of concern in DPR Korea, with 28.7 percent of under-fives and 31.2 percent of their mothers affected in 2012.⁸² These levels of anemia are considered to be a moderate public health issue by WHO standards.³² At the provincial level, the following provinces experienced above average rates of child anemia – Kangwon (39.3%), South Hamgyong (35.1%), Jagang (33.8%), and Ryanggang (33.3%). According to the NNS, there are no significant sex differentials in child anemia.⁸²

A significant association is found between stunting and anemia while no association appears between acute malnutrition and anemia. Both stunting and anemia may be caused by multiple risk factors. The fact that 33 percent of stunted children are also anemic highlights the need to know more about infant feeding, deworming, and sanitation and hygiene practices in children, as these factors are also associated with anemia.

Worldwide, vitamin A supplementation to children aged 6 to 59 months has shown a large impact on child survival and is one of the most common public health programmes targeting children.⁸³ In DPR Korea, it is usually distributed twice a year through nurseries and household doctors during nationally organized Child Health Days.

The proportion of children who received one dose of vitamin A in the last six months averaged 97.8 percent, with little difference between provinces.

In the case of young children aged 6–24 months, micronutrient supplements in the form of Sprinkles are also delivered during Child Health Days twice a year for home use, in fortification of complementary foods. As soon as a woman knows that she is pregnant, she can benefit from a multi-micronutrient supplement (one tablet daily for six months during pregnancy, and for three months during the breastfeeding period after delivery) through the primary healthcare system. This supplement includes 15 different types of vitamins and minerals, including iron, folic acid, iodine, and vitamin A. The 2012 National Nutrition Survey indicated that, on aggregate, 74 percent of pregnant women received the supplement ranging from 55 percent in Ryanggang Province to 88 percent in Pyongyang Province. However, only 26.9 percent of mothers took multi-micronutrient tablets for the recommended period of six months during pregnancy, and 26.4 percent took the tablets only for one month. Significantly fewer women living in the four North-Eastern provinces (Kangwon, South Hamgyong, North Hamgyong, and Ryanggang) took the multi-micronutrient tablets for six months compared to those living in Pyongyang Province. Further study is required to ascertain why there are regional disparities, as well as why so many women do not continue taking multi-micronutrient tablets for the recommended period of time.

The MoPH updated the national micronutrient supplementation guideline in September 2014. The guideline recommends that all women aged 20–39 who are not pregnant or lactating should receive weekly iron folate supplements for three months, followed by three months off. Pregnant women should receive multi-micronutrient tablets (MNT) once a day for six months, while lactating women should receive a multi-micronutrient tablet once a day for three months. Regarding

⁸² DPR Korea National Nutrition Survey, CBS/UNICEF 2012.

⁸³ Black et al, Lancet 2008.

children aged 6 to 23 months, the national micronutrient guideline recommends the use of multi-micronutrient powder (MNP-Sprinkles) for home fortification of complementary foods for two to three months at a time, twice a year (totaling to 4–6 months annually).

Immediate Causes of Malnutrition

The immediate causes of malnutrition are inadequate dietary intake, and illnesses and disease. Exposure of the child to the risk of malnutrition begins in the womb with intra-uterine growth retardation caused by disease, particularly tuberculosis, malaria, and maternal malnutrition. These factors lead to low birth weight. Chronic under-nutrition (stunting) is reinforced in the first two years of life, when children, who have a high need for nutrients, suffer from a poor quality of diet and poor access to safe water and sanitation. It is estimated that 475,868 children are stunted in DPR Korea. Children exposed to unsafe water and sanitation are frequently ill due to waterborne diseases and STH (worms' infestation). Chronic and acute malnutrition results from food insecurity, unsafe drinking water, poor sanitation and hygiene, degraded environments, absence of essential medicines, and the inadequate nutritional status of mothers.

Water, Sanitation, and Hygiene (WASH)

DPR Korea has considerable freshwater resources, including large lakes and rivers, as well as many smaller tributaries. The abundant rainfall and mountainous nature of the country have allowed for the construction of many hydroelectricity dams and irrigation networks. There are more than 1,700 artificial reservoirs in the country. Population growth and economic development have increased the demand for water for industrial, agricultural, and domestic uses, most of which comes from surface sources. The

primary challenges of water supply management is capturing water from heavy summer rains to avoid flooding, and using the water during dry months when there are shortages.⁸⁴

Water quality is a concern in the country due to the discharge of industrial wastewater and untreated sewage, particularly in rural areas where facilities are inadequate or absent altogether. Runoff from agricultural land is another source of contaminants, while soil erosion in deforested areas adds large sediment loads to waterways. The existing water quality-monitoring programme is limited and is unable to provide accurate information on the quality of water in different systems across the country.⁸⁵

Clean and quality water, adequate sanitation facilities and safe hygiene practices in households, schools and health facilities are fundamental to the health of women and children. Diarrhea and acute respiratory infections – which cause 40 percent of under-five deaths worldwide – are closely linked to poor water quality, sanitation, and hygiene. In addition, one-quarter of neonatal deaths are due to infection and diarrhea, and sepsis is a leading cause of maternal mortality, all of which are affected by the use of unclean water and poor hygiene at delivery and postpartum.

Access to clean water, sanitation, and hygiene remains an ongoing challenge, especially for children in rural areas and those in institutions, such as nurseries, kindergartens, and orphanages. Limited access to safe drinking water and adequate sanitation services contribute to higher incidences of diarrhea, respiratory tract infections, and waterborne diseases, further burdening health services.

While 77 percent of households are connected to piped water, the proportion is much lower

⁸⁴ Environment and Climate Change Outlook – Ministry of Lands and Environment, 2012.

⁸⁵ Ibid.

for schools (56%), health facilities (54%), kindergartens (50%), and nurseries (38%).⁸⁶ Shortages exist particularly at primary level health facilities in rural areas, where children and women are most vulnerable. This can cause an increase in hospital infection rates and the further spread of disease.⁸⁷ A water and sanitation assessment of health facilities has noted that in many Ri and County hospitals visited, water is available on an irregular basis.⁸⁸ This has an impact, on infection control in the health facilities. Drinking water can be a vehicle of water-borne diseases, and it can also be affected by chemical, physical, and biological contaminants (MoPH, 2016).

A positive shift is that the Government of DPR Korea has been encouraging the replacement of pumping water systems with gravity-fed water systems (GFS), along with the introduction of decentralized wastewater treatment systems (DEWATS).⁸⁹

According to the 2008 Census report, 22 percent of the population spends time fetching water from sources other than piped water in the dwelling. There is a clear geographical dimension to this: almost 30 percent of the rural population fetch water compared to just 18 percent of their urban counterparts. In addition, gender disparities exist when it comes to collecting water, as only 32 percent of men are responsible for this activity compared to 68 percent of women. In general, women collect water when it is nearer to the household and men when it is further away. While almost all households have access to some form of sanitation facility, observations made particularly in rural areas suggest that latrines are predominantly rudimentary and therefore remain ineffective in preventing faecal materials from entering the human environment.⁹⁰

More recent data suggests that the main source of water supply is piped water into the dwelling unit (82.1%), followed by tube-well/borehole (10.5%). The two sources together account for over 90 percent of all dwellings. A small percentage of the population depends on a public tap or a protected waterhole, while a statistically insignificant percentage depends on unprotected sources. As expected, access to piped water within a dwelling is better in urban areas, while access to a tube-well or borehole was twice as high in rural areas.

Given the lack of safe drinking water and sanitation facilities, coupled with poor hygiene conditions that are exposing children to a vicious cycle of diarrhea, pneumonia, high prevalence, and endemicity of STH and malnutrition, continued efforts to improve household water and sanitation systems is vital. This is especially the case among rural households, as well as nurseries, baby homes, and local health facilities in these communities.

In the early 1990s, the Government made a concerted effort to replace dug latrines with flush toilets. However, water shortages have required the widespread change of flush toilets into pour-flush latrines. The most common latrine technology is the traditional drop-hole latrine in which feces are deposited on the ground, or in a shallow pit, behind the structure. In the more rural areas, most people use traditional latrines. It is in the case of traditional latrines that feces are removed from the shallow pit manually and used as fertilizer, both in home gardens and in communal farms. In general, excreta are used while still relatively “fresh,” often less than two or three months old. Thus, in many households there are fresh pathogen-laden feces in and around storage piles next to latrines, as well as in gardens and fields. This poses a clear health threat to children and adults, and is likely an important factor in the relatively high diarrhea rates and high STH prevalence in the country as well as the high incidence of acute malnutrition.

⁸⁶ Humanitarian Needs and Priorities DPRK, UN 2015.

⁸⁷ Population Census 2008 – CBS, 2008.

⁸⁸ Six hours a day in some locations.

⁸⁹ UNICEF Fact Sheet, 2013.

⁹⁰ Ibid.

When compared to the Census in 2008, there was a marginal increase in the proportion of protected water sources (1.4%) and flush toilets (4%) and a corresponding drop in other types of services. It is estimated that only around 50 percent of learning facilities have access to water and sanitation facilities. Sustaining good hygiene practices, safe drinking water supply, and improved sanitation services in communities and learning environments, including child care institutions, is central to the nutrition, health, and education outcomes for children.⁹¹



Immediate Causes of Poor Access to Safe Water and Sanitation

Immediate causes of incomplete access to clean water and improved sanitation include insufficient new construction, renovation, and maintenance, particularly in remote areas. Piped water supply systems, constructed by the Government in the 1970s and 1980s, have not received sufficient investments in maintenance and rehabilitation to remain fully operational. The situation has become critical due to recurring

flood damage. For example, during the 2016 floods in North Hamgyong Province, more than 600,000 people were affected due to damaged water, sanitation, and health facilities.⁹²

According to a 2013–2014 Water Assessment Survey conducted by the Government with UNICEF support, 20 percent of the population face a gap in the water supply because of aged water systems with dysfunctional infrastructure. The main causes for non-functioning of water schemes are lack of electricity (49%), the condition of pumping equipment (25%), or ageing and leaking pipe networks (20%). The survey also showed that coverage levels for safe water sources are poorer in health facilities and childcare institutions.⁹³

The survey uncovered significant urban/rural access and quality disparities, as 71 percent of the population reported utilizing a private flush toilet, while in rural areas, only half of the households reported utilization of a private flush toilet, with the other half (50%) utilizing a private pit latrine. While almost all households have access to some form of sanitation facility, observations made, particularly in rural areas, suggest that latrines are predominantly rudimentary, and therefore remain ineffective in preventing fecal materials from entering into the human environment.⁹⁴

Global research indicates an association between stunting and poor sanitation conditions. Thus, it is important to highlight the sanitation situation and hygiene practices of DPR Korea to reverse the country's endemic malnutrition situation (stunting is of endemic proportions in some provinces, especially in the Northeastern region). In addition, there are significant economic and financial benefits to investment in improved sanitation.

91 Ibid.

92 DPRK Floods: Humanitarian Dashboard, October 11, 2016.

93 Nationwide Assessment of Water Facilities – Ministry of City Management and UNICEF. July 2014.

94 UNICEF Fact Sheet, 2013.

Key Determinants Analysis – Bottlenecks and Barriers

Underlying Causes

The causal factors for maternal, neonatal, and child morbidity and mortality include insufficient coverage of high quality, high impact health interventions due to inadequate financial and trained human resources, distance (inaccessibility due to poor roads or lack of transportation, particularly at the Ri level), limited supply of essential commodities, low service uptake (for which the reasons remain unknown), and knowledge gaps around appropriate health-seeking behaviour and care practices.

Enabling Environment

Availability of Resources

There is little or available data on Government expenditures on the health sector. Health expenditures are clustered with those of education, environment, social security, welfare, housing, local development, local training, and culture. The last publicly available data suggested that health expenditure comprised 6.4 percent of the Government budget in 2014, while until 2012, health expenditure as a part of GDP was estimated at 6.1 percent. In the Medium Term Strategic Plan for the Health Sector (2016–2020), “the Government of DPR Korea committed to increase domestic health financing to 7.1 percent of its budget as well as to explore possibilities for increased international financing for priority health interventions.”⁹⁵

The annual commitment of the Government of DPR Korea is approximately USD \$900 million across different strategic areas of health systems. However, these funds allocated by the

Government are not enough to cover even basic health needs that include essential drugs, quality antenatal care, immunization, free delivery costs, and during emergencies. There is a chronic lack of essential medicines, basic laboratory tests, and life-saving equipment. Costing analysis undertaken in the Medium Term Strategic Plan (MTSP 1) identified substantial financing gaps for basic health service delivery for priority interventions such as women’s and children’s health and non-communicable disease (NCD) control.⁹⁶

Since 2009, the Global Fund, GAVI, and bilateral donors – for example, Republic of Korea, Italy, Australia, Norway, Sweden, and Canada – are supporting the health sector. Over the years there has been a steady decline in resources available from international sources, including for health. The situation in DPR Korea has been characterized as a silent and underfunded emergency causing tremendous hardship for the people of the country. International sanctions along with donor fatigue limit national development and the implementation of UN-supported humanitarian programmes. In 2014, all banking channels were blocked for nine months, forcing UN agencies to operate in business-continuity mode and seriously reducing the ability of UNICEF and UN staff to deliver life-saving health and nutrition supplies and services.

Social Norms

Cultural and socio-economic context has an important and far-reaching impact on children’s health and wellbeing in all countries of the world. Additional data and thoughtful analysis on socio-cultural norms / decision-making patterns within and outside the household which impact women and children’s rights and health, including contraceptive choices, food distribution, access to transportation and communications, and extent of family/domestic violence, is urgently needed to better inform policy, programming and

⁹⁵ Medium Term Strategic Plan for the Development of the Health Sector (2010–2015). Ministry of Public Health (MoPH) and WHO, 2010.

⁹⁶ Country Cooperation Strategy (2014–2018) –WHO 2013.

resource allocations. Given that the education level of mothers is correlated to impacts on child and maternal health (as described throughout the chapters above), disparities in the educational advancement of women (for example) at the tertiary levels plays a significant role in child survival. Women's educational attainment is only one of many gender-specific variables that play a central role in maternal health and child health and survival, and as such, all socio-cultural norms at the household, community, workplace, and Government levels should be critically analyzed to identify how best to support the health, rights, and overall well-being of women and children.

Management/Coordination

There are very clear distinctions and articulations of roles and responsibilities among the various duty bearers/institutions in DPR Korea. The study did not identify any systemic bottlenecks related to ambiguity of roles or lack of motivation. However, given the centralization of planning, and the large extent to which responsibility is influenced by the centralization of authority and decision-making, it may have a potentially inhibiting effect on the economy and the expediency of local level decision-making (and responsiveness) among duty bearers and institutions.

Supply

Availability of Essential Commodities or Inputs

Serious shortages in essential medicines, as well as basic medical equipment and supplies, persist. Due to production challenges at DPR Korea's pharmaceutical facilities, there is an overall shortage of some key essential medicines. Among the challenges faced by production facilities are shortages of electricity and other key inputs, largely due to the inadequate availability of resources. Over the last three decades, UNICEF, WHO, and IFRC have been providing essential

medicines to assist the health system for the treatment of priority diseases. However, recent estimates suggest that less than 50 percent of essential drug needs in the country are being met. According to WHO's monitoring reports, gaps of an estimated 40 to 60 percent exist in the provision of essential drugs and basic equipment in the 125 counties they support.⁹⁷

According to the impact assessment of essential medicines provided by UNICEF, all facilities studied indicated that they did not have or receive enough medicine. Since all county and Ri-level health facilities were given the same amount of medicine regardless of the catchment population, those with larger populations were disadvantaged. It also emerged that there was a shortage of appropriate dose tablets for children's medicines. It was suggested that UNICEF should consider providing sphygmometers and stethoscopes. Approximately 79.6 percent of clients of county hospitals and 86.3 percent of clients at Ri-level facilities agreed that they were provided with needed or prescribed medicines. While these figures are impressive, the fact remains that a significant proportion of the population are not receiving the required medicines.⁹⁸

Consequently, many DPR Koreans are increasingly using traditional medicines in lieu of essential medicines (for which the medical consequences have not yet been specifically analyzed). Further, although illegal, buying medicine on the open market is now widespread in DPR Korea. Private pharmacies are evident on the streets of major cities. This means that affordability is now a factor in terms of access to medications – and inequities in access by gender, income, status, age, disability, and place of residence (urban/rural), among other disparities, are likely to increase going forward.

⁹⁷ 2016 Needs and Priorities Document, UNCT 2016.

⁹⁸ Impact Assessment of Essential Medicines supported by UNICEF in DPR Korea. Population Center DPRK 2104.

Access to Adequately Staffed Services, Facilities and Information

Nurseries accept children from the age of three months to four years with attendance being optional. Not much is known about the situation in nurseries, except for the fact that they suffer greatly from low access to water and sanitation facilities. It is particularly important to note that information on nurseries needs to include updated information on the caregiver-to-child ratio and quality of care to provide the essential psychosocial care and stimulation for young children. The Sit-An (2006) indicated that with a low ratio of caregivers to children, the various task burdens are too high to provide the same amount of stimulation for all children to develop to their optimal capacity. DPR Korea has a well-articulated and staffed health system extending from the national to the primary care level. The system serves a population estimated at 24.9 million with an annual birth cohort of approximately 345,000. All told, there are approximately 1,741 hospitals at the national, provincial and country levels and 6,263 clinics at the Ri-level.

Table 11: Health Facilities in DPR Korea

Health facility	Number*
Central and provincial hospital (tertiary care)	133
County/Ri-hospital (secondary care)	1608
Polyclinics/Clinics (primary care)	6263
Hygienic and anti-epidemic station	235
Preventive station	55
Sanitorium	682
Blood center	12
Total	8988

Source: Ministry of Public Health, 2014 cited in WHO Country Cooperation Strategy 2014–2018

* The figures do not include health facilities under other Ministries, for example, Mining, Industries, Railways or Defense

Antenatal care is widely accessed in DPR Korea and close to universal. A recent study indicated that while nine out of ten (90%) urban women received care from a doctor/assistant doctor, it was only three quarters (75%) in the case of rural women. Province-wide variations are also apparent. In the case of the number of ANC visits, WHO recommends a minimum of four visits. The data indicated that all the women who availed ANC services visited more than four times, and nearly three-quarters of women visited more than ten times for the services during their pregnancy, as against the national norm of 17 visits in 2014. Regarding the timing of the first visit, 85 percent visited in the first trimester, 13 percent in the second trimester, and the remainder in the third trimester. During the ANC visits, most women reported different services availed as per the standard package of services, and all of them reported being either highly satisfied or satisfied.

Despite high coverage, DPR Korea's health system has many shortcomings, including aging infrastructure, lack of transport, irregular electricity, lack of heating, unsanitary and irregular water supply, lack of quality (and sufficient) medicines and other equipment, and a limited operational budget. For example, the Maternal and Neonatal Needs Assessment 2013–14, jointly undertaken by UNICEF, UNFPA, and MoPH, revealed that the quality of service provided in Ri hospitals is a major area in need of improvement to ensure maternal and neonatal survival and well-being during pregnancy and delivery.⁹⁹ Electricity is a particularly serious issue with frequent power cuts and no generators as backup. Most of the medical instruments and equipment are out of date, resulting in poor quality of care.¹⁰⁰

⁹⁹ Emergency Neonatal and Obstetric Needs Assessment. MoPH, UNICEF and UNFPA.

¹⁰⁰ Socio-economic and Demographic Health Survey, CBS and UNFPA, 2014.

A clear policy challenge concerns inequality in the distribution of health services and outcomes. Data is available on province-wide nutritional status and immunization access. An immunization coverage evaluation survey in 2008 indicated that five provinces with 92 counties, largely in the north-east of the country, have coverage below the national average of 88 percent. The National Nutrition Survey conducted in 2012 presented a similar picture of health outcomes, with 12.1 percent of children aged 0–59 months in Ryanggang having suffered severe chronic malnutrition compared with only 4 percent in Pyongyang. Similarly, a Multiple Indicator Cluster Survey (MICS 2009, Page 12) revealed urban and rural differences in health outcomes, noting that 45 percent of children living in rural areas were too short for their age, compared to 23 percent in urban areas.

Another significant policy challenge in the context of DPR Korea is the effective functioning of a health referral system. Even though 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, which are exacerbated by extreme weather conditions in the winter season. There are no ambulances or any other vehicle for emergency referrals in Ri-level hospitals, and when emergencies occur, hired vehicles, bicycles, animal-drawn carts or stretchers are used to transport the patient to the hospital for care.¹⁰¹ This situation is compounded by a lack of exposure of the health workforce to international standards and practices, and underinvestment in the development of updated curricula and methods at training institutions centrally and in the provinces for medicine, midwifery, and nursing.¹⁰²

Despite these challenges with the referral system, there have been improvements to networking across the health system in recent years. The telemedicine network in DPR Korea covers all areas of the country through an optic fiber connecting four central levels and all provincial levels. This system is beneficial to the country, as more than 80 percent of the country is mountainous and difficult to access. Based on achievements and experience of this telemedicine system, MoPH plans to expand the scope and application of telemedicine services, and to update the existing health information system, including application of an e-health information system throughout the country.¹⁰³

Neonatal resuscitation is not performed in Ri hospitals, and often there is no heating arrangement to keep the baby warm as only 71.4 percent of county hospitals and 52.8 percent of Ri hospitals have functioning heating systems. None of the Ri hospitals have oxygen cylinders, and they also face frequent shortage of antibiotics, anesthetic drugs, and drugs for newborn care. The diagnostic equipment for basic tests such as urine protein, sugar, and hemoglobin are lacking. Emergency obstetric and neonatal care (EmONC) facilities also face lacking stocks of drugs and supplies, which often occurs in winters and rainy seasons due to poor road infrastructure. The situation contributes strongly to the failure to achieve targets for under-five and maternal mortality in the country.

There is a high ratio of doctors to population: 317 per 100,000, compared to 162 per 100,000 in China and 48 per 100,000 in Viet Nam. “Section” or “household” doctors at the Ri clinics are each assigned to 130 dwellings and are responsible for clinical and public health services, ensuring a high degree of surveillance and directly observed treatment capacity for diseases such as TB. Ri clinics link local communities to the national health system and are managed by county hospitals in

¹⁰¹ Country Cooperation Strategy (2014–2019) – WHO, 2014.

¹⁰² Ibid.

¹⁰³ Ibid.

DPR Korea's 208 counties, which are themselves overseen by provincial-level referral facilities.

Despite the major opportunity presented by this large health care workforce, service improvement efforts are constrained by the factors described in the sections above. In addition, the limited availability of hand washing stations at public institutions and at the household level is another essential element, which needs to be addressed. Data on this subject needs to be routinely collected and followed up on.

Demand

Financial Access

Overall demand for medical services is high, due to persistently high malnutrition rates and consequent exposure to both communicable and non-communicable diseases. Health services in DPR Korea are nominally free and available to all. However, due to the difficult circumstances facing the health system, there are costs involved in attaining full access to the system, particularly in relation to accessing essential medicines that are not available and for transport in cases of referral. Given that there are nominal costs involved in attaining quality health care, variables such as gender, age, income, disability, and other differentials need to be carefully assessed to ensure equity of access for all the population.

The Government has always promoted a culture of preventative medicine and promoted traditional medicine as an acceptable and complementary adjunct to the public system. Due to challenges in maintaining the public system, particularly during the emergency conditions of the 1990s that led to a lack of resources and sanctions, traditional medicine grew in scope (for which the consequences are yet to be documented), and private health care has started emerging as a complementary sector to the public system (which raises new

equity issues relating to affordability and the comparative quality of medications, medical equipment and services).

Social and Cultural Practices and Beliefs

Infant and Young Child Feeding Practices (IYCF)

The ideal protocol for infant and young child feeding is initiation of breastfeeding within one hour, exclusive breastfeeding from birth to six months (with no water or complementary food), and continued breastfeeding until two years combined with appropriate complementary food with sufficient consistency, food diversity, and meal frequency.

Breastfeeding

Maternity leave in DPR Korea was recently extended to eight months, which is a welcome support to improved child health. The challenge now is to ensure that this policy change is well communicated and understood and its implementation prioritized.

In DPR Korea, 28.1 percent of mothers initiated breastfeeding within one hour. It was also estimated that 68.9 percent of infants under-six months were exclusively breastfed and that 21.5 percent of mothers continued breastfeeding until two years. This has been made possible by regulations regarding time off for breastfeeding and the location of nurseries in the work place. Concerning the timing of breastfeeding of the newborn, a third of women fed the child within five hours, another 35 percent within a day, 29 percent between one and three days, and about one percent did not breastfeed at all. Colostrum, secreted in the breast milk in the two to three days following delivery, provides protective antibodies and essential nutrients, acting as a first immunization for newborns, strengthening

their immune system and reducing the chances of death in the neonatal period.¹⁰⁴

Continued breastfeeding has a positive health impact through prevention of main childhood diseases, notably pneumonia and diarrhea. However, most infants and young children under 24 months are attending nursery, which affects exclusive and continuous breastfeeding of infants, resulting in deprivation of natural immunities. This high rate of institutionalized young infants leads to high levels of common child morbidity, caused by diarrheal and respiratory diseases. On the other hand, this high level of institutionalization facilitates reaching out to the young children as far as nutritional and medical interventions are concerned. Additional assessments of the needs and wants of women in DPR Korea with respect to working, staying at home, or balancing work and home/childcare are needed to better customize supportive policies and programming to ensure mother/child health and well-being.

Feeding Practices

Approximately 66 percent of DPR Korean infants aged six to eight months benefitted from the timely introduction of complementary foods. However, traditional homemade complementary foods lack protein, fat, and micronutrients. The available diet is primarily watery, with little cereal and vegetables, and is inadequate for the nutritional needs of fast growing children at this age. Food shortages and low purchasing power have resulted in not only scarcity, but also a lack of diversity in the types of foods available and purchased. Prior to the emergency of the mid-1990s, complementary food consisted of rice, carrots, fish, and oil. However, these commodities are not always readily available or affordable. Gender disparities in income need to be further assessed to better understand food choices, access, and intake for women and families.

Only 27 percent of children had adequate dietary diversity with a mean number of food groups consumed of 2.5, compared to a suggested minimum of four out of seven. It is recommended that complementary food should be given at least four times a day, but the percentage of children aged 6–23 months who received complementary foods more than four times (per to this minimum recommendation) is only 26.5 percent.¹⁰⁵ Again, additional gender-specific data is needed to fill gaps in how to best support mothers and fathers in ensuring an adequately diverse diet for their children.

Continuity of Use

Surprisingly, one-quarter of women who had received iron, folate, and vitamin A (IFA) and micronutrient supplementation had not taken it at all (SDHS, 2014). Only 26.9 percent of mothers took multi-micronutrient tablets for the recommended period of six months during pregnancy and 26.4 percent took the tablets only for one month. Significantly fewer women living in the four North-Eastern provinces (Kangwon, South Hamgyong, North Hamgyong, and Ryanggang) took the multi-micronutrient tablets for six months, as compared to those living in Pyongyang. The reason(s) that a large percentage of mothers are not taking the multi-micronutrient tablets provided to them (or not taking them for the full recommended six-month period) are not documented in the existing literature. This phenomenon merits further investigation to increase supplementation intake and improve the health of pregnant women and their babies.

Birth Spacing

The SDHS-2014 indicated that 21.4 percent of all non-first births occurred less than 24 months after the preceding birth, that 57.8 percent had a birth interval of less than 36 months, and that 5.5 percent were born more than five years after

¹⁰⁴ National Nutrition Survey, CBS 2012.

¹⁰⁵ Ibid.

their preceding sibling. This means that less than four out of ten children are born after a birth interval that entails a lower risk of perinatal and neonatal mortality, and pregnancy complications. These results show that in order to safeguard the health of both mothers and children, there is still a clear need to promote the use of a diversity of contraceptives for better birth spacing.¹⁰⁶ Even though informed choice seems to be utilized, it is largely confined to IUD use. The reasons for this almost exclusive focus on IUD use remains under-investigated, and merits further research for the benefit of women's health and that of their babies.

Further, there is a need to strengthen the counseling skills of providers and increase awareness of family planning messaging through appropriate behavioral change communication strategies that are inclusive of both women and men. Offering women a more diverse range of contraception options will improve birth spacing, and decrease health risks for mothers and newborns. It will also decrease the number of unplanned pregnancies, lower the number of abortions, and help decrease the amount of health risks to mothers and infants caused by a lack of sufficient birth spacing.

Quality

DPR Korea has been confronted with significant socio-economic and environmental impacts in recent years, which have had impacts on health service quality and on public health. The quality of health care provided in Ri clinics and county hospitals is reported to be low. This is due to the poor condition of the infrastructure, including such factors as the availability and quality of water, sanitation and electricity, lack of essential medical equipment, supplies, and the health professionals' limited knowledge and skills in relation to best international practices. This is a major concern for managing newborns and pre-term births.

Pre-term birth is the leading cause of child death worldwide. Small and sick new-borns require timely, high-quality inpatient care to survive. This includes provision of warmth, feeding support, safe oxygen therapy, and effective phototherapy with the prevention and treatment of infections. Inpatient care for new-borns requires dedicated ward space, staffed by health workers with specialist training and skills. Many of these life-saving components are not available at the Ri-level.

Key Data Gaps

As described throughout this chapter, the survival of children and their mothers is an outcome of several factors in society. Infant mortality, under-five mortality, and maternal mortality are indicators which are understood to reflect broad overall population well-being and gender equality in any society. Upon reviewing the critical factors that directly affect mortality in DPR Korea, such as illness and disease, nutrition status, water, sanitation, and hygiene – as well as broader factors such as gender considerations, socio-cultural variables, regional inequities, natural disasters, food production and distribution processes, among other considerations, the following data gaps were identified as key to continued progress:

- Subnational data, particularly at county level, on mortality and malnutrition (by gender, age, disability, and geographical location).
- Updated data on nutrition status after 2012 (disaggregated by sex, age, and region).
- Proportion of Ri-level clinics and county hospitals providing EmONC.
- Proportion of Ri-level hospitals with a functional referral system to the county level.
- Number of provinces with neonatal intensive care units.

¹⁰⁶ Ibid.

- Number and proportion of household doctors trained in section doctors training package (disaggregated by sex).
- Number of county hospitals and clinics with safe water and sanitation supply.
- Proportion of Ri-level health facilities with adequate levels of drugs and consumable supplies.
- Proportion of women aged 25–49 screened for cervical cancer.
- Qualitative survey data to identify reasons why pregnant women are not taking full doses of vitamin supplements provided to them for the recommended duration.
- Qualitative survey data on why the IUD is the primary method of contraception women are encouraged to use. Important to determine if it is all that is available, if it is cheaper, or if it is considered more socially acceptable than other methods, etc.
- Data on what role “price” and the growing market-based food sales have had on food access/availability (for males and females) in the changing DPR Korea context.
- Qualitative survey data on emotional, sexual, and/or physical violence or discrimination in the family, in school, and in the workplace (disaggregated by sex, age, income, disability, occupation, education level, region, etc.).
- Gender- and age-disaggregated qualitative survey data on food distribution patterns, access, and household distribution.
- Continue with a strong focus on stunting, and neonatal and maternal health.
- Institute a Quality of Care improvement process in health facilities for both maternal wards and neonatal care units.
- Strengthen the use of Communication for Development (C4D), using existing channels and focusing on issues such as breastfeeding, complimentary feeding, and virtual open defecation that may be detrimental to child and maternal health.
- Work with relevant counterparts to agree on baselines and targets for child-relevant SDGs. This should be part of a broader effort to localize the SDGs.
- Given the important role of women in childcare and development, there is a need for closer work with the Government and relevant local partners on a strategy to: 1) collect and analyze relevant gender-specific data across all sectors, and to 2) empower women to move towards equality in all spheres of development.
- Facilitate sharing of best practices within the country and between DPR Korea and other countries in the East Asia and Pacific Region, particularly in the areas of nutrition and neonatal care.
- Improve the quality, accessibility, and use of data at the community and facility levels, including integration of data sources from the variety of platforms already in use.
- Follow up and implement the most feasible aspects of the Regional C4D assessment notably for mainstreaming C4D as a core strategy in implementing health, nutrition and WASH programmes, developing an office C4D and communication strategy, and investing in developing C4D capacities at the national level (including learning from the experience of other countries in the region, such as Cambodia).

The Way Forward

Going forward, the following approaches and areas of emphasis are deemed particularly important as DPR Korea continues its efforts to improve maternal mortality and infant and child mortality in the years ahead.





Chapter Four

Education and Adolescence

Chapter Four

Education and Adolescence

The Government of DPR Korea has consistently recognized the strategic importance of education and accorded it high priority. The country signed on to Education for All (EFA) and has put in place supporting legislation to facilitate its implementation. Thus close to universal enrolment and literacy have characterized the sector in DPR Korea. The 2014 literacy rate of the eligible population aged over 10 years in DPR Korea was found to be universal (99.99% literacy) – with no statistically significant regional (urban/rural) or gender (male/female) variations. These are major accomplishments which benefit all members of society (women, men, and children), and which will benefit future generations.

In 2012, the timeframe for free and compulsory education was increased from 11 to 12 years. More than three quarters of men and women surveyed in the SDHS 2014 had completed secondary senior level education. Compulsory education promoted by the Government has worked well, and boys or girls dropping out before the cut-off age of 17 years are rare. While there are no significant gender differentials through the secondary, senior education level,

gender differentials do become evident in tertiary and higher levels of education.¹⁰⁷

Despite this laudable achievement, significant challenges remain to capture the full benefits that education can bring. The primary issues relate to quality, which are largely linked to the availability of resources to ensure a productive school environment. The focus of this chapter is on children in the school-going ages from 4 to 16, with an additional focus on adolescents aged 15 to 19. These middle years are the years of most intense learning and socialization, when children are taught and expected to behave according to social norms and customary gender roles. The school system, the Children's Union, and the Youth League are the three key institutions responsible for socialization during this stage of life.

It is essential to plan for sustaining quality education during humanitarian emergencies such as droughts, flooding, and intense cold during the winter months. Given shortages of financial resources, survival and protection issues are generally prioritized. For example, during the severe 2016 floods affecting North Hamgyong Province, children's access to education was interrupted due to damage to 54 schools, kindergartens, and nurseries. UNICEF and Save the Children Funds enabled a quick response through the provision of support for temporary learning spaces and the rehabilitation of educational facilities and emergency classroom kits. However, this support was not adequate to fill all education support gaps.



¹⁰⁷ Democratic People's Republic of Korea – "Socio-economic Demographic and Health Survey 2014" Central Bureau of Statistics and UNFPA.

Assessment of the State of Education in DPR Korea

The key indicators and areas of focus of the Sit-An are based on the EFA goals adopted by DPR Korea for which data is available. The key goals relate to the following areas: Early Childhood Care and Education; Universal Primary Education; Youth and Adult Skills; Gender Parity and Equality; and, Quality of Education. The first part of the chapter focuses on early childhood education, primary and secondary education, gender equality, and issues related to educational quality. The latter part of the chapter focuses on adolescence and includes a review of youths' skills building.

School attendance at younger ages of 5 to 14 years is almost universal in both urban and rural areas, and between males and females. However, for children beyond 14 years of age, school attendance drops to 62 percent for ages 15 to 19, and to only 16 percent for ages 20 to 24. With completion of compulsory education at 16 years of age, most school-aged children move out of the education system. Only a small proportion of children, primarily urban males, pursue higher levels of education. This directly impacts the quality of the youth labor force.

Further, there are large male-female differentials existing at the tertiary and advanced education levels, despite marginal improvement in female attainment. Within the age group of 20–24 years, for instance, 25.1 percent of men are still attending school, compared to only 9.2 percent of women. Looking more specifically within rural areas, the proportion of girls continuing their education drops even further – with 14.4 percent of males still in school after the age of 19 years, while only 1.9 percent of females are attending school. School attendance for all youth aged 20–24 in rural areas drops significantly to only 6.9 percent. Clearly, there is a need for investment in higher and specialized education – as well as more focus on and encouragement of female education at the tertiary and higher levels. More study is needed to investigate why these disparities exist in the case in DPR Korea.

Six of the ten provinces have lower school attendance of children than the national average, while the provinces of Ryanggang, North Hamgyong, and North Phyongan and the Pyongyang Municipality have attendance rates above the average.¹⁰⁸

Table 12: Percent Distribution of School Attendance of Persons 5 to 24 Years by Location and Gender

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
5–9	96.6	96.9	96.8	95.8	97.5	96.6	96.3	97.2	96.7
10–14	99.6	100.0	99.8	99.9	99.9	99.7	99.7	99.9	99.8
15–19	75.1	61.1	67.8	60.7	49.4	54.6	69.6	56.3	62.6
20–24	31.5	13.9	21.2	14.4	1.9	6.9	25.1	9.2	15.7

Source: SDHS 2014, DPRK

¹⁰⁸ Ibid.

Early Childhood Education



Because rapid brain development takes place during the first years of a child's life, early childhood offers a critical window of opportunity. Early-childhood care, protection, and stimulation can jumpstart the process, strengthen children's ability to learn, help them develop psychological resilience, and allow them to adapt to change. The quality of home care is the major determinant of the child's development during this period. In this context, adult activities with children, presence of books in the home for the child, and the conditions of care are important indicators of quality of home care. Children should be physically healthy, mentally alert, emotionally secure, socially competent, and ready to learn.

In DPR Korea, pre-school education is conducted in a two-year Kindergarten for ages four and five, with attendance being compulsory for five-year-olds. Ninety-seven percent of children under five years of age in the country benefit from early childhood education.¹⁰⁹ Although somewhat

dated, the following data from MICS 2009 casts some light on the situation of early childhood in the country.

Table 13: Key Early Childhood Development (ECD) Indicators

Indicator	Value
Household support for learning	90.8%
Father's support for learning	75.2%
Availability of children's books in the household	79.1%
Availability of toys and other playthings in the household	47.3%
Early Childhood Development (ECD) Index	75.3
Attendance at ECD	97.8%
School Readiness	98.9%

Source: MICS 2009

MICS collected information on the involvement of adults with children in the following activities: reading books or looking at picture books, telling stories, singing songs, taking children outside the home, compound, or yard, playing with children, and spending time with children naming, counting, or drawing things. For 91 percent of under-five children, an adult household member engaged in more than four activities that promote learning and school readiness during the three days preceding the survey. The father's involvement with one or more activities was 75 percent, while in Kangwon Province, the father's involvement was particularly low at 61 percent.¹¹⁰ The reasons for this are not clear and merit further study.

The study also found that in DPR Korea, 79 percent of children aged 0–59 months live in households where at least three children's books are present, but only 2 percent of children live in households with ten or more books. While no

¹⁰⁹ Education for All, the National EFA Report 2015 DPR Korea. The National Education Commission 2014.

¹¹⁰ DPR Korea "Multiple Indicator Cluster Survey" 2009, Central Bureau of Statistics, Pyongyang.

large gender differentials are observed, children living in urban households appear to have more access to children's books than those in rural households. The proportion of under-five children who have three or more children's books is 82 percent in urban areas, compared to 75 percent in rural areas. The presence of children's books is not correlated with the child's age.¹¹¹

Further reviewing access to playthings within households, the study indicated that 47 percent of children aged 0–59 months had two or more playthings to play with in their homes. The playthings in MICS included homemade toys (such as dolls and cars, or other toys made at home), toys that came from a store, and household objects (such as pots and bowls) or objects and materials found outside the home (such as sticks, rocks, animal shells, or leaves). It is interesting to note that while 68 percent of children play with toys that come from a store, other types of toys are at 50 percent or below. Only slight gender or urban-rural differentials were observed in this respect. Importantly, the data revealed some differences in terms of the mother's level of education. For instance, 45 percent of children whose mothers had at least secondary education had two or more playthings, while this rose to 56 percent for children whose mothers had completed higher education.

The MICS data also utilized the Early Childhood Development Index (ECDI), which measures the developmental status of children within four domains: literacy, numeracy, and physical and social-emotional development. In MICS 2009, 75 percent of children in DPR Korea aged 36–59 months were found to be developmentally on track. ECDI was slightly higher among boys (76%) than girls (74%) and was slightly lower in the older age group (74% among children aged 48–59 months, compared to 77% among children

aged 36–47 months). Children were deemed to be mostly on track in the learning (97%) and in the physical (95%) domains, but much less so in literacy and numeracy (13%). (Note that these figures come from the 2009 MICS, which is the most recent data available as of October 2016.) Further data is needed to better assess social-emotional development variables.

Finally, urban-rural differences were identified as part of the MIC. ECDI was found to be higher among urban children (79%) as compared to rural children (70%). Regional variations are also apparent, with Pyongyang (82%) having the highest ECDI scores, and Ryanggang and South Hamgyong (69%) having the lowest. Overall, 99 percent of children who attend the first grade of primary school also attended pre-school the previous year. Urban-rural, provincial and gender differentials were not deemed to be significant. These figures provide an indicator of school-readiness among DPR Korea's children.

Primary and Secondary Education

The education system in DPR Korea comprises two main consecutive stages: the twelve-year compulsory education and post-compulsory education. The initial 12 years comprise of the upper class of kindergarten (the lower one being optional); primary school (five years); Junior Middle School (three years); and, Senior Middle School (three years).

The number of students enrolled at primary school was estimated at 1,394,397 in 2012, of whom 683,526 (49%) were girls. Net primary school completion rate was estimated at 87.8 percent, and transition to secondary school was estimated at 100 percent. Enrolment in the two levels of the secondary schools was estimated at 2,349,116, of whom 1,147,089 (48.8%) were girls.

111 Ibid.

Table 14: DPR Korea Enrolment Data – 2008 and 2012

	2008	2012
Gross Intake Rate Primary/Secondary	101.4%/100.3%	100.4%/100.3%
Gross Enrolment Rate Primary/Secondary	101.7%/100.2%	100.6%/101%
Net Enrolment Rate Primary/Secondary	96.2%/96.8%	95.4%/97%
Gross Completion Rate	101.8%/100.4%	100.5%/100.4%

Source: National EFA Report 2015

As of 2013, there were 4,822 primary schools, 4,366 junior secondary schools, 4,328 senior secondary schools, 460 colleges, and 302 universities.¹¹² These include more than 1,000 branch schools established to provide access to students living more than four kilometers from a school – particularly in mountainous areas and islets. The students receive the same education with the same curriculum. However, there is much to be improved in the areas of infrastructure, teaching methods, learning materials, and related equipment.

In addition to these schools, there are also a total of 16,700 children (aged 0–16 years) who live in state-run institutions such as baby

homes, residential care centers, and boarding schools. The funding for these institution is fully supported by the Government as a state priority. With respect to serving those with disabilities, there are 11 schools for children with disabilities throughout the country, of which three schools are for visually-impaired children, and eight schools for hearing-impaired children.¹¹³ According to the SDHS 2014, additional data is needed to fully assess the educational needs, and levels of access and quality of education for children with disabilities.

There are also special purpose schools meant for talented children. They consist of the revolutionary school (beginning at age 5 and lasting for ten years), schools for arts and sports (ages 6 to 18), schools for foreign language (ages 10 to 18), and schools for science (ages 10 to 21).

Higher education has two systems for academic purposes and continuing education. Academic higher education is composed of universities (four to six years), College of Education for secondary school teachers (four years), Teachers' College for primary school teachers (three years), and junior colleges (three years). After university studies, graduate school for master and doctoral study is continued at post-Doctoral schools. Allied to this is the continuing higher education system. This is attached to factories, farms, and fishery cooperatives, and operates based on a five-year curriculum.

Table 15: Number of Schools, Students, and Teachers in DPR Korea

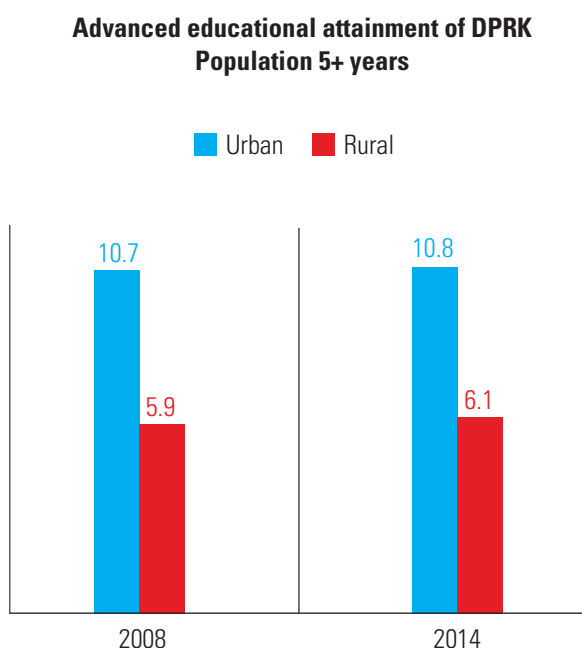
Level of school	Number	Number of Students	Number of Teachers	T-P ratio
Kindergartens	13,182	612,081	32,928	1:18.5
Primary School	4,822	1,372,313	65,774	1:21
Junior MS	4,366	1,112,102	56,814	1:20
Senior MS	4,328	1,153,398	71,368	1:16

¹¹² Combined second, third and fourth periodic reports of States parties due in 2014 to the Committee on the Elimination of Discrimination against Women (CEDAW). April 15, 2016.

¹¹³ UNICEF Country Programme Document for the DPRK, 2016.

Differentials in educational attainment within and across provinces, as well as between males and females, are apparent. Pyongyang has the highest percentage of population with tertiary and advanced education among both males and females. More than one-fifth of males and one-tenth of females had tertiary education and beyond, while the lowest number of the population with higher education is in Jagang Province. Furthermore, gender differentials become evident in terms of educational advancement, as most females discontinue after having attained post-secondary (three years) education.¹¹⁴ This is an area which merits further research, and may be partially a result of the streaming system, which is discussed in the following paragraph.

Figure 9: Advanced Educational Attainment of DPRK Population 5+ Years



DPRK has an educational system which streams children into specific tracks that lead towards certain types of employment. The link between education and employment is also reinforced by school club activities such as botany, electronics,

and handicrafts, to which significant school time is allocated. The clear majority of children participate in these activities, which represent a valuable opportunity for introducing children to important educational components, such as life and livelihood skills outside of the official curricula. Given the large gender differentials with respect to educational attainment (after the post-secondary level) and differentials in the types of employment pursued and secured, further study is needed to assess cultural and social norms (such as stereotypes and stigmas) that might play a role within the school system in terms of encouraging or discouraging females to pursue a specific “track” that leads towards a certain type of employment.

Despite these solid achievements in education access and participation, several recent issues have begun to challenge and even reverse some of the impressive gains of the past three decades. Increased household hardship over the past several years is having a negative effect on school attendance, particularly in vulnerable families. Reports from the Education Commission (EC) indicate that fluctuating attendance is greatest in the North and Northeast regions, especially during the winter months when the loss of school heating prevents regular class activities in extreme weather. Field reports from international agencies confirm this finding.

Education for Children with Disabilities

Despite improvements in the legal framework and implementation measures, much remains to be done before the full rights of people with disabilities can be realized. The education system does not yet follow an inclusive education approach, as certain categories of children are still being taught separately in boarding or special schools.

¹¹⁴ Socio-economic, Demographic and Health Survey, CBS and UNFPA, 2014.

While DPR Korea has three recognized special primary schools for blind children and eight primary schools for deaf children, there are no pre-schools and no facilities to support disabled persons within upper education. These special schools provide education for nine years, unlike the standard schools where the compulsory education is for twelve years. The curriculum design of these schools is different from standard schools, with more emphasis on vocational skills but without any provision of career options.¹¹⁵ More specifically, out of 15,431 children identified with sensory disabilities in the 5–19 years age group, only 1,232 (8%) are enrolled in 11 special schools. What services are available to those disabled children that are not benefiting from these schools is unknown.

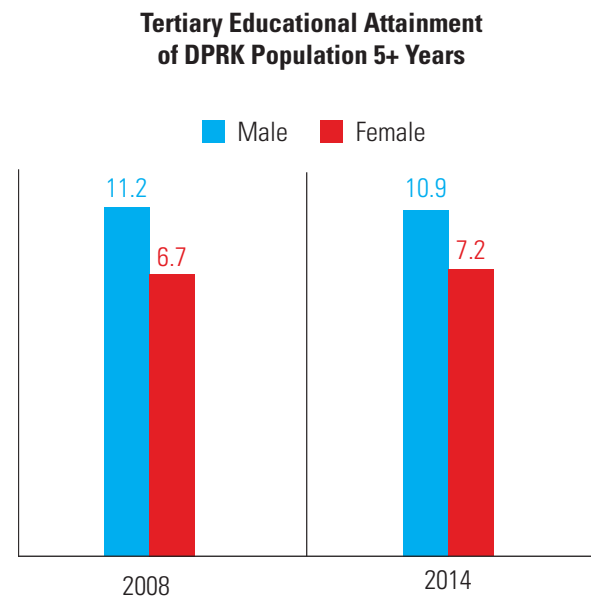
A first step in the right direction would be to develop a national strategy aimed at creating new policies and structures (staff, financing, and planning, among others) to put the Law on the Protection of Children with Disabilities into effect. However, additional data and analysis are needed to fully assess the level of access to education and needs of children with disabilities. Not much is known about the situation of children in the schools for children with disabilities, or the situation of children with other forms of physical disability or those who are intellectually challenged. If one were to extrapolate from the disability survey to the country as a whole, it would appear that the number of facilities are likely to be insufficient and that many children with disabilities fall outside the education system.

Gender Considerations in Education

Due to the universal nature of education in DPR Korea, there is gender parity during the years of compulsory education. However, in the later, post-compulsory years, the balance shifts in

favor of males and significant gender differentials exist at the tertiary and advanced professional levels. More than 20 percent of males engaged in tertiary education or beyond, compared to only 10 percent of females continuing for higher educational attainment.

Figure 10: Tertiary Educational Attainment of DPRK Population 5+ Years



Gender differentials become more evident with the advancement of education, as most females discontinue after having attained post-secondary (three years) education. In 2014, it was estimated that 10.9 percent of males compared to 7.2 percent of females over the age of five had attained tertiary or advanced education.¹¹⁶ Given the linkages between women's education and maternal mortality and infant and child health, closing the educational gap will be an important variable for any efforts to improve children's and women's health.

In terms of careers, many women become teachers in DPR Korea. According to the census, women on aggregate constitute approximately 57 percent of all teachers in DPR Korea. The proportion of female teachers decreases as the level of education increases. For instance,

¹¹⁵ Presentation by Handicap International.

¹¹⁶ Socio-economic and Demographic Health Survey, CBS and UNFPA 2014.

in kindergartens and primary schools, women teachers constitute 99 percent and 87 percent respectively. However, at the secondary school level, this drops to 50.84 percent. Finally, female teachers make up only 24.15 percent of the teachers within universities and specialized schools. Given the importance of girls having female mentors in all occupations, this discrepancy merits further investigation, as well as efforts to close the gap.

Educational Quality

The quality of education can be assessed from three inter-related perspectives – the quality of inputs, process, and outcomes. In terms of inputs, several of the most important issues to consider include: the number and quality of teachers and facilities; the availability of heating during winter, and water and sanitation; and, the availability of textbooks and other teaching aids. In terms of process, some of the main issues to consider include: school readiness, gender-awareness, gender stereotyping in the learning environment, appropriate curriculum content, processes through which teachers use child-centered, non-violent, human-rights-based teaching approaches in well-managed safe classrooms, and skillful assessment to facilitate learning and reduce disparities. Also in terms of process, schools with close links to the community (such as those with parent involvement) have been shown to improve the learning environment. In terms of outcomes, the issue revolves around learning outcomes that are both qualitative and quantitative in nature.

Inputs

Developing teachers with a deep understanding of the content they teach (as well as solid teaching methodologies) underpins the success of primary schools in top-performing education systems. More than 98 percent of teachers in DPR Korea

have received teacher training, although not much is known about the quality of their training. With respect to Early Childhood Education (ECE) teachers, according to the Government, the roughly 37,000 kindergarten teachers receive in-the-field refresher training for three to six months every four to five years. These trainings are reportedly delivered through mobile training units, but actions to improve the quality of teacher education in ECE “appear in need of further detailed development in order to identify the specific skills and competencies that need to be strengthened.”

According to the 2008 census, the number of students per teacher was 22 in primary schools and 20 in secondary schools. This has decreased to 21 and 18 respectively. The pupil-teacher ratio in ECE was estimated at 19 students per teacher in the 2008 census, and 18.3 in 2012, based on data from the Education Commission (EC).¹¹⁷

Textbooks

The curriculum is standardized throughout the country, with the exception of some special schools. Education curricula are developed at the central level by the State Academy for Research in Education, and teaching materials are developed by the educational publishing houses. The National Commission for the Revision of Textbooks is responsible for changes in textbooks, although the EC must ratify amendments prior to publication. UNICEF has provided support for the revision of textbooks, including on Mathematics and Science, and is expected to continue support due to changes needed for the extra year of school and for teaching aids, related to the Child Friendly Schools Approach being adopted by the EC. This offers a good opportunity for DPR Korea to evaluate gender considerations in its curricula, to ensure boys and girls are fully supported in terms of their educational and career choices.

¹¹⁷ Education for All, the National EFA Report 2015 DPR Korea. National Education Commission, 2014.

However, although information on the subject is limited, data from the EFA indicates that the proportion of primary school students with access to textbooks increased from 63.7 percent in 2006, through 66.8 percent in 2008, to 68.0 percent in 2010. This data highlights a possible bottleneck, since quality education is not possible without full access to textbooks. More data is needed on the distribution of the textbooks by subject and by province, including for branch and special schools.¹¹⁸

Reflecting more deeply upon quality of education, assessments indicate that teaching methods have not evolved alongside international standards. While selected multimedia materials have been introduced in some urban centers, basic teaching materials do not adequately meet the needs of the country.¹¹⁹ A promising step was UNICEF support for the development, printing, and dissemination of 13,000 copies of Early Learning Development Standards. This was subsequently accepted as the national standard for early learning and implemented in all kindergartens from the 2015 academic session onward. This has been an important step towards strengthening education quality and policy dialogue.¹²⁰

WASH Facilities in Schools

The most recent data indicates that only 49 percent of kindergartens in DPR Korea currently have access to piped water. This compares to 56 percent of higher level schools that have access to piped water, and 82 percent at the national level. This suggests a concerning lack of prioritization of piped water at children's facilities. Given the importance of WASH to the well-being of children, these statistics merit concerted attention in terms of efforts to improve the health and longevity

of children in DPR Korea. According to the EFA Report, the remainder of the water supply comes from tube wells, dug wells, and spring water. No information is available regarding the availability of sanitation facilities, the level of gender responsiveness of the WASH facilities, the level of hygienic practices, or the security or safety of these water sources at the school level. In addition, there is no publicly available information on the distribution of the facilities, particularly at the level of branch schools and special schools for the blind and deaf.

Processes

A review of the literature and in-country interviews indicates that little is known about educational process issues in DPR Korea – other than that the EC has expressed interest and a readiness to embrace and operationalize the concept of Child Friendly Schools (CFS). In 2013, the EC finalized a framework of CFS for the country, which lays down essential and desirable elements of CFS – not only in terms of physical environment, but also in terms of child centered classroom practices. An extraordinary opportunity exists at this juncture to ensure school safety (meaning working toward a positive and non-discriminatory atmosphere for children and teachers) and gender-supportive environments, curricula, and human-rights-based teaching methods are fully integrated. An opportunity also exists to incorporate Disaster Risk Reduction (DRR) approaches, given the recurring natural disasters and their negative impact on education and learning.

Outcomes

Learning Assessment

DPR Korea does not have a system of national certification examination at any level of school education. All the assessments of students'

¹¹⁸ Ibid.

¹¹⁹ UNICEF Fact Sheet 2013.

¹²⁰ UNICEF Annual Report, DPRK 2015.

learning outcomes is school-based, which consists of regular question-and-answer sessions, checks on homework assignments, and intermediate tests. However, there are examinations in selected subjects at the end of the semester and each academic year. Failure resulting in repetition in primary school is minimal. It is not known whether there is a gender disparity in the failure rate, given that this data is not available. The final secondary examination is based on questions set by the country education unit. If students fail their final examination, they receive only a certificate of education. This means that in order to obtain the secondary education diploma, the student is required to re-sit the exam the following year in the subjects in which they failed.

In 2006, DPR Korea was one of several countries for which the UNICEF Regional Office organized a learning assessment for children of grade three. Other than this endeavor, the country has not participated in any regional or international learning assessment. As such, it is difficult to draw any conclusions regarding the quality of education outcomes. However, since 2013, counterparts have shown interest in developing their capacity to conduct their own learning assessment, using the OECD's Programme for International Student Assessment (PISA) tools and protocol. UNICEF organized three trainings on PISA for the resource group of EC. In 2013, they conducted a pilot assessment in 100 schools to test the tools. It was determined that going forward, further technical support in data analysis and report writing will be needed to support progress in this area.

Financing Education

A review of trends in educational financing over recent years reveals continued reporting of severe shortages and related scarcity in resources through 2004. The literature suggests that conditions within schools and the education system have continued to erode. More specifically, the overall

result has included a shortage of textbooks and basic school materials, a lack of maintenance of the school environment (such as infrastructure), and a trend towards a reduction in teacher training opportunities. Available reports indicate that almost all of the education budget is expended on staff salaries and administrative costs, leaving few resources for quality improvements – which is currently the Government's priority in education. The DPR Korea Government is seeking out alternative sources of financing for the education sector. The Korea Education Fund, inaugurated in January 2005, is a quasi-non-governmental organization established to mobilize resources for the education sector. This organization is actively engaged in searching for financial and technical assistance from sources outside of the UN system.

Adolescence

The second decade of life, adolescence, is the period in human growth and development that occurs after childhood and before adulthood, from age 10 to 19. It is a period of rapid physical, psychological, sexual, emotional, and social change, resulting in a wide range of issues, opportunities, needs, and complexities for individuals. In DPR Korea, adolescents constitute 14.7 percent of the population. At the outset, it should be noted that specific information and data on this age group is extremely limited.

In DPR Korea, adolescence is defined as a two-staged process. The first stage comprises of the years of compulsory education, ending at age 16, when children are socialized and prepared for working life. During this stage, children belong to the Children's Union from age 10 and participate in secondary education. The second stage is from age 16 to 19. There are three options at this stage. The first is to enter the labor force, the second is to enter the military, and the third is to continue with higher education. Approximately 70 per cent

of youth over the age of 16 are engaged in work.¹²¹ At this age, youth are enrolled in the Youth League, and they may apply for admission to the Workers' Party of Korea.

In most developing countries, common challenges facing children in adolescence result from increasing vulnerability to sexual exploitation. This often reflects in teenage pregnancy, early marriage, and child labor. One defining characteristic regarding adolescent girls in DPR Korea is that, unlike many other countries, the total fertility rate is zero, implying the absence of maternal health problems in this group. There are also no documented cases of abortions, pregnancies or sexually transmitted diseases in this group. The tight-knit social organization and lifestyles within DPR Korea may reduce vulnerability. However, it is important to balance reporting with possible unreported realities. Economic hardships and displacement due to emergencies play a major role in the increased exploitation and wider abuse of children worldwide. Family violence and sexual exploitation correlate closely with levels of food security globally due to increased distress levels, and as such, adolescents and all family members are more likely to experience some form of abuse or exploitation.¹²² As food security and humanitarian challenges continue, monitoring for the potential exploitation and abuse of children and adolescents (as happens in other countries undergoing similar challenges) will remain important.

¹²¹ Note that while theoretically there is no unemployment in the country, not everyone is working because they are either incapacitated or retired. A household survey indicated that among those not working, two out of ten persons were retirees, and among the remaining, only six percent were studying, five percent were engaging in housework, and the remaining were either incapacitated or engaging in "other" activities. Importantly, the study found that females reported doing housework, while males did not report engaging in housework.

¹²² Messner, Lyn, Sylvie Morel-Seytoux, Kai Spratt, and Abby Ladd. 2015. *Beyond Access: Toolkit for Integrating Gender-based Violence Prevention and Response into Education Projects*. Rockville, MD: USAID's Advancing the Agenda of Gender Equality (ADVANTAGE), Task Order 3.

Two additional challenges have been identified for adolescents. The first relates to adolescent nutrition as young girls prepare for maternity. Maternal nutrition, which is linked to maternal mortality in the next stage of life, is poor. Much can and should be done during adolescence to forestall the situation. The second relates to access to information. In common with many countries, children in this age group, which encompasses puberty and transition to adulthood and the labor market, experience the challenge of lack of access to information. During the bulk of this period, the adolescents are expected to be in the protective environment of school, where much of the necessary information is expected to be, but may not always be available.

According to the UNFPA 2010 Reproductive Health Survey (RHS), about 15.4 percent of the rural population and 49.3 percent of the urban population in the DPR Korea sourced their knowledge and information on HIV and AIDS from schools. The same survey showed significant gaps in knowledge between never-married women and married women surrounding reproductive tract infections. This, in part, suggests vulnerability related to knowledge gaps amongst younger women and adolescents.¹²³ MICS 2009 reported that although 69 percent of women had heard about AIDS, only 37 percent knew the two main ways of preventing HIV transmission (namely having one faithful uninfected partner and using a condom every time).

Adolescence and middle childhood represent stages where children's capacity for decision-making and participation in social spheres is rapidly evolving. In DPR Korea, children are organized at an early age and their participation mobilized through the Youth League and Children's Union. Despite the commendable presence of fora within which children might freely express their views and participate in society, it is not

¹²³ DPR Korea Reproductive Health Survey 2010, UNFPA and MoPH.

clear to what extent adequate respect for the diversity of children and adolescents' views are encouraged, acknowledged, or respected.

Key Data Gaps

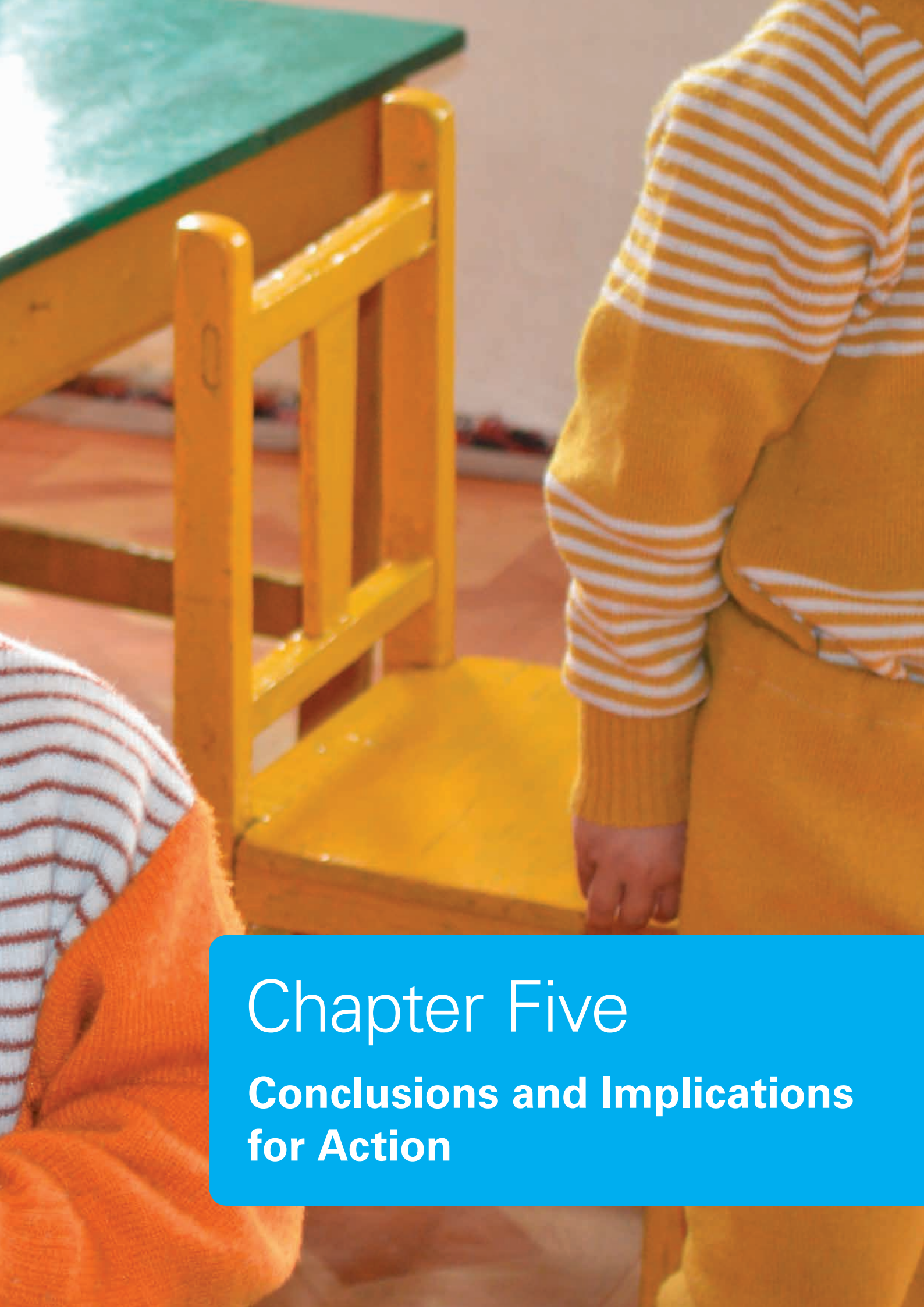
As described throughout this chapter, significant challenges remain to capture the full benefits that education can bring to improving the health and well-being of children and women in DPR Korea. Upon reviewing the critical factors that directly affect school access, quality, and safety and learning achievements, the following data gaps were identified as key to continued progress:

- Quantitative and qualitative data on learning achievements for girls and boys.
- Information on the curriculum for nurseries and kindergartens.
- Updated data on availability of WASH facilities, textbooks, and other supplies at schools.
- Information on processes related to education in emergencies.
- Data and analysis on adolescent nutrition status and behaviors, disaggregated by gender.
- Information and data on potential challenges facing female and male adolescents, including family violence, sexual harassment, bullying or corporal punishment in school, school-related violence, unplanned pregnancies, dangerous labor practices at places of work, bullying, etc.
- UNICEF is encouraged to advocate and work with the Government to ensure that the rights of both mentally and physically disabled children to education are realized within the regular school system.
- To facilitate improved learning outcomes, stakeholders should continue to promote the growth of child-friendly schools, including through training for teachers on appropriate child-friendly, human-rights-based, and gender-aware teaching methods.
- Support the Government of DPRK to develop and implement a plan for improving the relevance and quality of education, which includes the supply of text books, support for teacher training, and the availability of key infrastructural elements for schools, including electricity, heating, water, sanitation, and hygiene facilities.
- Give priority to Early Childhood Development (including support to children in Baby Care homes and for critical nurturing care and stimulation) as part of the "First 1000 Days Initiative."
- Provide support for Learning Assessment as a vital tool for the Government to evaluate the effectiveness of its own education system, to guide reforms of educational quality (including gender-sensitivity and inclusion of the disabled), and to compare with other countries' learning achievements.
- Support strengthening the Education Management Information System.
- Integrate sanitation and hygiene, as well as gender-awareness and human-rights-based training, into the life skills curriculum in schools.
- Undertake an assessment and develop solutions including distance education technology to improve the quality of education in the branch schools.

The Way Forward

Going forward, the following approaches and areas of emphasis are deemed particularly important as DPR Korea continues its efforts to improve the accessibility, quality, safety, inclusivity, and learning outcomes among its nurseries, kindergartens, schools and other educational facilities in the years ahead.





Chapter Five

Conclusions and Implications for Action

Chapter Five

Conclusions and Implications for Action

One can draw a number of conclusions from the preceding analysis. The first is that the Government of DPR Korea has managed, despite the odds, to achieve significant progress in a number of areas relevant to the rights of women and children. These include significant reductions in infant and child mortality, moderate reductions in malnutrition and maternal mortality, and a consistent focus on compulsory education achieving universal literacy.

However, a word of caution is in order at this stage. While the data depicts a relatively positive picture, large data gaps mean that there is much that is not known. Long time periods between surveys, and some areas where data is not collected at all (such as emotional and sexual abuse and other forms of family and school violence), make it difficult to be definitive.

Looking ahead, there appears to be a more positive attitude towards data collection in DPR Korea, with greater openness to additional surveys and other data collection exercises. A Multiple Indicator Cluster Survey is planned for 2017, and a Census for 2018. In addition, the Government appears to be open to more systematic monitoring and tracking of performance, and has indicated a willingness to engage in the SDG process. For more on this, see Annex 4 on Data Gaps and on the status of SDG Child Relevant Indicators for DPR Korea.

A second conclusion is to maintain and strengthen the focus on humanitarian programming, including capacity building in disaster risk reduction and the building of resilience. Given the outlook for climate change and likely impact of climate change

going forward, this emphasis upon humanitarian programming should be of the highest priority. An important theme that emerged from the analysis is the clear and extreme vulnerabilities of children and women due to the ongoing and underfunded humanitarian crisis.

A third conclusion is that despite the progress, significant challenges remain to be addressed in basic social services. These include unacceptably high levels of neonatal and maternal mortality, stunting, as well as issues of quality and inclusiveness in the delivery of health and education services.

A fourth conclusion is that significant disparities exist that need to be addressed to ensure progress towards realizing the rights of women and children. These include gender disparities, as well as disparities between provinces, girls and boys, men and women, and between rural and urban areas. The linkages between woman's health, education, and overall well-being to that of her children is underscored throughout this report – pointing to a need for gender considerations to be raised as central in any strategy to improve child rights and health in DPR Korea.

A fifth conclusion is that there are several facilitating factors and opportunities for advancing child rights. These include a well-articulated and -staffed health and education system extending from the national through the provincial, county and Ri/dong levels with very good service provided to the population. It also includes a relatively well-developed legislative and policy environment, which includes engagement with UN Treaty Bodies, and domestic legislation and

policies. Another facilitating factor includes submission of CRC and CEDAW Reports during 2016, and an acceptance by the Government of DPR Korea of 50 recommendations of the Universal Periodic Review (that can be directly or indirectly linked to UNICEF's mandate). In accepting these recommendations, DPR Korea has reaffirmed its obligations regarding the rights of the child to clean drinking water, to improved hygiene and sanitation, to increased resources to the health system, to lowering child and maternal mortality, to the better training of medical personnel, and to ensuring that children in the most disadvantaged areas enjoy equitable benefits in health and education.

A sixth conclusion is that there are significant challenges to moving forward with child rights. These include: insufficient availability of resources and training, leading to poor quality of services and sub-optimal outcomes including preventable morbidity and mortality; a hindered implementation capacity due to limited exposure to lessons learned from global initiatives and innovations that could help to accelerate progress towards child rights and women's empowerment; and, inadequate availability of gender-disaggregated data and gender-specific qualitative analysis for evidence-based planning, programming, and the monitoring of results, especially at the county, Ri, and household levels.

Implications for Action

- **Stunting** – Many of the interventions under the broad umbrella of stunting would lead to improvements in maternal and child health and nutrition. A strong focus is needed on maternal and neonatal health. Use should be made of the extensive cadre of health staff.
- **Inclusive and quality health services and education** – These services are essential for achieving goals related to health, learning, and disability. Quality education, especially the inclusion of women and girls at all levels, is globally recognized as the cornerstone of sustainable and equitable development.
- **Strengthened focus on Communication for Development (C4D)** – A strengthened focus on C4D would be aimed at identifying and filling information gaps and addressing practices that are not optimal for women's health, child health, and development. Some of the issues under this topic include timely initiation of breastfeeding and adequate complimentary feeding, reduction and ultimate elimination of virtual open defecation, and for pregnant women to complete the course of multi-nutrient tablets. Ideally a staff post would be needed to facilitate this series of interventions.
- **Integrated approach to building resilience** – An integrated approach to building resilience should be carried out in conjunction with the UNCT and development partners. The effort should start with meeting unmet nutrient needs – cereals, proteins, and fats – and continue with advocacy for a Strategic Grain Reserve and for organic cultivation methods, including for drought resistant crops.
- **Improved water, sanitation, and hygienic practices** – Improved sanitation and hygiene should focus particularly on rural communities, schools, and health facilities, and include improved access to clean water among households. The gender dimensions of water collection should be an integral part of this effort.
- **Addressing gender disparities and gender-specific opportunities** – DPR Korea has made noteworthy achievements in gender equality during the early education years. However, key gender equality and women's empowerment issues persist. There is no evidence of implementation

plans, national strategies, sectorial policies, reporting requirements, or programmes designed to promote gender awareness or the empowerment of women. The UNCT should elevate its efforts in this strategically important area by conducting sector-specific gender analyses to inform all data collection, advocacy, and programming activities.

- **Advocacy and support for enhancing the availability and quality of statistics** – The Government of DPR Korea has indicated its interest in this area. If not already in place, the Government may wish to develop a Statistical Plan and utilize Dev-info as a means of leveraging resources and tracking progress on a core set of women's and

children's indicators. A step in this direction would be to advocate for an updated MIC and expanding demographic and health surveys to include questions pertaining to domestic and family violence, as well as other questions (such as household decision making, roles and responsibilities, and asset ownership), which can greatly enrich public health knowledge.

- **Resource mobilization** – The current fundraising strategy for humanitarian needs can be strengthened through strengthening the documentation of humanitarian needs and the impact of UNICEF programming in providing support for lifesaving interventions.



Annex One

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Annex Two

Key Informants Interviewed (Alphabetical)

Anil Pokhrel, Chief of WASH, UNICEF	Marina Throne-Holst, RC Coordination Officer
Butchaia Gadde, Project Officer, Environment, UNDP	Mia Paukovic, RC Office Coordination Associate
Choe Bok Kyong, UNICEF Section Chief, GPSH	Murat Sahin, Deputy Representative, UNICEF
Choe Dok Hyun, Senior Officer, EC	Oyunsahain Dendevronov, Representative, UNICEF
Chon Yong Nam, Official Department of External Affairs, GPSH	Purushottam Timilsina, Manager WASH Programme, Save the Children International
Dr. Devashish Dutta, Health Section, UNICEF	Ri Hye Ryon, UNICEF Focal Point, EC
Dr. Mubeen Aslam, Programme Manager, TB and Malaria, UNICEF	Ri Un Hyui, Statistic Specialist, CBS (CDMU Member)
Dr. Sathrananayana Kundur, Technical Specialist, UNFPA	Ri Un Sung, Official Department of External Affairs, MoCM
Dr. Thushara Fernando, Country Representative, WHO	Rizvina De Alwis, Representative, UNFPA
Dr. Wizam Hazem, Chief of Nutrition, UNICEF	Robert Frampton, First Secretary, Embassy of the UK.
Dr. Zobaidal Haque Khan, Technical Officer, WHO	Roselie Asis, Programme Officer, WFP
H.E. Alastair Morgan, Ambassador of the UK	Shailesh Kumar Nayak, M&E Specialist, UNICEF
H.E. Torkel Stiernlof, Ambassador of Sweden	Stephanie Kleschnitzki, UNICEF EAPRO
Kim Chol Su, UNICEF Focal Point, MoPH	Tapan Mishra, UN Resident Coordinator and Resident Representative of UNDP
Kim Mun Dok, UNICEF Coordinator, NCC	Wanee Piyabongkam, DRR Operations, UNDP
Kim Sol Rim, Desk Officer for UNICEF, CBS	Won Kwang Chon, Official Department of External Affairs, MoPH
Kim Sun Ran, UNICEF Focal Point, MoCM	
Kumar Shiwendra, Project Coordinator, Inclusion and DRR, Handicap International	

Annex Three

Methodological Framework

Steps in the Analytical Process

Literature Review and Trend Analysis. All available data and information were used to accurately identify trends, patterns, incidence, and causes of key challenges disaggregated to the extent possible by relevant population characteristics such as gender, income, and location (province and rural/urban). The assessment included development of a trend analysis for key child rights indicators in order to identify those issues experiencing negative trends or low levels of achievement relative to national and regional trends or signed and ratified international human rights treaties, including the CRC, CEDAW, and CRPD. It would also facilitate identification of regions or population groups lagging behind national averages.

Human Rights-Based Key Determinants Analysis. This has two main components: a causality analysis based on the human-rights-based approach to programming, and a key determinants analysis, which focuses on equity aspects. This includes identification and analysis of the barriers and bottlenecks that prevent disadvantaged children and families from benefiting from required interventions and services, including the social, political, and economic conditions that result in shortfalls in the creation of an enabling environment for the realization of children's rights.¹²⁴

Gender Analysis. Analysis of the extent to which gender inequalities and the fulfillment or non-fulfillment of the rights of women affect overall inequalities and deprivations, including those affecting boys and girls. Primary sources for this were the submissions to Human Rights bodies including UNCRC, UNCEDAW, and the UNHRC. A gender lens was applied throughout the entire process. To this end, gender-sensitive interview questions were developed; the assessment and analysis paid particular attention to gender dimensions; gender-specific research and data gaps were identified; and, gender-informed conclusions and recommendations were developed.

Risk Mapping. Assessment of the current or potential presence of emergency risks, including conflict, disaster risks, and other potential shocks, the likelihood of their occurrence, the underlying vulnerabilities, the nature of the hazard, and the particularly vulnerable groups that will be affected. The capacities and coping mechanisms of individuals, families, communities, and local and national institutions to mitigate these risks and deal with shocks has also been assessed. To the best possible extent, gender dimensions of risks and vulnerabilities have been integrated into the analysis.

Analysis of the Enabling Environment. Analysis of the extent to which the evidence-based interventions and services needed to address deprivations are prioritized in national policies, laws, strategies, plans and budgets, and supported by UNICEF and partners. This would include an analysis of the extent to

¹²⁴ For further guidance on the analysis of bottlenecks and barriers, see the note on Monitoring the Equity Approach (September 2011).

which there is an enabling environment for the realization of the rights of all children and women, including the promotion of positive social norms and behaviors, organization of services, and institutional capacities at national, sub-national, and community levels.

Developing Evidence-Based Solutions. Based on outcomes of the analysis and in consultation with key stakeholders, a series of potential solutions have been developed that would go some distance towards addressing the

challenges identified. These solutions include recommendations to support upstream advocacy and downstream, field-based interventions. This step also included the identification of gaps in the availability of essential data and information. The final chapter provides an overview of proposed ways forward and key data gaps.

Elements of the Key Determinants Analysis

Figure 11: Key Determinants Framework for Situation Analysis

Determinants of Bottlenecks and Barriers	Description
Enabling Environment	
<ul style="list-style-type: none"> • Social Norms • Legislation/Policy • Budget/Expenditure • Management/Coordination 	<ul style="list-style-type: none"> • Widely followed social rules of behavior • Adequacy of laws and policies • Allocation and disbursement of required funds • Roles and responsibility, coordination, and partnership
Supply	
<ul style="list-style-type: none"> • Availability of essential commodities or inputs • Access to adequately staffed services, facilities and information 	<ul style="list-style-type: none"> • Essential commodities or inputs required to deliver a service or adopt a practice • Physical access to services, facilities, or information
Demand	
<ul style="list-style-type: none"> • Financial access • Social and cultural practices and beliefs • Continuity of use 	<ul style="list-style-type: none"> • Direct or indirect costs for services or practices • Individual or community beliefs, behaviours, practices, or attitudes • Completion or continuity of services or practices
Quality	
<ul style="list-style-type: none"> • Quality 	<ul style="list-style-type: none"> • Adherence to required quality standards (national or international norms)

Annex Four

Summary of Key Data Gaps

Data Gaps

Data on the type and extent of gender-based emotional, physical, and sexual violence (impacting males and females of all ages) at the household, school, military, and workplace levels.

Data and analysis of multidimensional child poverty.

Analysis on gender-specific decision-making patterns at the household level, including intra-household consumption of food and access to resources (car, bicycle, mobile phone, etc.).

Data on gender-based occupation decisions and potential income inequalities.

Infant, child and neonatal mortality data at the sub-national level (disaggregated by sex).

Data on the situation of children in nurseries, kindergartens, and schools for disabled children, including feeding and caring practices, nutrition status, and child/staff ratios (disaggregated by sex).

Specific data on causes of maternal death.

The extent and nature of child disability and the specific arrangements for dealing with different categories, including the intellectually challenged.

Data on budgetary allocations to health, WASH, and education and distribution among sub-sectors.

Sub-national data on availability of ambulances, essential medical supplies, and equipment at province, county and Ri levels.

Updated data on the availability of water, sanitation, and hygiene facilities, as well as heating and electricity, in educational and health facilities.

Research on adolescents to identify specific challenges they encounter at home, at school, within the military, and at places of work – and to identify opportunities for support.

More systematic qualitative and quantitative data on equity issues across sectors (including gender, disability, age, and geographic location) to allow for better targeting of programmes.

Data on the impact of climate change and disasters on children (disaggregated by sex).

Annex Five

Status of SDG Child-Relevant Indicators in DPR Korea

Goal	Indicator	Global Target	DPRK status
Goal 1: End poverty in all its forms everywhere	Number of deaths, missing persons and persons affected by disaster per 100,000 people	N/A	0.55 – dead 1.61 – missing 2409 – affected
	Direct disaster economic loss in relation to gross domestic product (GDP)	N/A	N/A
Goal 2: End hunger, achieve food security, and improve and promote sustainable agriculture	Prevalence of stunting among children under 5 years of age	<5%	27.9% (NNS)
	Prevalence of malnutrition in the form of wasting and being underweight among children under 5 years of age	<5%	Wasting 4% Underweight 15.2%
Goal 3: Ensure healthy lives and promote well-being for all, at all ages	Maternal mortality ratio	<70 per 100,00 live births	66/100,000 live births (SDHS)
	Proportion of births attended by skilled health personnel	>90%	100%
	Under-5 mortality rate	25 per 1,000 live births	25/1000 live births (IGCME)
	Neonatal mortality rate	12 per 1,000 live births	14/1000 live births (IGCME)
	Tuberculosis incidence per 1,000 people	N/A – to be locally determined (reduction of 90% by 2030)	5.52 per 1000
	Malaria incidence per 1,000 people	N/A – to be locally determined (reduction of 90% by 2030)	0.40 per 1000
	Proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods	75%	76.5%
Health worker density and distribution	230 per 100,000	317 doctors per 100,000	

Goal	Indicator	Global Target	DPRK status
Goal 4: Ensure inclusive and quality education for all, and promote lifelong learning	Proportion of children under 5 years of age who are developmentally on track in health, learning, and psychosocial well-being, by sex	90%	75% (2009)
	Participation rate in organized learning (one year before the official primary entry age)	N/A	97.3%
	Proportion of schools with access to (a) electricity; (b) basic drinking water; (c) single-sex basic sanitation facilities; (d) basic hand washing facilities; and, (e) heating	100%	N/A
Goal 5: Achieve gender equality and empower all women and girls	Proportion of seats held by women in national parliaments and local governments	30%	20.2% (NP)
	Proportion of women in managerial positions	30%	16.1% (SM) 11.9% – judges
Goal 6: Ensure access to water and sanitation for all	Proportion of population using safely managed drinking water services	100%	82% connected
	Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water	100%	73% (2009) improved sanitation only
Goal 7: Ensure access to affordable, reliable, sustainable, and modern energy for all	Proportion of population with access to electricity	100%	100% connected
Goal 15: Sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss	Forest area as a proportion of total land area	N/A – to be locally determined	43% (2014)
Goal 16: Promote justice, peace, and inclusive societies	Proportion of children under 5 years of age whose births have been registered with a civil authority, by age	100%	100%

Source: Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, UN Statistics Division, New York, February 2, 2016 and data contained in the Situation Analysis



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