SITUATION ANALYSIS OF WELL-CHILD CARE IN MONGOLIA
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The World Health Organization (WHO), Member States and stakeholders in the WHO Western Pacific Region believe that children represent the future, and ensuring their healthy growth and development should be a prime concern for all societies.

Over the past two decades, the world has made tremendous progress in reducing child mortality and improving child health and well-being. However, unhealthy diet, inactive lifestyle, use of harmful substances, and environmental hazards and degradation — including air pollution and climate change — hinder millions of children from thriving and surviving. In addition, a large number of children are still growing up without adequate access to health-care services, nutrition and a safe environment, as well as responsive caregiving.

Well-child care plays a crucial role in identifying and addressing health, social and environmental challenges, and promoting children’s overall health, well-being and thriving. The implementation of an integrated and coordinated systems approach to child care will help ensure that children can thrive in a healthy, caring and supportive environment. It is vital that all stakeholders, including governments, businesses, civil society, donors, communities, families and individuals, work together to ensure well-child care to foster every child’s healthy and happy life.

In the Western Pacific Region, WHO supported six countries that carried out quality assessments of primary health care for infants and young children aged 0–59 months. The assessment findings identified missed opportunities in providing quality screening, counselling and management for early childhood development, injury, maltreatment, negligence, and exposure to environmental and air pollution during well-child care.

In response, WHO extended its support to these six countries in conducting national health system scoping reviews on well-child care focusing on these areas. This report provides a comprehensive situation analysis overview of Mongolia’s current health-care system for well-child care.

Now that countries’ needs are better defined, we believe that countries and partners should collectively work on “thrive” beyond “survive”, advancing early childhood development; reducing children’s injuries, maltreatment and negligence; and fostering a multisectoral collective effort to provide safe and conducive environments for children.
ACKNOWLEDGEMENTS

This scoping review of well-child care in Mongolia was written by Dr Otgonbayar Radnaa, Dr Tsend-Aush Azjargal and Dr Enkhtugs Khangai from the Mongolian National University of Medical Sciences (MNUMS) in collaboration with Dr Ulziikhutag Enkhmaa, Officer-in-Charge of Children’s Health Services, Ministry of Health (MOH) and Dr Baldan Tsevelmaa, Officer-in-Charge of Maternal Health Services, MOH.

The authors are very grateful to Dr Tserendorj Sodnompil, Secretary of the Public Health Committee, Mongolian Medical Academy, for his technical advice and comments on the policy review and for summarizing the findings; Dr Delgermaa Vanya, National Professional Officer, WHO Representative Office in Mongolia; and Dr Zhao Li, Dr John Murray and Dr Howard Sobel from the Maternal Child Health and Quality and Safety Unit, Division of Health Systems, World Health Organization (WHO) Regional Office for the Western Pacific, who provided overall support, technical guidance, invaluable comments and feedback for the development of the report.

This report is the product of the WHO Western Pacific Well-child Care (WCC) scoping research project, which includes six countries in the Region. The research methodology was developed by the WHO Regional Office for the Western Pacific, which also delivered the training, along with funding support. This Mongolia report will also contribute to the development of a regional report on WCC in the Region.

Special thanks to Dr Sayaka Horiuchi, Japan, for her invaluable comments on the report development and Ms Todgerel Sodbaatar, National Statistical Office, Mongolia, for her feedback on relevant indicators in the report.
### ABBREVIATIONS

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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>AFCYD</td>
<td>Authority for Family, Child and Youth Development</td>
</tr>
<tr>
<td>ANC</td>
<td>antenatal care</td>
</tr>
<tr>
<td>COVID-19</td>
<td>coronavirus disease 2019</td>
</tr>
<tr>
<td>ECD</td>
<td>early childhood development</td>
</tr>
<tr>
<td>ECE</td>
<td>early childhood education</td>
</tr>
<tr>
<td>E. coli</td>
<td><em>Escherichia coli</em></td>
</tr>
<tr>
<td>FHC</td>
<td>family health centre</td>
</tr>
<tr>
<td>GASI</td>
<td>Government Agency for State Inspection</td>
</tr>
<tr>
<td>GDP</td>
<td>gross domestic product</td>
</tr>
<tr>
<td>LUUSWSS</td>
<td>Law on Utilization of Urban Settlement’s Water Supply and Sewage</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>monitoring and evaluation</td>
</tr>
<tr>
<td>MCUD</td>
<td>Ministry of Construction and Urban Development</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
</tr>
<tr>
<td>MDT</td>
<td>multidisciplinary team</td>
</tr>
<tr>
<td>MECSS</td>
<td>Ministry of Education, Culture, Science and Sports</td>
</tr>
<tr>
<td>MES</td>
<td>Ministry of Education and Science</td>
</tr>
<tr>
<td>MICS</td>
<td>Multiple Indicator Cluster Survey</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>MLSP</td>
<td>Ministry of Labour and Social Protection</td>
</tr>
<tr>
<td>MNUMS</td>
<td>Mongolian National University of Medical Sciences</td>
</tr>
<tr>
<td>NCD</td>
<td>noncommunicable disease</td>
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<tr>
<td>NCMCH</td>
<td>National Center for Maternal and Child Health</td>
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<tr>
<td>NDCDP</td>
<td>National Development Center for Disabled People</td>
</tr>
<tr>
<td>NFCYDA</td>
<td>National Family, Child and Youth Development Agency</td>
</tr>
<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
</tr>
<tr>
<td>NPRAEP</td>
<td>National Program on Reduction of Air and Environmental Pollution</td>
</tr>
<tr>
<td>OBGY</td>
<td>obstetrics and gynaecology</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>--------------</td>
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</tr>
<tr>
<td>PHCQIG</td>
<td>Primary Health Care Quality Improvement Guide</td>
</tr>
<tr>
<td>PM 2.5/10</td>
<td>particulate matter with diameter smaller than 2.5/10 microns</td>
</tr>
<tr>
<td>SDG</td>
<td>Sustainable Development Goal</td>
</tr>
<tr>
<td>SHC</td>
<td>soum health centre</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Education, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<tr>
<td>WASH</td>
<td>water, sanitation and hygiene</td>
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<tr>
<td>WCC</td>
<td>well-child care</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<td>WSP</td>
<td>water safety plan</td>
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EXECUTIVE SUMMARY

This well-child care (WCC) scoping review aimed to review the existing policies, strategies and programmes for identifying gaps and developing recommendations to tackle the WCC challenges in Mongolia. Over 140 documents were reviewed, including Mongolian laws, strategies, policies, programmes, plans and regulations. The report comprises six chapters covering six thematic areas: 1) early childhood development; 2) injury, protection, abuse and neglect; 3) water safety and sanitary environment; 4) disability; 5) indoor pollution; and 6) environmental toxins.

The Global Strategy for Women’s, Children’s and Adolescents’ Health (2016–2030) calls for global efforts, not only to eliminate preventable deaths, but also to support children to thrive and reach their full potential. In the past three decades Mongolia has experienced a dramatic decline in under-5 child mortality from 87.5 per 1000 births in 1990 to 14 per 1000 births in 2020. Along with this reduction in childhood mortality, an epidemiological transition in the leading causes of morbidity and mortality among under-5 children was observed. Health issues surrounding children have become multifaceted, and there is therefore a demand for more comprehensive measures.

Mongolia has enabled a fundamental legal framework for WCC and has enforced laws in all six of the thematic areas. The country has a well-structured health system to provide maternal and child health services within health education, counselling, and early detection of any diseases and potential complications through the individual maternal and child health monitoring book and scheduled health check-ups. There has been an increase in under-5 children with disabilities and the number of children in need of constant medical care increased by 5.5% between 2010 and 2016. In parallel, social changes have also led to an increase in children suffering maltreatment. Incidence of child abuse and accidents have risen in the last decades, and hence the child protection system needs to be strengthened.

In recent years, Mongolia has been trying to expand public health, social and welfare services in addition to the fundamental maternal and child health system through the enhancement of multisectoral coordination. The Law on Health and Law on Social Welfare are basic laws that regulate the child health and welfare system in the country; many other laws — such as the Law on Education — and relevant regulations have also been developed to complement these. In the past several years, the Government has devoted tremendous efforts to foster services for child-rearing and child welfare services to prevent child maltreatment and to support the daily lives of children with disabilities.
Aiming to improve children’s health and well-being, the National Program on Maternal, Child, and Reproductive Health for 2016–2020 was successfully implemented, promoting a variety of approaches and improving the health standards of mothers and children. It has also played an important role in the sharing of common goals among different stakeholders and setting targets and goals to be achieved by 2020. Several services have been built on the basis of an existing system of family health centres to provide maternal and child health and welfare services for mothers and children, as well as for prevention and early detection of cases of maltreatment. At the end of 2021 Mongolia endorsed the Vision–2050, Long-term Development Policy of Mongolia (“Vision–2050”) document, which includes all the above-mentioned national programmes and plans. As a result of this policy, continuity has been somewhat assured.

Regardless of these efforts, there is still a need to take measures to respond to the increasing demand for lifelong consistent and comprehensive support by multisectoral stakeholders, and to promote and maintain active information sharing between the Government and individual households. It is also critical to perform outcome-based monitoring and evaluation to ensure the quality and effectiveness of programmes. There is a vital need to implement policy and regulatory documents as well as laws, without financial hardship, and monitor their implementation on a regular basis. Furthermore, human resource capacity for the child protection and welfare system needs to be enhanced. Creating and fostering a safe and clean living and learning environment for children is one of the serious public health concerns in the country.

As a result of the enforcement of the Law on Health since 1986, comprehensive support throughout the life cycle — from prenatal, infancy, childhood, adolescence to adulthood — has been ensured to a certain extent. In addition, the Law on Social Welfare and Child Protection also addresses WCC. However, proper coordination across various stakeholders is still challenging. Further discussion on feasible and effective interventions to fill the gaps is essential.

This report is timely as there are numerous ongoing discussions to develop a Law on Maternal and Child Health, which will ensure the provision of consistent and holistic health, social and welfare services throughout childhood. We hope the findings of this scoping exercise will provide useful information to decision-makers in designing policies, strategies and programmes to fill in the existing gaps and to improve child health and well-being in Mongolia. We also expect the findings to help other countries in the Western Pacific Region to extract lessons and practices applicable to their situation.
1. BACKGROUND

Mongolia experienced dramatic demographic and epidemiological changes in the 30 years after 1990, including a sharp decrease in under-5 child mortality to 14 per 1000 births in 2020 (Fig. 1) (1), thus reaching the target laid out by the Sustainable Development Goals (SDGs). The infant mortality rate was 13 per 1000 live births (1).

The leading causes of death among children under 5 years old have shifted from communicable diseases to noncommunicable diseases (NCDs); congenital anomalies and injuries are currently the main causes of death (Table 1) (2). Due to advanced medical care, there are more and more children and families living with chronic conditions and/or disabilities and in need of constant medical care.

**FIG. 1** Trends in under-5 child mortality in Mongolia, 1996–2020

![Graph showing trends in under-5 child mortality in Mongolia, 1996–2020](image)
### TABLE 1  Leading causes of death among children under 5 years old

<table>
<thead>
<tr>
<th>Age group</th>
<th>First cause of death</th>
<th>Second cause of death</th>
<th>Third cause of death</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>Respiratory disorder during the perinatal period</td>
<td>Congenital anomalies</td>
<td>Injury</td>
</tr>
<tr>
<td>&lt; 1</td>
<td>Some disorder during the perinatal period</td>
<td>Congenital anomalies</td>
<td>Injury</td>
</tr>
<tr>
<td>1–4</td>
<td>Injury</td>
<td>Respiratory disorder</td>
<td>Infectious diseases</td>
</tr>
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The nationwide share of children with any one type of functional disabilities is increasing by age group (5 years old — 0.5%; 5–9 years old — 0.9%; 10–14 years old — 1.1%; 5–19 years old — 2.2%). Children with mental disability are reported to be increasing by age group, from 17.1% for children under 5 to 22.8% in children 15–19 years old, respectively (1).

In 2019 under the coordination of the Ministry of Health (MOH), the National Center for Maternal and Child Health (NMCCH), with support from the World Health Organization (WHO), conducted a survey for the Why child died? assessment (2). The survey found that out of 1628 under-5 children, 1084 (66.6%) died due to preventable diseases (Table 2).

### TABLE 2  Causes of infant and under-5 morbidity by percentage (urban and rural), Mongolia, 2019

<table>
<thead>
<tr>
<th>Cause of death</th>
<th>Up to 1 year old</th>
<th>Under 5 years old</th>
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<tbody>
<tr>
<td></td>
<td>Urban (%)</td>
<td>Rural (%)</td>
</tr>
<tr>
<td>Respiratory diseases</td>
<td>35.5</td>
<td>64.7</td>
</tr>
<tr>
<td>Digestive diseases</td>
<td>12.2</td>
<td>10.2</td>
</tr>
<tr>
<td>Certain disorders during perinatal period</td>
<td>12.5</td>
<td>4.9</td>
</tr>
<tr>
<td>Injury, poisoning and other specific disorders</td>
<td>2.3</td>
<td>0.7</td>
</tr>
<tr>
<td>Infectious and parasitic diseases</td>
<td>2.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Skin and subcutaneous tissue diseases</td>
<td>6.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Ear and spinal cord diseases</td>
<td>5.6</td>
<td>5.7</td>
</tr>
<tr>
<td>Nervous system diseases</td>
<td>9.5</td>
<td>3.8</td>
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</table>

The main cause of morbidity is diseases of the respiratory system, with incidence among infants and children under 5 years at 34.6–38.4% in urban areas and 65.7% — twice as high — in rural areas. In under-5 children, incidence of infections and parasitic diseases is almost two times higher than in infants and four times higher in urban areas compared with rural areas.

Results from the *Fifth National Nutritional Survey Report 2017* found that 6.1% of children under 5 years were stunted and 1.4% were severely stunted; 11.7% of children were overweight and 5.8% were wasting. The data also show that almost one in five children have anaemia and six in 10 have vitamin D deficiency in adolescence and adulthood (3).

Demands for health-care support for children have become diverse and complex. The number of suspected child abuse cases is sharply increasing every year, and measures to support households raising children have become important public health interventions. In order to meet the changing demands of child health and well-being, policies and strategies concerning maternal and child health have changed several times in the past few decades. Nowadays, more resources are being spent to support child-rearing and to prevent child maltreatment.

**1.1 RATIONALE**

Despite efforts to address these challenges, in 2019 the mid-term review of the Maternal, Child and Reproductive Health Program—a national campaign to promote health standards of mothers and children — reported that seven targets out of 28 remained unchanged and results for three targets had worsened in the previous four years (4). The national programme suggested improvements to reduce the disparities in service provision across municipalities and **aimag** administrations, and to establish a supportive environment for families with children, which is the key to preventing child maltreatment and promoting healthy development.

This scoping exercise was conducted to determine the existing policies, strategies and programmes for well-child care (WCC), to identify gaps and to explore recommendations to tackle the WCC challenges in Mongolia.

This report is timely as there are numerous ongoing discussions in response to the enactment of the Law on Health in 2018 that provides a legal basis for providing continuous and consistent public health and medical care for children. We hope the findings of this scoping exercise will provide useful information to decision-makers in designing policies, strategies and programmes to fill in the existing gaps and to improve child health and well-being. It also expects to extract lessons and practices applicable to other countries in the Western Pacific Region.
1.2 OBJECTIVES

The objectives of this rapid assessment of WCC in Mongolia are to identify the gaps in six defined thematic areas and to define strategic actions through four designated approaches developed by WHO. The scope of the assessment was WCC provided through the health system for children from 0 to 6 years of age.

*The six thematic areas are:*

1. Early childhood development (ECD)
2. Injury, protection, abuse and neglect
3. Water safety and sanitary environment
4. Disability
5. Indoor pollution
6. Environmental toxins

1.3 METHODS

The process was conducted in a harmonized manner with other countries in the Region that also participated in WCC scoping. The approach adopted by the national consultant was as follows:

A. **Review documents** identified through internet search using official sites of the Mongolian Government.

B. **Conduct in-depth in-country interviews** with key stakeholders and find missing documents to fill in the gaps.

C. **Broad and systematic consultation** with health sector stakeholders, including government officials, medical staff, professional associations and other sectors such as education, inspection agency and social welfare participants.

D. **Participate** in developing a regional scoping report and identify strategic actions for future national and regional interventions.

The issues identified for each thematic area of work were not only derived from the findings of the rapid assessment, but also from the national consultant’s interviews with staff from the MOH, from central and peripheral levels, and other key stakeholders.

Data for indicators were collected either from the portal site for official statistics in Mongolia (www.1212.mn) or from ministry, project and research reports in cases where the data were not available.

Based on findings from the document reviews, the national consultant conducted an analysis of the status of the health system around WCC in Mongolia and discussed gaps to be addressed with relevant stakeholders.
1.4 LIMITATIONS

Designing, planning and conducting an assessment of WCC within two months was a challenge that required balancing the availability of time and quality of the report. Data availability was also limited, since there were not many relevant studies conducted to assess the metadata, particularly for children age group 7–12, related to the WHO Primary Health Care Quality Improvement Guide (PHCQIG) survey. It was difficult to translate almost all the approved and implementing policy documents, national programmes and laws, which were publicly used and shared on websites.

1.5 WCC STAKEHOLDERS

Three main sectors and institutions are involved in WCC in Mongolia, namely:

- **Health sector** — Family health centres (FHCs), soum health centres (SHCs), aimag and district general hospitals, specialized hospitals such as the NCMCH, National Trauma Center, sanatoriums, private clinics and hospitals.

- **Social welfare sector** — Family, child and youth centres; National Center Against Violence; National Rehabilitation Development Center for Disabled Children; nongovernmental organizations (NGOs).

- **Education sector** — Kindergartens, private child development centres.

**Multidisciplinary teams (MDTs)**

A multisectoral permanent inter-agency working group on child protection and development was set up, led by the Deputy Minister of Labour and Social Protection, to ensure effective implementation of the national action plan and the recommendations of the Committee on the Rights of the Child. Manuals for capacity-building of MDTs — the lowest administrative unit at the urban and rural levels — were updated according to the revised Law on Combating Domestic Violence, and will be used at the national level. The manuals consist of chapters for each member of the MDT on addressing and responding to violence, including the governor, local parliament representative, social worker, school social worker, police officer, family doctor, welfare officer, community/street leader and NGO representative (5).

The revised Child Rights Law (6) defines the obligations and competencies of government organizations for children. It defines in legal terms the child rights-related obligations and roles of central and local child and family development organizations, national and local Councils for Children, all levels of governors, other public organizations, parents, citizens and legal entities.

Concurrently, the Child Protection Law and the Revised Law on Domestic Violence lay the legal foundations for the child protection system in Mongolia.

A number of institutions have been created or restructured since 2015 in accordance with child rights–related laws, particularly the Child Protection Law. Some of the main institutions are:
*Child help-line service centres under the Authority for Family, Child and Youth Development (AFCYD) (2016).*

*Temporary protection centre under the 108 child helpline service centres (2017).*

*Training, research and information centre affiliated with the Ministry of Labour and Social Protection (MLSP), which researches family, children and youth issues, and provides capacity-building training for social workers (2017).*

*National and subnational Ethics Committee of Mongolian Social Workers.*

*Unur Bul Children’s Centre, which now provides protective response services.*

*AFCYD and the Metropolitan Child & Family Development Department jointly founded a Children’s Development Center in Bagakhangai District for rehabilitation of unsupervised children and reintegration into their families.*

**Single-window service and temporary protection centres**

Single-window service centres are obliged to provide comprehensive services to victims of violence. As of 2017, nine single-window service centres and 16 temporary protection centres are in operation to some extent.

**National Center for Disabled and Special Needs Children**

The new 250-bed National Center for Disabled and Special Needs Children was recently established under the MLSP. It provides outpatient and inpatient rehabilitation service for children with disabilities aged 0–18.

**Commission for Health, Education and Social Protection of Disabled Children**

According to the Law on Human Rights of Persons with Disabilities, a Commission for Health, Education and Social Protection of Disabled Children shall be formed at central and local administrations, namely one central commission within the MLSP and 30 subcommissions in 21 aimags and nine districts of Ulaanbaatar. As of September 2016, 13 subcommissions had not convened at all and only nine subcommissions had sent their reports to the MLSP. The purpose of this Commission is to identify disabilities in children 0–16 years old; to include children with disabilities in health, education and social protection services; and to monitor, implement and promote intersectoral coordination.

**1.6 POLICY FRAMEWORK**

The Parliament of Mongolia approved the Sustainable Development Vision 2030 by Resolution No. 19 dated 5 February 2016. The SDGs are set for global development goals to be achieved in the next decade and a half as a continuation of the Millennium Development Goals (MDGs). In 2020 this legal document was revised and endorsed as Mongolia’s long-term development policy: “Vision–2050” (8).
1. BACKGROUND

**State Policy on Health, 2017–2026**

On 18 January 2017, the Government of Mongolia approved the State Policy on Health, which specifies the policy agenda for the health sector to be achieved during the period 2017–2026 (9). This resolution tasked the MOH and other officials to include the State Policy measures in the MOH’s annual economic and social development priorities, to allocate adequate funds for the annual state and local budgets, and to obtain additional needed financing through loans, donations and aid from foreign countries and international organizations. The policy has eight key areas, namely: (a) public health; (b) medical care; (c) human resources; (d) health financing; (e) health technology; (f) pharmaceuticals; (g) information technology and information management; and (h) health sector management, organization and transparency. This policy is related to child development plans to improve legal arrangements for breastfeeding children and to increase accountability of stakeholders in this area.

**State Policy on Education, 2014–2024**

The State Policy on Education was approved by Parliament Resolution No. 12 in 2015 and its main goal is for every person to be able to improve their talents, skills and work productivity, live happily, and acquire knowledge and skills to be human (10). The creation of an appropriate system for lifelong education will be implemented in 2014–2024. Based on this policy, the Law on Preschool Education was revised in 2016.

**State Policy on Population Development, 2016–2025**

The State Policy on Population Development was approved by Parliament Resolution No. 261 in 2016 and its main goal is to improve the safety of the environment for Mongolian people to lead healthy and long lives, to provide sustainable population growth, and to increase the population and quality of family life. It will be implemented in 2016–2025 (11). Based on this policy, the Law on Human Rights of Persons with Disabilities was revised in 2016; the Law on Child Protection was revised in 2016; and the Law on Family was revised in 2018. The relationship between the policies and laws is depicted in Fig. 2.

**FIG. 2** Policies and laws in Mongolia

<table>
<thead>
<tr>
<th>State Policy on Population Development</th>
<th>State Policy on Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law on Rights of Persons with Disability</td>
<td>Law on Health</td>
</tr>
<tr>
<td>National Program on Disability</td>
<td>National Program for Maternal, Child and Reproductive Health</td>
</tr>
<tr>
<td>Action Plan to implement National Program on Disability</td>
<td>Action Plan to Implement National Program on Maternal, Child and Reproductive Health</td>
</tr>
</tbody>
</table>

2. RESULTS

**Summary of key points**

» The Mongolian Government provides policy support for children’s health, development and welfare, and ensures the rights of children.

» Multisectoral collaboration — especially in the fields of health, welfare and education — can be expected to develop further through the Child and Maternal Health and Child Development Law.

» Each *aimag* and city plan reflects the concept of the National Maternal, Child and Reproductive Program, which provides objectives, reliable benchmarks to be achieved, and future initiatives in the maternal and child health care of organizations.

» A quality and quantity gap exists among *aimags* and cities in terms of access to kindergartens for preschool children.

» Children’s participation and perspectives are lacking in the development of national policies and strategies.

» There is inconsistency and discontinuity in provision of necessary care among services for ECD due to different sectors administering health, welfare and education services.

### 2.1 EARLY CHILDHOOD DEVELOPMENT (ECD)

#### 2.1.1 Current epidemiology

The system of maternal and child health-related measures in Mongolia is presented in Fig. 3.

**FIG. 3** System of maternal and child health-related measures

<table>
<thead>
<tr>
<th>Stage</th>
<th>Actions</th>
</tr>
</thead>
</table>
| Pregnancy      | Notification of pregnancy • Issuance of Maternal and Child Health Handbook  
|                | Antenatal check-ups • Mother’s/parent’s class (mostly in urban areas) |
| Newborn        | Birth registration • Notification of preterm and low-birth-weight infants  
|                | Newborn screening • Weekly home visits for newborn up to 1 month old |
| Infant         | Health check-ups in accordance with the Ministerial Order • Special care for premature babies  
|                | Home visits on monthly basis for babies up to 12 months old |
| Childhood      | Health check-ups up to 3 years old • Early detection/support of developmental disabilities |

Source: Ministry of Health.
Antenatal (ANC) check-ups

At least six prenatal visits for each pregnancy are funded by the state budget, but a lack of obstetrics/gynaecology (OBGY) practitioners in rural areas is a nationwide issue.

The number of OBGY in 2000 was 2.0 per 10 000 population, which increased to 2.6 by 2019. Health check-ups for babies under 1 year old are implemented in all aimags and districts by primary health facilities; however, their content and quality vary by aimag. In accordance with the FHC and SHC national standards and Health Minister’s order, all SHCs and FHCs should provide all infants with scheduled health check-ups through outpatient and home visits. Compared with 2012, the provision of scheduled health check-ups of infants decreased by 14% in 2020, reaching 85.6% (1). This decrease may have been due to the coronavirus disease (COVID-19) pandemic restrictions.

Tables 3 and 4 summarize the implementation status of maternal and infant health check-ups in 2019 compared to previous years.

### TABLE 3  Maternal and infant check-up percentage at national level, 2019–2020

<table>
<thead>
<tr>
<th></th>
<th>Early ANC enrolment (%)</th>
<th>Proportion of pregnant women with at least 6 ANC visits (%)</th>
<th>Births delivered by specialized physicians (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early ANC enrolment</td>
<td>88.7</td>
<td>89.9</td>
<td>73.9</td>
</tr>
</tbody>
</table>

Source: Health Indicators 2020, Mongolia.

### TABLE 4  Implementation status of infant health check-ups (%), rural and urban areas, 2016–2020

<table>
<thead>
<tr>
<th>Year</th>
<th>Infants (%)</th>
<th>Health check-up (%)</th>
<th>Weighed children (%)</th>
<th>Taken vitamin A (%)</th>
<th>Taken vitamin D (%)</th>
<th>Exclusive breastfeeding (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
<td>Urban</td>
<td>Rural</td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>2015</td>
<td>67.6</td>
<td>32.4</td>
<td>64.6</td>
<td>35.4</td>
<td>25.9</td>
<td>74.1</td>
</tr>
<tr>
<td>2016</td>
<td>51.7</td>
<td>48.3</td>
<td>54.6</td>
<td>45.4</td>
<td>15.1</td>
<td>84.9</td>
</tr>
<tr>
<td>2017</td>
<td>23.9</td>
<td>76.1</td>
<td>23.2</td>
<td>76.8</td>
<td>15.6</td>
<td>84.4</td>
</tr>
<tr>
<td>2018</td>
<td>50.5</td>
<td>49.5</td>
<td>46.8</td>
<td>53.2</td>
<td>15.5</td>
<td>84.5</td>
</tr>
<tr>
<td>2019</td>
<td>48.6</td>
<td>51.4</td>
<td>46.6</td>
<td>53.4</td>
<td>40.5</td>
<td>59.5</td>
</tr>
<tr>
<td>2020</td>
<td>48.7</td>
<td>51.3</td>
<td>38.2</td>
<td>61.8</td>
<td>23.7</td>
<td>76.3</td>
</tr>
</tbody>
</table>

Source: Center for Health Development, Mongolia.
Children with developmental/functional impairment

According to the health indicators data for 2020, the percentage of children 1–5 years old with a developmental or functional impairment receiving regular therapy from a health professional for the impairment was only 0.43%. In a pilot WHO PHCQIG assessment conducted in 15 FHCs in Mongolia, the percentage of children 0–3 years old attending outpatient or well-child clinics with caregivers reporting a developmental concern was 3.9%, and the percentage of children 0–3 years old with caregivers reporting a developmental concern who were referred for assessment was 16.7%.

Oral health

Government data show that 80–90% of children aged 2–12 years suffer from dental decay, which has compelled the Government to start the national programme “Healthy Teeth Healthy Children”. The programme aims to give one-time free dental treatment to children aged 2–12 years; the MOH is implementing the programme until 2023. Alongside dental treatments, other actions are planned, including to educate the public on oral hygiene habits and preventive measures against dental caries. A total of 243 dental hospitals took part in the selection of the programme. In 2019 the programme targeted dental treatments of younger children or those aged between 2 and 6 years. The Government will allocate money to implement the programme, which will cover a total of 725 000 children aged 2–12 years across the country (12).

Early childhood education (ECE)

In Mongolia, public and private preschool programmes are available for children between the ages of 2 and 5. However, the supply of preschool education (kindergartens) is insufficient to meet national demand from parents, including in the capital city Ulaanbaatar and provinces. The national average enrolment rate of children 3–5 years old for preschool education in 2018 was 73.6%, but was only 57.0% in rural areas (13).

The introduction of free preschool in 2008 as well as the Kindergartens Free Meal Program (school year 2009–2010) helped increase the demand for and enrolment in kindergarten classes. Nationwide, 256 700 children were enrolled in 1416 kindergartens in 2017–2018. Kindergartens have been enrolling children by lottery since 2015 due to limited availability of slots. Currently, one in three kindergartens do not have sufficient space for indoor play activities and the average class size is 42 children in the countryside and 50 in urban areas. Geographic and ethnic gaps in kindergarten enrolment remain large. Enrolment rates in rural areas are behind those elsewhere in the country, at a mere 46% among children between the ages of 36 and 59 months.

Ulaanbaatar lags behind province and village centres by a sizable 10%. Household wealth is a key determinant of preschool enrolment, with children from households in the poorest quintile of wealth almost 40% less likely to enrol in preschool than those from the richer quintiles. Herders’ children remain underrepresented in the system relative to their share in the country’s population (14).
To address unmet demand, the Government allocated money from the state budget to build new kindergartens. In 2019, 76 new kindergartens were constructed with 10,020 beds/seats; 46 new primary schools with 355,580 seats; and 12 new dormitories with 1,320 beds (Fig. 4). Reconstruction was also undertaken for 86 schools (15).

**FIG. 4 Constructed public kindergartens and primary schools, 2010–2019**

![Graph showing the number of public kindergartens and primary schools constructed from 2010 to 2019.](source: Annual report of the Ministry of Education, Culture, Science and Sports, 2019.)

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**Home environment**

The percentage of under-5 children whose births are registered with a civil authority in Mongolia is very high (99.6%). The following data from the Multiple Indicator Cluster Survey (MICS) 2018 survey can be used to evaluate the home environment for promoting child development (13):

- Percentage of under-5 children who have three or more children's books: 28.6%.
- Percentage of children 36–59 months old developmentally on track in at least three domains: 10.9%.
- Percentage of children whose biological father has engaged in four or more activities to promote learning and school readiness in the last three days: 15.6%.
- Percentage of children whose biological mother has engaged in four or more activities to promote learning and school readiness in the last three days: 37.7%.
- Percentage of children 3–4 years old engaged in four or more activities considered to be “support for learning” with any adult in the household in the three days preceding the survey: 54.7%.

A total of 28.6% of under-5 children have three or more children’s books at home. About 17% of children whose mothers have no education or primary education are estimated to have three or more books, compared to 24% of children whose mothers have lower secondary education.
Unsurprisingly, the estimated proportion of children who have three or more books among those with better-educated mothers is higher than the national average of 36.5%. As expected, there is a clear association between availability of children’s books and wealth: 52% of children in the richest quintile are estimated to have three or more books at home, controlling for all other characteristics, compared to 20% of children in the two poorest quintiles (13).

Controlling for other characteristics, the education level of the mother is a strong predictor of whether a child engages in four or more activities with an adult at home. Children whose mothers received no education or who attained primary/lower secondary education appear to be at a greater disadvantage — an estimated 41% of children of these mothers engaged in four or more activities, compared to 61% of children who have mothers with higher educational attainment.

The MICS indicator “inadequate care” is defined as the situation when a child under the age of 5 years is left alone or in the care of another child younger than 10 years of age for more than one hour, at least once in the week preceding the survey. On average, 10% of children aged under 5 years received inadequate care in the week preceding the survey. The analysis suggests that children whose mothers have no education or who have primary/lower secondary education are more likely to receive inadequate care (13%) compared to children whose mothers are better educated (9%). The analysis also suggests that variations in adequacy of care are associated with the region in which a child lives.

On average, 15% of children in the predominantly rural western region are estimated to receive inadequate care, compared to just under 8% in Ulaanbaatar. The descriptive analysis supports these findings, with about 26.5% of children under 5 years who received inadequate care residing in the western region, compared to 15% nationally. The analysis suggests that girls are significantly more likely on average to be developmentally on track in at least three domains than boys, with estimated proportions of 79% and 73%, respectively.

Results for the various indicators are summarized in Table 5; the country impact indicator analysis is in Table 6.
## 2.1 RESULTS: EARLY CHILDHOOD DEVELOPMENT (ECD)

### TABLE 5  Indicators at a glance, by children’s socioeconomic characteristics, 2018

<table>
<thead>
<tr>
<th>Children’s socio-economic background characteristics</th>
<th>Proxy measures of quality of home environment percentage (%) of children who...</th>
<th>Percentage who attend ECE2 (%)</th>
<th>Percentage who are developmentally on track in 3+ domains2 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>...are moderately or severely stunted1</td>
<td>...engage in 4+ activities with any adult in the household1</td>
<td>...have 3+ children’s books1</td>
</tr>
<tr>
<td>OVERALL</td>
<td>9.4</td>
<td>57.6</td>
<td>28.6</td>
</tr>
<tr>
<td>Education of mother/primary caregiver</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>15.4</td>
<td>31.6</td>
<td>5.9</td>
</tr>
<tr>
<td>Primary</td>
<td>16.6</td>
<td>36.0</td>
<td>9.5</td>
</tr>
<tr>
<td>Lower secondary</td>
<td>15.5</td>
<td>46.8</td>
<td>12.8</td>
</tr>
<tr>
<td>Upper secondary or above</td>
<td>6.8–12.4</td>
<td>47.9–67.9</td>
<td>24.2–41.3</td>
</tr>
<tr>
<td>Wealth index quintiles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quintile 1 (poorest)</td>
<td>13.8</td>
<td>38.8</td>
<td>8.5</td>
</tr>
<tr>
<td>Quintile 2</td>
<td>12.9</td>
<td>43.6</td>
<td>14.8</td>
</tr>
<tr>
<td>Quintile 3</td>
<td>8.2</td>
<td>61.5</td>
<td>26.8</td>
</tr>
<tr>
<td>Quintile 4</td>
<td>6.0</td>
<td>67.5</td>
<td>38.2</td>
</tr>
<tr>
<td>Quintile 5 (richest)</td>
<td>6.0</td>
<td>76.2</td>
<td>54.1</td>
</tr>
<tr>
<td>Geographical region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western</td>
<td>17.0</td>
<td>38.7</td>
<td>18.9</td>
</tr>
<tr>
<td>Khangai</td>
<td>10.1</td>
<td>53.6</td>
<td>28.3</td>
</tr>
<tr>
<td>Central</td>
<td>8.9</td>
<td>51.2</td>
<td>31.6</td>
</tr>
<tr>
<td>Eastern</td>
<td>5.6</td>
<td>47.0</td>
<td>30.8</td>
</tr>
<tr>
<td>Ulaanbaatar</td>
<td>7.9</td>
<td>68.1</td>
<td>41.3</td>
</tr>
</tbody>
</table>

Base populations: 1: children aged under 5 years; 2: children aged 3–4 years

Source: MICS 2018.
2.1.2 National and subnational policies, strategies, laws and regulations

**Health sector**

- **Objective 2**
  Objective 2 of Mongolian long-term development policy: “Vision-2050” stipulates the reduction of factors affecting preventable maternal and child mortality by improving the quality and accessibility of reproductive health-care services, thereby decreasing maternal and child mortality and malnutrition.

- **Law and State Policy on Health**
  The Government of Mongolia is developing the policy documents and action plans to implement the Law and State Policy on Health. National strategies and plans for maternal and child health are developed by the MOH based on related laws. Guidelines related to child development are issued by the MOH, MLSP and Ministry of Education and Science (MES). In the past three years,

---

**TABLE 6  Country impact indicator analysis**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children under age 5 whose births are registered with civil authority</td>
<td>99.6</td>
</tr>
<tr>
<td>Children under age 5 who have three or more children’s books</td>
<td>28.6</td>
</tr>
<tr>
<td>Children under age 5 who play with two or more types of playthings</td>
<td>65.1</td>
</tr>
<tr>
<td>Children under age 5 left alone for more than 1 hour at least once in the last week</td>
<td>2.7</td>
</tr>
<tr>
<td>Children 0–4 years old living with neither biological parent</td>
<td>81.5</td>
</tr>
<tr>
<td>Children 5–9 years old living with neither biological parent</td>
<td>74.2</td>
</tr>
<tr>
<td>Children 0–17 years old with one or both biological parents dead</td>
<td>7.0</td>
</tr>
<tr>
<td>Children 0–17 years old with at least one biological parent living abroad</td>
<td>2.7</td>
</tr>
<tr>
<td>Children 36–59 months old with whom an adult has engaged in four or more activities to promote learning and school readiness in the past 3 days</td>
<td>57.6</td>
</tr>
<tr>
<td>Children 36–59 months old who are attending an early childhood education programme</td>
<td>73.6</td>
</tr>
<tr>
<td>Ratio of pre-primary enrolment for the regions with the highest and lowest enrolment</td>
<td>77.4–60.8</td>
</tr>
<tr>
<td>Male children of school-entry age who enter the first grade of primary school</td>
<td>90.9</td>
</tr>
<tr>
<td>Female children of school-entry age who enter the first grade of primary school</td>
<td>93.1</td>
</tr>
</tbody>
</table>

Source: MICS 2018.
2.1 RESULTS: EARLY CHILDHOOD DEVELOPMENT (ECD)

the MOH has developed, updated and implemented several important national programmes such as the National Maternal, Child and Reproductive Health Programme 2017–2021; the National Programme on Promoting Human Rights and Development of Persons with Disabilities; the National Programme on Child Development and Protection 2017–2021; and the National Programme on Neonatal Screening and Monitoring 2014–2020.

► National Maternal, Child and Reproductive Health Program

The National Maternal, Child and Reproductive Health Program was developed based on the global policy trends on maternal and child health, SDG 2030, Mongolia’s Sustainable Development Vision 2030 (launched on 11 April 2016), the Action Program of the Government of Mongolia for 2016–2020, and the Directive on Elaboration of Development Policy Documents (approved in May 2016). It includes maternal and child health-related measures and is derived from the Health Act and Child Protection Act.

The MOH distributes orders and guidelines for aimag and city governments to implement these acts.

The programme, developed in 2017, aims to create a society where every child grows up healthy, and to ensure the same standard of maternal and child health services despite differences in location and family environments. The programme sets indicators and targets that are reflected in the local plans through orders of the MOH.

► Minister’s Order

The Minister’s Order on infant check-ups prescribes the minimum frequency and desirable standard of health check-ups for babies under 1 year old, and includes the responsibility for implementation, standards of the implementation system, and content of health check-ups. In accordance with the Maternal, Child and Reproductive Health Program, all SHCs and FHCs shall have paediatricians available to provide care. The main objectives of the programme are to create a mother- and child-friendly legal environment and to deliver accessible and equitable quality maternal, child and reproductive health services for all.

Within the frame of this programme the MOH developed and approved by minister’s order several regulations. The MOH approved “The regulation of home visit of child until 12 months from FHC and SHC” in 2018, which clearly defined the duties and responsibilities of FHCs and SHCs. The first home visit should be conducted by physicians and nurses together; protocols followed should be recorded in the “Health notebook for children under 5” (16) and sick children referred to the respective SHC/FHC.

The order also approved a counselling sheet and home visit questionnaire that includes three parts. Part 1 inquires: “What do you want to say about your child?” and includes questions asking mothers about their child’s health status, feeding and general condition. Part 2 inquires about the “child’s family environment” and includes questions related to exposure to indoor pollution, alcohol and cell phone use, family situation changes, etc. Part 3 inquires about “child development” and includes age-specific questions related to child psychological and physiological development. In cases of children with psychological and physiological developmental needs or disability, the physicians and nurses shall refer them to next-level hospitals such as district and aimag general hospitals for appropriate health-care services. This is an effective guide to monitoring and counselling on child development of children in the catchment area. Every month after birth every
child shall visit a FHC/SHC for a health routine check-up and vaccination (16).

▶ Law on Health
The Law on Health was enforced in 1998 and last revised in 2021; it forms the infrastructure of the modern maternal and child health services in communities. The purpose of this law is to define the state policy and basic principles on health and to regulate the relations, collaborative work and responsibilities of organizations. It provides the right to primary health-care, maternal and child care, and some public health services regardless of socioeconomic status and health insurance coverage. Clause 24.6.2 states that “children shall be provided free health-care services by public health care facilities through state budget” (17). The Law on Health articulates that the Government has the responsibility to finance infant health check-ups and medical care benefits for premature babies. Provision of health check-ups for children under 16 years is mandatory for health-care facilities based on the law and are 100% funded by aimag and city health departments through their general financial resource. Home visiting for the infants programme, which is stated in the health minister’s order and the law, is funded by the national Government and provided by SHCs and FHCs.

▶ Law on Medical Services
The Law on Medical Services was approved in 2016. It coordinates activities in relation to the organization, management, financing and monitoring of medical services for the population. The law defines payment methods for medical services (18).

▶ Law on Health Insurance
The Law on Health Insurance was approved in 1993 and last revised in 2017. The purpose of this law is to define the principles and scope of the health insurance policy, to ensure that every citizen of Mongolia is insured, to reimburse the insured and to distribute funds for the insured using a health risk-pooling (actuarial) basis. By this law, health care and medical services for children 0–6 years old in public hospitals is free of charge (19).

▶ Law on Pensions and Benefits
The Law on Pensions and Benefits providing funding for social insurance was approved in 1994 and updated several times to meet current social needs, with the last update in July 2018. The purpose of this law is to govern relations with respect to benefit entitlements and payments from the Social Insurance Fund for sickness and maternity benefits. It states that mothers who have made contributions to benefits insurance for no less than 12 months, of which six were continuously paid prior to the maternity leave, shall be eligible for maternity benefits. Clause 13 in the law states that caregiver’s benefits shall be payable to children with disabilities (20,21).

Successful implementation of the Action Programme of the Government of Mongolia for 2016–2020 through increased pneumonia immunization, child allowances and “paid mothers programme” resulted in improved child health-care services and social welfare of mothers with children under 3 years of age (22).

▶ National Program on Prevention and Control of NCDs
The National Programme on Prevention and Control of NCDs was approved in 2017 and the goal of this programme is to reduce the prevalence of commonly occurring NCDs and their risk factors based on multilateral cooperation among organizations, communities, families and individual citizens,
to strengthen the prevention, control, early detection and surveillance of diseases. The programme aims to establish a system of registration, information and monitoring of commonly occurring diseases, sources of chronic infection, low vision and refractive error, growth and developmental disorder, overweight and obesity, and mental and behavioural problems among schoolchildren, and to create an integrated information database on children’s health indicators (23). It also aims to approve the list of early screening and diagnostic tests appropriate to a person’s age, gender and life cycle, and to integrate the information on registered people into the database.

### National Program on Nutrition

In 2016 the National Program on Nutrition was approved, which aims to provide pregnant women and children 6–23 months old with a mixed composition of micro-elements; children 6–59 months old with a high dose of vitamin A; and children 0–36 months old with a high dose of vitamin D.

It will also develop, approve and enforce relevant regulations, instructions and standards on nutrition and nutrition of children in kindergarten, and provide “Healthy Diet” training packages and tools for educational institutions and children of all ages (24).

### Education sector

#### State Policy on Education

The State Policy on Education states that every person — including herder families, poor children and children with disabilities — should be educated. The goal of preschool education is to improve the foundation for human development. The Government pays all costs of the preschool child and the costs of meals shared by parents and guardians (10).

#### Law on Primary and Secondary Education, 1995

The 1995 Law on Primary and Secondary Education laid out the objective of preschool education as helping children to develop mentally and physically by providing an educational environment conductive to the development of talents, abilities and life skills.

#### Law on Preschool Education

The Law on Preschool Education of 2008 — subsequently amended in 2012, 2013 and 2016 — stipulates that the provision of lunch, books, manuals and appropriate toys for children attending state-owned kindergartens, as well as the norm-based variable costs, will be financed through the state budget. At the same time, the mandatory age for entry into primary school was lowered from 7 to 6 years, which heightened interest in adequacy of preschool services in the country to ensure school readiness at a younger age of 2–5 years old.

The law provides clear direction and authority to preschool educational facilities and guidance on the duties and rights of teachers and parents. The goal of the present law is to support and coordinate early childhood education, including gaining basic life skills (25). To implement this law, the Government approved the National Program on Child Development and Protection and its action plan, as well as the regulations and orders in the framework of this programme and plan.
Social welfare sector

▶ Law on Social Welfare
The Law on Social Welfare was revised in June 2018. The purpose of this law is to regulate the allowance for all pregnant women and mothers with infants. Based on the Law on Social Welfare, all mothers receive an allowance from the fifth month of pregnancy and until their child is three years old. If a double or half orphan or homeless child studying in preschool receives a concession rate for stationery, textbooks and school uniforms, it will be paid from the Social Welfare Fund.

▶ Law on Babysitting Care
The Law on Babysitting care was approved by Parliament resolution in 2015 and the purpose of this law is to organize babysitting services at home to cover those children who are not enrolled in kindergartens and preschool education programmes.

▶ Law on Family
Updated in 2018, the Law on Family determined the principles for raising children. Clause 4.5 defined this as children shall be raised healthy, developed and protected, with all their rights and interests. Up until 2016, child development in Mongolia was the responsibility of the National Center for Children, which was reorganized as the National Family, Child and Youth Development Center, responsible for child development at present.

▶ Law on Child Protection
The Law on Child Protection determines the foundation for child development and child health-care services. Laws also clearly state the responsibility of national and local governments, health facilities and preschool education organizations and family, child and youth centres. Ministries set orders, regulations and guidelines based on the laws, and local governments plan and implement programmes accordingly. Financial responsibility is also defined in some programmes and distributed among national and local governments.


The programme planned to implement very important WCC activities such as:

» Increase coverage of essential health-care packages for mothers, infants and children under 5 years old.

» Set up immunization coverage of planned and voluntary immunization of children under 5 years old.

» Incorporate directed actions to reduce the factors influencing child-to-life illnesses (pneumonia, tuberculosis, diarrhoea and injuries).

» Provide regular examinations for every single child to examine the early detection and diagnosis of metabolic disorders and developmental disabilities.
2.1 RESULTS: EARLY CHILDHOOD DEVELOPMENT (ECD)

» Organize parental involvement in monitoring of quality of food and hygiene in kindergartens and schools.

» Prohibit the trade and services of food products that may adversely affect children’s health in kindergartens and schools.

» Implement a comprehensive policy to develop children’s life skills.

» Prepare all preschool-age children for preschool education and preparatory education.

Overall status of implementation of laws

At the top ministerial level and mid-level such as city and aimag or province level, the responsible people or professionals are knowledgeable about the newly endorsed policy documents. However, at the lower levels or in the field, health professionals and customers or patients have inadequate knowledge and awareness about these laws, programmes and orders due to the gap in gathering the information and management of the implementation of legal documents. Ten years ago, the responsible sector ministries organized good advocacy and introduction activities such as trainings to implement newly approved documents for responsible professionals; however, due to reliance on the internet and new approaches in management, the sector ministries now simply share the information on their organization’s website and do not push the responsible managers at different levels to implement these approved documents.

All national programme health indicators such as immunization coverage and number of home visits are included in SHC and FHC monthly, quarterly and annual report forms, by which the MOH is trying to reinforce the implementation of programmes and to conduct ongoing monitoring and evaluation (M&E) of the programmes. At the SHC and FHC level, the statistician will gather all the data from physicians and nurses, including number of home visits, and the report will be sent to aimag and city health departments. They will compile the data gathered from primary health care and send these to the upper-level Center for Health Development, which is responsible for collecting and finalizing the health indicators data for the country. Also, inspection offices at the aimag and city level are responsible for evaluation of the implementation of the minister’s orders and legal documents. At the same time in the aimag and city health departments, working officers in charge of paediatric care services provide ongoing M&E. In reality there is a shortage of paediatricians at primary- and secondary-level hospitals. While one third of the Mongolian population consists of children under 15 years old, only one designated focal point in the MOH and in each of the aimag and city and district health departments is in charge of paediatric issues. The majority of their daily workload is addressing disease-related problems and services instead of public health issues related to child disease prevention and policy development.

Upper-level health facilities such as district, city and aimag health departments are responsible for M&E of lower-level health facilities and their activities based on monthly, quarterly, biannual and annual activity reports. On paper, programme implementation appears to be good, but in reality, due to shortage of human resources, primary health-care facilities organize few health education training and
prevention activities among their catchment population, and sustainability of these activities is still a problem.

Due to shortages of nurses in primary health centres, busy schedules and being overworked in other health-care services, there is a gap in implementation of home visit order No. 546 of 2019 for children under 1 year old, thereby failing to meet the national standards for SHCs and FHCs. The MOH aims to implement this order to detect early-stage childhood disorders through active home visits, and at the same time identify family-related problems such as mother’s health, mood and willingness to take proper care of child, and to check for a safe and healthy environment.

A support plan is one of the tools to support “developing parenting/childcare” of parents. For those in need of additional support and follow-ups, SHCs and FHCs make referrals to upper-level health organizations and inform the khoroo or soum administration about individual support plans together with the parents, reflecting their situation, such as supplying free food, etc. If necessary, the SHC and FHC coordinates with related organizations so that the support will be continuous and consistent. There is no separate centre responsible for the above-mentioned; public workers from the khoroo and soum administrations, together with health workers, provide some ad-hoc services.

In Ulaanbaatar City ger and suburban areas many immigrant families from rural areas are not registered in the khoroo and are living there without permission. In accordance with the Law on Health, all citizens shall have the right to primary health-care services by state budget; however, the non-registered mobile population is a challenge for FHCs, where their per-capita budget and workload are being exceeded by these non-registered users.

The MOH is developing and approving many orders and regulations that would help to implement health-related laws and national programmes, but full implementation of minister’s orders is difficult in primary health-care facilities due to the demand of their many tasks such as home visits to the severely ill, people with disability, old people and infants until 1 year old, as well as home treatment by the Health Insurance Fund, a shortage of human resources and an absence of ambulances.

Survey results found that in Ulaanbaatar, home visits are being conducted for babies up to two months; however, after two months, most FHCs are using outpatient visits for vaccinations and recording these as home visits. In SHCs, bagh feldshers are responsible for vaccination; in remote rural areas bagh feldshers conduct almost all the home visits in accordance to regulation. At the city and aimag level, it is difficult for FHCs to meet the criteria of conducting 16 home visits due to shortage of human resources and their heavy workload that includes public health services activities as well as monthly visits of children under 1 year old and vaccination schedule activities. The gaps in implementing laws, strategies and policies in the health sector are as follows:

» If all institutions are to follow the revised and approved laws, they need more funding to meet these requirements.

» There are almost no follow-up trainings to introduce the new laws, policies and plans to health professionals. Some active managers can obtain the newly approved legal documents from the MOH website. Even when the Minister tasks senior managers of the MOH to monitor
and evaluate the implementation of the legal documents, SHCs and FHCs may not be able to comply due to competing work priorities.

» There is a shortage of human resources in rural areas and SHCs and FHCs. In Mongolia the ratio of physicians and nurses is 1:1.19. At FHCs especially, the head of the centre might not hire nurses as a way to save on the budget and may be willing to accept and continue this ratio.

» Health education of parents and relatives on WCC of children 0–6 years old is generally low. Thanks to government policy the literacy rate in Mongolia is quite high, but in the last decade this rate has decreased from 98% to 93.1% in the rural areas.

» The implementation of intersectoral activities of the laws and regulations is mainly on paper, with just-approved joint working groups at the starting level with few meeting notes; coordination is weak.

2.1.3 Current status of programmes

Programme evaluation is delegated to sector ministries and local governments; however, there are some indicators and M&E systems in every national programme. Despite the existence of indicators and M&E systems, the actual quality of a programme in terms of its strengths, weaknesses and sustainability was evaluated only for a few programmes. These evaluations were done by the MOH, MES, aimag and city health departments or research teams designated by the MOH. Programme evaluations by the MOH or research teams contain a relatively deeper analysis of problems in programme implementation, although these take place only once in several years. Programme evaluation by aimag and city health departments take place more often, sometimes annually.

However, there was no clear information on the methods and analysis of a programme’s strengths and weaknesses in the reviewed documents. It seems that the system for continuous programme quality evaluation is yet to be established.

Just after approval of a new national programme, the responsibility of programme ministries is to conduct trainings and advocacy about the importance of the programme and how to successfully implement them based on proper, evidence-based costing programme activities. Due to economic shortages in the last five to six years the Parliament has approved the annual budget at a deficit; therefore, the primary level of the implementation programme is unsatisfactory.

Health sector

Essential programmes in Mongolia are covered by state funds. Results for the WCC indicators of national maternal, child and reproductive health programmes are listed in Table 7 (30,31).

At the upper level, when sector ministries develop programmes and plans, they receive technical and financial support from international development agencies such as WHO, the United Nations Children’s Fund (UNICEF), United Nations Development Programme (UNDP), or United Nations Educational, Scientific and Cultural Organization (UNESCO). These programmes
and activities are included in plans of local governments and health organizations and costed in accordance with financial responsibility regulated in the law. Even when programmes are approved, their budgets may not be enough to implement all the activities — for example, to implement conducting home visits, SHCs and FHCs will need funding for cars and petrol. Therefore, the cost in reality to implement the programmes may require some extra budgeting and trained professionals.

In terms of maternal health, improvement in coordination is required among different departments beyond OBGY and other health-care/welfare institutions in order to respond to increasing maternal complications due to late childbearing and chronic somatic diseases. The number of pregnancy notifications, coverage of prenatal and newborn health check-ups, and the number of home visits are reported annually to the MOH and summarized as a report on the implementation status of community health and health promotion programmes (31).

The status of the system to provide health check-ups, home visiting and family support services in municipalities is monitored by the district or province health departments. Implementation status of the newborn check-up order is not monitored and development of its contents is fully left to municipal governments. Although indicators and targets are not set, some municipalities voluntarily report its implementation status and issues in the database of programmes to share lessons with other programmes such as the National Program on Prevention and Control of NCDs. Parents’ knowledge and feelings are not monitored as outcomes of the above-mentioned programmes.

### TABLE 7  Indicators related to WCC of the National Maternal, Child and Reproductive Health Program, 2020–2024

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Baseline 2020 (%)</th>
<th>Baseline 2021 (%)</th>
<th>Targets 2024 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Maternal mortality per 100 000 live births</td>
<td>30.2</td>
<td>94.9</td>
<td>19.0</td>
</tr>
<tr>
<td>2</td>
<td>Under-5 child mortality per 1000 live births</td>
<td>14.0</td>
<td>13.9</td>
<td>11.8</td>
</tr>
<tr>
<td>3</td>
<td>Infant mortality per 1000 live births</td>
<td>13.7</td>
<td>11.6</td>
<td>11.0</td>
</tr>
<tr>
<td>4</td>
<td>Neonatal mortality per 1000 live births</td>
<td>7.8</td>
<td>8.2</td>
<td>5.8</td>
</tr>
<tr>
<td>5</td>
<td>Perinatal mortality per 1000 live births</td>
<td>10.4</td>
<td>11.3</td>
<td>10.3</td>
</tr>
<tr>
<td>6</td>
<td>Women receiving early ANC (first visit within first 3 months)</td>
<td>89.9</td>
<td>90.6</td>
<td>93.0</td>
</tr>
<tr>
<td>7</td>
<td>Women who had at least six ANC visits during pregnancy</td>
<td>79.5</td>
<td>76.0</td>
<td>87.5</td>
</tr>
<tr>
<td>8</td>
<td>Infants under 6 months old exclusively breastfed</td>
<td>50.5</td>
<td>50.2</td>
<td>61.0</td>
</tr>
<tr>
<td>9</td>
<td>Under-5 child death caused by pneumonia per 1000 live births</td>
<td>7.1</td>
<td>5.0</td>
<td>3.0</td>
</tr>
</tbody>
</table>

A newly updated version of the Child and Mother Health Book was recently approved by minister’s order, but the project is still at the beginning stages of implementation. Health professionals have not always been trained to apply this important order in their health-care services and the MOH only recently distributed this order to FHCs. Henceforth, the implementation of quality child development–related control and counselling will be improved by parents’ participation and feedback to health professionals.

Detecting children’s disease, developmental disabilities and families in need of support are important purposes of babies’ health check-ups. In real practice, primary health-care professionals check up on a child’s health situation and are concerned with prevention of disease, but issues related to childrearing and welfare are under the responsibility of social workers in khoroo and soum administrations. Currently the doctor and nurse ratio in primary health care is one physician per one nurse, which makes it difficult to implement the minister’s order and provide compulsory home visits. Some FHC doctors are not willing to do home visits because their outpatient workload is too heavy and they do not have sufficient time.

In Mongolia, primary health-care facilities do not function well in promoting and protecting good health and preventing diseases. Most SHCs and FHCs are heavily focused on the diagnosis and treatment of illnesses.

Education sector

In 2016, UNICEF supported the Oxford Policy Management group in conducting a survey on “the yearly learning experiences of children in Mongolia”. This report covers six specific indicators (in addition to background socioeconomic characteristics), using MICS5 survey data to answer questions about the relationship between children’s background characteristics and quality of their home environment, and the relationship between the quality of the home environment and ECE programme attendance (32).

The overall budget for ECE is entirely covered by the state budget and includes salary for all the teachers and other kindergarten workers, running cost and child food cost. In the past 15 years, increased inflation and sharp increases in cost of meat, milk and other foods have led to insufficient funding to provide nutritious food for kindergarten children and the quality of the food was affected. Since 2020 the day food cost per kindergarten child has increased from 1650 Mongolian tugrik to 2475 Mongolian tugrik per day — an increase of 50% compared to the year 2006. On one hand, public kindergartens are fully covered by the state budget; on the other hand, the current socioeconomic situation and inflation rate are influencing the quality of kindergartens (33). Based on the standard, one class of ECE should enrol 25–30 children, but due to shortage of seats in kindergarten each class enrols 50–60 children. Most children from wealthier households apply for public and private ECE services because of easy access to service. Children of herder families have limited options for sending their children to preschool; they often leave them with friends, relatives or the mother in the soum centre to access ECE services.

The education budget was increased significantly in 2018 and now amounts to 12.2% of the total national budget, or 3.9% of Mongolia’s gross domestic product (GDP).
2.1.4 Health facility guidelines, standards, licensing and accreditation

Guidelines and standards

SHCs and FHCs are required to have both maternal and child health services and childrearing support services to provide consistent support from the users’ perspective. Services include home visits and care of the child through outpatient services. The target users are all expectant mothers, nursing mothers (until a year after delivery) and children under preschool age (around 5 years of age), especially those in the period of pregnancy to child care (especially for children up to 3 years of age).

Pregnancy notification and regular health check-ups for pregnant women, children and postpartum mothers form a central part of interventions for ECD in Mongolia. The ECD-related standards are developed and revised in accordance with the Law on Health. Guidelines are mainly developed by the MOH and MLSP, and some by research groups and hospitals, describing the minimum standards of maternal and child health measurements.

Cases that are complicated or high-risk are referred to the aimag and district general hospital through referral services, and in some cases directly to the NCMCH. Children’s health check-ups aim to provide parents with education counselling on child development and nutrition, screening of disease and developmental disorders, and support for childrearing (34). In accordance with this order, neonates are visited four times within one month of birth, twice per month within two to three months, and once per month from age 3–12 months, for a total of 16 home visits until they turn 1 (Table 8).

Check-ups for children at age 1–3 years and 3–5 years are also set as an obligation of municipal governments.

The structure and activity standards MNS 5095:2017 of the general hospital stipulate that paediatric wards should be at least 12–18 square metres, and every eight paediatric beds shall have one paediatrician and one nurse, who shall provide health services that meet child development and age-specific standards (35).

According to this standard, hospitals should employ paediatricians and paediatric nurses and their workload should be based on these standards. The MOH is using this standard for accreditation of general hospitals and private hospitals with beds.

In February 2017 the General Agency for Specialized Inspection approved the “Checklist of hygiene and contamination prevention environment for kindergartens” within the framework of child development. The checklist describes game features in indoor and outdoor playgrounds that are compatible with the needs and requirements of children’s playgrounds, and notes that child health examinations and check-ups are included annually, including immunizations. Based on this checklist all kindergartens shall create indoor and outdoor playgrounds meeting the needs of children aged 3–5 years (36). All kindergartens due for an accreditation shall undergo self-examinations.
2.1 RESULTS: EARLY CHILDHOOD DEVELOPMENT (ECD)

Accreditation

Public and private health organizations that have been successfully accredited can receive financing from the Health Insurance Fund. Hospitals at all levels undergo accreditation applicable for one to five years. A hospital that is accredited for the first time receives a maximum of two years’ accreditation and can be re-accredited after two years. Hospitals that meet the criteria of 96–100% in their second or subsequent re-accreditation would receive a maximum of five years’ accreditation. An organization fails accreditation when it scores less than 75% on its first accreditation and under 85% during re-accreditation.

There is a gap in implementation of the programmes and action plans.

| TABLE 8 | Under-1-year-old child home visit schedule by SHC and FHC |
|-----------------|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| AGE             | 1–3 days                        | In weeks        | In months       |
| Home visit no.  | 1                               | 2               | 3               | 4               | 5               | 6               | 7               | 8               | 9               | 10              | 11              | 12              | 13              | 14              | 15              | 16              |
| Checklist within 24–72 hours | ✓                           |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 2nd, 3rd, 4th visit checklist | ✓ ✓                           |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 5th, 6th visit checklist | ✓                             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 3rd, 4th month visit checklist | ✓                             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 5th, 6th month visit checklist | ✓                             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 7th, 8th month visit checklist | ✓                             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 9th, 10th month visit checklist | ✓                             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 11th, 12th month visit checklist | ✓                             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Vaccination | ✓                              |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Vitamin A (every May, Oct.) | ✓                             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Vitamin D for prevention | ✓                             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |

For example, some old hospital buildings are unable to meet the paediatric ward size requirement; meeting the qualification criteria for professionals may not be possible because there is always a shortage of professionals such as paediatricians, especially in rural hospitals. Training paediatricians takes almost nine years, but according to the Labour Law of Mongolia employees can resign after one month of submission of resignation letter. In such cases, preparing another professional takes more time.

Based on the changes made in Clause 22 of the Law on Health since 2000, currently all accredited public and private health organizations receive funding from the Health Insurance Fund. Accreditation is conducted using the self-evaluation criteria of “Standards on facility structure and operations” and includes a special criterion for licensing of health professionals, as well as criteria to ensure outside and inside environments are accessible to patients, children and people with disabilities. In the last decade, hospitals that apply for accreditation must meet those criteria. Based on met criteria and overall score, the health organizations can be accredited for one to five years. Those that cannot meet the criteria of a score of 70 will have to apply again or after correction of their failed criteria.

Currently, all sector ministries are facing problems in improving the environment at the facility level to meet the requirements and to improve the awareness and knowledge of professionals working in the field. The action plan and development of regulations and rules of the minister’s order usually take almost two to three years after approval of any laws. That is why the Government of Mongolia has done much work related to improving legal documents in the past five to 10 years.

2.1.5 Health worker pre-service, continuing education and licensing requirements

Health workers engaged in child development services which require professional licences are mainly medical doctors, dentists, midwives, nurses, public health nurses, child welfare workers and social workers.

The licensing of health professionals was introduced in 2000; the Law on Health regulates eligibility and trainings needed for licensure. While the law determines eligibility and licensing requirements of health personnel, continuing education and training are delegated to professional associations. Licensing of medical professionals is authorized by the Center for Health Development and accreditation of medical organizations by the MOH. Health professional qualifications for doctors and nurses is certified through trainings and conferences. The Center for Health Development regulates eligibility and trainings needed for licensure and is responsible for conducting examinations.

After graduation from medical school, medical students are certified for two years upon passing the licence exam and are further certified by the professional board or professional associations every five years, provided they have completed continuous professional training consisting of a total of six credits per year.
After graduation from nursing school, nurses who take and pass the nursing licence exam are certified for five years and further certified by the professional board or professional associations every five years, provided they have completed continuous professional training consisting of a total of three credits per year. Paediatric nurses should have experience as a general nurse for more than two years and graduate from the paediatric course. Health professionals who complete credits (doctors — six credits; nurses — three credits) per year will have their licence extended by five years based on their accumulated credit. Those who could not get credits should take the exam to get licensed.

Based on a Joint Ministerial Order from the MOH and Ministry of Education, Culture, Science and Sports (MECSS) a “kindergarten physician” should (37):

» organize annual health check-ups for kindergarten children;
» organize — together with health organizations — immunizations of kindergarten children;
» conduct hygiene evaluations of children and plan prevention and treatment activities;
» together with social workers, detect children experiencing violence, keep confidentiality and inform policy; and
» together with health organizations, provide appropriate health-care services to children with disabilities.

Another task — “to create a healthy environment for children, to conduct health education activities among parents, teachers through cooperation with public and NGOs” — covers the following:

» control kindergarten food content, quality, norms and supply to children;
» control hygiene of kitchen and classrooms; and
» conduct health education activities for parents on prevention from infectious diseases, exercise, primary healthcare services, exposure to air pollution and diet.

For all the above-mentioned tasks all kindergartens shall hire a physician in the preschool educational facility.

The duty of child welfare officers is to promote the welfare of children by providing consultation and necessary guidance based on their specialized skills with regard to aid for children and other matters concerning the welfare of children. The new amendments of the Law on Child Protection (28) need to prepare officials who are implementing the law and its related programmes. In the last two years, the government implementing agency for family, children and youth has conducted several trainings for staff at city and aimag branch centres on several topics, such as how to inform MDTs about violence against children (5), and how to give counselling to families and increase awareness among parents and the population about child rights and duties of family and parents related to child care and protection. Also, general physicians in SHCs and FHCs are trained on how to evaluate children’s conditions and, in necessary situations, how to inform and send these children to referral-level hospitals.
Discussion

The Government covers all expenses for kindergartens, but the budget is not sufficient to hire more teachers to meet standards and to cover food with a high content of vitamins and minerals. That is why we should think about involving parents in cost-sharing and increasing the cost and quality of food for children, and to decrease teachers’ workload. In addition to that, extension of the role of the MDT is important.

The World Bank’s study on Pre-primary education in Mongolia: access, quality of service delivery, and child development outcomes concluded that the main factors influencing unequal preschool enrolment rates in Mongolia are geographical location, minority ethnicity and family living standards. For instance, in this regard, the Action Program of the Government of Mongolia 2016–2020 states that novel service delivery methods for ECE need to be implemented (14).

It would be worthwhile to introduce a child rights sub-indicator to the Law on Legislation adopted for the purpose of evaluating the socioeconomic consequences of draft laws and regulations, in order to accurately assess the outcomes and influences of educational reforms on all children.

In that way, the consequences of education policies on children in a range of socioeconomic groups could be analysed. Accordingly, planning for transitions needs to be undertaken equitably. Furthermore, it is important to introduce and utilize child-friendly methodologies for budget allocation for children, particularly at the local level.

Equal access to quality education and allocation of funds to provide it need to improve if we are to shape an equitable society. If children from socioeconomic vulnerable families miss out on a proper education, this could lead to inter-generational cycles of poverty.

Preschool education in the family environment needs to be offered as an alternative to formal kindergarten; considerable attention needs to be paid to the quality of education services in urban ger districts and rural areas; effective measures need to be taken to address informal collection of money in educational settings; a safe and healthy study environment needs to be promoted; and inequities in access and quality of education because of geographical location or family living standards need to be properly resolved for the long-term benefit of all children.
2.2 INJURY, PROTECTION, ABUSE AND NEGLECT

Summary of key points

» The Law on Child Protection aims to promote children’s rights and provides the legal basis for a wide range of public health and welfare services for children and their families, including nurturing care, support services for childrearing families, support services for children with special needs, child protection, and early detection and intervention for child maltreatment.

» Child protection centres established by some aimag and city governments have a central role in child protection, in coordination with multidisciplinary teams, as a base for children and families and a Regional Council of Countermeasures for Children Requiring Aid. However, deployment of staff specialized in child protection at the centres does not meet increasing needs.

» Despite the increasing numbers of child maltreatment cases and demands for psychosocial care for children and families, in 2000 the number of paediatricians per 10 000 population was 3.1 and this decreased to 2.0 in 2019.

» By 2019, 5.5% of children under 5 years had a disability.

» Research points out that some causes of child death are misclassified; several cases reported as death due to illness were actually due to injury or violence. Establishment of a system for child death review has been piloted in some regions and is still under development.

2.2.1 Current epidemiology

According to the average of the last decade, about 16 500 deaths were recorded on a yearly basis and 16.9% of them were caused by accidents and injuries (1). Based on the last five-year statistics of the National Center for Traumatology and Orthopedics (38), 244 987 children aged 0–18 years were injured in 2017–2021, of whom 62.1% were male. The main causes of child morbidity due to injury in Mongolia are falls (47.6%), exposure to mechanical force (15.3%), road accidents (10.1%), violence (9.7%) and burns (8.7%). One fourth of child deaths was caused by road accidents (Fig. 5).

Table 9 shows that in 2017–2021, the top five external causes of death were road accidents, drowning, burns, falls, and suffocation and asphyxia among under-5 children. One third of children aged 0–1 years died due to suffocation and asphyxia, which indicates that there is an urgent need to implement effective public health interventions through improving the health education of parents and caregivers (38).
FIG. 5 Leading causes of death due to injury among children 0–18 years old, 2017–2021

<table>
<thead>
<tr>
<th>Age</th>
<th>Top 5 causes of mortality due to injury, 2017–2021</th>
<th>Source: National Center for Traumatology and Orthopaedics.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–1</td>
<td>Suffocation and asphyxia 71.5%</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Road accidents 30.1%</td>
<td>Drowning 21.6%</td>
</tr>
<tr>
<td>2</td>
<td>Road accidents 26.9%</td>
<td>Drowning 26.9%</td>
</tr>
<tr>
<td>3</td>
<td>Burns 21.1%</td>
<td>Road accidents 20.0%</td>
</tr>
<tr>
<td>4</td>
<td>Road accidents 28.2%</td>
<td>Burns 21.1%</td>
</tr>
<tr>
<td>5</td>
<td>Road accidents 34.4%</td>
<td>Drowning 16.4%</td>
</tr>
</tbody>
</table>

TABLE 9 Deaths by external causes in children 0–5 years old

<table>
<thead>
<tr>
<th>Age</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–1</td>
<td>Suffocation and asphyxia 71.5%</td>
<td>Road accidents 8.8%</td>
<td>Falls 4.0%</td>
<td>Burns 2.9%</td>
<td>Poisoning 2.9%</td>
</tr>
<tr>
<td>1</td>
<td>Road accidents 30.1%</td>
<td>Drowning 21.6%</td>
<td>Suffocation and asphyxia 16.1%</td>
<td>Burns 12.6%</td>
<td>Falls 6.0%</td>
</tr>
<tr>
<td>2</td>
<td>Road accidents 26.9%</td>
<td>Drowning 26.9%</td>
<td>Burns 14.3%</td>
<td>Poisoning 10.1%</td>
<td>Suffocation and asphyxia 7.6%</td>
</tr>
<tr>
<td>3</td>
<td>Burns 21.1%</td>
<td>Road accidents 20.0%</td>
<td>Drowning 18.9%</td>
<td>Falls 8.9%</td>
<td>Poisoning 7.8%</td>
</tr>
<tr>
<td>4</td>
<td>Road accidents 28.2%</td>
<td>Burns 21.1%</td>
<td>Drowning 15.5%</td>
<td>Falls 14.1%</td>
<td>Poisoning 5.6%</td>
</tr>
<tr>
<td>5</td>
<td>Road accidents 34.4%</td>
<td>Drowning 16.4%</td>
<td>Poisoning 11.5%</td>
<td>Falls 9.8%</td>
<td>Burns 9.8%</td>
</tr>
</tbody>
</table>

Source: National Center for Traumatology and Orthopaedics.
2.2 RESULTS: INJURY, PROTECTION, ABUSE AND NEGLECT

Accidents and injuries
Young children in Mongolia are significantly affected by household accidents that cause injury and loss of life (38). For example, according to statistics from the National Center for Trauma and Orthopaedics, 14.4% of under-5 mortality was caused by injuries and accidents, 76.5% due to burns, and of these burns cases 77% were due to hot food and 23% to hot water. Around 80% of all patients who receive inpatient treatment in the Section for Burns and Reconstructive Surgery of the Hospital for Injury and Trauma were small children (39). The study identified that 89.3% of domestic accidents occurred because of poor parental supervision and 10.7% because of carelessness (39).

Horse riding is one of the national sports of Mongolia and horse riding–related accidents and deaths are a big problem, especially among child jockeys. Children commonly injure their heads and limbs, break their bones and suffer internal injuries during spring racing. In 2017, 629 children fell off their horses during races, 169 children were injured, three acquired disabilities and two died (40). In the past two years the Government of Mongolia has paid more attention to this issue and developed several rules and regulations to protect horse-riding children from accidents. By this regulation, children shall wear special protective riding uniforms and shall be insured for unexpected accidents.

Road accidents
Road accidents are the third leading cause of injuries for under-5 children and the second leading cause for children 6–18 years old. In 2021, a total of 1559 children from 0 to 9 years old were involved in road accidents and about 35% them were children 0–4 years old (30). The MOH has acknowledged that rates of injury continue to rise in the country despite ongoing prevention efforts.

Violence
In Mongolia, violence against children remains a major public health issue, with 33 259 crimes against children reported to authorities in 2017. Based on statistics on violence against children and abuse calls in 2017, it was found that of the total 2588 calls, 964 children (37.2%) were affected by neglect, 783 (30.3%) physical violence, 646 (25%) psychological violence, and that 195 (7.5%) were sexually abused. Of the total calls, 2184 children (84%) experienced violence in households, 237 (9.2%) in an educational environment, 168 (6.5%) during public interventions and services, and 4 (0.2%) in health facilities.

Among sexually abused children, 186 (95.4%) were girls and 9 (4.6%) were boys.
Of these, 3.6% were in the 1–3 age range and 5.1% in the 4–6 age range; 10.8% were children 7–9 years old; 21.5% were 10–12 years old, 35.9% were 13–15 years old and 23.1% were 16–17 years old (41).

In 2017, crimes against children, family and social morality had increased by 189 cases (49.2%), whereas crimes of domestic violence decreased by 163 cases (11.2%) in comparison to the previous year due to the adoption of the Law on Combating Domestic Violence (Table 10).
Overall, 2110 perpetrators of domestic violence were charged with administrative liabilities and 80% of the crimes occurred in the family environment (41).

In 2016 the National Human Rights Commission conducted a “Knowledge, Attitude and Practices Regarding Child Rights” (42) survey involving 4264 children 12–18 years old, which gathered evidence of even worse outcomes in terms of child rights. The study revealed that eight in every 10 children experienced some kind of violence, one in every two children experienced some level of physical violence, one in every four children experienced neglect, three in every five children experienced emotional violence, and one in every eight children experienced sexual violence. The survey identified that 20 children (57.1%) had been sexually coerced for the first time and 15 (42.8%) had been sexually coerced frequently or for a long time. Moreover, analysis of 80 criminal court cases concerning child rights in 2014–2016 found that 78 of these cases had been committed at home and over 80% of perpetrators had been related to the child. When asked their reasons for not reporting violence, 38.9% of parents and caregivers responded that they did not know that it was possible to report violence, nor that there was an obligation to report it. Furthermore, 35.7% of children and 24.4% of parents and caregivers responded that they were afraid that perpetrators would seek revenge.

Relatedly, the National Study on Gender-based Violence (43) identified that one in 10 (10.7%) of all women who participated in the study had experienced sexual abuse before they were 15 years old. The most common perpetrators were family members (29.5%), friends or acquaintances (19%), or complete strangers (18.7%)

In terms of family violence, 18.8% of mothers or caregivers of children 1–14 years old believe that physical punishment or psychological aggression is needed to bring up, raise or educate a child properly. The 2018 MICS from the National Statistical Office found that among 15 168 children from 1 to 14 years old, 40.4% had experienced emotional punishment and 28% had experienced physical punishment. Similar data were obtained in 2013 from the same survey, indicating almost no change in the ensuing five years (13).

### TABLE 10  Number of registered crimes, 2016–2017

<table>
<thead>
<tr>
<th>Crime</th>
<th>Number of registered crimes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016</td>
</tr>
<tr>
<td>Crimes against children, family and social morality</td>
<td>384</td>
</tr>
<tr>
<td>Crimes of domestic violence</td>
<td>1449</td>
</tr>
<tr>
<td>Crimes of child desertion and abandonment</td>
<td>8</td>
</tr>
</tbody>
</table>

2.2 RESULTS: INJURY, PROTECTION, ABUSE AND NEGLECT

2.2.2 National and subnational policies, strategies, laws and regulations

➤ Law on Citizenship
Legal interactions concerning a child’s birth registration are governed by the Law on Citizenship (44). The law requires a parent, entrusted individual, or representative to have newborn children registered at the administrative agency for citizen registration within 30 days after birth and to receive a birth certificate. A good registration system for every baby across the country is a kind of approach for ensuring child protection too in terms of delivering health and social services.

➤ Law on Child Rights
The Law on Child Rights (36) is a fundamental law of child protection in Mongolia and was enforced in 1996 to provide universal promotion of well-being and healthy development of children 0–18 years old. It was developed by the MLSP.

This law prohibits all forms of violence, exploitation, neglect and abuse of children in all settings, including at home, online and in other settings. The legislation clearly defines the principle that the best interests of the child should be given primary consideration when making any decision concerning children. It comprises multifaceted, comprehensive and professional activities aimed at preventing the neglect of every child in every environment, as well as prevention of and response to all forms of abuse and exploitation. For instance, parents, family members and guardians shall take appropriate measures to protect the rights and obligations of children, to create healthy and safe environmental conditions for children, and provide emergency care and childcare services for children affected by the family environment. Further, this legislation identifies the people required by law to report harm or suspected harm to a child.

Families have the primary responsibility for the upbringing, protection and development of their children. However, if they are unable to protect them, the child shall be taken care of by the state authority. Responsibilities are spread across government agencies, with services delivered by local authorities, NGOs and communities, making coordination between sectors and levels — including routine referral systems — a necessary component of effective child protection systems.

➤ National Program of Action for the Development and Protection of Children

The goal of the programme is to ensure a safe and healthy living environment for children, the education and development of children, the right of children to participate in social environments, and strengthening of the national system of child protection with support from accompanying institutions. The main objectives of the programme in order to ensure and protect children’s rights under proper coordination by the AFCYD are the following:

» Create an environment that is child-friendly, safe and healthy.
» Create an environment conductive to the development of each child, so that
the skills and talents of children can be identified and fostered.

» Promote the practice of listening to and respecting the opinions of children in society and increase child participation in the planning, implementation and evaluation stages of various policies.

» Protect children from all forms of neglect, abuse and violence, and implement equal-opportunity social welfare measures.


The main objective of the Action Plan for the 2018–2019 National Program on Child Development and Protection is protecting children from all forms of neglect, abuse and exploitation, as well as situations where they might be placed at risk. There are 14 strategic actions addressing child development and protection of children from injury, such as to prevent children from domestic and road traffic injuries and distribution of alerts and warning messages; to adopt and enforce “Child Protection Standard Documents”; to enroll children who do not have supervision into education, health and social welfare services; to prohibit the participation of children under the age of 16 in winter and spring horse races; and to organize phases of lighting and cameras in the ger district streets to create a child-friendly environment.

A UNICEF study in 2015 established that spring horse racing violates the rights of children to survive, receive education and be protected, and that there is no legal recourse to determine and punish perpetrators in the case of a child’s death. It also confirmed that spring racing is the worst form of child labour. In 2016, the Minister of the MLSP addressed this by re-adopting the “List of Work Types that Prohibit the Employment of Children” to prohibit children from participating in horse racing from 1 November to 1 May. This decree was superseded in 2017, limiting the prohibition to “winter months”. On 19 March 2018, the current Minister of the MLSP re-issued the decree now defining the prohibition period as “winter months” and from the first day of the lunar year to 1 May, and restricting horse racing for children under 12 years. Currently, an insurance scheme for child jockeys has been discussed as a way of ensuring their safety and well-being, the rationale being that, to minimize their risk, insurance companies would take responsibility for monitoring the safety of child jockeys.

► Law on Criminal Code

The Law on Criminal Code (45) was approved and Chapter 16, “Crime Against the Child Relating to Child Prostitution and Child Pornography, and the Protection of Children”, was enacted in May 2017 to protect the rights of children by regulating and punishing acts relating to involving a child in crime, child prostitution, child trafficking, begging, the refusal of parental mistreatment and responsibility. Measures are in place for the protection of children who have consequently suffered physically or mentally.

► Law to Combat Domestic Violence

The Law to Combat Domestic Violence (46) was enacted in December 2016 providing for the duties of the national and local governments concerning prevention of child abuse, such as prohibition, precaution and early detection of child abuse. It provides more detailed principles for local governments, police, agencies and personnel concerning child abuse and neglect. The law was updated in September 2019; the revision includes a broader definition of child abuse and strengthens the responsibility and authority of national and local governments to protect children
who are suspected to be victims of abuse and neglect. Through this amendment, the role and duty of different organizations responsible for child development, such as schools, hospitals, and family and child development organizations, are defined, and the system and process to detect child abuse and inform on it was determined.

The law aims to provide childcare benefits and other support needed to those who raise children, so that every child can achieve healthy development in society, in coordination with other laws such as the Law on Child Protection. In light of this, several campaigns have been launched at the province and district level such as “I am a responsible father and mother”, “Parent facilitator”, “Whistle campaign”, and “Attention, responsibility and safe environment”. These are the strategies to prevent child injury and to promote maternal and child health, to support parents having difficulty raising their children, to prevent child abuse and to increase public awareness among parents and the community.

The Revised Law on Criminal Code has new separate chapters on Crimes against Children and Crimes against Sexual Freedom. In this regard, parents and authorized carers are now legally responsible for child neglect and for damages arising from punishment and violations of the rights of their children. In addition, a child in conflict with the law shall not be imprisoned if certain conditions are met, but where possible, various rehabilitative measures shall be applied.

▶ National Program on Prevention of Accidents and Injuries

With regard to prevention of injury, the Government of Mongolia developed the National Programme on Prevention of Accidents and Injuries and approved it on 30 May 2018 as Resolution No. 163 to prevent and reduce the risk of accident and injury.


The Government Action Plan 2016–2020 also stipulates the need to prevent children from accidents, raise the responsibility of parents, and decrease by twofold the number of child accidents and the child mortality rate due to accidents.

▶ Law on Traffic Safety

The Government of Mongolia is working closely with WHO to reduce the burden of road traffic injury. The Law on Traffic Safety that was developed by the National Road Police Agency and endorsed by Parliament in 2017 regulates drivers’ licences and responsibilities to prevent road hazards and otherwise ensure traffic safety. Subsequently, the law was updated in 2018 and endorsed by the Cabinet to stipulate standards for vehicles, observance for drivers and safe driving with child protection seats. Furthermore, the Road Traffic Agency is conducting trainings to increase parent and citizen awareness about use of child safety seats and to decrease speeding in accordance with traffic laws and rules.

High-level officials, policy-makers, global injury and violence prevention experts, and technical coordinators gathered in Ulaanbaatar in September 2019 to strengthen national approaches towards violence and injury prevention. Representatives from a variety of sectors — including health, social services, education and enforcers of the Law on Child Protection and its Action Plan for the National Program on Child Development and Protection — received training on the seven “INSPIRE” strategies to reduce child violence. Mongolia is one of 26 countries in the world taking the lead in ending violence against children driven through the global End Violence Against Children initiative.
2.2.3 Current status of programmes

As of January 2018, five out of six procedures and standards from the Child Protection Law had been adopted, four out of six procedures and standards from the Child Rights Law, and 28 out of 33 procedures and standards from the Revised Law on Combating Domestic Violence. These three laws reflect the functions and duties of the MECSS to educate and protect children in educational settings from all forms of violations. In line with that, educational content that enables children to acquire the knowledge and ability to resolve conflicts without violence, as well as the knowledge and communication skills to protect themselves from various kinds of risks shall be reflected in the curriculum and study standards of general schools. On this account, currently, Procedures on Child Protection in Educational Environments and Prevention of Children from Violence in Learning Environments and Dormitory Settings have been drafted.

▶ Health Minister Order No. 546

Health Minister Order No. 546 approved in 2019 stipulated the responsibilities of physicians and nurses in FHCs to include home visits to screen families in need (34). SHC and FHC health professionals pay a first visit to all households with newborn infants within 24–72 hours of birth and a further three times until the one-month visit, to prevent isolation of the caregiver by responding to their various anxieties/worries with provision of necessary information. In case any households in need of support are identified, they are connected to bagh or khoroo governor’s offices through the local social worker who is responsible for family support services. This activity has just started and is not yet stabilized. Especially for families with special needs, childcare support home visits are conducted by local governor’s offices and health professionals from FHCs and SHCs.

Professionals such as a public health nurse, physician or feldsher, or nursery teacher visit the families and provide counselling and advice regarding childcare and to provide health services. Local governor’s offices are also expected to set up a committee consisting of multi-stakeholders in the community to address children requiring aid. The committee aims to provide necessary support for children and their families through communication and coordination among various stakeholders involved in childcare, such as community centres, schools and hospitals.

The aimag and city, district and soum/khoroo governments should allocate social welfare workers to the khoroo and soum administration office, who will be responsible for child welfare. The duty of a social welfare officer is to promote the welfare of children by providing consultation and necessary guidance based on their specialized skills with regard to aid for children and other matters concerning the welfare of children. The social welfare officer is appointed by local governors and their duty is too broad; the job requirements or criteria do not include experience related to child welfare services for certain years (for example, at least three years).

▶ Child Welfare Act of 2016

The Child Welfare Act of 2016 established the National Family, Child and Youth Development Agency (NFCYDA) in 21 provinces and with nine district branches. In 2018 these centres provided child protection for 17 483 children up to age 18, and development services for 99 750 children.
Of those, 939 children were protected from a dangerous situation. In 2018, through aimag and district children’s centres and children’s clubs, 24,750 children enrolled in different types of development classes.

Thanks to state financial support of development programmes in 25 children’s summer camps, enrolment increased by 37.5% compared with 2018. The NFCYDA is conducting trainings in all aimags and districts to establish “parents committees”, which shall implement a child protection sample policy. A total of 280 train-the-trainers were trained to work with the public and private sectors. The child services hotline phone “108” centre is working on on-call services to take calls about school environment abuse, violence, teacher’s communication problems, etc. Preschool organizations and kindergartens increased use of cameras and increased parents' control and participation in monitoring, which has already reached almost 90% implementation (40).


All activities of the Action Plan for the 2018–2019 National Programme on Child Development and Protection are to be implemented with the participation of children, civil society organizations and NGOs. The programme specifically aims to improve access to health, education, protection and other social services for children with disabilities from remote rural and poor urban areas. There are well-defined objectives and planned activities to support child development in the country, but the human resources, capacity and financial sources do not meet the implementation needs of this action plan, which is why the NFCYDA outsourced implementation of the above activities to NGOs in 2018.

There is a shortage of human resources to coordinate the implementation of this programme. In terms of a special transfer for child development and protection services, 6,554.1 million Mongolian tugrik (₮) in 2015, ₮ 6,215.5 million in 2016, ₮ 6,296.5 million in 2017 and ₮ 6,331.8 million in 2018 were allocated, demonstrating that this amount has not noticeably increased since the adoption of the Child Rights and Child Protection Laws. Moreover, in 2017, ₮ 396 million was allocated for the implementation of Child Rights and Child Protection Laws, though at the Joint Meeting of the Standing Committees this amount was considered insufficient (40). In 2018, US$ 2.4 million was allocated and in 2019 the budget increased to US$ 3.04 million for the implementation of child protection programme activities.

▶ Program on Prevention of Accidents and Injuries 2018–2022

Based on the Program on Prevention of Accidents and Injuries 2018–2022, very important strategic actions have been taken, such as enforcement of compulsory use of child protection seats; implementation of a “Hand-to-hand” programme for parents and guardians preventing young children from entering in road traffic independently, etc. All these activities are included in kindergarten training programmes and every year different types of campaign activities and competitions are organized among all kindergartens. The cost of these activities is included in kindergartens’ annual budgets.

In 2017, capacity-building trainings were provided for 4,634 members of 609 MDTs nationwide; MDTs worked with 1,298 families affected by domestic violence and provided child protective services to 945 (or 4.5%) of all children living at risk. Although MDTs have been activated across the country in accordance with the Child Protection Law, in practice, conceptual, financial and
performance-related barriers hinder their functioning effectively (50).

For instance, besides their main duties, MDTs are obliged by the Revised Law on Domestic Violence and the Child Protection Law to work with both the victims of domestic violence and children exposed to violence. This overloads MDTs and risks diminishing access to quality services for children. Consequently, the MLSP has stressed the necessity for evaluation of the Child Protection Law and the Law on Combating Domestic Violence to determine the structure, function, service mapping and M&E system of MDTs. Moreover, it is considered vital to improve the integrity and coordination of subcouncils for combating and preventing domestic and child violence under the Crime Prevention Council and the National Council for Children, as this dual child protection policy and structure could be blurring the independence of the child protection system that is to be strengthened in society (41).

Furthermore, procedures need to be determined and developed for transferring unresolved cases from the first administrative units to the MDTs of higher-level administrative units. Other procedures that need to be addressed include clarification of rules and responsibilities of MDT members and their remuneration, development of a sample confidentiality contract, development of a list of protective services and respective standards, and the creation of a mechanism to protect MDT members. Over and above these, a number of issues and recommendations related to policy, local government and MDT performance which were identified at the Conference on Strengthening the Child Protection System in Mongolia (2018) and in the research paper Multidisciplinary Teams: Current situation, achievements and challenges (2018) also need to be taken into account. Finally, it has become a critical issue to promote the workplace stability of MDT members. For instance, 19.1% of all MDT members and 50.0% of metropolitan MDT members have changed since capacity-building activities have been conducted for MDTs. In fact, across the board, there is a need for further capacity-building of MDTs by providing professional and methodological support and training on case identification, case plan development, team decision-making and case management, as well as taking steps to increase workplace stability for MDT members and to implement best practices in violence prevention (5).

▶ Child Welfare Program and Child Welfare Law

To implement the Child Welfare Program and Child Welfare Law, the Mongolian Women’s Fund has been implementing the three-year project “Promoting an enabling environment for young children to be free from violence” at 11 kindergartens in Arkhangai, Bayankhongor, Dornod and Ulaanbaatar since January 2017. The project aims to establish a system to enhance knowledge and understanding of children, parents, teachers and other stakeholders on prevention of violence and protection of young children from violence.

For early detection and response to child maltreatment, in 2015, the MLSP set up a hotline for consultation on child abuse and asks prefectural governments to respond to calls through their child guidance centre. When citizens detect any suspicion of child maltreatment or parents have difficulties in childcare, they are encouraged to call 189. The call is automatically transferred to a prefectural police and children’s consultation centre for professional consultation.

Recently, several efforts have been made to establish the child death review, Why child died? (2), to prevent child deaths
due to preventable accidents and child maltreatment. It is a multidisciplinary work to detect causes of child deaths, call for attention and make policy recommendations to prevent child deaths. However, the research team has identified that some causes of death were misclassified and several cases reported as death due to illness were actually due to injury or violence.

With regard to prevention of injury, all health-care facilities conduct health education on prevention from child accidents and within implementation of the MOH-approved National Program on Prevention of Accidents and Injuries. National public awareness-raising campaigns have been organized to protect children from accidents and issues. The Accident Prevention Handbook increases awareness of caregivers of children aged 0–6 years on how to protect them from accidents in daily life.

Mid-term evaluation of some national programmes has not been completed and no systematic monitoring of the implementation of programmes, laws and regulations has been done. In addition, other constraints encountered were limited institutional memory because of high staff turnover at the MOH and — related to family and child protection and disability — some institutions such as the NFCYDA and the National Rehabilitation Development Center for Disabled Children having been established only a few years ago. Also, there is essentially no public institution responsible for addressing anti-violence — just one NGO is responsible for this issue and activity has not been stabilized.

Revised Law on Infringement

The Revised Law on Infringement codifies over 1200 violations formerly specified in over 200 different laws and incorporates a new chapter on offences against children. Accordingly, the MLSP has started to prepare and license child rights inspectors to monitor and enforce offences against children. So far, 38 officers have been trained to undertake these activities. The Procedural Law on Infringement states that officers authorized to monitor and enforce infringements against children are child rights inspectors, state inspectors of specialized investigation agencies and police officers (SI). However, this duplication of the duties of inspectors could increase procedural costs. Moreover, conflicts of interest might arise that would hinder the independent functioning of child rights inspectors owing to the fact that they are public servants.

Law on Child Protection

The Law on Child Protection has been revised several times, according to the needs of social change. In response to the increasing awareness of child abuse and neglect in the country, a prohibition on punishment, early detection and prevention of child abuse, and enhancing home-based rearing environments were also included in the articles. The law was amended in 2003, 2006 and 2008, and the last amendment was made in 2016 to further strengthen measures for the prevention of child abuse and prohibition of corporal punishment by parents to meet the rights of children based on the Convention on the Rights of the Child. The Law on Child Protection established MDTs and the NFCYDA. In 2018, the latter provided safe service activity for 939 children and brought 486 children to the National Center against Violence. After passing the Law on Child Protection, the first meeting was held in May 2018 with 27 participants from different ministries (represented mainly by the state secretaries) and national agencies (represented by the heads of agencies) to discuss actions related to violence against children and children's rights.
They are expected to regularly report on progress. An inter-agency child protection and development working group was also set up to coordinate, led by the Deputy Minister for Labour and Social Protection. The role of this multisectoral permanent working group is to ensure effective implementation of the national action plan and the recommendations of the Committee on the Rights of the Child.

A national standard on common requirements for child protection in emergencies was endorsed according to the revised Law on Combating Domestic Violence and will be used at the national level. This standard stipulates the roles and responsibilities of each member of the MDT on addressing and responding to violence, including the governor, local parliament representative, social worker, police officer, community/street leader and NGO representative (52).

All SHCs and FHCs are sending their programme-related reports to the district and aimag health department, and from there the report is sent to the MOH. However, there is almost no feedback on programme implementation from upper-level health organizations. The country impact indicator analysis (13) is summarized in Table 11.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children 1–2 years old who experience any physical punishment or psychological aggression by caregivers in the past</td>
<td>38.1</td>
</tr>
<tr>
<td>Children 3–4 years old who experience any physical punishment or psychological aggression by caregivers in the past</td>
<td>55.8</td>
</tr>
<tr>
<td>Mothers or primary caregivers of children 1–14 years old who believed punishment is needed to bring up, raise, educate child properly</td>
<td>18.8</td>
</tr>
<tr>
<td>Children 0–6 years old attending outpatient clinics with one or more injuries in the past 12 months</td>
<td>2.2</td>
</tr>
<tr>
<td>Children 0–6 years old attending outpatient clinics with one or more injuries in the past 12 months receiving injury prevention counselling</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Source: MICS 2018.

2.2.4 Health facility guidelines, standards, licensing and accreditation

Guidelines related to child protection are approved by the MLSP to implement the Child Welfare Law, Law on Child Rights and Law against Family Violence. The guidelines have been updated several times in accordance with multiple amendments in the Child Welfare Law and other law and policies. The role of government to prevent and respond to child abuse has been enhanced since 2016.
Checklists and standards for conducting inspection in kindergartens, school dormitories and all levels of health facilities were approved by the Order of the Director General of the General Agency of Specialized Inspection (GASI).

Child protection facilities are defined in the Law on Child Protection. The MLSP sets minimum standards for each institution and disseminates these to all local governments. Health workers specific to child welfare are also defined in this law based on their licensing requirements and duties. The Law on Child Protection and related regulations by the MLSP specify that health workers should be involved in necessary programmes.

In local governor’s offices, plans and responsibility for this work fall on the officer in charge of health and family, child and youth development. However, the actual staffing of MTDs and trained health professionals on child welfare in primary health centres is not adequate, with only about 40% of them working in a stable capacity.

Unfortunately, effective implementation of these laws has been challenged in practice by various difficulties and barriers. For instance, the time frame for preparing to implement these laws has been restrictively short; insufficient training has been provided to relevant public servants; the capacity of MDTs, Juvenile Justice Boards and single-window service centres has not been satisfactorily developed on a national scale; infrastructure for provision of services to victims has not been created; and budget allocations for the implementation of these laws has been inadequate.

A MDT has to be formed and the capacity of human resources should be strengthened for ensuring proper enforcement of the Law on Children Protection across the country, so that no child is left behind.

2.2.5 Health worker pre-service, continuing education and licensing requirements

Until 2014 the Mongolian National University of Medical Sciences (MNUMS) undergraduate training curriculum related to violence and abuse consisted only of two hours of lecture and a four-hour seminar, which was not enough time to confer proper knowledge about child violence. Since 2014, based on health sector and public sector needs and demand assessment, MNUMS has updated its medical education curriculum and included a one-credit subject on “Specific issues in primary health-care services” in the Family Health Medicine Department, which includes 10 hours of lecture and 20 hours of seminar plus 24 hours of self-study. After graduation from medical school all graduates have to pass a professional licensing examination, which includes knowledge related to child protection, prevention of child violence and gender issues. The licensing system, academic institutions and hospitals play central roles in providing continuing education for professionals. In the last decade all health professional associations have provided education programmes, especially the paediatric academy, which is responsible for prevention and management of child maltreatment in medical settings. So far, the associations are providing trainings just for health professionals; other trainings for preschool teachers and social workers are on child welfare and protection, but these are not systematic.
### TABLE 12  Training curriculum of MNUMS, module 5: “Specific issues in primary health-care services”

<table>
<thead>
<tr>
<th>Lecture topic</th>
<th>Content</th>
<th>Seminar topic</th>
<th>Seminar content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Gender, neglect and abuse</td>
<td>Gender-based violence, violence against women</td>
<td>Health of women with disabilities; methods of family planning; observation methods of women with disabilities</td>
</tr>
<tr>
<td></td>
<td>Gender definition, sex inequity in health sector, men’s health, gender-based violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Primary health services during violence</td>
<td>Health-care service for violated child; the role of family group practitioners in MDTs</td>
<td>To detect children experiencing violence; fruitful cooperation with MDT; ability to provide health service to child undergoing violence</td>
</tr>
<tr>
<td></td>
<td>Definition of violence, classification, gender equity rights, modern gentlemen’s definition, family violence characteristics, physician’s role</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Violence against child and MDT service and its role</td>
<td>Health-care service for violence against elders; the role of family group practitioners in MDTs</td>
<td>To detect elderly people experiencing violence; fruitful cooperation with MDTs; ability to provide health services to elderly people undergoing violence</td>
</tr>
<tr>
<td></td>
<td>Violence against women, the elderly and children in the family; method to detect unknown family violence; family violence and family problem differences; wrong understanding about family violence within community; MDT work and its direction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


**Discussion**

Institutions need to be strengthened and human capacity built to work with children in contact with the law and children affected by violence, particularly as both violence against children and crimes committed by children have been increasing. A sophisticated targeted strategy and associated policies need to be initiated for the lifelong well-being of every child in contact with the law, those engaged in child labour and unsupervised children. Such policies need to incorporate innovative practices to influence changes in attitudes and behaviour, build life skills through education and support an active labour market policy. Moreover, legal and governance measures need to be undertaken to ensure the rights of child jockeys and a responsible and independent institution needs to be charged with protecting their health and safety, including overseeing an insurance scheme should it materialize.

Improving protection policies and the capacity of institutions charged with child welfare and protection are urgent matters, as is defining the policy of criminal charges applied to perpetrators. The majority of violations that are committed towards children are in their homes and perpetrated by close relatives. Data show the need to focus on improving active child care supervision and monitoring, health education for children under 5 years old, and activities related to child violence.
2.3 WATER SAFETY AND SANITARY ENVIRONMENT

Summary of key points

» Laws and regulations are well established to control water quality — any utilities involved in the water supply business need to obtain approval from the Ministry of Environment and Tourism and are regulated by the Law on Water.

» The Law on Water regulates water suppliers with penalties to ensure implementation of water-quality management.

» Each aimag and city government has a system to regularly monitor water quality and provides guidance for improvement as needed based on the law. There is a big gap in water supply between rural and urban areas.

Mongolia is facing various environmental health challenges due to rapid economic growth especially in the mining sector, rapid migration from rural to urban areas, severe climatic conditions and climate change. Some of these environmental risk factors are traditional in nature such as low coverage of safe drinking-water and improved sanitation services, but some are emerging, such as urban air pollution and impact from the mining sector and climate change. Hence, the Mongolia-WHO Country Cooperation Strategy 2017–2021 (55) has identified environmental health as one of the five priority areas of collaboration with the Government of Mongolia, in particular with the MOH, Ministry of Environment, Green Development and the Ulaanbaatar City Mayor’s Office.

2.3.1 Current epidemiology

UNICEF’s technical partnership with the MECSS, along with a national NGO — WASH Action — helped to generate important evidence on water and sanitation, one of the key issues affecting the health of Mongolia’s children. In 2017 a national baseline assessment of current water, sanitation and hygiene (WASH) conditions in kindergartens, schools and dormitories was carried out to collect national and subnational data. It revealed that 54% of schools have access to safely managed drinking-water services, while 25% have a basic improved water supply. It also found that 10% have limited water sources, while an additional 10% have unimproved water sources and 1% have either no drinking-water or get their water directly from surface water sources (56).

Sanitation

The problem of sanitation in the ger districts of Ulaanbaatar worsens year after year due to its population and land expansion. Even with the adoption of the Ger District
Replanning Program, more than 400,000 citizens are expected to remain unconnected to central sanitation services by 2030. Over 180,000 households in the ger districts of Ulaanbaatar are not connected to central water, sanitation and heating services, and 90.0% use unimproved pit latrines (toilets), which directly increase soil, water and other environmental pollution. Under these conditions, diarrhoea is prevalent among children under 5 years. Under the ger district replanning programme in the capital city, the Ulaanbaatar City Mayor’s Office will build new modern apartments with a central sanitation system in collaboration with construction companies by buying privatized land or family property.

**Drinking-water**

More data on hygiene and sanitation in Mongolia were available from the MICS survey 2018. Around 66.0% of urban and 59.0% of rural populations have access to improved drinking-water sources. A number of problems such as illegal household settlement and construction of fences and buildings in protected zones threaten to destroy soil structure, alter water drainage and reduce renewability of underground drinking-water in Ulaanbaatar. The water microbial level was over the acceptable established standard in 12.7% and 22% of water samples taken from centralized water suppliers of aimags and soums, and noncentralized water supply sources, respectively. The MICS 2018 determined that 80.3% of households use low-risk drinking-water, 9.9% use drinking-water of moderate risk, and 9.8% use drinking-water contaminated by high and very high levels of *Escherichia (E.) coli* (13). Also, there is a big gap between rich and poor families in usage of improved drinking-water (Table 13). In remote areas of Mongolia during summertime, rural families use surface water such as rainwater, springs and other unprotected water, which is a main cause of diarrhoeal infection among children under 5 years old.

**WASH in schools**

Secondary schools and kindergartens in the centre of districts have been connected to the central sewerage; however, those in remote areas of the districts utilize ordinary pit toilets. The number of students in the schools in two remote districts of Ulaanbaatar City exceeded the national guidelines for drinking-water and hygiene norms and criteria by almost twofold; consequently, the number of toilets and sinks were evidently insufficient. For instance, only two sitting toilets, two urinals and two sinks were available for 693 students in Secondary School No. 59 in the Khan-Uul district. Except for Kindergarten No. 28, none of the secondary schools and kindergartens were equipped with special toilets for children with disabilities.

Most of the kindergartens had also not installed water dispensers in every classroom in accordance with the Order of the Minister of Education and Science for ensuring access to drinking-water and handwashing facilities in all preschool facilities and schools. Two secondary schools (33.3%) installed drinking-water fountains or water dispensers on every floor of the building, whereas four secondary schools (66.7%) had not installed any. A total of 83.3% of the studied kindergartens had dumpster
2.3 RESULTS: WATER SAFETY AND SANITARY ENVIRONMENT

bins located 100 metres from the water source and 30 metres from the building. Half of the studied kindergartens sorted solid waste and disposed these in specified dumpster bins. Only one third of secondary schools sorted solid waste and disposed these in dumpster bins located within 30 metres of the school building. Implementation of sanitary and hygiene standards and requirements for drinking-water supply, for sewerage and toilets, and for solid waste disposal in the six studied kindergartens were 72.9%, 69.6%, and 76.6%, respectively (59).

### TABLE 13 Quality of household drinking-water

<table>
<thead>
<tr>
<th>Disaggregated by:</th>
<th>Contamination level by number of <em>E. coli</em> per 100 ml</th>
<th>% of household population with <em>E. coli</em> in source water</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low  &lt; 1</td>
<td>Moderate 1–10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>80.3</td>
<td>9.9</td>
</tr>
<tr>
<td><strong>Geographical areas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>85.3</td>
<td>8.0</td>
</tr>
<tr>
<td>Capital city</td>
<td>84.8</td>
<td>7.6</td>
</tr>
<tr>
<td>Aimag centre</td>
<td>86.4</td>
<td>8.9</td>
</tr>
<tr>
<td>Rural</td>
<td>69.7</td>
<td>13.9</td>
</tr>
<tr>
<td>Soum centre</td>
<td>76.1</td>
<td>10.1</td>
</tr>
<tr>
<td>Bagh level</td>
<td>65.1</td>
<td>16.6</td>
</tr>
<tr>
<td><strong>Drinking-water source</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved sources</td>
<td>82.5</td>
<td>88.8</td>
</tr>
<tr>
<td>Piped water</td>
<td>93.2</td>
<td>4.4</td>
</tr>
<tr>
<td>Ground borehole</td>
<td>80.1</td>
<td>8.6</td>
</tr>
<tr>
<td>Protected dig well</td>
<td>69.4</td>
<td>13.7</td>
</tr>
<tr>
<td>Rainwater collection</td>
<td>48.2</td>
<td>6.5</td>
</tr>
<tr>
<td>Unimproved sources</td>
<td>64.2</td>
<td>17.7</td>
</tr>
<tr>
<td>Unprotected well</td>
<td>60.7</td>
<td>19.6</td>
</tr>
<tr>
<td>Surface water/other</td>
<td>67.3</td>
<td>16.2</td>
</tr>
<tr>
<td><strong>Wealth index</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest</td>
<td>59.8</td>
<td>18.8</td>
</tr>
<tr>
<td>Richest</td>
<td>93.1</td>
<td>4.2</td>
</tr>
</tbody>
</table>

*E. coli*: *Escherichia coli*

Source: Evaluation report on implementation of sanitary and hygienic standards and requirements, 2017.
A study and survey conducted among schools in Ulaanbaatar revealed that current access to school sanitation and hygiene do not meet the established requirements. Specifically, schools located in remote districts have pit latrines outside their school buildings that do not meet hygiene requirements. Furthermore, an inspection found that access to and hygiene of sanitation and washstands in secondary schools were not satisfactory. While 51.9% of all participant schools in this survey answered that they had access to washstands, 33.9% said they did not.

In a survey on school sanitation by the National Center for Public Health, one third of children answered they had no access to handwashing facilities in schools and the same number answered that they did not know how to wash their hands properly (60). Moreover, a study conducted among children in rural schools revealed that one in every five children were unable to use the sanitation facilities when necessary, and in their response to the question clarifying their reasons, 25.5% said that the school latrine was dirty and smelled bad, 20.0% responded that there was no toilet paper, 12.7% answered that there was nowhere to wash their hands, 12.7% answered that the sanitation facilities were outdoors and 5.5% answered that they were unable to regularly use the school latrine as there was a long queue (60).

The study report concluded that in Mongolia “80.0% of schools and dormitories do not have water and sanitation facilities inside, the majority having been built before 1990 without planning for water and sanitation facilities”. Consequently, respiratory and diarrhoeal infectious diseases are prevalent among children due to inaccessible sanitation facilities and other hygiene issues (60).

2.3.2 National and subnational policies, strategies, laws and regulations

▶ Law on Water
A revised 2012 Law on Water (61) replaced the 2004 Law on Water, incorporating numerous amendments and firmly based on the Integrated Water Resources Management approach. The law defines self-monitoring requirements: all water users must have equipment installed to measure water use and, where usage exceeds 50 cubic metres per day, users must install equipment that monitors use throughout their operations. The Law as adopted in May 2012 provided for the functioning of a National Water Agency; however, the amendments introduced in August 2012 repealed the existence of the Agency.

The Law on Water defines a water facility as an ordinary and engineered construction to regulate the abstraction, collection, transfer, distribution and treatment of water; a construction to regulate rivers; a deep well; or a flood protection dam for the protection of urban settlements and streets. According to Article 32, the Ministry of Construction and Urban Development (MCUD) is in charge of making decisions on the construction of new water facilities based on the suggestions of the local city or aimag governors and assessment of these by the River Basin Authority. The constructed facilities are then the property of a state agency. Water safety plans (WSPs)
reflecting related laws, orders, articles of policy documents, actions and their implementations, have been installed for urban water supply system operation and applied to routine practice.

**Law on Utilization of Urban Settlement’s Water Supply and Sewage**

Approved in June 2011 and introduced in January 2012, the Law on Utilization of Urban Settlement’s Water Supply and Sewage (LUUSWSS) (62) sets standards for the quality of water and is designed to govern the ownership and utilization of water facilities required to supply urban users with drinking-water, and to treat and dispose of their waste water. The law assigns the task of developing the legislation and policy on urban water supply and sewage disposal to the MCUD. It also establishes a new body, the Water Services Regulatory Commission. The law requires a protection and sanitary zone to be established around both centralized and decentralized drinking-water sources.

**Law on Hygiene**

Clause 4 of the Law on Hygiene (63) approved by the Parliament of Mongolia in February 2016 states that, “The related state administrative bodies shall approve the adequate amount of drinking and household water required, a governor of the relevant hierarchy shall implement a course of action for supplying drinking-water which meets the standards continuously and accessibly, a governor of the relevant hierarchy shall be responsible for regular performance of the risk assessment of water sanitation facility network, and the implementation of the assessment results and a related state administrative body shall approve a guideline for the risk assessment.” Hence, this law is a crucial step to legislating a mechanism for developing, implementing and ensuring sustainability of the WSP.

**Sustainable Development Vision 2030**

In 2016, the *Mongolia Sustainable Development Vision 2030* (64) was approved and in terms of exposure to unsafe water and sanitation two objectives were developed: **Objective 1:** Protect water resources and prevent water shortage; and **Objective 2:** Increase drinking-water supply that meets health standards and improve the availability of sanitation and hygiene facilities.

Furthermore, improvement of water supply, sanitation and hygienic conditions has been reflected in the State Policy on Health (2017–2026) (9) and the National Environmental Health Program (65) in Mongolia. In the State Policy on Health two objectives were related to water and sanitation: to improve living and working conditions for the population in terms of health and safety; and to conduct surveillance on causes and consequences of air, water and soil pollution in urban settlements and reduce or remove factors negatively affecting population health.


The *Action Plan of the Government of Mongolia 2016–2020* (22) aims to reduce air, water and soil pollution and to implement appropriate waste management in cities and other urban areas, such as to protect drinking-water resources and sources of rivers, streams and springs; collect water from rivers, rain, snow and ice; and create water reservoirs and pools to increase water supply.

**State Policy on Ecology**

The State Policy on Ecology states that “Surface water and groundwater resources of Mongolia are an essential balance source
of coherence of nature and healthy environment of living; thus aiming at maintaining water resource and quality, saving water, and ensuring restoration and accumulation is a core of the state policy.” (66)

▶ Mongolian Deputy Prime Minister Order No. 59
By the Mongolian Deputy Prime Minister Order No. 59 of 2013, a working group on “Improving drinking-water quality and safety” (67) was established.

2.3.3 Current status of programmes

Laws and regulations are well translated into national and subnational plans. National and local governments set plans following the regulations and the national Government monitors whether local governments follow the plans and fulfil the standards of water quality. GASI, National Center for Public Health, National Center for Communicable Disease, and the NGO Occupational Safety, Hygiene and Environmental Association are cooperating to improve a legal framework for strengthening the registration and information system for water-transmitted infection, prompt planning on responses during infection, and strengthening a feedback surveillance system. An integrated registration and information system can prevent the population from water-transmitted infections.

The Law of Mongolia on Water (61) does not specify the appropriate government level. The governor of the respective city or aimag by law is authorized to organize and coordinate the construction process — a statement conflicting with the findings from an interview with the MCUD.

▶ Law on Waste Management

With the purpose of sharing the experience of the Water Supply and Sewerage Authority, a guideline for developing a *Population drinking-water safety plan* (70) was approved in Joint Order No. 74/57 in 2015 by the Ministers of Health and Sports and MCUD, and has been implemented in aimags, the capital city and soum centres that have centralized water supply. The order is a vital step to supporting the legal framework for expanding the WSP in rural areas and ensuring sustainability.

Since 2005, a number of projects related to WASH have been successfully implemented. These included: “Pilot project for improvement of WASH in rural hospital”, “Essential environmental health standards for healthcare facilities” and the WSP Initiative. For health facilities, 14.1% had a centralized water supply and 85.9% had a decentralized water supply. In the past, on average there were 25–30 children per one toilet seat in most public kindergartens. In 2017, the standards approved by the GASI designated one toilet seat per 15 children and one hand-wash sink per 20 children in kindergartens.
In the past three to five years, kindergartens have reconstructed toilets and washrooms in accordance with this standard, and the current sanitation condition is being improved in preschool educational facilities.

In terms of legislation, the Law on Hygiene has started to be enforced since 2016. WHO provided financial and technical support to the MOH and GASI to conduct an assessment of the implementation in 2014–2016. According to the assessment, about 70% of institutions met the standard. Based on the evaluation results, every health facility is developing an improvement plan of sanitation settings within its own organization. Future challenges are evaluating environmental conditions, including WASH in 329 SHCs and tight follow-up of implementation of improvement plans in all health-care facilities, in upcoming years. Designing and construction of water and sanitation facilities in cold climate contexts at the local level are also ongoing.

The National Program on Reduction of Air and Environmental Pollution (71) aims to improve sanitation facilities in urban and peri-urban ger areas with hygienic standards and renovate central sewage treatment plants and other urban settlements of Ulaanbaatar City and industrial waste-water treatment plants using environmentally sound and internationally accepted advance technology. At the 2014 Sanitation and Water for All High-Level Meeting, the Government of Mongolia made eight commitments to improving the WASH sector (72). There are national plans/policies in place for sanitation and drinking-water in urban and rural areas.

WHO and UNICEF contributed to formulating and consulting on the Second National Program on Environmental Health 2017–2020, approved by the Mongolian Government in August 2017. The programme and its action plan focused on WASH improvements at household, small community and facility levels, particularly at educational and health facilities. These efforts resulted in improved WASH services, benefiting vulnerable and underserved populations, especially those living in rural areas or in the urban ger districts, who need to rely on water kiosks to access drinking-water. By 2018 the percentage of household members using improved sources of drinking-water, handwashing facilities where water and soap or detergent were available, and improved sanitation facilities were 86.9%, 82.9% and 88.8%, respectively (65).

Programmes that are specified in laws are announced to all local governments, and health facilities are notified about regulations and guidelines by the MOH and Ministry of Environment and Tourism. The programmes are planned with cost in accordance to the financial responsibility regulated in the law. Local governments are responsible for developing plans and providing funding, based on laws and regulations. A national government subsidy has been instituted to realize plans at the subnational levels for relevant sectors. The resource allocation is usually in the sector ministers’ financial package, but due to inflation and rapid changes in government and frequent changes in responsible officers at the ministry level, the implementation of programme activities can be challenging.

In accordance with the Law on Budget, every sector ministry shall develop their budget and submit it to the Ministry of Finance. The projected budget is usually cut down; therefore, during implementation, the sector ministry and health organizations are unable to implement all the planned activities. Given this reality, all programmes should be costed and their budget should be secured using all possible funding sources under coordination of the national and local governments.
2.3.4 Health facility guidelines, standards, licensing and accreditation

In 2014 the National Agency for Standardization approved the National Standard for Environmental Hygienic Requirements for Health-care Facilities (73), determining standards for health facilities, including recreation areas, WSPs and environmental requirements. In Mongolia standards of different-level hospitals are included with water and sanitation criteria.

In June 2015 the Education, Health and Finance ministries issued a joint order approving the norms and standards of "Water, hygiene norms and criteria for kindergarten, school and school dormitory" (58). This serves as the main guide for improving the water supply and hygiene situation in educational facilities, and all kindergartens and schools must meet this standard.

Health facilities should minimize and appropriately manage medical wastes following the standards regulated by the Law on Waste Management, as well as regulations set by ministries. The national and subnational inspection agencies monitor medical-waste management and order health facilities to take necessary measures to improve the procedure as needed.

The Joint Order No. 126/A134 approved in 2014 by the ministers of Health, and Environment, Green Development and Tourism (74) aimed at expanding six thematic working groups on environmental health, coordinating the collaboration of state and international organizations and stabilizing their actions. For instance, the working group on WASH has met three times a year and discussed and approved eight issues.

There are no educational programmes or licensing requirements for health workers related to prevention of exposure to unsafe water and maintenance of sanitary environment.

Some standards related to child development have been approved, which are used for preschools and all levels of hospitals for self-assessment of their activity and indoor and outdoor environments. These include the inspection checklist for hygiene and infection precaution control in kindergartens, inspection checklist for children’s dormitory control, and self-evaluation inspection checklist for hygiene and infection precaution control in health facilities.

Once per year kindergartens give their drinking-water for water quality tests; since 2019 this has been done twice a year. All kindergartens must meet the standards and that is why it was started in urban areas in 2019; currently there are no publicly available data.

Following UNICEF’s advocacy and partnership with the MobiCom Corporation and World Vision initiatives, the Government approved the generic design for container WASH facilities for kindergartens, schools and dormitories, making it available for use nationwide. This generic design — refurbished shipping containers equipped with flushing toilets and wash basins — is particularly suited to schools in rural areas or on the outskirts of Ulaanbaatar City. Parliament members initiated a project to raise funding of 100 trillion Mongolian tugrik by 2021 to build 819 sanitation facilities, including flush-toilet and handwashing facilities for rural schools and kindergartens.

The country impact indicator analysis is summarized in Table 14.
### Results: Water Safety and Sanitary Environment

#### 2.3.5 Health worker pre-service, continuing education and licensing requirements

There is no documentation about health worker pre-service and continuing education, or licensing requirements in this field. In 2010 at MNUMS, curriculum for the undergraduate programme for medical students included an “Environmental health” training programme with one credit, which included content on WASH. Undergraduate students taking public health worker or hygienist classes are taught four credits of the environmental health subject on indoor and outdoor air pollution, health impact, measurement methods and evaluation of pollution. After graduation these public health workers or hygienists work in professional inspection offices as inspectors or public health workers at SHCs, FHCs, aimag and city health departments, or sometimes as epidemiologists in hospitals.

#### Table 14: Country impact indicator analysis

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household members using improved sources of drinking-water</td>
<td>86.9</td>
</tr>
<tr>
<td>Household members with a handwashing facility where water and soap or detergent are present</td>
<td>82.9</td>
</tr>
<tr>
<td>Household members using improved sanitation facilities</td>
<td>88.8</td>
</tr>
<tr>
<td>Urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities</td>
<td>95.1</td>
</tr>
</tbody>
</table>

*Source: MICS 2018.*
Discussion

WASH in communities, and educational and health facilities which are not connected to the central water supply and sewage system is challenging, and it represents one of the unfinished MDG agenda items in Mongolia. Thus, the Mongolian Government has been paying greater attention to increasing access to safe drinking-water sources and safely managing sanitation, as well as prioritizing resource allocation for upgrading facilities, particularly in educational and health facilities.

Both the global and national SDGs call for an ambitious agenda for universal access to safe WASH services, including WASH in settings such as educational and healthcare facilities. Financial and technical support to the education and health sectors in Mongolia would provide an opportune boost to national advocacy and technical support as well as specific country efforts already in place. Holistic and systematic ways of implementing multi-sourcing programmes should be effectively implemented in line with the infrastructural development for improving and advancing the WASH situation in the country.

In the near future, the surging need is to assess the health impacts of poor access to adequate WASH services. Assessments — particularly in schools, kindergartens, school dormitories and households of vulnerable communities — can foster evidence-informed decision-making and facilitate the undertaking of priority and focused public health measures as short- and mid-term interventions.
2.4 DISABILITY

Summary of key points

» In Mongolia, the Law on Health and Law on Social Protection cover free health services and social welfare for children under 18 years old with disability.

» A rehabilitation centre, designated kindergartens and schools for children with disabilities are available in the capital city. But there are no designated facilities, including day-care centres, in rural areas. For instance, about 60% of children with disabilities age 2–6 years do not have access to admission to a preschool facility.

» Despite the increasing numbers of children in need of constant medical care, there is a lack of centres providing services and lack of qualified professionals and coordinators to provide care for children with disabilities.

» To meet the increasing needs of children with special care needs, improving the capacity and capability of the existing facilities through qualifying human resources and mobilizing investment is strongly required.

2.4.1 Current epidemiology

According to the Child Rights in Mongolia Survey 2018, in 2017, 103,600 people were registered as having a disability and of them 11,500 were children. Of these children, 58.1% were born with a disability and 41.9% acquired a disability when they were older.

In 2018, with the support of the NFCYDA, a survey was conducted on “Mongolian households’ problems, needs and alternate services” (50). The survey defined the household problems encountered by people with disabilities — 42% of households with persons with disabilities live in poverty, only 28% of people 15–59 years old who have disabilities are employed, 43% of children with disabilities 6–18 years old are illiterate and 77.8% of households face difficulties in work.

Currently, not only are children with disabilities poorly provided for in terms of accessible infrastructure and social services, but they are also discriminated against in a poorly informed society. Currently, half the children born with a disability do not have access to an adequate education and are illiterate, and 80% of all people with a disability are economically inactive, with most living below the poverty line.

ECE for children with disabilities is provided by only two kindergartens for children with special needs. Only two primary schools enrol children with developmental delays and another one is for children with vision or hearing impairment in Ulaanbaatar. It is difficult for children with disabilities in the rural areas to enrol in kindergartens and primary schools.

As per a 2020 survey carried out by the Asian Development Bank (ADB), 37% of children with disabilities study at preschool and
primary schools; hence the percentage of children with disabilities who needed kindergartens was 63% in 2020 (75).

In 2015, the National Human Rights Commission — together with the Ministry of Population Development and Social Welfare of Mongolia — monitored state and private kindergartens attended by children with disabilities and identified that some class sizes were two to three times higher than their capacity; that conditions in some buildings were harmful to human health; safety requirements were not fulfilled; and treatment of children, curriculum materials, maintenance, vehicles and staff remuneration were all below standard.

In general, the education sector faces some issues such as lack of independence; gaps in human resources, policies and teaching methodologies; and ageing infrastructure. At the micro level these factors hinder the development of healthy children with essential living skills and social behaviours. At the macro level, they fail to meet the challenge of preparing children to respond to the social demands they will face as adults.

Care for children with disabilities is insufficient and they may be referred late to the next-level hospital for necessary services. Even though the Government has paid more attention to people with disabilities by approving a new law — protecting their rights and trying to create disability-friendly and user-friendly environments — the situation is still not getting better and households with persons with disabilities do not have equal chances to work and increase their income.

The country impact indicator analysis is summarized in Table 15.

### TABLE 15  Country impact indicator analysis, 2018

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children aged from 2 to 4 years reported with functional difficulty in at least one domain</td>
<td>1.9</td>
</tr>
<tr>
<td>Children aged from 5 to 17 years reported with functional difficulty in at least one domain</td>
<td>6.1</td>
</tr>
<tr>
<td>Children aged from 0 to 6 years with developmental or functional impairment receiving regular therapy by a health professional for this problem inside or outside of the home</td>
<td>0.4</td>
</tr>
<tr>
<td>Children aged from 0 to 6 years attending outpatient or well-child clinics with caregivers reporting a developmental concern</td>
<td>3.9</td>
</tr>
<tr>
<td>Children aged from 0 to 6 years with caregivers reporting a developmental concern referred for assessment</td>
<td>16.7</td>
</tr>
</tbody>
</table>

*Source: MICS 2018.*
2.4.2 National and subnational policies, strategies, laws and regulations

▶ Law on Human Rights of Persons with Disabilities
The Law on Human Rights of Persons with Disabilities (76) enacted in 2016 is a fundamental legislative document governing relations concerning the identification of principles, rights, responsibilities and participation of government organizations, individuals and legal entities in ensuring, enforcing and safeguarding equitable rights of persons with disabilities to participate in social life. The law states that accommodations, public facilities, roads, public transportation and communication technology shall be accessible to persons with disabilities. The law and related regulations by the MLSP and MOH specify a multidisciplinary team of health workers composed of rehabilitation specialists, physical therapists, psychologists and social workers to provide people with disability with integrated health services. In addition, those health workers are encouraged and motivated by a different salary scheme that makes their job more attractive.

▶ Commission for Health, Education, Social Protection of Disabled Children
The purpose of the Commission for Health, Education, Social Protection of Disabled Children (77) is to identify disabilities in children 0–16 years old; to include children with disabilities in health, education and social protection services; and to monitor, implement and promote intersectoral coordination. Accordingly, the MLSP developed the first basic guideline for the Commission.

▶ Law on Health
In accordance with the Law on Health, free health services are to be provided to children with disabilities and shall be under the control of family, soum and village health centres and general hospitals in the respective locations (17).

The Law on Human Rights of Persons with Disabilities states that parents, guardians and caretakers shall be responsible for defending the legal interests and rights of children with disabilities and be prohibited from shirking their responsibilities to take care of and feed their children with disabilities, in accordance with the law. When a married couple with a child with disabilities divorce, the child benefit payer shall pay extra benefits in accordance with the law (76).

▶ Law on Health Insurance
In the Law on Health Insurance, high-cost medical devices and prostheses are now eligible for reimbursement, and wheelchairs and other necessary care instruments and prostheses for children with disabilities will be paid for from the Health Insurance Fund (19).

▶ National Program on Promoting Human Rights and Development of Persons with Disabilities
To implement the law the MLSP developed and approved in November 2017 the National Program on Promoting Human Rights and Development of Persons with Disabilities and approved its action plan in May 2018. The goals of the programme are to enforce the Law on Human Rights of Persons with Disabilities to participate in social life on an equal basis, to increase their opportunities to live in favourable conditions and develop themselves, change public perception towards disability and create a disability-friendly society (78).
2.4.3 **Current status of programmes**

The Law on Human Rights of Persons with Disabilities (76) established a government implementing agency, the National Development Center for Disabled People (NDCDP), at the aimag and district levels. Officers from labour and social service departments will be in charge of activities related to people with disabilities. The implementation plan of the National Program on Promoting Human Rights and Development of Persons with Disabilities is at the subnational level. As a result, for the first time in Mongolia, a modern National Rehabilitation Development Center for Disabled Children with 250 beds was established under the MLSP, funded through foreign investment.

There are only two public kindergartens in Mongolia for children with disabilities: No. 10 reopened in 2020 with 220 seats, and No. 116 with 100 seats is for children with vision and hearing impairment.

The cost of plans is included in the budget of local governments and health organizations according to financial responsibility regulated in the law. The planning usually follows the budget law from bottom to up, but the process of approval is through the MOH to the Ministry of Finance to the
### TABLE 16  Laws, national policies and regulations on care for children with disabilities

<table>
<thead>
<tr>
<th>Document</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| 1. Law on Human Rights of Persons with Disabilities | » Early diagnosis of disability in children; provide access to special curriculum training.  
» Children with disabilities are entitled to free health, education and rehabilitation.  
» Parents, guardians and caretakers of children with disabilities are entitled to social protection and social welfare assistance and services.  
» Implement measures designed to protect and prevent children from becoming victims of family violence, sexual abuse and criminal acts.  
» Evidence-informed decision-making and planning for enabling disabled-friendly and safe living environments in society.  
» State shall support parents, guardians and caretakers of children with disabilities to obtain knowledge and skills to raise and develop their children. |
| 2. Law on Health | » Free health services to be provided to children with disabilities and shall be under the control of family, soum and village health centres and general hospitals in their respective locations. |
| 3. Law on Hygiene | » To build and design toilets suitable for children, people with disabilities and the elderly. |
| 4. Law on Human Rights | » Accommodations, public facilities, roads, public transportation and communication technology shall be accessible to persons with disabilities.  
» National programme and plan approved to educate, develop and ensure that children with disabilities are able to obtain all levels of education. |
» Support entities and institutions that provide training and development services for children with disabilities and workplaces for citizens with disabilities. |
| 6. Implementation Plan of National Program on Promoting Human Rights and Development of People with Disabilities | » Ensure cochlear implant surgery is covered by health insurance for newborn infants who have hearing problems.  
» Deliver health services and treatments to children with disabilities based on recommendation of the Sub-commission for Health, Education and Social Protection of Children with Disabilities.  
» When recruiting children, kindergartens shall give priority to children with disabilities without having them wait in line.  
» Ensure that skillful human resources are available at each kindergarten and school to provide methodology and guidance for working with children with disabilities.  
» Establish centres for community-based inclusive services for persons of disabilities at six provinces with funding from the ADB and supply equipment to the centres.  
» Deliver emotional support to parents of children with disabilities and arrange capacity-building training for such parents on bringing up and taking care of their children. |
TABLE 16  Laws, national policies and regulations on care for children with disabilities (continued)

<table>
<thead>
<tr>
<th>Document</th>
<th>Objectives</th>
</tr>
</thead>
</table>
» Include children with disabilities in health, education and social protection services, and monitor, implement and promote intersectoral coordination. |
» Implement comprehensive activities aimed at inclusive basic education for children with disabilities.  
» Prepare special education teachers and develop a curriculum and textbooks that are tailored to the specific needs of children with disabilities. |

Source: MICS 2018.

Cabinet and from there to Parliament (Fig. 6). In reality, implementation of the programme faces difficulties such as shortage of funds and human resources.

Just after approval of the new national programme, the respective responsible ministries should conduct trainings, advocacy and M&E, but in reality, approval of the budget for the next year will take almost one year; after approval there is usually shortage of money.

However, the national budget for plans and programmes for children with disabilities has increased in recent years, namely for increasing human resources and facilities for support services for children with disabilities, expansion of community life support service, and support services for children in need of constant medical care.

FIG. 6  Process of approval for health organizations and national programme funding

Source: Ministry of Health.
2.4 RESULTS: DISABILITY

2.4.4 Health facility guidelines, standards, licensing and accreditation

On 15 November 2018, a Joint Order of the MLSP, MECSS and MOH — Guideline to provide comprehensive service for disabled children (80) was approved to implement the Law of Mongolia on Human Rights of Persons with Disabilities. The main goal of this guideline is to guide the activities of the Joint Commission for Health, Education and Social Protection of Disabled Children. This guideline is the main document for management of the Commission to detect children with disabilities at a young age and to manage health, education and social welfare services for children with disabilities.

The Mongolian National Standard on the Structure and Functions for General Hospitals (MNS 5095:2017) stipulates separate elevators for people with disabilities, to be created in accordance with the standard (entrance ramp for wheelchair, door without doorsill, play corner); friendly environment for children, elderly and people with disabilities; and special parking area to include signs or symbols for people with disabilities. The accreditation of health facilities includes criteria for enabling indoor and outdoor friendly environments for people with disabilities. Before these standards there were no disability-friendly environments with ramps for easy access to entrance doors, toilets with special features and feeding sets, etc. (35).

Local governor’s offices are also expected to set up a committee consisting of multi-stakeholders in the community to address children requiring aid. The committee aims to provide necessary support for children and their families through communication and coordination among various stakeholders involved in child care such as community centres, schools and hospitals.

The National Rehabilitation Center for Disabled Children demonstrates a good achievement in establishing a modern centre that meets international standards. Currently this centre is providing free healthcare services for children with disabilities nationwide. According to the law, a Commission for Health, Education and Social Protection of Disabled Children shall be formed at central and local administrations, namely one central commission within the MLSP and 30 subcommissions in 21 aimags and nine districts of Ulaanbaatar. As of September 2016, 13 subcommissions had not convened at all and only nine subcommissions had sent their reports to the MLSP. Given these circumstances, the capacity of these sub-commissions needs to be developed and their activities further supported.

All public service organizations, including banks, shops, restaurants, schools and kindergartens, are creating healthy and friendly environments for people with disabilities. If the organization does not meet the standards criteria, their licence and accreditation will not be renewed. In the last decade, more attention has been paid to the needs of people with disabilities in Mongolia; however, due to shortage of funds and resources, some places still do not meet the criteria and are not creating disability-friendly environments.

Financial, facility and institutional resources for children in need of constant medical care are limited and several interventions have been made to increase services for them, such as a training programme for physicians, establishment of new children’s hospital for children with disabilities, and kindergartens with special services for children with disabilities.
2.4.5 Health worker pre-service, continuing education and licensing requirements

The MNUMS postgraduate training institute’s “Rehabilitation doctors and nurses” training curriculum and all undergraduate and postgraduate medical doctors’ training curriculum in the general practitioners’ training curriculum include specific health care for people and children with disabilities. The School of Medicine medical education training curriculum of MNUMS includes disability as a subject in the form of a two-hour lecture and eight-hour seminar (Table 17). The knowledge gained during undergraduate training will help health-care practitioners to understand the basic knowledge and skills required to work with children with disabilities and to detect developmental disability based on the stage of the child, such as psychomotor development until 2 years old.

<table>
<thead>
<tr>
<th>Lecture topic</th>
<th>Content</th>
<th>Seminar topic</th>
<th>Seminar content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Community-based rehabilitation service – Specific service needed in child management</td>
<td>Community-based health services for people with disabilities</td>
<td>Community-based health service teamwork for people with disabilities</td>
</tr>
<tr>
<td></td>
<td>» Health definition</td>
<td>» About health conditions, disability</td>
<td>» Ability loss, define the ability loss level</td>
</tr>
<tr>
<td></td>
<td>» International classification of disability, goal and importance</td>
<td>» Community-based rehabilitation understanding</td>
<td>» Conditions for being healthy</td>
</tr>
<tr>
<td></td>
<td>» Community-based rehabilitation understanding</td>
<td>» Ability loss, environment and human capacity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>» Ability loss, environment and human capacity</td>
<td>» The role of family group practitioners in rehabilitation services</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Community-based service for women with disabilities</td>
<td>» About health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>» Health check-ups for women with disabilities</td>
<td>» Understanding of loss of quality of life</td>
<td></td>
</tr>
<tr>
<td></td>
<td>» Family planning among people with disabilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.4 RESULTS: DISABILITY

Discussion

As of May 2018, Mongolia was party to 36 international human rights treaties and multilateral agreements. Currently, there is a need to translate these international treaties and agreements, to make them accessible to the public together with information and education programmes. One of the 2017 recommendations of the United Nations Committee on the Rights of the Child to the Mongolian Government highlights effective implementation of child rights laws by allocating the necessary human, technical and financial resources (81).

The Committee for the Convention on the Rights of the Child also recommended that necessary measures be undertaken to address the issues of adequate budget allocation, promotion of child rights in the business sector, non-discrimination, family environment, environment and health, child jockeys and child labour. The Committee also reminded Mongolia that the Convention, its three additional protocols and general thematic recommendations, needed to be implemented effectively. In addition, the Committee called on Mongolia to implement a complaint-handling mechanism that is accessible, child-friendly and that empowers children to make complaints themselves. Mongolia is not yet party to the Hague Convention on Civil Aspects of International Child Abduction.

Currently, the rights of children with disabilities are poorly addressed in Mongolian society. Thus, legislation and policies are undergoing reform and a number of measures are expected to be taken, including: introduction of a sophisticated methodology to diagnose disability; a nationwide study on the current enrolment of children with disabilities in education; formulation of individual study plans; acquisition of specialized study materials for children and teachers; development of appropriate infrastructure; human resources management capacity built to source necessary financing; “mobile” teacher services for children with disabilities living in remote areas with limited access to education; and assessment and provision of variable costs per pupil (42).

A national programme and plan should be approved to educate, develop and ensure that children with disabilities are able to obtain all levels of education. In particular, significant efforts need to be made, and strong collaboration between stakeholders effected, to ensure the rights of children with disabilities to a full education. Any investments — specifically, ADB’s education loan — need to be used in a transparent, accountable and efficient manner, and with the participation of all stakeholders, to produce the best benefits for children.
2.5 INDOOR POLLUTION

Summary of key points

» There are no data on maternal smoking during pregnancy and parents’ smoking during the child-raising period.

» Percentage of household members with primary reliance on clean fuels and technologies for cooking is as low as 34.6%, whereas for lighting it is as high as 99.8%.

» One in every five (24%) people aged 15–69 years are current smokers in Mongolia. The number of smokers remained similar compared to survey findings in 2013. Tobacco use is 8.7 times higher among men than women.

» Three in 10 individuals were exposed to second-hand smoke at home. Women were more likely to be exposed to second-hand smoke at home, while men were more exposed at work, indicating insufficient enforcement of the tobacco law.

» Only 13.7% of the population had seen tobacco advertisements and promotions at marketplaces.

» There is lack of anti-smoking education targeting pregnant women and child-raising parents conducted in the country.

2.5.1 Current epidemiology

Air pollution has become one of the most challenging issues in Mongolia, exacerbated during cold seasons because of solid-fuel combustion. This is especially the case in the capital city Ulaanbaatar, where more than 47% of the total population live in the most air-polluted area in the country. In fact, during winter, Ulaanbaatar’s air pollution is caused by households and low-pressure boilers burning raw coal in ger districts (80%); motor vehicles (10%); coal-fired power plants (6%); and solid waste and soil degradation (4%) (82).

In Ulaanbaatar the air pollution level as measured by the annual mean of particulate matter with diameter of less than 2.5 micrometers (PM$_{2.5}$) is six to 10 times higher than those considered safe by the WHO air-quality guidelines (83).

Experimental research on indoor air quality studied how different types of fuels affect air quality. Results showed that families that used raw coal or briquettes produced in Mongolia had poorer indoor air quality compared to families that used patent fuel, electric heaters and improved stoves. The study proved that fuel type directly affects both outdoor and indoor air quality. Furthermore, results showed that the level of PM$_{10}$ (particulate matter with diameter...
2.5 RESULTS: INDOOR POLLUTION

of less than 10 microns) and PM$_{2.5}$ were high enough to negatively affect health in households with fire stoves (84).

According to a study conducted in 2014 by the Health Science University of Mongolia and University of California at Berkeley in the United States of America, average population exposure to particulate matter (PM$_{2.5}$) per year in Mongolia was 68.0 micrograms per cubic metre ($\mu$g/m$^3$) (when completely replaced by the improved stove). Out of all types of exposures, 71.9% were indoor and 7.3% were outdoor air pollution (85).

In 2012, according to this global estimation, in Mongolia 1123 people died from air pollution–related diseases: 39 from acute lower respiratory infections; 18 from chronic obstructive pulmonary disease; 60 from lung cancer; 572 from ischaemic heart disease; and 434 from stroke. The age-standardized death rate attributable to ambient air pollution in 2012 in Mongolia was 70 per 100,000 people (83). In addition, some 2420 additional deaths are accounted from household air pollution alone (86). Altogether, the age-standardized mortality rate from the joint effects of both ambient and household air pollution account for 132 deaths per 100,000 people, which places Mongolia among the most highly impacted countries (the world mean is 92 deaths per 100,000 people) (87).

The prevalence of childhood asthma in Ulaanbaatar was estimated to be higher than that in the world and Asia–Pacific countries reported by the International Study of Asthma and Allergies in Childhood, and the prevalence of asthma in adults has increased for the past one decade (88).

Actions from the Fourth National STEPS (STEPwise approach to NCD risk factor surveillance) Survey on the Prevalence of Noncommunicable Disease and Injury Risk Factors 2019 started to study the scope of indoor air quality and to reduce indoor air pollution in Mongolia. For instance, the survey on health impacts of indoor air quality was carried out through initiation of the MOH and with technical and financial support from WHO. In total, 98.1% of the sample population were covered and it was found that one in every five (24%) people aged 15–69 years are current smokers in Mongolia. The number of smokers remained similar to survey findings in 2013. Tobacco use is 8.7 times higher among men than women (89).

Three in 10 individuals were exposed to indoor second-hand smoke at home. Women were more likely to be exposed to second-hand smoke at home, while men were exposed at work, indicating insufficient tobacco law enforcement. Moreover, it has been found that residents who live in ger or brick houses are more exposed compared to residents who live in apartments (90).

In 2017, the National Center for Public Health conducted a study evaluating school indoor air quality and classroom environmental hygiene. The evaluation concluded that lack of ventilation systems, overcrowded classrooms, and less space per child compared to the standard had contributed to a high level of carbonic acid in classrooms.

Furthermore, the study concluded that high levels of particulate matter in both outdoor and indoor air contributed to adverse health outcomes among students. The level of particulate matter in classrooms was higher in schools with stove heaters and those located in the ger district. Moreover, smoke from stove stacks and medium stoves were the main source of air pollution (60).

When compared to the air-quality standard, the average level of carbon monoxide in the classroom air was 1.6–1.8 times higher. The high level of carbon monoxide in primary school classrooms was positively
correlated with number of students and space per student \((r = 0.667; p < 0.05)\). Lack of a ventilation system also contributed to the high levels of carbonic acid in the classroom \((91)\). The country impact indicator analysis is summarized in Table 18.

**TABLE 18** Country impact indicator analysis, 2018

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value (%)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliance on clean fuels and technologies for lighting in households that reported the use of lighting</td>
<td>99.8</td>
<td>MICS</td>
</tr>
<tr>
<td>Household members with primary reliance on clean fuels and technologies for cooking (electricity, LPG/natural gas/biogas)</td>
<td>50.0</td>
<td>MICS</td>
</tr>
<tr>
<td>Household members with primary reliance on clean fuels and technologies for space heating</td>
<td>31.3</td>
<td>Environmental Statistics, MOE</td>
</tr>
<tr>
<td>Household members with primary reliance on solid fuels and cooking</td>
<td>34.7</td>
<td>MICS</td>
</tr>
</tbody>
</table>

LPG: liquefied petroleum gas; MICS: Multiple Indicator Cluster Survey; MOE: Ministry of Environment

2.5.2 National and subnational policies, strategies, laws and regulations

► **Law on Air**

In Mongolia, the Law on Air regulates protection of air in the environment, prevention of air pollution, and the monitoring and reduction of air pollutants. It specifies the powers and duties of central government bodies, local self-governing entities, economic entities, organizations and citizens in relation to air protection \((92)\).

► **Law on Air, Law on Air Pollution Fees**

Nearly 20 rules and regulations approved by government resolutions and orders of the Minister of Environment and Green Development following passage of the Law on Air and the Law on Air Pollution Fees were enforced in 2013. Furthermore, activities aimed at reducing air pollution and protecting human health are reflected in the National Program on Environmental Health approved in 2005, the 2016 Government Resolution No. 245, the State Policy on Ecology approved by the 1997 Parliament Resolution No. 106, the State Policy on Public Health approved by the 2001 Parliament Resolution No. 81, the National Program on Climate Change approved by the 2011 Parliament Resolution No. 2, and the National Program on Healthy Cities, Districts, Soums, Workplaces and Schools approved by 2011 Parliament Resolution No. 359.

► **Law on Hygiene**

In the Law on Hygiene, the stipulation on indoor pollution states that the ambient air to be used for the living, working and learning area of the population shall be without negative impacts on human health and the environment, meeting the required conditions and shall not be polluted.
Law on Tobacco Control
The Law on Tobacco Control issued measures on indoor air quality, including passage of amendments by Parliament on 25 October 2012 (93). The amended law pays specific attention to prevention of second-hand smoke. Thus, smoking has been banned in all public areas, which includes preschools, all types of schools, dormitories, outside schools, gardens, entrance areas and elevators of apartments, public transport, airplanes, trains, airport and train stations, hotel lobbies and common areas, public catering places, trading service and entertainment places, pubs and clubs, and workplaces. This amended law was enforced starting from 1 March 2013. The law also prohibits sales of cigarettes within 500 metres of schools and dormitories. It bans selling cigarettes to anyone under 21 years old and for tobacco to be sold by anyone under 21 years old.

Adding to the laws, policies and programmes, there are additional initiatives undertaken by the Government that aim to mitigate air pollution and its impact on children’s health, such as:

» Provision of free electricity to poor households in the ger areas during night time in the winter months.

» Distribution of clean stoves and face masks to poor households.

» Distribution of air purifiers to kindergartens, schools and hospitals.

» Offering seven-day leave with payment for parent carers during influenza outbreaks during wintertime for taking care of their children at home (introduced for winters of 2016/2017, 2019/2020).

» Pilot programme started in 2016 introducing 15 000 pneumococcal vaccines for children in two districts and for the whole country since 2019.


2.5.3 Current status of programmes
At the policy-maker or ministerial level, there are several important rules, norms and standards which will help with implementation of the Law on Air, and in the last five to six years the Government of Mongolia has invested in efforts to decrease air pollution and allocated state money to purchase air filters for all health organizations, kindergartens and schools.

In 2018 the Government of Mongolia used state budget to provide air filters in all kindergartens, schools and hospitals for winter use to reduce indoor air pollution for children. Also, since 2021, due to the COVID-19 situation and lowered incomes of all households, from 1 October until 1 July, electricity, water and waste management costs have been free or fully covered by the state budget.

Starting in 2015 many activities have been organized to reduce indoor air pollution. For instance, during winter (1 November to 1 April) in the Ulaanbaatar ger area, night time electricity cost is free and instead of heating coal households use electricity for their heating. The Temporary Regulation of Energy Regulatory Commission stipulated that from 1 December 2020 until 1 July 2021 the electricity cost for all households and companies would be covered by state budget — that is, free of charge — with the purpose of reducing air pollution.
Since June 2019 it is prohibited in Ulaanbaatar to use raw coal for heating and the Government has invested in enriched coal factories. Currently all households in the capital city are under strict orders from the Government to use enriched coal. As a result, usage of raw coal has dramatically decreased compared with previous years. At the same time the cost for processed coal was reduced by 75%. These were very important in motivating people not to use raw coal for heating houses or gers, which will decrease indoor pollution.

2.5.4 Health facility guidelines, standards, licensing and accreditation

The National Environmental Health Program is the main document for defining the objectives and main activities in environmental health. Based on that, GASI approved the hygiene and contamination-prevention conditions checklist for kindergartens, schools and hospitals. There are approved standards related to child development, which are used for preschool and all levels of hospitals for self-assessment of their activities and indoor and outdoor environments, such as the inspection checklist for hygiene and infection-precaution control in kindergartens.

2.5.5 Health worker pre-service, continuing education and licensing requirements

There are no strategically planned actions and trainings held among health workers on mitigating and preventing exposure to indoor air pollution. Recently, the MOH has been planning to develop a curriculum and training programme on air quality and health impacts for health workers; however, it has not yet been implemented.

Discussion

To support the Government’s anti-pollution efforts, in February 2018 WHO released a set of suggested actions. Suggested short-term actions included a ban on the burning of waste as fuel and improving indoor air quality by banning smoking indoors. WHO also suggested reducing air pollution sources, improving ventilation in gers and other homes, and using better insulation to reduce the need for heating. The creation of a sustainable support scheme to help low-income households adopt affordable cleaner technology was also proposed. It is important for communities and the Government to work together to improve housing in ger areas. When the next winter rolls around, better-insulated housing will make a huge difference to the heating needs of the residents of Ulaanbaatar and to the air they breathe.
2.6 ENVIRONMENTAL TOXINS

Summary of key points

» The National Development Strategy 2007–2021, under Objective 2 stipulates that the State will support new technologies to extract liquid and gas fuel from coal to reduce air pollution.

» Laws to regulate air pollution are implemented under the coordinated initiative among multiple ministries such as the MOH, Ministry of Environment and Tourism, and Ministry of Energy.

» Emission standards for air pollutants are set in detail depending on types of facilities.

» Reduction of air pollution in Ulaanbaatar City is specified under Phase I of Objective 2 for ecosystem balance.

» Based on these standards, national and local governments are obligated to perform regular monitoring of air pollutant sources. Inspection authorities cooperate with the local governing bodies to undertake risk mitigation measures for reducing heavy air pollution in accordance with the above standards.

2.6.1 Current epidemiology

Ulaanbaatar is not only the coldest capital in the world, but rapid and unplanned urbanization has also resulted in some of the worst outdoor air pollution levels during its long cold seasons, resulting in short- and long-term health effects on its population. Air pollution in Ulaanbaatar has now reached critical levels, with city residents exposed to annual average concentrations of fine particulate matters and some toxic gases and chemicals, including sulfur dioxide, nitrogen dioxide and lead. Data from the Mongolian National Agency for Meteorology and Environment Monitoring show that annual mean concentration of air particulate matter has been decreasing between 2011 and 2018. However, annual mean concentrations remain around two to three times higher than national guideline values.

Lead has a strong negative impact on all the organs, in particular the nerves, kidneys, blood generation and reproductive system, which delays growth. Blood tests conducted among children in Ulaanbaatar to detect the content of lead have revealed that the average content of lead is 16 µg/dL, which is high enough to affect children’s health.

The main sources of lead in the air of Ulaanbaatar are emissions from vehicles that use lead-containing petroleum and households burning raw coal for heating (94). A 3.5-fold increase in fetal deaths documented between winter and summer has been connected to rising levels of air pollution (90). Children living in a highly polluted district of central Ulaanbaatar were found to have 40% lower lung function than children living in a rural area (95).
The country impact indicator analysis is summarized in Table 19.

**TABLE 19 Country impact indicator analysis**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value (%)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities</td>
<td>95.1</td>
<td>MICS 2018</td>
</tr>
<tr>
<td>Household members living in households using clean fuels and technologies for cooking, space heating and lighting at national level</td>
<td>31.0</td>
<td>MICS 2018</td>
</tr>
<tr>
<td>Households connected to the central sewage system</td>
<td>29.2</td>
<td>MICS 2018</td>
</tr>
<tr>
<td>Annual average concentration of PM$_{2.5}$ in ambient air</td>
<td>44 μg/m$^3$</td>
<td>National Agency Meteorology and Environmental Monitoring</td>
</tr>
</tbody>
</table>

MICS: Multiple Indicator Cluster Survey; PM$_{2.5}$: particulate matter with diameter less than 2.5 micrograms per cubic metre

### 2.6.2 National and subnational policies, strategies, laws and regulations

#### Air pollution

The Law on Reducing Capital City Air Pollution was revised in 2012 and 2015 and is aligned with the Law on Air. It included an amendment to transfer the National Committee on Air Pollution Reduction from the President’s Office to the Government in 2013 (92).

The Strategy for Reducing Climate Change, Adapting to Climate Change, and Protecting Public Health was passed by Order No. 404 of the Minister of Health on 6 December 2011 and is currently under implementation.

The Action Program of the Government of Mongolia for 2016–2020 stipulates the reduction of air, water and soil pollution, and implementation of appropriate waste management in cities and other urban areas. In addition, the National Air Quality Standards of Mongolia initially developed in the late 1990s established permissible levels of widespread air pollutants of chemical and physical origins in ambient air, in order to provide the Mongolian population with a healthy and safe environment for living, working and studying, and to maintain a balanced ecosystem. The last revision of the standards was based on WHO guidance, taking into account harmful levels of toxins for people’s health.

The following pieces of legislation are in place to address environmental factors such as air pollution, poor access to clean water and sanitation, and chemical safety, which are significant public health concerns, especially in urban centres:
2.6 RESULTS: ENVIRONMENTAL TOXINS

- Law on Environmental Protection, 1995, 2002;

The Mongolian Government issued a resolution to ban the use of raw coal in 2018, and it has been enforced in the capital city since 2019 as a shift to cleaner fuel for heating at the household level. The 2017 Mongolian National Program on Reduction of Air and Environmental Pollution aims by 2025 to decrease air pollutants by 80% and calls for prohibiting the use of unprocessed coal everywhere, except in thermal power plants in Ulaanbaatar.

**Waste management**

In May 2012, the Parliament of Mongolia endorsed the Law on Waste Management (96); it is the primary document that regulates waste management in the country and was updated in 2022. The purpose of this law is to regulate various aspects related to the storage, collection, transport, landfilling, recycling, final disposal, export, import and trade of waste; and to eliminate hazardous impacts of household and hazardous wastes on public health and the environment. In relation to the approval of this law, the Law on Importing, Exporting and Transporting Hazardous Waste Across Borders and its Prohibition was abolished. Hazardous waste is defined as “any waste that damages, infects and harms people, animals, plants, and their descendants; and that has detrimental effects on the environment, having the attributes of being contaminative, corrosive, oxidizing, flammable, explosive, radioactive and infectious”.

Additionally, the Law on Waste Management gives the Government the right to approve the procedures for issuing licences related to the collection, packaging, temporary storage, disposal, recycling and long-term storage of waste to citizens, businesses and organizations.

**Medical waste**

The establishment of the legal and regulatory framework for medical-waste management began in 1999. The current legal framework for the management of medical wastes in Mongolia consists of relevant international conventions ratified by Mongolia, the Law on Waste Management, ministerial orders and legal documents related to its enforcement (96). Policy documents regulate the collection, transportation and disposal of such waste.
Current regulations are supported by different technical orders, including:
» Order No. 93 (2011) on the financing of medical-waste treatment;
» Order No. 158 (2011) that includes guidelines for medical-waste management;
» Order No. 179 (2011) on required waste-management equipment and infrastructure;
» Order No. 305/320 (2011) for providing further advice on medical-waste management; and

The Law on Chemical and Toxic Substances, which was endorsed in 2006, is used in regulating the use, transportation and disposal of expired or unused chemicals, medicines, chemical reagents and substances used in radiation therapy, radiology and other diagnoses (97).

Hazardous waste

In conformity with the 2006 Law on Chemical and Toxic Substances, the Ministry of Environment and Tourism issues authorizations for the export, import, transboundary movement, use, trade, storage, production, and disposal of hazardous and toxic substances.

A 2017 Joint Order by the Minister of Environment and Minister of Foreign Affairs, No. A148/A33, sets out the requirements for the issuance of permits in more detail, with certain activities — such as production, storage and sale — being subject to detailed scrutiny from the Environmental Investigation Agency (99).

Chemical and toxic substances are disposed of at specific points based upon the decisions of professional inspection agencies. The points for disposal are determined by the local governor and by a committee consisting of environmental and health inspectors. A disposal report is prepared by the local crew for hazardous-waste management. This law does not, however, contain regulations on how to segregate hazardous waste; transport, decontaminate and organize such activities; nor specify the fees that may arise for such services. For example, it does not contain regulations on how to dispose of waste that is in liquid or gaseous form.

The Law on Hygiene passed in 2016 states that the relevant central administrative bodies are responsible for approving the methods for landfilling and disposing of hazardous waste that may be infectious to people, livestock and animals (63). However, this law does not contain regulations on
waste reduction, its transportation and impacts on the environment.

The *Categorization of Chemical and Toxic Substances* was approved by the Joint Order of the Minister of Environment and Green Development, and the Minister of Health and Sports in 2015 (A/356/396) (100). Based on the Order, the categorization established the threshold for classifying chemical and toxic substances by their concentration and included all other substances except for medicinal, radioactive and food substances.

To implement the above-mentioned legal environment, with support from WHO in 2015 the National Center for Public Health established an “Emergency operation unit for rapid response management”. This unit is working in accordance with the Deputy Prime Minister’s approved Order No. 08/2017: “In possible disasters and public health emergencies exchange the information between sectors and organize emergency response activities” (101).

### 2.6.3 Current status of programmes

Despite the absence of some aspects such as the management of chemical and pharmaceutical medical waste, a sufficient legal framework exists to implement a comprehensive medical-waste management system in Mongolia.

Supply, equipment and infrastructure for the implementation of a health-care waste management system, and to enable hospitals to minimize the amount of waste in landfills, are regulated by Order No. 505 (98).

Government of Mongolia Resolution No. 225 approved the National Program on Environmental Health in 2017, which includes introduction of an advanced air pollution system in the *ger* areas and decreasing soil pollution by increasing soil quality and monitoring of soil pollution sources (65).

The National Program on the Improvement of Waste Management 2014–2022, which was approved by 298th Government Resolution of 2014, includes plans on improving the capacity of removing waste in an eco-friendly manner, and also the capacity of containing infections by establishing special facilities for disposing and temporarily storing waste by regions, in accordance with the goal on preventing the accumulation of hazardous waste in one place (102).

Currently, all health facilities that are undergoing licensing have to have a health-care waste management system for classification, collecting, transporting and disposal of hazardous waste. All health facilities making a contract with waste management company Element LLC must follow Ministerial Order No. 505 that was endorsed in 2017 (98).

Implementation of the above-mentioned two regulatory documents is very satisfactory and well monitored in urban settings. However, they have to be scaled up in rural hospitals. At the moment rural hospitals are solely responsible for disposing their wastes using incineration and landfill.

The 2017 National Program on Reduction of Air and Environmental Pollution (NPRAEP) provides a road map to decrease air pollutants by 80%, prohibit the use of unprocessed coal anywhere except in thermal power plants in Ulaanbaatar, and reduce air and environmental pollution by at least 50% by 2025. The National Program
is a product of a truly multisectoral collaboration, with all ministries involved in drafting it since air pollution cannot be tackled by one sector alone. However, the health sector must play a leading role in the whole-of-society fight against air pollution. Hence, the MOH has identified 15 health sector measures in the joint plan of action for implementation of the programme (103).

The NPRAEP is the main programme that addresses how urban areas shall meet the conditions of living in a healthy and safe environment, increase the quality and accessibility of infrastructure, reduce pollution sources and establish healthy habitats. Table 20 lists the objectives that are related to environmental health.

### TABLE 20 Objectives and strategies of the NPRAEP

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Planned strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.4 — Clarify the management, coordination and financing of air and environmental pollution mitigation, and establish a system to reward activities aimed at reducing air and environmental pollution.</td>
<td>4.2.9 — Increase the number of household wash and waste storage areas in the ger districts and increase the number of waste collection and transport vehicles, improve waste management, support waste recycling and production.</td>
</tr>
<tr>
<td>2.2.5 — Increase citizens’ participation and responsibility in mitigating environmental pollution, establish healthy living practices and strengthen environmental quality-monitoring capability and expand research and development.</td>
<td>4.5.3 — Control air pollution in the ger areas and discourage waste incineration and implement targeted measures in this area. Households in ger areas of Ulaanbaatar dispose waste water to street directly during winter time. It causes soil pollution of the street where children play during warm seasons.</td>
</tr>
</tbody>
</table>

Source: NPRAEP: National Program on Reduction of Air and Environmental Pollution.

Thanks to activities provided by the Government of Mongolia within the NPRAEP, compared to 2019, air pollution decreased by 52% in 2020. Since 2019 in Ulaanbaatar, households are not allowed to use raw coal and during the winter season poor families in ger areas receive 50–100% of free electricity at night, which is important for reduction of air pollution.

The regulations and orders provide a good foundation for implementing a medical-waste system, but enforcement must be stressed further. While the financing of the medical-waste treatment expenses is theoretically ensured with Order No. 93, other medical-waste management costs such as consumables (for example, sharps containers) are not sufficiently covered.
A maintenance system for minor and major medical-waste management and treatment equipment is the responsibility of the operator of the equipment (hospitals or private disposal company). A preventive maintenance system has so far not been introduced and maintenance activities concentrate mainly on corrective maintenance and repair. A validation system for waste decontamination systems does not exist. The budget for equipment is included in the overhead budget of the health-care facilities; specific budget lines do not exist (104).

While 91% of health facilities have budgeted funds for the management of health-care waste, the majority of those budget lines are insufficient. Approximately 54.5% of the health-care facilities included in the assessment use autoclaves to disinfect waste. However, if the locality does not have a central waste management facility, it usually brings the waste to homemade incinerators or fire pits for disposal (Table 21). The strategies and programme activities are costed in the annual plan of all organizations.

### TABLE 21 Conditions of disinfection and disposal of health-care waste in health facilities

<table>
<thead>
<tr>
<th>Condition</th>
<th>Secondary level (%)</th>
<th>Tertiary level (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No disinfection and no disposal</td>
<td>21.4</td>
<td>12.5</td>
</tr>
<tr>
<td>Open fire</td>
<td>14.3</td>
<td>0</td>
</tr>
<tr>
<td>Incinerator</td>
<td>21.4</td>
<td>12.5</td>
</tr>
<tr>
<td>Autoclave</td>
<td>42.9</td>
<td>75.0</td>
</tr>
</tbody>
</table>


For example, the implementation plan of the NPRAEP defined five objectives addressing ways to solve environmental pollution and toxins, and allocated budget for this (65). Air pollution reduction–related objectives along with the planned costs are presented in Table 22.

Potential financing sources identified by the Government of Mongolia for the implementation of the NPRAEP include, but are not limited to:

- National and local government budgets.
- Revenues generated from:
  - air pollution fees,
  - water pollution fees.
- Loans and aid from international organizations and donors.
- Private-sector financing.

While potential sources of financing have already been identified, only 4.5% of the estimated cost for the entire eight-year period (Fig. 7) has been secured (105).

All national programmes at some level have their own budget to implement planned activities. But in reality, usual shortages of funds and limited awareness and knowledge influence implementation of programmes. In some situations, organizations need more funding to create the environment to meet implementation needs of the programme.
### TABLE 22  Breakdown costing of the NPRAEP on air pollution reduction

<table>
<thead>
<tr>
<th>Air pollution reduction–related objectives</th>
<th>Estimated cost Mongolian tugrik (billions)</th>
<th>Share of total cost (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 1</strong> – To implement an effective policy for urban planning, construction and infrastructure development, and improve the quality of air and environment in urban areas through the development of the community.</td>
<td>1811</td>
<td>18.5</td>
</tr>
<tr>
<td><strong>Objective 2</strong> – To reduce pollution sources by introducing environmentally friendly and advanced technologies, reducing raw consumption and reducing pollution substances.</td>
<td>7765</td>
<td>79.1</td>
</tr>
<tr>
<td><strong>Objective 4</strong> – To define the management, coordination, and financing of air and environmental pollution mitigation activities and to create a system to reward air and environment pollution activities</td>
<td>98</td>
<td>1.0</td>
</tr>
</tbody>
</table>

NPRAEP, National Program on Reduction of Air and Environmental Pollution, 2017–2025  

### FIG. 7  Financing source for the NPRAEP

![Source: Mongolia’s Air Pollution Crisis.](image)

In health facilities, especially in primary health-care organizations, there is usually very limited funding allocated for their public health-care service. It is not possible to implement all national programmes when funding is limited. In the past two years the Parliament of Mongolia’s approved budget has not been sufficient.

Also, when the Government approves the national programmes, it is not accounting for the real cost of objectives and activities, which is why implementation of all national programmes at primary-level organizations is difficult and managers cannot fully implement all national programmes.
For example, the potential source of financing for the NPRAEP has already been identified and is only 4.5% of the total estimated cost for the entire eight-year period. An estimated 2.0% — 200 billion Mongolian tugrik — is expected to be financed by the state budget. Another 2.5% — 240 billion Mongolian tugrik — will be financed by revenues collected via the Air Pollution Tax, while the remaining 95.5% is unsecured (105).

While the legal environment for a health impact assessment was stipulated in legislation, the budget for this was not included in the state budget. According to the existing environmental cumulative impact assessment regulation, the health impact assessment should be conducted and assessed by professional teams.

The environmental impact assessment thematic working group of the Ministry of Environment and Tourism is not well monitored or regulated in terms of the health impact assessment aspect. Also, according to Health Ministerial Order No. A/539 a health impact assessment professional committee should be established; however, this has not been established.

2.6.4 Health facility guidelines, standards, licensing and accreditation

In 2017 the Government of Mongolia approved the National Program on Environmental Health through Resolution No. 225, and its Clause 5 includes management of hazardous waste in health-care facilities.

According to current Ministerial Order No. 505 (2019), health-care waste is classified into two main types of waste: non-hazardous and hazardous. In addition, the latter is classified into 10 subtypes: highly infectious, infectious, sharps, pathological, pharmaceutical, cytotoxic, chemical, heavy metals, radioactive and pressure bottles.

According to the current classification, highly infectious and infectious waste has to be segregated separately using different-coloured bags and require different treatment procedures. Health-care facilities do not have a separate autoclave for disinfection of highly infectious waste in the relevant departments; this type of waste is sent to be treated and disposed with other types of infectious waste.

During a knowledge, attitudes and practice assessment, nearly 47% of staff from health facilities admitted to having been pricked by sharps (for example, needles or scalpels) in the workplace (23).

It was found that only 57% of health facilities completely implement MOH regulations related to waste management, 39% partially implement the regulations, and 4% do not implement these regulations.

Ministerial Order No. 505 deals with guidelines for health-care waste facility and equipment (98):

» The Order clarifies the minimum requirements for medical-waste management equipment to be available at soum- and aimag-levels hospitals.

» The Order further clarifies the needed minimum infrastructure that should be available at soum- and aimag-level hospitals for medical-waste management.
To address soil pollution, all kindergartens shall provide a sample of the surrounding soil to laboratories for analysis. Hospitals and sanatoria conducting self-evaluations and accreditation shall also provide a soil sample to an inspection control laboratory and should organize prevention activities against soil pollution and contamination. These guidelines list all of the necessary equipment and infrastructure for aimag- and soum-level hospitals. However, the necessary equipment and infrastructure for tertiary, district hospitals and outpatient clinics — including FHCs, ambulances and mobile health services — are not included.

**Discussion**

The key challenges that need to be addressed in the medical-waste management system include the need for increased investments in medical-waste management that must ensure full treatment and disposal security for all biohazardous waste generated in Ulaanbaatar. The waste treatment capacity of the central medical-waste facility in Ulaanbaatar must be tripled (adding 300 kilograms-per-hour treatment capacity). To avoid the risk of inadequate management of hazardous-waste disposal, a waste-collection and treatment/storage system for hazardous liquid and solid chemical and pharmaceutical waste must be established. To reduce demand on the financing of recurrent costs, a safe and more cost-efficient system for the collection, transportation and treatment of sharps waste must be established. And finally, there should be support for development of the medical-waste management system at aimag level.

The recently developed national medical-waste training system should be continued, strengthened and institutionalized. Key parts of the training should at a minimum be included in the training curriculum of undergraduate nurses. A testing and standardization system for steam-based decontamination systems at the Mongolian Agency for Standardization and Metrology should be developed, as well as technical reinforcement of the medical waste inspection system of GASI for quality assurance.

Support for the establishment of recycling systems, especially for plastic waste, is needed. A system to ensure the future maintenance (preventive as well as corrective) of all supplied equipment has to be set up, and the legal and administrative system for medical-waste management must be strengthened. These should include: (a) the harmonization and improvement of the legal system and the development of new orders such as an order for solid and liquid chemical and pharmaceutical medical-waste management and an order for the disposal of decontaminated biohazardous waste and pathological waste; (b) the establishment of a medical-waste management data, reporting and evaluation system at the National Center for Public Health as recommended by the MOH; (c) a review of Order No. 93 to better institutionalize the financing system for medical-waste management and the provision of technical support in budget planning; and (d) review of the current public–private partnership contract and support for the development of a new, adapted public–private partnership system, based on lessons learned.
3. DISCUSSION

The results of the six thematic areas of WCC reveal that the legal environment, such as laws, programmes, and rules and regulations related to child protection and child health care and education, as well as disability, are well developed in Mongolia. Policies related to exposure to environmental toxins, indoor pollution, exposure to unsafe water and unsanitary environments were recently updated, and it is too early to evaluate implementation of these policy documents.

There are difficulties related to WCC evaluation because this terminology is quite new and involves many different sectors. In Mongolia, all laws, programmes and regulations to implement policies cover children 0–18 years old; it is sometimes difficult to extract data for children 0–6 years due to a lack of data.

3.1 EARLY CHILDHOOD DEVELOPMENT (ECD)

**ISSUE 1**

**Shortage of kindergarten spaces**

Nationwide, 256 700 children were enrolled in 1416 kindergartens in the 2017–2018 study years. Kindergartens have been enrolling children by lottery since 2015 due to limited availability of slots. Currently, one in three kindergartens do not have sufficient space for indoor play activities; the average class size for schools in the countryside is 42 children and for schools in urban areas is 60. This situation has a negative effect on healthy child development in Mongolia.

**ISSUE 2**

**Enrolment gap in ECE of children under age 5 between rich and poor families**

Based on the MICS5 survey, a gap was identified between rich and poor families in the enrolment rate of children under 5 years old in ECE. Even though the Government is paying more attention and the social welfare fund covers care for children with disabilities, many people with lower education levels are not aware of these regulations and are not willing to inform the soum and khoroo governor’s office of their needs; they are therefore unable to receive free school supplies and other support. There is a shortage of ECE seats, which is why the MECSS is initiating and implementing many activities, such as babysitter service for under-5 children and ger kindergartens in rural and suburban areas, which have slightly increased ECE seats.
for under-5 children. Also, the Inspection Agency and Education Ministry of Mongolia are working to implement the Law on Preschool Education.

**ISSUE 3**

**Limited access to ECE for children in the western region, Khazakh minority children and children with disabilities**

The Government is trying to solve all the problems related to ECE through related laws and a conducive legal environment. However, there are some gaps in enrolment of children in the western region, among children belonging to the Khazakh minority and among children with disabilities. Therefore, the next step is to improve access to ECE by region and increase enrolment of children with disabilities in ECE. In Mongolia many children from disadvantaged backgrounds are excluded from the system. Geographic and ethnic gaps remain wide. Enrolment rates in rural areas is 46% among children between the ages of 36 and 59 months.

**ISSUE 4**

**Lack of tailored preschool core curriculum in ECE at the national level**

Even though there is a preschool core curriculum at the national level, this curriculum is outdated. The current changing social needs related to child protection, prevention from violence, child abuse and child negligence are not reflected in the curriculum.

**ISSUE 5**

**Very slow processing of action plan and development of regulations and rules**

The Parliament of Mongolia approved the Law on Preschool Education and, to implement this law, approved the National Program on Child Development and Protection, and its Action Plan, as well as the regulations and orders for implementation of the programme and plan. Development of the necessary national programmes and their action plans, and the regulations and rules of a minister’s order usually takes almost two years after approval of any of the laws.

**ISSUE 6**

**Little to no follow-up trainings to introduce new laws, policies and plans for on-site implementing professionals**

There are almost no follow-up trainings to introduce new laws, policies and plans for health professionals. Some active managers can retrieve the newly approved legal documents from the MOH website. Even when the Minister gives a task to senior managers of the MOH to monitor and evaluate the implementation of the legal documents, they may not be fully aware of the task or able to follow up due to busy work on the ground level at SHCs and FHCs. It is the responsibility of health managers at different levels to manage the paperwork related to different national programmes and to submit regular monthly and quarterly reports, which might be a burden.

**ISSUE 7**

**Shortage of funding**

If all institutions are to follow the revised and approved laws and regulations on ECD, they would need more money or funding to meet these requirements. In Mongolia, budgeting of costs for national programmes such as health and social welfare programmes is difficult, as the sector budget approved at the Government level is usually lower than the actual cost, which is why implementation of programme activities faces a shortage of funds. Furthermore, the regulations are too far removed from the real situation and the requirements are too high.
3. DISCUSSION

**ISSUE 8**
Weak intersectoral coordination
The implementation of intersectoral activities of laws and regulations is mainly on paper, with joint working groups just approved at the starting level with a few meeting notes; coordination is too weak.

**ISSUE 9**
Low health-education level and responsibility of parents and guardians
Health education of parents and relatives on WCC of children 0–6 years old is generally low. Thanks to government policy, the literacy rate in Mongolia is quite high, but the rate has slightly decreased from 98% to 93.1% in the last decade in rural areas. Usually young Mongolian parents think that care of their child is the responsibility of grandparents.

**ISSUE 10**
Shortage of human resources
There is a shortage of human resources in rural SHCs and FHCs. In Mongolia the ratio of physicians to nurses is 1:1.19. FHCs especially do not hire more nurses so as to save on their budget, preferring to maintain this ratio. Due to the shortage of nurses and public health workers in primary health-care centres, many WCC tasks do not meet the current needs of parents. There is very short consultancy on child development at visits of children from 0 to 6 years old.

**ISSUE 11**
Implementation gap in home visit order by physician and nurse to children
Due to shortage of human resources in SHCs and FHCs, there is a gap in implementation of home visit order No. 546 of 2019. The Government aims to implement this order for early detection of disorders through active home visits, and at the same time to identify family-related problems such as mother’s health, mood and willingness to take proper care of child, and to check for a safe and healthy environment for the child.

**ISSUE 12**
Low institutional and human capacity to work with children affected by violence and hurt by crime
There is a need to conduct trainings for staff in SHCs and FHCs on how to administer questionnaires to children affected by violence confidentially, and to work as a joint team member. There is quite frequent turnover of trained staff in primary health care.

**ISSUE 13**
Lack of targeted strategy and associated policies for unsupervised children
Due to parents’ poor supervision, many young children are injured and the number of kidnapped children is increasing slightly.

**ISSUE 14**
Implementation gap between new regulations and old hospital building capacities
There is a gap in implementation of the programmes and action plans because sometimes in the field or at the organizational level meeting the criteria is difficult for various reasons. These include old hospital buildings that are small and old-fashioned, which cannot meet the paediatric ward square meter requirement or the criteria for consulting or doctors’ rooms. Currently FHCs usually have about two to six physicians sitting in one room, which is why it is sometimes not possible to keep confidentiality and meet patient needs.
Implementation gap between professional criteria and availability of qualified doctors in rural areas

There is a shortage of qualified and specialized physicians in rural hospitals, but the criteria for positions in rural hospitals are a bit high. On the other hand, it is difficult to recruit qualified doctors in rural areas because of less motivation from social welfare incentives and limited attraction to the living environment there.

Lack of effective programme M&E system

Programme evaluation is delegated to sector ministries and local government; however, there are some indicators and a M&E system in every national programme. Upper-level health facilities such as district, city and aimag health departments are responsible for M&E of lower-level health facilities’ activities based on monthly, quarterly, biannual and annual activity reports. The self-evaluation system is not applied at the organizational level.

3.2 INJURY, PROTECTION, ABUSE AND NEGLECT

Lack of knowledge about joint team and child protection legal environment; poorly informed parents

As of May 2018, Mongolia is party to 36 international human rights treaties and multilateral agreements. However, knowledge about child protection is low among parents and guardians and they do not know about the joint team.

Lack of solid regulation for stronger protection of the rights of child jockeys

The fact that a regulation that sought to protect children from injury and to preserve children’s lives was so easily overturned from one year to the next by ministries with conflicting interests indicates a need for stronger protection of the rights of child jockeys. There have been increasing child injury incidents during horse-riding. Parents from herder families are not protecting their children and are agreeing to allow their children to participate in horse-riding for small amounts of money.

Parents’ and guardians’ insufficient knowledge and awareness of health, safety and proper supervision of their children

The Action Program of the Government of Mongolia for 2016–2020 stipulates measures to prevent children from accidents, and to increase the responsibility of parents and decrease the number of child accidents and the child mortality rate due to accidents by twofold. A total of 304 children in 2016 and 298 children in 2017 were injured in household accidents. Unfortunately, children are significantly affected by household accidents that cause injury and loss of life (1, 99). The main causes of child mortality are road accidents (21%), burns (16%), drowning (14%), poisoning (17%), falls and other causes (32%). According to statistics for the Hospital for Injury and Trauma, 14.4% of under-5 mortality was caused by injuries and accidents, 76.5% due to burns, and of these burn cases, 77% were due to hot food and 23% to hot water. Therefore, it is critically important to improve health and safety education, attitudes about
the proper supervision of children, knowledge about preventing accidents and injuries to children, and the responsibilities of parents and caregivers. In 2010–2016, road accidents were the third-leading cause of injuries for children under 5 and the second-leading cause for children 6–18 years old.

### ISSUE 4

**Lack of public awareness and knowledge of abuse and violence against children**

In Mongolia, violence against children remains a major public health issue, with 33,259 crimes against children reported to authorities in 2017. The National Statistical Office’s Social Indicator Survey of 2018 of 15,168 children from 1 to 14 years old revealed that 40.4% of all children who participated in the survey experienced emotional punishment and 28% experienced physical punishment, indicating almost no change compared with results from the same survey in 2013. In 2020 the incidence of child death due to violence increased.

### ISSUE 5

**Overlapping duties of monitoring and enforcing of infringement against children**

The Procedural Law on Infringement states that officers authorized to monitor and enforce infringements against children are child rights inspectors, state inspectors of specialized investigation agencies and police officers. However, this duplication of the duties of inspectors could increase procedural costs. Moreover, a conflict of interest might arise that would hinder the independent functioning of child rights inspectors owing to the fact that they are public servants.

### ISSUE 6

**Lack of funding to implement programme activities and laws announced by the Government**

Programmes that are specified in laws are announced to all local governments, and health facilities are informed of regulations and guidelines by the MOH and the MLSP. The programme plans include local governments, health organizations and costs according to financial responsibility regulated in the law. In reality implementation of programmes is difficult due to shortage of funds and human resources, which is why organizations need more budget and trained professionals.

### ISSUE 7

**Lack of programme M&E at all levels**

Programme evaluation is delegated to sector ministries, aimag and district health departments and local government; however, there are some indicators and a M&E system in every national programme.

### ISSUE 8

**Unsophisticated victim protection policy**

Programmes that are specified in laws are There is almost no system to protect children from family violence. The Family Law and Child Protection Law were approved in 2018 and 2019; however, enforcement of the laws is not satisfactory. Due to poor protection of victims, criminal acts against children are increasing.
3.3 EXPOSURE TO UNSAFE WATER AND UNSANITARY ENVIRONMENT

ISSUE 1

Users of water services not clearly distinguished
The Law on Water defines a water facility as an ordinary and engineered construction to regulate the abstraction, collection, transfer, distribution and treatment of water; a construction to regulate rivers; a deep well; or a flood protection dam for the protection of urban settlements and streets. The LUUSWSS, on the other hand, is designed to govern the ownership and utilization of water facilities required to supply urban users with drinking-water and to treat and dispose of their waste water. Contrary to the Law on Water, the LUUSWSS does not distinguish between commercial and non-commercial users of water services.

ISSUE 2

Lack of implementation of the Law on Hygiene
The Law on Hygiene approved by the Parliament of Mongolia in February 2016 states that “The related state administrative bodies shall approve the population drinking-water need norm, a governor of the relevant hierarchy shall implement a course of action for supplying drinking-water that meets the standards continuously and accessibly, a governor of the relevant hierarchy shall be responsible for regular performance of the risk assessment of water sanitation facility network, and the implementation of the assessment results and a related state administrative body shall approve a guideline for the risk assessment.”.

As a result of the survey on assessing sanitary and hygienic requirements in kindergartens, 90% of the studied secondary schools and kindergartens were connected to the central water supply system. Five (90%) kindergartens analysed drinking-water once a year, while two educational facilities in the Khan-Uul district never conducted an analysis.

ISSUE 3

Insufficient planning programme outreach
Over 180 000 households in the ger districts of Ulaanbaatar are not connected to central water, sanitation and heating services, and 90% use unimproved pit latrines (toilets), which directly increase soil, water and other environmental pollution. In these conditions diarrhoea is prevalent among children under 5 years. The problem of sanitation in the ger districts of Ulaanbaatar worsens year after year due to increasing population and land expansion. Even with the adoption of the Ger District Replanning Program, more than 400 000 citizens are expected to remain unconnected to central sanitation services by 2030.

ISSUE 4

Illegal household settlement
Around 66% of urban and 59% of rural populations have access to improved drinking-water sources. A number of problems — such as illegal household settlement and construction of fences and buildings in protected zones — threaten to destroy soil structure, alter water drainage and reduce renewability of underground drinking-water in Ulaanbaatar.
ISSUE 5

Contaminated water supply
The water microbial level has been found to exceed the acceptable established standard in 12.7% of water samples taken from central water supplies of aimags and soums, and 22% of water samples taken from water supplies that were not from the central water supply.

This is why annual planning and monitoring of action plans within health-care and preschool facilities is needed.

ISSUE 6

Action plan is not developed for programme implementation
In the Implementation Plan of the NPRAEP, Activity 1.10.3 stipulates “Step by step to improve sanitation system of schools, kindergartens, hospitals and public services”.

ISSUE 7

Water supply inequality among poor and rich people; urban and rural areas
The MICS 2018 determined that 80.3% of households use drinking-water that is low risk, 9.9% moderate risk and 9.8% use contaminated water with high or very high *E. coli* content. There is also a big gap between rich and poor families in usage of improved drinking-water. In remote areas of Mongolia during summertime, rainwater and other unprotected water is used, which is the main source of diarrhoeal infection among children under 5 years old.

3.4 DISABILITY

ISSUE 1

No observable improvement in environment for people with disabilities
The increasing prevalence of injuries, accidents and poisonings in Mongolia have resulted in increased mortality and morbidity of the population. Even though the Government has paid more attention to the need of people with disabilities by approving a new law, protecting their rights and trying to create disability-friendly and user-friendly environments, the situation for persons with disabilities is not improving and households with persons with disabilities do not have equal access to work and to increase their income — 42% remain in poverty and more than 70% of this population are unemployed.

ISSUE 2

Percentage of children 1–5 years old with developmental and functional impairment receiving help from health professionals is low
The National Center for Health Development health indicators data for 2017 found that the percentage of children 1–5 years old with a developmental or functional impairment receiving regular therapy by a health professional for this problem was 0.43%.
Acquired disability count is high among children

The Child Rights in Mongolia Survey 2018 found that in 2017, 103,600 people were registered as having a disability and of them 11,500 were children. Of these children, 58.1% were born with a disability and 41.9% acquired a disability later. It is therefore apparent that the knowledge, attitudes and practice of family doctors are lacking in terms of screening and early diagnosis of child developmental delays. In addition, parents should be educated on this issue so they can seek health services for their children to undergo screening and for early diagnoses to be made.

Children with disabilities are not receiving equal education compared to their counterparts without disabilities

Currently, not only are children with disabilities poorly provided for in terms of accessible infrastructure and social services but they are also discriminated against in a poorly informed society. Currently, half the children born with a disability do not have access to an adequate education and are illiterate, and 80% of all people with a disability are economically inactive, with most living below the poverty line.

Legislation of roles and responsibilities of concerned parties of children with disabilities is needed

The legislation clarifies the roles and responsibilities of the concerned parties. This is an important provision. Families have the primary responsibility for the upbringing, protection and development of their children.

Higher rate of respiratory tract disease prevalence among children living in ger district areas

According to the study conducted between 2001 and 2002 by the National Institute of Public Health, 77.8% of children who participated in the survey had some type of respiratory disease or disorder. Furthermore, respiratory diseases were more prevalent among the children who lived in a traditional house (ger) or brick house with regular stoves compared to children who lived in apartments. Indoor air-quality experimental research studied how different types of fuels affect air quality. The results showed that families that used raw coal or briquettes produced in Japan had lower indoor air quality compared to families that used patent fuel, electric heaters or improved stoves. The study proved that fuel types directly affect both outdoor and indoor air quality.
Furthermore, results showed that the level of PM\(_{10}\) and PM\(_{2.5}\) were high enough to negatively affect health in households with fire stoves.

**ISSUE 2**

Lack of ventilation system causing poor air quality in schools and kindergartens

In 2017, the study on “Evaluation of school indoor air quality and classroom environmental hygiene” concluded that lack of ventilation systems, overcrowded classrooms, and less space per child compared to the standard had contributed to the high level of carbonic acid in classrooms. Furthermore, the study concluded that high levels of particulate matter in both outdoor and indoor air contributed to adverse health outcomes among students. The level of particulate matter in classrooms was higher in schools with stove heaters and those located in the ger districts. Moreover, smoke from space-heating stove stacks and low-pressure boilers were the main source of air pollution.

**ISSUE 3**

Lack of implementation of air-quality inspections at kindergartens

The Mongolian Inspection Agency approved the norms and standards for air and hygiene in kindergartens, but at the lower levels in kindergartens, indoor air control analysis has not been implemented yet due to budget shortage. A pilot project supported by UNICEF has started to analyse the indoor air pollution and hygiene in just 20 kindergartens.

**ISSUE 4**

Percentage of household members relying on fuels that contribute to indoor air pollution is still high

According the MICS 2018, the percentage of household members with primary reliance on clean fuels and technologies for cooking was 50%, the percentage of household members with primary reliance on clean fuels and technologies for space heating was 31.3%, and the percentage of household members with primary reliance on clean fuels and technologies for lighting was 99.8%. According to the meteorology centre, the annual mean concentration of PM\(_{2.5}\) was 79%.

### 3.6 EXPOSURE TO ENVIRONMENTAL TOXINS

**ISSUE 1**

Public transparency in list of hazardous and toxic substances imported and exported from the country is still missing

A Joint Order has been issued approving the classification of hazardous and toxic chemicals; this list is maintained jointly by the Ministry of Environment and Tourism and the MOH.

The lists of import and export permits generally do not specify the substance being imported or exported; there may be security and safety reasons for not doing so but the public interest in transparency would seem to be greater.
Medical-waste management budget shortage

The regulations and orders provide a good foundation to implement a medical-waste system, but enforcement must be stressed further. While financing of the medical-waste treatment expenses is theoretically ensured with Order No. 93, other medical-waste management costs, such as for consumables, are not sufficiently covered. An analysis of the annual budget of one aimag (province) hospital showed that only 12 565 Mongolian tugrik was budgeted for medical waste, while in reality more than 2 million Mongolian tugrik was spent just on recurrent costs. While 91% of health-care facilities have budgeted funds for the management of health-care waste, the majority of those budget lines are insufficient. Approximately 54.5% of the health-care facilities included in the assessment use autoclaves to disinfect waste.

A validation system for waste decontamination systems does not exist

A maintenance system for minor and major medical-waste management and treatment equipment is the responsibility of the operator of the equipment (hospitals or private disposal company). A preventive maintenance system has so far not been introduced and maintenance activities concentrate mainly on corrective maintenance and repair. A validation system for waste decontamination systems does not exist. The budget for equipment is included in the overhead budget of the health-care facilities, but specific budget lines do not exist.

Waste health impact assessment budget has never been set up in the state budget

The legal environment for health impact assessments was stipulated in the legislation, but the budget has never been set up in the state budget. According to the existing environmental cumulative impact assessment regulation, the health impact assessment should be conducted and assessed by professional teams. The health impact assessment is the weakest component of the environmental impact assessment due to poor coordination, regulation and monitoring of the respective multisectoral thematic working group. Also, according to Health Ministerial Order No. A/539, a 2019 health impact assessment professional committee should have been established, but this has not happened.

Blood lead level of children 0–6 years old is five times higher than the accepted level

The MICS 2018 defined annual mean concentration of PM$_{2.5}$ as 79 in 2018. Blood lead levels among children 0–6 years of age was 3.7–10.8 µg/dL, which is higher than 50 µg/L. Out of total urban solid waste generated by cities, 95.1% of waste is regularly collected and with adequate final discharge.

Correlation between infectious diarrhoeal disease level among children 0–5 years old and soil and groundwater contamination level

Diarrhoeal disease infections among under-5 children increase most during warm seasons and correlate with water and soil contamination with pathogenic micro-organisms such as $E.\ coli$ and $proteus$. 
4. RECOMMENDATIONS

4.1 EARLY CHILDHOOD DEVELOPMENT (ECD)

◉ RECOMMENDATION 1
Reduce kindergarten class sizes while investing in building new community-friendly kindergartens.

◉ RECOMMENDATION 2
Concentrate on ECE enrolment of poor families and children 0–6 years old living in remote areas.

◉ RECOMMENDATION 3
Increase accessibility of ECE for children in the western region, among the Kazakh minority and for children with disabilities.

◉ RECOMMENDATION 4
Include topics on language and speech, behaviour and communication into preschool core curriculum.

◉ RECOMMENDATION 5
Create an option for fast-track processing in implementation of action plans and laws. Just after approval of the new laws related to WCC and minister’s orders, there is a need to inform all levels of health facilities and conduct trainings for health professionals to introduce the importance of the laws and orders implementation methods.

◉ RECOMMENDATION 6
Develop a system to introduce new laws, policies and plans, and follow-up trainings for on-site implementing professionals.

◉ RECOMMENDATION 7
Develop practical budgeting based on detailed planning and good research.

◉ RECOMMENDATION 8
Develop a system for efficient intersectoral coordination.
RECOMMENDATION 9
Develop and implement comprehensive and multi-year public outreach campaigns. Messages would need to cover, at a minimum, the following:

» Explaining the impacts of air pollution on health, with a focus on children and pregnancy.
» Information about protective measures such as air purifiers and face masks.
» The use of cleaner technology and fuels for heating, combined with better insulation.
» The importance of vaccinating children with the pneumococcal vaccine.
» Guidance to parents and caregivers about early recognition of respiratory problems among young children.
» The importance of exclusive breastfeeding for infants and healthy food habits for children to strengthen their overall health.
» Explaining the importance of monitoring fetal growth and avoiding exposure to air pollution during pregnancy.

RECOMMENDATIONS 10–11
Ensure human resource policy in the field through increasing the ratio of nurses and doctors. More nurses will be responsible for home visits and to provide child development assessments based on the Minister’s Order.

RECOMMENDATION 12
Implement effective interventions for eliminating violence against children and crimes that hurt children.

RECOMMENDATION 13
A sophisticated targeted strategy and associated policies need to be initiated for the lifelong well-being of children in contact with the law, those engaged in child labour and unsupervised children.

RECOMMENDATION 14
There is a need to improve the reconstruction of old buildings to meet newly approved regulations and rules, and to change old heating systems into new systems and regulate indoor temperature during winter.

RECOMMENDATION 15
Improve working conditions and add more incentives to attract qualified doctors to work in rural areas.

RECOMMENDATION 16
Develop a new effective system for programme M&E; introduce and improve the self-evaluation system in hospitals.
4.2 INJURY, PROTECTION, ABUSE AND NEGLECT

◉ RECOMMENDATION 1
Translate international treaties and agreements to make them accessible to the public, together with information and education programmes.

◉ RECOMMENDATION 2
Organize capacity-building activities for NGOs, the public, law enforcement organizations and the courts to put treaties and agreements into practice effectively.

◉ RECOMMENDATION 3
Make the rights of child jockeys and their protection stronger and improve enforcement.

◉ RECOMMENDATION 4
Improve health and safety education, attitudes about proper supervision of children, knowledge about preventing accidents and injuries to children, as well as responsibilities of parents and caregivers.

◉ RECOMMENDATION 5
Pay more attention to providing knowledge and increasing awareness of violence against children. In families with members that have a disability experiencing family violence, the joint team and NGOs should provide them with services and case management, conduct a family survey, identify the violator and enrol them in behaviour-change training. For members who are experiencing violence, provide training on how to be safe and protected, and information on who or which organizations can address this issue.

◉ RECOMMENDATION 6
Have a designated unit or responsible officer at the respective ministry to monitor infringements against children to ensure an enabling legal environment and better enforcement of relevant policies.

◉ RECOMMENDATION 7
Coordinate budget planning and budgeting activities tightly and effectively to set up sufficient funds for programme implementation and human resource training and retention.

◉ RECOMMENDATION 8
Develop programme M&E systems at all levels.

◉ RECOMMENDATION 9
Urgently improve the victim protection policy and the capacity of institutions charged with the protection of children. Refine the policy of criminal responsibility applied to perpetrators in light of the realities that the majority of violations are committed in children’s homes by people known to them over a long period of time.
4.3 EXPOSURE TO UNSAFE WATER AND UNSANITARY ENVIRONMENT

- RECOMMENDATION 1
  Adapt a new indication to distinguish between commercial and non-commercial users of water services in the LUUSWSS.

- RECOMMENDATION 2
  Provide more funding and human resources to implement the Law of Risk Assessment of Water Sanitation.

- RECOMMENDATION 3
  Make the ger district replanning programme effective to minimize air and environmental pollution.

- RECOMMENDATION 4
  Increase access to safe drinking-water and safely managed sanitation facilities in ger districts.

- RECOMMENDATION 5
  Include the action plan activity indicated in the NPRAEP into the annual planning and monitoring within educational and health facilities.

4.4 DISABILITY

- RECOMMENDATION 1
  Improve cooperation between the MOH and social welfare, through the National Rehabilitation Center for Disabled Children, to increase early diagnoses of disability in children and provide rehabilitation.

- RECOMMENDATION 2
  Enforce better implementation of Health Ministry Order No. A304, A699, A460: “Guideline to provide comprehensive service for disabled children”.

- RECOMMENDATION 3
  Take urgent measures to minimize the incidence of children acquiring disabilities from injury and accidents; implement a sophisticated methodology for early assessment and treatment of children’s disabilities; analyse their underlying causes and develop corresponding measures to improve them.
4. RECOMMENDATIONS

◉ **RECOMMENDATION 4**
Make significant efforts and with strong collaboration among stakeholders to ensure the rights of children with disabilities to a full education. In particular, any investments and education loans need to be used in a transparent, accountable and efficient manner, and with the participation of all stakeholders, to produce the best benefits for children.

◉ **RECOMMENDATION 5**
Restore “neighbourhood collaboration” to make external monitoring of child development and parenting the responsibility of neighbouring families, and to inform the relevant agencies if there is a suspicious case.

◉ **RECOMMENDATION 6**
Increase common understanding and awareness of the public about child development and the prevention of child injury, accidents and abuse.

◉ **RECOMMENDATION 7**
Clearly define the system of early identification and interventions as appropriate, and identify services designed to minimize and prevent further disabilities in children.

◉ **RECOMMENDATION 8**
Prioritize children with disabilities in enrolment in kindergartens and schools and support children of families living below the poverty line.

4.5 EXPOSURE TO INDOOR POLLUTION

◉ **RECOMMENDATION 1**
Improve indoor air quality in public kindergartens, schools and hospitals through improving compliance to standards and norms.

◉ **RECOMMENDATION 2**
Undertake a rapid assessment of indoor air-pollution levels in kindergartens, schools and paediatric hospitals.

◉ **RECOMMENDATION 3**
Design and pilot a comprehensive indoor air-quality management approach for existing and future kindergartens, schools and hospitals.
RECOMMENDATION 4
Subject to good performance during the piloting phase, the costing of introducing and managing a comprehensive indoor air-quality management approach for kindergartens, schools and hospitals should be considered, prioritizing facilities that are located in the areas most affected by ambient air pollution. This should also include costing of capacity development for government staff and facility users.

RECOMMENDATION 5
When the Government plans to establish new kindergartens, schools and hospitals, it should consider including costs for insulation and a comprehensive indoor air-quality management approach in the total capital budget allocation.

RECOMMENDATION 6
Undertake public health measures to reduce personal exposure to outdoor and indoor air pollution targeting the most vulnerable in communities with the highest levels of air pollution during the cold season.

4.6 EXPOSURE TO ENVIRONMENTAL TOXINS

RECOMMENDATION 1
Include sufficient funds for waste management annually for all health facilities.

RECOMMENDATION 2
Establish a fully operationalized health impact assessment professional committee.

RECOMMENDATION 3
Determine the correlation of soil and groundwater contamination with the infectious diarrhoeal disease level among children 0–5 years old and undertake evidence-based preventive public health interventions.
5. REFERENCES

All the references were consulted in July 2023.


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5. REFERENCES


