Consultancy Services for the
Volume 2: Primary Health Care impact on child mortality

UNICEF
Kazakhstan

FINAL EVALUATION REPORT

GESAWORLD S.A.

September 2019

Timeframe of the object evaluated: 2000 – 2018

Timeframe of the evaluation: March 2019 – July 2019

Date of the report: 15 September 2019

Country: Kazakhstan

Evaluators: Alberto Núñez Sabarís, International Consultant (Team Leader); Marc Satorras, International Consultant; Bagila Nurmagambetova, National Consultant; Ekaterina Shevshenko, International Consultant

Organization commissioning the Evaluation: UNICEF Country Office in Kazakhstan

UNICEF staff contact point for the Evaluation: Kanat Sukhanberdiyev, Health & Nutrition Officer

KAZAKHSTAN MAP

Image 1: KAZAKHSTAN Map
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<tr>
<td>CP</td>
<td>Country Programme</td>
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<td>CPAP</td>
<td>Country Programme Action Plan</td>
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<td>CMT</td>
<td>Country Management Team</td>
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<td>COPC</td>
<td>Community-oriented primary care</td>
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<td>DAC</td>
<td>Development Assistance Committee (OECD)</td>
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<td>EC</td>
<td>European Commission</td>
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<td>DP</td>
<td>Development Partner</td>
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<td>HR</td>
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<td>MDG</td>
<td>Millennium Development Goals</td>
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<td>Mid term Review</td>
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<td>PCATool</td>
<td>Primary Care Assessment Tool</td>
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<td>PHC</td>
<td>Primary Health Care</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
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<td>ProMS</td>
<td>Programme Management System</td>
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<td>RBM</td>
<td>Results Based Management</td>
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<td>RC</td>
<td>Resident Coordinator</td>
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<td>ToC</td>
<td>Theory of Chance</td>
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<td>ToR</td>
<td>Terms of Reference</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNCT</td>
<td>United Nations Country Team</td>
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<td>UNPFD</td>
<td>Partnership Framework for Development between Government of Kazakhstan and the UN System</td>
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<td>UNDP</td>
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<td>UPHV</td>
<td>Universal Progressive Home Visiting</td>
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Executive Summary

Background

After years under the “Semashko” health care system of the Soviet Union, Kazakhstan has initiated a number of important reforms that aimed to improve the population’s health and the rationalize the healthcare system. In 2010, the government introduced the Universal Health System, which aims to give greater choice to citizens and provide integrated coverage for a basic package of health care service.

Comparisons of data from the current MICS with previous rounds conducted in 2005-2006 and in 2010-2011 demonstrate the notable progress Kazakhstan has made in mother and child health, improvements for families in their living conditions, in access to water and sanitation, literacy and education, increasing use of information and communication technology and significant level of life satisfaction among women. At the same time, MICS reveals emerging challenges in early child development, reproductive and sexual health of women, in women’ perception of domestic violence and in the level of such violence against children, decreasing knowledge about HIV/AIDS among young women.

Evaluation objectives and intended audience

The UNICEF office in Kazakhstan was commissioned this evaluation to assess the impact of primary healthcare system on infant and child mortality in Kazakhstan in light of past and present PHC reforms, policy changes, and approaches to family services provision, including through the home-visiting system. This report is part of the Consultancy Services for the Evaluation of Primary Health Care (PHC) Impact on Infant and Child Mortality Reduction in Kazakhstan. A first report was presented separately on the UPHV model implemented in Kyzylorda Region.

The added value of the evaluation will be in the use of its findings and recommendations for: (a) evaluation PHC system’s impact on infant and child mortality; and (b) documentation of Kazakhstani experience with possible use by other countries confronting similar issues in primary health care provision.

The intended users of the Evaluation will be the Ministry of Health, local governments, line ministries that will use the results of the Evaluation as the main developers and implementers of the national programmes who need to monitor the progress based of effectiveness and efficiency criteria, to introduce corrective actions if needed, to use the best available practices, to engage trained/informed HR, to bridge the inequality gaps and to allocate sufficient funds. UNICEF as one of the main knowledge brokers in MCH practices providing technical assistance for effective implementation of MCH interventions worldwide.

Methodology

The methodological framework for conducting this Evaluation was based on the United Nations Evaluation Group (UNEG) Norms and Standards for Evaluation and the OECD Glossary of Key Terms in Evaluation and Results Based Management (2002), as well as by the UNICEF guidelines.

The project evaluation questions were formulated as per OECD-DAC evaluation criteria: relevance, efficiency, effectiveness, sustainability and impact. The methodology incorporated the use of qualitative and quantitative techniques. The identification of evidence led to the formulation of conclusions and recommendations and, to avoid the error of causal interpretations, a triangulation system of the information was
applied. Specific quantitative tools were applied: the Lives Saved Tool (LiST) and the Primary Care Assessment Tool (PCATool) survey were used to 129 families with children under 5. The main quantitative primary source of information were provided by the National Statistics Committee; in addition to key information provided by other stakeholders.

Main findings and conclusions

Relevance

- It is widely supported by the literature that a well-developed system of primary care has beneficial effects on the health care system as a whole. Systems with a strong primary care level appear to be better able to control costs and have better health outcomes. Recent evidence shows that strong primary care is associated with better population health, lower rates of unnecessary hospitalizations, and relatively lower socioeconomic inequality. In response to challenges in the health care sector, reform approach in Kazakhstan has sought to strengthen primary care.

- The PHC reform has been a political priority and mainstream reform for the Ministry of Health of the Republic of Kazakhstan. The PHC reform has been at the core of the thee Healthcare State Plans (2005-2019).

- The main achievements of the reform has been the introduction of the general practitioner role; the increase of autonomy of the PHC providers (mostly public organizations); payment and accreditation systems oriented to quality results; introduction of screening programs and other preventive activities for non-communicable disease (NCD); and piloting of disease management programmes.

- UNICEF in cooperation with Government of Kazakhstan works for reduction of the infant and child mortality from 1993. Current UNICEF Kazakhstan Country Programme aims to continue supporting the efforts of Kazakhstan to further advance its progress towards the sustained realization of children’s rights, with particular attention to the rights of the most vulnerable children and their families. PHC contributes to the prevention of mortality cases among infants and children. UNICEF has played a key role supporting to the country’s PHC reforms and reduction of infant and child mortality.

Impact

- The purpose of this evaluation was to analyze the impact of primary healthcare care system on infant and child mortality in Kazakhstan.

- There was a massive decrease in deaths of children under 5 years in the last ten years. Since 2009, 3.744 deaths of children under 5 have been averted with 47% decrease of deaths U-5 from 2009 to 2018. Although in the year 2018 there has been a stop of the trend.

- The interventions that had the highest impact on deaths are management of labor and delivery; care of preterm births; treatment of severe infectious diseases, including pneumonia, diarrhoea, neonatal sepsis; and management of severe acute malnutrition.

- Almost the 70% of deaths averted in last 10 years was due to diseases in the perinatal conditions. Counted from 2009 as the baseline year, 2.427 deaths were averted for this cause with decrease of death 59% in 10 years. Hospital care has a high percentage of contribution in reducing deaths of children due to this cause, but the PHC contribute in great way through: facility-based contraceptive services, including long-acting reversible contraceptives (implants, intrauterine
devices); surgical sterilization
(vasectomy, tubal ligation); care during
pregnancy and some delivery for urgent
and uncomplicated pregnancies;
provision of medical care for adults and
children, such as injectable antibiotics,
that cannot be done in the community

- PHC in Kazakhstan has a high
contribution in the prevention, detection
and management of pneumonia and
diarrhoea. Impressive reductions in
mortality due to pneumonia have
occurred in Kazakhstan. 575 deaths of
children under 5 have been averted in
last 10 years (2009-2018) due to
respiratory complications, mainly
pneumonia.

- For three causes of death, the trend in
the last 10 years has been negative in
terms of mortality reduction: (i) ICD-XVIII
Symptoms, signs and abnormal clinical
and laboratory findings, not elsewhere
classified; (ii) ICD-IX Diseases of the
circulatory system; and (iii) ICD-II
Neoplasms.

- The UPHV model introduced as a pilot in
Kyzylorda Region is performing good
results allowing a better identification of
children at risk and treatment the
determinants that can cause the disease
to appear.

Effectiveness

- PHC services in urban and rural areas
are provided through an extensive
network of more than 520 PHC facilities
which offer diagnostic procedures;
treatment of the most common illnesses
and injuries; curative and preventive
measures; immunization; community
awareness raising and health education;
and mother-and-child health protection
measures. General medical practice was
introduced within the framework of the
“Strategic Development Plan of the
Republic of Kazakhstan until 2020” and

is pursued under the State Program

- The definition of PHC services tends to
vary across countries. Primary care
includes a large range of curative as well
as preventive and health promotion
activities. The distinction between PHC
and other outpatient services (e.g.
consultative and diagnostic) is not
clear-cut. This evaluation focused on
the function, not on the form: PHC has
to comply with some basic attributes that
has been assessed.

First-contact care

- Despite some extent of service delivery
fragmentation, families surveyed claim
they first sought care from primary care
provider when a new health or medical
need arises (not urgent cases). Few
families say they take their children to an
alternative private center. The primary
care provider serves as the usual entry
point into the health care system for
each new need for health services,
except in the case of serious
emergencies. This situation is different
in the big cities, where a greater supply
of private services and a greater
capacity of families in health spending
make this situation vary.

Continuous care

- The continuity of care is, in general, well
perceived by the families surveyed: the
doctors / nurses and families build a
long-term relationship in order to foster
mutual understanding and knowledge of
each other’s expectations and needs.
This important element is limited in
some places by the high turnover of
doctors and, to a lesser extent, of
nurses.

- The population is assigned to reference
centers and there is little capacity for
families to change the reference center.
Relevant number of families claims that
not always the same doctor attends the
child over time. This may be an indicator of a fact already indicated previously expressed by the stakeholders: the high turnover of primary care doctors, mainly in remote areas.

**Coordinated care**

- According to definition, Primary care should be the entry point to the health system and the place where most health needs are met, but when more specialised care is required, PHC providers should play a central role as co-ordinators of care. The families surveyed perceive a good level of coordination between PHC and referral to specialists when necessary. The perception of families is that the reference to second level devices works better than the counter-referral and follow-up once the patient leaves the second level of care.

**Comprehensive care**

- Child health interventions, such as identification of visual problems, nutritional supplementation programme, immunizations, counselling on first child health symptoms or promotion of child health are well valuated for users of PHC services.

- It can be found important differences in services like counselling for mental health problems, support on searching social assistance, treatment for harmful drug use, support dealing with the child’s behaviour problems or preventive recommendations to avoid injuries to children which are well evaluated when the UPHV model is in place.

**Efficiency**

- Healthcare is financed through the national budget funds, user fees and voluntary health insurance, with a relatively stable share of State funding over the last years with constantly increasing share of out of pocket pay. As a result of healthcare reforms, the entire population is now entitled to access a basic package of benefits

- According to the Ministry of Health, 3.3 per cent of GDP was allocated to health sector in 2018, which is very modest relative to the OECD average of 8.9 per cent. Total private expenditures were 627 billion tenge in 2018, in comparison with the State expenditure of 940 billion tenge. There are fairly low medical expenses per capita - about $ 300 per person per year. For comparison, on average in the OECD - $ 4000 per year.

- The data suggests that the financing of primary care is an important priority in Kazakhstan. According to data from the National Association for PHC, Primary care absorbs a 38% in 2017 share of spending in Kazakhstan.

- Some cost-effective health interventions have the potential to avert additional deaths in children under 5 by increasing the coverage: Multiple micronutrient supplementation in pregnancy, ORS - oral rehydration solution, Breastfeeding promotion, Clean postnatal practices, Water connection in the home, Oral antibiotics for pneumonia, Folic acid supplementation/fortification, Zinc for treatment of diarrhea, Rotavirus vaccine, Chlorhexidine, MgSO4 management of pre-eclampsia, Balanced energy supplementation, MAM - treatment for moderate acute malnutrition.

**Sustainability**

- The PHC reform in Kazakhstan is expected to continue. In the last year it was celebrated a global conference of WHO and UNICEF, where countries approved and adopted the Astana Declaration. This document has a very important political character and gives greater legitimacy to the reforms.
- Top managers of the health system express a commitment to the development of PHC at the core of the health system. There is the assumption that, in a well-organized system, 80 percent of health problems can be resolved at the primary level.

- There are important challenges for the sustainability of the PHC system, which are basically: work overload of the health professionals; a lot of rotation of professionals that put the continuity of care at risk; and the claim of higher salaries by professionals.

- Some initiatives were introduced to make the system more sustainable: (i) the introduction of the role of general practitioner; (ii) the definition of multidisciplinary teams in PHC services; (iii) more autonomy to the facilities which have allowed a greater capacity to adapt to local circumstances; (iv) the introduction of incentives into the payment system to improve quality, and mandatory accreditation of PHC facilities; and (v) the establishment of screening programmes and related activities to address noncommunicable diseases (NCDs), together with piloting of disease management programmes (DMPs).

- Introduction of new technologies are a challenge and an opportunity to the health system to be flexible to people’s needs. Increasingly, the possibilities of new technologies for information and communication are being exploited. The use of social networks and messaging platforms suppose a very great potential. But at the same time it is a challenge on how to regulate its use and procedures.

Cross cutting


- The office of Ombudsman for Children’s Rights was established in 2016. The office is charged with the protection and promotion of the rights of children and young people.

- The financing of PHC scheme is related to population affixed prioritising children and women: 0-1 year: 3950 tenge for males and 4522 for females; 1-5 year: 1187 tenge for males and 1352 for females; 30 – 40 years: 335 tenge for males and 992 for females; and more than 60 years: 688 tenge for males and 1795 for females.

- Regarding inequalities, it can be stated that (i) boys are dying more than girls; (ii) rural children are dying more than urban children; (iii) rural boys are dying above the population representation they have.

- There is a general convergence at the oblast level with the national average in reducing children mortality under 5, although some regions are significantly above the national ratio.

Main recommendations

R #1: In the year 2018 there has been a stop of the positive trend in deaths of children under 5. To guide national and regional programs and research efforts, information about the distribution of causes of child deaths should be routinely updated. Time trends of child deaths by cause derived from consistent methods are needed in order to assess the lasting effects of child health interventions and
assist the development of long-term child survival strategies.

R #2: Set a strategy to get balance between the definition of cost-effective child health packages and the ability of local providers to adapt to the local context. This has to do with the degree of decentralization and autonomy of local health providers to adapt service packages. UPHV model appears as relevant in this task to develop health packages based on risk assessment.

R #3: Define a strategy to foster the coordination and integration of social services and health system considering the scaling up of the UPHV model. Promote inter-ministerial coordination, especially concerning multisectoral issues such as health, education, social and WASH, as required or permitted by the projects. The coordination and participation should be also improved at the governance and community local level.

R #4: Guide and regulate the use of new technologies for information and communication, paying special attention to the use of social networks and messaging platforms. They present many possibilities for data analysis and evidence based interventions - for example to transfer health indicators directly from the patient to the doctor and constant feedback from a medical professional. PHC will take advantage of modern medical advances and the first, at an early stage, to detect cancer, diabetes, and many other diseases, including depression and mental disorders that are increasingly occurring in the country.

R #5: Develop tools and capabilities to get available information on coverage of interventions related to maternal and child health interventions and chronic diseases.

R #6: Develop a costing assessment of the maternal and child service package and scenarios for the scaling-up cost-effective interventions. The absence of this study limits the capability to make evidence-based decisions.

R #7: Actively engage a large number of professionals / officers to ensure that reforms are viable, legitimate, relevant and feasible and not limited to a few external experts promoting top-down diffusion of innovation.
1. INTRODUCTION

1. The Evaluation Report is the last deliverable of the Consultancy Services for the Evaluation of Primary Health Care (PHC) Impact on Infant and Child Mortality Reduction in Kazakhstan. Two-fold evaluation have been done: 1) Assessment of the universal progressive home visiting model in Kyzylorda region; and 2) the PHC impact on Child and Infant Mortality. This document presents the methodology applied, the findings, conclusions and recommendations of the second folder.

2. There was a commitment from the consultant team responsible for the evaluation to design and implement a unique methodology, specifically conceived to meet UNICEF requirements and consistent with country’s characteristics and information availability. In addition, it has sought to integrate some tools and approaches used by the Multi-Country Evaluation of the Universal Progressive Home Visiting for Young Children Well-being and Development in the Europe and Central Asia Region, which is being done at the same time.

3. UNICEF in cooperation with Government of Kazakhstan works for reduction of the infant and child mortality from 1993. Current UNICEF Kazakhstan Country Programme aims to continue supporting the efforts of Kazakhstan to further advance its progress towards the sustained realization of children’s rights, with particular attention to the rights of the most vulnerable children and their families. Accelerating the reduction in child mortality is possible by expanding effective preventive and curative interventions that target the main causes of child deaths and the most vulnerable newborns and children. With this in mind, PHC with the focus on the partner-work with parents and local communities plays the key role in prevention of mortality cases among infants and children. The data suggests that the financing of primary care is an important priority in Kazakhstan. According to data from the National Association for PHC, Primary care absorbs a 38% in 2017 share of spending in Kazakhstan.

4. The main stakeholders of the evaluation will be MoH of RoK, MoES of RoK as the main policy developers and monitors; home visitors, staff of policlinics, pre-schools as the main implementers of the ECE/ECD programmes and primary source of information; families, with specific attention to vulnerable groups among families as the target/beneficiary group of the ECD/ECE programme with satisfaction/or not satisfaction assessment of the programmes. UNICEF will have two roles: (i) as one of the main knowledge brokers in MCH practices providing technical assistance for effective implementation of MCH interventions worldwide; and (ii) as evaluation manager will be the counterpart of the project implementation.

5. The following key stakeholders participated during the evaluation field work: Ministry of Health; Republican Center for Healthcare Development; Nur-Sultan City Department of Health; Kyzylorda Department of Health; National Public Health Center; Astana Medical University; GPs, pediatricians, nurses, home-visiting nurses of several PHC centers; Osakarovka Central district hospital; PHC centers of Osakarovka, Kyzylorda city and Zhanakorgan; National Statistic Committee; members of Parliament; WHO CO; Asia Development Bank CO; World Bank CO; UNFPA CO and UNICEF CO. The beneficiaries, families with children under five, have been surveyed and different FGDs were conducted to them.

6. The 2030 Agenda commits to “realize the human rights of all and…gender equality and the empowerment of all women and girls”. The impact evaluation of primary healthcare system on infant and child mortality in Kazakhstan will consider human rights, gender and equity, focusing on:

   • Explicit alignment of Kazakhstan health system development efforts with international standards on human rights and gender equality;
• A focus on addressing inequalities and discrimination towards leaving no one behind;
• The identification of gaps to reduction of gender inequalities and empowerment of all women and girls and through attention to gender equality in primary health care reform policies.

7. The added value of the evaluation will be in the use of its findings and recommendations for: (a) evaluation of both PHC system’s and the home-visiting model’s impact on infant and child mortality; and (b) documentation of Kazakhstan experience with possible use by other countries confronting similar issues in primary health care provision. The period covered was 2000 – 2017 and the geographical coverage: city of Nur-Sultan; Kyzylorda and Karaganda oblasts, although the analysis takes the whole country.

2. CONTEXT OF THE INTERVENTION

8. After the breakup of the Soviet Union and the collapse of socialism in Central and Eastern Europe, most of the countries experienced a decline in economic wellbeing at both macro and micro level, with many countries in the CEE/CIS not recovering their former economic position a decade later (CPC, 2012). In this context, there is a diverse mix of old and new policy challenges to improving child well-being and realizing children’s rights, and a divergence of child well-being priorities for the different countries.

9. After years under the “Semashko” health care system1 of the Soviet Union, Kazakhstan has initiated a number of important reforms that aimed to improve the population’s health and the rationalize the healthcare system. Despite significant progress, analyses done in 2008 and 2009 by the World Health Organization (WHO), Ministry of Health (MOH) and United Nations Children’s Fund (UNICEF) on clinical and operational issues facing paediatric and maternal care highlighted a number of areas of where improvements are needed. Some of the challenges outlined were (WHO and the Ministry of Health of Kazakhstan, 2008; Braveman and Barclay, 2009):

   • Insufficient use of evidence-based diagnostic and therapeutic protocols and algorithms in clinical practice.
   • Limited knowledge of safe labour practices and gaps in antenatal care.
   • Lack of a precise definition of roles and responsibilities and of integration of case management protocols across the different levels of care.
   • Lack of integrated teamwork among different specialists taking care for children to ensure consistency and continuity of care.

10. In 2010, the government introduced the Universal Health System, which aims to give greater choice to citizens and provide integrated coverage for a basic package of health care service. The new system has produced a doubling of health care expenditure per capita and improvements in coverage for a number of areas; yet, the impact on actual health outcomes seems to be lagging behind. Kazakhstan’s maternal and child health network is highly fragmented due to low overall population density, poor coordination of care, a rigid administrative system, and overcapacity in the hospital sector, amongst other issues2.

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1 The Union of Soviet Socialist Republics (USSR, founded in 1922) developed a totally state-run health-care model — the Semashko system — centralized, integrated, and hierarchically organised with the government providing state-funded health care to all citizens. All health personnel were state employees.

11. The Kazakhstan Multiple Indicator Cluster Survey (MICS) is a key source of information on the health policies that are being implemented in Kazakhstan and on the main health and development indicators. Surveys have been conducted in 2005, 2010 and 2015.

12. The last survey was conducted in 2015 by the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan in collaboration with the Republican State Enterprise “Information and Computing Centre” as part of the Global MICS Programme.³

13. Comparisons of data from the current MICS with previous rounds conducted in 2005-2006 and in 2010-2011 demonstrate the notable progress Kazakhstan has made in mother and child health, improvements for families in their living conditions, in access to water and sanitation, literacy and education, increasing use of information and communication technology and significant level of life satisfaction among women. A share of pregnant women that visited a medical services provider at least four times has increased from 87 per cent in 2010 to 95.3 per cent in 2015.⁴ Maternal mortality has fallen dramatically from 92 deaths per 100,000 live births in 1995 to 12 deaths per 100,000 live births in 2015⁵. The under-five mortality rate was reduced from 53 in 1990 to 11 per 1,000 live births in 2016,⁶ At the same time, MICS reveals emerging challenges in early child development, reproductive and sexual health of women, in women’ perception of domestic violence and in the level of such violence against children, decreasing knowledge about HIV/AIDS among young women (MICS Kazakhstan 2015)

14. Despite these improvements, inequalities persist. Shortages of medical personnel in rural areas, a high turnover of staff and difficulties in retaining qualified staff in remote areas,⁷ poor transportation services, and lengthy travel times to health care facilities are likely to undermine access to services in remote areas across the country.

Water and Sanitation

15. Unsafe drinking water can be the main determinant of diseases such as cholera, typhoid, and schistosomiasis. Drinking water can also be contaminated with chemical and physical contaminants with harmful effects on human health.

16. According to WHO, providing people with safer water can annually prevent: 1.4 million child deaths from diarrhoea; 500 thousand deaths from malaria; 860 thousand child deaths from malnutrition.

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⁶ UN, World Population Prospects, 2017 Revision

17. In addition to preventing disease, improved access to drinking water may be particularly important for women and children, especially in rural areas, who bear the primary responsibility for collecting and delivering water, often for long distances.

18. The survey (MICS Kazakhstan 2015) findings revealed that in Kazakhstan the majority, or 97.3 percent of the population, use improved drinking water sources: 99.7 percent in urban and 94.6 percent in rural areas.

19. The situation in the West Kazakhstan region is slightly worse than in other regions; only 80.1 percent of the population in the region have access to improved drinking water sources, and 18.6 percent of the population use the water from the tanker trucks. More favorable situation with access to improved drinking water sources is in the Aktobe and Mangistau regions and in Astana city.

20. Overall, 99.9 percent of Kazakhstan's population lives in households using improved sanitation facilities, while with no notable differences by background characteristics.

21. Water and sanitation are very relevant for UPHV model. Every year, mainly in the summertime, patronage nurses are doing activities in the prevention of infectious diseases, conduct seminars with parents, give information to families about drinking water and use of boiled water. Also, nurses distribute rehydrion to every family. All these activities are preventing the infection of children.

**Nutrition**

22. Children's nutritional status is a reflection of their overall health. When children have access to food that is adequate in quantity and balanced in composition, they are not exposed to chronic illness, and if they are well cared for, children reach their growth potential and are considered well-nourished and fully developed.

23. Undernutrition is associated with more than half of all child deaths worldwide. Undernourished children are more likely to die at an early age from common childhood ailments, and for those who survive, it is common to have chronic illness and faltering growth. Three-quarters of the children who die from causes related to malnutrition were only mildly or moderately malnourished – showing no outward sign of their vulnerability.

24. In Kazakhstan, 2.0 percent of children under age five are underweight. However, 8.0 percent of children are stunted and 3.1 percent of children are wasted for their height. In addition, 9.3 percent of children are overweight. (MICS Kazakhstan 2015).

25. The age pattern shows that the youngest, namely those <6 months of age, have the highest rates of underweight and wasting, however this might in part be due to larger proportion of children excluded from the analysis due to missing weights (Figure 1). The prevalence of overweight is higher among children aged 12-17 months (MICS Kazakhstan 2015).

*Figure 1: Underweight, stunted, wasted and overweight children under age 5 (moderate and severe), Kazakhstan, 2015*
26. In country, stunting of children is more prevalent than underweight. The indicator range by region varies from 2.3 percent in the North Kazakhstan region to 11.8 percent in the Atyrau region.

27. Those children whose mothers have higher education face the least likely to be underweight and stunted, and at the same time, the highest probability to be overweight compared to children of mothers with lower education levels. In urban areas, children are more likely to be overweight than in rural areas.

28. The age pattern shows that the youngest, namely those <6 months of age, have the highest rates of underweight and wasting, however this might in part be due to larger proportion of children excluded from the analysis due to missing weights. The prevalence of overweight is higher among children aged 12-17 months (MICS Kazakhstan 2015).

29. From one hand 30 and over 40% of under-5 and women at reproductive age are affected by Anaemia (50% of this might be due to Iron deficiency). From the other the prevalence of child obesity is rapidly raising. Iron-deficiency anaemia, particularly in children under 2 years of age, can result in irreversible learning problems even if the iron deficiency and anaemia are corrected, this depicts the importance of early and timely prevention. Obesity is affecting over 13% of under-5 children and this figure increases during the school year to over 20%, only by adopting a multi-system approach involving health, food, education and social protection, the double burden can be addressed.8

30. The Double-burden of malnutrition is originated from and affects several delivery systems and hence the solution demands to follow a multi-system approach, to understand this better, take the example of Iron deficiency and/ or Iron Deficiency Anemia, the problem is resulted from a nutritional deficiency which is caused by either poor dietary diversity and lack of fortified products (food systems) and or due to poor hygiene (WASH system), it affects the health of the child (poor immune system and hence a burden to health system) and it affects the cognitive development of the child (education system results hampered). So, to address or by addressing this a number of delivery systems are required or affected.

Low Birth Weight

31. Weight at birth is a good indicator not only of a mother's health and nutritional status but also the newborn's chances for survival, growth, long-term health and psychosocial development. Low birth weight (defined as less than 2,500 grams) carries a range of grave health risks for children. Babies who were undernourished in the womb face a greatly increased risk of dying during their early days, months and years. The children who survive with low birth weight may face problems with immune system function and increased risk of disease; they are likely to remain undernourished, with reduced muscle strength, to the end of their lives, such children suffer a higher incidence of diabetes and heart disease in later life. Children born with low birth weight also risk a lower IQ and cognitive abilities, affecting their performance in school and their job opportunities as adults.

32. In the developing world, low birth weight stems primarily from the mother's poor health and nutrition. Three factors have most impact: the mother's poor nutritional status before conception, short stature (due mostly to undernutrition and infections during her childhood), and poor nutrition during pregnancy. Inadequate weight gain during pregnancy is particularly important since it accounts for a large proportion of foetal growth retardation.

8 Баттакова Ж.Е., Мукашева С.Б., Слажнева Т.И., Абдрахманова Ш.З., Буонкристано М., Адаева А.А., Акимбаева А.А. ЭПИДЕМИОЛОГИЧЕСКИЙ МОНИТОРИНГ ДЕТСКОГО ОЖИРЕНИЯ И ФАКТОРОВ, ЕГО ФОРМИРУЮЩИХ, В РЕСПУБЛИКЕ КАЗАХСТАН, 2015-2016 гг. НАЦИОНАЛЬНЫЙ ОТЧЕТ. Алматы, 2017
Moreover, diseases such as diarrhea and malaria, which are common in many developing countries, can significantly impair foetal growth if the mother becomes infected while pregnant.

33. In the industrialized areas, cigarette smoking during pregnancy is the leading cause of low birth weight. In developed and developing countries alike, children born to teenagers who give birth when their own physical development is not yet completed, run a higher risk of bearing low birth weight babies.

34. There is a notable decline of underweight and stunting prevalence rates among children under five. Eight per cent of children are stunted or too short for their age and 3.1 percent are wasted or too thin for their height. Stunting varies significantly by region, with 11.8 per cent for Atyrau region and 2.3 per cent for North Kazakhstan.

35. Almost 20 per cent of children aged 6 to 9 years suffer from excessive weight or obesity that is mostly a result of unhealthy eating habits and insufficient physical activity. Obesity is most common in children from high-income families or with relatively few children and is often linked to excessive consumption of sugar, sweets, and commercial sweet drinks. Children in Kazakhstan are exposed to a high volume of marketing of high in saturated fats, trans fats, free sugars and/or salt foods.

36. The level of salt consumption in Kazakhstan is approximately 17 g per day, which nearly four times the World Health Organization (WHO) recommended rate and is the highest recorded rate in the world. Most of the traditional homemade dishes have high sodium content, indicating that excess salt is added.

Breastfeeding and Infant and Young Child Feeding

37. Proper feeding of infants and young children can increase their chances of survival; it can also promote optimal growth and development, especially in the critical period from birth to 2 years of age. Breastfeeding in the first days of life protects children from infection, provides an ideal source of nutrients, and breastfeeding as well as being an economical and safe method of the feeding.

38. Studies have shown that, continued breastfeeding along with complementary feeding to the child from 6 months with age-appropriate nutritious and safe solid, semi-solid and soft foods, are the key to a better health and proper development of the child, and makes it

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10 WHO, Улучшение питания в Казахстане: ключ к достижению целей в области устойчивого развития, 2019

11 Баттакова Ж.Е., Мукашева С.Б., Слажнева Т.И., Абдрахманова Ш.З., Бонкрисиано М., Адаева А.А., Акимбаева А.А., Эпидемиологический мониторинг детского ожирения и факторов, его формирующих, в Республике Казахстан, 2015-2016 гг. Национальный отчет

12 WHO, Monitoring food and beverage marketing to children via television in the Republic of Kazakhstan National Center of Public Health of the Republic of Kazakhstan (Republic of Kazakhstan), 2019

13 WHO, Улучшение питания в Казахстане: ключ к достижению целей в области устойчивого развития, 2019

14 WHO, FEED cities project, The food environment in cities in eastern Europe and Central Asia – Kazakhstan, February 2019
possible to eliminate or reduce stunting during the first two years of life\textsuperscript{15}. Starting at 6 months, breastfeeding can be combined with safe, age-appropriate feeding of solid, semi-solid and soft foods\textsuperscript{16}.

39. According to the Kazakhstan MICS 2015 survey, 38 percent of children aged 0-5 months are exclusively breastfed, and more than 70 percent of children are predominantly breastfed, indicating the prevalence of practice of giving non-milk liquids to infants in addition to breastmilk. By age 12-15 months, almost 60 percent of children are breastfed and by age 20-23 months, 21.1 percent of children are breastfed; 22.3 percent of boys and 19.7 percent of girls aged 20-23 months continue to be breastfed.

40. Exclusive breastfeeding and predominant breastfeeding are more common in rural areas (42.1 and 77.9 percent, respectively) than in urban areas (33.7 and 68.8 percent, respectively); while the proportion of children aged 20-23 months who continue to be breastfed in urban and rural areas was 22.7 and 19.9 percent, respectively (MICS Kazakhstan 2015).

41. Figure 4 shows the detailed pattern of breastfeeding by the child’s age in months. Even at the earliest ages, in addition to breast milk, the majority of children are receiving plain water and vitamins, even in the first 4 weeks of life. Moreover, almost 70 percent of infants aged 0-1 months are exclusively breastfed; at 2-3 months, the proportion is more than halved reduced (31.4 percent), and by the age of 4-5 months, it is almost 3 times lower at 23.5 percent. By the age of 2 years, more than 80 percent of children are weaned off the breast (MICS Kazakhstan 2015).

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure2.png}
\caption{Infant feeding patterns by age, Kazakhstan, 2015}
\end{figure}

\textsuperscript{15} Bhuta, Z. et al. 2013. Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? The Lancet June 6, 2013.)

Vaccinations

42. The Millennium Development Goal (MDG) 4 aimed to reduce child mortality by two thirds between 1990 and 2015. Target 3.2 of the third goal of the Sustainable Development Goals (SDG) adopted in 2015 aims to end preventable deaths of newborns and children under 5 years of age by 2030. Immunization plays a key role in the attainment of this goal. In addition, the Global Vaccine Action Plan (GVAP) was endorsed by the 194 Member States of the World Health Assembly in May 2012 to achieve the Decade of Vaccines vision by delivering universal access to immunization. Immunization has saved the lives of millions of children in the four decades since the launch of the Expanded Programme on Immunization (EPI) in 1974. However, there are still millions of children worldwide not reached by routine immunization and as a result, vaccine-preventable diseases cause more than 2 million deaths every year.

43. In Kazakhstan, the percentage of children who received all the recommended vaccinations by two years of age (by 24 months) is 84.1 percent. 1.1 percent of children aged 24-35 months received none of the recommended vaccinations. (MICS Kazakhstan 2015)

44. The country has introduced new vaccines including PcV and HiB, but not the Rotavirus Vaccine yet, this vaccine is a vaccine used to protect against rotavirus infections, which are the leading cause of severe diarrhea among young children. Figure 6 below shows the schedule for immunization in the Republic of Kazakhstan, as amended and approved in 2013.

Maternal and newborn health
Antenatal Care Coverage

45. Coverage of pregnant women during the antenatal period with medical and preventive activities is very important and vital to their health and well-being, as well as for the health and well-being of their children.

- WHO recommends a minimum of four antenatal visits based on a review of the effectiveness of different models of antenatal care. WHO guidelines are specific on the content on antenatal care visits, which include:
  - Blood pressure measurement
  - Urine testing for bacteriuria and proteinuria
  - Blood testing to detect syphilis and severe anaemia
  - Weight/height measurement (optional).

46. It is of crucial importance for pregnant women to start attending antenatal care visits as early in pregnancy as possible in order to prevent and detect pregnancy conditions that could affect both the woman and her baby. Antenatal care should continue throughout the entire pregnancy.

47. In Kazakhstan coverage of antenatal care by skilled health personnel, health care providers, is very high and amounted to 99.3 percent (MICS Kazakhstan 2015).

48. Thus, antenatal care for pregnant women was predominantly provided by:

- Qualified doctors (92.2 percent), for 6.6 percent of pregnant women
- Nurses or midwives, for 0.5 percent – by feldshers, these two categories of mid-level medical personnel are mostly typical for rural areas (10.8 and 1.0 percent respectively).

49. Among the regions, it can be noted that in the Zhambly region every third pregnant woman was followed up by nurses/midwives (32.6 percent). Although across the country, access to antenatal care from any qualified medical personnel is very high; and it does not depend on the type of area of residence of pregnant women or their level of education and women's household wealth or ethnicity; pregnant women living in urban areas (96.9 percent), or in the richest households (98.8 percent), or having higher education (95.8 percent) are more likely to receive antenatal care from doctors than their counterparts (MICS Kazakhstan 2015).

50. It is worth to note that antenatal and post-natal health care is state guaranteed in Kazakhstan (Code of the Republic of Kazakhstan "On People's Health and Health Care System" Article 97 Protection of women's health during pregnancy, childbirth and after childbirth). Similar to other countries, by significant reduction of under-5 mortality, the last mile to further close the gaps, is to focus on the narrow window around the time of birth, as over 50% of under-5 deaths are happening during the first 4 weeks of life. Investment on this period (and more specifically on the week before and after birth), has triple returns reduction of neonatal mortality, reduction of still birth and reduction of maternal mortality. Introduction of developmental care must be also started as early as possible for the premature newborns who are at higher risk of developmental delays

Assistant at Delivery

51. About three quarters of all maternal deaths occur due to direct obstetric causes. The single most critical intervention for safe motherhood is to ensure that a competent health worker with midwifery skills is present at every birth, and in case of emergency that transportation is available to a referral facility for obstetric care. The skilled attendant at delivery indicator is used to track progress toward the Millennium Development Goal 5 of improving maternal health, as well as for recently adopted Sustainable Development Goals.
52. More than 90 percent of births in Kazakhstan were delivered with the assistance of doctors, and 9.1 percent of births with the assistance of nurses and midwives (Figure 7).

![Figure 5: Person assisting at delivery, Kazakhstan, 2015](image)

Nursing staff, i.e. nurses and midwives assisted at delivery more frequently in the West Kazakhstan, Zhambyl and Kyzylorda regions and Almaty oblast (28.1, 24.9, 21.9 and 19.5 percent, respectively) (MICS Kazakhstan 2015).

**Place of Delivery**

53. Increasing the proportion of births that are delivered in health facilities is an important factor in reducing the health risks to both the mother and the baby. Proper medical attention and care by health personnel and hygienic conditions during delivery can reduce the risks of complications and infection that can cause morbidity and mortality to either the mother or the baby.

54. In Kazakhstan, 99.3 percent of births are delivered in health facilities: 98.9 percent predominantly occur in public sector facilities. Only a small proportion of births – 0.4 percent – are delivered in private sector health facilities, and 0.1 percent at home. There are no differences in the place of delivery by background characteristics of women. 3.2 percent of women from the Pavlodar region, as well as less than 2 percent of women from the Almaty city and Almaty oblast deliver in private sector health facilities. (MICS Kazakhstan 2015)

**Post-natal Health Checks**

55. The time of birth and immediately after is a critical window of opportunity to deliver lifesaving interventions for both the mother and newborn. Across the world, approximately 3 million newborns annually die in the first month of life and most of these deaths occur within a day or two of birth, which is also the time when the majority of maternal deaths occur.

56. Overall, 99.4 percent of newborns in Kazakhstan receive a health check following birth while in a facility or at home. With regards to PNC visits, these predominantly occur either on the first day following discharge (30.7 percent) or 3-6 days (30.5 percent) following discharge. Approximately every fourth PNC visit for newborns (23.5 percent) was carried out 2 days following discharge, and 10.2 percent after the first week following discharge. In general, almost every newborn child (with some exceptions) in the country received PNC visits following discharge from health facility, while 1.7 percent of children received no PNC visit following discharge from the medical facility (MICS Kazakhstan 2015).

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57. The inefficiency and incompleteness of the services provided by PM and SR for target groups of the population is confirmed by data from a household survey conducted as part of a basic assessment of foster care services. Overall satisfaction with services received from PNS is 42% in rural areas and 56% in cities.

58. An analysis of household data shows that only 39% receive sufficient information about child care, more than half of the respondents believe that they could discuss issues related to domestic violence, child abuse and developmental issues. However, postpartum patronage services are less available to women and children in rural areas compared to urban areas (2015 baseline assessment).

59. Social norms and in particular traditional gender roles of men and women negatively affect opportunities for Early childhood development expansion. Whilst mothers are supported by the primary health care system to acquire knowledge and develop childcare skills, fathers are often not seen as important partners. Interventions raising awareness of importance of fathers in Early childhood development are mostly implemented ad hoc, with no systemic strategy and dedicated funding.\(^{20}\)

60. Regarding early childhood education in Kazakhstan, pre-school organizations vary by the following types: 1) nursery; 2) kindergarten; 3) family nursery; 4) sanatorium nursery; 5) school-kindergarten combination facility; 6) pre-school mini-center. Pre-school organizations by type of ownership are divided into state and private. Educational process in pre-school organization is carried out in accordance with programmes and education plans developed on the basis of the state compulsory standard of pre-school education and training, as well as determined by the preschool organization’s charter.

61. More than half (55.3 percent) of children aged 36-59 months are attending an organised early childhood education programme. Urban-rural and regional differentials are notable – facilities with such programmes are attended by 62.2 percent of children from urban areas compared to 48.9 percent from rural areas. Among children aged 36-59 months, attendance to early childhood education programmes ranges from 31.7 percent in the Almaty oblast to 81.9 percent in the Western Kazakhstan region (MICS Kazakhstan 2015).

**3. INTERVENTION OBJECT OF THE EVALUATION**

62. Although the evidence is not conclusive, it is widely believed that a well-developed system of primary care has beneficial effects on the health care system as a whole. Systems with a strong primary care level appear to be better able to control costs and have better health outcomes (Boerma & Dubois, 2006; Rechel & McKee, 2009; WHO, 2008). Recent evidence shows that strong primary care is associated with better population health, lower rates of unnecessary hospitalizations and relatively lower socioeconomic inequality. However, overall health expenditures were higher in countries with stronger primary care structures (Kringos et al., 2013).

63. In response to challenges in the health care sector, reform measures in Kazakhstan have sought to strengthen primary care. The question is, however, how strong primary care in Kazakhstan is and if it will be able to adequately cope with the challenges related to children in the country. The focus of this evaluation is to measure the contribution of PHC in reducing infant mortality under 5, in Kazakhstan.

64. Conceptual framework Primary care can be conceived as a sub-system of the overall health care system, with a special focus on the facilitation of the access and utilization of

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\(^{20}\) ЮНИСЕФ Позаботьтесь о развитии вашего малыша, a parents-focused booklet supported by UNICEF promotes more active involvement of fathers in ECD.
coordinated services for the benefit of a population’s health. For reasons of measurability this general characterization should be elaborated. Based on the results of a systematic review, primary care has been unravelled into 10 essential ingredients, called dimensions, which have been ordered into three groups: those related to the structure, to the process and to the outcome of care respectively (Kringos et al., 2010b). The structure dimension refers to the basic conditions that enable a good functioning of primary care, consisting of relevant policies and regulations as well as the availability of financial, human and material resources. The process of primary care includes dimensions relevant to the services that are delivered. A core outcome is improved health of the population, but efficiency and equity are also considered as such. An overview of the three groups of dimensions has been provided in Figure 6.

65. The structure group of dimensions includes:

- governance (e.g. governmental vision of primary care; pro-primary care regulations)
- economic conditions (e.g. expenditure on primary care; incentives and remuneration systems)
- workforce development (e.g. position of primary care workers; professional associations).

66. The dimensions at process level include:

- access to services (e.g. geographical distribution; physical access to the facilities)
- continuity of care (e.g. patient–GP relationship; continuity over time)
- coordination of care (e.g. gatekeeping role for GPs; teamwork)
- comprehensiveness of care (e.g. available medical equipment; breadth of service profile).

67. The dimensions related to outcomes include:

- quality of care (e.g. prescribing behaviour; chronic disease management)
- efficiency of care (e.g. practice management)
- equity in health (e.g. differences related to social status or gender).

Figure 6: A Theory of Change framework for primary care

68. These dimensions are analyzed and organized in this report according to the OECD-DAC evaluation criteria. The dimensions identified in the hierarchy of the framework allow a more detailed definition of what strong primary care refers to.
Health policy reform

69. The policy priorities and challenges for improving child well-being clearly differ between and within sub-regions and also within countries. Each country has its own mix of old and new child well-being issues to monitor and tackle: this underscores the need for all governments in the region to ensure that their monitoring systems are adequate to identify those sections of the child population at risk, to determine the nature and extent of exclusion and deprivation, and identify their main causes as a basis for efforts to effectively reduce persisting disparities, while giving priority to those in greater need (UNICEF, 2009).

70. After the independence in 1991, Kazakhstan has carried out different programs with the aim to reform its post Soviet Health System.

Figure 7: Health Reform Milestones until 2010

71. Since 2000, the country has initiated two comprehensive reform programmes: the National Programme for Health Care Reform and Development 2005–2010 and the State Health Care Development Programme for 2011–2015 (‘Salamatty Kazakhstan’) with the specific aims of reducing the size of the hospital sector and strengthening primary healthcare. Changes in health service provision included a reduction of the hospital sector and an increased emphasis on primary health care.

72. However, inpatient facilities continue to consume the bulk of health financing. Partly resulting from changing perspectives on decentralization, levels of pooling kept changing. After a spell of devolving health financing to the rayon level in 2000-2003, beginning in 2004 a new health financing system was set up that included pooling of funds at the oblast level, establishing the oblast health department as the single-payer of health services.

73. Since 2010, resources for hospital services under the State Guaranteed Benefits Package have been pooled at the national level within the framework of implementing the Concept on the Unified National Health Care System. Kazakhstan has also embarked on promoting

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evidence-based medicine and developing and introducing new clinical practice guidelines, as well as facility-level quality improvements. However, key aspects of health system performance are still in dire need of improvement. One of the key challenges is regional inequities in health financing, health care utilization and health outcomes, although some improvements have been achieved in recent years. Despite recent investments and reforms, however, population health has not yet improved substantially.23

74. In 2010, the government introduced the Universal Health System, which aims to give greater choice to citizens and provide integrated coverage for a basic package of health care service.

75. The state program of Kazakhstan health care development “Salamatty Kazakhstan” was directed to improvement of Kazakhstan citizen’s health for ensuring sustainable social and demographic development of the country. Target indicators of the programme were:

- Increase in life expectancy to 69.5 years by 2013; to 70 years by 2015
- Decrease in total mortality to 8.14 per 1000 people by 2013; to 7.62 per 1000 people by 2015
- Decrease in maternal mortality to 28.1 per 100,000 people by 2013; to 24.5 per 100,000 people by 2015
- Decrease in infant mortality to 14.1 per 1000 people by 2013; to 12.3 per 1000 people by 2015
- Decrease in tuberculosis disease to 98.1 per 100,000 people by 2013; to 94.7 per 100,000 people by 2015
- Maintenance of the spread of HIV in the 15-49-years-old age group at 0.2-0.6% level (with average world rate of 1.1%)

76. There is a strong political will to pursue health sector reform. With multiple levels of immediate (Salamatty Kazakhstan 2011–2015), medium-term (Vision 2020 and 2030) and long-term (Kazakhstan 2050 Strategy) policy plans, there is also a clear time frame with defined objectives for health sector reform.

77. The government of Kazakhstan released a ‘National Health Strategy 2020’ approved by Presidential Decree No. 922 of 1 February 2010, with the primary aim on improving the accessibility and quality of health services. This is to be done via specific healthcare investment plans, broader health financing and more efficient provider payment systems. Healthy lifestyles are supposed to be an integral part of overall health policy. The Kazakh government is determined to measure the impact of its policies and has detailed its ambitions in the ‘Program Realization Indicators’ of the Salamatty Kazakhstan Programme.24

78. It is worth to note, as one of the most recent attempts to deepen the Health System reform, the state Programme “Densaulyk” for Health Care System Development in the Republic of Kazakhstan 2016 – 2019. The purpose of the Programme is to strengthening the people health to ensure sustainable socioeconomic development of the country. The main areas of this program are:

1) The development of public health as the basis for the protection of people health;

2) The integration of all health services around the needs of the population on the basis of modernization and priority development of primary health care;

3) Ensuring the quality of medical services;

4) Implementation of the National Policy of drug supply;

5) Improving the health care system through the introduction of solidarity and enhance its financial sustainability;

6) Improving human resource management in the health care industry;

7) To ensure further development of infrastructure based on the health of public-private partnerships, and modern information and communication technologies.

Figure 8: Kazakhstan’s health-related 2020 Strategic Development goals

<table>
<thead>
<tr>
<th>Major health indicators</th>
<th>By 2015</th>
<th>By 2020 (Comments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in average life expectancy</td>
<td>To 69 years</td>
<td>To 72 years</td>
</tr>
<tr>
<td>Decrease in maternal mortality</td>
<td>By 1.5 times</td>
<td>By 2 times (mathematically impossible; percentages would have been better)</td>
</tr>
<tr>
<td>Decrease in infant mortality</td>
<td>By 1.5 times</td>
<td>By 2 times (mathematically impossible; percentages would have been better)</td>
</tr>
<tr>
<td>Decrease in overall mortality</td>
<td>By 1%</td>
<td>By 3%</td>
</tr>
<tr>
<td>Decrease in TB incidence</td>
<td>By 1.5%</td>
<td>By 20%</td>
</tr>
</tbody>
</table>

Health system financing and management

| Introduction of free choice of doctor and provider | X (yes/no) |
| Creation of conditions for equal access to medical services within SGBP regardless of the place of residence | X (yes/no) | (Major weaknesses; more specific targets should be formulated) |
| Reduction in rates of informal payments | X (yes/no) |
| Introduction of co-payment mechanisms together with the existing SGBP system | X (yes/no) | (OOP already high) |
| Development of a system to assess the efficiency of healthcare investments | X (yes/no) | (Complex; how to define outcomes?) |
| Introduction of an effective tariff policy | X (yes/no) | (Definition of ‘effective’?) |

Healthcare delivery system

| Increase in share of primary healthcare services provided by general practitioners to 30% of outpatient services | X (yes/no) |
| Increase in the share of inpatient services provided by general hospitals rather than more specialized facilities | X (yes/no) | (No clear targets set) |
| Increase in expenditure on primary healthcare by 40% of the overall funding of the SGBP | X (yes/no) |
| Major indicators of inpatient services providers (bed turnover, ALOS) to meet international effectiveness standards | X (yes/no) | (No clear targets set) |

Accessibility and quality of drugs

| Increase in accessibility of drugs and medical supplies used for SGBP provision, particularly in rural areas | X (yes/no) | (Major weaknesses; more specific targets should be formulated) |
| Introduction of state regulation of the price of drugs procured for state-run health facilities | X (yes/no) |
| Introduction of an effective provision system for drugs and medical supplies within the SGBP | X (yes/no) |

Healthy lifestyles

| Increase in physical activity and sports in the general population | To 25% | To 30% |
| Increase in physical activity and sports in children and youth | To 12% | To 15% |
| Decrease in smoking, drug use and alcohol abuse | By 1% |

OOP, out of pocket payments; SGBP, state guaranteed benefit package; ALOS, average length of stay.
79. In terms of maternal and child health to date, the overall situation in the healthcare sector has improved with both infant and child mortality rates significantly reduced: from 26.4 and 34.8 per 1,000 live births in 1991 to 8.6 and 10.9 in 2016, respectively. Other improvements in healthcare were achieved as well: reduction of post neonatal mortality rate from 8.3 in 2000 to 5.5 in 2005 with reduction of cause specific rates: pneumonia (from 140 per 100,000 in 2000 to 32 per 100,000 in 2010) and diarrhea (from 24.4 to 3.3). Early neonatal mortality rate has been stable around 7 per 1,000 (increasing share in the structure of IMR around 60%). (WHO DB Health for All).

80. The data for the year 2017 were as follows: (i) Mortality rate, infant (per 1,000 live births): 8.9; (ii) Mortality rate, under-5 (per 1,000 live births): 10\(^{25}\).

81. Despite that general positive trend, challenges remain: improving the accessibility and quality of health services and especially continue with the strengthening of Primary Health Care as one of the pillars to improve maternal and child health.

82. One of the most important trends to analyse and document through this evaluation: how Kazakhstan achieved such a remarkable decrease in child and infant mortality even introducing the WHO definition of live births in 2008 that led to the major increase in mortality rate but the country still managed to decrease it and attain MDG4. This is the experience that must be assessed, get lessons that could be useful to other countries and to Kazakhstan itself but also to analyze what is the situation in Kazakhstan now and what could be useful from past experience to move to a new targets/goals.

4. EVALUATION PURPOSE, OBJECTIVES AND SCOPE

83. The UNICEF office in Kazakhstan is commissioning this evaluation to:

According to the Terms of Reference (ToR), the purpose of this evaluation is to assess the impact of primary healthcare system on infant and child mortality in Kazakhstan in light of past and present PHC reforms, policy changes, and approaches to family services provision, including through the home-visiting system.

84. The evaluation is summative. The evaluation questions are formulated as per OECD-DAC evaluation criteria: relevance, efficiency, effectiveness, sustainability and impact. Additional criteria such as coverage, coordination and coherence should also be used in the evaluation.

85. The intended users of the Evaluation will be the Ministry of Health, local governments, line ministries that will use the results of the Evaluation as the main developers and implementers of the national programmes who need to monitor the progress based of effectiveness and efficiency criteria, to introduce corrective actions if needed, to use the best available practices, to engage trained/informed HR, to bridge the inequality gaps and to allocate sufficient funds. UNICEF as one of the main knowledge brokers in MCH practices providing technical assistance for effective implementation of MCH interventions worldwide. Also MPs need to be informed in order to introduce necessary legislative changes. International, academic, private and civil society organisations including UN agencies and educators should use the results of the Evaluation in order to gain more knowledge and to improve their advocacy and practical actions in introduction and implementation of the PHC/MCH programmes.

\(^{25}\) Estimation by the UN Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UN DESA Population Division.
86. The added value of the evaluation will be in the use of its findings and recommendations for: (a) evaluation of both PHC system’s and the home-visiting model’s impact on infant and child mortality and support government in the scaling up of the UPHV model; and (b) documentation of Kazakhstani experience with possible use by other countries confronting similar issues in primary health care provision.

- To analyze the influence of improved quality of PHC services, including based on the universal-progressive model of home visiting system, on families with children under 5 and pregnant women in reducing rate of infant and child mortality.
- To determine the impact of PHC policies and services at reduction of infant and child mortality in Kazakhstan since the start of the country’s economic growth, particularly from 2000 and till 2017.
- To identify inequalities in access of vulnerable families with pregnant women and children under 5 to PHC services.
- To provide lessons learned and recommendations to the Government, UNICEF and other stakeholders on the further development of PHC with the focus on community-based services, and to identify weaknesses in the organization of medical care.

5. METHODOLOGY

87. The complexity of the evaluation, which has two objects of analysis, required the proper selection of the best instruments without falling into duplication of effort. Therefore, the qualitative instruments that were common to the two areas of evaluation were identified. These will be, mainly, desk review, interviews to key informants, focus group and meta-evaluation. Once the project started, there was a request from the evaluation manager to incorporate some of the instruments that are being used in the Multi-Country Evaluation of the Universal Progressive Home Visiting for Young Children Well-being and Development in the Europe and Central Asia Region. An effort was made to obtain findings that could feed that evaluation.

88. Specific quantitative tools were applied for each of the two main areas of evaluation: the Lives Saved Tool (LiST) and the Primary Care Assessment Tool (PCATool) survey were used. The main secondary sources of information were provided by the National Statistics Committee and the Department of Health of Kyzylorda Oblast to the Ministry of Health; in addition to key information provided by other stakeholders. The national data received were analyzed. Quantitatively work focused on the analysis of data provided by the stakeholders, especially through the document review, and took place in different process phases:

- Verification of data and preparation for analysis.
- Initial analysis based on the reference documentation.
- Additional analysis based on data collection in the field.
- Integration and synthesis of findings.

89. The initial analysis was done in order to generate information to document the issues raised in the evaluation and for accountability purposes. When the data analysis was completed, the next step was to select and integrate information and data obtained from the findings, which provided the basis for the evaluation report. This method was used to guide the selection process and display all the information needed to support each conclusion. Three features were searched that should always be addressed because of their impact on the credibility of the findings: validity, reliability and bias.
90. The described approach and previous instruments also apply for the UPHV model evaluation. However, given the specificity of the object of analysis, a detailed description of the work in this field is included. Several focus group were held with:

- Families with children under 5 of Department of Health of Kyzylorda oblast.
- Employees of the PHC facilities (PHC No 8 in Astana; PHC No1 in Kyzylorda city, PHC No6 in Kyzylorda city, PHC of Zhanakorgan village in Kyzylorda oblast).

91. In-depth interviews with:

- Households with children under 5, affixed to the pilot sites of the three polyclinics: CP No1 in Kyzylorda, CP No. 6 in Kyzylorda, CP Zhanakorgan; health visitors, social workers, psychologists, chief doctors of pilot organizations, employees of the Health Department of Kyzylorda oblast,
- Akimat of Kyzylorda oblast, district akimat of Zhanakorgan village, IMCI coordinator of Kyzylorda oblast centre, National Association “Primary health care” led by Roza Abzalova, NGO “Union of Medical Colleges of Kazakhstan”, master coaches, partners of the Republican Center for Health Development, IMCI Coordinators.
- Staff of NGO in Kyzylorda city involved in provision of progressive package services, employees of kindergartens, where the children of families from the pilot polyclinics were enrolled.

92. To carry out the field work a sample of households to pass the questionnaire was made\textsuperscript{26}. The choice of the sample is made in a random and representative manner. The simplest probabilistic sampling that meets these characteristics is simple random sampling, which gives the same probability of selection to all units in the universe. For sample size selection, it was received from the Department of Health of Kyzylorda Oblast to the Ministry of Health the list of homes and clinical records.

93. The Primary Care Assessment Tool - (PCATool) was used in this stage. Starfield and Shi, of the Johns Hopkins University, in the United States, have designed a set of tools to evaluate PHC, PCAT (Primary Care Assessment Tools).

94. This questionnaire allowed consultants to collect information on the experience of home visiting users as regards each of the characteristics of PHC. The dimensions that were assessed are:

- “First-contact” care: that care is first sought from the primary care provider when a new health or medical need arises.
- Continuous care: longitudinal use of a regular source of care over time, regardless of the presence or absence of disease or injury.
- Coordinated care: the linking of health care visits and services so that patients receive appropriate care for all of their health problems, physical as well as mental.
- Comprehensive care: the availability of a wide range of services in primary care and their appropriate provision across the entire spectrum of types of needs for all but the most uncommon problems in the population by a primary care provider.

\textsuperscript{26} The sample included 129 households surveyed
95. At the time of passing the questionnaire where there are children, it was be done:

1. Check availability of the person who cares for at home or family / caregiver of the child in the Polyclinics to follow through with the interview;

2. Identify, in accordance with the research / evaluation objectives, whether the child in question is eligible for the study / evaluation (application of the inclusion and exclusion criteria of their study / evaluation). Identify the child's name and, thereafter, always use the name as reference;

3. Identify the person responsible for the child (caregiver) who must respond to questionnaire. Use, for example, the question, "Who is the person most able to talk about the child's health care? ", identifying the child's relationship;

4. Apply the Free and Informed Consent Form;

5. Continue with the interview.

5.1 Data collection and analysis tools

96. A non-experimental design methodology that combines qualitative and quantitative techniques has been applied, including surveys, key individual interviews, focus groups, documental review and field visits. The scripts of the tools can be found in the Annexes.

Table 1: Number of respondents by primary data collection

<table>
<thead>
<tr>
<th>Data collection source</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-depth interviews with selected stakeholders</td>
<td>Regional level: 23 in Zhanakorgan, 11 in Osakarovka, 9 in Kyzylorda City (Polyclinics 1 and 6)</td>
</tr>
<tr>
<td></td>
<td>Central level (Government, University, PHC associations and international organizations): 23</td>
</tr>
<tr>
<td>Surveys to families with children under 5</td>
<td>129 households in Zhanakorgan, Osakarovka and Kyzylorda City</td>
</tr>
<tr>
<td>FGD with beneficiaries and home visitors</td>
<td>8 participants in 6 FGD in Zhanakorgan, Osakarovka and Kyzylorda City</td>
</tr>
</tbody>
</table>

Source: Author’s elaboration

5.2 Stakeholders’ Participation in Evaluation

97. Key stakeholders engaged in this evaluation. A selection of stakeholders has been made to be interviewed during the field. The prioritization of the key actors has been made together with the UNICEF country office.

98. The following key stakeholders participated during the evaluation field work: Ministry of Health; Republican Center for Healthcare Development; Nur-Sultan City Department of Health; Kyzylorda Department of Health; National Public Health Center; Astana Medical University; GPs, pediatricians, nurses, home-visiting nurses of several PHC centers; Osakarovka Central district hospital; PHC centers of Osakarovka, Kyzylorda city and Zhanakorgan; National Statistic Committee; members of Parliament; WHO CO; Asia Development Bank CO; World Bank CO; UNFPA CO and UNICEF CO. The beneficiaries, families with children under five, have been surveyed and different FGDs were conducted to them.
5.3 Ethics, norms and standards

99. This evaluation was conducted in accordance with the United Nations Evaluation Group (UNEG) evaluation principles (openness, transparency, participation, etc.) and standards using the Evaluation criteria (relevance, efficiency, effectiveness, impact, sustainability) as well as the UNICEF Procedure for Ethical Standards in Research, Evaluations and Data Collection and Analysis.

100. The consultant worked closely with UNICEF staff at key phases of the evaluation process to ensure that equity focus and Ethical requirements are fully met in the final Evaluation Report.

101. According to UNICEF Procedure for Ethical Standards in Research, Evaluations and Data Collection and Analysis, the Ethical Review Board of the methodology was required and approved, as well as continuous adherence to the ethical standards throughout the evaluation. Find in the annexes the Research Ethics Approval letter.

102. The evaluation design and implementation considered ethical safeguards where appropriate, including protection of confidentiality, dignity, rights and welfare of human subjects particularly children, and respect of the values of the local community. Mainly this applies for evaluating the PHC home-visiting interventions. Data collection and analysis followed the UNICEF Procedure for Ethical Standards in Research, Evaluations and Data Collection and Analysis, which outlines the ethical principles in part of evaluation intentionality, obligations of evaluators, obligations to participants and evaluation process and product. The common guiding principles were used to ensure ethical safety during the evaluation: (i) privacy and confidentiality, (ii) Informed consent, (iii) Harm and benefits, and (iv) Conflict of interest

103. The evaluators explained to the participants the purpose and use of the evaluation; the evaluators also made it explicitly clear to the participants that their participation was voluntary, and they can withdraw at any moment. The survey, interviews and all data collected were anonymous and confidential and the findings were analyzed in an aggregated level.

5.4 Limitations, risks and mitigation Measures

104. The main limitations for the Evaluation were that the disaggregated data on local level for some indicators were not available, or the quality of available data was not good.

105. The evaluation team proposed measures to mitigate some of the risks and limitations. Find below a table with some of the challenges and the solutions were proposed in order to avoid an impact on the results of the evaluation process.

<table>
<thead>
<tr>
<th>Risks</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The intervention’s context is complex.</td>
<td>- Allocate enough time and resources to understand the context.</td>
</tr>
<tr>
<td></td>
<td>- Undertake a web search and/or a literature search.</td>
</tr>
<tr>
<td></td>
<td>- Plan to hire local experts who can bridge the contextual gaps.</td>
</tr>
<tr>
<td>2. The normative work is not reflected in a logic model, theory of</td>
<td>- Try to find out why the normative work was not reflected by</td>
</tr>
<tr>
<td>change or country programme framework.</td>
<td>contacting those responsible for the intervention’s design and</td>
</tr>
<tr>
<td></td>
<td>implementation.</td>
</tr>
<tr>
<td></td>
<td>Constructed a retrospective theory of change to include the</td>
</tr>
<tr>
<td></td>
<td>normative work and validate it with those responsible for the</td>
</tr>
<tr>
<td></td>
<td>intervention.</td>
</tr>
<tr>
<td>3. The normative work is reflected in the logic model, theory of</td>
<td>- If the flaws are major, such that many of the outcomes, indicators</td>
</tr>
<tr>
<td>change or country</td>
<td>and assumptions are unrealistic, where feasible, negotiate with the</td>
</tr>
<tr>
<td></td>
<td>programme stakeholders and revise them.</td>
</tr>
</tbody>
</table>
4. Documents provide little information about the normative work and its outcomes.

- Contact those responsible for implementation to understand the nature of normative work. Look for information from other sources, such as national governments, reports of other UN bodies, development organizations and local NGOs.
- Focus on outcomes over which the implementing organization had control (rather than high-level impacts).

5. There is insufficient time or resources to thoroughly evaluate the normative work.

- Scale back the evaluation and focus it on short- and medium-term normative outcomes rather than normative impacts.
- Look for ways to save time and resources, such as a desk study, self-evaluation or 1-2 information-rich case studies.

106. Besides these general conditions, the evaluation team assessed in a preliminary manner that the conditions necessary for the evaluation of the PHC policy were given. In any case, the main limitations and risks are highlighted:

- The availability of information about processes, outputs and outcomes to carry out a deep analysis, as well as the basic information for the indicators: baselines and targets. Monitoring system were not fully developed for UPHV model. Therefore, in the methodology for the analysis of, qualitative methodological techniques are introduced that allow to know possible institutional weaknesses or other circumstances that limit the capacity to generate key information on the indicators.
- Quantitative information quality. To minimize this risk, information triangulation was applied. The triangulation of the information allowed reducing the error of causal interpretations from the available data, identifying possible negative outputs to obtain the planned outcomes or, conversely, possible unidentified positive outputs in the PHC policy. On the other hand, the information triangulation system allowed reducing the bias of the interviewed participants or focus groups, allowing the comparison of data and information from different sources.
- Good execution of the methodological tools, so that the best strategy for each institutional environment was worked within the evaluation team. For this purpose, the evaluation team in Kyzylorda was reinforced with two consultants to fine-up the tools.
6. EVALUATION FINDINGS

6.1 Relevance

To what extent are the objectives of the PHC policy consistent with country development priorities and policies, and were they aligned throughout the period with government priorities and with agencies global policies and strategies?

PHC Reform assessment

107. Since 2005, the country has initiated three comprehensive reform programmes with the specific aims of reducing the size of the hospital sector and strengthening primary healthcare:

1) the National Programme for Health Care Reform and Development 2005–2010 and the
2) State Health Care Development Programme for 2011–2015 (‘Salamatty Kazakhstan’)
3) Programme "Densaulyk" for Health Care System Development in the Republic of Kazakhstan 2016 – 2019

108. A recent report of OCDE (2018) did a very comprehensive assessment of the PHC reforms introduced\(^\text{27}\). The main conclusion of this three decades of reforms is that Primary care improvement have been, and continue to be high on the policy agenda, and over the coming years, an ambitious strategic plan will build on these efforts. They stress the successful implementation of several key reforms:

- The general practitioner (GP) role has been introduced, and PHC services are now required to be provided by multidisciplinary teams;
- Although public delivery still dominates, facilities have been restructured to become increasingly more autonomous;
- Incentives to improve quality have been introduced to the payment system, and accreditation of PHC facilities is now mandatory;
- Screening programmes and other activities are in place to address noncommunicable diseases (NCDs);
- Disease management programmes (DMPs) have been piloted.

109. The above-mentioned developments are to be praised as they have been fundamental in solidifying, strengthening and expanding the PHC sector within Kazakhstan’s health system. However, while certain measures have shown clear results (e.g. the number of PHC health professionals increased six fold in ten years, and GPs now represent 50% of the medical workforce), others show that there remains considerable scope for progress (e.g. although multi-disciplinary teams are now mandated, the data suggest these are not being established in practice)\(^\text{28}\).

Consistency of the policy with PHC reform

110. The current healthcare policy framework is the "Densaulyk" Programme for Health Care System Development (2016 – 2019) which in its turn is embedded in the national Strategy Kazakhstan 2030. Densaulyk includes 7 main areas of intervention:

\(^{28}\) OECD (2018)
1) The development of public health as the basis for the protection of people health;
2) The integration of all health services around the needs of the population on the basis of modernization and priority development of primary health care;
3) Ensuring the quality of medical services;
4) Implementation of the National Policy of drug supply;
5) Improving the health care system through the introduction of solidarity and enhance its financial sustainability;
6) Improving human resource management in the health care industry;
7) To ensure further development of infrastructure based on the health of public-private partnerships, and modern information and communication technologies.

111. The importance of the PHC strategy grounded on the needs of the population is clearly defined in the second area of intervention. The PHC is defined as universal, integrated, socially oriented and affordable and it will be managed under the principles of quality of care and family principle of service, which requires preventive, diagnostic, therapeutic, rehabilitative and recreational activities, palliative care and home care based on the needs of each family.

112. There is a second relevant aspect for the matter of this evaluation that should be noticed: Desaulayk clearly gives to the PHC a crucial role in the maternal and child health: “The priority of the work of PHC will be the strengthening of maternal and child health. PHC will be the base level of regionalization of medical assistance programs for various diseases, including perinatal care”. Finally, it should be stressed the importance given to inter-sectoral cooperation related to maternal and child health: Priority in inter-sectoral cooperation will be the realization of complex measures for maternal and child health, including reducing child injuries, strengthening the mental and reproductive health of children and youth.

113. In the policy planification scheme below the Densaulyk there is an action plan “to implement the main areas of primary health care development in the Republic of Kazakhstan for 2019-2020” (Appendix 2 to the order of the Minister of Health of the Republic of Kazakhstan July 27, 2018 No 461) which identifies the short term actions to support the PHC reform. This action plan is divided in five main areas: 1. Creating an integrated population-oriented PHC system. 2. Improving universal coverage of PHC services and equal access; 3. Increased public attention to health promotion, prevention, screening and early intervention. 4. Improving the capacity of the PHC system. 5. Patient-focused digitalization of PHC.

International standards and good practices

114. In order to asses if the PHC reforms have considered international standards and good practices and their relevance to the reduction of ICMR we have analysed the main regulations of PHC and paediatric care. Currently there are two main regulatory frameworks covering paediatric care in Kazakhstan:

- Rules for the provision of primary health care and the Rules for the attachment to organizations of primary health care. Order of the Minister of Health and Social Development of the Republic of Kazakhstan dated April 28, 2015 No. 281
115. These two legal documents have been contrasted with the essential interventions for the reduction of maternal, newborn and child mortality\(^{29}\) (WB 2016). This work identifies essential interventions, based on their efficacy and appropriateness, to address important health conditions. We have analysed one package of services: Essential Interventions for Maternal and Newborn Health. In the tables below you can find the essential intervention (first column) and the inclusion of this intervention in the Kazakh regulatory framework for PHC and paediatric care. The interventions not included in any of the regulation analysed could be included in some lower technical regulation.

*Table 3: Comparison between Essential interventions and Kazakh regulation on PHC and paediatric care. Platform of delivery Primary Health Care*

<table>
<thead>
<tr>
<th>Essential interventions for RMNCM</th>
<th>Primary Health Care Regulations (PHCR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Management of unwanted pregnancy</td>
<td>Art. 46.4 PHC Rules</td>
</tr>
<tr>
<td>2. Screening and treatment for HIV syphilis</td>
<td>Art. 60 PHC Rules</td>
</tr>
<tr>
<td>3. Management of miscarriage or incomplete abortion or post abortion care</td>
<td>Only included “Prevention of unwanted pregnancies and safe abortion.” Art. 46.4 PHC Rules</td>
</tr>
<tr>
<td>4. Antibiotics for PrRoM</td>
<td>Not included in PHC Rules nor in Paediatric standards</td>
</tr>
<tr>
<td>5. Management of chronic Medical conditions (hypertension, diabetes mellitus and others)</td>
<td>Art. 69 PHC Rules</td>
</tr>
<tr>
<td>6. Tetanus toxoid</td>
<td>Art. 53 on preventive vaccination. PHC Rules</td>
</tr>
<tr>
<td>7. Screening for complications in pregnancy</td>
<td>Art. 24 Universally progressive patronage model. PHC Rules</td>
</tr>
<tr>
<td>8. Initiate antenatal steroids (as long as clinical criteria and standards are met)</td>
<td>Not included in PHC Rules nor in Paediatric standards</td>
</tr>
<tr>
<td>9. Initiate magnesium sulphate (loading dose)</td>
<td>Not included in PHC Rules nor in Paediatric standards</td>
</tr>
<tr>
<td>10. Detection of sepsis</td>
<td>Included in provision of medical care to newborns in second-level Medical Facilities. Art. 54.3 of the Paediatric Standards.</td>
</tr>
<tr>
<td>11. Management of labour and delivery in low-risk-women (BEmNOC) including initial treatment of obstetric complications prior to transfer</td>
<td>Not included in PHC Rules nor in Paediatric standards</td>
</tr>
<tr>
<td>12. Kangaroo mother care</td>
<td>Not included in PHC Rules nor in Paediatric standards</td>
</tr>
<tr>
<td>13. Injectable oral antibiotics for sepsis pneumonia and meningitis</td>
<td>Not included in “PHC Rules”. Included in provision of medical care to newborns in second-level Medical Facilities. Art. 54.3 of the Paediatric Standards.</td>
</tr>
<tr>
<td>14. Jaundice management</td>
<td>Not included in PHC Rules nor in Paediatric standards</td>
</tr>
</tbody>
</table>

UNICEF’s support to the country’s PHC reforms and reduction of infant and child mortality

According to the country UNICEF programs and the interviews with UNICEF and government officials, the UNICEF’ contribution to the reduction of infant and child mortality can be grouped in three main chapters:

**Governance:**
- UNICEF has conducted the surveys (MICS, MCH Equity Study, Access to Immunization, Anaemia Prevalence Survey), which outline ways to improve MCH service in order to meet the challenge of lowering infant, child and maternal mortality and advocated with technical support and advise to the Ministry of Health on the problems identified in the studies and outlines specific paths of action, which was base for development and adjustment the State Program on Health System Development Salamatty Kazakhstan 2011-2015. The program was developed, approved and implemented by Government with UNICEF technical support and policy advice in the area of mother and child health.
- UNICEF advised on adjustment Basic Benefit Package of Services to cover all needs of children under 18 and women of reproductive age with iron supplementation and IMCI drugs including.
- UNICEF has helped to implement a total quality management tool that has been adopted nationally which allows perinatal losses to be monitored and identification of problem areas (BABIES). This tool has also led to the development of more effective national policies in line with international standards.
- UNICEF working with the government to improve the quality of perinatal and neonatal care providing technical support by reviewing regulations and their adherence to international standards and increase capacity of health workers and managers on effective perinatal care. Introduction Effective Perinatal and Neonatal Care technologies in East Kazakhstan Oblast with establishment group of core trainers with development of the EKO program on reduction of IMR and MMR was handled by Ministry of Health and scaled up with state funding.
- UNICEF advocates and provided technical assistance in improvement nutrition status of children and women of reproductive age resulted in endorsement fortification of flour with iron and minerals, piloting with further scaling up the vitamin A supplementation, introduction iron supplementation into BBP and established National Nutritional Surveillance system as part of State Program on Health System Development.
Financing:
UNICEF provided evidence-based policy advice to government on allocation of resources for MCH services and nutrition interventions:
- Perinatal care and neonatal care with resuscitation services with required equipment and medicines were included into Basic Benefit Package.
- Free of charge iron and folic acid, iodine for pregnant women included into BBP; evidence based and IMCI medicines for treatment of pregnant women and children under 18 are included into BBP.

Human Resources, Equipment, Supplies, Infrastructure:
UNICEF provided technical support and conducted series of trainings for increase capacity of health workforce in following:
- Scaling up EPC with neonatal resuscitation from pilot to national level with capacity building of health workers at maternity level (covered 5 oblast with establishment team of core national trainers on EPC),
- Introduction of EPC package into in-service and postgraduate curricula of Medical Universities, capacity building of teachers from 6 national medical universities
- Nationwide trainings on BABIES and BABIES matrix used in each maternity house of the country. Information from each province/region are collected on the monthly basis at national level but use of them for evidence based decision making is weak.
- Introduction of BFHI and complementary feeding practices into the guidelines for parents and health workers
- UNICEF provided technical support in resource leverage and supply assistance:
  - State Resource leverage within Joint Programs (2011-2014) of UN and Government of Kazakhstan for Enhancing Human and Economic Capacity Development of East Kazakhstan oblast with capacity building of health managers, frontline workers on BABIES, EPC, Care for Development, YCFD and PMTCT.
  - Polio vaccine supply and Government procurement of polio vaccine via UNICEF to reply for polio outbreak in CA in 2010-2011.

Social norms, practices and beliefs
- National scaling up of Healthy Child Rooms and Better Parenting (Care for Development) and IMCI program, the Ministry of Health took institutionalized the implementation of both the Care for Development and the IMCI through the government degree and allocation of funding for the scaling-up.
- UNICEF supported the Healthy Life Style Centre’s Network on national campaigns on Care for Development including breastfeeding promotion, antenatal care.
6.2 Impact

What has been the impact of primary healthcare care system on infant and child mortality in Kazakhstan in light of past and present PHC reforms, policy changes, and approaches to family services provision?

117. The object of this evaluation is to analyze the impact of primary healthcare care system on infant and child mortality in Kazakhstan. The assessment approach included time series analysis of national data to examine mortality trends and draw inferences about the contribution of the PHC to observed trends. The data used for the analysis came from the National Statistics Committee and the UN Inter-agency Group for Child Mortality. Other data sources included key informant interviews at national and regional level, focus group discussions (FGDs), extensive document review across all health system pillars, and analysis of routine information systems (health output data). The review also incorporated key findings from other relevant research projects (meta-evaluation).

Evolution of the child mortality rate in Kazakhstan

118. Child mortality reflects social, economic and environmental conditions in which children live. It also reflects the quality, performance and equity of national health systems. To date, the overall situation in the Kazakhstan healthcare sector has improved with both infant and child mortality rates significantly reduced as can be viewed in figures below.

119. Specifically, the under-5 mortality rate is a central indicator for assessing the situation of young children. This has experienced in the last decades an important decrease (figures 8 and 9). The under-five mortality rate was reduced from 53 in 1990 to 11 per 1,000 live births in 2016\(^30\).

120. Figure 8 shows the series of under-5 mortality rate estimates of the survey, based on responses of women in different age groups, and referring to various points in time, thus showing the estimated trend in U5MR based on three surveys, DHS-1995, MICS-2006 and MICS-2010/11, 2015 as well as the country’s official statistics.

121. Discrepancies between data until mid-2008 from different sources can be explained in part by different approaches to live birth definitions and child mortality estimation techniques beginning from 2008 when Kazakhstan started using new criteria on live and still births recommended by WHO.

122. The evaluation team took the primary data received from the National Statistics Committee and developed the mortality rate of children under five. It has confirmed the estimates made by the UN Inter-agency Group for Child Mortality. Below it can be found both charts.

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\(^{30}\) UN, World Population Prospects, 2017 Revision
Figure 9: Under-5 mortality trends, Kazakhstan 2018


Source: Author’s elaboration from the NSC data

123. The infant mortality rate was reduced from 45 to 9 per 1,000 live births from 1990 to 2017. This progress has been attributed to overall improvements of the healthcare: (i) modern medical technology, (ii) increased availability of specialized care; (iii) targeted investments into capacity building of healthcare professionals; (iv) enhanced perinatal and neonatal care, and (v) improved care of young children31.

31 UNICEF, Multi-country Evaluation (MCE), Knowledge and Leadership Area (KLA) 6, 2015.
124. There was a massive decrease in deaths of children under 5 years in the last ten years. It has been confirmed that interventions that have the highest impact on deaths are management of labor and delivery; care of preterm births; treatment of severe infectious diseases, including pneumonia, diarrhea, and neonatal sepsis; and management of severe acute malnutrition.

### Table 5: Number deaths of under 5

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>% Decrease by year</th>
<th>% Decrease 2009-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>7.632</td>
<td>-6%</td>
<td>-47%</td>
</tr>
<tr>
<td>2010</td>
<td>7.190</td>
<td>-7%</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>6.705</td>
<td>-7%</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>6.237</td>
<td>-12%</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>5.495</td>
<td>-10%</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>4.930</td>
<td>-3%</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>4.797</td>
<td>-10%</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>4.325</td>
<td>-8%</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>3.997</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>4.021</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s elaboration from the NSC data

125. Social determinants of health are key in mortality reduction. Kazakhstan made exceptional economic progress, with GDP growth of around 10% per year between 2000 and 2007, making it one of the fastest growing economies in the world at the time. Economic expansion slowed considerably in the post global financial crisis period, but picked up again between 2010 and 2014. The substantial economic growth has given rise to concomitant improvements in poverty rates and the emergence of a large middle class, making up almost two thirds of the population. Real wages increased by 280% over the last decade, compared with an OECD average of 17%, and the proportion of the population living at or below the national poverty line (ie with disposable income less than the cost of living) fell from 47% in 2001 to 2.7% in 2015 (OECD, 2017). Economic development has been uneven, however, with poverty rates remaining much higher in rural than in urban areas and varying significantly between regions. Childhood is an especially vulnerable period to the main determinants of health, such as living conditions, family income, employment, education, housing, access to health services, among other. All these determinants saw their condition improved in the last fifteen years, although important inequities remain between urban rural.
126. Once the positive trend in the reduction of childhood under 5 was recognized, an analysis has been conducted on the different types of death causes and trends for each of them, according to the codification used by the NSC: ICD-10\(^{32}\).

**Table 6: Number of deaths by cause in Kazakhstan**

<table>
<thead>
<tr>
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\(^{32}\) International Classification of Diseases
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<th>XI Diseases of the digestive system</th>
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### Table: Evaluation of Primary Health Care (PHC) Impact on Infant and Child Mortality Reduction

#### Volume 2: Primary Health Care impact on child mortality

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</table>

**Source:** Author’s elaboration from the NSC data
PHC contribution in the reduction of deaths

127. No direct attribution to the PHC can be sustained in the reduction of a specific number of deaths, but general contribution can be theorized from the correlation between the reduction of deaths in some causes and the delivery of health interventions, based on the evidence available in the literature.

128. The leading single cause of child deaths was complications from preterm birth, followed by pneumonia and intrapartum-related complications, formerly known as birth asphyxia. Of the deaths occurring after a live birth before age five years, pneumonia, diarrhoea, and neonatal sepsis or meningitis are the leading infectious causes. This is similar to the situation on Europe and Central Asia. In the next 15 years, with further implementation of proven health interventions, it is anticipated that the infectious causes of death will decline more quickly than non-infectious causes (Liu and others 2014).

![Figure 11: Causes of child mortality (0-5 years) in the World and Europe and Central Asia, 2015. Source: IGME](image)

129. According to data from the UN Inter-agency Group for Child Mortality Estimation, causes of death in Kazakhstan are in similar proportions to the countries of its context.

![Figure 12: Causes of child mortality (0-5 years) in Kazakhstan, 2015. Source: IGME](image)

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130. The table below shows the most updated data on the relative weight of different causes of death of child under 5 in terms of the ICD-10 codification (Year 2018).

<table>
<thead>
<tr>
<th>% of deaths</th>
<th>ICD - 10</th>
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<tbody>
<tr>
<td>40.79%</td>
<td>XVI Certain conditions originating in the perinatal period</td>
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<tr>
<td>18.45%</td>
<td>XVII Congenital malformations, deformations and chromosomal abnormalities</td>
</tr>
<tr>
<td>10.27%</td>
<td>XX External causes of morbidity and mortality</td>
</tr>
<tr>
<td>6.86%</td>
<td>X Diseases of the respiratory system</td>
</tr>
<tr>
<td>5.17%</td>
<td>I Certain infectious and parasitic diseases</td>
</tr>
<tr>
<td>4.85%</td>
<td>VI Diseases of the nervous system</td>
</tr>
<tr>
<td>4.80%</td>
<td>XVIII Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified</td>
</tr>
<tr>
<td>3.78%</td>
<td>IX Diseases of the circulatory system</td>
</tr>
<tr>
<td>2.26%</td>
<td>II Neoplasms</td>
</tr>
<tr>
<td>1.22%</td>
<td>XI Diseases of the digestive system</td>
</tr>
<tr>
<td>0.77%</td>
<td>III Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism</td>
</tr>
<tr>
<td>0.55%</td>
<td>IV Endocrine, nutritional and metabolic diseases</td>
</tr>
<tr>
<td>0.10%</td>
<td>XII Diseases of the skin and subcutaneous tissue</td>
</tr>
<tr>
<td>0.10%</td>
<td>XIV Diseases of the genitourinary system</td>
</tr>
<tr>
<td>0.02%</td>
<td>XIII Diseases of the musculoskeletal system and connective tissue</td>
</tr>
</tbody>
</table>

Source: Author’s elaboration from the NSC data

131. Since 2009, the NSC has been accounting for deaths and type of cause based on the codification of ICD-10. In total, 3,744 deaths of children under 5 have been averted and 47% decrease of deaths U-5 from 2009 to 2018.

132. In the year 2018 there has been a stop of the trend. To guide national and regional programs and research efforts, information about the distribution of causes of child deaths should be routinely updated. Time trends of child deaths by cause derived from consistent methods are needed in order to assess the lasting effects of child health interventions and assist the development of long-term child survival strategies.
133. To deepen the contribution of PHC in the reduction of maternal mortality, the main causes of death were reviewed according to differences among deaths averted and trend in last years.

134. The child health includes essential interventions across all three service platforms. The largest impact can be realized by interventions in the community-PHC level, especially through immunizations and treatment of infectious diseases. The PHC platform results in additional effects on child deaths primarily through treatment of severe infectious diseases and severe acute malnutrition (SAM).

135. According to documental analysis and stakeholders, PHC in Kazakhstan has a high participation in the prevention, detection and management of pneumonia and diarrhoea. Impressive reductions in mortality due to pneumonia have occurred in Kazakhstan. 575 deaths of children under 5 have been averted in last 10 years (2009-2018) due to respiratory complications, mainly pneumonia. Diarrhoea has a lower percentage of deaths and the tendency of reduction is lower.

136. However, in spite of the good evolution, there is room to improve the performance in PHC that would reduce mortality further. According to MICS 2015, only 36.7 per cent of women know at least one of the two danger signs of pneumonia. Many parents are not knowledgeable how to prevent health problems caused by poor hygiene or malnutrition. Under universal home visiting patronage model, nurses tend to focus on medical problems and do not have skills to identify social risks and needs. In this evaluation, it has been proven that the UPHV model introduced as a pilot in Kyzylorda Region is offering good results in this regard, as it allows a better identification of children at risk and treats the determinants that can cause the disease to appear. For example, handwashing with water and soap is a cost-effective health intervention to reduce both the incidence of diarrhea and pneumonia in children under five; that should be targeted to children at risk.

137. As in the world, most of infant deaths occur during the neonatal period for newborns. Almost the 70% of deaths averted was due to diseases in the perinatal conditions. Counted from the baseline of the year 2009, 2,427 deaths were avoided, assuming a decrease of 59% in 10 years. Hospital care has a high percentage of contribution in reducing deaths of children due to this cause, but the PHC contribute in great way through: facility-based contraceptive services, including long-acting reversible contraceptives (implants,

34 Kazakhstan, the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan and UNICEF, Kazakhstan Multiple Indicator Cluster Survey 2015, 2016

35 Баян Бабаева, Современная система патронажного сестринского обслуживания в Казахстане, 2017
intrauterine devices; surgical sterilization (vasectomy, tubal ligation); care during pregnancy and some delivery for urgent and uncomplicated pregnancies; provision of medical care for adults and children, such as injectable antibiotics, that cannot be done in the community.

138. The reproductive health, other than provision of contraceptive services, consists primarily of educational interventions. It is difficult to measure the direct impact on deaths, but it is important to encourage behaviours to prevent infections, ensure proper nutrition of girls before pregnancy, or to seek care for antenatal or delivery services at other levels.

139. Congenital anomalies are still important causes of infant and childhood deaths, chronic illness and disability in Kazakhstan. There has been a reduction of almost half of deaths from this cause, with an estimation of 520 deaths averted. Although congenital anomalies may be the result of one or more genetic, infectious, nutritional or environmental factors, it is often difficult to identify the exact causes. Some congenital anomalies can be prevented with a key role of the PHC. Vaccination, adequate intake of folic acid or iodine through fortification of staple foods or supplementation, and adequate antenatal care are just three interventions with proved effectiveness. Despite this good trend of congenital, the number of deaths and morbidity rates remains high. An indirect determinant, this higher risk relates to a possible lack of access to sufficient, nutritious foods by pregnant women, an increased exposure to agents or factors such as infection and alcohol, or poorer access to healthcare and screening. Factors often associated with lower-income may induce or increase the incidence of abnormal prenatal development. Maternal age is also a risk factor for abnormal intrauterine fetal development. Advanced maternal age increases the risk of chromosomal abnormalities, including Down syndrome. Very relevant, again, is the scale-up of the UPHV model with the potential to identify these risks and adapt health interventions according to their social context.

140. It should be noted that for three causes of death, the trend in the last 10 years has been negative in terms of mortality reduction: (i) ICD-XVIII Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified; (ii) ICD-IX Diseases of the circulatory system; and (iii) ICD-II Neoplasms.

Inequalities in gender and rural / urban children deaths

141. Based on data on deaths in children under five, possible inequities related to gender and rural / urban place of residence were analyzed.

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36 Contraceptives are not procured by the Health System and are not accessible for free. Understanding the importance of family planning for health of women, some facilities are procuring the pills and condoms using their own resources (Assessment of sexual, reproductive, maternal, newborn, child and adolescent health (SRMNCAH) in the context of Universal Health Coverage (UHC) in Kazakhstan. 2018)
From the data analyzed, it can be stated that (i) rural boys are dying above the population representation they have, (ii) boys are dying more than girls; and (iii) rural children are dying more than urban children.

Primary health care is recognized for increasing accessibility and utilization of health services in rural settings. Therefore, it is relevant for the purpose of this evaluation to analyze the correlation of the reforms that have introduced the PHC in Kazakhstan with the trends in the reduction of deaths in children under five years of age.

A positive trend is appreciated in the reduction of urban rural inequities, in the following causes of death. Among these causes, it is relevant to mention the reduction of the rural / urban gap in the deaths diagnosed by diseases of the respiratory system; among which is pneumonia the main cause. Although the progression is positive, the level of inequality remains high.

<table>
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<tr>
<th>Cause of death (U-5)</th>
<th>2009</th>
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<tr>
<td>X Diseases of the respiratory system</td>
<td>Urban</td>
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<td>IX Diseases of the circulatory system</td>
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<td>45,45%</td>
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<td>54,55%</td>
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<tr>
<td>III Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism</td>
<td>Urban</td>
<td>45,95%</td>
</tr>
<tr>
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<td>Rural</td>
<td>54,05%</td>
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<tr>
<td>IV Endocrine, nutritional and metabolic diseases</td>
<td>Urban</td>
<td>44,44%</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>55,56%</td>
</tr>
</tbody>
</table>

The rural / urban gap worsened, or high levels of inequity continue for the following causes. Differences in the digestive system and external causes should be highlighted.
Cause of death (U-5) | 2009 | 2018
---|---|---
VI Diseases of the nervous system | Urban | 44,28% | 44,22%
 | Rural | 55,72% | 55,78%
XI Diseases of the digestive system | Urban | 44,44% | 45,93%
 | Rural | 55,56% | 54,07%
XVIII Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | Urban | 44,12% | 43,16%
 | Rural | 55,88% | 56,84%
XX External causes of morbidity and mortality | Urban | 40,31% | 41,56%
 | Rural | 59,69% | 58,44%

Own elaboration. Data from the National Statistics Committee (2018)

146. There are no substantial changes in the rural / urban gap in following causes of death.

Cause of death (U-5) | 2009 | 2018
---|---|---
I Certain infectious and parasitic diseases | Urban | 49,81% | 50,66%
 | Rural | 50,19% | 49,34%
II Neoplasms | Urban | 50,57% | 50,61%
 | Rural | 49,43% | 49,39%
XVI Certain conditions originating in the perinatal period | Urban | 61,20% | 59,07%
 | Rural | 38,80% | 40,93%
XVII Congenital malformations, deformations and chromosomal abnormalities | Urban | 53,13% | 53,58%
 | Rural | 46,87% | 46,42%

Own elaboration. Data from the National Statistics Committee (2018)

147. There is a general convergence at the oblast level with the national average in reducing children mortality under 5, although some regions are significantly above the national ratio. Below it can be found the mortality U5 trends by oblast and comparative against national ratio.

148. Finally, the weight of averted deaths of children under 5 is indicated below, for each cause.
Deaths averted

-2427 XVI Certain conditions originating in the perinatal period
-575 X Diseases of the respiratory system
-520 XVII Congenital malformations, deformations and chromosomal abnormalities
-243 XX External causes of morbidity and mortality
-51 I Certain infectious and parasitic diseases
-6 III Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism
-5 XI Diseases of the digestive system
-4 XIV Diseases of the genitourinary system
-4 XIII Diseases of the musculoskeletal system and connective tissue

Deaths increased

+2 VI Diseases of the nervous system
+3 II Neoplasms
+3 XII Diseases of the skin and subcutaneous tissue
+4 IV Endocrine, nutritional and metabolic diseases
+20 IX Diseases of the circulatory system
+59 XVIII Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified

Positive trend on death reduction

2009

Negative trend on death reduction

2018

Own elaboration. Data from the National Statistics Committee (2018)
Mortality under 5 at a glance – by cause of death

Own elaboration. Data from the National Statistics Committee (2018)
Mortality under 5 at a glance – by oblast

DEATHS BY YEAR (UNDER 5) - Акмолинская область

DEATHS BY YEAR (UNDER 5) - Актюбинская область

Mortality rate U5 Kazakhstan - Акмолинская область

Mortality rate U5 Kazakhstan - Актюбинская область
DEATHS BY YEAR (UNDER 5) - Западно-Казахстанская область

DEATHS BY YEAR (UNDER 5) - Жамбылская область

Mortality rate U5 Kazakhstan - Западно-Казахстанская область

Mortality rate U5 Kazakhstan - Жамбылская область
DEATHS BY YEAR (UNDER 5) - Карагандинская область

484 406 378 356 286 77 77 27 26 26 26 705

Mortality rate U5 Kazakhstan - Карагандинская область

U5 Mortality Kazakhstan U5 Mortality Карагандинская об.

DEATHS BY YEAR (UNDER 5) - Костанайская область

745 72 72 18 18 16 14 14 34

Mortality rate U5 Kazakhstan - Костанайская область

U5 Mortality Kazakhstan U5 Mortality Костанайская об.
DEATHS BY YEAR (UNDER 5) - Кызылординская область

DEATHS BY YEAR (UNDER 5) - Мангыстауская область

Mortality rate U5 Kazakhstan - Кызылординская область

Mortality rate U5 Kazakhstan - Мангыстауская область

DEATHS BY YEAR (UNDER 5) - Северо-Казахстанская область

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
</tr>
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<tbody>
<tr>
<td>2009</td>
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</tr>
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<td>143</td>
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<td>2011</td>
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<td>2016</td>
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<td>2017</td>
<td>84</td>
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<td>2018</td>
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DEATHS BY YEAR (UNDER 5) - Восточно-Казахстанская область

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
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<td>2015</td>
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<td>2017</td>
<td>78</td>
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<tr>
<td>2018</td>
<td>80</td>
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Mortality rate U5 Kazakhstan - Северо-Казахстанская область

Mortality rate U5 Kazakhstan - Восточно-Казахстанская область

DEATHS BY YEAR (UNDER 5) - Нұр-Сұлтан қаласы

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Deaths</td>
<td>126</td>
<td>125</td>
<td>124</td>
<td>123</td>
<td>122</td>
<td>121</td>
<td>120</td>
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Mortality rate U5 Kazakhstan - Нұр-Сұлтан қаласы

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</thead>
<tbody>
<tr>
<td>Rate</td>
<td>60</td>
<td>55</td>
<td>50</td>
<td>45</td>
<td>40</td>
<td>35</td>
<td>30</td>
<td>25</td>
<td>20</td>
<td>15</td>
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</table>

DEATHS BY YEAR (UNDER 5) - г.Алматы

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Deaths</td>
<td>168</td>
<td>167</td>
<td>166</td>
<td>165</td>
<td>164</td>
<td>163</td>
<td>162</td>
<td>161</td>
<td>160</td>
<td>159</td>
</tr>
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</table>

Mortality rate U5 Kazakhstan - г.Алматы

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>25</td>
<td>20</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
</tbody>
</table>
6.3 Effectiveness

149. The effectiveness criteria examine how PHC reform is central in national spending and how cost-effectiveness are interventions in child health.

To what extent the PHC outputs have been achieved so far, and to what extent the outputs have contributed to the achievement of the infant and child health outcomes?

150. The definition of PHC services tends to vary across countries. Primary care includes a large range of curative as well as preventive and health promotion activities. The distinction between PHC and other outpatient services (e.g. consultative and diagnostic) is not clear-cut. This evaluation focused on the function, not on the form: PHC has to comply with some basic attributes that has been assessed. Effectiveness analysis used the definition of PHC developed by scholar Barbara Starfield, as the theoretical approach of the Primary Health Care to contrast PHC performance in Kazakhstan. PHC has to comply with some basic attributes. To assess the performance in each of the attributes, in addition to interviews with stakeholders and documental review, the PCAT survey was conducted to 129 families with children under 5 afixed to 4 polyclinics in two different regions. Find bellow a summary of main findings regarding PHC features on child population under 5 in Kazakhstan.

Table 7: Characteristics of Primary Health Care Defined by Barbara Starfield*

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Essential attributes</strong></td>
<td></td>
</tr>
<tr>
<td>1. First contact: PHC must be the health care setting where people establish the first contact for issues relating to their health, except in emergency situations</td>
<td></td>
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<tr>
<td>2. Continuity: the primary care professional must have the means to be able to offer continuity in care and carry it out over an extended period of time</td>
<td></td>
</tr>
<tr>
<td>3. Cover: PHC must offer complete and extensive care, and not just centred on resolving health problems on demand but, for example, carry out preventive interventions, in response to most prevalent health needs</td>
<td></td>
</tr>
<tr>
<td>4. Coordination: PHC must be coordinated with the rest of the care providers in other health fields</td>
<td></td>
</tr>
<tr>
<td><strong>Secondary attributes</strong></td>
<td></td>
</tr>
<tr>
<td>a) Family approach: it is important to focus health of individuals in the closest social context, that is, the family</td>
<td></td>
</tr>
<tr>
<td>b) Community orientation: it is essential to focus care on the resolution of health problems of the community that includes the target population</td>
<td></td>
</tr>
<tr>
<td>c) Cultural competence: professionals must know how to adapt and establish relationships that will help in the care of health problems of people of different social groups of the population assigned</td>
<td></td>
</tr>
</tbody>
</table>

* PHC indicates primary health care. Taken from Starfield B.2

First-contact care

151. With the economical growth, health has attained a higher priority on the policy agenda, with the result that Kazakhstan has increased its investment in health and launched several waves of health care reforms intended to improve the accessibility, equity, and efficiency of health services. In particular, the population is now entitled to access a basic package of benefits free-of-charge, primary health care has been expanded, and the hospital sector has been restructured to reduce on inpatient care.

152. Although public coverage of PHC services is nominally guaranteed and free of charge, effective access is not uniform. One fifth of the population is not registered with a primary care provider, and while the number of PHC contacts per capita appears high (an average
of 5.6 contacts with primary care per year.\(^{37}\) The figures seem likely to include contacts with ambulatory care specialists, making estimates of actual utilisation of primary care services at population level difficult to ascertain.

153. Despite some extent of service delivery fragmentation, families surveyed state they first sought care from primary care provider when a new health or medical need arises (not urgent cases). Few families say they take their children to an alternative private center. The primary care provider serves as the usual entry point into the health care system for each new need for health services, except in the case of serious emergencies. This situation is different in the big cities, where a greater supply of private services and a greater capacity of families in health spending make this situation vary.

### FIRST CONTACT ACCESS

Accessibility and use of the health service as a source of care for each new problem or new episode of the same health problem, with the exception of real emergencies and medical emergencies

Source: Author's elaboration from the surveys administered to families with children U-5

The best scores are given by the families to the first and last question. Respondents have access to quick contact by phone when they need to make a quick / urgent consultation. When families need the child to be seen on the same day, this happens in almost all cases. There is room for improvement in non-urgent administrative and care procedures.

**Continuous care**

154. Continuous care, which is concerned with Primary Health Care (APS) professionals accompanying patients over time, is considered a central feature of this level of health care. The fulfilment of this attribute is related to positive health results. It can be highlighted the longitudinal use of a regular source of care over time, regardless of the presence or absence of disease or injury.

CONTINUITY OF CARE

Existence of an ongoing source of attention, as well as its use over time. The relationship between the population and its source of attention should be reflected in an intense interpersonal relationship that expresses mutual trust between users and health professionals.

Source: Author’s elaboration from the surveys administered to families with children U-5

From the responses on the attribute of continuity in the PHC, two main findings can be seen. In first place, the population is assigned to reference centers and there is little capacity to change the reference center. Second, there are responses with a lower score in the continuity of the same doctor who attends the child over time. This may be an indicator of a fact already indicated previously by other evaluations and expressed by the stakeholders: the high turnover of primary care doctors.

On the other hand, very positive is the perception of families that have to do with the reliability to talk about health problems, the knowledge that professionals have about the treatment of children or the access to talk to the doctor or nurse who has greater knowledge about the child.

155. The continuity of care is, in general, well perceived by the families surveyed: the doctors / nurses and families build a long-term relationship in order to foster mutual understanding and knowledge of each other’s expectations and needs. This important element is limited in some places by the high turnover of doctors and, to a lesser extent, of nurses. Besides the existing quality initiatives such as the use of clinical guidelines, accreditation processes, and care pathways, new quality improvement measures could enable frequent monitoring of health outcomes.
Coordinated care

156. The essence of coordination is the availability of information about prior, and existing problems and services, and the recognition of that information as it bears on needs for current care.

157. As stated before according to regulation, Primary care should be the point of entry to the system and the place where most health needs are met, but when more specialised care is required, PHC providers should play a central role as co-ordinators of care. Fragmentation in health service delivery makes difficult co-ordination and continuous care for patients. Effective care coordination requires, among other things, the integration of information systems between different levels of providers, alignment of financial incentives, a multi-professional working culture, accountability mechanisms and strong leadership and commitment, elements which are for the most part still lacking in Kazakhstan. Nevertheless, the Ministry of Health reports that integrated models of medical care are being developed and implemented in some regions.

COORDINATION OF CARE

Coordination of care presupposes some form of continuity either by the care delivered by the same professional, either through medical records or both, besides the recognition of problems addressed in other services and the integration of this care in the overall care of the patient. The primary care provider must be able to integrate all the care the patient receives through coordination between services.

Source: Author’s elaboration from the surveys administered to families with children U-5

The families surveyed generally perceive a good level of coordination between PHC and referral to specialists when necessary. There were 22 cases of children with chronic diseases within the sample of families surveyed. Out of 22 with chronic diseases, 4 families claim the child didn’t consulted with any other specialist or specialized service during the period that he / she was being followed up by the health center.
Comprehensive care

158. This attribute of the PHC refers to the availability of a wide range of services in primary care and their appropriate provision across the entire spectrum of types of needs for all but the most uncommon problems in the population by a primary care provider. This includes services that promote and preserve health (those that prevent disease, injury, and dysfunction), and those that promote care of illness, disability. This range of services includes (but is not limited to) prevention, coaching, counseling when appropriate, care for acute and chronic illnesses and injuries, minor surgery, injections, aspiration of joints, simple dislocations, common skin problems, behavioral health and common mental health problems, and community health resources information.

159. PHC services in urban and rural areas are provided through an extensive network of more than 520 PHC facilities\textsuperscript{38} which offer diagnostic procedures; treatment of the most common illnesses and injuries; curative and preventive measures; immunization; community awareness raising and health education; and mother-and-child health protection measures. General medical practice (GP) was introduced within the framework of the “Strategic Development Plan of the Republic of Kazakhstan until 2020” and is pursued under the State Program “Densaulyk” for 2016-19.

160. Among the introduction of the GP, the PHC services are now required to be provided by multidisciplinary teams. PHC nurses, who generally work with a physician, have a key role in the provision of nursing care in health facilities or at the patient’s home, and the evaluation of patient health status. Nurses working in primary care are also responsible for prevention activities and social assistance. Midwives who are responsible for both clinical and administrative tasks such as keeping medical records, confirming pregnancy, providing antenatal care, identifying pregnant women at risk and providing assistance with deliveries. Feldshers provide emergency care in rural facilities but can also provide consultations at home or in PHC facilities, and prepare patients for medical examinations\textsuperscript{39} (Oxford Policy Management, 2014). In 2015, there were 4 830 feldshers in Kazakhstan, 76% of whom were providing services in rural areas. Since 2011, social workers and psychologists are also involved in primary health care services. They are mainly accountable for preventive services but also provide social and psychological support in outpatient care settings and in the home.

\textsuperscript{38} За полгода услуги первичной медико-санитарной помощи получили более 9 миллионов человек — Минздрав РК, https://primeminister.kz/ru/news/zasedanie-pravitelstva-rk/17078

Range of services available and provided by the primary care service. Actions that the health service should offer to users to receive comprehensive attention, both from the point of view of the biopsychosocial character of the health-disease process, as well as promotion, prevention, cure and rehabilitation actions appropriate to the PHC context, even if some actions can not be offered within the PHC units. They include referrals to focal medical specialties, hospitals, among others.

Source: Author’s elaboration from the surveys administered to families with children U-5

It can be observed the main services received by the families surveyed. It is no surprise that the total of families recognize the availability of vaccines. It is a positive confirmation for the reduction of infant mortality and morbidity; as well as availability of disability checkups and nutritional support. It should be noted in this attribute, that substantial positive differences were identified in the places where the UPHV model is being applied. This is especially true when asked if there is support to identify if the family has a chance to benefit from a social program.
161. Three cross-cutting aspects of care follow from the achievement of the four main attributes: (i) **Family-centered care** recognizes that the family is a major participant in the assessment and treatment of a patient. Families have the right and responsibility to participate individually and collectively in determining and satisfying the health care needs of family members; (ii) **Community-oriented care** refers to care that is delivered in the context of the community. It is concerned with the health care needs not only of patients and families being seen by the provider, but also of people in the community whose health care needs are not being met, and the characteristics of communities that influence the health care needs of everyone in the community; and (iii) **Culturally competent care** refers to care that honors and respects the beliefs, interpersonal styles, attitudes, and behaviors of people as they influence health. It implies skills that help to translate beliefs, attitudes, and orientation into action and behavior to preserve and promote health.

![Image](https://via.placeholder.com/150)

Source: Author’s elaboration from the surveys administered to families with children U-5

162. Respondents state that their doctors / nurses know well the family’s health and social status; although not so much the difficulties that may exist for the payment of medicines.

![Image](https://via.placeholder.com/150)

Source: Author’s elaboration from the surveys administered to families with children U-5

163. Almost all of them receive home visits and the situation in the neighborhood is well known. However, the participation of families in local health councils is not promoted. Again, disparities in responses must be noted; with a higher level of community focus perceived by families receiving UPHV model.
6.4 Efficiency

164. The efficiency criteria examine how PHC reform is central in national spending and how cost-effectiveness are interventions in child health. To what extend the PHC policy was implemented regarding a good relationship between outputs and inputs?

165. Healthcare is financed through the national budget funds, user fees and voluntary health insurance, with a relatively stable share of state funding over the last years with constantly increasing share of out of pocket pay. As a result of healthcare reforms, the entire population is now entitled to access a basic package of benefits free-of-charge. According to the Ministry of Health, 3.3 per cent of GDP was allocated to health sector in 2018, which is very modest relative to the OECD average of 8.9 per cent. Total private expenditures were 627 billion tenge in 2018, in comparison with the state expenditure of 940 billion tenge. There are fairly low medical expenses per capita - about $300 per person per year. For comparison, on average in the OECD - $4000 per year.41

166. The compulsory health insurance system could correct this situation and improve the healthcare system in the country. The introduction of health insurance is expected not affect the provision of primary health care. Primary care services will be provided to all citizens of the Republic of Kazakhstan, foreigners and stateless persons permanently residing in the territory of the Republic of Kazakhstan, regardless of their insurance status. A large list of interventions are being included: vaccinations against infectious and parasitic diseases, preventive medical examinations of target populations, patronage of children under one year of age, pregnancy monitoring and family planning, dynamic monitoring of patients with chronic diseases, medical and social assistance for socially significant diseases, emergency medical care, reception and consultation of a specialist in primary health care, including with acute or exacerbation of chronic diseases, diagnostic services, counseling on healthy lifestyles.

167. Primary health care (PHC) services in urban and rural areas are provided through an extensive network of more than 520 PHC facilities (29 per cent of them are private), which offer diagnostic procedures; treatment of the most common illnesses and injuries; curative and preventive measures; immunization; community awareness raising and health education; and mother-and-child health protection measures.

168. The data suggest that the financing of primary care is an important priority in Kazakhstan. According to data from the National Association for PHC, Primary care absorbs a 38% in 2017 share of spending in Kazakhstan.

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41 Ibid.

169. Funding schemes for different medical facilities are different (per capita at PHC and case based in hospital in big cities, per capita for all in rural settings), this makes difficult the assessment of rationality in resources for health facilities. The fragmentation in service provision might cause inefficiencies in spending, according to literature.

170. Given the available data, the financing of PHC scheme is related to population affixed:

- 0-1 year: 3950 tenge for males and 4522 for females
- 1-5 year: 1187 tenge for males and 1352 for females
- 30 – 40 years: 335 tenge for males and 992 for females
- More than 60 years: 688 tenge for males and 1795 for females

Source: National Association “Primary Health Care”. Kazakhstan. 2018
171. The density of physicians per 10,000 population increased from 38.8 in 2010 to 39.7 in 2018, while the density of nursing and midwifery personnel increased from 87.5 per 10,000 population in 2010 to 96.5 per 10,000 population in 2018. Despite the increase in the number of PHC physicians, they remain under-represented in the medical profession. The midrange estimate for 2015 indicates that 11% of the Kazakhstan medical workforce works as a PHC physician, against 32% on average in OECD countries.

Source: Assessment of sexual, reproductive, maternal, newborn, child and adolescent health (SRMNCAH) in the context of Universal Health Coverage (UHC) in Kazakhstan. 2018

172. Medicines prescribed in primary care are generally paid by the patient, and only dispensed free of charge for patients suffering from specific conditions. The majority of essential drugs related with maternal and child health interventions are provided as a part of the guaranteed health package and compulsory medical insurance programs both at PHC and hospital levels.

173. Individual maternal and child interventions, summarized in figure 12, have been shown to be cost-effective (Horton and Levin 2016).

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This chapter explores the cost-effectiveness of health interventions that have the potential to scale up in Kazakhstan. Given the limitations of updated information on the level of coverage of some interventions, this exercise should be taken as an indicative reference of possible scenarios for efficiency gains. Estimates are derived using the Lives Saved Tool (LiST) by increasing the coverage of each intervention to 90 percent from the current level of coverage according to data available.

Source: Horton and Levin 2016

Figure 16: Calculation on potentiality deaths averted by Individual Interventions

Source: Author’s elaboration from the LiST software.
175. The interventions that offer the best cost-efficiency ratio for mortality reduction, according to the literature review and the analysis performed in the LiST for Kazakhstan are:

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Population Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple micronutrient supplementation in pregnancy</td>
<td>Stillbirth and 0-1 months</td>
</tr>
<tr>
<td>ORS - oral rehydration solution</td>
<td>0-1 months and 1-59 months</td>
</tr>
<tr>
<td>Breastfeeding promotion</td>
<td>0-1 months and 1-59 months</td>
</tr>
<tr>
<td>Clean postnatal practices</td>
<td>0-1 months</td>
</tr>
<tr>
<td>Water connection in the home</td>
<td>0-1 months and 1-59 months</td>
</tr>
<tr>
<td>Oral antibiotics for pneumonia</td>
<td>1-59 months</td>
</tr>
<tr>
<td>Folic acid supplementation/fortification</td>
<td>0-1 months</td>
</tr>
<tr>
<td>Zinc for treatment of diarrhea</td>
<td>0-1 months and 1-59 months</td>
</tr>
<tr>
<td>Rotavirus vaccine</td>
<td>1-59 months</td>
</tr>
<tr>
<td>Chlorhexidine</td>
<td>0-1 months</td>
</tr>
<tr>
<td>MgSO4 management of pre-eclampsia</td>
<td>Stillbirth</td>
</tr>
<tr>
<td>Balanced energy supplementation</td>
<td>Stillbirth and 0-1 months</td>
</tr>
<tr>
<td>MAM - treatment for moderate acute malnutrition</td>
<td>1-59 months</td>
</tr>
<tr>
<td>SAM - treatment for severe acute malnutrition</td>
<td>1-59 months</td>
</tr>
<tr>
<td>Vitamin A supplementation</td>
<td>1-59 months</td>
</tr>
<tr>
<td>Diabetes case management</td>
<td>Stillbirth</td>
</tr>
<tr>
<td>Antibiotics for treatment of dysentery</td>
<td>1-59 months</td>
</tr>
</tbody>
</table>

176. The evolution of the reduction of the mortality of children under 5 is an indicator of the success of the health system and the development of the country improving the socioeconomic indicators. However, there is space to deepen the research and implementation of some maternal and child health interventions with a high cost-effectiveness ratio.

6.5 Sustainability

177. The sustainability criteria examine how PHC reform ensures the sustainability of intervention results.

To what extend the continuation of benefits from the PHC are guarantee, linked, in particular, to their continued resilience to risks?

178. Primary health care is gradually being developed in Kazakhstan. To date, key PHC reforms included:

✓ The introduction of the role of general practitioner
The definition of multidisciplinary teams in PHC services. Nurses help monitor specific populations (chronic patients) and a nurse in charge of prevention is being added to PHC teams. A psychologist and social worker provide comprehensive assistance to families.

More autonomy to the facilities which have allowed a greater capacity to adapt to local circumstances;

The introduction of incentives into the payment system to improve quality, and mandatory accreditation of PHC facilities;

The establishment of screening programmes and related activities to address noncommunicable diseases and piloting of disease management programmes.

179. There are important challenges for the development and sustainability of the health system, which are highlighted by the stakeholders: work overload, mainly for nurses who make home visits; a lot of rotation of professionals that put the continuity of care at risk; poor transportation services; and the claim of higher salaries by professionals. Introduction of new technologies are a challenge and an opportunity to be flexible to people's needs. Below is the answer given by the Health Authority to these challenges.

180. In last year it was celebrated a global conference of WHO and UNICEF, where countries approved and adopted the Astana Declaration. This document has a very important political character and gives greater legitimacy to the reforms. The basic principle of the resolution is the development and improvement of the primary health care. The Astana Declaration on primary health has to be implemented worldwide and was approved by the highest body of the WHO - the Assembly. This means the support of the Ministers of Health of 194 countries.

181. The top managers of the health system express a commitment to the development of PHC at the core of the health system. There is the assumption that, in a well-organized system, 80 percent of health problems can be resolved at the primary level. For this, the Ministry already begun to carry out training, but also raised salaries.

182. Currently, Kazakhstan has about 520 organizations of primary health care, which serve more than 11,000 places, each of them with an attached population per doctor of about 1800-2000 people. There are formally three but in several places two district nurses, a social worker and a psychologist. Despite ambitious workforce targets the number of PHC physicians remains low by neighbour countries standards (OECD), and many PHC professionals carry excessive workloads. There is the assumption by Health Authority that there is an overload to them and are now striving to reduce it. Over the past year, more than two thousand positions have been opened. Ultimately, there should be no more than 1,700 attached populations per general practitioner. Training of more than 30 thousand local doctors and nurses is also planned this year. They will be taught new approaches to disease management.

183. The limited information available on coverage of interventions related to chronic diseases also shows that considerable progress is still required. Currently the Health System is guiding local doctors to actively monitor patients with arterial hypertension, diabetes mellitus and chronic heart failure – under the disease management program. Each patient also has a form that must carry several times a year to the examination, follow a diet, take the necessary tests, and monitor his state of health. This plan includes an explanation to patients what kind of free medicine he is entitled to. A few years ago, it has been introduced this programme in two areas - Akmola and North Kazakhstan. As a result,
according to data from the Ministry of Health, hospitalization decreased two and a half times, and exacerbations of the disease decreased several times. The Ministry of Health decided to scale it throughout the country. This is considered by the evaluation team a relevant strategy for the sustainability of PHC results, improve effectiveness and increase confidence by the population.

184. Top official sustains that PHC has the conditions to obtain the most comprehensive picture of the health of a person and family, and family medicine will increasingly succeed in replacing specialized medicine thanks to support for technology, digitalization, and a person-centered approach. The role of the GP as the “gatekeeper” of the system will be developed - coordinator of the patient’s derivations between medical facilities and observe patients before and after major interventions at the hospital level.

185. Having the honor of twice becoming the birthplace of WHO’s historical documents - the Alma-Ata Declaration, which has not lost its relevance forty years later, and the new Astana Declaration, Kazakhstan is sponsoring as an example of State support for PHC. The first President of Kazakhstan, N.A. Nazarbayev, in the autumn announced a 20 percent increase in salaries for district health workers from 2019, and in February ordered to increase the share of primary health care costs and public health from the current 35-40 to 60 percent in 2025.

186. Kazakhstan, through the UN Sustainable Development Goals, seeks to ensure a healthy lifestyle and promote well-being for all at any age. The Health System authorities are confident that improving people's literacy about their health, actively and consciously maintaining health, the partnership of a person and a doctor at the level of primary contact with the healthcare system, and effective and affordable primary care that meets people's expectations can shift the center of gravity from illness to health.

6.7 Cross cutting: human rights and gender equality

187. This evaluation analyzed to what extent all children in Kazakhstan are able to enjoy all their rights as established by the Convention on the Rights of the Child (CRC) and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the Convention on the Rights of Persons with Disabilities (CRPD) and other key international standards, agreements and conventions.


189. Since 2006, the national laws safeguarding the rights and interests of children have been further refined with a view to bringing them more fully into line with the principles and provisions of the Convention and creating the legal conditions for children’s social well-being. These efforts have been furthered by the adoption of the Code on Public Health and the Health-care System (Act No. 193-IV of 18 September 2009), the Education Act (Act No. 319 of 27 July 2007) and Act No. 253-IV of 12 March 2010 on the Ratification of the Convention on Protection of Children and Cooperation in respect of Intercountry Adoption.

190. State sectoral programmes on the observance of the rights of the child in education and health care are aimed at implementing national policy on the observance of the legitimate rights and interests of children. These programmes include:

— The State programme for the development of education 2011–2020, approved pursuant to Presidential Decree No. 1118 of 7 December 2010.
— The “Salamatty Kazakhstan” State programme for the development of health care 2011–2015, approved pursuant to Presidential Decree No. 1113 of 29 November 2010.
— Other key national policies and programmes advancing the rights of children and youth such as the Kazakhstan-2050 Strategy or the the State Program on Health Development 2016-2019
— The Government of Kazakhstan and the United Nations Children’s Fund (UNICEF) have signed several country programmes. The country programmes were aimed at helping the Government to improve the quality of life of children, particularly those from vulnerable groups, and to reduce regional and gender inequality.

191. As a result of the country’s economic growth, priority funding has been earmarked for the implementation of government policies to benefit children in the areas of education, training, health care, physical and spiritual development, social services and the protection of families and children. The office of Ombudsman for Children’s Rights was established in 2016. The office is charged with the protection and promotion of the rights of children and young people.

192. The “Salamatty Kazakhstan” State health-care programme 2011–2015 was approved pursuant to Presidential Decree No. 1113 of 29 November 2010. The priority focus of the programme is the enhancement and accessibility of primary health care and health care for mothers, children and adolescents. That priority has been maintained in the current strategic documents.

193. The Ministries of Education, Internal Affairs, Health, Communications and Information, Culture, and Tourism and Sport have drawn up a joint plan of action to prevent suicidal behaviour among minors. The main priority of the plan was to organize proper joint monitoring of the issue, analyse and improve the work of psychological support services in schools, provide advanced training for education, health and internal affairs experts on determining anxiety levels in children and adolescents, and work to prevent suicide among children and students through information and publicity campaigns and the provision of
advice. A suicidology department has been set up at the National Research Centre for Psychiatry, Psychotherapy and Addiction Medicine of the Ministry of Health, which is responsible for identifying the causes of suicide and establishing preventive mechanisms aimed at adolescents.

194. Free medical care is provided for children pursuant to Government Decision No. 2136 of 15 December 2009 approving the list of guaranteed free medical services, and free medicines are provided pursuant to Ministry of Health Order No. 637 of 23 December 2005 approving a list that enables patients presenting with certain types of diseases or belonging to certain categories of the population to be supplied free of charge with medicines and special paediatric and therapeutic foodstuffs prescribed when they receive outpatient treatment and Order No. 446 of 4 September 2009 approving a list of medicines and medical articles that are provided to the public free of charge or at subsidized rates as part of the guaranteed package of free outpatient care.

195. The rights of the child and protection measures to be taken by the child’s family, society and the State are set out in the Children’s Rights Act, the Marriage and the Family Act, the Education Act and the Code on Public Health and the Health-care System, among others.

196. As explained before, the financing of PHC scheme is related to population affixed prioritizing children and women: 0-1 year: 3950 tenge for males and 4522 for females; 1-5 year: 1187 tenge for males and 1352 for females; 30 – 40 years: 335 tenge for males and 992 for females; and more than 60 years: 688 tenge for males and 1795 for females.

197. Achieving the SDGs as part of the 2030 Agenda is a high priority for countries around the world with which Kazakhstan is also committed. Thus, leveraging SDG accelerators is essential for governments and other actors crafting policies and strategies to maximize development progress with limited resources. Gender equality and women’s empowerment (GEWE) has been proven to be such an accelerator.

198. Considering this evaluation findings, it can be highlighted the PHC direct contribution to the following SDG results in Kazakhstan:

**Target 5.6 Sexual and Reproductive Health**

Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences.

199. Indirectly, PHC contributes to the development of two expected results of the 2030 Agenda sensitive to GEWE:

**Target 10.4 Fiscal, Wage and Social Protection**

Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality.

**Target 16.7 Inclusive Decision-Making**

Ensure responsive, inclusive, participatory and representative decision-making at all levels.

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7. CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

Relevance

200. It is widely supported by the literature that a well-developed system of primary care has beneficial effects on the health care system as a whole. Systems with a strong primary care level appear to be better able to control costs and have better health outcomes (Boerma & Dubois, 2006; Rechel & McKee, 2009; WHO, 2008). Recent evidence shows that strong primary care is associated with better population health, lower rates of unnecessary hospitalizations, and relatively lower socioeconomic inequality. In response to challenges in the health care sector, reform measures in Kazakhstan have sought to strengthen primary care.

201. The PHC reform has been a political priority and mainstream reform for the Ministry of Health of the Republic of Kazakhstan. The PHC reform has been at the core of the thee Healthcare State Plans (2005-2019).

202. The main achievements of the reform has been the introduction of the general practitioner role; the increase of autonomy of the PHC providers (mostly public organizations); payment and accreditation systems oriented to quality results; introduction of screening programs and other preventive activities for non-communicable disease (NCD); and piloting of disease management programmes.

203. UNICEF in cooperation with Government of Kazakhstan works for reduction of the infant and child mortality from 1993. Current UNICEF Kazakhstan Country Programme aims to continue supporting the efforts of Kazakhstan to further advance its progress towards the sustained realization of children’s rights, with particular attention to the rights of the most vulnerable children and their families. PHC plays the key role in prevention of mortality cases among infants and children. UNICEF has played a key role supporting to the country’s PHC reforms and reduction of infant and child mortality. These contributions can be grouped in 5 main areas: governance; financing; Human Resources, Equipment, Supplies, Infrastructure; and Social norms, practices and beliefs.

Impact

204. The purpose of this evaluation was to analyze the impact of primary healthcare care system on infant and child mortality in Kazakhstan. Child mortality reflects social, economic and environmental conditions in which children live. It also reflects the quality, performance and equity of national health systems.

205. There was a massive decrease in deaths of children under 5 years in the last ten years. Since 2009, 3,744 deaths of children under 5 have been averted with 47% decrease of deaths U-5 from 2009 to 2018. Although in the year 2018 there has been a stop of the trend.

206. The interventions that have the highest impact on deaths are management of labor and delivery; care of preterm births; treatment of severe infectious diseases, including pneumonia, diarrhoea, neonatal sepsis; and management of severe acute malnutrition.

207. Almost the 70% of deaths averted in last 10 years was due to diseases in the perinatal conditions. Counted from 2009 as the baseline year, 2,427 deaths were averted for this cause with decrease of death 59% in 10 years. Hospital care has a high percentage of contribution in reducing deaths of children due to this cause, but the PHC contribute in great way through: facility-based contraceptive services, including long-acting reversible contraceptives (implants, intrauterine devices); surgical sterilization (vasectomy, tubal
lication); care during pregnancy and some delivery for urgent and uncomplicated pregnancies; provision of medical care for adults and children, such as injectable antibiotics, that cannot be done in the community.

208. PHC in Kazakhstan has a high contribution in the prevention, detection and management of pneumonia and diarrhoea. Impressive reductions in mortality due to pneumonia have occurred in Kazakhstan. 575 deaths of children under 5 have been averted in last 10 years (2009-2018) due to respiratory complications, mainly pneumonia.

209. For three causes of death, the trend in the last 10 years has been negative in terms of mortality reduction: (i) ICD-XVIII Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified; (ii) ICD-IX Diseases of the circulatory system; and (iii) ICD-II Neoplasms.

210. The UPHV model introduced as a pilot in Kyzylorda Region is performing good results allowing a better identification of children at risk and treatment the determinants that can cause the disease to appear.

211. Childhood is an especially vulnerable period to the main determinants of health, such as living conditions, family income, employment, education, housing, access to health services, among other. All these determinants saw their condition improved in the last fifteen years contributing to mortality reduction. Kazakhstan made exceptional economic progress, with GDP growth of around 10% per year between 2000 and 2007, making it one of the fastest growing economies in the world at the time. The substantial economic growth has given rise to concomitant improvements in poverty rates and the emergence of a large middle class, making up almost two thirds of the population.

Effectiveness

212. PHC services in urban and rural areas are provided through an extensive network of more than 520 PHC facilities which offer diagnostic procedures; treatment of the most common illnesses and injuries; curative and preventive measures; immunization; community awareness raising and health education; and mother-and-child health protection measures. General medical practice (GP) was introduced within the framework of the “Strategic Development Plan of the Republic of Kazakhstan until 2020” and is pursued under the State Program “Densaulyk” for 2016-19.

213. The definition of PHC services tends to vary across countries. Primary care includes a large range of curative as well as preventive and health promotion activities. The distinction between PHC and other outpatient services (e.g. consultative and diagnostic) is not clear-cut. This evaluation focused on the function, not on the form: PHC has to comply with some basic attributes that has been assessed.

First-contact care

214. Despite some extent of service delivery fragmentation, families surveyed claim they first sought care from primary care provider when a new health or medical need arises (not urgent cases). Few families say they take their children to an alternative private center. The primary care provider serves as the usual entry point into the health care system for each new need for health services, except in the case of serious emergencies. This situation is different in the big cities, where a greater supply of private services and a greater capacity of families in health spending make this situation vary.

Continuous care

215. The continuity of care is, in general, well perceived by the families surveyed: the doctors / nurses and families build a long-term relationship in order to foster mutual understanding
and knowledge of each other’s expectations and needs. This important element is limited in some places by the high turnover of doctors and, to a lesser extent, of nurses.

216. The population is assigned to reference centers and there is little capacity for families to change the reference center. Relevant number of families claims that not always the same doctor attends the child over time. This may be an indicator of a fact already indicated previously expressed by the stakeholders: the high turnover of primary care doctors, mainly in remote areas.

Coordinated care

217. According to definition, Primary care should be the entry point to the health system and the place where most health needs are met, but when more specialised care is required, PHC providers should play a central role as co-ordinators of care. The families surveyed perceive a good level of coordination between PHC and referral to specialists when necessary. The perception of families is that the reference to second level devices works better than the counter-referral and follow-up once the patient leaves the second level of care.

Comprehensive care

218. Child health interventions, such as identification of visual problems, nutritional supplementation programme, immunizations, counselling on first child health symptoms or promotion of child health are well valued by users of PHC services.

219. It can be found important differences in services like counselling for mental health problems, support on searching social assistance, treatment for harmful drug use, support dealing with the child’s behaviour problems or preventive recommendations to avoid injuries to children which are well evaluated when the UPHV model is in place.

Efficiency

220. Healthcare is financed through the national budget funds, user fees and voluntary health insurance, with a relatively stable share of State funding over the last years with constantly increasing share of out of pocket pay. As a result of healthcare reforms, the entire population is now entitled to access a basic package of benefits.

221. According to the Ministry of Health, 3.3 per cent of GDP was allocated to health sector in 2018, which is very modest relative to the OECD average of 8.9 per cent. Total private expenditures were 627 billion tenge in 2018, in comparison with the State expenditure of 940 billion tenge. There are fairly low medical expenses per capita - about $ 300 per person per year. For comparison, on average in the OECD - $ 4000 per year.

222. The data suggests that the financing of primary care is an important priority in Kazakhstan. According to data from the National Association for PHC, Primary care absorbs a 38% in 2017 share of spending in Kazakhstan.

223. Some cost-effective health interventions have the potential to avert additional deaths in children under 5 by increasing the coverage: Multiple micronutrient supplementation in pregnancy, ORS - oral rehydration solution, Breastfeeding promotion, Clean postnatal practices, Water connection in the home, Oral antibiotics for pneumonia, Folic acid supplementation/fortification, Zinc for treatment of diarrhea, Rotavirus vaccine, Chlorhexidine, MgSO4 management of pre-eclampsia, Balanced energy supplementation, MAM - treatment for moderate acute malnutrition.
Sustainability

224. The PHC reform in Kazakhstan is expected to continue. In the last year it was celebrated a global conference of WHO and UNICEF, where countries approved and adopted the Astana Declaration. This document has a very important political character and gives greater legitimacy to the reforms. The basic principle of the resolution is the development and improvement of the primary health care. The Astana Declaration on primary health has to be implemented worldwide and was approved by the highest body of the WHO - the Assembly.

225. Top managers of the health system express a commitment to the development of PHC at the core of the health system. There is the assumption that, in a well-organized system, 80 percent of health problems can be resolved at the primary level.

226. There are important challenges for the sustainability of the PHC system, which are basically: work overload of the health professionals; a lot of rotation of professionals that put the continuity of care at risk; and the claim of higher salaries by professionals.

227. Some initiatives were introduced to make the system more sustainable: (i) the introduction of the role of general practitioner; (ii) the definition of multidisciplinary teams in PHC services; (iii) more autonomy to the facilities which have allowed a greater capacity to adapt to local circumstances; (iv) the introduction of incentives into the payment system to improve quality, and mandatory accreditation of PHC facilities; and (v) the establishment of screening programmes and related activities to address noncommunicable diseases (NCDs), together with piloting of disease management programmes (DMPs).

228. Introduction of new technologies are a challenge and an opportunity to the health system to be flexible to people's needs. Increasingly, the possibilities of new technologies for information and communication are being exploited. The use of social networks and messaging platforms suppose a very great potential. But at the same time it is a challenge on how to regulate its use and procedures.

Cross cutting


230. The office of Ombudsman for Children’s Rights was established in 2016. The office is charged with the protection and promotion of the rights of children and young people.

231. The financing of PHC scheme is related to population affixed prioritizing children and women: 0-1 year: 3950 tenge for males and 4522 for females; 1-5 year: 1187 tenge for males and 1352 for females; 30 – 40 years: 335 tenge for males and 992 for females; and more than 60 years: 688 tenge for males and 1795 for females.

232. Regarding inequalities, it can be stated that (i) boys are dying more than girls; (ii) rural children are dying more than urban children; (iii) rural boys are dying above the population representation they have.

233. There is a general convergence at the oblast level with the national average in reducing children mortality under 5, although some regions are significantly above the national ratio.
7.2 Lessons Learned

234. PHC reform in Kazakhstan and UPHV model implemented in Kyzylorda Region allowed to confirm key functions the literature on development identifies as significant in helping to shape the way successful development policies can be designed and implemented:

I. Policy Support: projects are effective where able to identify policy innovations, especially at a local level as the case of UPHV model, and assist governments in devising ways to scale them up. UNICEF is viewed by stakeholders as positive and influential when it was able to provide sophisticated, quality policy advice (that is, advice that is sharp and well-contextualized, informed by detailed knowledge of past and current experiences as well as budgetary and political constraints) at different levels of government. UNICEF Kazakhstan has the capability and resources to identify and promote successful local efforts (even ones at small scale) to improve social outcomes like child nutrition or access to education and offer advice on how governments could extend those policies to other communities elsewhere in the country. Therefore, in this evaluation different stakeholders have claimed the continuity of UNICEF support for the implementation of the UPHV model throughout the country and boost the PHC reform.

II. Norms, Standards and Advocacy: The programmes have been most successful where advocacy has been embedded into all activities, from policy support for PHC reform to monitoring and evaluation or service provision. This required not only designing project or policy support initiatives, but also fostering an internal culture around those norms and standards within the implementing partners. Advocacy is successful when two types of effort were considered: high-level and secondary reach. High-level involved the ability to influence and have an impact on the decision-making of high ranking government officials to foster and scale-up the UPHV model, from brainstorming policy options to raising awareness of key challenges to disseminating the results of analyses. Secondary involves developing ways to partner with governments to make development-related information accessible and available to the widest possible audience using resources such as publications, social networks, and other means of communications. It has also meant undertaking multi-stakeholder partnerships with organized civil society entities, grassroots groups, and private sector actors.

III. Strategic focus for Service Delivery: As an evaluation by the Canadian International Development Agency (CIDA, 2012) noted, the programme’s initiatives tended to be most successful where programming was not widely dispersed across a vast number of projects and/or a large geographic area and where there was effective investment in knowledge development. The UPHV model has been implemented as a pilot project. UNICEF played a leading role in the training of doctors and nurses to adapt their work to the needs of the UPHV model.

235. Many policy reform initiatives fail to achieve sustained improvements in performance because they are merely isomorphic mimicry or agenda conformity rather than enhanced functionality.

236. The emphasis on form (what reforms ‘look like’) over function (what they actually ‘do’) is a crucial characteristic of the capability trap facing many countries. UPHV model

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49 Isomorphic mimicry conflates form and function: “that is, governments and organizations pretend to reform by changing what policies or organizations look like rather than what they actually do.”
implementation focused more in function than in form. The challenge of escaping this trap involves focusing on improved functionality as the key to improved state capability. The basic message must be that interventions are successful if they empower a constant process through which agents make organizations better performers, regardless of the forms adopted to effect such change.

237. Given this basis, three domains has been influenced the PHC reform and UPHV model implementation arising some lessons:

- The importance of the support needed for implementation in different ways: political, legal, organizational, or personal. It was important to get authority at the top health system and regional level to foster the change.
- Also the acceptance by those who were affected by policy change (team of the PHC centres) accepted the new approach and the implications of change. Different types of change require different levels of acceptance (from narrow or broad groups and at different depths) and the key is to recognize what acceptance exists and what gaps need to be closed to foster change.
- And the need to focus on the practical side of the reform, and the need for time, money, skills and the like to even start any kind of intervention (ability). Training is a great component of the strategy.

238. These three elements, to a greater or lesser extent, were followed for the design of the pilot in Kyzylorda. It is critical for a successful expansion of the model, to review the capability gaps in these domains: authority, acceptance and ability.

239. Finally, as is common to other post-Soviet countries, work must be done to get a definition of what PHC means in the country. There are different hybrid health devices so it would be pertinent to be able to differentiate which characteristics are of the first level of health and which of the second.
### 7.3 Recommendations

The recommendations presented below were derived from the findings and conclusion of this evaluation. Besides, some of them were prompted by the interviewees and supported by other participants through surveys and consultations.

<table>
<thead>
<tr>
<th>RECOMMENDATIONS - Starting from the highest priority</th>
<th>Aligned with conclusion</th>
<th>Stakeholder responsible</th>
</tr>
</thead>
</table>
| **R #1:** In the year 2018 there has been a stop of the positive trend in deaths of children under 5. To guide national and regional programs and research efforts, information about the distribution of causes of child deaths should be routinely updated. Time trends of child deaths by cause derived from consistent methods are needed in order to assess the lasting effects of child health interventions and assist the development of long-term child survival strategies.  
⇒ Action: Establish a work team or conduct a multidisciplinary workshop to analyze the root causes of the increase in mortality of children under 5 in 2018 | Impact | Ministry of Health – Universities |
| **R #2:** Set a strategy to get balance between the definition of cost-effective child health packages and the ability of local providers to adapt to the local context. This has to do with the degree of decentralization and autonomy of local health providers to adapt service packages. UPHV model appears as relevant in this task to develop health packages based on risk assessment.  
⇒ Action: Develop a document about the strategy and operation to adapt national and regional health policies to local conditions based on risk assessment.  
⇒ Develop district profiles with a set of indicators and targets linked to national policies and risk assessment. | Impact effectiveness | Ministry of Health |
| **R #3:** Define a strategy to foster the coordination and integration of social services and health system considering the scaling up of the UPHV model. Promote inter-ministerial coordination, especially concerning multisectoral issues such as health, education, social and WASH, as required or permitted by the projects. The coordination and participation should be also improved at the governance and community local level.  
⇒ Action: Develop a document on institutional arrangements and process definition to coordinate social and health services considering the scaling up of the UPHV model.  
⇒ Action: Implement a cross-programme advocacy strategy at level of UNICEF and other international donors for inter-ministerial coordination, especially | Effectiveness | Ministry of Health – Ministry of Labor and Social Protection – Ministry of Education |
## RECOMMENDATIONS - Starting from the highest priority

<table>
<thead>
<tr>
<th><strong>R#4:</strong> Guide and regulate the use of new technologies for information and communication, paying special attention to the use of social networks and messaging platforms. They present many possibilities for data analysis and evidence based interventions - for example to transfer health indicators directly from the patient to the doctor and constant feedback from a medical professional. PHC will take advantage of modern medical advances and the first, at an early stage, to detect cancer, diabetes, and many other diseases, including depression and mental disorders that are increasingly occurring in the country.</th>
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<tbody>
<tr>
<td><strong>Action:</strong> Map out all the Information and communications technology being used in the health and social sector in Kazakhstan.</td>
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<tr>
<td><strong>Action:</strong> Develop a research on international best practices, regulation and policies regarding introduction and use of ICTs for Health.</td>
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<tr>
<td><strong>Aligned conclusion with development partners</strong></td>
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<tr>
<td><strong>Stakeholder responsible</strong></td>
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<td>Development partners</td>
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<tr>
<th><strong>R#5:</strong> Develop tools and capabilities to get available information on coverage of interventions related to maternal and child health interventions and chronic diseases.</th>
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<tbody>
<tr>
<td><strong>Action:</strong> Document the maternal and child health interventions in practice with detail of delivery channel and coverage.</td>
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<tr>
<td><strong>Efficiency - effectiveness Ministry of Health</strong></td>
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</tbody>
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<tr>
<th><strong>R#6:</strong> Develop a costing assessment of the maternal and child service package and scenarios for the scaling-up cost-effective interventions. The absence of this study limits the capability to make evidence-based decisions.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action:</strong> Develop a research on maternal and child health interventions with a high cost-effectiveness relationship and a strategy to booster it: Multiple micronutrient supplementation in pregnancy, ORS - oral rehydration solution, Breastfeeding promotion, Clean postnatal practices, Water connection in the home, Oral antibiotics for pneumonia, Folic acid supplementation / fortification, Zinc for treatment of diarrhea, Rotavirus vaccine, Chlorhexidine, MgSO4 management of pre-eclampsia, Balanced energy supplementation, MAM - treatment for moderate acute malnutrition</td>
</tr>
<tr>
<td><strong>Action:</strong> Costing assessment on maternal and child health service package detailed by level of delivery</td>
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<tr>
<td><strong>Efficiency Ministry of Health -International partners</strong></td>
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<tr>
<td>RECOMMENDATIONS - Starting from the highest priority</td>
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<tr>
<td><strong>R#7:</strong> Actively engage a large number of professionals / officers to ensure that reforms are viable, legitimate, relevant and feasible and not limited to a few external experts promoting top-down diffusion of innovation.</td>
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<tr>
<td>⇒ Action: Develop a strategy document with practical recommendations about how to engage professionals in health policy decision making</td>
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8. ANNEXES

Evaluation Matrix

Below it can be found the matrix for the two-fold evaluation: 1) Assessment of the universal progressive home visiting model in Kyzylorda region; and 2) the PHC impact on Child and Infant Mortality in Kazakhstan.
### Relevant evaluation criteria

<table>
<thead>
<tr>
<th>Key Question</th>
<th>Specific Sub-Questions</th>
<th>Data Sources</th>
<th>Data collection Methods/Tools</th>
<th>Indicators/Success Standard</th>
<th>Methods for Data Analysis</th>
</tr>
</thead>
</table>
| To what extent are the objectives of the PHC policy consistent with country development priorities and policies, and were they aligned throughout the period with government priorities and with agencies' global policies and strategies? | - To what extent has the need for reform been grounded in evidence-based problem analysis and to what extent does it correspond to the needs of the target groups?  
- How relevant were the government's PHC reforms and policies to national goals and achievements in respect to reduced infant and child mortality rates (ICMR)?  
- To what extent was UNICEF's support relevant to the country's PHC reforms that led to reduced infant and child mortality? How relevant was the home-visiting model for PHC reform aimed at ICMR reduction?  
- To what extent have the reforms and UNICEF interventions taken into account international standards and good practices?  
- To what extent have national authorities in charge of implementing the reform been involved in its design (through all the process)?  
- To what extent has the reform and the home visiting model integrated gender equality and equity into its design? | - Government strategies, programmes and policies.  
- UNICEF analysis on MDGs and the needed reforms  
- Sectoral regulations, guidelines.  
- UNICEF technical level recommendations  
- Country Program Document for Kazakhstan  
- Kazakhstan CPD Result Matrix  
- Situation Analysis for Children and Women  
- UNICEF Strategic documents  
- ODS Reports | - Documentary review  
- Key Individual interviews  
- Focus groups  
- Microsurveys | Each output of the PHC policy definition is explicitly linked to the national priority and/or needs  
- The objectives and strategies of the components of the PHC Policy are consistent with the priorities of the the national development strategies and policies  
- Capacity of response to changing scenarios, failed assumptions and to requests made by national stakeholders.  
- Degree of flexibility in redirecting funds and the adaptation of the objectives and interventions in light of changes in national priorities.  
- The UNICEF adapted regional and international frameworks to national plans and strategies; and the utilizations of best practices, relevant program theories & strategies guiding UNICEF’s programming | Qualitative analysis  
- Triangulation  
- Expert and desk research |
<table>
<thead>
<tr>
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</tr>
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</table>
| Effectiveness               | To what extent the PHC outputs have been achieved so far, and to what extent the outputs have contributed to the achievement of the infant and child health outcomes | - To what extent have state reforms and interventions contributed to **improving PHC system**, its institutions and achievement of MDG 4?  
- What **interventions** within the framework of PHC system for mother and child care were the most and least effective? Were these interventions sufficient to achieve the goal to reduce ICMR?  
- What were the **key factors** that influenced or hindered the achievement of the reduced ICMR?  
- To what extent has the **home visiting model** achieved planned outputs and outcomes?  
- Was the **model effective** in reducing infant and child mortality and improved parenting practices since 2015?  
- Were the established **partnerships** effective in achieving the current results of the model?  
- How effective were the **home visiting model implementation** mechanisms (coordination, management, etc.) in achieving the current results/outputs of the project? | - Government strategies, programmes and policies.  
- UNICEF analysis on MDGs and the needed reforms  
- Sectoral regulations, guidelines.  
- UNICEF technical level recommendations  
- Country Program Document for Kazakhstan  
- Kazakhstan CPD Result Matrix  
- Situation Analysis for Children and Women  
- UNICEF Strategic documents  
- ODS Reports  
- Health Evaluation Reports  
- Project documents  
- Primary data from institutional sources | - Documentary review  
- Key Individual interviews  
- Focus groups  
- Primary data from field visits  
- Surveys  
- Statistical Data | Degree of achievement of the MDG 4  
Degree of reduction in infant and child mortality rates (ICMR)  
Degree of achievement of the outputs specified in the PHC policy, meeting the indicators defined for each of them and checking the satisfaction of partners.  
Positive output impact on outcomes according to assumptions stated in policy formulation and ToC | Theory of change  
Quantitative and qualitative analysis  
LIST  
PCATool  
Triangulation  
Expert and desk research |
<table>
<thead>
<tr>
<th>Relevant evaluation criteria</th>
<th>Key Question</th>
<th>Specific Sub-Questions</th>
<th>Data Sources</th>
<th>Data collection Methods/Tools</th>
<th>Indicators/Success Standard</th>
<th>Methods for Data Analysis</th>
</tr>
</thead>
</table>
| **Efficiency**               | To what extend the PHC policy was implemented regarding a good relationship between outputs and inputs, identifying that the most efficient management system has been adopted | - What strategies of the government, partners and actors were the most efficient in improving PHC and achieving lower ICMR?  
- What interventions were the most cost effective in providing PHC services to pregnant women and families with children under 5?  
- Have the resources at the national and regional levels been used in the most economical way to achieve the expected results in PHC reforms?  
- To what extent the approaches at PHC level related to MCH services were cost-effective to reach the most vulnerable families with children U5? What measures were most cost effective in providing PHC services to pregnant women and families with children under 5?  
- How efficiently were used the human resources allocated by the Government and partners/actors?  
- Did the reform system include a coordination system to encourage synergy and avoid overlaps?  
- To what extent the universal-progressive model of home visiting is more efficient than traditional approaches at PHC level?  
- How well have the financial resources been used for the model implementation? Were funds managed in cost-effective manner? Could the same results have been achieved with fewer resources? | - Government strategies, programmes and policies.  
- Sectoral regulations, guidelines.  
- UNICEF technical level recommendatio ns  
- Health Evaluation Reports  
- Project documents  
- Primary data from institutional sources  
- Budgetary data and documentation  
- HR management data | - Documentary review  
- Key Individual interviews  
- Focus groups  
- Primary data from field visits  
- Surveys | The approaches, resources, models, conceptual framework are relevant to achieve the planned outcome. No irrational processes or duplications  
Good relationship cost effectiveness in outputs  
Evidences of synergies in the use of resources  
Use of monitoring and evaluation systems for the management of the PHC | Theory of change  
Quantitative and qualitative analysis  
Triangulation  
Expert and desk research |
<table>
<thead>
<tr>
<th>Relevant evaluation criteria</th>
<th>Key Questions</th>
<th>Specific Sub-Questions</th>
<th>Data Sources</th>
<th>Data collection Methods/Tools</th>
<th>Indicators/Success Standard</th>
<th>Methods for Data Analysis</th>
</tr>
</thead>
</table>
| Impact                      | What has been the impact of primary healthcare care system on infant and child mortality in Kazakhstan in light of past and present PHC reforms, policy changes, and approaches to family services provision, including through the home-visiting system? | - To what extent over the period 2000-2017 the reformed PHC structure and care support, including the antenatal, prenatal and home-visiting services, influenced the level and trends of infant and child mortality in Kazakhstan and which internal and external factors positively or negatively contributed to this result?  
- To what extent the PHC reforms and interventions by the government of Kazakhstan and with support of partners affected a) boys and girls; and b) the most vulnerable groups of children and families including those with lower income, living in rural area, single parent, etc.?  
- To what extent have different stakeholders, and particularly UNICEF, contributed to those results?  
- Has the inequality between the most affluent and the most vulnerable groups increased, remained unchanged or declined after the implementation of the MCH services at PHC level?  
- Were there any unforeseen (positive and/or negative) results due to interventions?  
- What is the evidence of the contribution of the piloted universal-progressive model of home visiting to PHC in the region?  
- In what ways, if any, do mothers and children under 5 benefit from the piloted model? Are there any differences related to gender, socio-economic status and rural-urban location? | Government strategies, programmes and policies.  
- UNICEF analysis on MDGs and the needed reforms  
- Sectoral regulations, guidelines.  
- UNICEF technical level recommendations  
- Country Programm Document for Kazakhstan  
- Kazakhstan CPD Result Matrix  
- Situation Analysis for Children and Women  
- UNICEF Strategic documents  
- ODS Reports  
- Health Evaluation Reports  
- Project documents  
- Primary data from institutional sources | - Documentary review  
- Key Individual interviews  
- Focus groups  
- Field visits  
- Surveys  
- Statistical Data  
- Data on child health status | Contribution of the PHC in the infant and child mortality  
PHC approaches / interventions focused to reduce bottlenecks of the health system in the care of pregnant women, infants and children  
Decrease in health inequities for children | Theory of change  
Quantitative and qualitative analysis  
LiST  
PCATool  
Triangulation  
Expert and desk research |
### Relevant Evaluation Criteria

<table>
<thead>
<tr>
<th>Sustainability</th>
<th>Key Questions</th>
<th>Specific Sub-Questions</th>
<th>Data Sources</th>
<th>Data Collection Methods/Tools</th>
<th>Indicators/Success Standard</th>
<th>Methods for Data Analysis</th>
</tr>
</thead>
</table>
| To what extend the continuation of benefits from the PHC are guarantee, linked, in particular, to their continued resilience to risks? | - What are the factors contributing to sustainability of the PHC system towards reducing the ICMR?  
- To what extent the Government owned the PHC reform process and is committed to sustain it, including through an evolution of budget allocations for PHC and MCH?  
- What should be the next steps for the Government of Kazakhstan to sustain the achieved results?  
- Will UNICEF's contribution to system level changes continue to impact families with children U5 and pregnant women after its support is withdrawn?  
- Is the universal-progressive model of home visiting ready for national scale-up? What kind of systems and instruments have been setup to facilitate the rollout of the new home visiting model for a national replication?  
- To what extent national and local authorities involved in the model piloting have the capacity to sustain the model? | - Government strategies, programmes and policies.  
- UNICEF analysis on MDGs and the needed reforms  
- Sectoral regulations, guidelines.  
- UNICEF technical level recommendations  
- Country Program Document for Kazakhstan  
- Kazakhstan CPD Result Matrix  
- Situation Analysis for Children and Women  
- UNICEF Strategic documents  
- ODS Reports  
- Health Evaluation Reports  
- Project documents  
- Primary data from institutional sources | - Documentary review  
- Key Individual interviews  
- Focus groups  
- Field visits  
- Surveys  
- Statistical Data | Existence of strategies and mechanisms for appropriation by national counterparts  
Generation of conditions conducive to the sustainability of the PHC results  
Existence of formal political and financial commitments to give sustainability to the products and results  
Identification of instruments and methods for national scale-up the universal-progressive model of home visiting | Theory of change  
Quantitative and qualitative analysis  
Triangulation  
LiST  
PCATool  
Expert and desk research |

For all this criteria, the evaluation team will apply crosscutting dimensions/questions:
<table>
<thead>
<tr>
<th>Relevant evaluation criteria</th>
<th>Key Question</th>
<th>Data Sources</th>
<th>Data collection Methods/Tools</th>
<th>Indicators/Success Standard</th>
<th>Methods for Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-cutting</td>
<td>- To what extent are sex and age disaggregated data collected and monitored?</td>
<td>- Government strategies, programmes and policies.</td>
<td>- Documentary review</td>
<td>Disaggregated data by sex and age available</td>
<td>Theory of change</td>
</tr>
<tr>
<td></td>
<td>- In what ways and to what extent has the PHC reform and UNICEF piloted model integrated an equity based approach into the design and implementation of its interventions?</td>
<td>- UNICEF analysis on MDGs and the needed reforms</td>
<td>- Key Individual interviews</td>
<td>Equity based approach integrated in PHC reform and UNICEF piloted model</td>
<td>Quantitative and qualitative analysis</td>
</tr>
<tr>
<td></td>
<td>- Do the PHC reform and UNICEF piloted model actively contribute to the promotion of child and women rights, especially the most vulnerable?</td>
<td>- Sectoral regulations, guidelines.</td>
<td>- Focus groups</td>
<td>Interventions for the promotion of child and women rights, non-discrimination and equity focus identified</td>
<td>LiST</td>
</tr>
<tr>
<td></td>
<td>- To what extent and how do the PHC reform and UNICEF piloted model ensure a non-discrimination and equity focus?</td>
<td>- UNICEF technical level recommendations</td>
<td>- Primary data from field visits</td>
<td></td>
<td>PCATool</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Country Programm Document for Kazakhstan</td>
<td>- Surveys</td>
<td></td>
<td>Triangulation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Kazakhstan CPD Result Matrix</td>
<td>- Statistical Data</td>
<td></td>
<td>Expert and desk research</td>
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<td></td>
<td></td>
<td>- Situation Analysis for Children and Women</td>
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</tr>
</tbody>
</table>
## Relevant evaluation criteria

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Key Question</th>
<th>Data Sources</th>
<th>Data collection Methods/Tools</th>
<th>Indicators/Success Standard</th>
<th>Methods for Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Was representativeness of coverage ensured by PHC reform and UNICEF piloted</td>
<td>- Government strategies, programmes and policies.</td>
<td>- Documentary review</td>
<td>Groups reached by PHC reform and UNICEF pilot model</td>
<td>Theory of change</td>
</tr>
<tr>
<td></td>
<td>model activities?</td>
<td>- UNICEF analysis on MDGs and the needed reforms</td>
<td>- Key Individual interviews</td>
<td>Vulnerable children has been reached, including children with</td>
<td>Quantitative and qualitative analysis</td>
</tr>
<tr>
<td></td>
<td>- Which groups have been reached by the PHC reform and UNICEF piloted model</td>
<td>- Sectoral regulations, guidelines.</td>
<td>- Focus groups</td>
<td>disabilities</td>
<td>LiST</td>
</tr>
<tr>
<td></td>
<td>and what is the different impact on those groups?</td>
<td>- UNICEF technical level recommendations</td>
<td>- Primary data from field visits</td>
<td></td>
<td>PCATool</td>
</tr>
<tr>
<td></td>
<td>- Have vulnerable children been reached, including children with disabilities?</td>
<td>- Country Programmm Document for Kazakhstan</td>
<td>- Surveys</td>
<td></td>
<td>Triangulation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Kazakhstan CPD Result Matrix</td>
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<td></td>
<td>Expert and desk research</td>
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<tr>
<td></td>
<td></td>
<td>- Situation Analysis for Children and Women</td>
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<tr>
<td></td>
<td></td>
<td>- UNICEF Strategic documents</td>
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<tr>
<td></td>
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<td>- ODS Reports</td>
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<tr>
<td></td>
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<td>- Health Evaluation Reports</td>
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<td></td>
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<td>- Project documents</td>
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<td></td>
<td></td>
<td>- Primary data from institutional sources</td>
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</tbody>
</table>

### Other Data Sources

- Country Programme Document for Kazakhstan
- Kazakhstan CPD Result Matrix
- Situation Analysis for Children and Women
- UNICEF Strategic documents
- ODS Reports
- Health Evaluation Reports
- Project documents
- Primary data from institutional sources

### Data collection Methods/Tools

- Documentary review
- Key Individual interviews
- Focus groups
- Primary data from field visits
- Surveys
- Statistical Data
<table>
<thead>
<tr>
<th>Relevant evaluation criteria</th>
<th>Key Question</th>
<th>Data Sources</th>
<th>Data collection Methods/Tools</th>
<th>Indicators/ Success Standard</th>
<th>Methods for Data Analysis</th>
</tr>
</thead>
</table>
| Coordination                | - What was the role of the MoH, local government, NGOs, UN agencies community and other key actors in the design, coordination and implementation of PHC reform and UNICEF piloted model? | - Government strategies, programmes and policies.  
- UNICEF analysis on MDGs and the needed reforms  
- Sectoral regulations, guidelines.  
- UNICEF technical level recommendations  
- Country Programm Document for Kazakhstan  
- Kazakhstan CPD Result Matrix  
- Situation Analysis for Children and Women  
- UNICEF Strategic documents  
- ODS Reports  
- Health Evaluation Reports  
- Project documents  
- Primary data from institutional sources | - Documentary review  
- Key Individual interviews  
- Focus groups  
- Primary data from field visits  
- Surveys  
- Statistical Data | Stakeholders participation in design, coordination and implementation phases of the PHC reform and UNICEF pilot model | Theory of change  
Quantitative and qualitative analysis  
LiST  
PCATool  
Triangulation  
Expert and desk research |
<table>
<thead>
<tr>
<th>Relevant evaluation criteria</th>
<th>Key Question</th>
<th>Data Sources</th>
<th>Data collection Methods/Tools</th>
<th>Indicators/Success Standard</th>
<th>Methods for Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coherence</td>
<td>- What were the areas and ways of cooperation with other UN and donor agencies in regard to development of services for vulnerable children? - How does the PHC reform and UNICEF piloted model relate to the existing national and/or local policy on children?</td>
<td>- Government strategies, programmes and policies. - UNICEF analysis on MDGs and the needed reforms - Sectoral regulations, guidelines. - UNICEF technical level recommendations - Country Program Document for Kazakhstan - Kazakhstan CPD Result Matrix - Situation Analysis for Children and Women - UNICEF Strategic documents - ODS Reports - Health Evaluation Reports - Project documents - Primary data from institutional sources</td>
<td>- Documentary review - Key Individual interviews - Focus groups - Primary data from field visits - Surveys - Statistical Data</td>
<td>Cooperation mechanisms with other UN identified UNDAF Kazakhstan M&amp;E data</td>
<td>Theory of change Quantitative and qualitative analysis LiST PCATool Triangulation Expert and desk research</td>
</tr>
</tbody>
</table>
Research Ethics Approval letter

Research Ethics Approval

11 February 2019

Alberto Nunez, Team Leader
United Nations Children’s Fund
10A Beibitshilik str. Astana Kazakhstan


Dear Mr. Nunez,

Protocols for the protection of human subjects in the above study were assessed through an ethics review by HML Institutional Review Board on 28 January – 11 February 2019.

This study’s human subjects’ protection protocols, as stated in the materials submitted, received IRB approval. Please notify this IRB of any changes in this study’s design, risks, consent, or other human subject protection protocols.

Sincerely,

[Signature]

D. Michael Anderson, Ph.D., MPH
Chair & Human Subjects Protections Director, HML IRB

cc: Zhanar Sagimbayeva, Damir Kozhanbayev, Kanat Sukhanberdiyev, Penelope Lantz, JD

HML Institutional Review Board
1101 Connecticut Avenue, NW Suite 450
Washington, DC 20036 USA
+1.202.753.5040
unicef@hmlirb.com  www.hmlirb.com
US Department of Health & Human Services, Office of Human Research Protections IRB #0001211
## Interviews Scripts

### Script for the staff of the UNICEF Office

<table>
<thead>
<tr>
<th>Question</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>General information: internal organization, country program outputs of</td>
<td>RELEVANCE</td>
</tr>
<tr>
<td>its responsibility, main implementing partners</td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>To what extent has the need for reform been grounded in evidence-based</td>
<td>RELEVANCE –</td>
</tr>
<tr>
<td>problem analysis and to what extent does it correspond to the needs of</td>
<td>EFFECTIVENESS</td>
</tr>
<tr>
<td>the target groups?</td>
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<td></td>
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<tr>
<td>To what extent the results achieved through the implementation of the</td>
<td>RELEVANCE –</td>
</tr>
<tr>
<td>PHC Policy Reform impacted in the child mortality reduction?</td>
<td>EFFECTIVENESS</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>How relevant were the government’s PHC reforms and policies to national</td>
<td>RELEVANCE</td>
</tr>
<tr>
<td>goals and achievements in respect to reduced infant and child mortality</td>
<td></td>
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<tr>
<td>rates (ICMR)?</td>
<td></td>
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<td></td>
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<tr>
<td>To what extent have the reforms and UNICEF interventions taken into</td>
<td>RELEVANCE</td>
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<tr>
<td>account international standards and good practices?</td>
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<td></td>
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<tr>
<td>What interventions within the framework of PHC system for mother and</td>
<td>EFFECTIVENESS</td>
</tr>
<tr>
<td>child care were the most and least effective? Were these interventions</td>
<td></td>
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<tr>
<td>sufficient to achieve the goal to reduce ICMR?</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>How effective were the home visiting model implementation mechanisms</td>
<td>EFFECTIVENESS</td>
</tr>
<tr>
<td>(coordination, management, etc.) in achieving the current results/outputs</td>
<td></td>
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<tr>
<td>of the project?</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>How effective was the implementation process of the PHC Policy?</td>
<td>EFFICIENCY</td>
</tr>
<tr>
<td>(Effectiveness) (identify internal or external limiting factors /</td>
<td></td>
</tr>
<tr>
<td>challenges that hinder the achievement of the expected health results),</td>
<td></td>
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<tr>
<td>What resources were used, were these enough?</td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>What strategies of the government, partners and actors were the most</td>
<td>EFFICIENCY</td>
</tr>
<tr>
<td>efficient in improving PHC and achieving lower ICMR? What interventions</td>
<td></td>
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<tr>
<td>were the most cost effective in providing PHC services to pregnant women</td>
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<td>and families with children under 5?</td>
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<td></td>
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<tr>
<td>To what extent the universal-progressive model of home visiting is more</td>
<td>EFFICIENCY</td>
</tr>
<tr>
<td>efficient than traditional approaches at PHC level?</td>
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<td></td>
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<tr>
<td>Do you think that the country will be able to sustain the outputs and</td>
<td>SUSTAINABILITY</td>
</tr>
<tr>
<td>outcomes produced so far in the long term? Why/ Why not? What do you</td>
<td></td>
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<tr>
<td>perceive as internal or external factors that limit the sustainability of</td>
<td></td>
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<tr>
<td>the results?</td>
<td></td>
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<td></td>
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<tr>
<td>Is the universal-progressive model of home visiting ready for national</td>
<td>SUSTAINABILITY</td>
</tr>
<tr>
<td>scale-up? What kind of systems and instruments have been setup to</td>
<td></td>
</tr>
<tr>
<td>facilitate the rollout of the new home visiting model for a national</td>
<td></td>
</tr>
<tr>
<td>replication?</td>
<td></td>
</tr>
</tbody>
</table>
**How were cross cutting issues integrated: gender, human rights, humanitarian response, capacity building?**

**STRATEGIC ALIGNMENT**

Request information on outputs achievements so far, unexpected results; with detail of the sources of information on output and outcome indicators

---

**Script for government stakeholders**

<table>
<thead>
<tr>
<th>Question</th>
<th>Relevant Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>In what policy area have you participated in the PHC policy reform?</td>
<td>RELEVANCE – STRATEGIC ALIGNMENT</td>
</tr>
<tr>
<td>How effective was the process of reform implementation? Did you find any obstacles that hinder an effective collaboration and implementation?</td>
<td>RELEVANCE – STRATEGIC ALIGNMENT</td>
</tr>
<tr>
<td>To what extent has the need for reform been grounded in evidence-based problem analysis and to what extent does it correspond to the needs of the target groups?</td>
<td>RELEVANCE</td>
</tr>
<tr>
<td>To what extent the results achieved through the implementation of the PHC Policy Reform impacted in the child mortality reduction?</td>
<td>RELEVANCE – EFFECTIVENESS</td>
</tr>
<tr>
<td>How relevant were the government’s PHC reforms and policies to national goals and achievements in respect to reduced infant and child mortality rates (ICMR)?</td>
<td>RELEVANCE</td>
</tr>
<tr>
<td>To what extent have the reforms and UNICEF interventions taken into account international standards and good practices?</td>
<td>RELEVANCE</td>
</tr>
<tr>
<td>What interventions within the framework of PHC system for mother and child care were the most and least effective? Were these interventions sufficient to achieve the goal to reduce ICMR?</td>
<td>EFFECTIVENESS</td>
</tr>
<tr>
<td>How effective were the home visiting model implementation mechanisms (coordination, management, etc.) in achieving the current results/outputs of the project?</td>
<td>EFFECTIVENESS</td>
</tr>
<tr>
<td>How effective was the implementation process of the PHC Policy? (Effectiveness) (identify internal or external limiting factors / challenges that hinder the achievement of the expected health results), What resources were used, were these enough?</td>
<td>EFFICIENCY</td>
</tr>
<tr>
<td>What strategies of the government, partners and actors were the most efficient in improving PHC and achieving lower ICMR? What interventions were the most cost effective in providing PHC services to pregnant women and families with children under 5?</td>
<td>EFFICIENCY</td>
</tr>
<tr>
<td>To what extent the universal-progressive model of home visiting is more efficient than traditional approaches at PHC level?</td>
<td>EFFICIENCY</td>
</tr>
</tbody>
</table>
Do you think that the country will be able to sustain the outputs and outcomes produced so far in the long term? Why/ Why not? What do you perceive as internal or external factors that limit the sustainability of the results?

**SUSTAINABILITY**

Is the universal-progressive model of home visiting ready for national scale-up? What kind of systems and instruments have been setup to facilitate the rollout of the new home visiting model for a national replication?

**SUSTAINABILITY**

How were cross cutting issues integrated: gender, human rights, humanitarian response, capacity building?

**STRATEGIC ALIGNMENT**

What aspects would you like to highlight about the partnership with UNICEF Country Office? Both positive and those which need to be improved. Also about some important cross cutting issues: capacity building, humanitarian response and ability to establish effective partnerships. **EFFICIENCY - ADDED VALUE**

Request information on outputs achievements so far, unexpected results; with detail of the sources of information on output and outcome indicators

---

**Script for local stakeholders**

Presentation of the evaluation project and request for general information: internal organization, review the country program outputs of its responsibility, main implementing partners at local level

How effective has been the process of implementing the PHC policy? (From planning, goal setting, implementation, resources, management, results and sustainability). What degree of autonomy have you had to adapt the policy to the local reality? What is the type of relationship with central MOH officials, technical support, project control or other?

To what extent does UNICEF contribute to your organization’s effective programme delivery/mandate and achievement of results? **EFFICIENCY - EFFECTIVENESS**

How effective were the home visiting model implementation mechanisms (coordination, management, etc.) in achieving the current results/outputs of the project? **EFFECTIVENESS**

To what extent the universal-progressive model of home visiting is more efficient than traditional approaches at PHC level? **EFFICIENCY**

To what extent are the regional priorities aligned to PHC policy at country level? **RELEVANCE - SUSTAINABILITY**

Is the universal-progressive model of home visiting ready for national scale-up? What kind of systems and instruments have been setup to facilitate the rollout of the new home visiting model for a national replication? **SUSTAINABILITY**

Do you believe that the project carried out locally can be extended to the whole country? What do you think is the
<table>
<thead>
<tr>
<th><strong>SUSTAINABILITY</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>What were the main barriers at the local level for PHC policy design and implementation? – EFFECTIVENESS</td>
<td></td>
</tr>
<tr>
<td>What were the main benefits to the local population of the Home visiting model? - EFFECTIVENESS</td>
<td></td>
</tr>
</tbody>
</table>
PCATool – Child version

Description of the tool

It consists of 55 items divided into 10 related components as follows to PHC attributes:

1. Degree of Affiliation with Health Service (A). Consisting of 3 items (A1, A2 and A3)
2. First Contact Access - Usage (B). Consisting of 3 items (B1, B2 and B3).
3. First Contact Access - Accessibility (C). Consisting of 6 items (C1, C2, C3, C4, C5 and C6).
4. Longitudinarity (D). It consists of 11 items (D1, D2, D3, D4, D5, D6, D7, D8, D9, D10 and D11).
5. Coordination - Integration of Care (E). Consisting of 5 items (E2, E3, E4, E5 and E6).
6. Coordination - Information System (F). Consisting of 3 items (F1, F2 and F3).
7. Integrality - Available Services (G). It consists of 9 items (G1, G2, G3, G4, G5, G6, G7, G8 and G9).
8. Integrality - Services Provided (H). Consisting of 5 items (H1, H2, H3, H4 and H5).

The PCATool-Child version should be applied to the parents of the children or they caregivers (such as grandparents, uncles or legal caregivers), identifying the family / caregiver who is most responsible for the child's health care. The following question can be used to identify this caregiver: "Who is the person most able to talk about the health care of ........ (child's name)"?
**PRIMARY CARE ASSESSMENT TOOL**

**PCATool - Child version**

**Initiation:** Presentation of the interviewer and the objectives of the study / evaluation.

**INTRODUCTORY ITEMS**

In this section, you must:

1. Check availability of the person who does not have a household or family member / caregiver of the health unit then with an interview;
2. Identify, according to the research / evaluation objectives, whether the child in question is eligible for the study / evaluation (application of the inclusion / exclusion criteria of your study / evaluation). Identify the child's name and, from then on, always use his name as a reference.
3. Identify the person responsible for the child (caregiver) who should respond to PCATool. Use, for example, the question, "Who is the person most able to talk about the child's health care?", Identifying the relationship with the child;
4. Apply the Informed Consent Form;
5. Continue with the interview.
PRIMARY CARE ASSESSMENT TOOL
PCATool - Child

A type - AFFILIATION LEVEL

A1 - Is there a doctor/nurse or healthcare service where you usually go with your child when he/she get sick and need advice about his/her health?

☐ Yes
☐ No

Name of provider or healthcare service: __________________________________________
Address: ____________________________

A2 - Is there a doctor/nurse or healthcare service who knows best _________________________ (name of the child) as a person? (Do not read the alternatives)

☐ No
☐ Yes, same doctor/nurse/health service as above
☐ Yes, different doctor/nurse/health service (Please provide name and address)

Name of provider or healthcare service: __________________________________________
Address: ____________________________

A3 - Who is the doctor or healthcare service who is more responsible for the health care of the _________________________ (name of the child)? (Do not read the alternatives)

☐ No
☐ Yes, same as A1 & A2 above
☐ Yes, same as A1
☐ Yes, same as A2
☐ Yes, different than A1 & A2 (Please provide name and address)

Name of provider or healthcare service: __________________________________________
Address: ____________________________

For the interviewer: IDENTIFICATION OF THE HEALTHCARE SERVICE OR DOCTOR/NURSE TO BE ASSESSED.

NOW, the interviewer identifies the healthcare service that will be evaluated, according to the guidelines below:

-- If the respondent indicated the same health service in the three questions, continue the rest of the questionnaire about that doctor/nurse or healthcare service. (Complete item A5).
-- If the respondent answered two equal questions, continue the rest of the questionnaire about that doctor/nurse or healthcare service (Complete item A5).
-- If all answers are different, continue the rest of the questionnaire about the doctor/nurse or healthcare service identified in question A1 (Complete item A5).
-- If the respondent answered NO to two questions, continue the rest of the questionnaire about that doctor/nurse or healthcare service identified in the question to which the respondent answered YEs. (Complete item A5).
-- If the respondent answers NO to question A1 and indicates different answers to questions A2 and A3, continue the remainder of the questionnaire about that doctor/nurse or healthcare service indicated in A3 responses (Complete item A5).
-- If the respondent answered NO to all three questions, please ask the name of the last doctor/nurse or healthcare service where the child consulted and continue the rest of the questionnaire about that doctor/nurse or healthcare service (Complete item A4 and A5).

A4 - Name of doctor/nurse or healthcare service last sought: ____________________________

Explain to the interviewee that:

From now on, all of the following questions will be about:

A5 - ____________________________

("name of the doctor/nurse/healthcare service"). (Proceed to Section B)
**PRIMARY CARE ASSESSMENT TOOL**

**PCATool – Child Version**

**B – FIRST CONTACT – UTILIZATION**

*Interviewer - for all upcoming questions use the Answers Card.*

<table>
<thead>
<tr>
<th>Please, select the best option</th>
<th>Absolutely, yes</th>
<th>Probably, yes</th>
<th>Probably, not</th>
<th>Absolutely, not</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1 - When your child needs a check-up visit (<em>&quot;routine consultation&quot;</em>), do you go to your <em>&quot;name of healthcare service / or doctor / nurse&quot;</em> before going to another health facility?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>B2 - When your child has a new health problem, do you go to your <em>&quot;name of healthcare service / or doctor / nurse&quot;</em> before going to another health service?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>B3 - When your child has to consult a specialist doctor, does your <em>&quot;name of healthcare service / or doctor / nurse&quot;</em> have to refer you to it?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>
### PRIMARY CARE ASSESSMENT TOOL

**PCATool - Child Version**

**C – FIRST CONTACT – UTILIZATION – ACCESSIBILITY**

*Interviewer - for all upcoming questions use the Answers Card.*

<table>
<thead>
<tr>
<th>Please, select the best option</th>
<th>Absolutely, yes</th>
<th>Probably, yes</th>
<th>Probably, not</th>
<th>Absolutely, not</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1 - When the &quot;name of healthcare service / or doctor / nurse&quot; is open and your child becomes ill, does someone from this health service see you on the same day?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>C2 - Do you have to wait a long time or talk to many people to set the time for &quot;name of healthcare service / or doctor / nurse&quot;?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>C3 - Is it easy to set a time for a CRITICAL REVIEW (&quot;routine consultation&quot;) query in &quot;name of healthcare service / or doctor / nurse&quot;?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>C4 - Do you have to wait more than 30 minutes for your child to see the doctor / nurse (not counting screening or care) when you arrive at the &quot;name of healthcare service / or doctor / nurse&quot;?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>C5 - Is it difficult for you to get medical care for your child in the &quot;name of healthcare service / or doctor / nurse&quot; when you think it is necessary?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>C6 - When the &quot;name of healthcare service or doctor / nurse &quot; is open, can you get quick advice on the phone if you need to?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>
## PRIMARY CARE ASSESSMENT TOOL

PCATool - Child Version

### D - LONGITUDINALITY

*Interviewer - for all upcoming questions use the Answers Card.*

<table>
<thead>
<tr>
<th>Please, select the best option</th>
<th>Absolutely, yes</th>
<th>Probably, yes</th>
<th>Probably, not</th>
<th>Absolutely, not</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D1</strong> - When you go to &quot;name of healthcare service / or doctor / nurse&quot;, is it the same doctor or nurse who attends your child every time? &quot;</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td><strong>D2</strong> - If you have a question about your child's health, can you call and talk to the &quot;doctor / nurse&quot; that best knows your child?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td><strong>D3</strong> - Do you believe your child's &quot;doctor / nurse&quot; understands what you say or ask?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td><strong>D4</strong> - Does the &quot;doctor / nurse&quot; answer your questions in a way that you understand?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td><strong>D5</strong> - Does &quot;doctor / nurse&quot; give you enough time to talk about your concerns or problems?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td><strong>D6</strong> - Do you feel comfortable telling the worries or problems related to your child to the &quot;doctor / nurse&quot;?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td><strong>D7</strong> - Does the &quot;doctor / nurse&quot; know your child more as a person than only as someone with a health problem?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td><strong>D8</strong> - Does the &quot;doctor / nurse&quot; know the complete medical history of your child?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Please, select the best option</td>
<td>Absolutely, yes</td>
<td>Probably, yes</td>
<td>Probably, not</td>
<td>Absolutely, not</td>
<td>Not sure</td>
</tr>
<tr>
<td>-------------------------------</td>
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</tr>
<tr>
<td>D9 - Does the &quot;doctor / nurse&quot; know about all medications your child is taking?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>D10 - Would the &quot;doctor / nurse&quot; meet with family members if you felt it necessary for your child?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>D11 - Would you change the &quot;name of healthcare service / or doctor / nurse&quot; to another healthcare service if this was very easy to do?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>
### PRIMARY CARE ASSESSMENT TOOL

**PCATool - Child Version**

#### E - COORDINATION - INTEGRATION OF CARE

E1 - Has your child consulted with any other specialist or specialized service during the period that he / she is being followed up on the "name of healthcare service / or doctor / nurse"?

- Yes
- No (Skip to question F1)
- Not sure / do not remember (Skip to question F1)

*Interviewer - for all upcoming questions use the Answers Card.*

<table>
<thead>
<tr>
<th>Please, select the best option</th>
<th>Absolutely, yes</th>
<th>Probably, yes</th>
<th>Probably, not</th>
<th>Absolutely, not</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>E2 - Did the &quot;name of the healthcare service / or doctor / nurse&quot; suggest / advise your child to consult with this specialist or specialist service?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>E3 - Does your child's &quot;doctor / nurse&quot; know that she has had this consultation with this specialist or specialist service?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>E4 - Did your child's &quot;doctor / nurse&quot; know the results of this consultation?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>E5 - After this consultation with the specialist or specialist service, did your &quot;doctor / nurse&quot; talk to you about what happened during this consultation?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>E6 - Did your &quot;doctor / nurse&quot; seem interested in the quality of care your child received at the specialist or specialist service?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>
**PRIMARY CARE ASSESSMENT TOOL**  
PCATool - Child Version

**F - COORDINATION - INFORMATION SYSTEM**

*Interviewer - for all upcoming questions use the Answers Card.*

<table>
<thead>
<tr>
<th>Please, select the best option</th>
<th>Absolutely, yes</th>
<th>Probably, yes</th>
<th>Probably, not</th>
<th>Absolutely, not</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1. When you take your child to the &quot;name of healthcare service / or doctor / nurse&quot; do you bring any of the healthcare records or service bulletins the child has received in the past? (as: emergency medical records, vaccination card)?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>F2. When you take your child to the &quot;name of health care / or doctor / nurse&quot;, is his medical record always available at the clinic?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>F3. Could you read (see) the chart of your child if you wanted in the &quot;name of the health service / or doctor / nurse&quot;?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>
## PRIMARY CARE ASSESSMENT TOOL
**PCATool - Child Version**

**G - INTEGRALITY - AVAILABLE SERVICES**

*Interviewer - for all upcoming questions use the Answers Card.*

The following information is a list of services/guidelines that you and your family or people using this service may need at some point.

Please indicate if these services or guidelines are available in the "name of the health service / or doctor / nurse".

(Repeat every 3-4 items: “It is available at "name of the health service / or doctor / nurse". ...”)

<table>
<thead>
<tr>
<th>Please, select the best option</th>
<th>Absolutely, yes</th>
<th>Probably, yes</th>
<th>Probably, not</th>
<th>Absolutely, not</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1 - Vaccines (immunizations).</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>G2 - Verify if your family can participate in any social assistance program or social benefits.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>G3 - Family Planning or Contraceptive Methods.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>G4 - Nutritional supplementation program (eg. milk and food).</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>G5 - Counseling or treatment for the harmful use of drugs. Licit or illicit (eg. alcohol, cocaine, sleeping pills).</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>G6 - Counseling for mental health problems.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>G7 - Suture a cut that needs stitches.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>G8 - Counseling and requesting HIV testing.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>G9 - Identification (some type of evaluation) of visual problems (to see).</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>
**PRIMARY CARE ASSESSMENT TOOL**
**PCATool - Child Version**

**H - INTEGRALITY - SERVICES PROVIDED**

*Interviewer - for all upcoming questions use the Answers Card.*

"I will tell you about several important issues for your child's health. I want you to tell me whether in the consultations with your "doctor / nurse", any of these matters were discussed with you?"

"Inquires at "name of the health service / or doctor / nurse", have any of the following questions about your child already been discussed with you? (Repeat every 3-4 items)"

<table>
<thead>
<tr>
<th>Please, select the best option</th>
<th>Absolutely, yes</th>
<th>Probably, yes</th>
<th>Probably, not</th>
<th>Absolutely, not</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 - Guidelines to keep your child healthy, eating healthy, good hygiene or adequate sleep.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>H2 - Home safety: how to store medicines safely.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>H3 - Child growth and developmental changes, that is, what things you should expect from each age. For example, when the child is going to walk, control the pee ...</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>H4 - Ways to deal with your child's behavior problems.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>H5 - Ways to keep your child safe, such as: Avoid falling over or keeping children away from the stove.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>
PRIMARY CARE ASSESSMENT TOOL  
PCATool - Child Version  
I - FAMILY COUNSELING  

Interviewer - for all upcoming questions use the Answers Card.

<table>
<thead>
<tr>
<th>Please, select the best option</th>
<th>Absolutely, yes</th>
<th>Probably, yes</th>
<th>Probably, not</th>
<th>Absolutely, not</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1 - Do you think &quot;doctor / nurse&quot; knows your family well enough?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>I2 - Does the &quot;doctor / nurse&quot; know what are the most important problems for you and your family?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>I3 - Does the &quot;doctor / nurse&quot; know about the work or employment of your child's family members?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>I4 - Would the &quot;doctor / nurse&quot; know in any way if you had problems getting or paying for medications your child needs?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>I5 - Does your &quot;doctor / nurse&quot; ask about your ideas and opinions about the treatment and care of your child?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>I6 Has your &quot;doctor / nurse&quot; ever asked you about diseases or problems that exist in your child's family (cancer, alcoholism, depression)?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>
### PRIMARY CARE ASSESSMENT TOOL
**PCATool - Child Version**

**J - COMMUNITY APPROACH**

*Interviewer - for all upcoming questions use the Answers Card.*

<table>
<thead>
<tr>
<th>Please, select the best option</th>
<th>Absolutely, yes</th>
<th>Probably, yes</th>
<th>Probably, not</th>
<th>Absolutely, not</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1 - Does anyone from &quot;name of healthcare service/ or doctor / nurse&quot; make home visits?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>J2 - Does the &quot;name of healthcare service/ or doctor / nurse&quot; know about the important health problems in your neighborhood?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td><strong>Below are listed different ways to evaluate the quality of health services. Does &quot;name of health service /or doctor /nurse&quot; do any of these?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J3 - Do community research to identify health problems that he or she should know about?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>J4 - Invites family members to participate in Local Health Council (Managing Council / User Council)?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>
### Agenda of the field visit

**Purpose of the evaluation:** Impact of Primary health care to infant and child mortality

**UNICEF Consultant:** Alberto Nuñez, Marc Satorras (GesaWorld, Spain)

<table>
<thead>
<tr>
<th>Date / time</th>
<th>Action / Meeting with</th>
<th>Place</th>
<th>Who will participate</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 May Понедельник</td>
<td>Arrival</td>
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<td>14, May Tuesday Nur-Sultan (Astana)</td>
<td>9:00 – 10:00 Meeting with WB</td>
<td>Mr. Baktybek Zhumadil, Senior Operations Officer 12, Samal, 14th floor +77017120392</td>
<td><a href="http://www.worldbank.org.kz">www.worldbank.org.kz</a></td>
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<td>11:00 UNICEF CO</td>
<td>Representative Yuri Oksamitniy, Deputy Rep Ms. Veronika Vashchenko 10A, str. Beibitshilik, Nur-Sultan (Astana)</td>
<td>+7 (7172) 32 17 97, 32 29 69, 32 28 78</td>
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<td>10:00 – 13:00 UNICEF CO</td>
<td>Damir Kozhanbayev Kanat Sukhanberdiyev Aigul Kadirova Assel Kaliyeva 10A, str. Beibitshilik, Nur-Sultan (Astana)</td>
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<td>13:00 – 14:30</td>
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<td>14:30-16:30</td>
<td>Meeting with Nur-Sultan City Department of health</td>
<td>Mr. Marat Shoranov, Head</td>
<td>11, str. Beibitshilik, Nur-Sultan (Astana)</td>
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<td>Ms. Magripa Embergenova, Deputy</td>
<td>astana.gov.kz</td>
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<td>Interpreter &amp; Ms. Yulia Sidorkina (tbc) +77019008212</td>
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<td>17:00-18:00</td>
<td>Meeting with Republican Center for Healthcare Development (RCHD)</td>
<td>Ms. Ainur Aiypkhanova, Director General of RCHD</td>
<td><a href="http://www.rcr.z.kz/index.php/en/">http://www.rcr.z.kz/index.php/en/</a></td>
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<td>Ms. Yulia Sidorkina (tbc) +77019008212</td>
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**15 May Wednesday**

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<tr>
<td>10:00-11:00</td>
<td>MoH</td>
<td>Mr. Askar Horoshash, Director of Department of medical assistance organization of MoH;</td>
<td>+77172-742918 <a href="http://dsm.gov.kz/en/kategorii/departament-organizacii-medicinskoy-pomoshchi">http://dsm.gov.kz/en/kategorii/departament-organizacii-medicinskoy-pomoshchi</a></td>
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<td>Ms. Kulyaim Birzhanova, Deputy Director</td>
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<td>Ms. Zaure Dalelovna, Deputy Director</td>
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<td>16:00-17:00</td>
<td>Meeting with National Public Health Center</td>
<td>Mr. Valikhan Akhmetov, General Director of National Public health center jointly with Ms. Nataliya Yushitsina, Chief of strategy unit</td>
<td>House of Ministries Entrance №18B Interpreter &amp; Ms. Yulia Sidorkina (tbc) +77019008212</td>
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16 May Thursday
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<tr>
<td>9:00-10.00</td>
<td>Meeting with Medical University</td>
<td>Mr. Dainius Pavalkis, Chairman of the Board, Rector of the N JSC “Astana Medical University”&lt;br&gt;Mr. Tolepbai Rahypbekov, Chairman of Medical University (Astana)</td>
<td>Beibitshilik ave, 49A&lt;br&gt;Interpreter &amp; IMCI coordinator</td>
<td><a href="http://www.amu.kz/en">http://www.amu.kz/en</a></td>
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<td>11:00-13.00</td>
<td>Meeting with PHC #10</td>
<td>Ms. Gulnar Alpysbekova, Head of PHC #10&lt;br&gt;Meetings with GPs, pediatricians, nurses, home-visiting nurses</td>
<td>Koshigul uly str. 8&lt;br&gt;Interpreter &amp; IMCI coordinator</td>
<td><a href="http://emhana10.kz/">http://emhana10.kz/</a></td>
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<td>14:00-15:00</td>
<td>Meeting with WHO CO</td>
<td>Mr. Oleg Chestnov, Representative WHO CO</td>
<td>Mangilik Yel ave., 20/2&lt;br&gt;<a href="http://www.euro.who.int/ru/countries/kazakhstan/contact-us">http://www.euro.who.int/ru/countries/kazakhstan/contact-us</a></td>
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<td>16.00-17.00</td>
<td>Meeting with UNFPA CO</td>
<td>Ms Giuliiya Valese, Mr. Raimbek Sissemaliyev and Ms. Gaukhar Abuova, UNFPA CO</td>
<td>UN building&lt;br&gt;<a href="https://kazakhstan.unfpa.org/en">https://kazakhstan.unfpa.org/en</a></td>
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<td>17:00-18:00</td>
<td>Meeting with NGO PHC</td>
<td>Ms. Roza Abzalova, Vice-chairman&lt;br&gt;Ms. Inna Stratulat, Executive director&lt;br&gt;<a href="mailto:stratulat.inna@gmail.com">stratulat.inna@gmail.com</a></td>
<td><a href="https://www.facebook.com/naphckz/?tn-str=k*F">https://www.facebook.com/naphckz/?tn-str=k*F</a> &lt;br&gt;Interpreter &amp; IMCI coordinator</td>
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<td>17 May</td>
<td><strong>Friday</strong>&lt;br&gt;Karaganda region, Osakarovka Central district hospital</td>
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<td>08:30</td>
<td>Departure to Osakarovka</td>
<td>Ms. Bagila Nurmagambetova (confirmed)&lt;br&gt;Damir Kozhanbayev (confirmed)&lt;br&gt;UNICEF Car (tbc)</td>
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<td>09:30-13.00</td>
<td>Meeting with Osakarovka district hospital</td>
<td>Travneva Olga Nikolaevna, Director of Central district hospital&lt;br&gt;Slugina Polina Nicolayevna, Deputy director&lt;br&gt;Meetings with GPs, pediatricians, nurses, home-visiting nurses</td>
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<td>09:00 – 10:00</td>
<td>Meeting with World Bank</td>
<td>Mr. Baktybek Zhumadil, Senior Operations Officer</td>
<td>12, Samal, 14th floor +77017120392</td>
<td><a href="http://www.worldbank.org.kz">www.worldbank.org.kz</a></td>
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<td>10:00 – 11:00</td>
<td>Meeting with Asia Development Bank</td>
<td>Giovanni Capanneli, ADB</td>
<td>12, Samal, 20th floor</td>
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<td>Meeting with Ms Irina Smirnova, budget and finance committee</td>
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21 May

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<td>Meeting with PHC#5</td>
<td>Ms. Altnyash Tabuldina, Head</td>
<td>20, Akan Seri str.</td>
<td><a href="http://gp5astana.kz/%D0%B3%D0%BE%D1%80%D0%BE%D0%B4%D1%81%D0%BA%D0%B0%D1%8F-%D0%BF%D0%BE%D0%BB%D0%B8%D0%BA%D0%BB%D0%B8%D0%BD%D0%B8%D0%BA%D0%B0-%D0%B0%D1%82%D0%B0%D0%B5-%D0%B0%BD%D0%B8%D1%81%D1%82%D1%80%D0%B0%D1%86%D0%B8%D1%8F">http://gp5astana.kz/%D0%B3%D0%BE%D1%80%D0%BE%D0%B4%D1%81%D0%BA%D0%B0%D1%8F-%D0%BF%D0%BE%D0%BB%D0%B8%D0%BA%D0%BB%D0%B8%D0%BD%D0%B8%D0%BA%D0%B0-%D0%B0%D1%82%D0%B0%D0%B5-%D0%B0%BD%D0%B8%D1%81%D1%82%D1%80%D0%B0%D1%86%D0%B8%D1%8F</a></td>
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<td>12:00 – 13:00</td>
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FGD Sample:

**Focus Group Discussion with home visitors**

Introduce yourself: My name is …representing Gesaworld and UNICEF.

Introduction to the objectives of the research: UNICEF has contracted us to evaluate the demonstration home visiting services in the region, including in your country. The findings of the given evaluation will help to identify both the positive outcomes and the remaining challenges and inform future actions to streamline the HV service package in a way to better meet your needs.

A brief introduction to the rules of focus groups:

- The FGD will last for 60-90 minutes
- Your participation in this research is entirely voluntary. It is your choice whether to participate or not. The choice that you make will have no negative consequences on you.
- Your names will not be asked and recoded. Names will not be associated with responses. Everything said and done is confidential and will not be used outside the room except for the purposes of this research. We will not tell your home visitor anything about what you say;
- FGDs will be tape-recorded to allow us to have a complete notes. Records will be transcribed later and together with records will be kept in a secure place with limited access to non-authorized individuals for another 12 months.
- You are also requested to keep the information you get from other participants during the discussion in confidence.
- You do not have to talk about anything you do not want to, and you may end your participation in discussion at any time
- Every statement is right;
- Please do not hesitate to disagree with someone else, but we ask that any disagreements be respectful and civil;
- But do not all talk at once Ask questions I would like to begin our discussion with some general questions about home visiting services

**Ask questions**

I would like to begin our discussion with some general questions about home visiting services

1. What do you personally see as the most important aspect of your work? What do you feel proud of in your work?

2. In your opinion to what extent the home visiting services are important for and relevant to the needs of the most vulnerable children and families?

3. To what extent have you been equipped with necessary knowledge and practical skills to do your job?

Probe for:
How did you learn to do your job?

Did you receive formal training?

Did this happen before or after you were hired in your current position?

How effective were these trainings?

What do you feel you still need training in?

4. Could you please explain to what extent you have all supplies required for the delivery of quality home visiting services?

Probe for:
- Transport or transportation costs
- Home visitors “BAG” with all necessary equipment and materials
- Identification card
- Medical forms for recording home visit results
- Cell-phone or tablet for communication and data entry
- Information materials - Etc.

5. How much supervision do you get and how useful supervision is? Who can they go to for help if they have a very challenging family?

Probe for:
- Which entities from which level
- Frequency of supervision visits
- Administrative or clinical supervision (paper work, caseload, etc. or difficult cases, case management, observation)
- Average duration of supervision mission
- Provision of feedback by supervisors
- Supervision performed on an individual or group bases
- Time for reflection and problem solving allowed by supervision
- Usefulness of supervisory visits

6. Who do you see as the most vulnerable groups of children, their families and pregnant women? Have you been able to reach out to these groups? What are the barriers for this happening (or happening more)? What strategies have worked or been more successful?

7. What are key factors that impede provision of effective home visiting services? What makes it more challenging to do your job well? Please give examples.
8. In your opinion, would it be possible to achieve the same results with less resources? If yes, please give examples. If no, explain why.

9. Please explain how the quality of your services are monitored. How do you keep track of what you do? How do you or your supervisor know that you are doing a good job and providing services as expected? Where does this information go? What are the follow-up actions, if any? Please give concrete examples.

10. How would you assess your workload? On average how many home visits do you undertake per day? What is the share of the working time you spend on paper work vs. home visits? Please explain and give examples.

11. Are you satisfied with your work?

Probes:

What do you like best about your job?
What could you change, if possible?
What more do you need to do your job well and feel satisfied with your work?
Do you see your work as stressful?

IF YES, What makes is stressful

IF YES: How do you cope with the stress?

Who can you go to for help?

Do you think most home visitors feel the same way as you?

Is there a lot of turnover in this position?

IF YES: What makes people leave?

IF NO: What keeps people working in this role?

12. What are your further needs?

13. Is there anything I haven’t asked about that you would like to tell me related to the topics we have discussed?

Bring the discussion to the closure
ANNEX I – STATEMENT OF WORK AND TERMS OF REFERENCE

I. Introduction

UNICEF Kazakhstan Country Programme aims to continue supporting the efforts of Kazakhstan to further advance its progress towards the sustained realization of children’s rights, with particular attention to the rights of the most vulnerable children and their families. These include children living under or close to the national poverty line, children with disabilities, children without parental care, children victims of violence, abuse and neglect, children in contact with the justice system, as well as marginalized, stigmatized, and socially excluded children and adolescents.

II. Background:

Guided by the Convention on the Rights of the Child, UNICEF strives to establish children’s rights as international standards of behaviour towards children. The Convention on the Rights of the Child, adopted by the General Assembly of the United Nations in 1989 and subsequently ratified by all but a small number of countries, explicitly recognizes a child’s right to health and health services. Article 24 of the convention obligates all ratifying parties to “pursue full implementation of this right and, in particular, [to] take appropriate measures...to diminish infant and child mortality.”

Healthcare system in the Republic of Kazakhstan.

After gaining independence in 1991, Kazakhstan faced many problems that were typical for other countries of the former USSR. The country had a cumbersome and inefficient network of medical institutions which focused mainly on inpatient treatment. In the early years of the transition period, the volume of the state health financing sharply reduced. In the second half of the 1990s, the government started implementing several important health reforms, although these reforms lacked strategic leadership, and often were inconsistent. The situation, both economic and social, started to improve in the 2000s as Kazakhstan began to undertake major efforts in reforming its post-Soviet health system aimed at universal coverage of population via strengthened primary health care system.

To date, the overall situation in the healthcare sector has improved with both infant and child mortality rates significantly reduced: from 26.4 and 34.8 per 1,000 live births in 1991 to 8.6 and 10.9 in 2016, respectively (Figure 1). Other improvements in healthcare were achieved as well: reduction of post neonatal mortality rate from 8.3 in 2000 to 5.5 in 2005 with reduction of cause specific rates: pneumonia (from 140 per 100,000 in 2000 to 32 per 100,000 in 2010) and diarrhea (from 24.4 to 3.3). Early neonatal mortality rate has been stable around 7 per 1,000 (increasing share in the structure of IMR around 60%). (WHO DB Health for All)

The significant drop in both infant and child mortality rates, clearly seen in the graph, has been a result of numerous policies and actions taken by the government of Kazakhstan. A number of comprehensive healthcare reforms and policy documents have been developed: the National Programme for Health Care Reform and Development 2005-2010; the Code on Health of the Population and the Healthcare
System; the Concept on the Unified National Healthcare System; the State Health Care Development Programme “Salamatty Kazakhstan” for 2011-2015; the State Healthcare Development Programme “Densaulyk” for 2016-2019, and other policies.

Figure 1 Infant and Child Mortality rates in Kazakhstan, 1991-2016

![Graph showing Infant and Child Mortality rates in Kazakhstan, 1991-2016](image)

- Under-5 mortality rate
- Infant mortality rate

The first state programme “On the Health of the Nation”, elaborated as far back as 1998, is still being implemented within the framework of the country Development Strategy “Kazakhstan-2030”. The programme targeted the following elements: (1) undertaking complex measures aimed at the development of the system of health care services, as well as adapting the health care system towards open market mechanisms; (2) ensuring economic and legal guarantees for the creation of the inner market of medical services; (3) enhancing the efficiency of the medical institutions and optimizing the quality of health care services; and (4) accountability of the state as well as participation of the citizenry and employers in the process to strengthen health.

In 2004, with the onset of economic recovery, mainly due to rising oil prices, Kazakhstan embarked on the implementation of the comprehensive State Program for Health Care Reform and Development for 2005-2010. The program provided for a gradual by 2010 increase of budgetary allocations for health care to 4% of GDP. But in addition to increasing financial allocations, the country's health sector also needed significant changes in the organization, management and provision of health care services, as well as in strengthening the PHC sector and strengthening the integration of health services. One of the program components was the development of the "family medicine" specialisation in the framework of a program of advanced training of district therapists and pediatricians as family

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1 [www.childmortality.org](http://www.childmortality.org)
2 [www.medinfo.kz](http://www.medinfo.kz)
doctors (GP) and advanced continuous medical education. In addition, under the programme, the Government introduced a targeted programme for the Maternal and Child Mortality reduction for 2008-2010 which among other initiatives entailed introduction of the international Live Birth Definition, nationwide implementation of the integrated management of childhood illnesses/ early age child development (IMCI/ECD) and effective perinatal technologies.

It is also without a doubt that the decline in mortality in the last decade was due to the improved welfare of people (poverty reduction from 35% in 1996 to 4% in 2012) and increased health expenditure per capita from US$ 50.9 in 2000 to US$ 393.1 in 2013). Along with the regionalization of perinatal care in progress from 2007, this enabled supply of necessary medical equipment, medicines, vehicles to obstetric facilities in each oblast, and improvement in outpatient and inpatient facilities with a focus on rural regions).  

But significant challenges remained. Before 2005 the health care system was lacking the strategic vision of the system development. In addition, unclear delegation of authority within vertically centralized system and an existing at the time controversial legislation hindered integration of services and maintained poor capacity of health care managers and fragmented Primary Health Care as well as affected the access and quality of the primary health care services available to mothers and children at early stage of identification of the needs.

In this challenging time, in 2008 the government of Kazakhstan introduced WHO live birth criteria, resulting in increase of infant mortality rate from 15.1 per 1,000 live births (2005) to 20.7 in 2008s (Figure 1). Despite the understanding that the mortality rate would increase with the introduction of new criteria, the Ministry of Health had a clear understanding the new criteria would improve the identification of causes of death in newborns and infants leading to more adequate prevention measures in the future. Upon its introduction, the new criteria of newborn and infant registration enabled to strengthen the interventions in MCH at the PHC level and to plan programs aimed at reduction of risks of infant and child mortality.

There also was an understanding that more data and evidence on primary healthcare trends were needed. Starting from 2005, UNICEF has provided an extensive support to the Government in data generation including through Multiple Indicators Cluster Surveys. The results of the 2005 nationwide survey showed that the half of child deaths occurred in the first week of life due to the lack of proper and up-to-date training on antenatal, perinatal and pediatric practices as well as the low level of parental knowledge.

The legislation on healthcare underwent significant changes with development and adoption of the 2009 Code of the Republic of Kazakhstan “On People’s Health and Healthcare System”. This enabled the legal regulation of social relations in the field of healthcare ensuring realization of the constitutional right of Kazakhstani citizens to health care. The act enabled regulations in the full range of healthcare organization issues in the country and established the instruments of state control in the

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field. Evidently, the Code created the legal platform on implementation of innovative medical technologies in the health organizations and health education institutions of the Republic of Kazakhstan.

From 2011 the Integrated Management of Childhood Illnesses (IMCI) and Making Pregnancy Safer (MPS) strategies that include effective perinatal technologies, confidential enquiry “Beyond the Numbers” (confidential enquiries into maternal deaths at national level and near miss cases review in all perinatal centers of the country) and regionalization of perinatal care were scaled up across the country in the framework of the National Healthcare Development Program for 2010-2015. According to the Ministry of Health, the improvements in referral and re-referral system with the use of specialized vehicles enabled concentration of up to 70-80% pregnant women and newborns with a high risk of obstetric/neonatal complications and premature births at level III perinatal facilities. At present, there are 25 perinatal centers and 6 obstetric facilities of level III in 14 oblasts and 2 main cities of Kazakhstan. From this time on, an essential decline of early neonatal and post-neonatal mortality (mainly caused by pneumonia) has been observed, primarily due to improved emergency care for newborns and young children.

In 2012, UNICEF embarked on another study conducting a comprehensive assessment on socio-economic determinants of health. The study revealed that the infant and U5 mortality rates, though declining, had significant variation by oblast and rayon with health specialists overstaffing in some regions and a lack of qualified specialists in other. The assessment also found unnecessary hospitalization and extended length of stay leading to a waste of resources and, in fact, to worsening life conditions for women and children. As such, the study recommended improving primary care and aggressive interventions in lifestyle changes to reduce the need for hospitalization and to improve overall child health.

With the end of the era of the Millennium Development Goals, the international community agreed on a new framework – the Sustainable Development Goals (SDG). The SDG target for child mortality represents a renewed commitment to the world’s children: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 deaths per 1,000 live births and under-five mortality to at least as low as 25 deaths per 1,000 live births. To reach the SDG target, the Ministry of Health of Kazakhstan is now establishing an integrated model on medical and social service at Primary Health Care level, where social workers were introduced officially as additional staff members to cover the needs of about 200,000 vulnerable families with children at the community level.

As for ongoing national efforts, under the 2016-2020 State Program of Public Health Reforming and Development, Kazakhstan continues to demonstrate its adherence to implementing the reforms. Improving PHC services via integrating medical and social determinants of child’s wellbeing has become one of the main overall objectives of the Program. To improve the social sector in service provision, the structural reorganization was enabled by introduction of the social workers as the staff workforce at PHC level. Kazakhstan is considered the first country in Central Asia to support the

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6 An Assessment of Equity and Socio-Economic Determinants of Health, UNICEF 2012
strengthening cooperation between health and social services to move towards a blended model of home-visiting (patronage) system.

**Home visiting**

Home visiting services, or patronage nursing system, are visits by primary health specialists to families expecting children and/or already having small children. The goal of such visits is to provide these families with necessary skills to raise their children physically, socially and emotionally healthy and developed: patronage nurses provide parents with child health check-ups, information and advice on general care, health, nutrition, and parenting skills.

In 2015, UNICEF kicked off a blended model of home-visiting services in Kyzylorda region to introduce the Government to higher quality home-based services and encourage better coordination among the health, education and social protection systems. The model was a response to the assessment findings which revealed that the existing system of home visits in Kazakhstan had a number of issues: the system significantly lacked funding to provide supplies for effective home visits; limited time that a home visitor spends in one household – ranging from 14 minutes in urban setting to 5 minutes in rural areas; and no system of quality assurance for home visits leaving in doubt the quality of effective engagement with families. The new model, adapted from the United Kingdom, combines two approaches to home visiting: the universal model and the targeted model. Under the *universal model*, home visits are paid to all families: ideally, during the pregnancy and until preschool/kindergarten age. The typical home visit will be based on the counselling approach (listen, observe, ask, assess, praise, advise, show) and include, depending on the timing, issues ranging from mother health and wellbeing to child health and development and the overall family situation. However, the disadvantage of the model stems from its core feature: provided to all rights holders, it has no particular focus on at-risk families and children. The *targeted model*, on the other hand, is based on the evidence that targeting families and children that are at higher risk or who have special needs due to medical and/or psychosocial circumstances, is more effective. At the same time, while at-risk families and children are targeted, needs of other pregnant women, parents and children are left unaddressed. The *universal-progressive model* builds on the strengths of the two models. While essential home visiting services are provided to all families, at-risk families receive intense services based on their needs, for example, when they are undergoing socioeconomic difficulties, psychosocial stress and other adverse circumstances.

Currently, the model is in its final piloting stage in Kyzylorda region and is expected to expand to other regions. It is planned that eventually the model will be replicated in all the regions of Kazakhstan.

At present, in-service training of health workers continues in all regions and is fully funded from the public budget. Full financing of these initiatives was confirmed in the new cycle of the National Healthcare Development Program for 2016-2020. In Kazakhstan, PHC pediatricians, general practitioners, medical assistants and nurses, as well as pediatricians and nurses from hospitals and ambulance service are subject to IMCI training.

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Accelerating the reduction in child mortality is possible by expanding effective preventive and curative interventions that target the main causes of child deaths and the most vulnerable newborns and children. With this in mind, PHC with the focus on the partner-work with parents and local communities plays the key role in prevention of mortality cases among infants and children.

III. Purpose of the evaluation:

UNICEF, in partnerships with the Ministry of Health of Kazakhstan, is seeking an institutional consultancy to conduct the summative evaluation.

The purpose of this evaluation is to assess the impact of primary healthcare care system on infant and child mortality in Kazakhstan in light of past and present PHC reforms, policy changes, and approaches to family services provision, including through the home-visiting system.

Stakeholders: MoHSD of RoK, MoES of RoK as the main policy developers and monitors; home visitors, staff of policlinics, pre-schools as the main implementers of the ECE/ECD programmes and primary source of information; families, with specific attention to vulnerable groups among families as the target/beneficiary group of the ECD/ECE programme with satisfaction/or not satisfaction assessment of the programmes.

Intended users of the Evaluation:

Primary: Ministry of Health, local governments, line ministries should use the results of the Evaluation as the main developers and implementers of the national programmes who need to monitor the progress based on effectiveness and efficiency criteria, to introduce corrective actions if needed, to use the best available practices, to engage trained/informed HR, to bridge the inequality gaps and to allocate sufficient funds. UNICEF as one of the main knowledge brokers in MCH practices providing technical assistance for effective implementation of MCH interventions worldwide.

Secondary: MPs need to be informed in order to introduce necessary legislative changes. International, academic, private and civil society organisations including UN agencies and educators should use the results of the Evaluation in order to gain more knowledge and to improve their advocacy and practical actions in introduction and implementation of the PHC/MCH programmes.

IV. Specific objectives of the Evaluation:

To determine the impact of PHC policies and services at reduction of infant and child mortality in Kazakhstan since the start of the country’s economic growth, particularly from 2000 and till 2017.

To identify inequalities in access of vulnerable families with pregnant women and children under 5 to PHC services.

To analyze the influence of improved quality of PHC services, including based on the universal-progressive model of home visiting system, on families with children under 5 and pregnant women in reducing rate of infant and child mortality.
To assess the cost-effectiveness of the universal-progressive home visiting model piloted in Kyzylorda oblast.

To provide lessons learned and recommendations to the Government, UNICEF and other stakeholders on the further development of PHC with the focus on community-based services.

**V. Scope of evaluation and questions:**

The evaluation will be summative. The project evaluation questions are formulated as per OECD-DAC evaluation criteria: relevance, efficiency, effectiveness, sustainability and impact. Additional criteria such as coverage, coordination and coherence should also be used in the evaluation. The MoRES determinant analysis framework will be used explicitly to identify which bottlenecks were removed and how change was achieved.

The added value of the evaluation will be in the use of its findings and recommendations for: (a) evaluation of both PHC system’s and the home-visiting model’s impact on infant and child mortality; and (b) documentation of Kazakhstani experience with possible use by other countries confronting similar issues in primary health care provision.

**Period to be covered:** 2000 - 2017

**Geographical coverage:** cities of Astana, Almaty; Kyzylorda and Karaganda oblasts.

**Proposed evaluation questions:**

Below are a set of guiding questions that should be responded to by the evaluation. However, it is expected that the international consultants may suggest additional questions or sub-questions, and during the evaluation additional information that adds substance to the key questions will be collected and included in the final evaluation report.

*Evaluation Questions for the PHC system and Universal-Progressive Model of home visiting in Kazakhstan*

**1. Relevance**

1.1 To what extent has the need for reform been grounded in evidence-based problem analysis and to what extent does it correspond to the needs of the target groups?

1.2 How relevant were the government’s PHC reforms and policies to national goals and achievements in respect to reduced infant and child mortality rates (ICMR)?

1.3 To what extent was UNICEF’s support relevant to the country’s PHC reforms that led to reduced infant and child mortality? How relevant was the home-visiting model for PHC reform aimed at ICMR reduction?
1.4 To what extent have the reforms and UNICEF interventions taken into account international standards and good practices?

1.5. To what extent has the home visiting model contributed to improved MCH services for mothers and children under 5?

1.6 To what extent have national authorities in charge of implementing the reform been involved in its design (through all the process)?

1.7 To what extent has the reform and the home visiting model integrated gender equality and equity into its design?

2. Effectiveness

2.1 To what extent have state reforms and interventions contributed to improving PHC system, its institutions and achievement of MDG 4?

2.2 What interventions within the framework of PHC system for mother and child care were the most and least effective? Were these interventions sufficient to achieve the goal to reduce ICMR?

2.3 What were the key factors that influenced or hindered the achievement of the reduced ICMR?

2.4 To what extent various stakeholders were effective in ensuring the achievement of MDG4?

2.5 To what extent has the home visiting model achieved planned outputs and outcomes?

2.6 Was the model effective in reducing infant and child mortality and improved parenting practices since 2015?

2.7 Were the activities, planned under the model, necessary and sufficient (in quantity and quality) to achieve the outputs?

2.8 Were the established partnerships effective in achieving the current results of the model?

2.9 How effective were the home visiting model implementation mechanisms (coordination, management, etc.) in achieving the current results/outputs of the project?

2.10 What are the strengths and weaknesses in design, coordination, management and monitoring of the model?

2.11 To what extent has the reform and the home visiting model integrated gender equality and equity?

3. Efficiency

3.1. What strategies of the government, partners and actors were the most efficient in improving PHC and achieving lower ICMR?

3.2 What interventions were the most cost effective in providing PHC services to pregnant women and families with children under 5?
3.3. Have the resources at the national and regional levels been used in the most economical way to achieve the expected results in PHC reforms?

3.4. To what extent the approaches at PHC level related to MCH services were cost-effective to reach the most vulnerable families with children U5? What measures were most cost effective in providing PHC services to pregnant women and families with children under 5?

3.5. How efficiently were used the human resources allocated by the Government and partners/actors?

3.6. Did the reform system include a coordination system to encourage synergy and avoid overlaps?

3.7. To what extent the universal-progressive model of home visiting is more efficient than traditional approaches at PHC level?

3.8. How well have the financial resources been used for the model implementation? Were funds managed in cost-effective manner? Could the same results have been achieved with fewer resources? 3.9. Were the indicators SMART enough to determine the outputs and outcomes of the universal-progressive model of home visiting?

4. Impact

4.1. To what extent over the period 2000-2017 the reformed PHC structure and care support, including the antenatal, prenatal and home-visiting services, influenced the level and trends of infant and child mortality in Kazakhstan and which internal and external factors positively or negatively contributed to this result?

4.2. To what extent the PHC reforms and interventions by the government of Kazakhstan and with support of partners affected a) boys and girls; and b) the most vulnerable groups of children and families including those with lower income, living in rural area, single parent, etc.?

4.3. To what extent have different stakeholders, and particularly UNICEF, contributed to those results?

4.4. Has the inequality between the most affluent and the most vulnerable groups increased, remained unchanged or declined after the implementation of the MCH services at PHC level?

4.5. Were there any unforeseen (positive and/or negative) results due to interventions? What strategies of stakeholders had the most important impact in influencing reduction of the ICMR?

4.6. What is the evidence of the contribution of the piloted universal-progressive model of home visiting to PHC in the region?

4.7. In what ways, if any, do mothers and children under 5 benefit from the piloted model? Are there any differences related to gender, socio-economic status and rural-urban location?

4.8. How do the stakeholders (both duty-bearers and right-holders) perceive the results of the model?

5. Sustainability

5.1 What are the factors contributing to sustainability of the PHC system towards reducing the ICMR?
5.2 To what extent the Government owned the PHC reform process and is committed to sustain it, including through an evolution of budget allocations for PHC and MCH?

5.3 What should be the next steps for the Government of Kazakhstan to sustain the achieved results?

5.4 Will UNICEF’s contribution to system level changes continue to impact families with children U5 and pregnant women after its support is withdrawn?

5.5. Is the universal-progressiveness model of home visiting ready for national scale-up? What kind of systems and instruments have been setup to facilitate the rollout of the new home visiting model for a national replication?

5.6. To what extent national and local authorities involved in the model piloting have the capacity to sustain the model?

**Cross-cutting:** To what extent are sex and age disaggregated data collected and monitored? In what ways and to what extent has the PHC reform and UNICEF piloted model integrated an equity based approach into the design and implementation of its interventions? Do the PHC reform and UNICEF piloted model actively contribute to the promotion of child and women rights, especially the most vulnerable? To what extent and how do the PHC reform and UNICEF piloted model ensure a non-discrimination and equity focus?

**Coverage:** Was representativeness of coverage ensured by PHC reform and UNICEF piloted model activities? Which groups have been reached by the PHC reform and UNICEF piloted model and what is the different impact on those groups? Have vulnerable children been reached, including children with disabilities?

**Coordination:** What was the role of the MoH, local government, NGOs, UN agencies community and other key actors in the design, coordination and implementation of PHC reform and UNICEF piloted model?

**Coherence:** What were the areas and ways of cooperation with other UN and donor agencies’ in regard to development of services for vulnerable children? How does the PHC reform and UNICEF piloted model relate to the existing national and/or local policy on children under five? Was there coherence across interventions supported by different agencies?

The following 10 determinants, or “conditions”, will help categorise critical bottlenecks and barriers:

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Norms</td>
<td>Widely followed social rules of behaviour that are followed within a society</td>
</tr>
<tr>
<td>Legislation/Policy</td>
<td>Adequacy of laws and policies to reduce/avoid barriers</td>
</tr>
<tr>
<td>Budget / expenditure</td>
<td>Allocation &amp; disbursement of required resources that constrain effective coverage</td>
</tr>
<tr>
<td>Management / Coordination</td>
<td>Bottlenecks that obstruct accountability and transparency, as well the impediments to coordination and partnership</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Availability of essential commodities / inputs</td>
<td>Essential commodities/ inputs required to deliver a service</td>
</tr>
<tr>
<td>Access to adequately staffed services, facilities and information</td>
<td>Target population’s physical access to the relevant services, facilities and information</td>
</tr>
<tr>
<td>Financial access</td>
<td>Direct and indirect costs that prevent target group from utilizing available services or adopting certain practices</td>
</tr>
<tr>
<td>Social and cultural practices and beliefs</td>
<td>Individual/community beliefs, behaviours, practices, attitudes</td>
</tr>
<tr>
<td>Timing and Continuity of use</td>
<td>Completion/ continuity in service, practice that undermine the effectiveness of such service, practice, or other intervention</td>
</tr>
<tr>
<td>Quality of care</td>
<td>Adherence to quality standards (national or international)</td>
</tr>
</tbody>
</table>

**VI. Evaluation methodology:**

In order to deliver this assignment, the international experts/or institution will have to make and arrangement for contracting the national consultant(s) to assist in evaluation design, to undertake the field data collection and data entry, and to provide raw data for analysis and interpretation under guidance of the UNICEF CO and in close cooperation with Ministries and other partners.

The international consultant will be requested to propose a detailed methodology as part of the inception report, which should be guided by the UNICEF’s new Evaluation Policy9, the Evaluation Norms and Standards of the United Nations Evaluation Group (UNEG)10, UNICEF Procedure for Ethical Standards in Research, Evaluations and Data Collection and Analysis 11 and UNICEF’s reporting standards.

In addition, the team will retroactively reconstruct a Theory of Change for the primary health care with a chain of indicators arranged hierarchically from the output to long-term impact indicators.

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11 [https://www.unicef.org/supply/files/ATTACHMENT_IV-UNICEF_Procedure_for_Ethical_Standards.PDF](https://www.unicef.org/supply/files/ATTACHMENT_IV-UNICEF_Procedure_for_Ethical_Standards.PDF)
It is expected that in the end the evaluation will reach six inter-related and coherent outcomes, which should be the main building blocks for achieving the goal of the consultancy. Achievement of those six outcomes will be measured with set of indicators to be provided to international consultant after the contractual arrangements.

The Evaluation team is expected to submit a work plan within the first 10 days of assignment and to confirm the evaluation methodology, tools and sample size with the UNICEF. The Ethical Review will be conducted through either Ethical Review Board (ERB) of the EVT company or ERB at Nazarbayev University via UNICEF-Nazarbayev University MOU. If neither of these options will be available then the regional LTA holder will be used for the ERB. The Evaluation team will have the sole responsibility for the hiring, training, supervision and payment of the national consultants needed for this evaluation. Upon request, UNICEF may recommend people who were engaged in similar research previously, but it will be the responsibility of the evaluator to select and manage these consultants. Logistical support such as transport and office use will need to be agreed upon before the evaluation is initiated.

**Limitations to the evaluation**

There are several limitations to the evaluation which can hinder the process.

- Disaggregated data on local level might not be available, or the quality of available data may not be good.
  - Interviewing government counterparts for the evaluation may depend on their availability. The applicants should discuss the above or other potential limitations in their proposal.

The evaluation team is expected:

- to elaborate the methodology for the field data collection by the set of evaluated components and questions, including sampling, research techniques, and budget estimation.

- are encouraged to propose own solutions ensuring reliability of collected data and cost-effectiveness of research approaches. In any case, the field research should provide findings to answer research questions as outlined above.

- is required to conduct a desk-research primarily of official documents and secondary data which are not available in English and extract information if need.

- will be responsible to design the evaluation tools and to conduct survey/interviews s in accordance with the methodology proposed in response to this Request for Proposals.

Subject to discussion with the contractor of choice, it is proposed that a mix of the following methodologies could be adopted (but not necessarily limited to):

<table>
<thead>
<tr>
<th>Methodology</th>
<th>Data sources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analysis of secondary data:</strong></td>
<td><strong>Evaluating the system:</strong></td>
</tr>
<tr>
<td>1. Desk review of key documents</td>
<td>First state programme On the Health of the Nation (1998); Code of the</td>
</tr>
<tr>
<td>and reports on reforms of the</td>
<td>Republic of Kazakhstan “On People's Health and Healthcare System”; State</td>
</tr>
<tr>
<td>PHC sector of health care</td>
<td>programs 2005-2010; Salamatty Kazakhstan 2011-2015; State program Densaulyk</td>
</tr>
<tr>
<td></td>
<td>2016-2019; Decrees on the Healthy MCH care support.</td>
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</tbody>
</table>
system in the Republic of Kazakhstan;

1.2. Review of the studies and reports of WHO, World Bank, UNICEF on situation of children Under 5, the MCH program interventions at PHC level.

<table>
<thead>
<tr>
<th>2. In-depth interviews with key informants (right-holders and duty-bearers)</th>
<th>Evaluating the PHC home-visiting interventions:</th>
</tr>
</thead>
</table>

Evaluating the system:
- UNICEF staff and consultants;
- Policy/decision makers and experts at Ministry of Health of the RoK;
- Heads of Department of health of Astana, Almaty, Kyzylorda and Karaganda oblasts;
- Heads of the PHC facilities in Astana, Almaty, Kyzylorda and Karaganda oblast;
- Academic professionals of the Kazakh Medical University of Continuing Education, IMCI Coordinators, independent expert in ECD, MCH, IMCI.

Evaluating the PHC home-visiting interventions:
- Households with children under 5, affixed to the pilot sites of the three polyclinics: CP No1 in Kyzylorda, CP No. 6 in Kyzylorda; health visitors, social workers, psychologists, chief doctors of pilot organizations, employees of the Health Department of Kyzylorda oblast,
- Akimat of Kyzylorda oblast, district akimat of Zhanakorgan village, IMCI coordinator of Kyzylorda oblast centre, specialists of "Demeu" centre, NGO "Union of Medical Colleges of Kazakhstan", master coaches, partners of the Republican Center for Health Development, IMCI Coordinators.
- Staff of NGO in Kyzylorda city involved in provision of progressive package services, employees of kindergartens, where the children of families from the pilot polyclinics were enrolled.

<table>
<thead>
<tr>
<th>3. Focus groups</th>
<th>Evaluating system:</th>
</tr>
</thead>
</table>
| Policymakers at national level (experts and heads of departments on MCH at Ministry of Health, Republican Center for the Health Development; experts of the National Pediatric institute and surgery, IMCI Coordinators of 14 oblasts and two cities of Almaty and Astana);  
- Decision makers at subnational level (heads of Department of Health, heads of the MCH departments at DOH in Astana, Almaty, Kyzylorda, Mangystau) |
- Professionals at academia level (Kazakh University of Continuous studies, Union of the Medical Colleges of Kazakhstan);

Evaluating the PHC home-visiting interventions:

- Families with children under 5; PHC partners (NGOs, the Department of Social Protection, pre-school institutions, employment centers), decision makers of Department of Health of Kyrgyz oblast.
- Employees of the PHC facilities (PHC No 8 in Astana; PHC No1 in Kyrgyz oblast, PHC No6 in Kyrgyz oblast, PHC of Zhanakorgan village in Kyrgyz oblast).

4. Sample surveys of households covered with home-visiting services at PHC level in Kyrgyz oblast


5. Cost-estimation of home-visiting system.

Documents on model piloting, including work plans, monitoring reports, financial reports, financial and political documents of the national/local authorities.

In gathering data and views from stakeholders, the evaluation team will ensure that it considers a cross-section of stakeholders (decision makers, programme personnel, beneficiaries, etc.) with potentially diverse views to ensure the evaluation findings are as impartial and representative as possible. The approach followed from the outset of the evaluation will be as participative as possible. Stakeholders will participate in the evaluation through interviews, discussions, consultations, providing comments on draft documents and making management responses to the recommendations of the evaluation.

During the **inception phase**, the evaluation team will design the evaluation methodology to be present in an inception report. The methodology should:

- be built on the theory of change (retroactively reconstructed) in the Europe and Central Asia (ECA) and common objectives arising across interventions to develop an evaluation matrix
- be geared towards addressing the evaluation questions. A model looking at groups of “main activities” across a number of interventions rather than at individual actions should be adopted. These could be organised around 10 determinants mentioned above.
- take into account the limitations to evaluability described below as well as budget and timing constraints.

To the extent possible, secondary data will be assessed during the Inception phase to start addressing evaluation issues and identifying the information gaps prior to the in country mission.
The selected team of international experts / institutions and national experts / institutions will:

- Work together to conduct interviews with relevant national and local partners;
- Develop research tools (including the data entry tool) and their field visits prior to the assessment;
- Organize data collection and field work with a local team of experts
- Discuss comments / feedback on fieldwork results and provide explanations;
- Submit a draft evaluation report with the organization of the consultative process, led by the Deputy Representative of UNICEF CO and Health and Nutrition Program officer with key stakeholders in the country, and assist in the preparation of the evaluation report;
- Provide a summary report and recommendations to the Government with the organization of the consultative process, led by the Deputy Representative of CO UNICEF and the Health and Nutrition Program officer.

**Ethical considerations:**

The Evaluation will be conducted in accordance with the UNEG evaluation principles (openness, transparency, participation, etc.) and standards\(^{12}\) using the Evaluation criteria (relevance, efficiency, effectiveness, impact, sustainability) as well as the UNICEF Procedure for Ethical Standards in Research, Evaluations and Data Collection and Analysis.

The consultant will work closely with UNICEF staff at key phases of the evaluation process to ensure that equity focus and Ethical requirements are fully met in the final Evaluation Report.

According to UNICEF Procedure for Ethical Standards in Research, Evaluations and Data Collection and Analysis, the approval by the Ethical Review Board of the methodology is required as well as continuous adherence to the ethical standards throughout the evaluation. Consequently, the contractor should allocate additional resources (Human and Financial) to ensure compliance with the ethical requirements.

The evaluation design and implementation should consider ethical safeguards where appropriate, including protection of confidentiality, dignity, rights and welfare of human subjects particularly children, and respect of the values of the local community. Please refer to UNICEF Procedure for Ethical Standards in Research, Evaluations and Data Collection and Analysis\(^ {13} \), which outlines the ethical principles in part of evaluation intentionality, obligations of evaluators, obligations to participants and evaluation process and product. Based on UNICEF Procedure For Quality Assurance In Research the evaluation should undergo independent External reviews for each required stage (Inception Report, Research design, Final Report).

**VII. Existing Information Sources:**

Consultants should develop a specific indicative list of information sources, taking into account the following categories of information materials:


\(^{13}\) [https://www.unicef.org/supply/files/ATTACHMENT_IV-UNICEF_Procedure_for_Ethical_Standards.PDF](https://www.unicef.org/supply/files/ATTACHMENT_IV-UNICEF_Procedure_for_Ethical_Standards.PDF)
- National and local planning strategies and documents
- Sectoral plans and document concepts;
- UNICEF global and country publications and reports;
- Reports of national and international UNICEF consultants;
- Reports of monitoring visits of supporting mentors;
- Internal orders of pilot organizations;
- Records of case workers on family management, results of families evaluation;
- Minutes of meetings of interdepartmental commissions;
- Publications of materials about the pilot in the media;
- Census data, administrative data, household survey data, for example, MICS.

### VIII. Indicative List of Deliverables:

The Table below provides the list of expected deliverables and preliminary terms of assignments completion.

The evaluation should include the following steps:

**Step 1: Desk review of relevant project documents**

The group of international consultants/or institute/organization will review key documents to understand the reform approaches, process and activities since 2000 to date. The documents could include the relevant national policies and programmes, other study reports, CPDs/CPAPs, progress and monitoring reports; review meeting documentation, TOC.

**Step 2: Preparation of Inception Report that includes evaluation methodology and tools**

The methodology should be prepared to cover all the intended objectives of the evaluation. The evaluation methodology design will be finalized in agreement with the reference group (with UNICEF, MOH, academia, NGOs) and inception report should be prepared based on the Evaluation Norms and Standards of the United Nations Evaluation Group and submitted to reference group.

**Step 3: Data collection**

The application of both qualitative and quantitative data collection methods is expected, which should be human rights based, including child rights based and gender sensitive. The data collected should be disaggregated by sex, age, disability, economic status and location. Field visits should employ methods ranging from document review, interviews, focus group discussions, surveys, observation depending on the final methodology.

**Step 4: Data analysis**

Collected data should be analysed by using relevant analysis method that should be clearly described in the report.

**Step 5: Sharing preliminary findings and recommendations**

The group of international consultants/or institute/organization will share preliminary findings and recommendations with the reference group. While feedback will be taken into consideration and incorporated into the draft report, the international consultant is encouraged to guard against validity threats, such as personal bias.
Step 6: Draft report
The group of international consultants/or institute/organization prepares a draft report, with conclusions and recommendations drawn from the data. The report structure should follow UNICEF’s evaluation report guidance 14.

Step 7: Finalization of the evaluation report
The group of international consultants/or institute/organization will present the final draft evaluation report to the reference group with a power point presentation. Recommendations of the evaluation report should also be presented. Comments and feedback on the findings and recommendations should be incorporated to finalize the report.

<table>
<thead>
<tr>
<th>Description of Deliverables</th>
<th>Time estimate</th>
<th>Assessment criteria</th>
</tr>
</thead>
</table>
| Desk-review & Inception report    | 20 days       | All relevant documents are reviewed and inception report submitted that includes result of desk review, consultation meetings and detailed evaluation methodology that is compliant with UNICEF requirements. Inception report will be assessed based on Global Evaluation Report Oversight System (GEROS) review criteria. Among others, the inception report should include following components:  

1. Evaluation plan including timelines and activities  
2. Methodology with a reconstructed Theory of Change for PHC;  
3. Data collection instruments (quantitative & qualitative)  
4. Ethical protocols (if relevant)  
5. Quality control procedures  |

14 UNICEF-Adapted UNEG Evaluation Reports Standards, July 2010
<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration (including travels)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data collection</td>
<td>14 days</td>
<td>Primary data is collected from target groups and partners based on the methodology described in inception report.</td>
</tr>
<tr>
<td>Data analysis and first draft report</td>
<td>20 days</td>
<td>Relevant analysis methods applied to analyse primary and secondary data and draft report is prepared in accordance with UNICEF-Adapted UNEG Evaluation Reports Standards (see section 12 and document attached).</td>
</tr>
</tbody>
</table>


4. Evaluation methodology

5. Findings

6. Conclusions and lessons learned

7. Recommendations

8. Gender and human rights including child rights issues to be consolidated and clearly articulated from all report sections.

9. Annexes

PowerPoint presentation of findings including practical recommendations is presented to reference group and project partners feedbacks recorded to be considered in the final report.

More detailed information of the UNICEF-Adapted UNEG Evaluation Reports standard is provided in the UNICEF Global Evaluation Report Oversight System (GEROS) Review Template, which will be shared at the start of the consultancy. Evaluation report should be finalized based on the feedback of the external quality assurance entity and UNICEF CO/RO and national partners.

All submissions should be electronic (Word and Power Point).

UNICEF holds the copyrights on the study. Deliverables cannot be reproduced, distributed or published without written permission from UNICEF. Also, UNICEF reserves the right to withhold all or a portion of payment if performance is unsatisfactory, if work/outputs is incomplete, does not
meet the quality standards of both UNICEF and the Government of Kazakhstan, not delivered or for failure to meet deadlines (fees reduced due to late submission: 20 days - 10%; 1 month-20%; 2 months-50%; more 2 months – payment withhold).

**IX. Supervision and reporting:**

The evaluation team will be supervised by and report to UNICEF Health and Nutrition officer in Kazakhstan with a regular de-briefing on the progress of the assignment to the UNICEF Deputy Representative and will work on a regular basis with all involved staff of UNICEF CO: Child protection /Education, Child Rights Monitoring and Social Policy and with identified national and sub-national stakeholders/partners.

For quality assurance purposes, a reference group consisting UNICEF staff, staff of the Ministry of Health, Labour and Social Protection of Population, the health related academic institutions, and NGO partners will be established.

**X. Qualification requirements:**

The Evaluation is expected to be undertaken by the team of international evaluators with subcontracting of national consultants to produce the expected results. Experts undertaking this Evaluation should either individually or as a team have the following qualifications:

- University degree in public health, public policy, social sciences.
- Minimum 5 years of working experience in public health, healthcare and healthcare system strengthening.
- General knowledge of UN evaluation policy, norms and standards, including human rights-based approach to programming and results-based management, including gender equality and child rights;
- Demonstrated expertise in data collection, analysis and reporting of quantitative and qualitative data
- Demonstrated capacity and partnership building skills with local partners
- Good communication and advocacy skills
- Work experience and/or knowledge of social-economic surveys in ECA region. Field experience in Europe and Central Asia countries is an asset.
- Proven record of research experience and/or written publications at the regional level.
- Experience in designing and implementing evaluation and surveys.
- Excellent written English language skills, demonstrable with samples of publications. Knowledge of Russian is a strong asset.
- Excellent drafting skills and ability to synthesise complex information and issues. Ability to organise and plan complex work following the established timeframes.

The international consultant must remain in strict adherence with UNEG ethical guidelines and code of conduct. International consultant should clearly identify any potential ethical issues and approaches, as well as the processes for ethical review and oversight of the evaluation process in his/her proposal.
XI. Structure of Evaluation Report:

The evaluation report structure must be compliant with the UNICEF-Adapted UNEG Evaluation Reports Standards, 2010 (see the attached files) and include:

a. The title page and opening pages
b. Executive summary (2-3 pages)
c. Annexes
d. Object of Evaluation
e. Evaluation Purpose, Objective(s) and Scope
f. Evaluation Methodology
g. Findings
h. Conclusions and Lessons Learned
i. Recommendations
j. Gender and Human Rights, including child rights

UNICEF will keep the right to share the shorter (external) version of the report with the Government and make it public. The report will be disseminated to the reference group including government, donor and implementing partners in hard and soft copies.

XII. Duration:

The consultancy is expected to take not more than 6 months to complete from the date of contract signing (August 2018-January 2019), comprising less than 64 working days of work in total. At the same time, the exact schedule of activities will be agreed with the selected institution based on the proposal and implementation work plan.

The country visits schedule will be included into the implementation work plan.

XIII. Procedures and logistics:

Travel arrangements including purchase of the air tickets is the responsibility of the selected company/institution and estimated cost of travel should be clearly indicated in the financial proposal. Calculations of travel costs should be based on economy class travel regardless of the length of the travel. Cost estimates should be exclusive of all taxes as UNICEF is exempted from all taxes. UNICEF does not provide or arrange health insurance coverage for contractors. Laptops or computers will not be provided.

XIV. Payment modality

Applicants should submit a financial proposal for their services based on the schedule of deliverables. Payments will be made upon successful completion of deliverables.
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