Care for Development
in Three Central Asian Countries

Report of a Process Evaluation in
Tajikistan, Kyrgyz Republic, and Kazakhstan

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with

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Acknowledgements

This report could not have been prepared without the excellent support of all three UNICEF offices and staff in Kazakhstan, Kyrgyzstan, Tajikistan, and the CEECIS Regional Office, the research teams in each country, the Advisory Board of Deepa Grover, Anna Smeby, Nurper Ulkuer, Jane Lucas, and Meena Cabral, and the help of hundreds of willing mothers, caregivers, health workers from all three countries. With deepest appreciation to all.

Edited by: Deepa Grover, Regional Adviser, Early Childhood Development
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and the Commonwealth of Independent States

Executive Summary

“If you begin to educate a child at 15 days, it is already too late.”

- Abu ibn Sena

Central Asian Philosopher and Physician 980-1037

This report is a process evaluation to determine to what extent the Care for Development component has been incorporated into the health system, and whether it has influenced medical workers, consultations, families or children in three Central Asian countries. It also assesses the opinions of leaders at local, regional, and national levels in the Ministry of Health, and in IMCI Centers about Care for Development. Finally, it provides recommendations for implementation of Care for Child Development in health systems.

The Care for Development Module of IMCI provides age-based recommendations for parents in how to play (cognitive development) and communicate (language and social development) with their children from birth through 2 years of age, as well as problems that caregivers may bring up and possible solutions. It is designed to be easily integrated into IMCI, and the recommendations are on the Mother's Card along with recommendations for infant and young child feeding. The module should improve parents' ability to support their children's development and to link development with effective feeding practices, including responsive feeding.

The process evaluation included both quantitative and qualitative components. Specific objectives were:

- Determine to what extent the program was implemented at all levels (qualitative and quantitative).
- Determine factors associated with implementation success (qualitative).
- Find out if there is any additional interest in child development in the Health System (quantitative and qualitative).
- Identify parenting practices and whether they differ in intervention and No Intervention areas (qualitative and quantitative).
- Identify potential interest in care for development interventions among families
- Develop possible indicators for future monitoring and evaluation of the program.

The report combines qualitative and quantitative data and analysis to determine the current status and implementation of the program, some estimate of its potential effectiveness, and factors that could have contributed to its current situation. Recommendations are provided based on the qualitative interviews and the quantitative data.

In each country, it was possible to define districts that had received Care for Development training, and control districts that had received relatively less training on Care for Development. However, the differences were often not dramatic. Even in the “intervention areas” many of the health workers had not been trained on Care for Development, and in the “control” areas, some had. Not all trained staff had the IMCI/Mother's Card, and there were few materials for parents or for training of health workers. High turnover of staff, lack of ongoing training, and reliance on outside sources of funding have made implementation more difficult. Only in Kazakhstan was it possible to clearly distinguish those who had been trained on Care for Development from those trained on IMCI in general.

The national policy commitment varied greatly across countries. Kazakhstan had a clear policy of support for ECD and has mandated that each health clinic have a Healthy Baby Room, which includes child development as one of its mandates. Tajikistan has a health policy that specifically mentions psychosocial development, but the basic health package does not include it, and it is not well incorporated into the health system as yet. Kyrgyzstan has no specific policy on ECD, but is considering developing it in the near
future. It has mandated Health Promotion Rooms in rayons which have a wide range of activities, but apparently staff are not yet trained on IMCI.

Implementation varied by country, with stronger policy and agency support in some countries than others. Funding in Tajikistan was from UNICEF, but for Kazakhstan, initial UNICEF funds were replaced particularly with locally approved funds. Initial UNICEF and WHO funding in Kyrgyzstan had been replaced by a variety of other external and local sources. Yet interest at all levels was found to be high, and where there has been local control over expenditures, some regions had made significant investments in ECD implementation. These local leaders or champions are a great resource for expansion and quality.

In all three countries, the health workers who had been trained felt more competent in dealing with young children, and in providing advice on children’s development. Differences in perceptions of competence in nutrition were seen only in Kazakhstan, where the intervention groups had received the IMCI-specific training on nutrition in addition to the Care for Development training. In the other two countries, nutrition was included as part of IMCI training, and some version of the 2.5 day additional Care for Development training was included.

In all three countries, a major difference between intervention and control districts was in the information and recommendations on child development that health workers provided during regular consultations. Differences were striking; in the intervention groups, health workers were overwhelmingly more likely to make recommendations about children’s play and communication which were from the Mother’s Card than were health workers in the control districts.

Nutrition recommendations only differed by intervention group in Kazakhstan, where nutrition training had been specifically linked to the Care for Development materials. Across all countries, among nutrition recommendations, the most common was for breastfeeding, followed by frequency of feeding, with less attention to dietary diversity, food consistency, or vitamin A and iron.

Mothers and other caregivers were asked what they remembered from the session right afterward. Those that had heard recommendations on children’s development were more likely to remember them. There were no differences in any of the countries on the mothers’ satisfaction with the visits or their likelihood of returning to the health clinic as a function of their intervention status.

Family stimulation of children’s development was assessed in a random selection of families in the intervention and control communities. Intervention district mothers and other family members reported doing more new activities with children than control village mothers in all three countries, and in two countries were more likely to have homemade toys.

Children in two of the three countries were assessed with the Ages and Stages questionnaire (3-12 in Tajikistan, 3-36 m in Kyrgyzstan), and on a local adaptation of the Early Learning and Development Standards (ELDS) in Tajikistan 0-12, 13-37, 37-60, and 60-84). Child characteristics were reasonably similar in the intervention and control groups in both countries. Intervention children had higher scores on 3 subscales (Communication, Gross-motor, and Personal-social) in both countries for children under 36 months. In Tajikistan, children in the intervention areas also scored higher on the locally developed ELDS test than children in control areas at 0-12 and 13-37 months. No differences were seen with the older age group, as might be expected given the focus of the health care visits.

Families reported that most of their information on nutrition and care for development comes from other family members, with some from health workers and some from media. They expressed interest in having more information, and the preferred mechanism was overwhelmingly the family doctor. However, increasing media exposure in this region could also have impact.
**Recommendations**

- Create or strengthen the system of training that provides hands-on experience with Care for Development or the new module, Care for Child Development for all health workers, including nurses and community volunteers;

- Build stronger policy support and engagement with the national Health ministries in all three countries through increasing their understanding of the intervention and its value;

- A system of monitoring, possibly including assessments of children’s development, that can be tracked and provide accountability. For this purpose, the new Care for Child Development module may be most helpful.

- Create parenting materials, techniques, and strategies including protocols for the Healthy Baby Rooms and for using community volunteers more effectively, possibly through a combined effort of all three countries together working on these training strategies, parenting approaches, and monitoring tools;

- Build on new media strategies for reaching parents and families with information and recommendations for Care for Development.
INTRODUCTION AND OBJECTIVES

BACKGROUND ON CARE FOR DEVELOPMENT

The rationale for combining Care for Development with the Infant and Young Child Feeding Module in IMCI
Development of the Care for Development Module

THE PROCESS EVALUATION METHODOLOGY

THE SITUATION IN THE THREE COUNTRIES

RESULTS OF CARE FOR DEVELOPMENT ACROSS THE THREE COUNTRIES

Introduction of Care for Development into the three countries
The data collection methodology
Current status of Care for Development in each Country
Policies on Care for Development
Training experiences
Health worker perceived competencies.
Effects on PHC Consultations
Effects on Family Behavior
Effects on Young Children
Family Interest and understanding of ECD

CONCLUSIONS

Facilitating and limiting factors
Recommendations

TABLES

Table 1. Comparison of the three countries on child mortality, income, nutrition, education, and quality of home stimulation
Table 2. Status of Care for Development implementation in each country.
Table 3. Description of the sample for the three countries
Table 4. Quantitative data in each of the three countries
Table 5. Behaviors during clinic visits
Table 6. Recommendations for Care for Development according to the building blocks for health systems strengthening

FIGURES

Figure 1. Declines in Under 5 Mortality for three countries

Figure 2. Percent of families with children's books, and % in which mothers or fathers read to the child <5 (MICS 3 data).

Figure 3. Percent of health workers who said that they had had the in-service training on Care for Development using the Mother’s Card by assumed intervention.

Figure 4. Percent of recommendations on play and communication made significantly more often in consultations in intervention than control districts

Figure 5. Percent of consultations in which the health worker asks how the child plays (similar numbers were found for asking how the child communicates). (about 100/country; sample sizes in Table 3).

Figure 6. Percent of consultations in which the health worker recommended looking at the child and smiling by country and intervention/control. (about 100/country; sample sizes in Table 3).

Figure 7. Percent of health workers who recommended giving the child objects to play with by country and intervention group (about 100/country; sample size in Table 3).

Figure 8. Percent of health workers who recommended giving the child colorful objects to see and reach for by country and intervention group. (about 100/country; sample size in Table 3).

Figure 9. Percent of families who had been given recommendations from the Mother’s Card by intervention group and country (there is no Medium group in Kyrgyzstan).

Figure 10. Percent of mothers who reported making homemade toys. Difference is significant in Kazakhstan and Kyrgyzstan.

Figure 11. Percent of mothers who report doing a new activity with child. For Kyrgyzstan the question is “how often”, and this is the percent for “every day.

Figure 12. Differences in Ages and Stages Score Scales by intervention group: children 3-12 months, Kyrgyzstan (N=122).

Figure 13. Differences in Ages and Stages Score Scales by intervention group (full, partial, or none): children 3-12 months, Tajikistan (N=118).

Figure 14. Locally developed test based on the ELDS: differences by intervention group for children 0-12 months.

Figure 15. Locally developed test based on the ELDS: differences by intervention group for children 13-37 months. Intervention groups were higher on both the parent and the child assessment.
INTRODUCTION AND OBJECTIVES

This report is a summary of three process evaluations in Kazakhstan, Tajikistan, and Kyrgyzstan to determine to what extent the Care for Development component has been incorporated into the IMCI system, and whether it has influenced medical workers, consultations, or families. It also assesses the opinions of leaders at local, regional, and national levels in the Ministry of Health, and in IMCI Centers about Care for Development in each country. Finally, it should provide guidance for implementation of Care for Child Development, the updated module.

The purpose of the process evaluation of the implementation of the Care for Development Module of IMCI in Kyrgyzstan is, according to the terms of reference, to “capture some preliminary data, analysis, strengths and lessons learned from the current CD/IMCI programme in Kyrgyzstan, and to contribute knowledge more broadly about building on the health system to share positive care and parenting messages with families.” The Care for Development Module of IMCI provides age-based recommendations for parents in how to play (cognitive development) and communicate (language and social development) with their children from birth through 2 years of age, as well as problems that caregivers may encounter and possible solutions. It is designed to be seamlessly integrated into IMCI, and the recommendations are on the Mother’s Card along with recommendations for infant and young child feeding. The module should improve parents’ ability to support their children’s development and to link development with effective feeding practices, including responsive feeding.

The overall goals of the project were to:

1. Contribute important knowledge on the effectiveness of building on the health system to share positive care and parenting messages with families.
2. Identify recommendations on strengthening care for development of children through the continuum of services, especially in relation to nutrition and cognitive and psychosocial development.
3. Explore preliminary entry points through other institutionalized channels for CD/Nutrition at the community level.
4. In advance of the global launch of the new Care for Child Development materials, the evaluation will also be useful in assessing strategies for the potential introduction of the newly-revised materials in 2010.

The process evaluation included both quantitative and qualitative components. Specific objectives were to:

- Determine to what extent the program was implemented at all levels (qualitative and quantitative).
- Determine factors associated with implementation success (qualitative).
- Find out if there is any additional interest in child development in the Health System (quantitative and qualitative).
- Identify parenting practices and whether they differ in intervention and No Intervention areas (quantitative and qualitative).
- Identify potential interest in care for development interventions among families.
- Develop possible indicators for future monitoring and evaluation of the program.

The report of each country discusses the status of training and implementation, definition of comparison groups, the effects of the intervention at the level of clinic and health care provider, the effects of the
intervention on the clinic consultation, the effects of the intervention at the level of the family, and conclusions and recommendations for the future.

The report combines qualitative and quantitative data and analysis to determine the current status and implementation of the program, some estimate of its potential effectiveness, and factors that could have contributed to its current situation. Recommendations are provided based on the qualitative interviews and the quantitative data.

The paper first briefly describes the Care for Development Module, and outlines the history of Care for Development in each of the three countries. Second, a methodology section describes the definition of comparison groups and study design, the kinds of data collected, instruments and quality controls. Third, it presents results from the qualitative investigation based on discussions with key informants at the national, regional, municipal, and local levels. Next, it summarizes the quantitative data regarding implementation and effectiveness of the program and qualitative data from focus groups with parents. This includes:

- Effects of the Care for Development and Nutrition intervention at the level of clinic and health care provider
- Effects of the intervention on the clinic consultation
- Effects of the intervention at the level of the family

The last section includes recommendations for the future of the program in the three countries from both the quantitative and the qualitative data.

The methodology for the research was developed by Dr. Ilgi Ertem for monitoring and evaluation of Care for Development programs. It involved assessments at all levels of the ministry of health, as well as interviews with health care providers, assessment of their competencies, observations of their clinic visits, interviews with the mother/grandmother who brought the child, and finally interviews with a set of families living in the selected catchment areas of the observed health care clinics. Questions were modified by the Research Team to fit the national context, but the intent was the same.

An advisory board of Ilgi Ertem, Meena Cabral, Nurper Ulkuer, Deepa Grover, and Jane Lucas representing WHO, UNICEF, and key actors in the development of the program provided oversight.

**BACKGROUND ON CARE FOR DEVELOPMENT**

*The rationale for combining Care for Development with the Infant and Young Child Feeding Module in IMCI*

*The importance of the early years.* Research has clearly shown that early childhood is the critical period for their growth and development (Heckman, J., & Masterov, D.V. (2005). Appropriate inputs in this period will have impacts over the long term, affecting school performance, adult health and productivity (Walker et al, 2007). Risks such as poor nutrition or high levels of stress can undermine healthy development over the long term (Victora et al., 2008; Shonkoff et al., 2009).

From birth through age 3 children change from helpless newborns into talking, walking, and socially attuned problem-solving children. This change cannot occur without inputs from families and the environment; the brain is “experience-expectant” (National Scientific Council on the Developing Child 2007). In other words, it is expecting input, and requires interactions with others and opportunities for learning in order for synaptic growth and brain development to occur as expected. Caregivers have to be able to understand what a child is trying to communicate (sensitive care) and also respond appropriately in a timely way (Responsive care). Children need “sensitive and responsive care” not only in feeding but
also but also in play and communication with children. Responsive and sensitive care helps children be well nourished, well nurtured, and to develop their social and intellectual capabilities to their full potential.

**Role of the Health Sector.** The Health Sector has a major role to play in this process. Without additional support, parents and families may be ill-prepared to support the growth and development of their children during these crucial first three years of life. It is the only system which reaches all children under 3, the most critical window of both risk and opportunity, and it is responsible for ensuring children a standard of health. According to WHO, health refers to an overall state of well-being, not just survival. The role of the health sector in supporting children's rights to good nutrition through promoting adequate infant and young child feeding, improved sanitation and clean water, and good to home health practices is well recognized. Its role in supporting young children’s development as well is beginning to be recognized in a number of countries.

Traditionally the Health Sector has provided curative care. In the area of early child development, health workers treated children with obvious physical disabilities, and occasionally mental disabilities such as autism. However, more recently, both promotive care and preventative care are being recognized. Through health promotion, the Health Sector can help families understand their importance for the child’s development, and provide guidance and support about how to do this, just as with breastfeeding and complementary feeding (Grover, 2005). In many countries, the Health Sector also gives preventive care through identifying children at risk of disability or developmental delay, and providing support to parents and placements into early intervention programs. However, when there are no strategies in place for early intervention, a recommended strategy is to provide all families whose children may be at risk of not developing their full potential (Grantham-McGregor et al., 2007) with recommendations for ways of interacting with their children to support optimal child development. This is the strategy that was followed in the Care for Development Module. Both of these roles are consistent with the definition of Health as a state of well-being, including not only physical health but also psychological development.

**Development of the Care for Development Module**

Several strategies to incorporate psychosocial development (social, emotional, cognitive, and motor development) into nutrition and health care systems have been developed, such as including developmental milestones on the Growth Card, but few provided actions which families could do with children. In response to this need, WHO developed the Care for Development Module to be a part of IMCI in the late 1990s.

The decision to develop a module for care for development, and the basis for the model, was outlined in an extensive literature review of the links between nutrition and development, *A Critical Link* (WHO, 1999; Pelto et al., 2000). The conclusion of the review was the importance of the earliest years and the interaction of nutrition and development, including the quality of care provided to the child, such as responsive feeding. These two should be merged in the module.

The report concluded, “There is ample evidence that successful nutrition interventions improve physical growth. There is also evidence that such interventions, including also promotion of sound breastfeeding practices, can significantly improve psychosocial development, and have a significant and positive impact on child cognitive and motor development if implemented earliest in life. This applies also to the disadvantaged children who live in a poor environment and are at higher risk of malnutrition, illness and poor development. It has also been shown that psychosocial interventions alone can improve child psychological development (Engle et al., 2007). These interventions, too, should start very early in life—as children are most vulnerable at this time—and would also be effective after this period. The first few years in life are therefore the most sensitive ones to both nutrition interventions and psychosocial interventions. When simultaneously implemented, interventions to promote growth and those to promote psychological
development have even a greater effect than when carried out individually. A “critical link” has thus been established between physical and nutritional status of the child and his/her psychological development”.

“As the main source of physical and emotional care for young children is the family, parents need to be involved and provided with the necessary skills to feed their children adequately, stimulate their development and be responsive to their psychosocial needs. Of practical interest is recognizing that behaviours to improve nutrient intake and psychosocial support require just a few skills from child caretakers. Counseling families to develop and strengthen those skills is therefore an approach to be undertaken. There is initial scientific evidence that counseling caretakers on child feeding, as promoted in the integrated child care approach of IMCI, can ultimately result in weight gain and improved nutritional status. Large-scale early childhood care and development (ECCD) interventions in developing countries have resulted in improved short- and long-term educational outcomes; to have long-term effects on development, interventions should be intensive and protracted for several years.” (Pelto et al., 2000).

The module included simple, highly readable recommendations to parents to support cognitive development (play), social-emotional and language development (communication) and responsive feeding, as well as breastfeeding and complementary foods. These recommendations are age-based; they use new skills that the child is developing, rather than a list of milestones. The concept was to help move away from just categorizing children into actually helping parents. The theoretical basis for the recommendations were derived from the WHO Mental Health and International Child Development Programme recommendations for good mother-child interaction “8 guidelines for good interaction” (WHO Mental Health, 1998), and critical care practices as summarized in Care for Nutrition (UNICEF, 1997). On the card in Kyrgyzstan, there are four age groups: 0-6 months, 6-12 months, 12-24 months, and over 24 months. Each section has a recommendation for play and for communication, as well as a responsive feeding recommendation. The specific recommendations on Care for Development and on Responsive Feeding are in Appendix 1.

The recommendations were based in part on the contextual psychology of Vygotsky (1978) and the attachment theories of Bowlby and Ainsworth that emphasize the importance of mother-child interaction patterns, emotional availability and responsivity of the caregiver to the child for emotional and cognitive development (Bowlby, 1969; Ainsworth, 1978, 1989). Developing an early emotional connection to a caregiver, or an attachment, is critical for an infant’s well being and for later development (Isabella, 1993; de Wolf and van IJzendoorn, 1997). This connection is also critical for cognitive development and problem-solving, which are dependent on patterns of interaction between child and those in his/her environment as well as opportunities for learning. The recommendations in the Care for Development module should increase positive contact between child and caregiver, and emphasizes the caregiver’s awareness of the child’s cues and encourage responses to them. For example, up to 12 months, the suggestion for Communication is “Respond to your child’s sounds and interests. Tell your child the names of things and people.”

Care for Development became a part of IMCI initially in 1999, and was expanded and rolled out globally in 2001. Additional support materials and training manuals were completed in 2001, with a roll-out in 2001. It slowly began to be adopted into IMCI programs in the subsequent 3-4 years. Materials include the Mother’s Card, a list of problems relating to child development such as how to handle a child who seems slow, or what to say to a mother who says that she has no time to play or communicate. There is a training manual for health workers, for facilitators, and a set of parenting materials. Each has been adapted to the local context.

Research studies have shown that the appropriate use of the materials can have a significant impact on parenting behaviors and child development. Early pilot studies showed that mothers could recall the messages, and that they reported higher levels of satisfaction when the health worker had been trained on
care for development (Chopra and Lucas, 1999). Several evaluations assessed effectiveness with parenting or child outcomes. Ertem et al (2006) found significant improvements in the quality of the HOME environment (parenting practices) one month after an outpatient session in which the pediatrician was trained in care for development, compared to a control group. In a randomized controlled trial in rural China, Jin et al. (2007) found highly significant differences in young children’s cognitive development and in mothers’ understanding of the recommendations after only two home visits by a trained counselor within a 6 month period compared to a control group.

Due to changes in nutrition recommendations, an increased focus on the newborn and new information on child development and problems such as maternal distress, the Care for Development module has recently been revised and improved in 2008, and renamed Care for Child Development (UNICEF, 2009). The new materials include recommendations on toys and books necessary for child development, and more specific recommendations for young children, in addition to the earlier recommendations. It also expands the list of problems to include maternal distress or depression, psychosocial advice for a mother who chooses not to breastfeed if she is HIV+, and positive discipline. In addition the materials are not so closely linked to IMCI so that they could be used by other programs as well. There is a separate feeding card which includes responsive feeding suggestions. Training manuals have been prepared for these materials. It is hoped that these materials will be rolled out and used in the three countries.

THE PROCESS EVALUATION METHODOLOGY

The methodology was developed by Ilgi Ertem and Nurper Ulkuer for UNICEF/WHO (Ertem, 2008), and adapted to the circumstances of each site. The focus is on preventative care, and specifically on the nutrition and care for development recommendations on the IMCI mother counselling card. In some cases, additional questions were asked because the country was interested in the response.

Assessments were made at each level: national, district, health centre, health worker, observation of a clinic visit, caregiver response to the visit, and parent activities in supporting their children’s development as well as desired sources of information. The first two were assessed qualitatively, and the last four were quantitative. The third questionnaire, directed toward the head of the clinic, was both quantitative and qualitative. Sample sizes are shown in the table for each instrument. About 1/3 of the centres had no specific training for ECD, and the other 2/3 had had the training.

In each country, districts were selected according to their experience with Care for Development (1/3 none, 2/3 some) with an effort to identify sites where the intervention may have been stronger. Within each district, and within each village, all other selection was randomized and in some cases, a stratified random sample was selected.

The analysis is both quantitative and qualitative. Qualitative analyses examined opinions and factors related to implementation strategies. Quantitative information examined whether there is evidence of Care for Development in these measures, and if the groups in the intervention area differ from those in the Control areas. We assessed the following:

1. Administrative system of training, monitoring, and perceived importance of care for development.
2. Extent of training of each type of health worker
3. Sense of competence of health workers
4. The extent to which health workers actually do assessments and provide recommendations on nutrition or care for development and their timely availability.
5. Observation of clinic visits to determine whether these recommendations are given and overall tone and quality of the interaction.
6. Exit interview with the caregiver to assess her satisfaction with the visit and her experience of receiving information and support from the health care worker.
7. Assessment of family knowledge and activities to support children’s development and nutrition, plus socio-economic variables from the MICS and educational level.
8. Focus groups in each district.
9. Videotapes of feeding episodes

A more detailed report is available for each of the three countries from UNICEF CEECIS.

THE SITUATION IN THE THREE COUNTRIES

Facilitating conditions for Care for Development include a decline in infant and child mortality which can allow a country to consider aspects of child growth and development in addition to child survival, reasonable income levels, parental literacy, and availability of books and toys for young children. Table 1 below summarizes the data on the three countries on child mortality, nutritional status, income levels, and factors related to the quality of stimulation in the home environment. Data are from the State of the World’s Children (UNICEF 2009) and the author’s calculations from the MICS3 unless otherwise noted.

![Figure 1. Declines in Under 5 Mortality for three countries](image1)

![Figure 2. Percent of families with children’s books, and % in which mothers or fathers read to the child <5 (MICS 3 data)](image2)
Table 1. Comparison of the three countries on child mortality, income, nutrition, education, and quality of home stimulation

<table>
<thead>
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<th>Variable</th>
<th>Kazakhstan</th>
<th>Tajikistan</th>
<th>Kyrgyzstan</th>
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<tbody>
<tr>
<td>U5MR 1990</td>
<td>60</td>
<td>117</td>
<td>74</td>
</tr>
<tr>
<td>U5MR 2007</td>
<td>32</td>
<td>67</td>
<td>38</td>
</tr>
<tr>
<td>IMR 1990</td>
<td>51</td>
<td>91</td>
<td>62</td>
</tr>
<tr>
<td>IMR 2007</td>
<td>28</td>
<td>57</td>
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</tr>
<tr>
<td>GNI PC in US $</td>
<td>5060</td>
<td>460</td>
<td>590</td>
</tr>
<tr>
<td>% below international poverty line of $1.25</td>
<td>3</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>% of income going to lowest 40% of HH</td>
<td>19</td>
<td>20</td>
<td>22</td>
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<tr>
<td>Adult literacy</td>
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<td>100</td>
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<tr>
<td>Primary school attendance</td>
<td>98</td>
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<tr>
<td>% stunted</td>
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<td>27</td>
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<tr>
<td>% exclusively breastfeeding at less than 6 months</td>
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<td>25</td>
<td>32</td>
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<tr>
<td>Vitamin A coverage rate(full)</td>
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<td>95</td>
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<tr>
<td>% Preschool attendance 3-6a</td>
<td>20</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>% preschool attendance 3 and 4 yrsb</td>
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<td>12</td>
<td>19</td>
</tr>
<tr>
<td>Number of home stimulation activities by Mother (0-6) b</td>
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<td>1.9</td>
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<tr>
<td>No. of activities by fatherb</td>
<td>1.2</td>
<td>.4</td>
<td>1.2</td>
</tr>
<tr>
<td>No. of activities by other family memberb</td>
<td>2.1</td>
<td>1.9</td>
<td>2.1</td>
</tr>
<tr>
<td>No. of mother activities in standard score units compared to 38 countriesb</td>
<td>.42</td>
<td>-.45</td>
<td>.02</td>
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<tr>
<td>% with any children’s booksb</td>
<td>78</td>
<td>30</td>
<td>58</td>
</tr>
<tr>
<td>% mothers who read to child &lt;5 b</td>
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<td>12</td>
<td>29</td>
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<tr>
<td>%fathers who read to child &lt;5b</td>
<td>9.4</td>
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</tbody>
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a  Transmonee Data set 2006/7

bAuthor’s calculations from the 2005/6 MICS3 data set (Nationally representative sample).
RESULTS OF CARE FOR DEVELOPMENT ACROSS THE THREE COUNTRIES

Introduction of Care for Development into the three countries

Table 2 summarizes major differences in the situation of Care for Development in each country, including what it is called, how it was initiated, the role of UNICEF, policy, training, and opportunities for the future. Although the introduction of Care for Development occurred at about the same time in the three countries, as Table 2 shows, there were important differences. The initiation in Kazakhstan was the strongest, with a major piloting effort by UNICEF in several regions in 2005, with materials and resources. Training was limited to nurses in the first round, but as it was expanded to the East in 2008, all workers were trained. Further, in Kazakhstan, where budgets are under local control, additional training and booklets were supported in the South and in Akmola by committed and dedicated clinic directors and staff.

The initial introduction in Kyrgyzstan was also strong, with a training by UNICEF in 2004 and adaptation of materials, but then UNICEF played a smaller role, and WHO lead the adaptation of materials and introduction in 2005. At this point, over 80% of health workers have been trained. The focus was on training paediatricians, family doctors, and medical assistants, but few nurses.

In Tajikistan, the initial training was done by staff from Kazakhstan, and the initial focus was on training community health workers (volunteers). Subsequently, UNICEF sponsored Care for Development in 4 districts, and developed it as a pilot model. In these settings, all health workers were trained in the area, and resources were available for parent resource centers.

Data collection methodology

In each country, a local organization was contracted to collect the data, including interviews with leaders in IMCI and Care for Development, focus groups, observations of clinic visits, surveys with health workers and families, and testing of children. The data collection for the process evaluation took place from August 2009 through November of 2009, and preliminary reports were prepared in February 2010.

The sample sizes for each country are shown in Table 3 – about 100 health workers per country, (120 in Kyrgyzstan, 133 in Tajikistan, and 85 in Kazakhstan) of which 2/3 were in the intervention area and 1/3 were non-intervention or control districts, as defined by the national IMCI center and UNICEF. In both Tajikistan and Kazakhstan, some interventions occurred at the sub-district level, or it was not possible to differentiate a whole district as intervention or control, so they were labeled “partial” intervention districts. For some analyses these partial districts were not included for clarity.

The qualitative assessment involved focus groups with parents and interviews with national leaders, district leaders, and heads of clinics. The instruments were almost identical across countries, with small adaptations for the local context and specific recommendations. The quantitative assessment included a) interviews with heads of clinics and districts; 2) interviews with health workers; 3) observations of clinic visits; 4) Exit interview with the caregiver after a visit to see what she could recall; 5) interviews with families in the selected districts with a child under 36 months; 6) in Tajikistan and Kyrgyzstan, children under 36 months were given developmental assessments. Each of the studies is reported in much more detail in separate reports; this report summarizes the results and compares them across countries.

Current status of Care for Development in each Country

Table 4 summarizes the results of the quantitative survey for each country.
**Policies on Care for Development**

Kazakhstan has a clear policy of support for ECD and has mandated that each health clinic have a Healthy Baby Room, which includes child development as one of its mandates. Tajikistan has a health policy that specifically mentions psychosocial development, but the basic health package does not include it, and it is not well incorporated into the health system as yet. Kyrgyzstan has no specific policy on ECD, but is considering developing it in the near future. It has mandated Health Promotion Rooms, but they have a wide range of activities and staff are not trained on IMCI.

**Training experiences**

Table 4 summarizes training experiences as well as In each country, discussions with the national government and UNICEF defined certain areas as likely to have had more training, and others as having less training. Figure 3 shows the percent of health workers in each country who reported being trained on Care for Development according to this grouping. In both Kyrgyzstan and Kazakhstan, there was a clear difference among groups in the percent who said that they had been trained and recognized the Mother’s Card, but there was no difference in Tajikistan. Differences may be due to staff turnover or leaving the area or the country since the training, particularly since much of the training was done 3 to 4 years ago.

Even in the “intervention areas” many of the health workers had not been trained on Care for Development. Only in Kazakhstan was it possible to clearly distinguish those who had been trained on Care for Development from those trained on IMCI in general because the training had a specific label and had received governmental recognition. Training varied in length; for example, some reported that they had been trained, but qualitative discussions suggested that the length of time on the Care for Development component may have been only a few hours, without clinical practice. It is hard to document exactly what the training was since there were many different types of training and persons who did it. The lack of clarity on what is required for Care for Development training is a weakness of the implementation. Given this lack of clarity, differences between groups are likely to be relatively small.

**Health worker perceived competencies**

In all three countries, the health workers in the trained areas, or those who had been trained were more likely to feel competent in dealing with young children, and in providing the recommendations on the Mother’s Card for children’s development. In both Kyrgyzstan and Tajikistan, there were no differences by group in perceived competence about nutrition, which is not surprising given that all health workers who received IMCI training also had nutrition training. In Kazakhstan nutrition training was significantly stronger in the intervention areas as part of Care for Development. Not surprisingly, differences in perceptions of competence in nutrition were seen in Kazakhstan only.

![Figure 3](image)

**Figure 3.** Percent of health workers who said that they had had the in-service training on Care for Development using the Mother’s Card by assumed intervention.
**Effects on Primary Health Care Consultations**

Table 4 shows a comparison across the 3 countries in the kinds of skills in clinic visits that IMCI encourages, regardless of the Care for Development training. There are commonalities across countries: most health workers have a friendly tone, over 75% ask about breastfeeding, and almost half ask if the CG will be about to carry out recommendations at home. Checking understanding and praise, two key elements of IMCI training, vary by country, with over half of health workers using these techniques, with a slightly lower rate in Kyrgyzstan. In all three countries, about 20% of caregivers were given the opportunity to practice care for development recommendations. The percent of health workers trained in IMCI, where these skills would have been taught, varied by countries but was less than 100%.

**Care for Development Recommendations.** In all three countries, the major difference between intervention and control groups was in the likelihood of giving recommendations about care for development in consultations, according to the observations. In the intervention groups, the health workers were significantly more likely to make recommendations for child development that were listed on the Mother’s Card than were the control group health workers. Figure 4 shows the percent of recommendations on play and communication on the card that were made more often in the intervention than the control group. For example, if out of 15 recommendations, 10 were given significantly more often in the intervention groups, the percent would be 10/15 or 66%.

![Figure 4](image-url)

**Figure 4.** Percent of recommendations on play and communication made significantly more often in consultations in intervention than control districts.

Figures 5-8 show differences by country and intervention in how frequently a specific recommendation was given in a consultation by country and intervention group. In all three countries the Health worker was significantly more likely to ask if the caregiver played with the child, and to give recommendations to look at the child and smile, to give the child objects to play with, and to have colorful objects for the child to see. These three recommendations are on the Mother’s Card, and are appropriate for the youngest age group, who may be more likely to ask for and be given advice on the baby’s development.
Figure 5. Percent of consultations in which the health worker asks how the child plays (similar numbers were found for asking how the child communicates). (about 100/country; sample sizes in Table 3).

Figure 6. Percent of consultations in which the health worker recommended looking at the child and smiling by country and intervention/control. (about 100/country; sample sizes in Table 3).
One other common recommendation was to massage the child, which is not on the Mother’s Card, and it did not differ by intervention group. There is a long cultural tradition of massage, so it is not surprising that this message was delivered regardless of training. Whether other messages about developmental issues such as use of swaddling or harsh discipline techniques were delivered was not recorded. However, it was clear that there was a tradition of providing information on children’s development.

**Nutrition recommendations.** There were few differences in recommendations on nutrition by country. Breastfeeding was the most common nutrition recommendation given in all countries, and the most common recommendation that the caregiver recalled hearing. In all three countries recommendations on vitamin A and iron were quite infrequent, and recommendations on complementary feeding were less often given than breastfeeding recommendations. There were relatively fewer recommendations on dietary
diversity or feeding style except for Kazakhstan. This difference may be due to the greater frequency of visits to younger infants, as well as to the relatively greater complexity of complementary feeding recommendations.

In Tajikistan and Kyrgyzstan, the frequency of giving nutrition recommendations did not differ by intervention and control districts. However, in Kazakhstan, health workers in intervention districts were also significantly more likely to give recommendations on nutrition than control districts. It is important to recognize that these districts have been defined “intervention” and “control” based on their history of being trained in Care for Development. These results should not be surprising; nutrition counseling is part of the standard package of IMCI, not an additional component, so any health workers who had received IMCI training should have received training in nutrition counseling. However, many who received the standard IMCI training might not have received the Care for Development training.

The tone of the sessions was mostly positive in all three countries, and the satisfaction of the caregivers was very high, and did not differ by intervention. As noted above, in all three, there was more often advice given than demonstration, checking understanding, and giving the caregiver a chance to practice a recommendation, which did not differ by intervention group.

Recall of Clinic Visit. Mothers and other caregivers were asked what they remembered from the sessions in an exit interview directly afterward. Those that had heard messages on children’s development were more likely to remember them. There were no differences in any of the countries on the mothers’ satisfaction with the visits or their likelihood of returning to the health clinic as a function of their intervention status.

Effects on Family Behavior

Families living in the intervention districts were more likely to have been given a recommendation from the card than families living in non-intervention districts in all three countries, as Figure 9 shows. There is no “medium” group for Kyrgyzstan. All differed significantly, but as one can see, there is a considerable overlap. Because both Nutrition and Care for Development recommendations are on the same Mother’s Card, it is not clear that caregivers understood which kinds of recommendations they had been given.

Figure 9. Percent of families who had been given recommendations from the Mother’s Card by intervention group and country (there is no Medium group in Kyrgyzstan).

In all three countries, intervention village mothers reported trying out new activities with children than control village mothers, and in Kyrgyzstan and Kazakhstan, other family members did as well. There was
no difference for fathers. On the Family Care Index, which assesses how many of 6 possible activities families have done with children in the past 3 days, there were no differences. Yet only one of the six items is a specific recommendation on the card (helping the child to count), and this is the only activity to differ significantly by group in Kyrgyzstan. All analyses were performed controlling for differences in economic level and mother's education if these differed by group.

![Figure 10](image1.png)

**Figure 10.** Percent of mothers who reported making homemade toys. The difference is significant in Kazakhstan and Kyrgyzstan.

![Figure 11](image2.png)

**Figure 11.** Percent of mothers who reported doing a new activity with child. For Kyrgyzstan the question is “how often”, and this is the percent for “every day.” All are p<.05. Medium intensity groups are not shown, but are in the analysis.

There were no differences by group in the families' reported sources of information. The sources were primarily family (70%), health workers (50-60%), and television (40-50%), and the sources were similar for nutrition and child development information. Teachers and religious and community leaders were not seen as sources of information. When asked how they would like additional information on care for development, all parents reported that they would like it from health workers about 2 times per month. In
Kyrgyzstan, health workers in the intervention group were seen as more reliable sources of information than in the control groups.

**Effects on young children**

In both Kyrgyzstan and Tajikistan, children were assessed on the Ages and Stages Questionnaire. This questionnaire contains questions for parents as to whether the child has started doing a particular activity, and the parents are given the opportunity to try out the ideas with children. It covers the age range in this study from 3 months through 36 months. It has 5 scales: Communication, Gross Motor, Personal-Social, Fine Motor, and Problem-solving. In Tajikistan, the country’s early learning and development standards (ELDS) for four age groups were translated into a test that could be administered to children. Data for this test for age ranges 0-12 months, 13-36 m, 37-60m; and 61-84 months was collected in intervention and control areas of Tajikistan. Initial tests to ensure equality of the families on maternal education, income, and child age were evaluated.

In both Kyrgyzstan and Tajikistan for children 3-12 months, the intervention group was significantly higher than the control group in Communication and Gross Motor scales, and for Tajikistan, also for Personal-social scores (Figures 12 and 13).

![Figure 12. Differences in Ages and Stages Score Scales by intervention group: children 3-12 months, Kyrgyzstan (N=122).](image-url)
In Tajikistan, in addition to the ASQ, an instrument based on the Early Learning and Development Standards of the country was developed and adapted locally. Figure 14 shows the scores based on parent ratings and by child testing for the 0-12 month and Figure 15 shows the 13-37 month age group. For children less than 13 months, and for both child scores and parent ratings for the 13 to 36 month children, children in intervention districts scored higher than children in the intervention and partial intervention groups.

Differences appeared to be stronger at younger ages. In Kyrgyzstan, for age group 13-24 months, Communication scales and Personal-social scales differed significantly by group, with intervention children having higher scores, but no differences were seen for the 24-36 month group. In Tajikistan, no differences were found for groups over 36 months.
Figure 14. Locally developed test based on the ELDS: differences by intervention group for children 0-12 months. Child scores in the intervention districts were significantly higher than the controls, but parent scores in the intervention districts were not.

Figure 15. Locally developed test based on the ELDS: differences by intervention group for children 13-37 months. Intervention groups were higher on both the parent and the child assessment.

Family Interest and understanding of ECD

Most health workers, clinic directors, and national leaders understood the idea of ECD, and felt that it had a strong tradition from Soviet times. In Kazakhstan, some felt that children were more likely to survive due to the Care for Development and Nutrition recommendations. There is a lot of interest in additional training. In Kyrgyzstan, over half of all family doctors requested additional training in Care for Development as the country replaces pediatricians with family doctors.
Parents expressed a desire for and interest in more information on nutrition and early child development, particularly from health workers. In focus groups they commented that they often didn't know if a child was developing well, and relied on health workers for this information. Some focus groups suggested that families did not know when children begin to develop.

**CONCLUSIONS**

The results of this process evaluation indicate that the Care for Development Module of IMCI has been implemented in pilot districts in the three countries, but the quality of the implementation varies tremendously. Despite the variability of the implementation, there is clear evidence in all three countries that health workers’ competencies in Care for Development are higher in the intervention areas, they are more likely to give recommendations on Care for Development, families are more likely to initiate new activities with their children (and in a few cases, make toys), and in two of the countries, children were found to have significantly higher levels of development. The intervention itself is delivered in about 5 minutes to the caregiver. **In short – the intervention appears to make a difference.**

Yet ECD and Health policies are often not in place, and national support is not as strong as it should be. Table 6 summarizes specific problem areas and suggestions using the building blocks model of health systems that are needed to support the potential of this program.

**Facilitating and limiting factors**

The quantitative and qualitative research in the three countries, and consultations in each, resulted in a list of facilitating factors and limiting factors for success which seemed to hold in each country. These conclusions reflect the opinions of national leaders as well as clinic directors and health workers. These are:

**Facilitating factors**

- Adequate system of training
  - Regular pattern of training that includes practice, and provides rewards such as increased salaries for being trained;
  - Training all health workers, not just one level (e.g., nurses);
  - Training and support of community volunteers;
- Clear policy statements, policies, and programs by the Ministry of Health and others such as establishing Healthy Baby Rooms;
- Adequate capacities of parents to put recommendations into practice – such as having children's books, parent literacy, understanding of ECD;
- Commitment of the directors of health centers, rayons, and oblasts to Care for Development.

**Limiting factors**

- Having Care for Development a “pilot” program that is not part of the national program;
- Lack of monitoring indicators and monitoring system;
Absence of parenting materials, strategies for working with parents, lack of protocols and supports for Healthy Baby Rooms, or Health Promotion Rooms, or Village Volunteers;

Lack of systematic practical training both at pre-service and in-service level;

Government focus on reducing child and maternal mortality.

RECOMMENDATIONS

Based on the results from the three countries, the qualitative and quantitative information obtained, and the discussions in countries on the basis of the results, the following recommendations were made:

1. Improve implementation of Care for Development by the following actions:

   - Programs should not be pilots, but should be part of the broader Health Policy.
   - All training should be undertaken on a regular basis, and include hands-on practice. The WHO IMCI computer training program should include Care for Development. Pre-service training is very good, but unless it is very hands-on and related to the IMCI package, it may not translate well enough to the field.
   - Be sure that health workers as well as community volunteers are trained, and make the training consistent for both of them. Community volunteers can be made more effective by regular group sessions, and they can contribute to preventative actions of both care for development and nutrition.
   - Monitoring of progress must be done for long term sustainability. One strategy to test is to use the new Care for Child Development package along with the Care for Nutrition Package and use the checklists to generate a monitoring indicator (% families in which there is a problem of mother-child interaction. A second strategy would be to adopt an instrument like the Ages and Stages Questionnaire for families to assess their children before coming to clinic.
   - Develop additional components for Care for Child Development such as video spots, related TV programs, mothers’ groups, family materials, mother-held cards to facilitate training and work with parents. Across all three countries develop video spots to illustrate key points in Care for Child Development for training and improvement of the program. These could be used as part of a TV program.
   - Develop protocols for use of rooms such as the Health Baby Rooms or Health Promotion Rooms.
   - Build supervisory and support mechanisms for Care for Development.

2. Build demand and community support from families for Care for Development as part of health, incorporating messages about care for development into media and with nutrition messages. Keep the messages consistent across all interventions.

3. Create a stronger policy commitment to the Care for Development package, and to its continued increase in quality and sustainability.

4. Next steps:

   - Hold review meeting with the Ministry of Health and the Ministry of Education to look at these results and plan for increasing the productivity of every child.
   - Hold a regional meeting on Care for Child Development with other countries in the region to compare good practices and develop new ones.
### Table 2. Status of Care for Development Implementation in each country.

<table>
<thead>
<tr>
<th>Item</th>
<th>Kazakhstan</th>
<th>Tajikistan</th>
<th>Kyrgyzstan</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is it called</td>
<td>Better parenting initiative, ECD, CDI, and in one report, Improved Parent Expertise/Infant Development - so many terms leads to confusion</td>
<td>A part of IMCI – no special name</td>
<td>A part of IMCI – no special name for some, sometimes called Care for Development</td>
</tr>
<tr>
<td>Role of UNICEF</td>
<td>Actively promoted Care for Development in two regions (South and East) with funding</td>
<td>UNICEF began in 2005 in four districts with materials, training for health workers, ECD resource rooms, TV programs</td>
<td>Mainly WHO; UNICEF played a role at the initiation</td>
</tr>
<tr>
<td>Current status of health worker training</td>
<td>It is part of all IMCI training; particularly in E. Kazakhstan and Astana; all are trained every 3 years; In 2006 began 5 days training in early child care for health and development at the family level for nurses and feldshers based on Care for Development, Breastfeeding, Complementary feeding and Growth assessment. WHO trained IMCI national trainers and teachers from medical education system. UNICEF conducted trainings in 2 pilot regions (South Kazakhstan oblast and Semipalatinsk). % who had been trained on ECD: High intensity 86%, medium 38% and 56%, control 0%. Also differed significantly in length of training.</td>
<td>Part of IMCI training but only done when a donor pays for training; 9 days training, with 3 days for Care for Development and nutrition with some guided practice (about 2 hours). Not part of the basic benefits package of the Health Care system. 68 IMCI centers + 5 more throughout the country to do training. In 3 districts, 50% trained. In others, it is lower.</td>
<td>Care for Development has been part of IMCI training since the beginning of 2006 but only family doctors and physicians’ assistants (feldshers) are trained (there are no pediatricians). Nurses are not trained in IMCI, even though they are the most likely to apply the care for development module and other preventative components. A 12-day IMCI with Care for Development (96 academic hours) for in-service training of family practitioners and 8-day (64 hours) module for medical assistants (feldshers) is normal. Only 8 hours of theoretical classes and 4 hours of practical classes are allowed for Care for Development in the IMCI curriculum of the Kyrgyz State Medical In-Service Training Institute. USAID funds have been used to train some nurses on IMCI. The IMCI training program for family nurses is a 6-day program (48 academic hours), which includes 8 hours for theoretical classes and 4 hours of practical classes in each year.</td>
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<tr>
<th>Item</th>
<th>Kazakhstan</th>
<th>Tajikistan</th>
<th>Kyrgyzstan</th>
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<tbody>
<tr>
<td></td>
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<td>hours for practical classes for nutrition and Care for Development. Health workers are retrained every 5 years. Huge turn-over, hard to keep staff. Perhaps 60% of health care workers have been trained on Care for Development.</td>
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<td>Two medical universities have training in ECD – prepared 2 books on IMCI for college students and medical students, incorporated into training.</td>
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<tr>
<td>Pre-service</td>
<td>All go through pre-service but it is mainly theoretical and does not provide the skills needed for Care for Development (missing hands on for all areas).</td>
<td></td>
<td>IMCI is a part of pre-service medical school training. The neural and mental development section consists of 12 hours of practical classes and 4 hours of lectures focusing what children can do at certain ages but not on Care for Development. In addition, there is specific training on IMCI for one month after getting the medical degree which results in a higher salary. Therefore many have taken it. However, given high turn-over, there is still a shortage of trained family doctors.</td>
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<tr>
<td>Policy and political support</td>
<td>No ECD policy framework across sectors; but a strong Prikaz (government regulation) on ECD in the health centers, and one on setting up of Healthy Baby Rooms in 2008 (a Soviet tradition) e.g. &quot;arrangement of excellence course on IMCI and Early Childhood Development: Outpatient and Inpatient Care for Children under 5 Years Old. Young Children Family Care for medical workers at medical schools and colleges.&quot;</td>
<td>Strong support in IMCI Republican Center; main advocate is now advisor to the president; new Child and Adolescent Health Policy has clear support for psychosocial stimulation and development assessment; a central part of the Infant Feeding Recommendations for children 0-24 months currently under review; however, no ECD policy framework. Not part of the Guaranteed Basic Package</td>
<td>No ECD policy framework; 2006-2010 plan for Health Sector Reform barely mentions ECD; but opportunities for review of plan are coming up.</td>
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<tr>
<td>Community IMCI /community outreach</td>
<td>Healthy Baby Rooms are supposed to be in each health center – no other specific outreach; Have a program for healthy</td>
<td>Government has trained community volunteers in 4 day training (2 nutrition, 2 Care for Development, with practical exercises) to deal with many</td>
<td>Nurses make home visits after childbirth but have not been trained on IMCI. There are Health Promotion Rooms in sub-districts, but they cover</td>
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<tr>
<td>Item</td>
<td>Kazakhstan</td>
<td>Tajikistan</td>
<td>Kyrgyzstan</td>
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<tr>
<td>Lifestyles that may be appropriate; training home visiting nurses just on ECCD, train everyone else on both IMCI and CF</td>
<td>health issues including care for development; 509 trained in 2002 (no Care for Development), but 90 more to be trained this year. 5 trainers.</td>
<td>many topics for adults and children. The people in charge of these rooms have not been trained on IMCI. Recently a community volunteer system is being developed but it does not include Care for Development.</td>
<td></td>
</tr>
<tr>
<td>Link with Early Learning and Development Standards or other child development outcomes</td>
<td>In discussion</td>
<td>Covers ages 0-5; some early involvement of the health sector</td>
<td>ELDS being age validated; only for ages 3-5 and 5-7</td>
</tr>
<tr>
<td>Monitoring system for ECD</td>
<td>In 2 pilot districts send reports to center, but not done overall. Not in MEDINFO; seen as a pilot project, so not necessary. Not sure how to monitor Healthy Baby Room.</td>
<td>Only track diseases; no nutrition or child development assessments; the line item for Play and Communication is on a form assessing treatment.</td>
<td>Track breastfeeding, other nutrition variables; about to have a meeting to redefine outcomes. On the IMCI form list whether there was a discussion of play or communication.</td>
</tr>
<tr>
<td>Materials for Care for Development</td>
<td>BPI/IMCI booklet; large calendar with much information; education module for nurses, child development diaries, and child care leaflets for the families (were developed and about 367404 copies were made.</td>
<td>2 UNICEF brochures but not widely available</td>
<td>None other than the IMCI mother’s card, which some centers made copies of.</td>
</tr>
<tr>
<td>Role of other groups</td>
<td>Healthy Lifestyles Center is beginning to consider incorporating these messages</td>
<td>Aga Khan Foundation in GBAO has a training program for community volunteers who hold group sessions once or twice a month on one of 12 topics. From data collected 13% of sessions were on ECD – in the top 3. Provide refresher training of 2 days every quarter.</td>
<td>USAID trained nurses on IMCI with additional funds.</td>
</tr>
<tr>
<td>Opportunities for expansion of Care for Development</td>
<td>New policies support Care for Development; part of IMCI; could be incorporated into computer-based training of IMCI (not there now); needs to be a scaled-up national policy according to some respondents.</td>
<td>Currently psychosocial stimulation is in the Health Policy; can be part of health system in new UNICEF districts; build on AKF model showing interest and demand; MoH has it included as part of IMCI, but may not be clear to them how to implement it. They are open to discussion. They are initiating a new package, and will do some pilots in 5 districts in</td>
<td>High demand – not clear how many have had Care for Development training - perhaps half – but 784 of 1600 health workers have requested it. In September may be able to include measures of child development into the monitoring system.</td>
</tr>
</tbody>
</table>
Table 3. Description of the sample for the three countries.

<table>
<thead>
<tr>
<th>Item</th>
<th>Kazakhstan</th>
<th>Tajikistan</th>
<th>Kyrgyzstan</th>
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<tbody>
<tr>
<td>December. 11-12 districts have been selected for GMP, CF, sprinkles – a little bit of everything. There is a plan for 5 trainings this year in five districts for the next 5 years.</td>
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</tbody>
</table>

**The survey sample (2/3 intervention communities, 1/3 controls)**

<table>
<thead>
<tr>
<th>National</th>
<th>3</th>
<th>6-8</th>
<th>6-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oblast/district</td>
<td>3</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Medical director of clinic/post</td>
<td>21 (27)</td>
<td>54</td>
<td>48</td>
</tr>
<tr>
<td>Health workers</td>
<td>90</td>
<td>105-150</td>
<td>154</td>
</tr>
<tr>
<td>Observations</td>
<td>90</td>
<td>162</td>
<td>120</td>
</tr>
<tr>
<td>Interviews with person observed</td>
<td>90</td>
<td>108</td>
<td>96-120</td>
</tr>
<tr>
<td>Families of children 0-36</td>
<td>96</td>
<td>218 (3-36)</td>
<td>240 (3-36)</td>
</tr>
<tr>
<td>Child measures</td>
<td>none</td>
<td>0-12: ELDS, ASQ = 302 13-36 = 210 37-60 = 210 61-84=210</td>
<td>3-36: ASQ= 240 Sampling for ELDS of 3-5 yr. and 5-7 yr.</td>
</tr>
<tr>
<td>Focus groups</td>
<td>?</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Videos of feeding</td>
<td>0</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Videos of play</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
</tbody>
</table>
Table 4. Quantitative data in each of the four countries.

<table>
<thead>
<tr>
<th>Item</th>
<th>Kazakhstan</th>
<th>Tajikistan</th>
<th>Kyrgyzstan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training of health workers in Care for Development by intervention status</td>
<td>In sample 89% South trained, 73% mid-level, and 0% in Control.</td>
<td>Difficult to identify Care for Development training separate from all IMCI training. No difference by intervention group (60% intervention, 54% variable, 65% not trained).</td>
<td>Yes - 67% vs. 38%</td>
</tr>
<tr>
<td>Health worker competencies by group</td>
<td>Competencies differed by region on play and communication for children 12-24 months. When categorized by report of being trained, trained workers felt more competent on 4 items - being able to listen and understand, recommendations for play and communication from 12-24 months, recommendations for nutrition from 12-24 months, and how to address mothers who say that they do not have enough time to play with children.</td>
<td>Intervention group were more confident in their skills for communicating with infants, and skills to counsel parents on play and communication. No other differences</td>
<td>Yes – on 5 Care for Development recommendations, trained group significantly higher than untrained, no difference in nutrition recommendations.</td>
</tr>
<tr>
<td>Consultations: differences in general attitude</td>
<td>Trained workers more use of praise, demonstration, positive affect</td>
<td>Intervention group higher only on 5 of 15 items. Overall tone and style of interaction positive for 90% or more; but few demonstrations, few chances for the mother to practice recommendation or get feedback</td>
<td>None in observation or in caregiver’s recall</td>
</tr>
<tr>
<td>Consultations: differences in nutrition recommendations</td>
<td>In trained group gave more recommendations for 12-24 months only</td>
<td>Intervention group higher on only 3 out of 17 items. Overall – more on feeding frequency than quantity, consistency, dietary diversity, or how child was fed.</td>
<td>One higher in control group but no differences in caregivers’ recall</td>
</tr>
</tbody>
</table>
## Differences in Care for Development Recommendations

<table>
<thead>
<tr>
<th>What do different levels of the health system think is needed to get Care for Development in place?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consultations:</strong> Differences in Care for Development recommendations</td>
</tr>
<tr>
<td>Improved support from the administration (salary, staff, resources) (30), training and handouts/materials to work with parents (23), and training for themselves (12).</td>
</tr>
</tbody>
</table>

## Parents’ Experiences with the Health Center

<table>
<thead>
<tr>
<th>Parents’ experiences with the health center</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Significant difference in having seen card from 47% (high), 20% (medium) and 0% (control).</strong></td>
</tr>
</tbody>
</table>

## Mother Tried Out New Activities

<table>
<thead>
<tr>
<th>Mother tried out new activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>More mothers initiated new activities with their children</td>
</tr>
<tr>
<td>No difference on general activities (the Family Care Index).</td>
</tr>
</tbody>
</table>

## Father Tried Out New Activities

<table>
<thead>
<tr>
<th>Father tried out new activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>No difference</td>
</tr>
</tbody>
</table>

## Toys or Books

<table>
<thead>
<tr>
<th>Toys or books</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention families more likely to make toys for their children but, but no difference on number of types of toys, whether family had books for children</td>
</tr>
</tbody>
</table>
Sources of information and contact about child nutrition and development  

<table>
<thead>
<tr>
<th>Sources of information and contact about child nutrition and development</th>
<th>Health workers – 80%, TV 70%, Magazines 65%, posters 50% no diff for nutrition and CD or by group</th>
<th>Family most common (75%); TV at about both (40-50%), books/magazines (30%). No difference by group.</th>
<th>No difference; father, mother in law most common.</th>
</tr>
</thead>
<tbody>
<tr>
<td>How they would like information</td>
<td>Not asked</td>
<td>About a third said family, health worker, or TV was most reliable source. Want information several times a month in clinic from health workers.</td>
<td>Intervention groups thought health care workers were more reliable sources than controls</td>
</tr>
</tbody>
</table>

**Table 5.** Percent of consultations in which health workers used counseling skills related to IMCI in the observed visits.

<table>
<thead>
<tr>
<th>Item observed</th>
<th>Kazakhstan</th>
<th>Tajikistan</th>
<th>Kyrgyzstan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of observations of consultations</td>
<td>85</td>
<td>133</td>
<td>120</td>
</tr>
<tr>
<td>Health Worker (HW) uses a friendly tone</td>
<td>93%</td>
<td>99%</td>
<td>98%</td>
</tr>
<tr>
<td>HW asks about breastfeeding</td>
<td>74</td>
<td>69</td>
<td>82</td>
</tr>
<tr>
<td>HW asks about how caregiver (CG) plays with the child</td>
<td>69</td>
<td>30</td>
<td>46</td>
</tr>
<tr>
<td>HW asks about how CG communicates with the child</td>
<td>72</td>
<td>30</td>
<td>37</td>
</tr>
<tr>
<td>HW praises the CG for child nutrition</td>
<td>60</td>
<td>55</td>
<td>32</td>
</tr>
<tr>
<td>HW praises the CG for child’s development</td>
<td>59</td>
<td>32</td>
<td>19</td>
</tr>
<tr>
<td>HW asks CG if she understands (check understanding)</td>
<td>58</td>
<td>82</td>
<td>38</td>
</tr>
<tr>
<td>HW asks if CG will be able to carry out recommendation at home</td>
<td>48</td>
<td>42</td>
<td>38</td>
</tr>
<tr>
<td>HW gives CG a chance to practice one of the recommendations for play or communication</td>
<td>23</td>
<td>22</td>
<td>22</td>
</tr>
</tbody>
</table>
Table 6. Recommendations for Care for Development according to the building blocks for health systems strengthening

<table>
<thead>
<tr>
<th>Building Block</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership and governance</td>
<td>Care for Development should be in policies; requires national and oblast leaders support</td>
</tr>
<tr>
<td>Health financing system</td>
<td>No extra funding was supplied – it is seen as part of IMCI. This may not be adequate funding for all resources</td>
</tr>
<tr>
<td>Health Workforce</td>
<td>Training was variable; needs to be regular and practice-based; could be put into a computer module, training materials such as videos developed, collaboration between countries</td>
</tr>
<tr>
<td>Essential medical supplies</td>
<td>Needed more parenting materials, guidance for groups; recommend adopting the new Care for Child Development; need books for children</td>
</tr>
<tr>
<td>Health Information system</td>
<td>Current monitoring indicators are not effective; need new ones that are sufficiently salient that they will be collected and used; need people who are responsible for the data.</td>
</tr>
</tbody>
</table>
REFERENCES


## Appendix 1

### Recommendations on the Mother’s Card from Kazakhstan, Kyrgyzstan, and Tajikistan*

<table>
<thead>
<tr>
<th>Category</th>
<th>Up to 6 months</th>
<th>Up to 12 m</th>
<th>12 m up to 2 y</th>
<th>2 y and older</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Play</strong></td>
<td>Starting from birth provide ways for your child to see, hear, feel and move. Have large, colorful things for your child to reach for and new things to see</td>
<td>Give your child clean and safe household things to handle, bang and drop</td>
<td>Give your child different size things to stack up, and to put into containers and take out</td>
<td>Help your child count, name and compare things. Make simple toys for your child</td>
</tr>
<tr>
<td><strong>Communicate</strong></td>
<td>Starting from birth look into your child’s eyes and smile at him or her. When you are breastfeeding is a good time to communicate. As the child grows, talk more to your child and get a conversation going with sounds or gestures</td>
<td>Respond to your child’s sounds and interests. Tell your child the names of things and people</td>
<td>Ask your child simple questions. Respond to your child’s attempts to talk to you. Tell your child the names of things and people. Play simple games with your child.</td>
<td>Encourage your child to talk and answer your child’s questions. Teach your child stories, songs and games.</td>
</tr>
<tr>
<td><strong>Responsive feeding</strong></td>
<td>Breastfeed when the child shows signs of hunger; beginning to fuss, sucking fingers, or moving the lips. Do not wait for the child to cry.</td>
<td>Give the child small chewable items to eat with fingers. Let the child try to feed self, but provide help.</td>
<td>Actively help your child to eat.</td>
<td>Offer a variety of foods. If a new food is refused, offer “tastes” several times. Show that you like the food.</td>
</tr>
</tbody>
</table>

Infant and young child feeding recommendations as per WHO/UNICEF guidelines are provided and adapted for each specific country.

* The actual card has pictures as well.