QRF NATIONAL EARLY CHILDHOOD DEVELOPMENT SURVEY 2015

STUDY METHODOLOGY

QUEEN RANIA FOUNDATION
مؤسسة الملكة رانيا

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STUDY OBJECTIVES AND APPROACH

The Queen Rania Foundation (QRF) National Early Childhood Development (ECD) Survey is an exploratory study that aims to provide a birds-eye view of early childhood development in Jordan. Specifically, the study aims to address the following major research questions:

- What is the prevalence of formal enrollment in nursery and Kindergarten 1 (KG1) [1] programs among Jordanian families?
- What is the nature of home learning environments for Jordanian children aged five and younger?
- What are the attitudes and perceptions of Jordanian primary caregivers towards early education and care?
- What are the capacities of registered nurseries and KG1 classrooms in Jordan, and what kind of learning resources and activities do they provide?
- What are the qualifications, training, and attitudes of nursery caregivers?

The QRF National ECD Survey is the first comprehensive study of its kind exploring early education and care provision in Jordan. Findings of this study are expected to draw attention to key issues in the early stages of education and childcare in Jordan and build the case for policies to improve the quality of education and care provided at this level. Given the exploratory nature of this research effort, as well as the lack of reliable background data to guide some of the hypotheses to be tested, the research has been particularly successful in identifying a number of "talking points" to be explored and tackled in future investigations on this topic.

The QRF National ECD Survey followed a mixed-methodology approach to achieve its objectives, with the bulk of primary data collected through a number of surveys targeting different populations. To inform and contextualize the surveys, focus groups and key informant interviews were also conducted with the various target groups.

[1] In Jordan, KG1s serve children aged 4-5, while KG2s serve children aged 5-6.

TARGET GROUPS

In order to achieve the objectives of the survey, the following population categories were targeted through surveys:

- Primary caregivers of children aged five years (60 months) or below: 1,800 face-to-face interviews were conducted with primary caregivers of children aged five or below across the entire Kingdom. For consistency and because they were more likely to be available at home [2], the primary female caregivers in the household were selected for the interviews.

- Administrators [3] of registered nurseries: 437 interviews were conducted with administrators in Ministry of Education (MoE) school-based, private, community-based organization (CBO) [4]-based nurseries, and work-based nurseries listed in the Ministry of Social Development (MoSD) registry.

- Administrators of MoE-registered private sector kindergartens with KG1 classrooms: 310 interviews were conducted with administrators in these kindergartens.

- Caregivers in registered nurseries: 437 interviews were conducted with caregivers in MoE school-based, private sector, CBO-based, and work-based nurseries.

The qualitative component of the study consisted of focus groups and key informant interviews. Focus groups were conducted with the following target groups:

- Primary caregivers of children aged five years (60 months) or below enrolled in formal pre-KG2 education: Four focus groups were conducted: one in the North, one in the South, and two in the Central region.

- Primary caregivers of children aged five years (60 months) or below not enrolled in formal pre-KG2 education: Four focus groups were conducted: one in the North, one in the South, and two in the Central region.

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[2] The female workforce participation rate in Jordan was 14% in 2015, compared to 60% for males: https://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS?locations=JO

[3] The director/administrator surveys were conducted either with the nursery director or nursery administrator, who would have been the most qualified staff member that could answer questions about the nursery operations. In reporting, respondents from the director/administrator surveys are referred to as "administrators."

[4] CBO-based nurseries are referred to as "voluntary" nurseries on the MoSD registered nurseries list.

- Caregivers in registered MoE school-based nurseries: Four focus groups were conducted: one in the North, one in the South, and two in the Central region.
  Caregivers in registered private sector nurseries: Four focus groups were conducted: one in the North, one in the South, and two in the Central region.

- Key informant interviews were held with a number of local early childhood experts, NGO representatives working in this field in Jordan, MoE and Ministry of Social Development (MoSD) representatives, administrators/principals in MoE school-based nurseries, private sector nurseries, and private sector kindergartens (KG1).

SAMPLE DESIGN AND SAMPLING PROCEDURES

All survey interviews were conducted through pen and paper personal interviews (PAPI) with varying sampling techniques that were identified in accordance with the available data (sampling frames).

INTERVIEWS WITH PRIMARY CAREGIVERS OF CHILDREN AGED FIVE YEARS OR BELOW

The Center for Strategic Studies at the University of Jordan (CSS) designed the sample to provide reliable survey estimates across the Kingdom's twelve governorates, including rural and urban areas, and smaller communities within. The sample was also designed to ensure reliable estimates on a regional level. Jordan's regions were grouped from governorates as follows: North (covering Ajloun, Irbid, Jerash, and Mafraq), Central (covering Amman, Balqa, Madaba, and Zarqa), and South (covering Aqaba, Karak, Ma'an, and Tafilah).
Since data from the 2015 Jordan Population and Housing Census was not available at the time of sample selection, the 2004 Census served as the sampling frame. A sample of 1,800 Jordanian households were drawn using stratified cluster sampling with a national margin of error of +/- 3% at a 95% confidence interval. Stratification was achieved on three levels by: 1) separating governorates into rural and urban areas, 2) identifying administrative divisions within each of those urban and rural areas, and 3) identifying and selecting clusters within each administrative division. The clusters were the primary sampling units (PSU) for this survey, and were attained by subdividing the Kingdom into census blocks.

Once the clusters were sampled, a household-listing operation of these clusters was conducted and a frame of the households in each cluster was developed. The objectives of the study stipulated these households be Jordanian and have at least one child aged 60 months or below [5]. Following the identification of the target population in each cluster, a sample of 10 households was drawn from each cluster with an equal probability systematic selection.

The primary female caregiver (typically the mother [6]) in the household was selected for the interview. The survey instrument included components about pre-KG2 enrollment for all children in the household as well as more detailed questions about the nature of enrollment for just

[5] Due to the absence of reliable data on the large recent influx of Syrian refugees prior to the 2015 Census, accurate sampling of the non-Jordanian population was not possible.

[6] 100% of survey respondents were female and 99% reported they were the biological mothers of the children discussed in the survey.

one child in the household. For the latter component, the "next-birthday" respondent selection method was used to identify one child in particular. Data collection was conducted until the targeted sample size of 1,800 was achieved; response rates ranged from 78-86%, depending on the governorate (see Table 1).

TABLE 1 : PRIMARY CAREGIVER INITIAL SAMPLE SIZE AND RESPONSE RATES BY GOVERNORATE

	Number of clusters (PSU)	Number of households interviewed	Response rate
Amman	53	530	78%
Balqa	9	90	80%
Zarqa	25	250	81%
Madaba	7	70	83%
Irbid	30	300	84%
Mafraq	8	80	81%
Jerash	6	60	82%
Ajloun	6	60	83%
Karak	13	130	84%
Tafilah	7	70	86%
Ma'an	8	80	87%
Aqaba	8	80	86%
Total	180	1,800	82%

Following data collection, CSS performed data cleaning and validation procedures and produced the final weighted sample. Table 2 shows the geographic distribution of the final weighted primary caregivers' sample against the distribution of Jordanian households in 2004 (Department of Statistics, 2004).

TABLE 2 : PRIMARY CAREGIVERS SAMPLE GEOGRAPHIC DISTRIBUTION

Region	Jordanian private household distribution: 2004 Census	Primary Caregivers – final weighted sample	Governorate	Jordanian private household distribution: 2004 Census	Primary Caregivers – final weighted sample
Central	63%	56%	Amman	39%	23%
			Balqa	7%	11%
			Zarqa	15%	17%
			Madaba	2%	5%
North	28%	30%	Irbid	19%	9%
			Mafraq	4%	8%
			Jerash	3%	7%
			Ajloun	2%	5%
South	9%	14%	Karak	4%	4%
			Tafilah	1%	3%
			Ma'an	2%	3%
			Aqaba	2%	4%
Total	100%	100%	Total	100%	100%

Since the data used for the original sampling frame was more than 10 years old, the geographic distribution of Jordanians was reviewed according to the 2015 Population and Housing Census (Department of Statistics, 2016) when the data became available to gauge the relevance of the original sampling frame in 2015. The new Census data revealed that the geographic distribution of the Jordanian population in the Kingdom changed only slightly between 2004 and 2015 (see Table 3).

TABLE 3 : GEOGRAPHIC DISTRIBUTION OF JORDANIAN HOUSEHOLDS, 2004 VS. 2015

Governorate	Jordanian private household distribution: 2004 Census	Jordanian private household distribution: 2015 Census
Amman	39%	40%
Balqa	7%	6%
Zarqa	15%	14%
Madaba	2%	2%
Irbid	19%	20%
Mafraq	4%	4%
Jerash	3%	2%
Ajloun	2%	2%
Karak	4%	4%
Tafilah	1%	1%
Ma'an	2%	2%
Aqaba	2%	2%
Total	100%	100%

INTERVIEWS WITH NURSERY ADMINISTRATORS AND NURSERY CAREGIVERS IN REGISTERED NURSERIES

Lists of all 937 nurseries registered with the MoSD were used as the sampling frame for these two samples. There were four types of nurseries in this registry: 1) private nurseries, 2) MoE school-based nurseries, which are located in MoE schools and run by the school teachers for their own children; 3) Work-based nurseries that are set up by private organizations for the children of women employed there; and 4) CBO-based nurseries operated by registered charities. Due to the wide differences in the operational models of these four nursery types, they were treated as four separate samples and separate statistics for each group are provided in QRF reporting and data tables.

The MoSD provided data on the name of the nursery, date of establishment, contact details, physical address, and whether a warning was received for any violation. As such, strata were only defined by the main relevant variable available: geographic location on the governorate-level, and nurseries within each stratum were drawn through systematic random sampling. This sampling technique was used for the two most common types of nurseries on the MoSD registry: MoE school-based nurseries and private sector nurseries. The entire population was selected for CBO-based and work-based nurseries, as there were only 45 registered CBO-run and 30 registered work-based nurseries. Some of the registered CBO-based and work-based nurseries were no longer in operation at the time of data collection, so the final number in the sample is slightly smaller than in the registered list. Ultimately, 437 nurseries were surveyed – 47% of the registered nurseries in Jordan.

At the time of the QRF National ECD Survey, more than half (55%) of registered nurseries were run by MoE-teachers. Approximately 37% of registered nurseries were privately owned and run (outside of workplaces). Only 3% of registered nurseries were run by work-based nurseries. Five percent of registered nurseries were run by CBO-based providers. The distribution of the QRF National ECD Survey sample reflects the distribution of providers within the population (see Table 4).

TABLE 4 : DISTRIBUTION OF MOSD-REGISTERED NURSERIES AND QRF ECD SURVEY SAMPLE BY NURSERY TYPE

	MoSD-Registered	QRF ECD Survey Sample	MoSD-Registered	QRF ECD Survey Sample
	Number of Nurseries		Percentage of Nurseries	
MoE-Based	512	218	55%	50%
Private	350	171	37%	39%
CBO-based	45	31	5%	7%
Work-Based	30	17	3%	4%
Total	937	437	100%	100%

Table 5 compares the geographic distribution of the MoSD-registered nurseries against the sample of nurseries reached for the survey. Given the small population, the sampling aimed for representation at the regional rather than governorate level. As Table 5 shows, the MoE-based and private sector samples follow the original MoSD-registered distribution quite closely, although the public sample included a somewhat greater proportion of nurseries in the South. As aforementioned, all available CBO-based and work-based nurseries were included, so despite some discrepancy from the distribution of MoSD-registered list, the sample can still be considered representative of available registered nurseries. However, it is important to note that many nurseries in Jordan may not be registered; therefore, the nursery director and caregiver samples cannot be used to draw inferences about unregistered nurseries. [7]

[7] Responses on the mothers' questionnaire indicated the existence of nurseries in areas where none or very few were registered with the MoSD.

TABLE 5 : DISTRIBUTION OF MOSD-REGISTERED NURSERIES VS. SAMPLED NURSERIES BY REGION

	MoE-School Based		Private		CBO-Based		Work-Based	
	MoSD-Registered	QRF ECD Survey Sample	MoSD-Registered	QRF ECD Survey Sample	MoSD-Registered	QRF ECD Survey Sample	MoSD-Registered	QRF ECD Survey Sample
Central	57%	54%	81%	81%	22%	32%	47%	65%
North	28%	26%	16%	16%	47%	35%	30%	29%
South	14%	20%	4%	3%	31%	32%	23%	6%
Total Number	512	218	350	171	45	31	30	17

During each field visit to the selected nurseries, two interviews were conducted – one with the administrator/principal and another with one caregiver selected at random. [8] The distribution of nursery administrators and caregivers therefore follows the distribution of nurseries shown in Table 5.

INTERVIEWS WITH ADMINISTRATORS IN PRIVATE SECTOR KINDERGARTENS WITH KG1 CLASSROOMS

The MoE is the body responsible for the administration of kindergarten-level education in the Kingdom. As such, lists of kindergartens with at least one KG1 classroom were obtained from the Ministry's Education Management Information System (EMIS). From this list, a sample of 310 KG1s was selected through systematic random sampling within each identified stratum. The selected kindergartens were then visited by the research team, and administrators or principals of these kindergartens were interviewed. Table 6 compares the geographic distribution of the KG1 sample with the MoE's EMIS list, demonstrating that the final sample matched the distribution of the EMIS list very closely. The distribution of administrators follows the distribution in Table 6 since exactly one was interviewed in each kindergarten.

[8] Due to the lack of availability of any reliable data on caregivers in nurseries, sampling for the caregiver target interviews was based on the population of nurseries and not the population of caregivers.

TABLE 6 : DISTRIBUTION OF MOE-REGISTERED KG1S VS. SAMPLED KG1S BY GOVERNORATE

	MoE-Registered	QRF ECD Survey Sample
Amman	51%	48%
Zarqa	11%	13%
Balqa	7%	6%
Madaba	2%	4%
Irbid	15%	14%
Jerash	3%	2%
Mafraq	3%	3%
Ajloun	2%	3%
Karak	3%	2%
Tafieleh	1%	1%
Ma'an	1%	1%
Aqaba	2%	3%
Total Number	1,376	310

FOCUS GROUPS AND KEY INFORMATION INTERVIEWS

The CSS organized and conducted the key informant interviews and focus groups for the QRF National ECD Survey. To identify the focus group sample, the primary and nursery caregiver surveys asked whether respondents were interested in participating in focus group discussions, to provide a sample of respondents from which focus group participants could be randomly selected. As such, a total of 16 focus groups were conducted with eight to ten participants in each group, covering primary caregivers whose children were not enrolled in pre-primary education, primary caregivers whose children were enrolled in pre-primary education, MoE-based caregivers, and private nursery caregivers.

Key informant interview respondents were selected from relevant NGOs, initiatives and institutions in Jordan. This resulted in a total of 11 key informant interviews conducted with representatives from the MoSD, MoE, the Ministry of Health, the National Council for Family Affairs, KG1 and nursery administrators, UNICEF, Sadaqa, and the University of Jordan.

TRAINING OF ENUMERATORS AND SURVEY ADMINISTRATION

As the technical partner for this research effort, CSS implemented the following technical and logistical aspects of survey administration in collaboration with QRF: sample design, staff (enumerator) training, data collection, quality control, processing, and entry. Training of the enumerators took place over two days in May 2015. The purpose of this training was to familiarize the recruited enumerators with the different modules of the data collection instruments used, as well as the sampling methodology for each target population. Following this training, the enumerators conducted pilot tests to ensure the validity and suitability of the questions used. The field team supervisors also received training on the different sampling methodologies and data quality control procedures. Data collection took place over three weeks in May-June 2015. Several quality control measures were taken to ensure the validity of the data collected:

- On-field checks: Supervisors randomly selected completed questionnaires from enumerators and re-visited respondents to validate a select number of responses provided.
- In-house checks: The data quality team at the CSS selected 10% of complete questionnaires randomly and contacted respondents to validate a select number of responses provided.
- Data entry checks: The data entry team at the CSS re-entered 10% of the data collected randomly and matched this data with the original data entry file.

As briefly mentioned in the previous section, the team at the CSS also implemented technical aspects of the qualitative focus groups including recruitment and selection of participants, moderation of the groups, and transcript preparation and reporting. These focus groups were conducted in June–July 2016, following preliminary analysis of the surveys administered the year before.

DEVELOPMENT OF **DATA COLLECTION INSTRUMENTS**

The instruments for the quantitative component(s) were primarily developed by QRF's Research and Program Development team with input from an internal working group that consisted of representatives from local organizations affiliated with the Foundation. Some questions were drawn from existing global questionnaires such as the Early Care and Education Provider Survey and the Multiple Indicator Cluster Surveys; these are noted where relevant in QRF reporting. Input on translation, flow, and format was provided by the CSS to optimize administration of the survey. Drawing on policy issues and gaps in data identified by QRF, the instruments for this study were divided into a number of modules covering a wide range of topics in the field of early childcare.

Some of the key informant interview discussion guides were drafted and conducted prior to quantitative data collection and analysis to guide in the development of the questionnaire and give background information. Following preliminary data analysis and identification of specific findings of particular interest, the main focus group and some key informant interview discussion guides were drafted by QRF's Research and Program Development team. This approach enabled valuable triangulation between quantitative and qualitative data and validation of quantitative findings.

DATA ANALYSIS AND **REPORT DEVELOPMENT**

Quantitative and qualitative data analysis (including triangulation of results) was conducted by QRF with the support of Dr. Dana McCoy and Ms. Alexandra Chen from Harvard University. Given their expertise in the field of early childhood development, Dr. McCoy and Ms. Chen were instrumental in substantiating findings from the study, suggesting additional analyses, and providing insight on benchmarking findings against those of other studies.

STUDY LIMITATIONS

While the QRF National ECD Survey collected a wealth of comprehensive data on Jordan's early childhood landscape, several study limitations are worth acknowledging. The most critical limitation of the study was the lack of information about unregistered nurseries and KG1s. QRF's sampling frame was based on MoSD and MoE registration lists, and the quantity and nature of unregistered nurseries and KG1s is unknown, this study cannot draw inferences about the full national landscape of nurseries and KG1s; rather, it provides a comprehensive picture of registered nurseries and KG1s across the Kingdom. Similarly, due to lack of a reliable sampling frame for non-Jordanians in the Kingdom, the survey of primary caregivers (i.e., mothers) was limited to Jordanians. With the completion of the 2015 Census, future studies will have more reliable population data, on which to devise sampling plans covering all residents in Jordan. For consistency and to limit costs, the primary caregiver survey focused on female caregivers or mothers only, leaving a gap in knowledge about the behaviors, experiences and attitudes of male caregivers or fathers which remains to be filled.

While less critical, there are a few other limitations which are highlighted across QRF's reports and some of which are worth mentioning in this document. Some of the samples in the study were not representative at the governorate level, as they were designed only to provide reliable regional and national estimates. Data collected from the nursery caregivers could not be reported in the aggregate due to the lack of information about the distribution of the broader caregiver population across the four sub-categories (MoE-based, private, CBO-based, and work-based). Some aspects of nursery and KG1 classrooms could not be examined in a survey, such as the nature of child-to-caregiver interactions or the nature of learning activities conducted with children. Observational research is therefore recommended for future research to investigate such characteristics of nursery and KG1 classrooms. Additionally, the primary caregiver survey and the focus groups may have been affected by selection bias, as only respondents who were willing to participate were selected. There may be certain characteristics or trends in the households that did not participate in the survey that differ from the sample obtained.

Finally, it is important to consider respondents' response styles; i.e. the tendency of respondents to respond to survey questions in a way that does not reflect their innate opinions (Van Vaerenbergh & Thomas, 2013). This can include extreme response styles or acquiescence response styles (tendency of agreeing with statements). Response styles may differ across age (Billiet & McClendon, 2000) and gender; with females showing more prevalence of the aforementioned types of responses (Austin, Deary & Egan 2006). These factors limit the potential to drawing strong conclusions from attitudinal or opinion-based questions in the surveys.

For more information on the approach and methodology of the study, please contact the research team at info@qrf.org.

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