



Oxford Policy Management

# KAZAKHSTAN: EXTERNAL EVALUATION OF BOTA PROGRAMMES

Conditional Cash Transfer (CCT) Programme

Baseline Report of Quantitative Evaluation

Vol I: Impact

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## Preface

This baseline report presents the results of the first of two rounds of a quantitative survey that aims both to identify the impact of the BOTA Foundation's Conditional Cash Transfer programme on its target beneficiaries, particularly on those households eligible to receive the cash transfer for children of pre-school age, and also to evaluate the programme's operations.

The report is divided into three volumes. Volume I presents the baseline for the impact evaluation. Volume II is a synthesis report on BOTA's operations, combining the results from the baseline for the quantitative evaluation with some key findings drawn from the qualitative research report of January 2012. Volume III presents the findings from the targeting analysis.

The fieldwork on which these quantitative findings are based was conducted in June to December 2011. A second round of fieldwork is taking place in June to December 2012 and the results of that follow-up survey, which will identify the impact of the programme on households that have been eligible for one year, will be available in mid-2013.

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The external evaluation of BOTA's programmes is being carried out by Oxford Policy Management in partnership with the Institute for Fiscal Studies, UK, and BISAM Central Asia, Kazakhstan. The project manager is Clare O'Brien. For further information contact [clare.obrien@opml.co.uk](mailto:clare.obrien@opml.co.uk).

The authors of this report are Clare O'Brien, Marta Marzi, Fred Merttens, Luca Pellerano and Aly Visram.

The contact point for BOTA is Altnai Kussainova, Director, Monitoring and Evaluation Department ([akussainova@bota.kz](mailto:akussainova@bota.kz)).

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## Abbreviations

ATET	actual treatment effect on the treated
CCT	conditional cash transfer
ECD	early childhood development
HBC	home-based care
HBS	Household Budget Survey
ITT	intent-to-treat
MICS	Multiple Indicator Cluster Survey
OPM	Oxford Policy Management
PLW	pregnant and lactating women
UNICEF	United Nations Children's Fund

There is a glossary of terms in Annex B.



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## PART A: BACKGROUND

### 1 Introduction

#### 1.1 Overview of the Conditional Cash Transfer (CCT) programme

The BOTAFoundation CCT programme intends to improve the lives of children in households suffering from poverty in Kazakhstan by increasing their access to education and other social sector services. The programme delivers regular cash to four categories of beneficiary within poor households: children aged four and over up until they are eligible to start school (classified by BOTAFoundation as the 'Early Childhood Development' (ECD) category); pregnant women, or women with infants up to the age of six months ('Pregnant and Lactating Women' (PLW) category); children with disabilities ('Home-Based Care', HBC); and young people aged 16-19 who have completed school and are starting work ('Livelihoods' category). In 2011 the BOTAFoundation CCT was operating in three oblasts: Akmola, Kyzylorda and Almaty. In the first two of these it is implemented by teams directly employed by BOTAFoundation; in Almaty oblast it is implemented by two non-governmental partners. The programme is continuing to expand into new oblasts, with slight differences in implementation modalities. Some further details of the CCT programme are provided in Annex C.

**In order to receive the transfer a household must meet two main criteria**, in addition to possessing the correct documentation. First, it must contain a member that fits one of the categories. Second, it must be classified as poor according to the results of a short computer test administered by BOTAFoundation representatives, the 'proxy means test', that analyses how the household's characteristics compare against those of households known to be poor in national surveys. Once identified, beneficiaries continue to receive the cash for the permitted period of time provided that they meet specified conditions such as attendance at pre-school or at training sessions.

**At the time of the baseline survey BOTAFoundation had introduced the programme to the local administration (*akimat*) at oblast, rayon and okrug levels.** In treatment okrugs it had also identified volunteers to support programme implementation. The volunteer had identified as many potential beneficiary households as possible, and then specialists had undertaken one round of enrolment in those areas.

**The volunteers are local residents who are expected to be familiar with the community and who are able to identify potentially vulnerable households that include members who fit the CCT categories.** They raise awareness of the CCT in the community, encourage households to apply for BOTAFoundation by taking the test, and act as a focal point for pre-school facilities that are attended by enrolled children. In Almaty oblast the specialists are from the partner NGOs. They travel between okrugs to spend a day in each community in a public location such as the local government office or a school, where they use computers to conduct the proxy means test with applicants to determine eligibility. A decision is reached immediately. It was agreed with BOTAFoundation during the evaluation design that specialists would aim to maximise the enrolment of eligible households in this first round, to enable an analysis of targeting effectiveness at baseline.

**For the baseline survey the evaluation team aimed to reach households in the month following BOTAFoundation's enrolment round in each okrug.** It was intended that this would give BOTAFoundation flexibility to select its enrolment dates and spread awareness of the CCT whilst minimising the time that successful households had to wait to receive their bank card (since no bank cards were issued in treatment okrugs until after completion of the baseline survey). In the event okrugs in some rayons were enrolled unexpectedly early so the time between BOTAFoundation's first round of enrolment and the entry of the evaluation team into the okrug ranged up to a few months.

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## 1.2 Overview of the evaluation

**The evaluation has three main objectives.** These are addressed separately in the three volumes.

1. **Impact evaluation.** This will provide independent evidence of the impact of the CCT.
2. **Operational evaluation.** This will analyse and offer recommendations on the way in which the programme is being implemented.
3. **Targeting analysis.** This is an assessment of how effectively the programme's targeting process is reaching the households it is intending to support.

### 1.2.1 Scope of the impact evaluation (Volume 1)

**To identify the impact of the BOTA programme we need to identify the living conditions of two groups of households, similar in every respect except one:** one group receives the BOTA CCT, and the other does not. A baseline survey conducted before the CCT is disbursed serves to check that the two groups are the same, and to estimate the size of any differences if these have appeared by chance; and then later a follow-up survey will see how the living conditions have changed in the two groups after the introduction of the CCT.

**This report presents the results of the baseline survey<sup>1</sup>.** This means it shows the living conditions of households *before* they started receiving the CCT. The fieldwork was successfully completed in all survey locations before BOTA had begun to distribute any cash to any beneficiaries. So the baseline provides an undistorted picture of the situation of households in those places. The only noticeable 'anticipation effect' found in the data is for pre-school enrolment where significant differences are already found between okrugs where BOTA has begun working and those where it has not, because households are anticipating that they will have to enrol their child in order to get the transfer (see section 6).

**In order to maintain the cleanliness of the baseline the survey was conducted only in Almaty oblast.** This is because the programme had already been running for over a year in Akmola and Kyzylorda oblasts and so it was no longer possible to ascertain the situation of the households before the arrival of BOTA there. Moreover, in Akmola and Kyzylorda the programme had not been rolled out randomly so it would not have been possible to randomly select locations for comparison ('control' locations) in those oblasts.

**The quantitative survey focuses on the living conditions of households eligible for the ECD benefit** because these make up the largest proportion of CCT recipients and because it is possible to use publicly available information to obtain a statistically representative sample of this group. Where possible the survey gathered information on the other categories of interest to BOTA—pregnant and lactating women, and children with disabilities—if such people were found in the same households as the children eligible for the ECD benefit. The findings on these categories are not statistically representative of Almaty oblast but they nonetheless provide useful insights into attitudes and practices on social and health issues for these groups.

### 1.2.2 Scope of the operational evaluation (Volume II)

**Volume II contains the operational evaluation at baseline. The quantitative component of the report covers households' experience of the enrolment process.** The experience of enrolment is discussed only in relation to the treatment okrugs, where BOTA has been operating,

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<sup>1</sup> The follow-up survey is taking place during 2012 and the results will be available in mid-2013.

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not in relation to control okrugs where BOTA has not worked. Households' experience of the enrolment process is examined by reviewing their awareness of the BOTA programme, and the experiences of applicants in relation to taking the test during registration. This is the range of experiences that households have had with the BOTA programme up to the time of the baseline. BOTA had not issued bank cards, nor begun payments or training. As noted in Volume I this was intentional, so that a clear baseline was established. An assessment of the payment and training processes will form part of the follow-up evaluation.

The findings from the quantitative fieldwork are supplemented by some key findings drawn from the qualitative research of January 2012 to present a broader picture of the nature of BOTA's operations including in Kyzylorda and Akmola where the programme has been running for longer than in Almaty oblast.

### **1.2.3 Scope of the targeting analysis (Volume III)**

**Volume III contains the targeting analysis.** This discusses the extent to which BOTA is identifying and reaching the households it is intending to support. It examines the effect of both the design of the targeting method and the implementation of the programme on the take-up of the benefit among poor households with children of an age eligible for the ECD benefit. The targeting analysis is a one-off exercise at baseline. It will not be repeated at follow-up because the household listing from which the data are derived is conducted once, at the start of the survey.

## **1.3 Structure of this volume**

**Part A, the background to the report, continues in section 2** with a description of the conceptual framework, the approach to sampling and the fieldwork methodology. Any reader already familiar with the design of the evaluation may wish to move directly to part 3 after the end of the current section. Part 3 presents an overview of how to read the analysis in this report.

**Part B records the findings of the baseline survey.** Sections 4–11 each focus on a different aspect of household wellbeing. Section 4 summarises the characteristics of the household. Sections 5–6 look at aspects relating to the pre-school age child including care arrangements, the learning environment at home, and the pre-school facility. Sections 7–10 review the household as a whole including health, work status, consumption and housing conditions. Section 11 summarises findings on the PLW and HBC categories of beneficiary.

**Part C** presents some concluding observations. **Part D contains annexes** with further details of items discussed in the main text, including supplementary tables.

## 2 Evaluation design

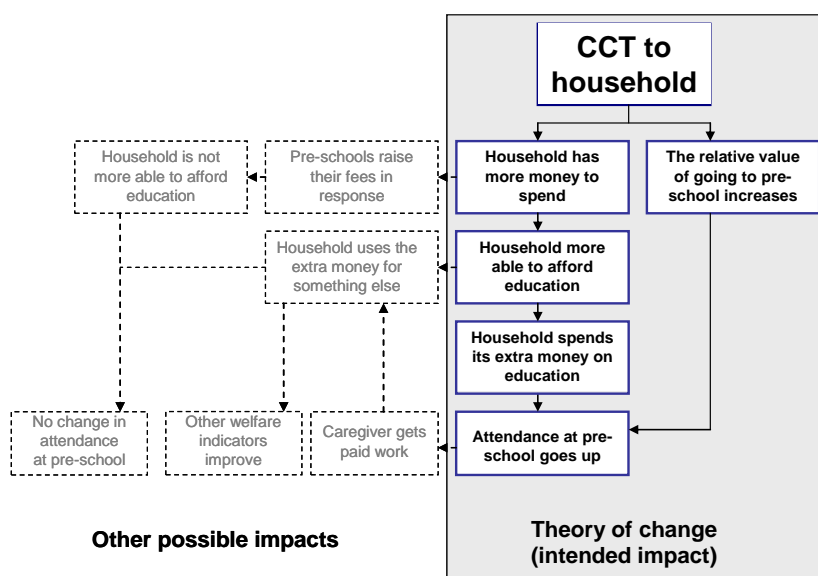
### 2.1 What the impact evaluation is looking for

**BOTA is using a demand-side mechanism—the CCT—to achieve its goal of improving education, health and social inclusion of children from poor households.** 'Demand-side' means that the mechanism is targeted at the service *user*: it aims to remove monetary and, to a certain degree, non-monetary barriers that prevent poor households from accessing services. The assumption in providing the cash transfer is that because of monetary constraints (direct and indirect costs, and opportunity costs) households cannot afford to use existing services such as pre-school facilities; the assumption with making the transfer conditional on certain behaviours is that households are unfamiliar with the benefits of the service, or feel that it is not appropriate for their needs, and might not use it even if they could afford it.

**This contrasts with a 'supply-side' strategy which could be targeted at the service *provider*** and might, for example, aim to increase the number or quality of facilities<sup>2</sup>. The CCT programme has carried out occasional informal supply-side activities for the ECD group in the form of advocacy by community mobilisation specialists to encourage the establishment of pre-schools, but these are not its focus. For other beneficiaries there is a greater supply-side component since BOTA is itself delivering training to recipients of the cash transfers for the PLW and HBC groups.

**There is an underlying 'theory of change' that explains why the CCT is expected to lead to its desired result such as improved attendance at pre-school.** The objective of the impact evaluation is to examine not just the final outcome of the programme but also the impact at all the steps along the way, in order to ascertain whether the theory of change holds true (Figure 2.1).

**Figure 2.1 A 'theory of change' for the CCT**



Source: OPM.

<sup>2</sup> In most cases, for instance in Latin America, CCTs have been introduced when supply-side mechanisms have proven to be insufficient to improve take-up of services. There can be a risk in introducing a demand-side mechanism if the issue of supply has not been fully addressed, since households may increase their demand for the service, such as pre-school education, but may find that no facility exists for the child.

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**The impact evaluation therefore attempts to understand:** What is the effect of the cash transfer on the amount of money that a household has to spend, and on the relative perceived value of going to pre-school? Does the household spend this additional money on educational items? Does attendance at pre-school go up? The cash transfer may have unexpected consequences. For example, the household may have more money to spend as a result of the transfer, but it may choose to spend it on something other than education; or it may have less money to spend if relatives who previously sent remittances perceive that they no longer need to do so. Indicators are constructed in a range of areas to measure these effects.

### 2.1.1 Key indicators

The indicators used to measure the impacts of the programme are derived from many different documents<sup>3</sup>. They cover both areas that are common to all categories of household, such as poverty measures and the labour supply of adults; and also areas that are specific to the individual categories such as early childhood development.

## 2.2 How the survey detects the impact: the randomised control trial<sup>4</sup>

### 2.2.1 'Treatment' and 'control' groups

**The impact of the CCT will be detected quantitatively by comparing two groups of communities:** one that has received BOTA's CCT during the survey period (the 'treatment' group), and a second group that has not received it (the 'control' group). Communities were carefully paired up at the start of the evaluation to minimise systematic differences between each community in the pair, and so to ensure that the two groups were as similar as possible to one another. Then, of each pair, one was randomly assigned to the treatment group and the other to the control group. Any differences that are identified at follow-up may be attributed to BOTA, once any external factors have been taken into account. This is termed a cluster randomised control trial. Overall the randomisation took place over a large number of clusters (226 in 113 pairs), ensuring that by design there were no systematic observable or non-observable differences between the treatment and control groups.

### 2.2.2 The *okrug* as the basis of the sample

**The *okrug*, the smallest level of local government administration in Kazakhstan, is used as the basis of the assignment of households into treatment and control groups.** It is also the 'primary sampling unit' for the evaluation. In other words, half the okrugs selected for the evaluation receive the CCT and the other half do not. Out of the 113 pairs of okrugs constructed as mentioned above, 54 were randomly selected for the evaluation sample. In each selected pair one okrug receives the CCT and the other does not. Hence there are 54 treatment okrugs and 54 control okrugs in the evaluation sample, making 108 okrugs in total. All other okrugs (there are 262 in Almaty oblast) are outside the evaluation and BOTA continues its work in those as normal.

**It was agreed with BOTA that it was preferable to randomise the CCT rollout by okrug, rather than by individual, for both practical and ethical reasons.** An individual-level trial would have involved assigning people to be beneficiaries or non-beneficiaries randomly in each location. The design of the CCT programme explicitly precludes that option as the objective of the BOTA

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<sup>3</sup> These include BOTA's results monitoring framework, OPM's original technical proposal, correspondence between OPM and BOTA during the inception and design phase, and suggestions from BOTA's and OPM's consultants.

<sup>4</sup> The full sampling method is presented in Annex D.

programme is to maximise inclusion by beneficiary households. Randomisation at the level of the okrug was found to be feasible because in any case BOTA moves from one community to another to conduct enrolment: it cannot reach all communities simultaneously. So the randomisation simply defines more clearly at the outset the order of enrolment of communities, by delaying the enrolment of the control okrug until after the enrolment of all the treatment okrug and of as many of the non-evaluation okrug as BOTA chooses to enter.

### 2.2.3 The 'intent to treat' approach

**Each household in the treatment and control communities (okrug) can be identified according to two further dimensions:** (i) eligible vs. ineligible; and (ii) beneficiaries vs. non-beneficiaries (Figure 2.2).

**Figure 2.2 Groups of households for the impact evaluation**

	Treatment	Control
Eligible	<b>TE</b> 1. Beneficiary ..... 2. Non-beneficiary	<b>CE</b>
Ineligible	<b>TI</b> 1. Beneficiary ..... 2. Non-beneficiary	<b>CI</b>

Source: OPM. Note: 'Eligible' refers to eligibility according to the programme criteria, i.e. a household that passes the proxy means test and includes a member with one of the required characteristics.

In a perfectly targeted programme the following would be true:

1. **Eligible households in treatment okrug** (square TE in the diagram). All households that pass BOTA's eligibility criteria would be beneficiaries (TE=1) and there would be no-one missed out as a non-beneficiary (TE=2). This means there would be no *exclusion error*.
2. **Ineligible households in treatment okrug** (square TI). Among people not eligible for the programme, there would be no beneficiaries: all would be non-beneficiaries (TI=2). This means there would be no *inclusion error*.
1. **Households in control okrug**. Some would be eligible according to the programme criteria, if the CCT were to begin operating there (square CE); others would be ineligible according to programme criteria (square CI). None would be beneficiaries.

**In practice programmes inevitably have errors that arise either because of the design of the programme or during implementation.** Some households that should not have been enrolled may be enrolled, while others that might have been enrolled are missed<sup>5</sup>. The errors can be due to the way a programme is targeted, or because there are too few resources to enrol everyone, or because households do not wish to join. There are therefore two options for comparing households from treatment okrug with those from control okrug:

<sup>5</sup> The targeting report that accompanies this volume provides a detailed analysis of the effectiveness of targeting in the CCT.

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1. **The 'intent-to-treat' (ITT) approach.** This compares the group of people that BOTA intended to reach, i.e. all the eligible households in treatment areas (TE in the diagram), with an equivalent group in control areas (CE in the diagram).
  2. **The 'actual treatment effect on the treated' (ATET) approach.** This would compare the actual beneficiaries in treatment areas (groups TE1 and T11 in the diagram) with a subset of eligible households in control areas who have characteristics similar to those of beneficiaries.

**By agreement with BOTA the ITT approach is being used in this evaluation.** This is because, if the ATET approach had been used, it would have been necessary to conduct an artificial enrolment process in control okrugs in order to identify an equivalent 'beneficiary' group, but then not give the identified households any cash for a year (a process called 'perfect target mimicking'). In contrast the ITT approach was feasible because eligible households could be identified without going through BOTA's enrolment process.

#### 2.2.4 Selection of respondents for interview

##### Listing

**The ITT approach requires that all respondents in both treatment and control areas are eligible for the programme.** It was noted in section 1.1 above that households have to meet two criteria to be eligible: they must have a child of the right age for the ECD benefit, and they must have a score in BOTA's proxy means test that identifies them as poor. The survey team therefore had to identify the households in each okrug that met these requirements. This is called the listing stage and it involved two steps:

1. **Identification of children of the right age.** This was done by obtaining from the *okrug akimat* the lists of all children in the area, with their addresses and dates of birth. The *akimat* compiles the list twice a year as part of its regular process of ensuring that children are enrolled in school. Children were considered to be the right age for the survey if they met two criteria. First, they had reached their fourth birthday—the age when they become eligible for the CCT—by the day the interview team went to the field. Second, they would remain eligible for CCT for a full 12 months, i.e. they would not yet have started Class 1 of school by the time the follow-up survey took place; otherwise there would be little possibility of detecting an impact at follow-up because the family would have stopped receiving the transfer and its consumption patterns would no longer reflect the effect of the BOTA CCT<sup>6</sup>. After this stage the team had lists of tens of thousands of children.
2. **Identification of the households that pass the proxy means test.** In each primary sampling unit 72 children of eligible age were randomly selected (or fewer, if there were not 72 in the *okrug*). The survey teams went to each household and administered BOTA's proxy means test, the test of about 10-15 minutes which results in an approximation of whether the household is poor or not. Households were replaced if they could not be found or were away at the time of interview, provided that replacements were available on the list. In total the households of 6,899 children were interviewed<sup>7</sup>.

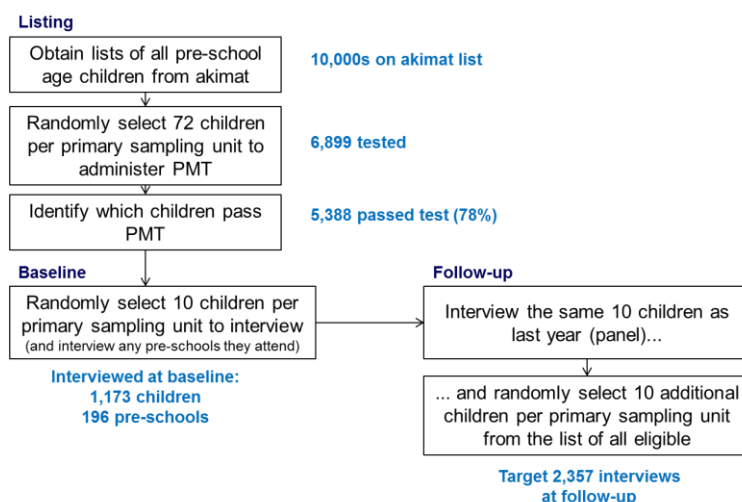
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<sup>6</sup> For example, some five-year-olds are eligible for a full 12 months because they do not have to go to school until 1 September after they turn six: so a five-year-old born in January whose household was interviewed in, say, June would be eligible for interview. The same child, if interviewed in November, would not be eligible for interview because a year later they would already be in school. Six-year-olds were interviewed during September as they would only have stopped receiving the BOTA transfer within the previous few days when interviewed at follow-up.

<sup>7</sup> The survey teams administered the proxy means test in both treatment and control areas, rather than using BOTA's own results in treatment areas. This is both because many eligible households in treatment areas

Any household that passed the test and was identified as poor was therefore eligible for BOTAs CCT as it had passed both the age criterion and the means-testing. Since 78% of households passed the test this resulted in a pool of 5,388 eligible children available for the full interview (Figure 2.3).

**Figure 2.3 Selection of respondents for interview**



Source: OPM.

### Baseline survey

**Ten households in each okrug were randomly selected from among all those eligible.** An interview team returned to the household as soon as possible after the listing and the calculation of the score in order to administer the full household interview. A few okrugs did not have 10 households eligible for interview; but the total number of interviews eventually completed, at 1,173, was very close to the planned 1,200.

**In every case where the eligible child attended a pre-school facility the team also tried to gather information on the supply side at the pre-school, by administering a facility questionnaire.** This was not always possible as many of the interviews took place over the summer months when the facility was closed for repair or there were no directors or administrators present; nonetheless interviews were conducted with 196 pre-school facilities.

### Follow-up survey

**The fieldwork for the follow-up is taking place exactly one year later which reduces the impact of seasonality.** The one-year period between surveys was selected because most households in the programme receive the transfer for only a short time and many will not still be in enrolled after two years. At follow-up the survey is twice as large, at close to 2,400 households, in order to maximise the possibility of detecting an impact. This will include the same households that were interviewed at baseline, which will provide a 'panel' whereby individual children can be tracked, plus an additional 1,200 randomly selected from the same original list of eligible children.

had not undertaken the test, and also to ensure consistency with the way the test was applied between treatment and control areas.



## 2.3 The sample

Of the final sample of 1,173 interviewed children, there is an even split between treatment and control groups, and between boys and girls (Table 2.1). The children were in 1,165 households because in eight cases, by chance, two randomly selected children were in the same household.

The sample includes more children at the younger end of the eligibility criteria for the CCT: over 60% are four years old. This is because of the requirements for interview that the child would still be eligible for the programme in 12 months' time when the interview team returned for the follow-up.

**Table 2.1 Sex and age of sampled children**

Indicator	Treatment		Control		TOTAL	
	N	%	N	%	N	%
<b>Sex</b>						
Male	299	51	298	51	597	51
Female	290	49	286	49	576	49
<b>Age</b>						
4 years	366	62	381	64	747	64
5 years	213	36	200	35	413	35
6 years	10	2	3	1	13	1
<b>Total</b>	<b>589</b>	<b>100</b>	<b>584</b>	<b>100</b>	<b>1,173</b>	<b>100</b>

Source: Baseline survey. Note: This is the unweighted distribution of sampled children.

Out of the 1,165 households, 244 included a pregnant woman and 56 included a child with a disability. These numbers are too small to be able to draw statistically significant inferences but the results have been presented for these categories as unweighted samples.

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## 3 How to read the tables and analysis

### 3.1 Tables with no disaggregation

**At the baseline there is essentially no difference between treatment and control okrugs.** Okrugs were randomly assigned to the status of 'treatment', where BOTA subsequently distributed cash, and 'control', where it did not operate (see section 2 below). This randomisation means that, at the outset, there is no real difference between the two types of location: okrugs were not purposely assigned to one group or the other because of any intrinsic differences., so for most indicators the tables just present a single result for the whole oblast. Results are displayed without decimal places except in instances where that would confuse understanding.

**Occasionally, by chance, from among the many variables collected there happens to be a difference** between treatment and control locations, notably in relation to pre-school enrolment as mentioned. In these instances the results are presented separately in the tables, and the difference will be taken into account when assessing impact at follow-up.

**In the follow-up report in a year's time the results will be presented separately for treatment and control locations.** The difference can be attributed to BOTA, once external factors have been taken into account.

### 3.2 Reporting on beneficiaries versus non-beneficiaries

**It is possible that households that enrol onto the BOTA programme share characteristics that distinguish them from households that are also eligible but do not enrol.** All interviewed households were eligible to be enrolled onto the BOTA programme, but in treatment okrugs only half of those who were eligible at the time of the survey have actually been enrolled (see Volume 2, the operational evaluation, for an assessment of the targeting).

**For this reason, where significant differences between the two groups are found the results are presented in the tables** (see Box 1.1 for what counts as a significant difference). They are also summarised in Annex G. The value across all respondents (treatment and control, beneficiary and non-beneficiary) is shown in the column headed 'Total'. It is hoped that BOTA can use this information to understand what types of household are not being picked up during enrolment or choose not to apply to the programme.

### 3.3 The 'N' value

**On the right-hand side of each table, after the column with the total results, is a column entitled 'N'.** This indicates the unweighted number of observations in the sample on which the results were based. It gives an indication of how certain we can be about the estimates. The more respondents answer a question, the more certain we can be that any differences identified are statistically significant.

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### **Box 3.1 What counts as a significant difference?**

Statistically significant differences between treatment and control locations, or between beneficiaries and non-beneficiaries in treatment areas, are marked in the tables with a series of asterisks:

\* = Significant at the 10% level

\*\* = Significant at the 5% level

\*\*\* = Significant at the 1% level

This means that, the more asterisks are shown, the more likely it is that the observed difference is due to real differences between the groups, rather than being due to chance because of who was interviewed. For example, in Table 4.1, the fact that beneficiary households have an average of 3.3 children and non-beneficiary households have an average of 3.0 children is extremely highly significant: with three asterisks (\*\*\*) there is a 99% chance that this is a genuine difference between the two types of household.

Where results are not asterisked it does not mean that there is no difference between the groups, but rather that the difference cannot be asserted with such a high degree of confidence (90% certainty or more).

## PART B: FINDINGS

### 4 Characteristics of the household

This section presents features of the household, such as the composition of its members and the characteristics of the household head. The households represented by the sample all necessarily have a child eligible for the ECD programme. They are also all located in rural areas, covering all 16 rayons in Almaty oblast.

#### 4.1 The composition of the household

The average eligible household consists of about six people of whom just over three are adults and three are children under the age of 18, one of which is the child eligible for the ECD benefit (the 'eligible child') (Table 4.1). On average an eligible household contains two children under the age of seven, i.e. the eligible child plus one other. About 35% of households contain at least one member of pension age.

**Table 4.1 Household composition**

Indicator	Treatment					N	
	Beneficiary	Non-beneficiary	All treatment	Control	TOTAL	Treat ment	All
Average household size	6.3	6.3	6.3	6.2	6.2	589	1173
No. of children 0-17	3.3***	3.0	3.1*	2.9	3.0	589	1173
No. of adults 18 to pension age <sup>1</sup>	2.6*	2.9	2.7	2.8	2.8	589	1173
No. of pensioners	0.4**	0.5	0.4	0.5	0.4	589	1173
Average number of children under 7 per household	2.1*	1.9	2.0	2.0	2.0	589	1173
Proportion of HH with a pensioner	30.2**	40	35	34	35	589	1173
Mean dependency ratio <sup>2</sup>	1.6***	1.4	1.5	1.4	1.5	588	1169

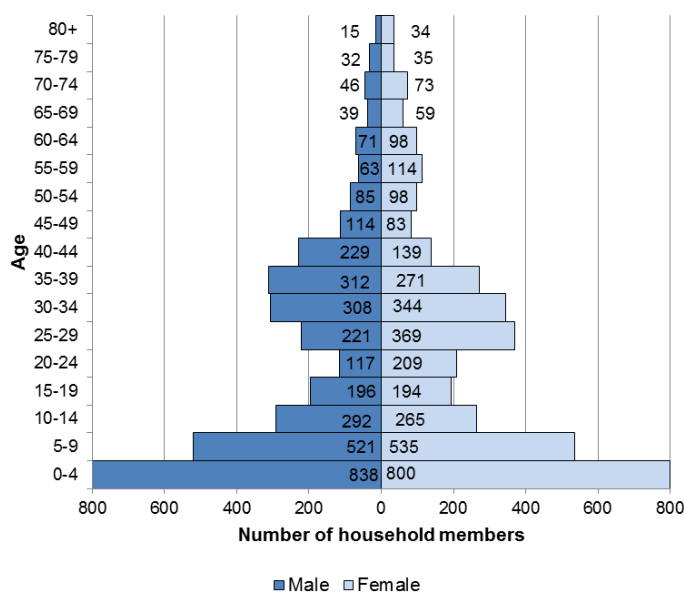
Source: Baseline survey. Notes: (1) The pension age is 58 for women and 63 for men. (2) The dependency ratio is the number of people of non-working age (children 0-17 and pensioners) for every adult of working age (18 years and older up to pension age) in the household.

Adults and children are, of course, not distributed evenly across households. While some households consist of several adults of working age supporting just one child—the eligible child—other households have a single working-age adult supporting several children. A tiny handful of households (less than 0.3%) has no working-age adult at all, with the child being brought up only by adults of pension age.

The average household has a dependency ratio of 1.5, meaning that it has 1.5 children and pensioners for every working-age adult. So, for example, it might have two working-age adults and three children or pensioners<sup>8</sup>.

The distribution of household members by sex and age is as shown in Figure 4.1. The graph shows clearly the predominance of children of pre-school age and of adults in their mid-20s to late 30s who are often their parents.

**Figure 4.1 Sex and age of survey population**



Source: Baseline survey. Note: The numbers on the bars are the unweighted sample size.

There are significant differences in the composition of eligible households in treatment areas that are enrolled in the BOTA CCT compared with those that are not. As Table 4.1 shows, households that are enrolled in BOTA have, on average, more children and fewer working age adults and pensioners than those that are not enrolled. They are much less likely to contain a pensioner at all: only 30% of beneficiary households contain a pensioner, compared with 40% of non-beneficiary households. Although they have fewer pensioners, the greater number of children means that, overall, the dependency ratio among beneficiary households is very significantly higher than in non-beneficiary households.

There are several possible explanations for this difference. Demographic factors have an effect on many aspects of the household, that may have knock-on effects on the likelihood of applying for the BOTA programme. For instance, it could be hypothesised that households with more working-age adults have less time to apply for the programme, or that those with more pensioners at home feel less need to enrol their child in a programme that stipulates pre-school attendance, or that volunteers are less likely to inform these households of the CCT, or that households with more children have more informal networks to inform them about BOTA. These hypotheses and others are explored elsewhere in the report; significant factors are identified in relevant chapters and are summarised in Annex G.

<sup>8</sup> Note that this value is not simply the ratio of the mean number of dependants across all eligible households to the mean number of adults ((3.0+0.4)/2.8 from the above table) because the dependency ratio is calculated at the individual household level, not by summing across all households.

## 4.2 Characteristics of eligible children

**Almost all eligible children have both parents still alive** (Table 4.2). Nearly nine out of every 10—some 86%—live with both of them.

**Table 4.2 Family status of eligible children (%)**

Indicator	%	N
<b>Orphanhood status (%)</b>	<b>100</b>	<b>1173</b>
Not orphan	97	1173
Single orphan	3	1173
Double orphan	0	1173
<b>Parental care status (%)</b>	<b>100</b>	<b>1173</b>
Live with both parents	86	1173
Live with mother, not father	8	1173
Live with father, not mother	1	1173
Live with neither mother nor father	5	1173
<b>Total</b>	<b>100</b>	<b>1173</b>

Source: Baseline survey.

**Birth registration of eligible children is extremely high, at 98%.** This figure is comparable with national studies such as the MICS 2006 which shows a rate of 99%.

**The incidence of long-term health problems among eligible children is low.** This is true both for physical impairments such as problems with sight, hearing or mobility, and also for chronic illness such as epilepsy or diabetes: both physical impairments and chronic illness have a prevalence of less than 3% (Table 4.3). However, the rates of such health problems are much higher among eligible households in treatment areas that have not enrolled for BOTA than among those that have enrolled. This could be an indication that families of children who experience these health issues find it difficult to reach the place of enrolment, or that these families are in some other respect more marginalised.

**Table 4.3 Long-term health problems of eligible children (%)**

Prevalence of health problem (%)	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
Physical impairment	1.8	3	2.4	1.2	1.9	589	1173
Chronic illness	1.3**	4.8	3	2.3	2.7	589	1173

Source: Baseline survey.

## 4.3 Characteristics of the household head

**Four out of every five household heads are male, and a similar proportion are adults of working age rather than pensioners** (Table 4.4). Here the household head is defined subjectively by the respondent as the person with main responsibility for making decisions on behalf of the household.

**Table 4.4 Characteristics of the household head (% of households)**

Indicator	%	N
<b>Sex of household head</b>	<b>100</b>	<b>1173</b>
Male	82	1173
Female	18	1173
<b>Age of household head</b>	<b>100</b>	<b>1173</b>
Working age adult (18 to pension age)	80	1173
Pensioner	20	1173
<b>Education of household head</b>	<b>100</b>	<b>1173</b>
No education	2	1173
Completed class 4 or lower	6	1173
Completed class 5-9	17	1173
Completed class 10-11	52	1173
Completed further / higher education	23	1173
<b>Total</b>	<b>100</b>	<b>1173</b>

Source: Baseline survey.

**Three-quarters of household heads have completed more than nine years of schooling;** one-quarter has completed some form of further or higher education. The education level of the household head can be a determinant of education levels among children in a household (see e.g. Huebler, 2008). There is no statistical difference at all in the education level of heads of beneficiary and non-beneficiary households in treatment areas. This is important because it means that, unlike the results that one might expect in other countries with more variable education achievement, BOTA is not experiencing exclusion errors from households who, through low educational attainment, are unable to read or learn about the programme.

#### 4.4 Nationality and language

**While 99% of members of eligible households are Kazakh by citizenship, the range of nationalities (ethnicities) represented within the group is more diverse.** Alongside the 82% of household members who consider themselves Kazakh other significant nationality groups include, for instance, people of Uyghur, Russian, Turkish and Azeri origin (Table 4.5 and Figure 4.2). This diversity is typical of Almaty oblast.

**There is little difference in the nationality of household members between treatment and control locations.** However, in areas where BOTA is operating, Russian nationals are more likely to be living in a beneficiary household than one might expect from their distribution in the community as a whole, and Azeris are less likely to be beneficiaries (Table 4.5). Broadly, though, there is not found to be strong discrimination by nationality in terms of access to the BOTA programme.

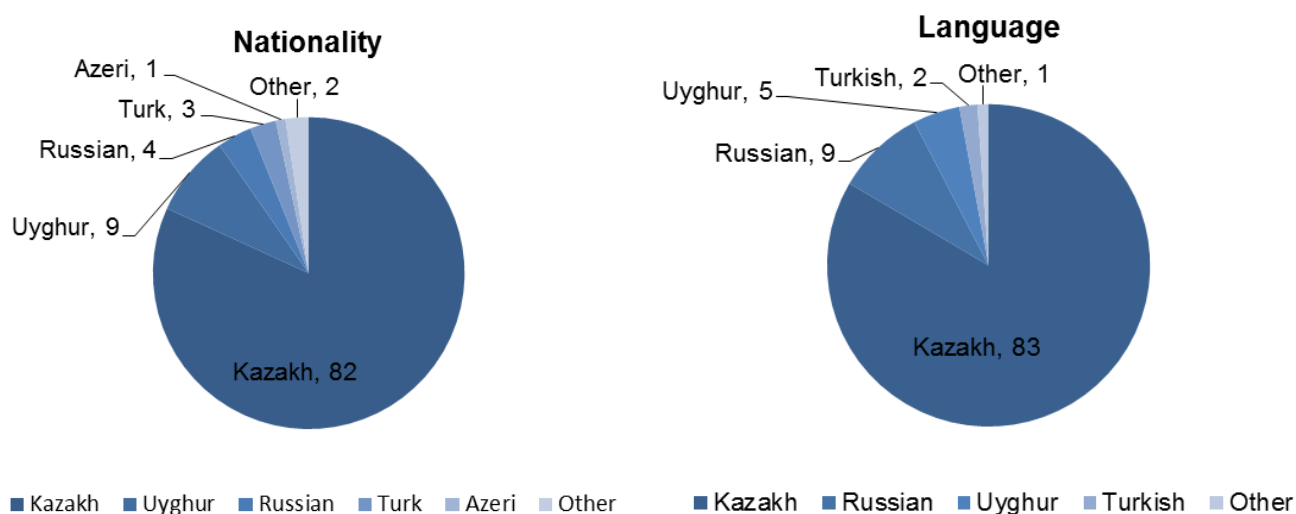
**Table 4.5 Nationality of household members**

Nationality of household members	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
Kazakh	80	80	80	84	82	3658	7219
Uyghur	9	12	10	6	9	3658	7219
Russian	5.4**	2	4	3	4	3658	7219
Turk	4	3	4	2	3	3658	7219
Azeri	0.1**	2	1	1	1	3658	7219
Other	2	1	1.5*	3	2	3658	7219
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>3658</b>	<b>7219</b>

Source: Baseline survey.

**The predominant language spoken by households at home closely reflects the nationality of its members.** By far the main language spoken among eligible households is Kazakh, with Russian, Uyghur and Turkish again the main alternatives (Figure 4.2). Here there are no significant differences at all between treatment and control groups, or between beneficiaries and non-beneficiaries. This, again, is important as it demonstrates that speaking a language other than Kazakh is no barrier to accessing the programme: there is no evidence of either discrimination of, or lack of awareness of the programme among, speakers of other languages.

**Figure 4.2 Nationality and language of household members**



Source: Baseline survey.



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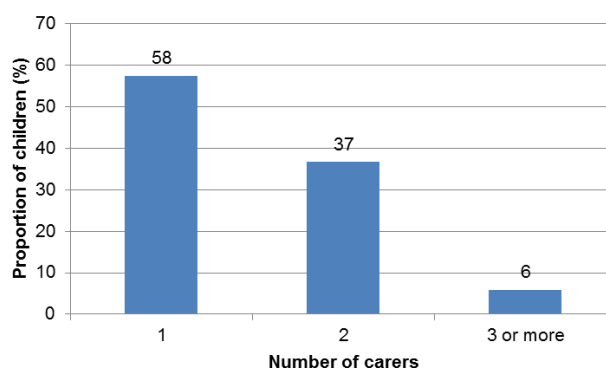
## 5 Child care and the home environment<sup>9</sup>

**Measuring a child's well-being at an early age, before he or she starts school, is important for understanding some of the later outcomes in the child's development.** The module of UNICEF's MICS survey that relates to early childhood development is intended to fill a widespread information gap since surveys often obtain data on health and education, but not on other aspects of child development. The information in the present section covers similar topics in relation to the children eligible for BOTA's CCT programme. This includes caring arrangements, and the support for early learning at home, including the availability of books and toys and the interaction of adults with the child. The reason for including the questions is that one may expect the CCT to have an impact on households' arrangements for caring for the child. Section 6 contains findings on the related theme of pre-school education.

### 5.1 Caring arrangements

**Almost all eligible children—about 94%—are looked after by just one or two carers for long periods at a time during a typical week** (Figure 5.1). Of these, the main carer is the person who is responsible for making sure that the child is fed, bathed and taken care of when ill. Additional 'secondary' carers have been counted if they have looked after the child for at least four consecutive hours during the previous week.

**Figure 5.1 Number of carers in the last seven days (% of children)<sup>1</sup>**



Source: Baseline survey. Note: (1) This includes all carers who looked after the child for at least four consecutive hours.

#### 4.1.1 The main carer

**The main carer of the eligible child is almost without exception a member of the same household.** The carer is also almost always female (97%) and has an average age of 36 (Table 5.1). As one might expect from the age profile the main carer is most commonly a parent (84%) or grandparent (14%) of the eligible child (Figure 5.2). Their average level of education is similar to

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<sup>9</sup> Many of the questions on which this section of the report is based are drawn from UNICEF's MICS4 questionnaire in order to maximise comparability with other surveys in Kazakhstan. Note, though, that the results cannot be directly compared because the target respondents are different: the MICS covers children under the age of five and is not exclusive to Almaty oblast, nor to poor households only.

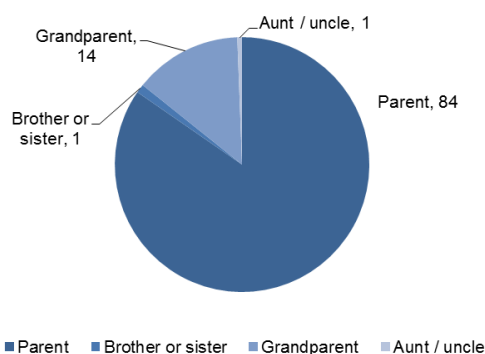
that of the household head, except with a slightly greater incidence of having completed further or higher education<sup>10</sup>.

**Table 5.1 Characteristics of the main carer (%)**

Indicator	%	N
<b>Sex of main carer</b>	<b>100</b>	<b>1173</b>
Male	3	1173
Female	97	1173
<b>Age of main carer</b>	<b>100</b>	<b>1173</b>
Under 20	1	1173
20-29	27	1173
30-39	45	1173
40-49	16	1173
50-59	7	1173
60-69	4	1173
70+	1	1173
<b>Education of main carer</b>	<b>100</b>	<b>1173</b>
No education	1	1173
Completed class 4 or lower	2	1173
Completed class 5-9	12	1173
Completed class 10-11	54	1173
Completed further / higher education	31	1173
<b>Total</b>	<b>100</b>	<b>1173</b>

Source: Baseline survey.

**Figure 5.2 Relationship of the main carer to the eligible child (%)**



Source: Baseline survey.

**About two-thirds of main carers are looking after another pre-school age child at the same time as the eligible child.** On average, they are looking after one additional child simultaneously, which is consistent with the finding above that the average household includes two such children, the eligible child and one other (see Table 4.1 above).

<sup>10</sup> Compare Table 5.1 with Table 4.4.

**Only one-third of main carers consider themselves to be in the workforce; and of those, nearly half would like to work but are unemployed.** The remaining two-thirds are not in the workforce at all: a few are pensioners but most are of working age but not looking for a job, eg. housewives. The figures indicate, therefore, that few households—less than one in every five—have a main carer who combines caring duties with paid work outside the home; and of those carers that do not have a job, only a minority are actively seeking one. Those carers that are in employment or self-employed tend to work full-time: on average they had worked five days out of the previous seven, totalling 42 hours of work.

**Table 5.2 Work status of the main carer (%)<sup>1</sup>**

Indicator	%	N
<b>In the labour force</b>	<b>32</b>	<b>1173</b>
Working (salaried / casual labour)	16	1173
Self-employed	2	1173
Unemployed and seeking work	14	1173
<b>Outside the labour force</b>	<b>68</b>	<b>1173</b>
Economically inactive and not seeking work, e.g. housewife	61	1173
Pensioner	7	1173
<b>Total</b>	<b>100</b>	<b>1173</b>

Source: Baseline survey. Note: (1) This is the work status of the main carer in the previous seven days.

The combination of the low participation in the labour force by the main carer, and the fact that there is often another young child being cared for at home at the same time, suggests that it may be difficult for BOTAs to have an influence on take-up of work opportunities by parents whose time is freed up by the enrolment of their child at pre-school. The extent to which this has proven possible will be explored in the follow-up survey.

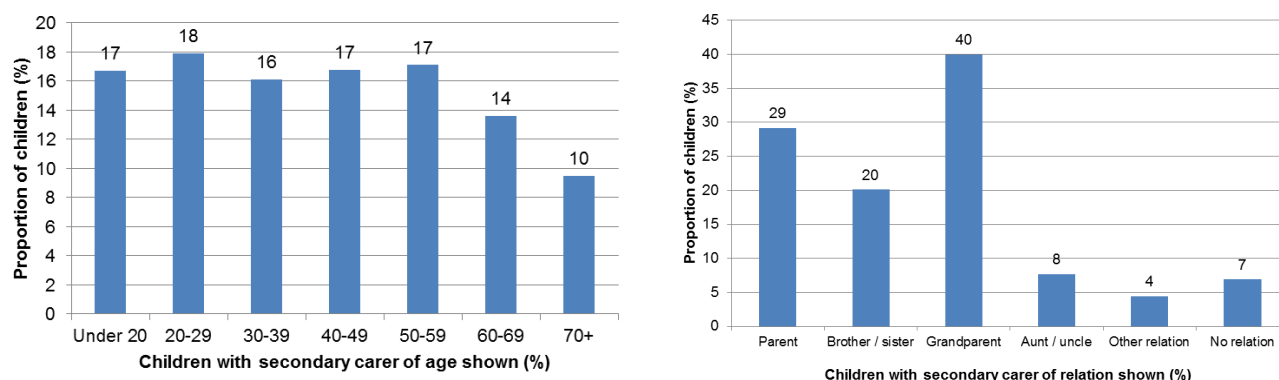
### 5.1.2 Secondary carers

**A child that is looked after by someone other than the main carer during the week is still most likely to be cared for by a relative in the same household.** However, there is much greater variation in the secondary carer compared with the main carer. While secondary carers are still overwhelmingly female, about one in three children is sometimes cared for by a male relative. The carer might be a sibling, parent or grandparent as there is a great diversity in both the age of the secondary carer and their relation to the eligible child (Figure 5.3). Some 40% of children have been looked after by their grandparent as a secondary carer in the week preceding the survey, and a further 20% have been looked after by a brother or sister.

**Very occasionally the person responsible for the child is less than 10 years old**, though this is not common: fewer than 1% of households reported that a child under 10 looked after the eligible child for at least four hours in a row. This care arrangement occurs more frequently for shorter periods: one in every seven respondents said that they had left the eligible child either alone or in the care of a child under the age of 10 for at least one hour in the previous week.

**Because the secondary carer is usually a family member almost no household incurs any expenses** in relation to child care such as payment of wages for a carer, or contributions towards the cost of food for the child while he or she is being cared for. Fewer than 5% of those with a secondary carer reported such payments.

**Figure 5.3 Characteristics of the secondary carer (% of children whose carer has the characteristic shown)**



Source: Baseline survey. Note: These figures add up to more than 100% because some children have more than one secondary carer.

**Secondary carers are even less likely to be in the labour force than main carers:** three out of four are not economically active (Table 5.3). This is because many of them are of school age or pensioners.

**Table 5.3 Work status of secondary carer (% of children with a carer with status shown)<sup>1</sup>**

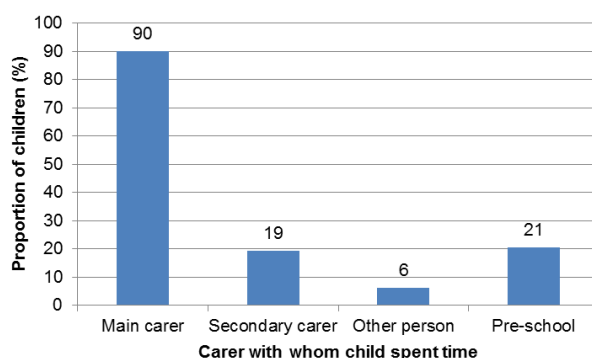
Indicator	% <sup>2</sup>	N
<b>In the labour force</b>	<b>27</b>	<b>478</b>
Working (salaried / casual labour)	12	478
Self-employed	6	478
Unemployed and seeking work	9	478
<b>Outside the labour force</b>	<b>74</b>	<b>478</b>
Economically inactive and not seeking work, e.g. housewife	45	478
Pensioner	29	478

Source: Baseline survey. Note: (1) This is the work status of the secondary carer in the previous seven days. (2) Percentage adds up to slightly over 100% because some children have more than one secondary carer.

### 5.1.3 Distribution of caring arrangements

**Nine out of every 10 children had spent at least part of the time being looked after by the main carer on the most recent weekday** preceding the survey (Figure 5.4). This is an indication of the reliance of households on the main carer. Fewer than 20% had spent time with their secondary carer, and very few—just 6%—had been looked after by a person inside or outside the household who was not among their usual carers. For children who had spent time with their main carer the mean time spent was 11 hours, out of an average of 14 hours of time awake.

**Figure 5.4 Use of specified carers on the previous weekday (% of children)**



Source: Baseline survey. Note: The fact that 21% of children attended pre-school on the previous working day is not an indicator of the enrolment rate since many households were interviewed during the school holidays.

## 5.2 Support for early learning

**Eligible children usually have a supportive environment at home in that almost all engage in a wide range of activities that promote learning and school readiness.** Some 97% had taken part in at least four learning activities at home over the previous week, from a list including reading and writing, story-telling, counting and naming objects, singing and physical exercise. However, only a minority of children were reported to have done so with the support of an adult: more often they did these activities with the help of younger household members such as a brother or sister, or else alone.

**Almost every child—over 99%—has access to playthings at home.** Most have at least one shop-bought toy; some also have home-made toys, and many play with everyday household objects (Table 5.4). In contrast the proportion who have books at home is much lower: just under half of eligible children have at least three books suitable for their age group at home, while one in three has none at all. This compares with the two-thirds of children under five across Kazakhstan as a whole who are reported to have at least three books for their age according to the MICS 2006.

**Table 5.4 Access to learning and playthings at home (% of eligible children)**

Indicator	Estimate	N
<b>Playthings used</b>		
Shop-bought toys	96	1173
Home-made toys	33	1171
Household objects	68	1164
<b>Number of books appropriate for the child's age</b>		
None	34	1173
1-2	20	1173
3 or more	45	1173
<b>Access to media</b>		
Television	97	1173
Video player / DVD	57	1173
Computer	9	1173

Source: Baseline survey.

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**Almost all households have a television at home.** On average eligible children in those households spend just over an hour per day watching children's programmes. Video and DVD players are less common, and computers are available to only a minority of eligible children.

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## 6 Pre-school

### 6.1 Supply and demand in pre-school education

**One of BOTA's main objectives in providing its cash transfer to ECD-age children is to increase enrolment and attendance at pre-school**, which is a condition of receiving the transfer. The first disbursement of transfers for ECD-age children in early 2010 was timely as it coincided with the announcement by the Government of Kazakhstan of its Programme for the Provision of Pre-School Care and Education 2010-2014, 'Balapan', which set out its plan for improving enrolment in pre-school education throughout the country in line with the government's Strategic Development Plan for 2010 to 2020 (Government of Kazakhstan, 2010a and 2010b).

**The aims of the government's Balapan programme are to increase enrolment at pre-school facilities to 70% of all children of pre-school age by 2015**, with 100% enrolment of five- and six-year-olds in facilities that provide preparation for school; and to increase the number and range of pre-school facilities and the number of qualified staff<sup>11</sup>. The programme is intended to restore Kazakhstan's pre-independence position as having, 'the best system of pre-school education in central Asia' (Government of Kazakhstan, 2010b. p.3). The total number of public pre-school facilities had dropped from over 8,700 in 1991 to fewer than 1,200 in 2000. During the early 2000s the decline was being actively reversed, particularly after the establishment of 'mini-centres' in 2006, since when the total number of pre-school facilities has increased by several thousand.

**This indicates that the government is addressing the supply-side challenges of pre-school education in Kazakhstan at the same time that BOTA is contributing to addressing demand-side issues.** This will be important because at the start of 2010 more than two-thirds of all settlements in the country (69%) were reported to have no pre-school facility (Government of Kazakhstan, 2010b). A key question which the evaluation team will explore at follow-up is the ways in which communities are organising themselves to comply with the conditionality of pre-school enrolment if the facilities do not exist.

**The revived attention to pre-school education and care matches a similar shift in many European countries**, where family policy measures in the form of the provision of formal childcare services and parental leave have been extended, operating alongside existing cash-based measures such as child benefit and tax allowances (Van Lancker and Ghysels, forthcoming). In the European context a particular motivation for expanding formal childcare and pre-school education, aside from promoting the child's development, has been to remove barriers to participation in the labour force by women. This has not been explicitly stated as a motivation in Kazakhstan but the effect will be examined.

**The baseline survey identified attitudes to pre-school education among households, and the experience of eligible children in being enrolled at, and attending, a pre-school facility. The survey also identified conditions in the pre-school facilities themselves.** This is because, while BOTA does not intend to affect the supply of pre-school education e.g. by founding facilities or funding staff, it may inadvertently have an effect on supply. For instance, it may cause communities to set up informal facilities in order to enable children to achieve the conditions for receipt of the cash. Alternatively it may cause existing schools to modify their way of operating such as by changing the procedures for joining a waiting list, enrolling at a school or attending for a fixed number of hours or days per week. The effect of BOTA on pre-school education and facilities will be identified in the follow-up survey. This section presents the baseline.

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<sup>11</sup> All figures in this paragraph are from Government of Kazakhstan (2010b).

## 6.2 Enrolment in pre-school facilities

At baseline some 44% of eligible children were reported to have ever been enrolled in a pre-school facility (Table 6.1). This may be under-reported because it was found that households sometimes perceive 'pre-school' to count only if the child is enrolled at a full-time kindergarten (*detsky sad*) rather than the part-time zero class or the more recently established mini-centres or other less traditional forms. The enrolment rate among girls and boys is very similar, with 45% of girls and 42% of boys ever having attended a pre-school facility.

The data show some highly significant differences in enrolment between treatment and control groups. Nearly 48% of eligible children in treatment areas have ever been enrolled, compared with 39% in control areas. Of those ever enrolled in treatment areas some 40% have been enrolled for three months or less, compared with 25% in control areas. So while it is natural that some eligible children (particularly the four-year-olds) have only just begun pre-school, the rate of new enrolment is much higher in treatment areas. This suggests that, even though households had not begun to receive cash from BOTA, they may have already begun to alter their behaviour in anticipation of the need to comply with BOTA's conditions.

The difference in enrolment status between treatment and control areas is driven by the households that have enrolled in BOTA. Those households in treatment areas that are not beneficiaries of the CCT show similar characteristics to those in control areas, with 38% ever having been enrolled. Again, this may indicate that households enrolled in the BOTA programme have begun to change their behaviour even before receiving cash. Alternatively it might indicate that households whose children are already enrolled in pre-school are more likely to find out about the BOTA programme and become beneficiaries. The latter seems less likely since the overall enrolment in treatment areas is higher.

**Table 6.1 Enrolment of eligible children in pre-school**

	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
<b>Enrolment status</b>							
Ever enrolled	58***	38	48*	39	44	589	1173
Never enrolled	42***	63	52*	61	57	589	1173
<b>Current enrolment status (of those ever enrolled)</b>							
Currently enrolled	87	79	83.6*	75	80	274	488
Previously enrolled (no longer)	13	22	16.4*	25	20	274	488
<b>Total pre-school experience</b>							
Average total time in pre-school (months)	8	9	9***	12	10	274	488
Children having attended for 3 months or fewer (%)	43	34	40***	25	34	274	488

Source: Baseline survey.

Of those who had ever enrolled, 80% were said to be still enrolled at the time of the survey. Again, this may be under-reported because some households considered that their child was no longer enrolled if the facility had simply closed temporarily for the school holidays. This contrasts with BOTA's definition, whereby children who usually attend a facility are still considered to be enrolled—and therefore eligible for receipt of benefits—if the school closes temporarily over the



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summer. Current enrolment rates are somewhat higher in treatment areas than in control areas, again driven by the high rates of current enrolment among BOTA beneficiaries. The fact that the rate of dropout among eligible children who have ever enrolled in pre-school is 20% for the oblast as a whole, but only 13% among BOTA CCT beneficiaries, suggests that as part of the 'anticipation effect' of the programme some children who would otherwise have dropped out of pre-school have not done so.

OPM carried out further analysis of possible factors driving the anticipation effect in treatment areas. The team hypothesised that the number of days between the date that BOTA carried out its first CCT enrolment in a treatment okrug, and the date that the survey team interviewed the households in that okrug, might have an effect on the results. If the different rates of pre-school enrolment between treatment and control groups are due purely to the 'anticipation effect' that households are expecting to be paid by BOTA, rather than due to some other unknown factor, one would expect to find that the longer the delay between BOTA's enrolment and the baseline survey, the greater the anticipation effect. Households would have had more time to prepare themselves by arranging a pre-school place for their child.

By design there was due to be a gap of about two months between CCT enrolment and the baseline survey: BOTA would enter an okrug in one month, the household listing would take place the following month and the household interviews in the month after that. In fact the average time lag is just over three months. A regression on the data reveals that there seems to be a close correlation between the time elapsed between CCT enrolment and data collection and the likelihood of ever having enrolled in pre-school. The correlation is much clearer for actual BOTA beneficiaries in treatment areas than for non-beneficiaries.

When one controls for differences in time elapsed between enrolment and data collection, the statistically significant difference in having enrolled in pre-school between the treatment and the control group (48% ever enrolled in treatment areas versus 39% in control areas) turns insignificant. This means that once this explanation for the anticipation effect is taken into account there is no longer a systematic statistically significant difference between treatment and control. This suggests that:

- anticipation effects are credible and real. BOTA beneficiaries are really changing their behaviour in anticipation of starting to receive the transfer;
- we have a way to model and explain (hence if we want control for) the anticipation effects; and
- the differences observed in pre-school enrolment at baseline are truly driven by anticipation effects, and not by other confounders unrelated to the programme.

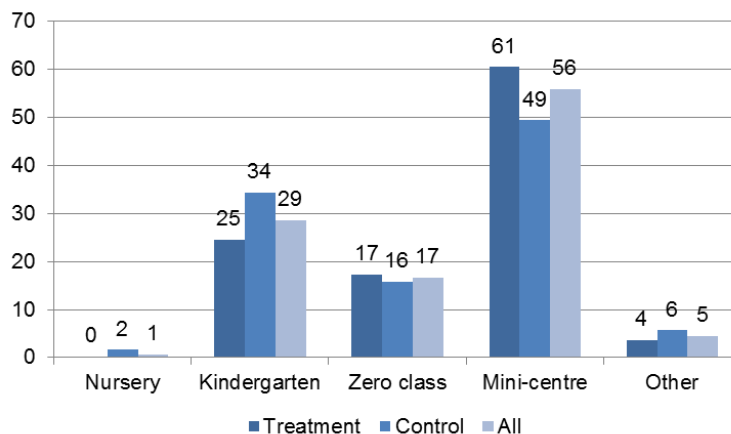
We can therefore conclude that our approach to estimating effects is still valid. Accounting for the fact that the randomisation has worked very well overall, we can confidently trust that our impact evaluation approach will be able to provide reliable estimates for the overall effects on pre-school enrolment.

### 5.2.1 Types of pre-school

**The most common type of pre-school ever attended by eligible children is the mini-centre** (Figure 6.1). This is the flexible form of pre-school facility that has been set up over the last six years by the government, offering care and education for children under the age of seven for between two and 10 hours per day, and for two to seven days per week, either as part of a school or as a standalone facility (Government of Kazakhstan, 2006). Over half of children who have ever been to pre-school have attended this type of facility. About 29% have been to the more traditional kindergarten, and 17% to a 'zero class', the part-time preparatory class that provides an

introduction to school for children who have not attended kindergarten. Among children that have ever been to pre-school more than nine out of 10 have only ever been to one type of facility.

**Figure 6.1 Types of pre-school ever attended**



Source: Baseline survey. Note: These figures add up to more than 100% because a few children have been to more than one type of pre-school.

**In treatment areas a much higher proportion of children have been to a mini-centre (61%) and a lower proportion to a kindergarten (25%) than in control areas, where 49% have been to a mini-centre and 34% have been to a kindergarten.** It is possible that, for households that needed to enrol swiftly in a pre-school to receive the BOTA benefit, it was easier to enrol in a mini-centre than in a formal kindergarten. This difference at baseline will be taken into account at follow-up, and the reasons for it will be examined.

## 6.2.2 Waiting lists

**Enrolment of children on waiting lists for pre-school places is not widespread.** Only 15% of households whose child is currently enrolled in pre-school said they had been on a waiting list before getting a place, while just 6% of those not currently attending are on a waiting list for a place. This suggests that, despite the shortage of pre-school places, the need to wait for a place is not the prime reason why children are not enrolled. This is examined more fully in section 6.3 below. It was found in the qualitative evaluation of the CCT that the issue of waiting lists and the availability of pre-school places is very localised: in one village there might be concerns about the lack of places while in the neighbouring village there was no problem with enrolment.

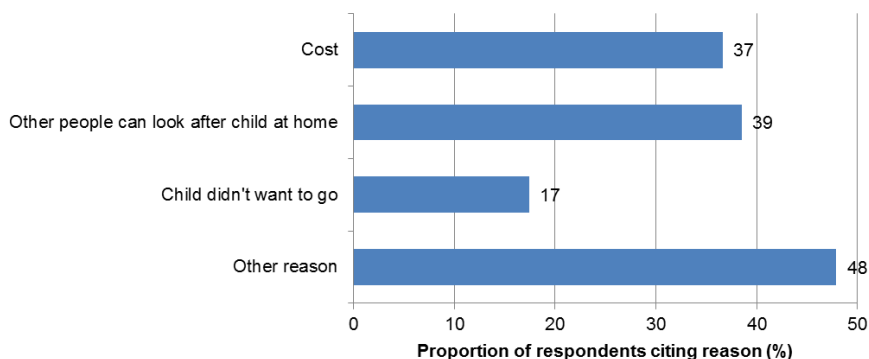
## 6.3 Dropout and non-enrolment

**For children who used to attend pre-school but have dropped out the two main reasons by far are the cost of pre-school education and the fact that there are people at home who can look after the child** (Figure 6.2). When asked to cite up to three reasons for dropout over one-third of households whose child had dropped out of pre-school listed these reasons. A number of other reasons were put forward by much smaller numbers of people (together listed as 'other' in the diagram), none of which were very widespread: these included the difficulty of reaching the facility, the poor quality of the care or teaching and the preference for keeping the child at home. The fact that a high number of people said that cost was a factor in removing their child from pre-school is an indication that a programme that aims to remove financial barriers to access, such as

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the CCT, may be able to address one of the main concerns of some households who no longer send their child to pre-school.

**Figure 6.2 Main reasons for dropout (% of children who have dropped out)<sup>1</sup>**

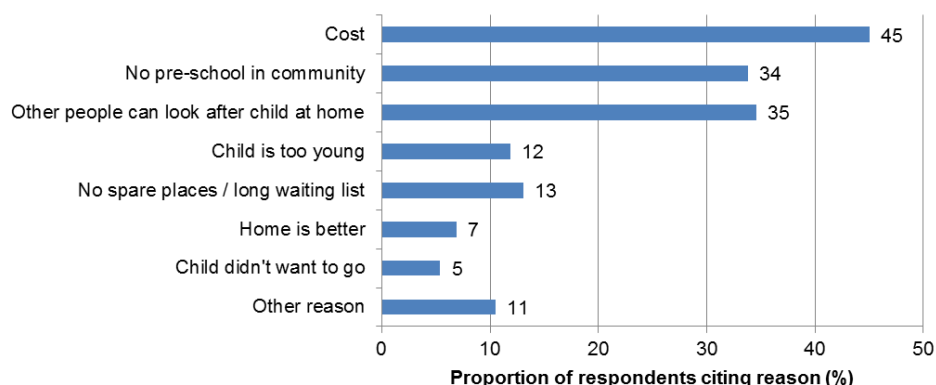


Source: Baseline survey. Note: (1) Respondents were asked to name up to three reasons why the child had dropped out of pre-school.

**All three of the main reasons cited are largely demand-side barriers to the use of facilities** (though the third, the child not wanting to go, may have supply-side implications if it is because of a poor quality facility). Even though services may exist, households have reasons not to use them. This focus on demand-side barriers may be because, for these households that have withdrawn their child from pre-school, supply-side problems are not the primary concern as there must have previously been a facility with places available to which they could send the child.

**The pattern is different for households that have never enrolled their child** (Figure 6.3). Here the two demand-side issues of cost and the availability of people at home to look after the child are again the dominant issues, with cost the most widely cited reason for non-enrolment, affecting 45% of households whose child is not enrolled in a pre-school facility. But after these the next most common reason by far is that there is no pre-school facility within reach (cited by 34% of respondents). This is a supply-side problem which will not be resolved by a demand-side programme. The figures indicate that the shortage of places in existing facilities is a concern for 13% of households but does not predominate as a problem across all households. This confirms the findings above where it was noted that relatively few households have their child on a waiting list for a pre-school facility.

**Figure 6.3 Main reasons for non-enrolment (% of children who have never enrolled)<sup>1</sup>**



Source: Baseline survey. Note: (1) Respondents were asked to name up to three reasons why the child had never attended pre-school.

**With cost being the most commonly cited reason for non-enrolment one may conclude that, as with the case for children who have dropped out, a programme such as BOTA's CCT has the potential to mitigate one of the major barriers to access to pre-school education among children who have never attended.** However, the huge anticipation effect produced by registration of households into the CCT, by which pre-school enrolment increased substantially even before households received their first payment from BOTA, indicates that some households are able to afford the cost of pre-school if required: personal preferences may matter when determining whether to prioritise spending on pre-school or on other household expenditure.

## 6.4 Pre-school attendance

**On average children who attend a pre-school facility go for just under five days per week, attending around six hours per day** (Table 6.2). This indicator shows significant differences between households in treatment areas that are beneficiaries of BOTA's CCT and those that are eligible but are not beneficiaries. Households enrolled on the BOTA programme were already likely to attend for fewer days per week at the time of the baseline survey. The possibility that households newly enrolled in the CCT may be attending pre-school for a smaller number of days because they are rapidly setting up their own informal facilities to achieve swift compliance with the CCT conditionality, or because they are unable to find a place in the full-time government kindergartens, will be investigated at follow-up.

**Table 6.2 Mean scheduled time at pre-school**

	Treatment				TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment	Control		Treatment	All
Average days per week	4.5***	4.9	4.6***	5.0	4.8	224	377
Average hours per day	6	6	6	7	6	223	376

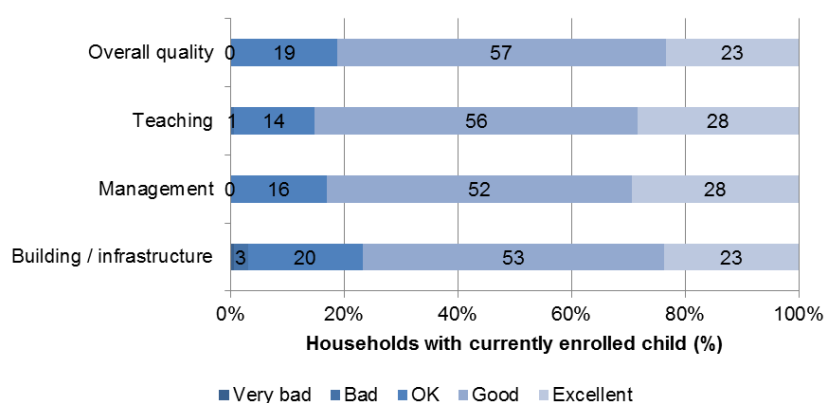
Source: Baseline survey.

Attendance on a selected day was quite high among eligible children: about 90% of children enrolled in a pre-school facility had attended it on the last day it was open prior to the survey.

## 6.5 Perceptions about pre-school education

Respondents whose children attended pre-school expressed general satisfaction with the quality of the facility in many aspects: the teaching, the management, and the infrastructure and amenities. About three-quarters of households declared the facilities 'good' or 'excellent' in each of these aspects (Figure 6.4). The greatest degree of satisfaction was reported with the teaching staff, for whom 84% of households reported a score of 'good' or 'excellent'. The aspect of the facilities which raised the most concerns was that of the building and infrastructure; nonetheless, still only 4% of households mentioned these as 'bad' or 'very bad'.

**Figure 6.4** Satisfaction with pre-school facilities



Source: Baseline survey.

**On the whole, pre-school education is valued even by those who do not enrol their child in a facility.** Some 88% of all the survey respondents, when asked about the best way for children to be prepared for starting school, considered that pre-school was better than informal care and education at home.

**Almost every household agreed with the statements that households should send their child to pre-school if they have the opportunity to do so;** and that children who go to pre-school will do better at school than if they did not go (Table 6.3). On the other hand, despite the almost universal acknowledgement of these circumstances, about one in six households felt that children would be better off at home.

**Table 6.3** Household opinions of the value of pre-school

Households agreeing with the statement shown (%)	TOTAL	N
All families should send their child to pre-school if they have the opportunity to do so	97	1154
Children who go to pre-school do better at school	94	1129
Sending a child to pre-school is important so that other household members can work	92	1134
Children are better off at home with their family than at pre-school	16	1143
If a mother spends most of her time at home children should not go to pre-school	17	1145

Source: Baseline survey.

## 7 Health and nutrition

Many households in the study area report good health and nutrition among family members. But some are supporting chronically ill household members and paying for health care for this person or others in the household, while others experience difficulties maintaining a full and varied diet throughout the year. This section presents the findings on the burden of illness, utilisation of health care services and food security for households as a whole; and also child health and nutrition indicators for eligible children.

### 7.1 Health care status

#### 7.1.1 The burden of illness and access to health care

Overall, around 22% of households have at least one chronically ill household member (Table 7.1). This includes all illnesses that persist for more than three months such as high blood pressure, high cholesterol and diabetes. About 22% of all households have a member who experiences difficulties with mobility, sight, hearing or speech and in around one third of the cases this is reported to have negative effects on their ability to look after themselves independently.

**Table 7.1 Health care status of households**

Indicator	TOTAL	N
<b>Burden of illness</b>		
Households with at least one chronically ill member (%) <sup>1</sup>	22	1165
Households with at least one member with a physical impairment (%) <sup>2</sup>	22	1165
<b>Access to health care services</b>		
Last use of health care services (% of household members)		
Within the last month	20	6928
1-12 months ago	30	6928
More than 12 months ago	50	6928
<b>Average cost of accessing health care services (KZT)</b>		
Last health care visit	5202	1020
Transport (one-way)	601	1020

Source: Baseline survey. Notes: (1) 'Chronically ill' includes all illnesses that persist for more than three months such as high blood pressure, high cholesterol and diabetes. (2) 'Physical impairments' include difficulty with mobility, sight, hearing or speech.

Table 7.1 shows that 50% of individuals last made use of a health facility more than 12 months before the interviews, while for 20% of them the last access to health facilities was within one month before the interview. While for many people the long amount of time since last accessing health services is a sign of good health, for others it may reflect difficult access to rural health services which is a persisting problem in Kazakhstan. While the State Guaranteed Benefits Package covers the cost of emergency and specified essential health services, there are significant user charges which are set at the level of the oblast. Patients also often pay for medicines and medical supplies in hospitals as well as informal payments which are assumed to be high, but difficult to estimate precisely. According to Table 7.1 the average cost of a typical health care visit is just over KZT 5,200 (\$35). In addition to this amount, households typically incur a cost of approximately KZT 600 (\$4) per visit for transport. This is largely due to the lack of public and private transport between dispersed villages and the central town of the district.

## 7.1.2 Child health

**Pneumonia is the leading cause of death among children under five worldwide** and was estimated to have a prevalence in Kazakhstan of 1.5% of children under five in 2006 (UNICEF and Agency of the Republic of Kazakhstan on Statistics, 2007). The survey finds a similar prevalence of suspected pneumonia or other acute respiratory infection amongst eligible children (Table 7.2). Overall, 63% of ill children sought medical advice for this condition.

**Table 7.2 Prevalence of acute respiratory infection and diarrhoea among eligible children in last month (%)**

Illness in last month (%)	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
Acute respiratory infection	1.1	2.6	1.8	0.9	1.4	474	971
Diarrhoea	3.6***	10.1	6.8	7.7	7.2	589	1173

Source: Baseline survey.

**Diarrhoea is the second leading cause of death among children under five worldwide.** In Kazakhstan, the prevalence of diarrhoea amongst under-fives was found to be 1.8% in 2006, according to the Multiple Indicator Cluster Survey (UNICEF and Agency of the Republic of Kazakhstan on Statistics, 2007). In this survey, the prevalence is found to be 7% amongst under-fives, which is much higher than the national average. While this can be understood in terms of the specifics of the study population, who are amongst the poorest in the country, we must consider first that the MICS survey data are the national aggregate, not for Almaty oblast; and second, the present study asks respondents whether their child had diarrhoea in the last month, whereas the MICS questionnaire asked respondents to report in the last two weeks.

**Just under half (44%) of children with diarrhoea received treatment from a health care provider.** Most of the remaining children were treated with medication that the household had at home, or with medicinal herbs.

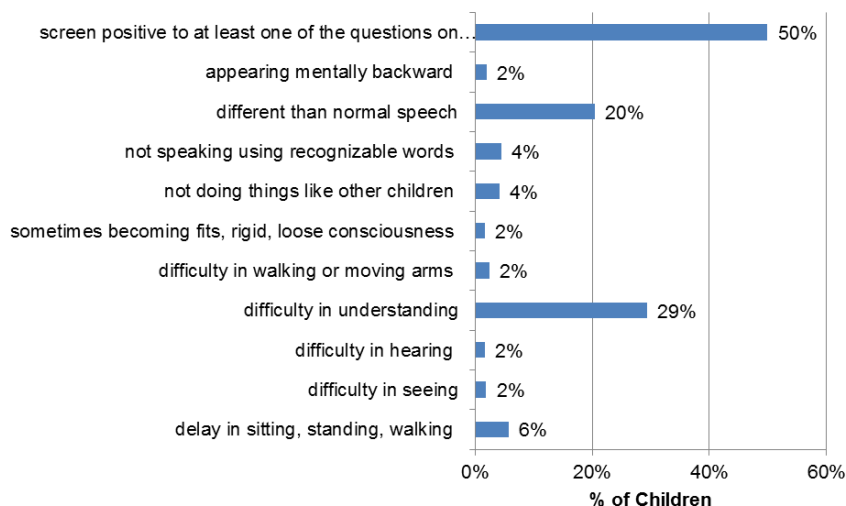
**The differing rate of diarrhoea between beneficiary and non-beneficiary households is very significant.** This may be an indication that households with poorer health status and hygiene conditions—perhaps households that are among the most marginalised in the community—are less likely to enrol in BOTAs. At the same time, though, this contrasts with findings in the rest of this section that suggest that the nutritional and health status of beneficiary and non-beneficiary households do not otherwise show significant differences; and also with findings later in the report that suggest that the more vulnerable households, in terms of measures such as employment, are more likely to become beneficiaries. The issue will be explored further in the follow-up.

## 7.1.3 Child development and disability

**To measure the prevalence of children disability in our sample we added to the survey a module aimed at screening the individuals that may suffer from a disability.** This 10-question screening tool is taken from the Multiple Indicator Cluster Surveys (MICS), an international household survey promoted by UNICEF, and has been designed to identify children who may have congenital and developmental disabilities. The module has been used worldwide, although researchers stress that results should be interpreted with great caution if being used for cross-country comparisons owing to large variations in the way teams are trained to administer the questions, and in differences of language and cultural context (John Snow Inc, 2009).

Half of children screened positive to at least one of the 10 questions, though a positive result in a single question does not automatically mean that the child has a disability (Figure 7.1). This extremely high value might suggest that some of the questions may have been misunderstood. As a matter of fact we see that the result is mainly driven by two questions asking about the ability of the child to understand and to speak normally. If we leave out these two questions, we find that only 15% of the children screen positive to any of the other questions; and for most questions the proportion of children screening positive was around 2–4%<sup>12</sup>.

**Figure 7.1 Children who screen positive to disability questions (%)**



Source: Baseline survey.

## 7.2 Nutritional status

### 7.2.1 Household food security

More than nine in every 10 households consider that they have a full and varied diet. Only 8.5% of households reported experiencing at least one month in the last year in which they felt that they ate less they wished, or ate food of a lesser quality (Table 7.3).

**Table 7.3 Food security of households**

Indicator	TOTAL	N
Households reporting at least one month in which they did not have a full and varied diet (%)	8.5	1165
Mean no. of different food coping strategies employed	2.0	105

Source: Baseline survey.

<sup>12</sup> This is in line with findings from worldwide reviews of the use of the 10-question module which show that the question about whether a child's speech is different to normal poses greater problems for misunderstanding than any other in this standardised set of questions.



Typical coping strategies that food-insecure households commonly employ include eating foods that are less preferred, limiting portion size, skipping meals, not eating for the entire day or borrowing food or money to buy food. On average, food-insecure households in the study population use two of these coping strategies during hard times and most commonly resort to eating less than they normally would have and borrowing money or food from others.

**The low levels of reported food insecurity among surveyed households may be an indication that poverty in Kazakhstan is not strongly associated with food insecurity.** This is supported by findings from other studies that suggest that, uniquely among the five Central Asian states, 'only Kazakhstan is able to meet its own food requirements' (Sedik *et al.*, 2011, p.19).

## 7.2.2 Child nutrition

In Kazakhstan, 4% of children under the age of five are moderately underweight for their age; 13% are short for their age, known as 'stunted'; and 4% are underweight when considering their height, or 'wasted' (UNICEF and Agency of the Republic of Kazakhstan on Statistics, 2007)<sup>13</sup>. Such measures of malnutrition vary across the country. Almaty oblast is among the three oblasts with the most severe rates of children being underweight for their age or stunted, at almost double the national average. Nutrition indicators composed of anthropometric measurements such as these were deemed to be outside the scope of the present study, but indicators on food availability and diversity are captured and provide a good sense of the amount and type of food available to eligible children.

**Table 7.4 Food availability and diversity among eligible children**

Indicator	TOTAL	N
<b>Food availability: number of times child ate in the last day</b>		
Mean number of meals	3.0	1166
Mean number of snacks	3.0	1153
<b>Child dietary diversity score</b>	8.4	1173

Source: Baseline survey.

**Children eat regularly: on average, respondents reported that eligible children ate three meals and three snacks on the day before the survey.** This includes meals and snacks eaten inside and outside the household. These findings regarding eligible children support the observation above that almost all households eat as much as they wish to during the day.

**Dietary indicators are useful to assess children's welfare since they convey information on diet quality and on the extent to which households in our sample are food insecure.** Indeed, there is evidence of a strong association between the number of different types of food that a child eats and nutrient adequacy; and also that a more varied diet is associated with a number of positive outcomes such as improved birthweight, child anthropometric status, improved haemoglobin concentrations and reduced risk from cardiovascular disease. Moreover, Hoddinott & Yohannes (2002) find evidence of positive and statistically significant relationships between dietary diversity and household *per capita* caloric availability (a measure of food security). In light of these empirical findings and of the fact that a more varied diet is a value *per se*, a question on the dietary diversity of eligible children was included in the baseline survey, in which households were asked whether the child had consumed a range of food types in the day preceding the interview.

<sup>13</sup> Figures represent children who are more than two standard deviations from the mean value.

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**On average we find that children had consumed foods from eight out of 12 listed categories on the day before the survey.** The categories are drawn from a Child Dietary Diversity Score modelled on the Household Dietary Diversity Score (HDDS) used by the Food and Agriculture Organisation. The Child Dietary Diversity Score is the sum of the food groups consumed out of the following 12 groups: cereals; roots and tubers; vegetables; fruits; meat, poultry, offal; eggs; fish and seafood; pulses / legumes / nuts; milk and milk products; oil / fats; sugar / honey; and other.

**Apart from drinks and sweets, which were consumed by almost 97% of children, the most common food categories consumed by children were breads, cereals and pasta** followed by butters, oils and fats and then animal meats. The least consumed food categories were fish and seafood and legumes and nuts.

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## 8 Livelihood strategies and labour-force participation

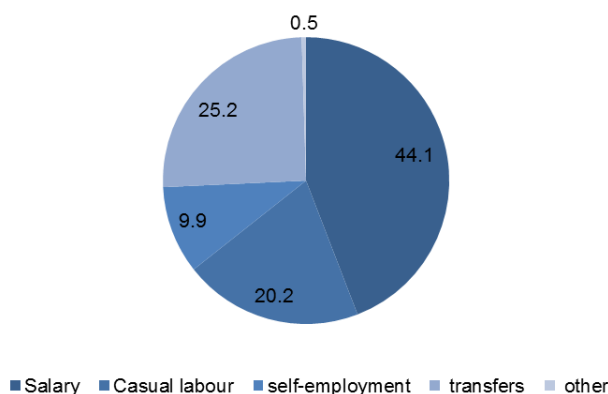
**Households can earn an income in many ways. Formal salaried employment is just one such strategy.** Others include casual labour; self-employment such as trade or farming; and the receipt of cash or in-kind transfers from the state, non-government organisations or friends and relatives. Households may have just a single source of income, or may have a diverse range, especially since the average household has three to four adults who may be in different types of employment. The sources and amounts earned may vary throughout the year. This section of the report describes the extent to which households rely on these different livelihood strategies, the types of work they do, and the types of transfer received.

### 8.1 Livelihood strategies<sup>14</sup>

#### 8.1.1 Main source of income

**Just under half of all households—44%—rely on salaried labour as their main source of income** (Figure 8.1). A further 30% of households rely on less formal sources of employment, either casual labour (20%) or self-employment (10%). The remaining quarter rely mainly on transfers, especially from the state. This is consistent with the findings of the qualitative assessment according to which the main sources of income reported are salaries, part-time work and sales of own produce.

**Figure 8.1 Main source of household income (% of households)**



Source: Baseline survey. Note: (1) 'Casual labour' means working for someone else but without a contract, perhaps seasonally or irregularly. (2) 'Self-employment' includes trading and commerce, or work in a small business or family enterprise including in farming or other sectors.

**There appear to be some differences in treatment areas between eligible households that applied for BOTA and eligible households that did not.** Households that applied rely more heavily on casual employment as their main source of income, while those that did not apply are characterised by a greater prevalence of salaried employment as their primary income source.

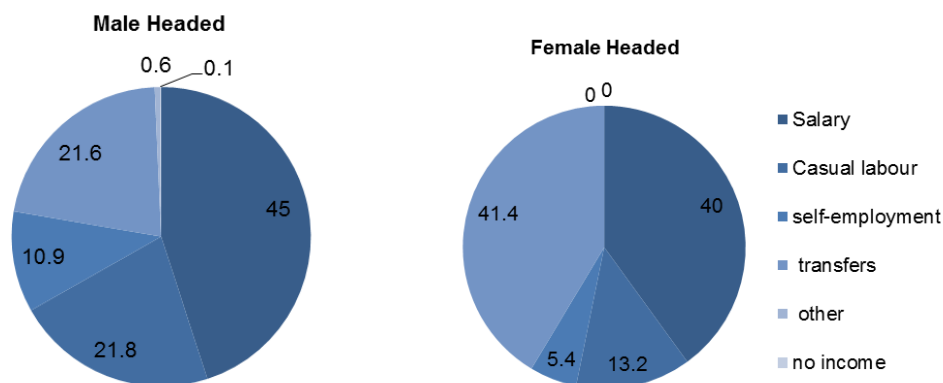
**The heavy dependence on state transfers, which is also in line with the results from the qualitative assessment, might be expected** since the targeting criteria to become a beneficiary

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<sup>14</sup> The findings in this section are based on self-reported assessments of income and perceptions of employment status by the household.

of BOTAs ECD programme overlap partially with those to become a beneficiary of state benefits. There is a marked difference in the dependence on transfers between male- and female-headed households: over 41% of female-headed households reporting transfers as the main sources of household income as compared to around 22% of male-headed households (Figure 8.2). This may be partially explained by the fact that household members in female headed households are significantly more likely to be of pension age than household members in male-headed households.

**Figure 8.2 Main source of household income, by sex of household head (%)**



Source: Baseline survey.

### 8.1.2 Diversification of income sources

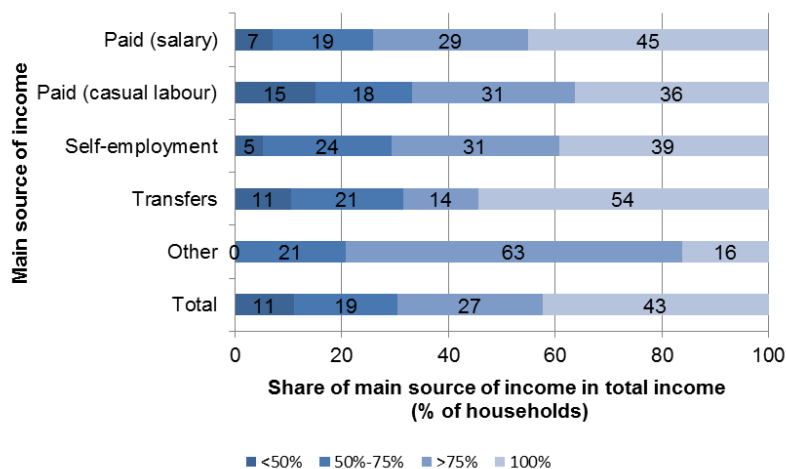
**The ability to diversify sources of income allows a poor household to reduce its vulnerability to poverty as it shields itself from shocks to a particular sector or industry.** Households were asked what percentage of household income was derived from the main source, the hypothesis being that a household that draws its income from more than one source has a diversified livelihood strategy. Proportions were estimated by the households themselves.

**Some 43% of households draw all their income from a single source** (Figure 8.3). A further quarter rely on their main livelihood strategy for at least 75% of their income, while only 30% of the households diversify their livelihood strategies more by drawing less than three-quarters of their total income from the main source.

**If we compare households' livelihoods diversification by their main source of income we note that households reliant on state transfers tend to have less diversified livelihood strategies** than households that rely on other forms of income. More than half of households—54%—whose main income is drawn from state transfers have no other means of livelihood.

**When taking into consideration the proportion of households who employ each livelihood strategy as one of their top three sources of income, rather than just the main source, the proportion of households that report salaried employment as an income source is just a little higher, at 50%** (compared with the 44% who cited it as their main source, as above) (see also Annex Table F.2). This suggests that, for households that receive a salary, it is generally the principal source of income. The use of casual labour and self-employment as a source of income rises to 31% and 17% respectively.

**Figure 8.3 Main income source as proportion of total income (%)**



Source: Baseline survey.

**By far the greatest difference in livelihood strategies, when taking subsidiary income sources into account and not just the main source, is that of transfers.** Nearly 60% of households receive some form of state support among their top three income sources (compared with the 25% who cite it as their main source). This indicates that for many households state transfers provide an important contribution to household income, even if they are not the main means of survival. Moreover, income from state transfers amounts on average to more than 44% of total annual income reported by the household.

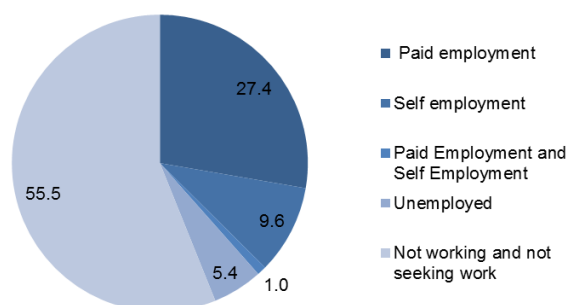
## 8.2 Economic activity and inactivity

**The effect of cash transfers on employment may be positive or negative.** On the one hand they may induce a reduction in employment since the alternative income source represented by the transfer may cause household members to reduce their supply of labour. However, given that the BOTA cash transfer is quite small in size, the induced income effect is likely to be too small to trigger the trade-off between leisure and work. On the other hand it is possible that they result in increased employment. Conditionality of a transfer on an activity such as pre-school attendance may give household members more time to look for job if they are freed up sufficiently from looking after their children. The effect of the BOTA programme will, of course, not be known until the follow-up survey but it is important to capture information on employment at baseline stage.

### 8.2.1 Employment status of adults

**Just under half—44%—of individuals aged 15 or above in eligible households are considered to have been part of the labour force in the 12 months preceding the study** (Figure 8.4). More than eight in every 10 of these are actively working, mostly for other people on a salaried or casual basis rather than for themselves; the remainder are unemployed but seeking work. The other 56% of individuals of that age group are outside the labour force, neither working nor actively seeking work (also known as 'economically inactive').

**Figure 8.4 Employment status of household members aged 15 and above (%)**



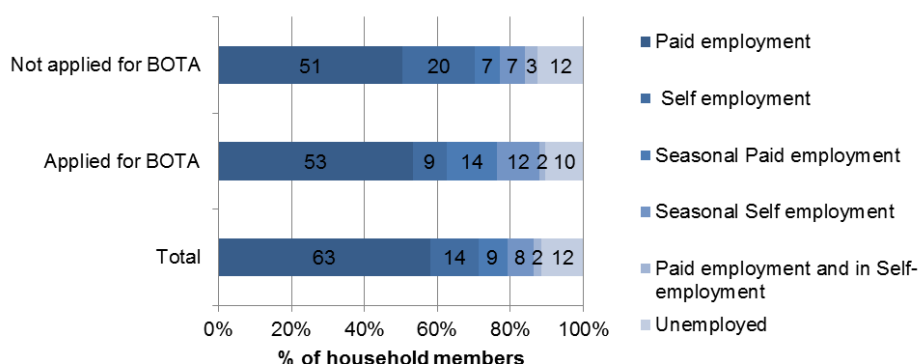
Source: Baseline survey.

**Not all working adults are in employment all year round.** Households that rely only on seasonal activities are more exposed to income shocks and less likely to find a sustainable graduation from poverty. People with seasonal employment are often those that work in the agricultural sector, who comprise 30% of the labour force in Kazakhstan<sup>15</sup>.

**About one in every six household members reported carrying out seasonal work over the last 12 months, either in paid employment or on a self-employed basis.** For 12% of the households in our sample the primary earner is seasonally employed. This is consistent with the findings of the qualitative assessment of the BOTA cash transfer, which suggest that beneficiary households frequently report seasonal agricultural work as a source of income. As might be expected we find that seasonal employment takes place mainly during the agricultural season (around 85% of the cases for seasonal paid employment and 95% for seasonal self-employment—see Table F.3).

Individuals in BOTA's beneficiary households are roughly twice as likely to be employed in seasonal work as individuals in non-beneficiary households in treatment areas (Figure 8.5).

**Figure 8.5 Labour force composition, by type of employment and BOTA status (% of members aged 15+)<sup>1</sup>**



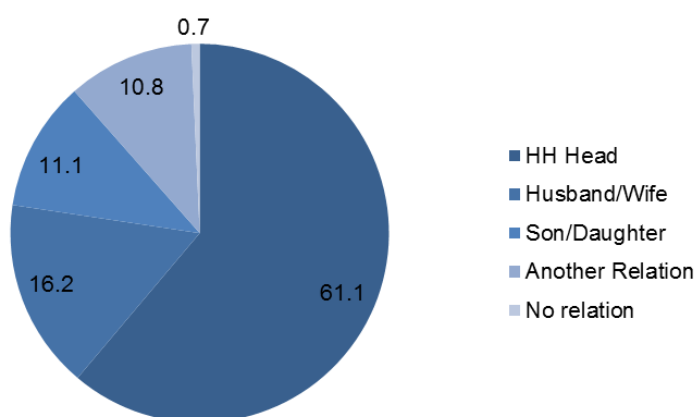
Source: Baseline survey. Note: The categories 'Not applied for BOTA' and 'Applied for BOTA' refer to households in treatment areas only. The 'Total' provided for comparison is for all households including those in control areas.

<sup>15</sup> Agricultural labour force statistic for the year 2008 from the World Bank website.

## 8.2.2 Characteristics of the primary earner

In around 60% of households the primary breadwinner is also the household head (Figure 8.6). Over 40% of household heads do not work, which is consistent with this finding; but a household head—as with any adult—may still be the primary earner even if they are not in employment, if they are a pensioner or receive other state benefits. For households where the household head is not the primary earner the proportions who cite the primary earner as the spouse, the son or daughter or another relation of the household head are fairly even. Two-thirds of the primary earners in the household are male.

**Figure 8.6 Relationship of primary breadwinner to household head (% of households)**



Source: Baseline survey. Figures are provided in Annex Table F.5.

Also in about two-thirds of cases the main person that brings income into the household is a parent of the child that is eligible for the BOTA CCT. For most of the remaining households the primary earner is a grandparent of the eligible child.

**In treatment areas, households that are enrolled in the BOTA CCT are slightly more likely to depend on a primary earner who is seasonally employed** than those eligible households that have not enrolled (14% versus 10%) This could be because these households that rely mainly on seasonal income feel a stronger need for a supplementary regular benefit such as that provided by BOTA's CCT, or else perhaps that those households have more time to participate in the enrolment process because the main earner is not employed all year round.

## 8.2.3 Unemployment

**People who have no job but have actively sought work in the last month are considered part of the workforce, whereas those that are not looking for work are considered to be outside the workforce.** This is in line with the definition of the International Labour Organization. The qualitative assessment of the CCT programme observes that most people in interviewed households who were without work could not find employment opportunities even if they sought them. The difficulty of finding a job is also shown in that the average number of months unemployed individuals have been looking for a job is close to 12 months (Table 8.1). This average length of time spent searching for a job is significantly higher in BOTA's beneficiary households than in non-beneficiary households in treatment areas.

**Table 8.1 Unemployment among household members aged 15+**

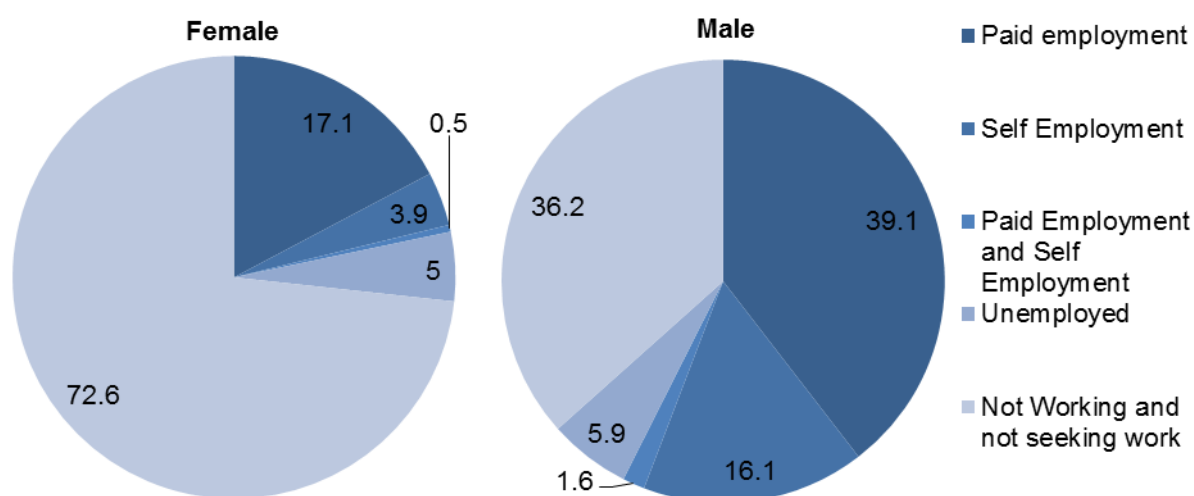
Indicator	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
Household members unemployed and seeking work (% of all household members aged 15+)	4.4	5.4	4.9	6.0	5.4	2008	3968
Average length of time unemployed and seeking work (in months)	13.4**	8.4	10.5	13.0	11.8	100	217

Source: Baseline survey.

### 8.2.4 Economic inactivity

**Gender is a clear determinant of whether a person is in or outside the labour force: over 70% of women are outside the labour force**, while the same figure amounts to roughly 36% for men (Figure 8.7). The fact that seven out of every ten women in eligible households is neither working nor looking for work confirms the findings in section 6.3 above that there is a large pool of adults available at home to look after the children.

**Figure 8.7 Distribution of adults in and outside the labour force (% of members aged 15+)**

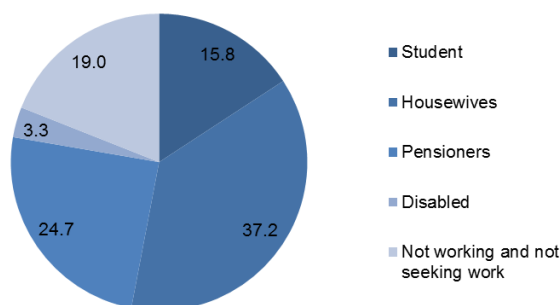


Source: Baseline survey.

**The composition of the population of individuals outside the labour force confirms this gender divide since over one-third of individuals outside the labour force are housewives** (Figure 8.8). Other than housewives, individuals outside the labour force comprise pensioners (25%), students (16%), people with disabilities (3%), and 'discouraged workers' (19%). The last group are unemployed individuals who are not looking for a job. This may be because of bad economic conditions or their perception of the lack of availability of jobs.



**Figure 8.8 Composition of population outside the labour force (% of members aged 15+ not working and not seeking job)**



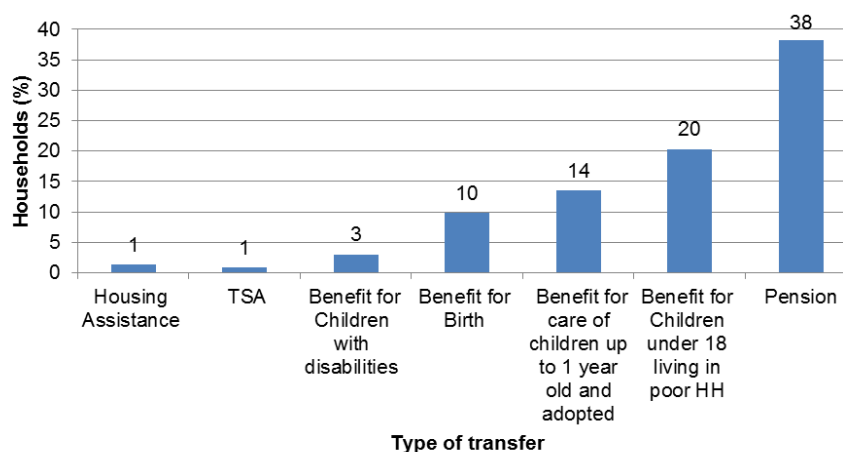
Source: Baseline survey.

### 8.3 State and non-state transfers

The range of state benefits and allowances in Kazakhstan is quite wide, as is typical of countries that inherited a comprehensive social welfare system after the end of the Soviet Union. It includes both benefits targeted at categories of individuals such as children, the elderly and people with disabilities, and benefits targeted at households such as the targeted social assistance for destitute households. Almost 65% of eligible households receive some kind of state transfer.

By far the most common benefit is the old-age pension, which is received by more than one-third of households (Figure 8.9). Besides this, many households receive benefits targeted at children, which is consistent with the fact that the evaluation interviews only households with at least one child of pre-school age. Roughly 20% of the households receive benefit for children under the age of 18 living in poor households and around 13% benefit for care of children up to 1 year old and adopted. About 3% of the eligible households receive the benefit for children with disabilities.

**Figure 8.9 Households receiving selected transfers (%)**



Source: Baseline survey.

**The targeted social assistance benefit is targeted to households whose income falls below 40% of the subsistence minimum for their oblast** and consists of a transfer that should bring households' income up to the subsistence minimum level. According to the consumption data (see section 9.1 below), about 4% of surveyed households have a consumption level that is below 40% of the subsistence minimum. Not all those households receive the benefit: coverage among our sampled households is lower, at about 1% of all households. Section 9.1.2 below discusses this in more detail.

**In treatment areas there is a difference between households that enrolled in BOTA and those that did not, in terms of benefits received** (Table 8.2). For most types of child benefit, apart from the benefit for children under one year old, the households that enrolled in BOTA are more likely to be a recipient than those that did not. The difference between the two groups is particularly significant in the case of the benefit for children under the age of 18. This higher rate of receipt of benefits suggests that households that apply to BOTA may be more comfortable or familiar with the idea of receiving cash benefits for children than those that did not apply, or they may be better informed about the availability of benefits.

**Table 8.2 Households receiving specified benefit (%)**

Indicator	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
Benefit for birth	11.7	9.7	10.7	8.7	9.8	585	1165
Benefit for care of children up to 1 year old and adopted	13.7	16.1	14.9	12.0	13.5	585	1165
Benefit for children with disabilities	4.5	2.8	3.7	2.2	3.0	585	1165
Benefit for children under 18 living in poor household	24.0***	15.2	19.7	21.1	20.3	585	1165
Targeted social assistance	1.6	0.6	1.1	0.4	0.8	585	1165
Housing assistance	1.2	0.2	0.7	1.9	1.3	585	1165

Source: Baseline survey.

**Fewer than 1% of households at this baseline stage received any cash or in-kind support from non-state organisations** (see Annex Table F.6). This indicates that prior to the start of BOTA's operations there was little tradition of non-governmental social assistance.

## 8.4 Remittances

**Overall, around one-quarter of households are involved in informal transfers to or from their extended family, friends, or the community** (Table 8.3). Most commonly these households will be either a receiver or a giver of remittances but not both. About one in every six households (17%) receives remittances in cash or in kind—such as food or clothing—from people outside the household.

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**Table 8.3 Households giving or receiving remittances in last 12 months (%)**

Households giving remittances	Households receiving remittances (%)		
	No, none received	Yes, received	Total
No, none given	76	14	90
Yes, household gives remittance	7	3	10
<b>Total</b>	<b>83</b>	<b>17</b>	<b>100</b>

Source: Baseline survey.

**Over 70% of the remittances received by households are in the form of in-kind assistance,** mainly from a close member of the family who does not live in the same household, such as a parent or grandparent, a sibling, spouse or son or daughter. For remittances sent by the household, family members are also the principal recipient. However, in the case of remittances given, households are almost as likely to provide cash as in-kind transfers.

## 9 Consumption and savings

### 9.1 Consumption

Cash transfers such as the BOTA CCT can be expected to improve the living standards of beneficiary households by increasing their consumption levels (see eg. Attanasio *et al.*, 2005). Consumption and income are the two main monetary indicators of household welfare. In many countries consumption is preferred to income as a welfare indicator for both theoretical and practical reasons. To some extent, consumption is a measure of welfare achievement whereas income can be seen as an ‘opportunity’. While income can be negative, consumption is always positive. Furthermore, income tends to be more affected by seasonality whereas, owing to efforts undertaken by households to smooth consumption, consumption tends to be more stable. Moreover, it is usually easier to collect data about consumption than income. For all these reasons, data about household consumption has been collected in the BOTA baseline survey to measure household welfare<sup>16</sup>.

#### 9.1.1 Monthly consumption expenditure

The average eligible household has a monthly consumption of about KZT 100,000 (about \$680), of which almost two-thirds (62%) is spent on food (Table 9.1).

**Table 9.1 Consumption expenditure**

Indicator	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
<b>Mean monthly consumption per household (KZT)</b>							
Total consumption	93,835**	104,818	99,237	100,154	99,660	585	1165
Per capita consumption	15,432**	17,068	16,237	16,901	16,543	585	1165
Per adult equivalent consumption	31,756**	34,577	33,144	34,124	33,596	585	1165
Per adult equivalent (using national statistical agency scale)	26,284**	29,056	27,647	28,168	27,887	585	1165
<b>Mean value of food consumption per household (KZT)</b>							
Total	58,546	62,798	60,638	62,461	61,478	585	1165
Per capita	9,470*	10,263	9,860	10,558	10,182	585	1165
Per adult equivalent	19,568	20,771	20,160	21,287	20,679	585	1165
<b>Mean value of other key consumption items per household (KZT)</b>							
Health expenditure (per capita)	338	355	347	352	349	585	1165
Education expenditure (per capita)	456	546	501	486	494	585	1165
<b>Share of household consumption expenditure (%)</b>							
Food	61.9	61.1	61.5	62.7	62.0	585	1165
Health	2.2	2.0	2.1	2.0	2.1	585	1165
Education	3.1	3.1	3.1	2.9	3.0	585	1165
Other non-food	32.2	32.9	32.5	32.3	32.4	585	1165

Source: Baseline survey.

<sup>16</sup> The methodology for the calculation of real per adult equivalent monthly consumption expenditure is presented in Annex E.

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**To understand what this means for the people living in the household it is necessary to consider how many members the household contains.** Broadly, there are two ways of doing so:

1. **Per capita consumption.** One way is simply to divide total household consumption by the number of people living in the household, without considering economies of scale or whether they are children or adults. This gives the 'per capita' consumption figures. These are useful to make comparisons with other national and international studies and are therefore reported in Table 9.1 above, and also in an adjusted form in Table 9.2 below, but they are less accurate for understanding the typical experience of the household member.
2. **Per adult equivalent consumption.** Per adult equivalent consumption expenditure is preferred to per capita consumption expenditure because it accounts for the fact that the needs of a household grow with each additional member but not in a proportional way. Adults generally consume more than children. Also, some consumption items do not vary with the number of people in a household, such as the purchase of certain household goods that can be used by anybody, while others—most notably food—will vary with each additional person.

**Consumption expenditure per adult equivalent per month in eligible households amounts to KZT 33,596 (\$226)** (Table 9.1). With two-thirds being spent on food, the average amount spent on food is KZT 20,679 (\$140). While consumption in treatment and control areas is almost identical, we find that, within treatment areas, BOTA beneficiaries have significantly lower consumption than non-beneficiaries. This suggests that, from among those eligible for the CCT, BOTA may be enrolling households that are slightly worse off in consumption terms. This fits with the findings in section 8 above that beneficiary households are more likely to be engaged in casual labour and seasonal work; though it is less consistent with the observation of the poorer hygiene conditions in non-beneficiary households as measured by the incidence of child diarrhoea in section 7.

**These figures indicate that a transfer of KZT 3,300, the monthly value of the benefit for the ECD category in 2011, represents about 10% of monthly consumption of an adult in the household.** Note that this does not necessarily mean that an individual's consumption has increased by 10% after receiving the benefit: it could increase by a smaller proportion, if, for instance, the household reduces the amount it works as a result, or it could increase by a greater proportion if the benefit releases adults from child care arrangements and permits them to find work, or if the transfer is invested in the purchase of assets which generate a larger income. The follow-up survey will identify the effect.

**For the purposes of comparison with national statistics the per-capita measure has been adjusted using a common consumer price index (therefore no longer in nominal 2011 prices) and matched against the values in Kazakhstan's national Household Budget Survey (HBS) 2009** (Table 9.2). From Table 9.2 we see that per capita consumption expenditure among eligible households is some 29% lower than that reported in the HBS for rural Almaty oblast, including a 17% lower expenditure on food.

**The per capita consumption expenditure is lower for the BOTA baseline survey because the sample contains only households who are below the threshold for the proxy means test and therefore poorer.** This is also consistent with the finding that the food share of consumption expenditure is higher for BOTA baseline survey than for HBS since poorer households tend to consume a higher proportion of their budget on food. Households prioritise food consumption and so, when poorer, cut down on non-food items such as clothing and transport as suggested in Table 9.2. It is notable that the households eligible for BOTA are not spending a lower share of their budget on education or health in comparison with other households, even though the mean absolute value will be lower since it is an equal proportion of a smaller total budget.

**Table 9.2 Comparison of consumption with national measures**

	BOTA baseline (indexed to a scale used in the HBS 2009) <sup>2</sup>	HBS 2009		Difference between BOTA & HBS rural Almaty oblast (%)
		Rural Almaty oblast	Kazakhstan	
<b>Consumption expenditure (KZT)<sup>1</sup></b>				
Mean monthly expenditure per capita	12067	16878	20319	-29%
Food monthly expenditure per capita	7407	8953	9635	-17%
Share of mean expenditure (%)	100	100	100	
Food	62	41	40	+8
Non-food	38	59	60	-8
<i>Health care</i>	2	1.4	2	0
<i>Education</i>	3	2	2	+1
<i>Clothing</i>	6	7	8	-3
<i>Communication</i>	2	2	3	0
<i>Transport</i>	2	4	4	-3
<i>Other</i>	23	43	40	-3

Source: Baseline survey, and Kazakhstan Household Budget Survey 2009. Notes: (1) These values are per capita, not per adult equivalent. (2) Values are not the same as in Table 9.1 because nominal data from the baseline survey and the HBS have been adjusted using a common consumer price index produced by the National Statistical office of Kazakhstan to make them comparable. We excluded rent and durables in constructing HBS consumption aggregates.

### 9.1.2 What does this mean for the poverty level among eligible households?

**Each household's consumption expenditure can be compared in several ways against an appropriate poverty line to classify individuals as poor or non-poor<sup>17</sup>.** The poverty line is the monetary cost to a given person, at a given place and time, of achieving a defined level of welfare. The choice of where to set the poverty line is a matter of public policy. In Kazakhstan national poverty lines are based on the concept of 'subsistence minimum standards' established by the 1999 Subsistence Minimum Law in Kazakhstan. The 'subsistence minimum' is the amount it costs to buy a basket of food items sufficient to fulfill minimum daily nutritional requirements, augmented by a fixed share of expenditures on basic non-food goods and services. In 2011, the subsistence minimum for Almaty oblast was set to KZT 16,716 per month.

#### Poverty rate

**In 2008 and 2009, Almaty was one of the oblasts that registered the highest poverty levels in the country together with Kyzylorda and Mangistau** (United Nations and Government of Kazakhstan, 2010). We find that some 59% of individuals in eligible households live below the subsistence minimum (Table 9.3). This prevalence of individuals below the subsistence minimum is almost twice as high the one we found using the HBS 2009 data which indicate that in rural Almaty around 37% of individuals were below the subsistence minimum. Again this suggests that households interviewed by BOTA are poorer than the average household in rural Almaty. The seemingly large disparity in the proportion of individuals in beneficiary and non-beneficiary households that are below the subsistence minimum (63% vs. 55%) is not actually statistically

<sup>17</sup> The different ways in which individuals are compared against the poverty line are described in Annex E. The analysis uses the Foster-Greer-Thorbecke indices.

significant. This suggests that the standard errors for this statistic are large and that there is a lot of natural variability in the figure from one community to another.

**Table 9.3 Poverty rate among individuals in eligible households (% of Individuals)**

Indicator	Treatment					N	
	Beneficiary	Non-beneficiary	All treatment	Control	TOTAL	Treatment	All
Below subsistence minimum	63	55	590	55	57	3658	7219
Less than 40% of subsistence minimum	5	3	4	4	4	3658	7219

Source: Baseline survey, and HBS 2009. Note: (1) Nominal data from Baseline survey and HBS are adjusted using a common CPI produced by the National Statistical office of Kazakhstan. Moreover, we excluded rent and durables in constructing HBS consumption aggregates.

**In addition we find that one in every 25 individuals, or 4%, is extremely poor** with a consumption level that is less than 40% of the amount required to fulfill minimum daily needs. This level of 40% of the subsistence minimum is a social assistance eligibility threshold and is used by the social protection bodies to estimate the number of those who should receive social transfers, including the state's targeted social assistance (TSA) benefit.

**The proportion of individuals identified here as being extremely poor differs considerably from the government's own estimate of the extreme poverty rate in rural Almaty oblast**, which stood at 0.4% in mid-2011 (Agency of Statistics of the Republic of Kazakhstan, 2012). There are four methodological reasons for this:

1. The survey figure of 4% represents poverty among households eligible for the BOTA programme, i.e. that have a consumption level that is below the threshold for the proxy means test. They are therefore already known to be poorer than across the region as a whole.
2. The definition of 'rural' in the survey is narrower than that used by the State Statistical Agency because it excludes rural okrugs containing large settlements. This, too, is likely to increase the rate of individuals classified as poor.
3. The figures for consumption in the survey do not include an imputed value for rent or durable goods. If such an imputation were to be added to the figures it is likely that a proportion of the sample households would be considered to have a consumption level that is above the extreme poverty level.
4. The equivalence scale used by the State Statistical Agency for dividing up a household's consumption across its individual members results in consumption estimates that are much higher than those obtained by using a *per capita* measure (see e.g. Table 9.1 above). This means that far fewer individuals would fall below the extreme poverty line compared with the *per capita* measure.

These observations may contribute to the explanation as to why the actual proportion of sampled households that receive TSA is just under 1%. It does not necessarily mean, therefore, that the government is in any way failing to enrol households that meet its own criteria.

For all individuals who are below the subsistence minimum, and therefore classified as poor, one can identify how far their consumption falls short of the minimum, and thus how much extra

consumption expenditure they would require each month to bring them out of poverty. This is called the poverty gap and it measures the **depth of poverty**.

**Among eligible households who are poor the average poverty gap is 17%** (Table 9.4). This implies that, on average, a transfer of 17% of the poverty line per person is required to move that person above the poverty line. The figure is slightly higher for BOTA beneficiary households than for non-beneficiary households.

**Table 9.4 Depth and severity of poverty**

Indicator	Treatment					N	
	Beneficiary	Non-beneficiary	All treatment	Control	TOTAL	Treatment	All
Mean poverty gap (%)	20*	16	18	17	17	585	1165
Mean severity of poverty (%)	9*	7	8	7	7	585	1165

Source: Baseline survey.

With the poverty line set at KZT 16,716, a figure of 17% suggests that each individual would need on average an extra KZT 3,000 of consumption expenditure per month to bring them above the poverty line. This is close to the value provided for one individual by the BOTA CCT.

**Among eligible households the severity of poverty is consistently around 7%.** The severity of poverty is measured by squaring the poverty gap. This gives the highest weighting to the households that are furthest below the poverty line, which identifies inequality amongst the poor. The value is, again, slightly higher for households that did apply for BOTA, though not significantly enough to suggest that there is a difference between the groups in the level of inequality amongst the population below the subsistence minimum.

## 9.2 Savings and credit

**Savings can be an important determinant of households' wellbeing** since they allow households to spread their consumption throughout the year, or even to smooth consumption between one year and another. This is particularly important for those that rely on seasonal work for their income. It can help households to cope with risks and engage in profitable investments.

**Only around 5% of eligible households report having any savings** (see Annex Table F.8) Even for the few that do report savings it is rare that they keep them in a formal system such as a bank or other formal institution: fewer than 1% of households save money in this way. One might think that perhaps they do not have access to a bank; but in fact over 13% of households report owing money to a bank or a financial institution, which suggests that these institutions are actually present and active in the region and that a lack of such institutions is not the main explanation of low levels of formal saving. More commonly households report saving by participating in a type of community-based savings group called a *chernaya kassa*, by leaving the money with friends or family, or simply by keeping cash in a safe place (around 2% of households in each case).

**Borrowing is prevalent amongst eligible households with over 50% of households currently having debts.** Buying on credit from shops or from the market seems to be the most common form of borrowing for households in the sample with around 40% of households indebted to shops or the market, while borrowing from family and friends is not particularly diffuse (6% of the households). The prevalence of borrowings from shops and local market is also supported by qualitative findings that highlight taking foods on credit as a strategy to deal with the lack of cash in winter.



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**BOTA beneficiary households show different borrowing patterns with respect to non-beneficiary households.** They are significantly more likely to buy from stores and markets on credit and less likely to be indebted to banks. Moreover, they tend to borrow smaller amounts than non-beneficiary households.

**Households are not generally positive about their ability to borrow money at short notice (within one week).** The survey investigated households' beliefs about their potential access to credit. This is an indication of how they might be able to cope if an urgent situation, such as a health emergency, arose. Fewer than one in every eight households felt that they could quickly borrow KZT 50,000 (\$338), of whom only a small minority thought that they could easily borrow higher sums of KZT 100,000-200,000. Access to smaller amounts of money seems to be easier: 80% of households consider that it would be easy to get fast access to KZT 5,000 (\$34), and over 50% to KZT 10,000 (\$68).

## 10 Housing and amenities

### 10.1 Property ownership

Some 87% of eligible households own the property where they live (Table 10.1). A small minority of these inherited the dwelling. A very tiny proportion of households—less than 1%—live in accommodation that is owned but not yet paid off. Rent-free accommodation constitutes the second most frequent tenure type, at around 7% of the households.

**Table 10.1 Tenure of property (% of households)**

Type of tenure	Treatment					N	
	Beneficiary	Non-beneficiary	All treatment	Control	TOTAL	Treatment	All
<b>Owned by household</b>	81	92	87	85	87	584	1163
Paid off	75**	83	79	78	78	584	1163
Inherited	6	9	8	7	8	584	1163
With mortgage (not paid off)	1	0	1	0	1	584	1163
<b>Owned by others</b>	18	8	13	15	13	584	1163
Living in house rent-free	10**	4	7	8	7	584	1163
Rented	6	3	5	4	4	584	1163
Free state-owned housing	1	1	1	3	2	584	1163
Squatting / occupied	0	0	0	0	0	584	1163
Other	1	0	0	1	0	584	1163
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>584</b>	<b>1163</b>

Source: Baseline survey.

**It is rare for surveyed households to rent accommodation:** only around 4% of the households do so. This largely reflects the low rate of rental in the country as a whole. However, it may also be because eligible households were identified using records of addresses from the *akimat*; households that rent their property, who are reported anecdotally to be more likely to move home frequently, may have a lower chance of being captured in the *akimat*'s records or of being found by the survey team at their last known address. BOTA applicants are significantly less likely to own their houses and more likely to live in rent free houses than households that did not apply for BOTA.

### 10.2 Property construction and utilities

**Almost four in every five households (79%) live in a separate house.** The remainder live in a part of a house, with a few in a separate apartment and only a small number in a shared apartment. The prevalent heating fuel is coal, which is used by 91% of households; the rest use wood or gas. Fewer than 1% of households have a central heating system.

**Around half of all households live in properties built of bricks or mud bricks,** which is considered a sturdy form of construction. A further 29% use a *karkas-kamysh* construction, in which mud and reeds are packed within a frame. For the roof, two-thirds of households use asbestos sheeting and 15% use iron or zinc.

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### 10.3 Access to community facilities

**Settlements in Kazakhstan tend to have a core set of public facilities closely situated to one another**, with properties located not far from these amenities. Households can reach the okrug *akimat*, the nearest pre-school and school facilities, the nearest health facility, and the nearest post office all in around 20 minutes on average, either by walking or using transport. On average, it takes households around an hour to reach the rayon centre (Table F.9). If there is no bank in the okrug it is likely that households can withdraw money from a cash machine in the rayon centre; this gives an indication of how far BOTA beneficiaries might need to travel to collect the CCT.

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## 11 Findings on other BOTA beneficiary categories<sup>18</sup>

### 11.1 Pregnant and lactating women

**Around 20% of households sampled for the baseline survey were found to include a pregnant woman or a woman who had had a pregnancy in the last 12 months.** These women were interviewed as part of the baseline. This is broader than BOTA's own eligibility criteria for the CCT, which ceases at six months after the birth of the child; but it represents the group of women who, at follow-up, can be expected to be currently eligible or to have been eligible for at least six months out of the previous 12.

#### 11.1.1 Antenatal care

**Antenatal services offer an important opportunity to reach pregnant women** with a number of interventions vital to their health and wellbeing and that of their infants. Such interventions include informing women and families about danger signs and symptoms and about the importance of delivery with the assistance of a skilled health care provider. This period is also used to prevent and treat infectious diseases and other illnesses, such as anaemia and sexually transmitted infections during pregnancy. Such treatment significantly improves foetal outcomes and mitigates adverse outcomes such as low birth weight. It is also an entry point for information on family planning and HIV prevention and care.

**Coverage of antenatal care in Kazakhstan is known to be very high:** 99.9% of women receive antenatal care at least once during pregnancy (UNICEF and Agency of the Republic of Kazakhstan on Statistics, 2007). This means that a programme such as BOTA's CCT, which offers transfers conditional on pregnant women receiving antenatal care, can have no effect on the proportion of women who receive any care since almost everyone already does so.

**Among the women surveyed in the sampled households, all of those who had given birth in the last 12 months reported having received antenatal care at least once during pregnancy.** Moreover, all of those who were still pregnant had already attended antenatal care. All of these women had their blood pressure, height and weight measured and gave a urine and blood sample for analysis.

**On average, those who had given birth reported making 10 antenatal care visits during their pregnancy.** The majority of these women report receiving antenatal care from medical doctors and nurses. The mean time of first attendance at an antenatal service provider was the 9th week of pregnancy.

#### 11.1.2 Anaemia

**Some 69% of interviewed women who had recently given birth, and 68% of those currently pregnant, reported experiencing anaemia during pregnancy.** For 5% of these the condition was classified as severe. This high rate of anaemia confirms the importance of providing health care advice in this area as is done by BOTA in its training for pregnant and lactating women.

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<sup>18</sup> Note that the statistics in this section are not statistically representative: they are the unweighted results of the respondents of the relevant category that were interviewed. These cannot be generalised accurately to Almaty oblast or to the population as a whole because the total number of people in the category (pregnant women, women who have given birth in the last 12 months and households looking after children with disabilities) is not known by okrug. All results are drawn from households that have a child eligible for the ECD category of benefit.

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### 11.1.3 The cost of pregnancy

**Pregnancy brings with it direct and indirect costs.** Direct costs are those spent on goods and services such as antenatal visits, delivery, or the purchase of items such as clothes and other goods. Indirect costs take the form of lost income. Because of these costs BOTA is providing transfers to pregnant women, or those that have recently given birth, and the value of the transfer is higher than for those in the ECD category.

Among interviewed women who had given birth in the previous 12 months, whose expenditure gives an indication of the full cost of pregnancy, the mean direct cost of pregnancy is KZT 16099 (Table 11.1).

**Table 11.1 Mean direct cost of pregnancy (KZT and %)**

Cost	Value (KZT)	Share (%)
Antenatal care	2308	14
Delivery (hospital admission and medication)	5239	33
Anaemia treatment and management	640	4
Vitamins	705	4
Consumables / clothes / household goods	6193	38
Informal payments	1015	6
<b>Total</b>	<b>16099</b>	<b>100</b>

Source: Baseline survey. Note: Values are unweighted.

**Indirect costs in the form of lost income are not incurred by many women during pregnancy since few are in the labour force.** However, for those that have lost an income the effect is quite substantial. About 12% of interviewed women reported having had to give up a job or other form of income-generating activity during pregnancy; for those that had given birth the mean time in which they experienced the loss of income was 15 months, during which they lost an average of KZT 18628 monthly. The BOTA CCT for pregnant women, at KZT 3,900 in 2011, can necessarily only contribute to recovering a small proportion of the lost income.

### 11.1.4 Knowledge and awareness

**The survey also tested knowledge and awareness of pregnancy and child health among pregnant women or those who had recently given birth.** The test is the same as that used by BOTA before and after its training programme and is comprised of seven questions relating to the following topics: antenatal care, iron rich foods, symptoms of anaemia, treatment of anaemia and health consequences of anaemia.

The results of the test indicate that the surveyed women have a fairly good knowledge of when the antenatal care should begin and how often they should be visited, which was somehow expected given that, as outlined above, women in the sample attended frequently ANC during their pregnancy (Table 11.2). On the other hand, answers to anaemia related questions indicate a widespread ignorance of common symptoms of the disease and also the existence of erroneous beliefs on which food are helpful for iron-related anaemia. Indeed, 40% of the surveyed women were not able to list three iron rich foods and over 60% of them think that coffee and tea might be helpful for iron related anaemia.

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**Table 11.2 Responses to BOTAs knowledge test on pregnancy and child health**

Indicator	%
<b>Proportion with correct answer to...</b>	
How often should a woman attend antenatal care	71
When should antenatal care begin?	53
Name three iron rich foods	60
Name four common symptoms of anaemia	30
Tea and coffee are not helpful for iron-related anaemia	37
Name two outcomes of anaemia	14
<b>No. of correct answers (out of 6)</b>	
None correct	4
1 or 2	39
3 to 5	57
All 6 correct	0

Source: Baseline survey.

## 11.2 Households looking after children with a disability

**Among households eligible for the ECD benefit 4% were bringing up a child with a disability<sup>19</sup>.** These households were also tested using BOTAs knowledge and awareness test, in this case the one administered to recipients at the end of the training on home-based care.

The results of the test suggest that households' awareness of good practice in home-based care for children with disabilities is not particularly strong since only 16% of households with a disabled child were able to answer all questions correctly<sup>20</sup>. Overall, households seem to be aware of nutritional and cognitive development needs of the disabled children but less aware of the fact that appropriate physical exercise are important for physical health of disabled children and that disabled children may be more exposed to violent behaviour (Table 11.3).

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<sup>19</sup> This was not necessarily the ECD-age child.

<sup>20</sup> In evaluating this result it is important to note that the population of households with a disabled child amounts to just 54 units.

**Table 11.3 Responses to BOTAs knowledge test on home-based care for children with disabilities**

<b>Indicator</b>	<b>%</b>	<b>N</b>
<b>Proportion with correct answer to question about..</b>		
Physical exercise	30	54
Food and nutrition	78	54
Communication and social interactions	78	54
Violent behaviour towards children	45	54
Capabilities of children	63	54
<b>No. of correct answers (out of 5)</b>		
None correct	3	54
1 or 2	44	54
3 to 4	38	54
All 5 correct	16	54

Source: Baseline survey.

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## 12 Conditions at pre-school facilities

The survey team interviewed 196 pre-school facilities attended by children that were identified as eligible for the BOTA CCT at listing stage. The results obtained from these interviews are not statistically representative either of all pre-school facilities (since it was not possible to obtain a list containing the 'universe' of every pre-school facility in every okrug in the oblast) or of all pre-school facilities attended by eligible children (since there was a high rate of non-response as many facilities are closed for three months during the summer). Nonetheless the large sample size gives a very useful picture of the kind of conditions that children experience when they go to pre-school. The findings are summarised here.

### 12.1 Status of facilities interviewed

Of the 196 facilities interviewed, just over half were mini-centres (Table 12.1). This is roughly in line with the proportion of eligible children who reported having attended one. The remaining interviews were predominantly with representatives of the 'zero class' in schools. Traditional kindergartens were under-represented among respondents, at only 14% (27 facilities); this may be because these facilities are more likely to be closed for several months over the summer. In the subsequent analysis in this chapter findings have been disaggregated by facility type where there is considerable variation.

**Table 12.1 Status of facilities interviewed**

Indicator	%	N
<b>Type of facility</b>		
Kindergarten	14	196
Zero class	28	196
Mini-centre <sup>1</sup>	59	196
<b>Date established</b>		
2011	9	196
2009-10	22	196
2007-08	24	196
2005-06	5	196
2000-04	2	196
1990-99	3	196
pre-1990	21	196
Unknown	14	196
<b>Total</b>	<b>100</b>	

Source: Baseline survey. Note: (1) 'Mini-centre' includes one NGO playgroup.

**Four out of every five pre-schools interviewed had been established since Kazakhstan's independence, in 1990 or later.** More than half had been established within the last five years, in 2007 or more recently, which provides an indication of the effect of the government's recent policy of expansion of pre-school provision, coinciding with its introduction of new regulations on mini-centres in 2006.

**Almost every facility interviewed was funded by the state, with only 2% reporting receiving funding exclusively from private sources** (Table 12.2). Fewer than one in 10 facilities reported



receiving any additional investment from the state in the last 12 months on top of their regular funding for recurrent expenditure, such as for construction of a new facility, or buildings within an existing facility, or the provision of extra equipment. Some 15% had received additional support from private sources such as parents, NGOs or private companies (including e.g. voluntary labour to help with renovations as well as materials, books or equipment). Three out of every four facilities interviewed said that they had received no additional support from either public or private sources.

**Table 12.2 Funding status of facilities interviewed**

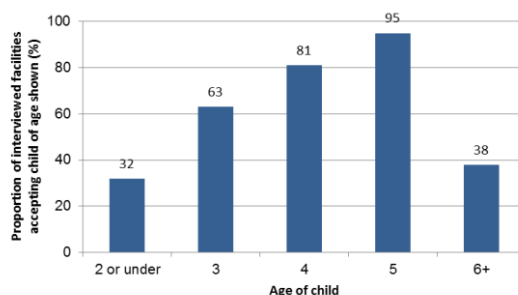
Indicator	%	N
<b>Funding status of facility</b>		
Public	94	196
Private	2	196
Mixed public and private	4	196
<b>Sources of additional support in last year</b>		
Government	9	179
Private individuals / companies / NGOs	15	179
Both government and private	1	179
No additional support	75	179
<b>Total</b>	<b>100</b>	

Source: Baseline survey.

## 12.2 Enrolment

**Most of the facilities interviewed accept children aged both four and five years old** (Figure 12.1). Two-thirds accept children from the age of three, and a minority accept children aged six years or above.

**Figure 12.1 Age of children accepted by facilities**



Source: Baseline survey.

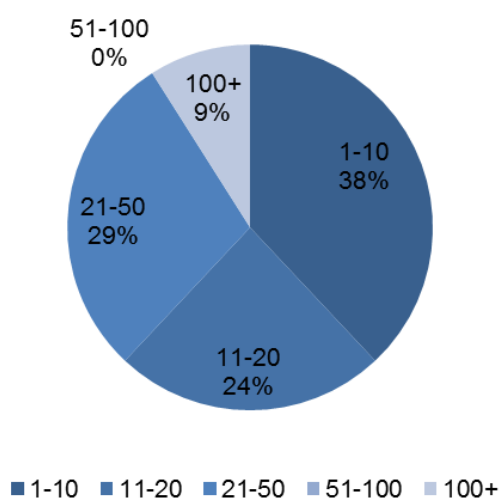
**Around six in every 10 facilities interviewed (58%) said that enrolment of new pupils could officially only take place once per year.** A very small number (6%) said they accepted new pupils once a term (two to three times per year), while the remainder said that they could take on new pupils at any time. This is important for BOTAs because the CCT enrolment process may take place at any time of year and requires beneficiaries to begin meeting the condition of pre-school attendance within the first few weeks after acceptance onto the programme, not just at the start of the new school year in September. A child that lives in a community where the local pre-school is full and there is no space to start mid-year will have to find alternative ways to fulfil the CCT

conditionality. Even where facilities say that children may start at any time of year, there is sometimes a waiting list that means that starting mid-year is only possible if another child leaves. These challenges with mid-year enrolment may be a contributory factor to the establishment of new informal facilities designed especially to accommodate 'BOTA children', as we have seen in the qualitative study (MacAuslan and Rogers, 2012).

**However, in practice facilities seem to be able to take a more flexible approach to enrolment than the formal arrangements might suggest.** Quite often facilities reported that they had spaces available at the time of the interview, such that if a child aged four or five wished to begin pre-school straightaway a place could be found. Some 62% of facilities said that this would be possible. To some extent this may reflect the fact that, for many facilities that were interviewed during the summer, the time of the interview happened to coincide with the annual enrolment process. But it also indicates that it may be possible to negotiate the enrolment of children in exceptional circumstances such as the requirement to fulfil the CCT conditionality.

**Provision of pre-school places is not always in line with demand in every okrug.** About one in three interviewed facilities has a waiting list. The waiting list can often be quite short: Figure 12.2 shows that in two-thirds of cases there are fewer than 20 children on the list, while only a very small minority of interviewed facilities have long waiting lists of more than 100 children. However, in small facilities that have only one or two groups, even this small number may be enough to make it difficult for a child to get a place in pre-school. About three-quarters of all facilities interviewed had only one or two pre-school groups.

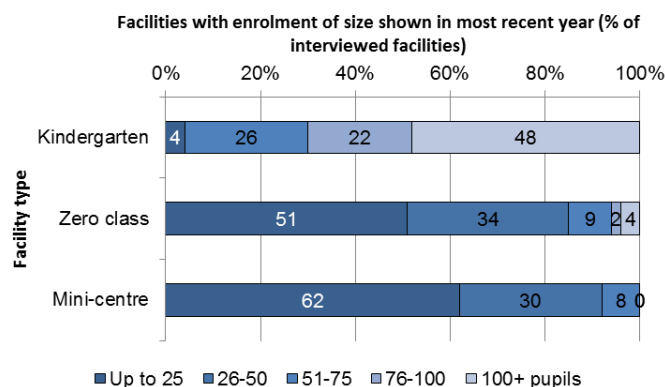
**Figure 12.2 Number of children on waiting list (% of interviewed facilities with a list)**



Source: Baseline survey.

**The size of pre-schools varies considerably by facility type.** The average interviewed kindergarten had 102 enrolled pupils at the start of the most recent academic year, whereas the average interviewed zero class facility and mini-centre had just 33 and 32 pupils respectively. Among kindergartens, some 48% of those interviewed had more than 100 pupils, while none of the 115 mini-centres that were interviewed—and only 4% of zero class facilities—had a total enrolment of that size (Figure 12.3). More than nine out of every 10 interviewed mini-centres have 50 pupils or fewer.

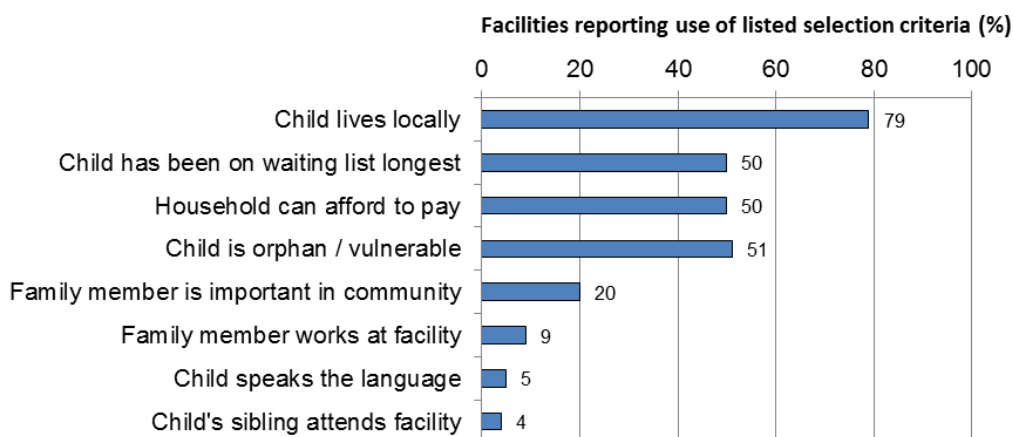
**Figure 12.3 Pre-school enrolment in most recent year, by facility type (% of interviewed facilities)**



Source: Baseline survey.

**Pre-school facilities themselves, rather than the okrug or rayon akimat, nearly always have responsibility for selecting who will attend.** Respondents were asked to name the top three ways in which they selected pupils when places became available. The most commonly reported reason was that the child lived locally: four out of every five interviewed facilities cited this as one of their key criteria (Figure 12.4). Many suggested that they would give priority to children in vulnerable situations such as orphans. Other reasons cited by at least half of respondents included that they accepted children who had been on the waiting list for longest, or whose family could afford to pay the fees (where waiting lists and/or fees were applicable). Zero classes were much less likely than other pre-school types to cite these last two criteria as being important for determining the selection of pupils: for example, only 7% of interviewed zero class facilities said that it was important whether the household could afford to pay, compared with over 60% of kindergartens and mini-centres.

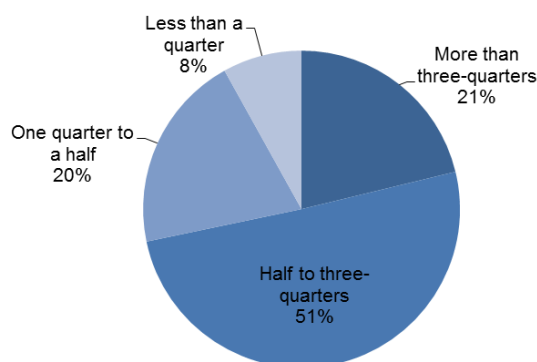
**Figure 12.4 Criteria for selecting new pupils (% of interviewed facilities reporting use of criterion as one of its top three methods)**



Source: Baseline survey.

Respondents were asked what proportion of children aged four to six they estimated were enrolled in pre-school facilities in their okrug<sup>21</sup>. A minority of respondents—some 21%—were confident that more than three-quarters of children in their community had a place in pre-school (Figure 12.5). More commonly respondents felt that the likely rate of enrolment in pre-school was around half to three-quarters of all children of that age. This corresponds to the national enrolment rate of 39% of all children aged one to six, and 83% of children aged five to six (UNESCO, 2011); and also to the statistically representative estimates of enrolment drawn from the household survey and discussed in section 6.2 above. Only a very few respondents (8%) considered that less than a quarter of children were enrolled in pre-school in their community.

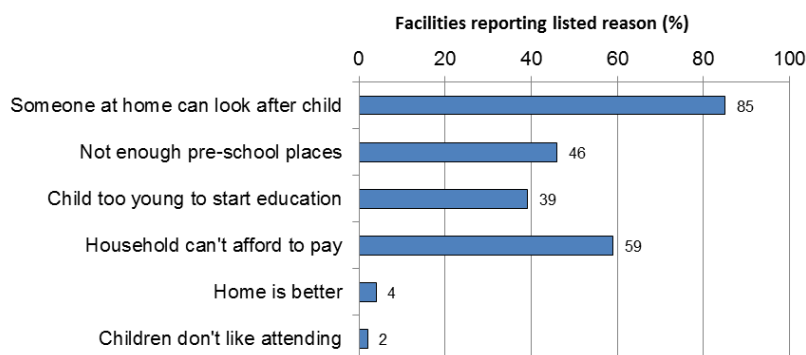
**Figure 12.5 Estimated enrolment of children aged 4–6 in respondents' okrug (% of respondents reporting rate)**



Source: Baseline survey.

**Facilities' perception of why some households do not enrol their child in pre-school tallies with the reasons cited with the households themselves** (compare Figure 12.6 below with Figure 6.3 above). Facilities, as with households, suggested that the three main reasons for non-enrolment are that there is someone available at home to look after the child; there are not enough pre-school places; and the cost is prohibitive.

**Figure 12.6 Reasons for non-enrolment in the okrug (% of interviewed facilities reporting reason as one of top three likely factors)**



Source: Baseline survey.

<sup>21</sup> This is based on the respondents' perception, not on administrative data.

This again confirms that a payment to households such as the CCT may contribute to removing one of the barriers of access to pre-school education.

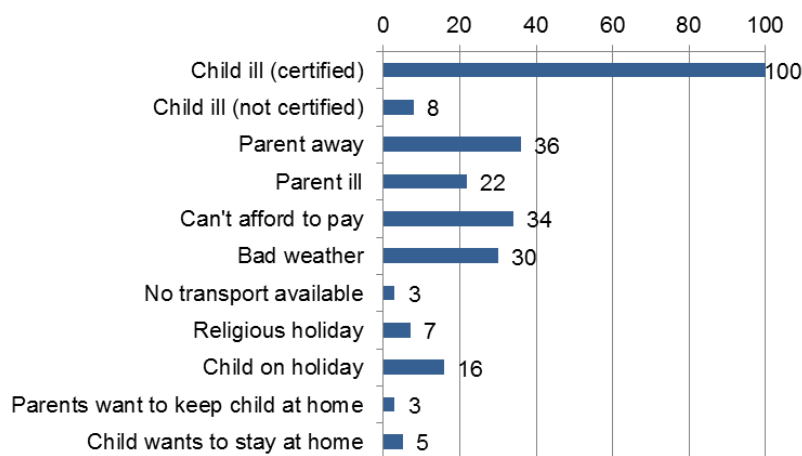
### 12.3 Attendance

**The CCT requires that children attend pre-school for 85% of the days that it is open in order for their household to continue receiving the transfer.** If, over a two-month period, they do not meet this average attendance they lose the subsequent payment. Once their attendance is restored to this level payments may resume. However, beneficiaries are not penalised if their absence is deemed excusable. This includes absence for reasons relating to the individual child, such as sickness accompanied by a doctor's note, or for reasons unrelated to the child such as temporary closure of the facility because of weather conditions, for repair or for holidays. Each month volunteers contact the pre-school facilities to obtain attendance records for the beneficiary children. It is therefore useful to know how facilities are maintaining these records.

**Nearly every pre-school facility—some 99%—reports keeping an attendance register.** Of these, almost every one said that excusable absences were recorded in the register as an absence rather than a presence. The fact that both excusable and inexcusable absences are recorded in the same way means that volunteers and pre-school staff have to be careful to distinguish between the two types of absence if this forms the basis for determining whether a household is to be paid the CCT. Sometimes the reason for absence is written in the register, which simplifies this procedure; often the teacher may remember the reason for absence.

**Excusable reasons for absence vary widely between facilities** (Figure 12.7). All recognise that the illness of the child, accompanied by a 'sick note', is a legitimate reason for absence. Almost all say that it is not acceptable for either the parent or child simply to decide to stay at home: fewer than 5% of interviewed facilities said that this would be acceptable. In between these two scenarios are a range of possibilities that mean that in some facilities it is acceptable for children not to attend if the parent is not available to bring the child to school (36% of those interviewed agreed), their families cannot pay (34%) or the weather is bad (30%), while in other facilities these are not legitimate reasons for absence. The implication of this is that in some facilities the imposition of conditionalities—which is intended to lead to better learning outcomes among children by encouraging attendance—may have less of an impact than in others.

**Figure 12.7 Excusable reasons for absence (% of interviewed facilities)**



Source: Baseline survey.

**The 85% attendance threshold required by BOTA results in a very wide range of acceptable hours of attendance, since the official opening hours of pre-school facilities vary enormously.** Some 97% of interviewed kindergartens are open for a full day of eight hours or more, while only half of mini-centres and just 6% of zero classes are open for that length of time. The zero classes are overwhelmingly run for four hours a day or fewer, in accordance with the regulations. The survey team will explore further in the qualitative research how volunteers capture information on the proportion of time that CCT beneficiaries attend pre-school. This is because a beneficiary that has an attendance record of 50% at a kindergarten may nonetheless attend pre-school for more hours than a beneficiary with a 100% attendance record at a zero class.

**Table 12.3 Number of hours open on most recent day, by facility type (% of interviewed facilities)<sup>1</sup>**

	Kindergarten	Zero class	Mini-centre	Total
Up to 2 hours	0	11	9	8
Greater than 2, up to 4 hours	4	74	20	33
Greater than 4, up to 6 hours	0	7	4	5
Greater than 6, up to 8 hours	0	2	13	8
Greater than 8, up to 10 hours	67	4	51	40
More than 10 hours	30	2	3	6
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Baseline survey. Note: (1) Data refer to opening hours for the groups attended by sampled children, on the most recent day when the facility was open. Where opening hours vary within one facility the average has been taken.

## 12.4 Costs of attending pre-school

**It seems to be very rare for facilities to charge a one-off enrolment fee when a child first starts attending pre-school:** just 3% of interviewed facilities reported charging such a fee (Table 12.4). This finding is encouraging because it eliminates a potential financial barrier to access to education: it means that households are generally not formally required to find a large lump sum when their child starts attending a facility.

**It is more common for facilities to charge a regular—usually monthly—attendance fee.** About six in every 10 interviewed facilities said that they charged this fee. This varies enormously by facility type. Almost every interviewed kindergarten—96%—charges a monthly fee, while only 9% of zero classes do so. In addition to covering the cost of tuition and the use of amenities, almost all facilities (89%) that charge a fee said it included the cost of food. Very few pre-schools said that the regular fee also covered other items such as maintenance, medicines or school trips.

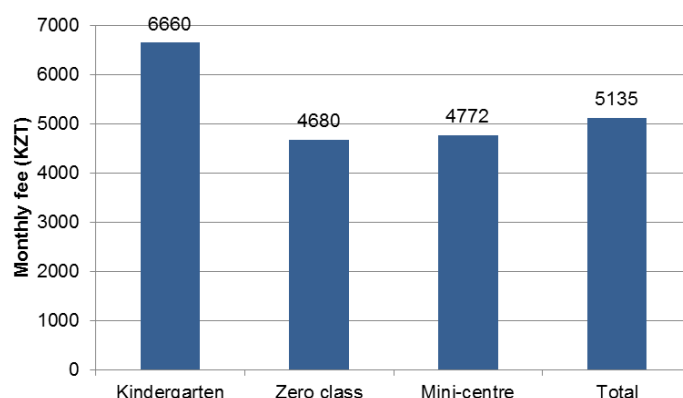
**Table 12.4 The cost of attending pre-school (% of interviewed facilities)**

Indicator	%
<b>Fees charged</b>	
Facilities charging enrolment fee on first entry	3
Facilities charging regular attendance fee	61
Kindergarten	96
Zero class	9
Mini-centre	77
Items other than tuition covered by regular attendance fee <sup>1</sup>	
Food	89
Other	14
Facilities charging additional fee other than monthly fee <sup>2</sup>	20
Learning material	10
School trips	12
Maintenance and repairs	5
Other	4
<b>Permissible fee reductions</b>	
Facilities offering fee reduction for children who attend part-time <sup>2</sup>	9
Facilities offering fee reduction for children absent for excusable reason	86

Source: Baseline survey. Notes: (1) Percentage shown is as a proportion of those that charge the fee (2) This may be optional or compulsory. (3) 'Part-time' means that children are formally authorised to attend the facility for fewer hours per day or fewer days per week than its full opening hours.

**The average regular fee charged by interviewed facilities is KZT 5,135 per month** (Figure 12.8). This is in line with BOTAs own estimates that its monthly payment of KZT 3,300 in 2011 would cover around half of the cost of attending pre-school, with the remainder to be covered by contributions from the household. Actual reported monthly fees ranged from KZT 500 to KZT 14,500. On average kindergartens are about KZT 2,000 per month more expensive than other facility types that charge fees.

**Figure 12.8 Mean monthly attendance fee, of those that charge one, by facility type**



Source: Baseline survey. (1) In nine cases the facility charges a daily, not monthly, fee. For these facilities the daily fee has been multiplied by 22 to give a monthly equivalent.

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**Only 20% of interviewed facilities reported that they charge additional fees besides any that are incurred for regular attendance** (see Table 12.4 above). One in 10 pre-schools charges an additional sum for learning material such as books and stationery; 12% of pre-schools charge extra for class trips. Most of the additional costs are said to be optional, and there is little difference between facility type.

**Fewer than one in 10 interviewed pre-schools said that they would be able to conclude an agreement with a family to allow a child to attend for fewer hours per day, or fewer days per week, than the full opening hours and to pay a proportional reduction in the monthly fee.** For government-run schools this may be because they have a restricted number of places and they therefore cannot allocate a place to a child who attends only part-time. They may also receive capitation grants (funding on a *per capita* basis) that do not allow the flexibility for part-time attendance. This means that it may be difficult for pre-school directors to make the type of arrangements that BOTA had proposed whereby children who cannot afford the full attendance fee can nonetheless attend, say, half-time in return for a reduction in fee. The difficulty of putting in place such flexible arrangements may be contributing to the creation of pre-school facilities specifically for children who receive the BOTA CCT where it may be possible to negotiate attendance and a fee rate in line with the transfer. This is being explored further in the qualitative research and in the follow-up quantitative survey.

**Most pre-schools—86%—do, however, offer a refund for children who are absent for an excusable reason.** Since some of these facilities accept the household's inability to pay as a reason for absence it may be that refunds for children who attend part-time can sometimes be arranged through this informal route, on an *ad-hoc* basis, rather than through a formal agreement.

## 12.5 Staffing and amenities

**The quality of children's experiences in pre-school can be affected, among other things, by the availability of qualified staff, facilities and equipment.** The type of facility can have an influence on these characteristics because the different facility types vary in their objectives and the norms that they have to comply with. For example, state-run kindergartens (*detskie sady*) generally operate for full days and consequently are more likely to have more staff and more facilities such as beds and meals, whereas zero classes usually run for only a few hours per day and so need relatively fewer staff and facilities. This variation is evident in the findings in this subsection.

### 12.5.1 Staff

**The larger average enrolment size of kindergartens in comparison to zero classes and mini-centres is reflected in their much larger staff numbers.** The average interviewed kindergarten has 27 staff members working for it, of whom about half are caregivers, their assistants and specialist teachers (Table 12.5). On average the remaining staff in kindergartens include four people in management positions and several support staff. In contrast the zero class facilities and mini-centres interviewed employed an average of eight staff, of whom an average of three were employed in the classroom as caregivers, their assistants or teachers.



**Table 12.5 Mean number of staff, by facility type**

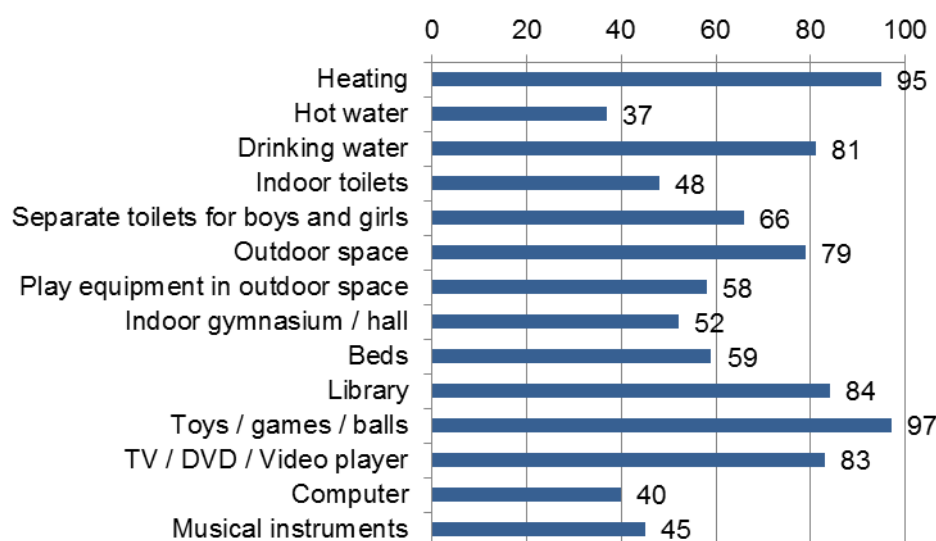
	Kindergarten	Zero class	Mini-centre	Total
Management	4	3	2	2
Caregivers ( <i>vospitateli</i> )	9	1	2	3
Caregivers' assistants ( <i>nyanechki</i> )	5	0	1	1
Teachers ( <i>uchitelya</i> )	1	2	0	1
Ancillary staff <sup>1</sup>	8	2	3	3
<b>Total</b>	<b>27</b>	<b>8</b>	<b>8</b>	<b>10</b>

Source: Baseline survey. Note: (1) Includes nurses, cooks, security guards, laundry staff and other support staff.

### 12.5.2 Amenities

In terms of utilities almost all facilities interviewed have heating, and most have a source of drinking water (Figure 12.9). Provision of hot water and indoor toilets is more variable with fewer than half of interviewed pre-school facilities having these utilities. Nearly every interviewed pre-school has toys and games for children to play with, and most also have books and a television.

**Figure 12.9 Amenities provided in pre-schools (% of interviewed facilities)**



Source: Baseline survey.

**The variation in the availability of amenities by pre-school type is apparent** (Table 12.6). The 27 kindergartens interviewed are consistent in having almost all listed facilities. In particular they are likely to have buildings with hot water and indoor toilets; and all have some outdoor space where children can play, mostly including playground equipment. The proportion of interviewed kindergartens that report having items such as computers and musical instruments is twice as high as in the mini-centres. Zero classes are more likely to report having a gymnasium or hall for use by children: this may be because they are often attached to schools and share some of their facilities. In contrast they are very unlikely to have beds because the children do not attend all day. Mini-centres are as likely as other facility types to have library books, toys and a television, but less often report having infrastructure and large equipment such as hot water, a playground and a gym or hall.

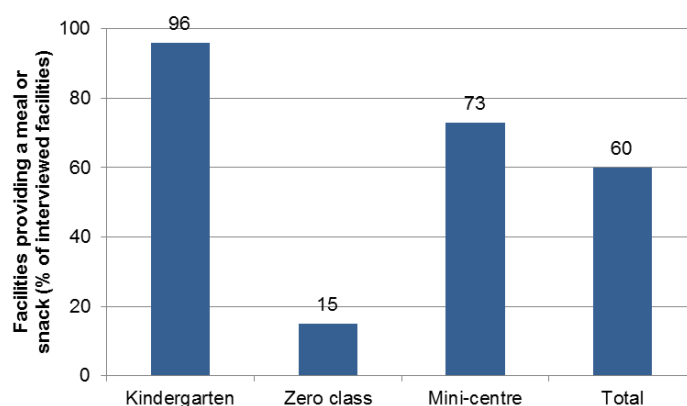
**Table 12.6 Amenities provided in pre-schools, by facility type (% of interviewed facilities)**

	Kindergarten	Zero class	Mini-centre	Total
<b>Utilities</b>				
Heating	96	93	96	95
Hot water	85	17	35	37
Drinking water	96	78	78	81
Indoor toilets	93	22	50	48
Separate toilets for boys and girls	81	81	55	66
<b>Outdoor facilities</b>				
Outdoor space	100	85	70	79
Play equipment in outdoor space	96	63	46	58
<b>Indoor facilities</b>				
Indoor gymnasium / hall	63	69	42	52
Beds	96	13	72	59
Library	85	85	83	84
Toys / games / balls	100	94	98	97
TV / DVD / Video player	96	63	89	83
Computer	70	46	30	40
Musical instruments	85	41	37	45

Source: Baseline survey. Note: Based on the unweighted sample of 27 kindergartens, 54 zero classes and 115 mini-centres.

**Almost every kindergarten provides meals for its pupils:** some 96% of interviewed kindergartens said that they provided meals, of which all offered both breakfast and lunch as well as a snack. One in four also offered an evening meal. Children attending a zero class are very unlikely to have a meal provided, which reflects the opening hours of these facilities. About three-quarters of mini-centres interviewed provided meals; mini-centres are not obliged to open all day, which may be a contributing factor as to why some offer meals while others do not.

**Figure 12.10 Facilities providing a meal or snack (% of interviewed facilities)**



Source: Baseline survey.

### 12.5.3 Activities during the school day

The different facility types provide a similar range of core lessons in terms of reading and writing, story-telling, learning numbers and drawing (Table 12.7). The proportion of interviewed zero classes that scheduled reading and writing activities is higher than in the interviewed mini-centres, perhaps because the zero class is focused exclusively on school preparation for the slightly older cohort of children eligible for the CCT. Zero classes were much less likely than the other facility types to have scheduled music or singing, watching television, playtime indoors or outdoors and sleep; this reflects the fact they are usually open for a much shorter time each day and concentrate on academic preparation. In contrast kindergartens and mini-centres report broadly similar schedules.

**Table 12.7 Activities carried out in pre-school on most recent day, by facility type (% of interviewed facilities)<sup>1</sup>**

	Kindergarten	Zero class	Mini-centre	Total
<b>Lessons</b>				
Reading / writing	59	69	48	55
Speaking	85	76	70	73
Story-telling	81	67	73	73
Numbers	67	56	54	56
Colours / drawing	78	78	75	76
Music / singing	74	47	58	57
Other lesson	38	28	34	33
Watch television / DVD	77	23	73	60
<b>Recreation</b>				
Physical exercise	89	81	91	88
Play indoors	93	58	91	83
Play outdoors	85	57	83	76
Sleep	85	57	83	76

Source: Baseline survey. Note: (1) The respondent was asked for the timetable of activities for the pre-school group containing the greatest number of sampled children, on the most recent day that the school was open.

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## PART C: CONCLUDING OBSERVATIONS

### What the findings tell us about the cleanliness of the baseline survey

The findings from the baseline survey confirm that living conditions in the treatment and control okrugs are broadly the same in almost all aspects including their consumption levels, employment status and child care arrangements. This is important because it demonstrates that one of the key design elements of the impact evaluation has been fulfilled successfully: the randomised assignment of communities to the treatment and control group has divided the 120 primary sampling units into two equivalent groups. We can therefore confidently expect that any differences between treatment and control groups at follow-up will be due to the effect of the BOTA programme.

The main exception to this at baseline has been the findings relating to pre-school enrolment, which are significantly different between treatment and control communities, with the difference being driven by the additional enrolment among BOTA beneficiary households. This is the 'anticipation effect' of the BOTA programme: households have begun to change their behaviour in this aspect in anticipation of the imminent requirement to comply with BOTA's conditionality for receiving the CCT. The effect is unexpectedly large. The evaluation team conducted further analysis to identify the determinants of this difference and to set in place the method for addressing this at follow-up. It was found that the difference is largest in communities where the gap between BOTA entering the okrug and the evaluation team conducting the baseline was greatest, i.e. where communities have had the greatest chance to prepare themselves for the forthcoming programme. When one controls for differences in time elapsed between enrolment and data collection, the difference in enrolment that was originally significant becomes insignificant. This suggests that anticipation effects are credible and real: BOTA beneficiaries are changing their behaviour in anticipation of the transfer. It also means that we have a way to model and explain—and hence to control for—the anticipation effect. We can therefore conclude that our approach to estimating effects is still valid. Accounting for the fact that the randomisation has worked very well overall, we can confidently trust that our impact evaluation approach will be able to provide reliable estimates for the overall effects on pre-school enrolment.

### The picture that emerges from the findings

The picture that emerges from the survey is one in which children eligible for the CCT programme in Almaty oblast are living with their families and being cared for predominantly by their parents and grandparents. Household members are generally well educated, with the head of the household being very likely to have completed more than nine years of schooling. The child's carer is most likely to be female; both the main and secondary carers are usually in the same household as the child, so the household rarely pays for care from someone outside the house. At home the child nearly always has at least one toy, but access to books suitable for their age is somewhat less widespread.

Just under half of children have ever been to pre-school; of those who have ever attended, four out of five are still enrolled. Dropout from pre-school is often reported to be due to the cost or because there are adults available at home to look after the child; for families whose child has never been enrolled in pre-school, similar reasons apply but it is also commonly reported to be because a facility simply does not exist. Eligible children who attend pre-school have often been to a mini-centre or a state-run kindergarten. Households are generally satisfied or very satisfied with all aspects of the quality of pre-school education that they receive and most, even those whose child is not enrolled, consider that pre-school is a beneficial preparation for school.

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Households have a variety of different income sources though many rely on just one source of income to support the family. For just under half of households the main income source is a salary; for others it may be informal employment or self-employment. Households rely quite considerably on state transfers, especially pensions, to contribute to their income; it is less common for households to receive transfers and remittances from friends or from family members outside the household, and very rare indeed for them to receive help from a non-government organisation. A substantial proportion of the adults in the household is outside the labour force altogether, neither working nor looking for work.

Eligible households have lower consumption, on average, than those for rural Almaty oblast as a whole when compared with findings from the national household survey. They also devote nearly two-thirds of their consumption expenditure to food, which is quite a high proportion, again indicating that these households are poorer than the average for the oblast and for Kazakhstan as a whole. However, the fact that only 59% of households are below the national subsistence minimum suggests that the proxy means test is not strongly targeted at the very poorest households in the oblast. The targeting accuracy will be explored further in the separate volume of the baseline survey on BOTA's operations. About half of households are currently in debt, often to a shop or market; very few have savings.

On the positive side, households mostly have a secure food supply, and their children eat regular meals from a reasonable variety of food groups. Households usually own their own home and live in fairly close proximity to public facilities such as schools, hospitals and the *akimat*.

Pregnant women living in households that also contain children eligible for the ECD programme show very high rates and frequency of attendance at antenatal visits, and good understanding of the importance of regular antenatal care. Rates of anaemia during pregnancy, though, are also quite high, and knowledge of good practice to lessen the risk of anaemia is less widespread than that for antenatal care. The proportion of interviewed households that also contain a child with a disability is very small and knowledge of good practice in caring for children with disabilities seems variable.

A large proportion of the pre-schools attended by sampled children have been revived or set up in the last five years, reflecting the national drive to increase pre-school enrolment in Kazakhstan. The conditions, facilities and activities that a child can expect on going to pre-school vary substantially according to the type of facility. Broadly speaking, state-run kindergartens have a much larger enrolment, on average, than zero class facilities or mini-centres. They usually operate for full days, have more amenities and offer a greater range of activities than other facility types. In return almost all of them charge a monthly fee, and the average fee rate is higher than for other facility types. In contrast the zero classes generally operate for half- rather than full days, and focus on academic preparation for school. They are less likely to provide recreational and social activities or meals. Almost all of them are free to attend. Mini-centres fall somewhere between these two categories. They have a much greater variation in opening hours, cost, amenities and provision of meals, reflecting the flexibility permitted to these facilities in the government regulations. In terms of size and number of staff they tend to be closer to the zero class model, while in terms of activities offered they tend to be closer to kindergartens.

## Next steps

The follow-up survey is in the field from July to November 2012 and will gather information on how households' living conditions have changed since the baseline survey whose results are presented here. The follow-up evaluation report is expected in mid-2013.

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## PART D: ANNEXES

### Annex A References

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## Annex B Glossary of terms

### B.1 Local words and phrases

<i>akim</i>	The head of a local administrative unit (okrug, rayon or oblast)
<i>akimat</i>	The office of the akim
<i>KATO</i>	The classification of territorial units of Kazakhstan that uses a 10-digit code to identify every geographical area in the country. It is defined by the state statistical agency. Its codes are used to provide consistent geographical units for the analysis and presentation of information on the country across different databases. The codes define every oblast, rayon, okrug and settlement and their relation to one another
<i>naselenny punkt</i>	lit. 'populated point', i.e. a settlement. An area where people live or conduct some kind of activity, with buildings grouped together and some infrastructure. This could be a village or town. It contains at least 50 people.
<i>oblast</i>	Highest level of territorial unit. Kazakhstan is divided into non-overlapping oblasts, with the exception of cities of at least 1 million people ('towns of significance to the republic') which have an equivalent status to an oblast.
<i>okrug</i>	Subdivision of a rayon. The whole rayon is divided into non-overlapping okrugs, governed by an akim, with the exception of medium-size towns. Towns that have at least 10,000 people, of whom at least two-thirds are in households where a member is in formal sector employment and where there is some industry, infrastructure, trade and social services ('towns of significance to the rayon') have a status equivalent to an okrug. Some okrugs consist of a single settlement, while others consist of several settlements grouped together.
<i>rayon</i>	Subdivision of an oblast. The whole oblast is divided into non-overlapping rayons, governed by an akim, with the exception of very large towns. Large towns with a population of at least 50,000 that are considered to be major economic or cultural centres ('towns of significance to the oblast') have a status equivalent to a rayon.

### B.2 CCT words and phrases

eligible	A person or household that would be accepted onto the CCT programme if they were to apply because they pass all the eligibility criteria—including the proxy means test and the existence of an RNN or other identification number—regardless of whether or not they have actually applied or been accepted
beneficiary	A person who lives within an eligible household, who is in the target category for the CCT programme (e.g. a child of pre-school age) and who has been accepted onto the programme because the household has been through the enrolment process

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proxy means test	The test that is a predictor of poverty : it estimates whether the household is poor by collecting information on variables such as ownership of certain assets that tend to be correlated with poverty. A score is attached to each of the household's responses, and those households that have a score below the defined threshold are considered to be poor.
recipient	The bank card holder who is designated to receive the cash benefit (usually the mother in the case of a pre-school-age child)

### B.3 Words and phrases used in this evaluation

eligible child / eligible household	<p>All children sampled for this evaluation pass the eligibility criteria for the BOTA CCT programme under the ECD category, though not all are enrolled.</p> <p>Throughout the report we refer to the children who are represented by the survey population, as 'eligible children'. Their households are termed 'eligible households'.</p> <p>At the baseline this is a slightly younger cohort out of all possible children eligible for the BOTA CCT, because the survey interviews households with children who will remain eligible for the CCT for a full 12 months. At follow-up it will be a slightly older cohort as the survey will interview households who have been eligible for a full 12 months.</p>
beneficiary child / beneficiary household	The children who are not only eligible but also are or have been enrolled in the BOTA programme—about 50% of those eligible—are classified as 'beneficiary children'. Their households are termed 'beneficiary households'.
treatment okrug	A treatment okrug is one where BOTA began to administer the CCT programme after the baseline survey was completed.
control okrug	A control okrug is one where BOTA is not operating.



## Annex C Additional information on section 1: The CCT programme

### C.1 Categories of beneficiary

**Table C.1 Categories of beneficiary at time of baseline, and conditions for receipt of transfer**

Category	Definition	Value (KZT) <sup>1</sup>		Condition for receipt
All				To be eligible for receipt of transfer a household must: - receive a score below the designated cut-off in the proxy means test (PMT) - have access to a bank account - have an official identification number - fit one of the categories described below
Pre-school children	Children aged 4 upwards, up until 31 August after their 6th birthday. The children are eligible to start Class 1 on 1 September after their 6th birthday, and cease to receive payments at this point.	2,700 (or 3,300 since 1 Jan 2011)	Monthly	No condition for the first payment. From the second month onwards the child must: - be enrolled in a pre-school facility which may be registered or unregistered but which is run by a qualified teacher - attend for 85% of days that the school is open, or have an acceptable excuse for absence if attendance is lower
Pregnant and lactating women	Women who are pregnant and have written confirmation of the pregnancy from a doctor. Women may continue to receive payments until the infant reaches 6 months old. The latest date for a woman to be eligible for enrolment on the programme is with an infant aged 3 months old.	3,900 (or 4,700 since 1 Jan 2011)	Monthly	No condition for the first payment. To receive the second payment onwards the woman must, in the previous two months, have: - made an antenatal / postnatal visit to the doctor - attended classes on good antenatal / postnatal practices given by BOTA volunteer
Children with disabilities	Children up until their 16th birthday who have a certificate of disability from a doctor and who are cared for at home rather than in a residential institution.	2,700 (or 3,300 since 1 Jan 2011)	Monthly	No condition for the first payment. To receive the second payment onwards the carer must, in the previous two months, have attended classes on home-based care given by BOTA volunteer

Note: (1) Value shown is for Kyzylorda and Akmola.

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## **C.2 The role of the oblast teams**

BOTA's central office staff set up teams in the oblast where they operate. For Akmola and Kyzylorda these are regional offices of BOTA itself; in Almaty the organisation subcontracts two local NGOs as its partners. The teams introduce the programme to oblast and rayon akims, and recruit and train the community volunteers (see section C.3 below). Enrolment specialists from the oblast teams spend from about the 1st to the 20th of each month actively enrolling beneficiaries in communities—including administering the proxy means test, and obtaining copies of identity documents and other information required to issue the bank card—and the remainder of their time on office-based administration including entering information into the management information system about both applicants and existing beneficiaries.

## **C.3 The role of the volunteer**

The focal points for the CCT programme at the local level are the community volunteers. They help to disseminate information about the programme among the community, inform potential beneficiaries about the enrolment process, and alert the oblast enrolment specialists when there is a new group of applicants ready to be enrolled. They provide the training in home-based care for children with disabilities and in good practices for pregnant and lactating women, attendance at which forms part of the conditionality for receipt of the CCT benefit by households in those categories. They also support the monitoring of compliance with other conditions such as attendance at pre-school facilities by children enrolled on the ECD programme.

Volunteers tend to be women who work in the community in which they live. Although they do not earn a salary they do receive a small monthly stipend to cover their expenses. They also receive training in how to carry out their duties as well as in the modules that they subsequently teach to recipient households.

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## Annex D Sampling methodology and survey weights

**This annex describes the evaluation methodology and sampling strategy for the quantitative survey.** It presents the anticipated sample size at baseline and follow-up, and the actual sample achieved at baseline. It also provides detail on the construction of the survey weights used in the analysis.

**The process of selecting how many households to interview, and which ones, consisted of three broad tasks subdivided here into 10 stages.** The tasks are:

1. The selection of a sample of geographical areas for the evaluation, from amongst all the okrugs in Almaty oblast.
2. The random allocation of communities to either treatment or control status.
3. The selection of a sample of those eligible households for interview.

Table D.1 presents the sample frame for the quantitative evaluation.

### D.1 Task 1: Cluster sampling

**BOTA's initial priority for the rollout of the CCT programme in Almaty oblast is to maximise the coverage of the eligible population in small and medium-sized rural areas.** These are the areas for which BOTA considers its programme design to be best suited since it can take advantage of the familiarity of the programme volunteers with their local community and can identify potential applicants relatively easily. In larger rural areas and in urban areas, where the community structure is less cohesive, BOTA believes that it is harder both to recruit volunteers and to identify and enrol eligible households. BOTA remains committed to enrolling eligible households in those densely populated areas but did not do so at the time of the baseline evaluation. The CCT programme is being rolled out by okrug in Almaty oblast.

**The quantitative evaluation will therefore measure the impact of the CCT programme in these small and medium-sized rural areas.** All other areas are excluded from the sample frame for the evaluation by agreement with BOTA. The selection of the sample of okrugs proceeded as follows.

- In **Stage 1** the three regions classified by the state statistical agency as 'towns of significance to the oblast'—Taldykorgan, Kapshagay and Tekeli—were excluded from the sample frame as these are heavily urbanised.
- In **Stage 2** 19 additional okrugs were excluded from the sampling frame as a consequence of either having a population of more than 15,000, or at least one settlement with a population of at least 10,000.
- In **Stage 3** the remaining 226 okrugs were matched in 113 pairs according to a multidimensional measure of distance based on socio-economic characteristics. Each pair is composed of two okrugs, the most similar on the basis of available information. This is to ensure balance in covariates across treatment and control okrugs<sup>22</sup>.

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<sup>22</sup> Okrugs were matched on the basis of the following characteristics: population size, average household size, average number of people living in a room, average number of living squared meters per individual, rayon capital, distance to the rayon centre and a set of rayon dummies. At every step of the matching algorithm all possible pairs were formed from all (remaining) okrugs, and the pair was selected with the minimum multidimensional distance and extracted from the universe before the next iteration.

**Table D.1 Outline of the sampling strategy**

Sampling Units	Domain	Strata	Number of Units Selected	Selection method	Implementation	Total Sample Size
Regions	Almaty oblast	Towns of significance to the oblast	0	All 3 are excluded from the study (urban areas)		0
		Rayons	16	Selected with certainty	Done by OPM	16
Administrative-territorial unit below level of region	All 16 selected rayons	Towns of significance to the rayon	0	All 7 are excluded from the study (urban areas)		0
		Rural okrugs with total population >15,000	0	All 13 are excluded from the study (densely populated areas)		0
		Rural okrugs with at least 1 settlement of >10,000 population	0	All 6 are excluded from the study (densely populated areas)		0
		Pairs where one element is an okrug where BOTA had already entered at the time of drawing the sample	0	All 3 pairs (6 okrugs) are excluded from the study		0
		All 220 other rural okrugs	60 T, 60 C	Paired and selected with probability proportional to size (sum of the two elements of the pair)	Done by OPM	60 T, and 60 C clusters (some large okrugs have randomly been selected twice, so this translates into 54 T and 54C unique locations)
Households with children eligible for CCT (pre-school category)	All 108 selected rural okrugs	Households with children who are eligible for CCT for the full 12 months between baseline and follow-up surveys	10 per okrug (baseline); 20 per okrug (follow-up)	Simple random sampling	Automatic excel sampling sheet	1,200 (baseline); 2,400 (follow-up)
		Households with children who are eligible for CCT for some but not all of the full 12 months between baseline and follow-up surveys	0	Excluded from the study (no possibility to assess impact at follow-up if they have ceased to receive the benefit by then)		0
Pregnant and lactating women	All households selected in the previous step	All pregnant women or women with infants under 6 months at time of baseline survey	All of them	Selected with certainty	To be done by the field teams	As many as found in households of sampled children
Pre-school facilities	All those attended by children selected in the previous step	All pre-school facilities (government and private)	All of them	Selected with certainty	To be done by the field teams	As many as attended by sampled children

Source: OPM.

- In **Stage 4** three pairs (six okrugs) were dropped as BOTA had already launched the CCT programme in one element of the pair.
- In **Stage 5** a random sample of 60 pairs of Primary Sampling Units (PSU) (120 PSUs at the level of the okrug) was drawn from a universe of 110 pairs (composed of 220 out of the total 262 administrative units in Almaty oblast). The sample of PSUs was drawn using the method of Probability Proportional to Size' (PPS), with the size of each pair given by the sum of the population of the two elements of the pair. The result is that a few pairs of okrugs with large populations were randomly selected twice, so the total number of okrugs included in the evaluation is 108 (54 pairs) rather than 120 (60 pairs).

Table D.1 above summarises the criteria applied in the exclusion of okrugs. The study will be representative of all places that were not excluded from the sample frame, i.e. all rural okrugs with a population of less than 15,000, and where there are no single settlements with a population of at least 10,000, and where BOTA has not begun recruitment of volunteers at the time of this sample design.

## D.2 Task 2: Random allocation of okrugs to treatment and control

In **Stage 6** for each pair one element was randomly assigned to treatment and the other element to control. In treatment okrugs the CCT programme began payments immediately after the evaluation baseline survey was conducted. In control okrugs the CCT programme will not operate for the duration of the evaluation. An okrug cannot simultaneously be both a treatment and a control okrug. Areas that have not been selected as either treatment or control remain entirely outside of the evaluation. BOTA will proceed with rollout in those areas as it deems suitable.

## D.3 Task 3: Selection of households and pre-school facilities

- **Stage 7** is not a sampling stage but an activity to construct a **sample framework** for child selection via a **listing operation**. On the basis of the lists available from the okrug *akimat*, children in the relevant age group (see below) were listed and their households visited<sup>23</sup>. Approximately 72 children were visited at the listing stage in each selected okrug (144 in okrugs that were sampled twice). For each household containing a selected child the information contained in the BOTA CCT proxy means Test was collected with the purpose of determining household eligibility for the programme (both in treatment and control okrugs). After data on the household characteristics collected at the listing stage was entered and PMT scores calculated, a list of eligible children was produced for every okrug.
- **Stage 8**: a random sample of children was drawn from amongst *eligible* children and the households of sampled children are then visited for interview. The evaluation is looking at the impact of the programme on children in eligible households because that group can be defined in both treatment and control areas. 'Eligible households' thus include those that contain a child in the appropriate pre-school age to receive the CCT (see section D.3.1 below) and that pass the programme PMT and thus would be eligible to enrol even if they have not in fact applied for

<sup>23</sup> A list of every child in an okrug is collected at least once a year—and it seems usually twice, in September and January—by the schools in that okrug. Each school is given a number of streets, a *mikrouchastok*, in which the teachers must knock on the door of every household and list the number of children living there. The list includes the name of the child and the parent, the year (and sometimes month and day) of birth, the address, and a note of which school the child is attending, or whether the child is attending pre-school. Often these lists are collated by the rayon education department; in some instances they remain at the level of the school. The quality of the lists was found to vary from one okrug to another but, in general, they give a good picture of the number of children of pre-school age in the okrug and their location.

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the benefit. For example, there might be some poor households with children of the right age group who could not afford to reach the CCT enrolment location or who were not available on the day of registration<sup>24</sup>.

- **Stage 9** of the sampling process took place during the household interview. At this stage the team identified all pregnant women or women with infants under six months residing in households containing sampled children that are eligible for the ECD category of the CCT programme. All of these were interviewed with the module of the quantitative household questionnaire relevant to pregnant and lactating women.
- **Stage 10:** the field teams identified all pre-school facilities attended by sampled children and administered the facility questionnaire to those facilities.

### D.3.1 Age eligibility for the evaluation of the pre-school CCT

**The age category of children whose households are eligible for the ECD transfer is not strictly those 'aged 4–6'.** Previously the discussion of which children are eligible for the ECD transfer had referred to that age group. This implies that three years' worth of children in poor households are potentially eligible for the transfer. In fact, the number of children eligible for the transfer is much smaller; and the number who are eligible to receive a full 12 months of transfer in the first year of the programme which we are evaluating is smaller still (Table D.2 and Table D.3):

- Children born between September 2004 and August 2005 were only eligible for a few months of transfers until 31 August 2011; they then started Class 1;
- Children born between September 2005 and August 2006 will be eligible for transfers until 31 August 2012. So if they live in okrugs where enrolment takes place before August 2011 they can receive the full 12 months of transfers in the first year of the programme; if enrolment takes place late in 2011 they will receive less than a year's worth of transfers;
- Children born after September 2006 will gradually become eligible for transfers as they reach their fourth birthday from September 2010 onwards. If they live in okrugs where initial enrolment takes place before their fourth birthday they will need to be picked up in a later phase of enrolment.
- Thus, if enrolment takes place in an okrug in March 2011, the children who will be eligible in that month to receive a full 12 months of transfers are born within a span of only 19 months, between September 2005 and March 2007, not 36 months as might be supposed. An okrug that is enrolled in October 2011 will only be able to provide 12 months of transfers to children born with the space of just 13 months, between September 2006 and October 2007—nearly two-thirds fewer children than had been supposed.

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<sup>24</sup> There is a risk that if BOTA's programme reaches only a small proportion of eligible households in treatment areas, i.e. there is low coverage, then the detected impact will be reduced. This is because the evaluation would be assessing the impact of the programme on people who did not receive any money. BOTA has mitigated this risk by proposing the reduction in the size of the sample frame using the exclusion criteria outlined above, to make it easier for them to reach all eligible households. Once BOTA has completed its enrolment OPM will assess the share of households in the evaluation sample that have been captured by BOTA. OPM may consider passing on details of non-enrolled but potentially eligible households if it seems that not enough of them have been enrolled to make the evaluation effective.

**Table D.2 Eligible dates of birth for CCT programme**

Date of birth		Month of enrolment and baseline survey 2011																			
Year	Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec										
2004	Jan	Not eligible for CCT - already in school																			
2004	Feb																				
2004	Mar																				
2004	Apr																				
2004	May																				
2004	Jun																				
2004	Jul																				
2004	Aug																				
2004	Sep	YES ELIGIBLE						Not eligible - already in school													
2004	Oct																				
2004	Nov																				
2004	Dec																				
2005	Jan																				
2005	Feb																				
2005	Mar																				
2005	Apr																				
2005	May	YES ELIGIBLE																			
2005	Jun																				
2005	Jul																				
2005	Aug																				
2005	Sep																				
2005	Oct																				
2005	Nov																				
2005	Dec																				
2006	Jan																				
2006	Feb																				
2006	Mar	YES ELIGIBLE																			
2006	Apr																				
2006	May																				
2006	Jun																				
2006	Jul																				
2006	Aug																				
2006	Sep																				
2006	Oct																				
2006	Nov																				
2006	Dec																				
2007	Jan											YES ELIGIBLE									
2007	Feb																				
2007	Mar																				
2007	Apr																				
2007	May																				
2007	Jun																				
2007	Jul																				
2007	Aug																				
2007	Sep																				
2007	Oct	Not eligible - too young																			
2007	Nov																				
2007	Dec																				
2007	Dec																				

**Table D.3 Transfers a beneficiary will receive in first year, by date of birth**

Date of birth		Month of registration 2011																		
Year	Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec									
2004	Jan																			
2004	Feb																			
2004	Mar																			
2004	Apr																			
2004	May																			
2004	Jun																			
2004	Jul																			
2004	Aug																			
2004	Sep																			
2004	Oct																			
2004	Nov																			
2004	Dec																			
2005	Jan																			
2005	Feb											6	5	4	3	2	1			
2005	Mar																			
2005	Apr																			
2005	May																			
2005	Jun																			
2005	Jul																			
2005	Aug																			
2005	Sep																			
2005	Oct																			
2005	Nov																			
2005	Dec																			
2006	Jan																			
2006	Feb											12						11	10	9
2006	Mar																			
2006	Apr																			
2006	May																			
2006	Jun																			
2006	Jul																			
2006	Aug																			
2006	Sep																			
2006	Oct											12	12	12	12	12	12	12	12	12
2006	Nov																			
2006	Dec																			
2007	Jan											12	12	12	12	12	12	12	12	12
2007	Feb																			
2007	Mar																			
2007	Apr											12	12	12	12	12	12	12	12	12
2007	May																			
2007	Jun																			
2007	Jul																			
2007	Aug																			
2007	Sep																			
2007	Oct																			
2007	Nov																			
2007	Dec																			



The evaluation is to attempting to measure the impact of the programme on households that have been eligible for the programme for the whole year between the baseline and follow-up survey. This is because for those that only receive the transfer for part of the period, many of the survey modules will not be applicable. For instance, attempting to detect a change in a household's consumption between baseline and follow-up will not be possible if they have already stopped receiving the cash transfer by the time of the follow-up survey (this is particularly important for areas such as consumption, where much of the impact might be expected to be found). Only those children in the right age range for the purposes of the evaluation are thus identified and selected for PMT from the *mikrouchastok* lists.

## D.4 Data collection

**Data were collected on a rolling basis between Apr 2011 and Dec 2011.** In each okrug the teams conducted the listing operation to obtain PMT data and then drew the sample and conducted interviews. Listing operations took place between April 2011 and December 2011. Household interviews took place between June 2011 and December 2011. In each okrug household interviews were conducted as soon as possible after listing operations were completed and PMT scores calculated and sample drawn. Normally this was within one month but in some cases it was between one and two months, and in very few cases just over two months.

## D.5 Sample size

**The sample design was intended to give an overall household sample size of 1200 at baseline, and 2400 at follow-up.** The full sample was drawn at baseline, even though only half of sample households were interviewed at baseline. This is because the baseline is intended solely to test that the randomisation has worked. The full sample will be interviewed at follow-up.

Table D.4 presents the intended sample size disaggregated by treatment and control; Table D.5 presents the actual sample size at baseline.

**Table D.4 Intended sample size at baseline and follow-up (households)**

Households	Treatment	Control	Total
Baseline	600	600	1200
Follow-up	1200	1200	2400

Source: OPM.

**Table D.5 Actual sample size at baseline (households)**

Cluster type	Completed interviews
Treatment	589
Control	584
<b>Total</b>	<b>1173</b>

Source: OPM.

**Not all households containing sampled children achieved a completed interview.** For those that did not a replacement was randomly selected from the same okrug, where available, in order to maintain the required sample size. At baseline the replacement rate for household interviews was 7%. Reasons for non-interview are presented in Table D.6.

**Table D.6 Reasons for replacement at baseline**

Reason	Number of replacements
Household could not be found	2
Refused	14
Household temporarily unavailable	7
Household away for extended period	53
Household moved away	23
Child moved to different household	1
<b>Total</b>	<b>100</b>

Source: OPM.

In addition to the replacements made during the household interview process, a large number of replacements were made for households selected to PMT. This was predominantly due to inaccuracies in the listing sample frame provided by the *mikrouchastok* lists. These inaccuracies included things like incorrect dates of birth or address information for children, or children who had moved away. At listing the replacement rate was consequently 21%, with 78% of these cases (2076 out of 2650) being explained by errors in the sample frame. A breakdown of the reasons for replacement at listing is given in Table D.7 below.

**Table D.7 Reasons for replacement at listing**

Reason	Proportion of all non-interviews (%)	Number of replacements
Partially complete	0.2%	4
Household could not be found	41.4%	1097
Refused	2.8%	75
Household temporarily unavailable	2.2%	57
Household away for extended period	16.1%	426
Household moved away	27.3%	723
Child wrong age	9.7%	256
Other	0.5%	12
<b>Total</b>	<b>100%</b>	<b>2650</b>

## D.6 Survey weights

The sampling weights are used to extrapolate from the answers that we get from our survey respondents, to produce estimates for all households containing the same type of eligible child. For this analysis two sets of weights are constructed: child-level weights and household-level weights. The former produce estimates that are weighted to be representative of all *children* of the appropriate age (see section D.3.1 above) that live in households that are eligible for the programme according to the programme PMT, living in Almaty oblast in rural okrugs with a population of less than 15,000, and where there are no single settlements with a population of at least 10,000, and where BOTA has not begun recruitment of volunteers at the time of the sample design in February 2011.

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The latter produce estimates that are weighted to be representative of all **households containing** children of the appropriate age (see section D.3.1 above) that live in households that are eligible for the programme according to the programme PMT, living in Almaty oblast in rural okrugs with a population of less than 15,000, and where there are no single settlements with a population of at least 10,000, and where BOTA has not begun recruitment of volunteers at the time of the sample design.

Child weights are given by the inverse probability of being selected:

$$w_i = 1 / [ (a_i/A_i) * (b_i/a_i) * (c_i/b_i) * D_i ]$$

Where:

- $A_i$  is the total number of children of eligible age for the evaluation study in okrug  $i$
- $a_i$  is the number of children of eligible age for the evaluation study selected for PMT in okrug  $i$
- $b_i$  is the total number of children of eligible age for the evaluation study residing in households eligible by PMT in okrug  $i$
- $c_i$  is the total number of children of eligible age for the evaluation study residing in households eligible by PMT with completed household interview data in okrug  $i$
- $D_i$  is the selection probability of okrug  $i$ .

Household weights are constructed using the same formula but substituting the number of *households containing* children of eligible age for the evaluation study, as opposed to the number of *actual* children of eligible age for the evaluation study, for the relevant nominators and denominators.

In the case of household weights the sample frame did not provide data for  $A_i$ , so this has been imputed using the ratio of households to children at  $a_i^{25}$ .

### **D.6.1 Pregnant and lactating women and disabled children aged 0-16**

Due to the small and, at the time of sampling, unknown sample size for the two other population groups eligible for support by the BOTA CCT programme, pregnant and lactating women and disabled children aged 0-16, no survey weights are used for descriptive statistic estimates for these two groups. The analysis simply reports mean proportions and mean values for relevant indicators over the achieved sample and estimates are not representative of any broader populations.

### **D.6.2 Facility weights**

The facilities interviewed in the sample were a function of the children sampled for interview and the facilities which they declared themselves to be attending at the time of interview. As such, defining weights for facility-level data is difficult and would implicitly reflect a particular analytical choice. In the analysis conducted for the evaluation the choice is made to read facility-level information down to child level (by linking facility data to children attending those facilities) and is thus analysed as child-level data using child weights.

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<sup>25</sup> For pre-school-age children the only sample frame available to the evaluation team within the given resource framework was that provided by the *mikrouchastok* lists of all children in each okrug. These lists detail all children residing in the okrug, but do not delineate between particular households – i.e. a small percentage of households in each okrug do in fact contain multiple children of eligible age, implying a slightly lower number of households than there were children on the list in each okrug.

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## Annex E Calculation of consumption and poverty rates

### E.1 The choice of the welfare indicator

Poverty involves multiple dimensions of deprivation, such as poor health, low human capital, limited access to infrastructure, malnutrition, lack of goods and services, inability to express political views or profess religious beliefs, etc. Each of them deserves separate attention as they refer to different components of welfare, and indeed may help policy makers to focus attention on the various facets of poverty. Nonetheless, often there is a high degree of overlapping: a malnourished person is also poorly educated and without access to health care.

Research on poverty over the last years has reached some consensus on using economic measures of living standards and these are routinely employed on poverty analysis. Moreover, income-based poverty indicators are the basis to monitor the first of the Millennium Development Goals. Although they do not cover all aspects of human welfare, they do capture a central component of any assessment of living standards. The main decision is to make the choice between income and consumption as the welfare indicator. Consumption is the preferred measure because it is likely to be a more useful and accurate measure of living standards than income. This preference of consumption over income is based on both theoretical and practical issues.

The first theoretical consideration is that both consumption and income can be approximations to utility, even though they are different concepts. Consumption measures what individuals have actually acquired, while income, together with assets, measures the potential claims of a person. Second, the time period over which living standards are to be measured is important. If the interest is the long-run, as in a lifetime period, both should be the same and the choice does not matter. In the short-run though, say a year, consumption is likely to be more stable than income. Households are often able to smooth out their consumption, which may reflect access to credit or savings as well as information on future streams of income. Consumption is also less affected by seasonal patterns than income, for example, in agricultural economies, income is more volatile and affected by growing and harvest seasons, hence relying on that indicator might over or underestimate significantly living standards.

On the other hand, there are practical arguments to take into account. First, consumption is generally an easier concept than income for the respondents to grasp, especially if the latter is from self-employment or own-business activities. For instance, workers in formal sectors of the economy will have no problem in reporting accurately their main source of income, i.e. their wage or salary. But people working as self-employed, in informal sectors or in agriculture will have a harder time coming up with a precise measure of their income. Often is the case that household and business transactions are intertwined. Besides, as it was mentioned before, seasonal considerations are to be included to estimate an annual income figure. Finally, we also need to consider the degree of reliability of the information. Households are less reluctant to share information on consumption than on income. They may be afraid that income information will be used for different purposes, say taxes, or they may just consider income questions as too intrusive. It is also likely that household members know more about the household consumption than the level and sources of household income.

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## **E.2 The construction of the consumption aggregate**

The consumption aggregate as an indicator of household welfare has been created to be as comprehensive as possible given the available information. Indeed, omitting some components assumes that they do not contribute to people's welfare or that they do not affect the rankings of individuals. Second, market and non-market transactions are to be included, which means that purchases are not the sole component of the indicator. Third, expenditure is not consumption. For perishable goods, mostly food, it is usual to assume that all purchases are consumed. But for other goods and services, such as housing or durable goods, corrections have to be made. Lastly, the consumption aggregate comprises five main components: food, non-food, housing, durable goods and energy. The specific items included in each component and the methodology used to assign a consumption value to each of these items is outlined below.

### **E.2.1 Food component**

The food component can be readily constructed by simply adding up all consumption per food item, previously normalized to a uniform reference period, and then aggregating all food items per household. The BOTA 2011/2012 baseline survey records information on food consumption at the household level for 78 items, organized in 8 categories: bread, bakery and grain products; meat and offal; fish and fish products; milk, cheese and eggs; butter, oils and fats; vegetables; other.

For each item interviewers collect information on quantity consumed and total value of the goods consumed with a recall period of seven days before the interview. All possible sources of consumption are included. This means that the food component comprises not only expenditures on purchases in the market or on meals eaten away from home but also food that was produced by the household itself or received as a gift.

### **E.2.2 Non-food component**

As in the case of food, non-food consumption is a simple and straightforward calculation. Again, all possible sources of consumption must be included and normalized to a common reference period. The BOTA baseline survey collects information on the total value consumed of each of 72 items arranged in 16 different groups such as utilities, communication, washing and toiletries, transportation, animals, medicines and health, home, services and rituals, toys and dolls, clothing and accessories, textiles, home and kitchen, transportation, education, other.

Practical difficulties arise often for the choice of items to include in non-food consumption. The rule of thumb is that only items that contribute to the consumption are to be included. For instance, clothing, footwear, beauty articles and recreation are included. Others such as taxes are commonly excluded because they are not linked to higher levels of consumption: households paying more taxes are not likely to receive better public services.

The case for lumpy or infrequent expenditures like marriages, dowries, births and funerals is more difficult. Given their sporadic nature, the ideal approach would be to spread these expenses over the years and thus smooth them out, otherwise the true level of welfare of the household will probably be overestimated. Lack of information prevents us to do that, so they are left out from the estimation. Finally, remittances given to other households are better excluded. The rationale for this is to avoid double counting because these transfers almost certainly are already reflected in the consumption of the recipients. Hence including them would increase artificially living standards.

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Two non-food categories deserve special attention: education and health. In the case of education there are three issues to consider. First, some argue that if education is an investment, it should be treated as savings and not as consumption. Benefits from attending school are distributed not simply during the school period but during all years after. Second, there are life-cycle considerations, educational expenses are concentrated in a particular time of a person's life. Say that we compare two individuals that will pay the same for their education but one is still studying while the other finished several years ago. The current student might seem as better-off but that result is just related to age and not to true differences in welfare levels. One way out would be to smooth these expenses over the whole life period. Third, we must consider the coverage in the supply of public education. If all population can benefit from free or heavily subsidized education and the decision of studying in private schools is driven by quality factors, differences in expenditures can be associated with differences in welfare levels and the case for their inclusion is stronger. Standard practice was followed and educational expenses were included in the consumption aggregate. Excluding them would have made no distinction between two households where there are children of school age but only one had been able to send them to school.

Health expenses share some of the features of education. Expenditures on preventive health care could be considered as investments. Differences in access to publicly provided services may distort comparisons across households. If some sectors of the population have access to free or significantly subsidized health services, whereas others have to rely on private services, differences in expenditures do not correspond to differences in welfare. But there are other factors to take into account. First, health expenditures are habitually infrequent and lumpy over the reference period. Second, health may be seen as a "regrettable necessity", i.e. by considering in the welfare indicator the expenditures incurred by a household member that was sick, the welfare of that household is increased when in fact the opposite has happened. Third, health insurance can also distort comparisons. Insured households may register small expenditures when some member has fallen sick, while uninsured ones bigger amounts. It was decided to include health expenses because, as in the case of education, their exclusion would imply making no distinction between two households, both facing the same health problems, but only one paying for treatment.

The second difficulty regarding non-food consumption is related with the election of the recall period. The key aspect to consider is the relationship between recall periods and frequency of purchases. Many non-food items are not purchased frequently enough to justify a weekly or monthly recall period, exceptions being for instance toiletries, beauty articles and payment of utilities, hence generally recall periods are the last quarter or the last year. The recall period is different for different items. The recall period is last thirty days before interview for those items which are most frequently used by the household and last month before interview for those items which are relatively less frequently consumed. The recall period is last year from interview for items which are occasionally purchased and consumed. When the expenditure of these items is aggregated, they are homogenised in monthly terms.

### **E.2.3 Utilities**

The final non-food component that justified special attention was energy, meaning basically expenditures on heating and electricity. Kazakhstan is a country that endures extreme weather conditions; this means that heating becomes a basic and essential necessity for households all over the country, and in some cases it could be a very significant and important component of their consumption. The BOTA baseline survey collects both information on purchases and self-reported valuations of goods and services obtained for free in the consumption module and on monthly household expenses for electricity, gas, hot water, waste disposal in a specific module. Information for both modules is combined to obtain housing utilities consumption.

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## E.2.4 Housing and durable goods

Housing conditions are considered an essential part of people's living standards. Nonetheless, in most developing countries limited or nonexistent housing rental markets pose a difficult challenge for the estimation and inclusion of this component in the consumption aggregate. As in the case of durable goods, the objective is to try to measure the flow of services received by the household from occupying its dwelling. When a household rents its dwelling, and provided rental markets function well, that value would be the actual rent paid. In Kazakhstan, the housing value for households who own their dwelling cannot be determined based upon information from renters because very few cases reported renting their dwellings. Therefore, we decided to exclude the flow of services received by the household from occupying its dwelling from the consumption of the household for all the households in the sample.

Another component of the welfare of the households that we were not able to include in our estimate of consumption aggregates is the welfare deriving from durable goods. Given that these goods last typically for many years, the expenditure on purchases is not the proper indicator to consider. The right measure to estimate, for consumption purposes, is the stream of services that households derive from all durable goods in their possession over the relevant reference period. This flow of utility is unobservable but it can be assumed to be proportional to the value of the good. BOTA baseline survey collected information on purchase of durable goods in the last month, three month, and in the last year but did not collect specific information on the current value and age of durable goods purchased and already owned by the household. Therefore, our consumption aggregate estimate includes neither the flow of services from durable goods as we were not able to compute it properly nor the value of durable goods purchased by the household since, as said, this is not the proper indicator to consider.

## E.2.5 Price adjustment

The BOTA Baseline Survey was conducted over an extended period of time and, consequently, households face different prices across raions and okrugs over the period. Therefore, in order to properly measure living standards, expenditure values need to be corrected for such differences using price indices. A price index consists of two components: prices and budget shares that attach the proper weights to prices. It follows price indices will vary because of differences in prices or in consumption patterns.

The household survey provides information on budget shares for all items but information on average prices paid by the household only for food items. A Paasche price index at the cluster level was constructed combining information from the BOTA Baseline survey and the national consumer price index. Clusters are comprised on average by 11.8. Households within a cluster are likely to face similar prices and have similar consumption patterns. The Paasche price index for the primary sampling unit is obtained with the following formula:

$$p_i^P = \left[ \sum_{k=1}^n w_{ik} \left( \frac{p_{ik}}{p_{0k}} \right)^{-1} \right]^{-1}$$

where  $k$  is one of the  $n$  goods considered for the index,  $w_{ik}$  is the budget share of good  $k$  in the primary sampling unit  $i$ ,  $p_{ik}$  is the median price of good  $k$  in the primary sampling unit  $i$ , and  $p_{0k}$  is the national median price of good  $k$ .

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In the case of food, average budget shares for each food item were matched with the average prices paid. In the case of non-food, the average non-food shares were provided by the BOTA Baseline survey, whereas the average price was provided by national non-food indices. The Agency of Statistics of the Republic of Kazakhstan provides price indices for the following categories of items: Clothing and footwear; Housing, water, electricity, gas and other fuels; furnishings, household equipment and routine household maintenance; health; transport; communication; recreation and culture; education; restaurants and hotels; miscellaneous goods and services. To exploit all the available information we divided non-food items available from BOTA Baseline survey in groups corresponding to the above listed categories and compute non-food share for each sub-group of items.

## **E.2.6 Household composition adjustment**

The final step in constructing the welfare indicator involves going from a measure of standard of living defined at the household level to another at the individual level. Ultimately the concern is to make comparisons across individuals and not across households. Consumption data are collected typically at the household level, so computing an individual welfare measure generally is done by adjusting total household consumption by the number of people in the household, and assigning that value to each household member. Common practice when doing this is to assume that all members share an equal fraction of household consumption; however, as will be explained later, that is a very particular case.

Two types of adjustments have to be made to correct for differences in composition and size. The first relates to demographic composition. Household members have different needs based mainly on their age and gender, although other characteristics can also be considered. Equivalence scales are the factors that reflect those differences and are used to convert all household members into “equivalent adults”. For instance, children are thought to need a fraction of what adults require, thus if a comparison is made between two households with the same total consumption and equal number of members, but one of them has children while the other is comprised entirely by adults, it would be expected that the former will have a higher individual welfare than the latter. Unfortunately there is no agreement on a consistent methodology to calculate these scales. Some are based on nutritional grounds—a child may need only 50% of the food requirements of an adult—but it is not clear why the same scale should be carried over non-food items. It may very well be the case that the same child requires more in education expenses or clothing. Others are based on empirical studies of household consumption behavior, although with more analytical grounds, they do not command complete support either.

The second adjustment focuses in the economies of scale in consumption within the household. The motivation for this is the fact that some of the goods and services consumed by the household have characteristics of “public goods”. A good is said to be public when its consumption by a member of the household does not necessarily prevent another member to consume it too. Examples of these goods could be housing and durable goods. For example, one member watching television does not preclude another for watching too. Larger households may spend less to be as well-off as smaller ones. Hence, the bigger the share of public goods in total consumption, the larger the scope for economies of scale. In contrast private goods cannot be shared among members: once they have been consumed by one member, no other can. Food is the classic example of a private good. It is often pointed out that in poor economies, food represents a sizeable share of the household budget and therefore in those cases there is little room for economies of scale.

Both adjustments can be implemented using the following approach:



$$AE = (A + \alpha K)^\theta$$

where AE is the number of adult equivalents of the household, A is the number of adults, K the number of children,  $\alpha$  is the parameter that measures the relative cost of a child compared to an adult and  $\theta$  represents the extent of the economies of scale. Both parameters can take values between zero and one. It is been reported that in developing countries, children are relatively cheaper than adults, perhaps with values of  $\alpha$  as low as 0.3, while in developed ones values are closer to one. At the same time, in poorer economies food is often the most important good in the household consumption, and given that is a private good, the budget share of public goods is limited and so is the scope for economies of scale, perhaps with  $\theta$  close to 1, whereas in richer countries around 0.75.

It was mentioned that standard practice is to use a per capita adjustment for household composition and that is also followed here. This is a special case of the above formulation, it happens when  $\alpha$  and  $\theta$  are set equal to one, so children consume as much as adults and there is no room for economies of scale. In other words, all members within the household consume equal shares of the total consumption and costs increase in proportion to the number of people in the household. In general, per capita measures will underestimate the welfare of households with children as well as larger households with respect to families with no kids or with a small number of members respectively.

In this report, the household has been adjusted using the "OECD-modified scale". This equivalence scale, first proposed by Haagenars et al. (1994), assigns a value of 1 to the household head, of 0.5 to each additional adult member and of 0.3 to each child. A more simplistic approach is to make only adjustments in household size for economies of scale ( $A$  and  $\alpha$  are equal to one). This is the approach in the equivalence scale used by Kazakhstan National Statistical Agency, based solely on household size, defined in Table E.1.

**Table E.1 National Statistical Agency equivalence scale**

Household size	Equivalent household size	Implied Economies of Scale
1	1.00	
2	1.69	0.758
3	2.16	0.701
4	2.81	0.746
5	3.767	0.824
6	3.767	0.740
7	3.767	0.682
8 or more	3.767	0.638 (for 8)

Source: National Statistical Agency.

### E.3 Basic poverty measures

The simplest aggregation of individual poverty statistics is the headcount measure, which counts the number of individuals in poverty in the sample. In addition to the simple headcount measure, it is also instructive to calculate both the **Poverty Gap Index** and the **Severity of Poverty Index**, both of which are of the *Foster, Greer and Thorbecke* (1984) class of poverty measures.

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## Poverty gap index

The poverty gap index is a measure of the gap between the living standards of those people identified as poor and the poverty line, measured as a proportion of the poverty line. The poverty gap is by definition 0 if the individual is above the poverty line, while for individuals in poverty, is defined as:

$$P_1 = \frac{1}{N} \sum_{i=1}^n \left\{ \frac{z - y_i}{z} \right\}$$

Where:  $N$  = total population  
 $y_i$  = per adult equivalent consumption expenditure of individual  $i$   
 $z$  = poverty line

This measure therefore allows one to analyse the average shortfall of people from the poverty line, i.e. it shows how much would have to be transferred to these individuals on average to bring their expenditure up to the poverty line.

## Severity of poverty index

The severity of poverty index is the average of the square of the averages of the poverty gaps. It is similar to the poverty gap index, except that the gaps are squared. As the poverty gaps are squared it will give the highest weighting to those individuals with the largest gap to the poverty line. Using the same notation as above, the severity of poverty index, for poor individuals, is mathematically defined as:

$$P_2 = \frac{1}{N} \sum_{i=1}^n \left\{ \frac{z - y_i}{z} \right\}^2$$

The severity of poverty index allows the researcher to not only identify the distance separating the poor from the poverty line, as in the poverty gap index, but also to identify inequality amongst the poor.

## Annex F Supplementary tables

### F.1 Supplement to section 7

**Table F.1 Child nutrition and dietary diversity**

Indicator	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
Mean number of meals eaten by child in the last 1 day	3.0	2.9	2.9	3.0	3.0	588	1166
Mean number of snacks eaten by child in the last 1 day	2.8	2.9	2.9*	3.1	3.0	578	1153
Child dietary diversity score (12 items)	8.3	8.4	8.4	8.4	8.4	589	1173
<b>Consumption of vitamins (% of eligible children)</b>							
Vitamin A supplement (in last 6 months)	25.5	23.5	24.5	25.4	24.9	581	1158
Iron tablets (last month)	7.1	7.9	7.5	7.5	7.5	584	1167
Vitamin A rich animal source foods	86.3	89.8	88.0	88.0	88.0	589	1173
Haem-iron rich food (organ meat, flesh meat, or fish)	83.9	87.3	85.6	84.8	85.2	589	1173
<b>Proportion of eligible children eating category of food in previous day (%)</b>							
Cereal, bread, bakery, pasta	95.9	96.0	95.9	95.1	95.5	589	1173
Roots or tubers	76.7	75.4	76.1	76.9	76.5	589	1173
Legumes and nuts	13.4	14.9	14.1	15.1	14.6	589	1173
Milk and milk products	80.5	85.4	82.9	83.4	83.1	589	1173
Eggs and eggs powder	35.8	33.8	34.8	34.3	34.6	589	1173
Offal, organ meat, meat	84.2	85.8	85.0	84.7	84.8	589	1173
Fish and seafood	11.4	12.1	11.8	11.9	11.8	589	1173
Butter, oils and fat	88.9	91.6	90.2	90.4	90.3	589	1173
Sugar, jam, honey, sweets	96.8	96.8	96.8	97.9	97.3	589	1173
Fruits	69.4	66.6	68.0	71.5	69.6	589	1173
Vegetables	81.1	81.1	81.1	80.8	81.0	589	1173
Soft drinks, tea, juices	98.2	98.6	98.4	98.7	98.6	589	1173

Source: Baseline survey.

## F.2 Supplement to section 8

**Table F.2 Livelihood sources and income**

Indicator	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treat ment	All
Households reporting the specified livelihood source as one of their top three sources (%)							
Salaried employment	46.8**	54.3	50.5	49.8	50.2	585	1165
Casual employment	34.7***	24.7	29.8	31.9	30.8	585	1165
Self-employment	14.4*	21.2	17.8	16.2	17.0	585	1165
Transfers	61.0	62.5	61.7	56.4	59.3	585	1165
Other	1.3***	6.5	3.8	4.0	3.9	585	1165
Average total household income in last 12 months, by income source							
Paid (salaried / casual) employment	225619.8*	276480.4	250635.8	262233.2	255982.1	585	1165
Self-employment	61969.2***	129571.8	95219.8	72475.2	84734.7	585	1165
Transfers / remittances	198919.9	208264.4	203974.0	197426.8	201449.4	585	183
All	409623.1*	515491.5	466883.6	425440.3	450902.6	585	183
Number of main income sources in household (% of all households)							
1	43.6	37.8	40.7	47.0	43.6	585	1165
2	46.7	47.7	47.2	43.2	45.3	585	1165
3 or more	9.7	14.5	12.1	9.8	11.0	585	1165

Source: Baseline survey.

**Table F.3 Employment status of household members aged 15+**

Indicator	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treat ment	All
Paid (salaried / casual) employment	28.5*	24.9	26.6	28.4	27.4	2008	3968
<i>of which<sup>1</sup>:</i>							
Seasonal employment	13.6	11.9	12.8	14.7	13.7	531	1107
Off-season (winter)	1.0	1.4	1.2	1.7	1.4	531	1107
During agricultural season	12.8	10.5	11.7	13.6	12.6	531	1107
Self-employment	8.9	11.6	10.3	8.7	9.6	2008	3968
<i>of which<sup>2</sup>:</i>							
Seasonal employment	46.2***	25.8	34.3	37.6	35.7	213	362
Off-season (winter)	2.5	3.4	3.0	3.6	3.3	213	362
During agricultural season	45.0***	23.3	32.4	35.0	33.5	213	362
Both paid and self-employment	0.7	1.5	1.1	0.9	1.0	2008	3968
Unemployed (seeking work)	4.4	5.4	4.9	6.0	5.4	2008	3968
Economically inactive (not seeking work)	56.8	55.7	56.2	54.7	55.5	2008	3968
<i>of which<sup>3</sup>:</i>							
Student	17.2	16.4	16.8	14.6	15.8	1128	2207
Housewife	38.2	37.1	37.6	36.8	37.2	1128	2207
Pensioner	22.7	26.1	24.4	24.9	24.7	1128	2207
Disabled	2.2	3.5	2.9	3.9	3.3	1128	2207
Average time worked by employed members (hours per week)	50.2	53.8	52.0	52.8	52.4	764	1505
Average length of time unemployed and seeking work (in months)	13.4**	8.4	10.5	13.0	11.8	100	217

Source: Baseline survey. Note: (1) Figures on seasonal work are a proportion of those who have some form of paid employment. (2) Figures on seasonal work are a proportion of those who have some form of self-employment. (3) Figures are a proportion of those who are economically inactive.

**Table F.4 Employment status of primary carer**

Indicator	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
Paid (salaried / casual) employment	23.1	17.6	20.4	16.7	18.7	580	1156
<i>of which:</i>							
Seasonal employment	8.6	5.8	7.4	6.8	7.1	115	217
Self-employment	5.1	5.0	5.1	4.7	4.9	580	1156
<i>of which:</i>							
Seasonal employment	43.3	32.3	38.0*	68.2	51.4	33	55
Both paid and self-employment	0.0	0.9	0.4	0.6	0.5	580	1156
Unemployed (seeking work)	3.9	5.5	4.7	7.6	6.0	580	1156
Economically inactive (not seeking work)	68	70	69	70	69	580	1156
<i>of which:</i>							
Student	0.9	1.1	1.0*	0.1	0.6	429	877
Housewife	78.8	77.3	78.1**	70.1	74.3	429	877
Pensioner	10.6	7.7	9.2	10.5	9.8	429	877
Average time worked by employed primary carer (hours per week)	42.9	44.9	43.8	42.0	43.0	151	279
Average length of time primary carer unemployed and seeking work (months)	26.2	27.6	27.0	16.2	20.7	28	72

Source: Baseline survey.

**Table F.5 Characteristics of the primary earner**

Indicator	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
<b>Relation of primary earner to household head (% of households)</b>							
Head	60.9	60.9	60.9	61.3	61.1	585	1165
Husband / wife	19.1	13.4	16.3	16.1	16.2	585	1165
Son / daughter	7.5**	13.7	10.6	11.8	11.1	585	1165
Other relation	11.8	11.6	11.7	9.9	10.8	585	1165
No relation	0.7	0.2	0.4	1.0	0.7	585	1165
<b>Relation of primary earner to sampled child (% of households)</b>							
Parent	70.4	62.6	66.5	64.8	65.8	585	1165
Grandparent	24.4	30.7	27.5	28.7	28.1	585	1165
Brother / sister	2.4	1.6	2.0	1.1	1.6	585	1165
Aunt / uncle	1.4	3.3	2.3	3.3	2.8	585	1165
Other relation	0.8	0.8	0.8	1.0	0.9	585	1165
<b>Age of primary earner (% of households)</b>							
Under 30	15.6	17.2	16.4	15.1	15.8	585	1165
31–40	41.6**	30.6	36.2	34.6	35.5	585	1165
41–50	14.9**	22.6	18.7	20.6	19.6	585	1165
51–60	13.5*	8.2	10.9	10.5	10.7	585	1165
Over 60	13.4**	20.5	16.9	18.2	17.5	585	1165
<b>Sex of primary earner (% of households)</b>							
Male	62.5	67.5	65.0	65.9	65.4	585	1165
Female	36.8	32.1	34.5	33.1	33.8	585	1165
<b>Highest education level achieved by primary earner (% of households)</b>							
Class 9 or lower	23.5	21.6	22.6	27.6	24.9	585	1165
Class 10–11	48.1	49.0	48.5	46.3	47.5	585	1165
College	18.2	16.3	17.3	16.2	16.8	585	1165
Higher education	9.5	12.1	10.8	8.9	9.9	585	1165
<b>Primary earners with seasonal employment (% of households)</b>							
Primary earner is seasonally employed	13.7	10.2	12.0	12.9	12.4	585	1165
Not seasonal—paid (salaried / casual) employment	48.5	42.9	45.7	49.9	47.7	585	1165
Not seasonal—self-employed	10.2**	18.2	14.1	10.8	12.6	585	1165

Source: Baseline survey.

**Table F.6 Transfers and remittances**

Indicator	Treatment					N	
	Beneficiary	Non-beneficiary	All treatment	Control	TOTAL	Treat ment	All
Households receiving any institutional transfer in last 12 months (%)	65.7	64.1	64.9	64.0	64.5	585	1165
<i>of which largest reported transfer:</i>							
Pension	33.9***	44.8	39.2	37.2	38.3	585	1165
Benefit for children under 18	16.6***	9.1	12.9	16.0	14.3	585	1165
Benefit for children under 1	9.8	8.6	9.2	9.5	9.3	585	1165
<b>Households receiving specified benefit (%)</b>							
Benefit for birth	11.7	9.7	10.7	8.7	9.8	585	1165
Benefit for care of children up to 1 year old and adopted	13.7	16.1	14.9	12.0	13.5	585	1165
Benefit for children with disabilities	4.5	2.8	3.7	2.2	3.0	585	1165
Benefit for children under 18 living in poor household	24.0***	15.2	19.7	21.1	20.3	585	1165
Targeted social assistance	1.6	0.6	1.1	0.4	0.8	585	1165
Housing assistance	1.2	0.2	0.7	1.9	1.3	585	1165
<b>Mean value of benefit (among those receiving)</b>							
Benefit for birth	28197	33884	30723.5	28675.0	29885.7	68	115
Benefit for care of children up to 1 year old and adopted	108497.3*	126473	118079	110816	115113.9	91	162
Benefit for children with disabilities	164189.6	170747	166670.4*	174799.8	169434.7	27	42
Benefit for children under 18 living in poor household	68604.6	74544.	70861.8	77219.0	73899.4	109	228
Targeted social assistance	62399.1	77994.	66695.6	55642.9	63966.8	7	9
Housing assistance	82522.3*	180000	98482.6	54547.3	68332.4	5	15
Households receiving any non-state transfer in last 12 months (%)	0.3	0.4	0.4*	1.4	0.9	585	1165
<b>Remittances in last 12 months</b>							
Households receiving remittances (%)	17.1	20.8	19.0*	13.9	16.6	585	1165
Mean total value (among those receiving)	48207.5	79296	65022.2	55056.2	61179.2	109	183
<i>of which:</i>							
Cash	28572	46007	38002.0	34915.7	36811.9	109	183
In kind	19635.7	33289	27020.2	20140.5	24367.3	109	183
Households giving remittances (%)	11.4	12.4	11.9	7.9	10.1	585	1165
Mean total value (among those giving)	33099.0	55593	44621.9	47575.3	45691.8	59	100
<i>of which:</i>							
Cash	25019.3	31117	28143.1	27792.8	28016.2	59	100

Source: Baseline survey.



## F.3 Supplement to section 9

**Table F.7 Poverty levels**

Indicator	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
<b>Poverty of individuals (% of household members)</b>							
Below minimum subsistence level	63.9	56.4	60.2	58.4	59.4	3658	7219
HH is eligible for TSA	4.9	3.2	4.1	4.7	4.4	3658	7219
HH is below minimum subsistence level	48.0	42.5	45.3	45.7	45.5	3658	7219
HH is eligible for TSA	5.39	3.06	4.24	3.78	4.03	585	1165
HH is below minimum subsistence level	61.53	54.22	57.93	54.87	56.52	585	1165
Poverty Gap from SML	19.59*	16.32	17.98	16.79	17.43	585	1165
Severity of poverty (SML)	8.50*	6.56	7.55	6.90	7.25	585	1165
<b>Distribution of households among quintiles of sample population (%)</b>							
Lowest	22.58	18.77	20.71	19.21	20.02	585	1165
2nd	20.52	19.31	19.92	20.08	20.00	585	1165
3rd	21.24	18.53	19.90	20.27	20.08	585	1165
4th	22.10	20.90	21.51	18.08	19.93	585	1165
Highest	13.56**	22.50	17.95	22.34	19.98	585	1165
<b>Distribution of households among quintiles of national Household Budget Survey 2009 (%)</b>							
Lowest	68.46**	57.06	62.85	58.88	61.02	585	1165
2nd	19.29	24.14	21.67	24.21	22.84	585	1165
3rd	9.05	13.20	11.09	11.11	11.10	585	1165
4th	2.84	4.30	3.56	4.87	4.16	585	1165
Highest	0.35	1.31	0.82	0.93	0.87	585	1165

Source: Baseline survey.

**Table F.8 Debts**

Indicator	Treatment			Contro I	TOTAL	N	
	Benefici ary	Non- benefici ary	All treatment			Treat ment	All
<b>Households with debts, by source of loan (% of all households)<sup>1</sup></b>							
Any source	57.0	55.1	56.1**	47.6	52.2	585	1163
Bank	10.0***	20.9	15.4	11.2	13.4	585	1163
Employer	0.9	0.3	0.6	0.3	0.5	585	1163
Microlender	0.0	0.9	0.4	0.5	0.4	585	1163
Informal lender ('loan shark')	2.5	4.2	3.3**	1.4	2.4	585	1163
Family / friends	7.4	6.3	6.9	5.7	6.3	585	1163
Shop / market	48.0**	36.3	42.3	37.7	40.1	585	1163
Other	0.7	0.8	0.7	0.9	0.8	585	1163
<b>Size of debt (% of households with debt of amount shown)</b>							
Less than KZT 5,000	5.7	2.9	4.3	5.6	4.9	585	1165
Less than KZT 10,000	15.2**	8.7	12.0	10.6	11.3	585	1165
Less than KZT 20,000	24.6**	15.7	20.2	19.8	20.0	585	1165
Less than KZT 50,000	38.1*	28.9	33.6	29.6	31.8	585	1165
Less than KZT 100,000	44.7*	35.3	40.1	34.7	37.6	585	1165
Less than KZT 200,000	47.9	40.2	44.1	39.6	42.0	585	1165
KZT 200,000 and above	8.4**	14.0	11.1*	7.0	9.2	585	1165
<b>Households reporting easy potential access to loan of size shown (%)</b>							
KZT 200,000	0.3	1.2	0.7	1.0	0.9	585	1163
KZT 100,000	2.5	2.7	2.6	4.1	3.3	585	1163
KZT 50,000	7.1**	13.5	10.3	13.7	11.8	585	1163
KZT 10,000	48.7	53.0	50.8	52.1	51.4	585	1163
KZT 5,000	79.3	82.0	80.6	79.3	80.0	585	1163
% of HH having savings in Bank	0.2	0.4	0.3	0.7	0.5	584	1158
% of HH having savings in Chemaya Kassa	1.9	2.4	2.1	2.3	2.2	584	1163
% of HH having savings with church, mosques,	0.0	0.0	0.0	0.3	0.1	585	1165
% of HH having savings with friends and family	2.3	1.0	1.7	1.5	1.6	584	1160
% of HH having savings in cash	2.1	1.4	1.8	2.0	1.8	585	1158
% of HH having savings in any other place	0.0	0.0	0.0	0.3	0.1	585	1161

Source: Baseline survey. Note: (1) Households who said they did not know about the debts are coded as missing.

## F.4 Supplement to section 10

**Table F.9 Distance to amenities (minutes)**

Indicator	Treatment			Control	TOTAL	N	
	Beneficiary	Non-beneficiary	All treatment			Treatment	All
<b>Rayon centre</b>							
average	63.5	68.4	65.9	64.5	65.3	585	1165
on foot	27.2	25.9	26.7	27.9	27.4	28	59
using motorized vehicle	65.3	70.2	67.7	67.3	67.5	554	1097
<b>Okrug akimat</b>							
average	27.3	25.0	26.2*	22.2	24.4	585	1165
on foot	19.6	19.5	19.5	18.1	18.9	418	822
using motorized vehicle	47.8	38.1	42.8*	32.2	37.9	165	340
<b>Nearest pre-school</b>							
average	19.3	19.0	19.1	18.1	18.7	585	1165
on foot	17.7	17.9	17.8*	16.1	17.0	549	1071
using motorized vehicle	46.7	33.3	39.0	37.3	38.0	35	93
<b>Nearest school</b>							
average	17.2	17.9	17.6	16.4	17.0	585	1165
on foot	17.0	17.3	17.1	16.1	16.6	564	1122
using motorized vehicle	22.5*	38.1	30.6	25.7	28.4	19	40
<b>Nearest health facility</b>							
average	21.5	20.8	21.2	19.0	20.2	585	1165
on foot	21.1	20.2	20.6	18.7	19.7	555	1110
using motorized vehicle	41.0	30.6	33.8	29.6	32.0	29	53
<b>Nearest place to withdraw money (bank / ATM)</b>							
average	60.9	64.7	62.8	56.0	59.6	585	1165
on foot	34.3	40.0	36.8	24.5	28.9	45	131
using motorized vehicle	63.1	66.6	64.8	61.4	63.3	535	1023
<b>Nearest post office</b>							
average	22.1	22.4	22.3	19.6	21.0	585	1165
on foot	19.4	18.3	18.9	17.3	18.1	508	1034
using motorized vehicle	43.5	49.5	46.7	40.1	44.0	76	130
<b>Nearest public transport stop</b>							
average	18.9	16.9	17.9	15.8	16.9	585	1165
on foot	15.8	15.0	15.4*	13.7	14.6	555	1126
using motorized vehicle	99.9	81.2	91.8	74.3	83.7	20	39

Source: Baseline survey.

## Annex G Significant differences between beneficiary and non-beneficiary eligible households in treatment areas

**Table G.1 Summary of significant differences**

	Beneficiary	Non-beneficiary
<b>SECTION 4</b>		
<b>Characteristics of the household</b>		
Average household size <sup>1</sup>	6.3	6.3
Children 0-17	3.3***	3.0
Adults 18 to pension age	2.6*	2.9
Pensioners	0.4**	0.5
Average number of children under 7 per household	2.1*	1.9
Proportion of HH with a pensioner	30.2**	40
Mean dependency ratio <sup>2</sup>	1.6***	1.4
<b>Long-term health problems of eligible children (% experiencing health problem)</b>		
Physical impairment	1.8	3
Chronic illness	1.3**	4.8
<b>SECTION 5</b>		
There are no significant differences between beneficiary and non-beneficiary households in treatment areas for the indicators in section 5		
<b>SECTION 6</b>		
<b>Enrolment status</b>		
Ever enrolled	58***	38
Never enrolled	42***	63
<b>Current enrolment status (of those ever enrolled)</b>		
Currently enrolled	87	79
Previously enrolled (no longer)	13	22
<b>Total school experience</b>		
Average total time in pre-school (months)	8	9
Children having attended for 3 months or fewer (%)	43	34
<b>Type of facility ever attended</b>		
Nursery	0	0
Kindergarten	20.7**	31
Zero class	14	22
Mini-centre	67.1**	50
Other	3	5

	Beneficiary	Non-beneficiary
<b>Mean scheduled time at pre-school</b>		
Average days per week	4.5***	4.9
<b>SECTION 7</b>		
<b>Illness in last month</b>		
Suspected pneumonia	1.1	2.6
Diarrhoea	3.6***	10.1
Households reporting at least one month in which they did not have a full and varied diet (%)	13*	7
<b>SECTION 8</b>		
Average length of time unemployed and seeking work (in months)	13.4**	8.4
<b>SECTION 9</b>		
<b>Household receiving specified benefit</b>		
Benefit for birth	11.7	9.7
Benefit for care of children up to 1 year old and adopted	13.7	16.1
Benefit for children with disabilities	4.5	2.8
Benefit for children under 18 living in poor household	24.0***	15.2
Targeted social assistance	1.6	0.6
Housing assistance	1.2	0.2
<b>Mean monthly consumption per household (KZT)</b>		
Total consumption	93,835**	104,818
Per capita consumption	15,432**	17,068
Per adult equivalent consumption	31,756**	34,577
Per adult equivalent (using national statistical agency scale)	26,284**	29,056
<b>SECTION 10</b>		
<b>Tenure of property</b>		
Owned by household	81	92
Paid off	75**	83
Inherited	6	9
With mortgage (not paid off)	1	0
Owned by others	18	8
Living in house rent-free	10**	4
Rented	6	3
Free state-owned housing	1	1
Squatting / occupied	0	0
Other	1	0

Source: Baseline survey.