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EARLY CHILDHOOD DEVELOPMENT SERVICES IN ARMENIA

DIAGNOSTIC REPORT



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ACRONYMS

AMD	Armenian dram
ANC	Antenatal care
ASPIS	Armenia Social Protection Improvement Survey
DHS	Demographic and Health Survey
ECD	Early childhood development
FBP	Family Benefit Program
HCI	Human Capital Index
ILCS	Integrated Living Conditions Survey
MoESCS	Ministry of Education, Science, Culture and Sport
MoLSA	Ministry of Labor and Social Affairs
NGO	Non-governmental organization
ORS	Oral rehydration salts
PNC	Post-natal care
SABER	Systems Approach for Better Education Results (World Bank)
WHO	World Health Organization

EXECUTIVE SUMMARY

This report assesses the key constraints on the supply (quantity and quality) and demand for early childhood development (ECD) services for pregnant women and children under five years of age in Armenia. In assessing the supply, the coverage, completeness and quality of services are considered. The report also looks at access to ECD services, how it varies according to socioeconomic status, age group and other dimensions of vulnerability, and examines the nature of access barriers.

Based on findings, recommendations are made on how to improve access to ECD services for poor and socially vulnerable families. The government of the Republic of Armenia, with support from the World Bank and other development partners, is currently expanding the existing social work system in Armenia to more actively link vulnerable families with ECD services; a specific objective of the report is to inform the design of this expansion.

The World Bank carried out a comprehensive facility survey of ECD services providers in the four *marzes* of Ararat, Gegharkunik, Lori and Yerevan. The report draws heavily on the findings of the recently collected facility survey (World Bank 2018a) as the primary source of data. The reports also draws on the Integrated Living Conditions Survey 2017 (ILCS 2017),¹ the Social Snapshot and Poverty in Armenia database (Armstat 2018) the Armenia Demographic and Health Survey (DHS) 2015-16 (NSS 2017), and other ECD-related studies conducted in Armenia.

The scope of ECD services as defined in this report include those that (1) reach families that have children under the age of five (up to 60 months) and/or pregnant women; (2) cover children who are members of a family (that is, services for orphans or institutionalized children are not included in the scope); (3) are either universal or targeted to vulnerable populations (that is, private services targeted to the better off are not included); (4) are provided by the public sector, non-governmental organizations (NGOs) or development partners; and (5) have the objective to promote ECD, as it is outlined above and including health, nutrition, early stimulation/education, and protection from stress.

The assessment finds that services in Armenia are underpinned by laws, policies or strategies in relation to most critical dimensions of ECD. On the other hand, there is no cross-cutting ECD policy framework or strategy that would enable the financing and staffing of interventions to be systematically prioritized, sequenced and linked. Moreover, a policy/strategy gap exists pertaining to the cognitive, social and emotional development of children under the age of five.²

¹ A World Bank staff member analyzed data from the ILCS 2017.

² There is a clear action plan to address early learning needs of five-to-six-year-olds immediately before they join primary school.

The facility survey confirms that Armenia has a well-established set of public ECD services across the health and education sectors and that the dominant providers are public health services and kindergartens. The quality of kindergarten provision is comparable to regional comparators, with the curriculum being a strong point, although human resourcing is an area for further improvement (World Bank, 2017a).

Coverage of key maternal and child health/nutrition services delivered at health facilities and of birth registration - which underpins access to other services - is very high, and there are very few disparities in access to these services according to household background characteristics (NSS 2017). The few coverage gaps and disparities that do exist relate mainly to health and nutrition-related behaviors of households (NSS 2017). Thus, addressing them requires increased attention to the quality and coverage of maternal and parental education/communication, rather than to health service delivery as such.

However, early learning/cognitive development services fall far short of universal coverage. Only 20 percent of children under the age of five attend kindergarten (ILCS 2017). There is a particular gap regarding early learning services/cognitive development for children below the age of three. Nationally, 49 percent of four-year-olds and 37 percent of three-year-olds are enrolled in kindergarten, compared to only 13 percent of two-year-olds and almost no children under the age of two (ILCS 2017). There are very few alternatives to kindergarten on offer: the facility survey finds that other early learning services reach less than 0.1 percent of all children under the age of five in the four marzes surveyed. Parental education services can be an effective way of promoting the development of the youngest children; indeed, the dedicated parental education services available in Armenia offer a range of group-based activities and demonstrations, in line with recommendations on global best practice. However, the facility survey finds that coverage of these services is patchy. It finds as well that, most kindergartens and health centers have broad ECD objectives that, in theory, also encompass parental education, but in practice, activities are largely limited to the sharing of instructional materials. The gap in the promotion of the cognitive and social development of children under the age of three is of particular concern, given that global evidence suggests that the returns from investment are likely to be highest for the youngest children (Richter et al. 2016).

In contrast to maternal and child health services, there are substantial disparities in access to early learning services. A far higher proportion of children in Yerevan attend kindergarten compared to children living in other urban areas, for instance, and the percentage attending kindergarten in rural areas is even lower (ILCS 2017). Furthermore, while kindergartens aim to provide universal services rather than target particular social groups, in practice, enrollment in most marzes is heavily skewed in favor of children from relatively advantaged backgrounds. The poorer the child, the larger his or her family, and the lower the educational level of adults in the

households, the less likely that child is to attend kindergarten (ILCS 2017). Neither the facility survey nor the ILCS provide much data on inclusion of children with special needs and/or disabilities or on children from refugee households, though a Save the Children (2017) study suggests substantial exclusion of these groups.

Given the lifelong effects of early childhood interventions, disparities in access risk exacerbating inequities among Armenians rather than reducing them.

The disparities in access to early learning that favor more advantaged groups are concerning, particularly because kindergartens are heavily subsidized. The combined effect of heavy subsidization, rationing of access and skewing access toward more advantaged children is to make the subsidy effectively regressive, even if this is not the intention. The disparities also are likely to diminish the overall efficiency of ECD investments, as global evidence demonstrates that disadvantaged children benefit more from such investments than do advantaged children (Engle et al. 2007). The exception to this pattern of socioeconomic disparities in access to kindergarten is Yerevan, where enrollment rates are very similar for all income groups (ILCS 2017). This may be linked either to the fact that Yerevan is the only marz providing free access to kindergarten and/or that the overall supply of kindergarten services in Yerevan is much higher than in other marz. Nonetheless, there is scope to further improve the access of poor and vulnerable children, even in Yerevan, to mitigate the negative effects of disadvantaged home circumstances.

As for the reasons for the observed challenges of coverage and inclusion, these do not appear to be primarily related to lack of parental demand for early learning services. This report confirms the conclusions of two recent assessments that parents have a high level of awareness of the benefits of early years education for the cognitive and social development of their children (Save the Children, 2017, World Bank 2017a). Supply side constraints are the main problem.

One key conclusion from these findings is that the referral system needs to be tailored to the different realities of the various ECD services. With respect to some services (such as kindergartens and specialist disability services), a referral system could promote access by enabling poor and vulnerable households to better navigate the access system. This would require that social workers have good knowledge of available services and how to access them and are tasked with actively following up with providers to ensure that correct procedures are being followed. For other services (such as maternal and child health services and birth registration) that already have almost universal coverage, referral will be unnecessary for most households; targeted follow up of those few children identified as missing out on services would be more efficient than a broader brush approach. Early years education and cognitive/social development services for the youngest children face important supply side gaps. One of the key lessons from international experience is that the effectiveness of referral systems depends on an adequate supply of services (Roelen et al., Camacho et al.). To be fully effective, therefore, referral to these services would need to be complemented by efforts to expand the service supply and tailor it to the needs of different age groups.

Specific recommendations, by category of action, can be summarized as follows:

Intermediation service

- 1) Social workers' responsibilities should focus on intermediation by simply providing information to beneficiaries on available services for which they are eligible. For that, it is critical that social workers have detailed information on the range of ECD services available locally and how to access them so that they can provide up-to-date, accurate information to households about the existing supply of local services.

Supply side

- 2) Define the boundaries between the ambition for universal and a more targeted approach that considers current capacities and prioritize the expansion of services for poor and vulnerable children through:

a) Analysis of exclusion

- i) Support facilities providing ECD services to develop simple monitoring systems that disaggregate beneficiaries by age, poverty status, disability status and other relevant indicators of vulnerability to enable tracking of inclusion and share data with social workers for follow up with excluded groups;
- ii) Consider the development of a monitoring system that tracks the developmental trajectory of each individual child and the effective access to key services in all relevant dimensions for their development, expected outcomes by age groups and possible risks (following the example of countries such Chile);
- iii) Carry out further qualitative research on the supply of and demand for ECD services for children with disabilities and special needs, as this remains a key knowledge gap.

b) Efficiency and effectiveness gains

- i) Strengthen the human resourcing of kindergartens by investing in ECD training of staff and increasing the proportion of staff who are teachers/caregivers. To achieve this at zero net cost, consider analyzing the possibility of sharing support staff with similar profiles (administrative and finance staff, cooks, cleaners, etc.) among several facilities to reduce costs (data would need to be gathered to identify different profiles of support staff);
- ii) Improve the service provision for children with disabilities and special needs, for example through staff training and the development of tailored learning plans for these children in kindergartens. Use the findings of the qualitative research to develop a specific action plan.

- 3) Expand access to cognitive development/early learning services tailored by age group in all areas and for all pre-school children living in remote rural areas (especially for the youngest children below the age of three).
 - a) Support the supply of alternative site-based early learning opportunities for children such as part-time ECD centers and parent and toddler groups for children younger than age three (in all locations) and all pre-school children living in remote rural areas.
 - b) Support the supply of parental education services in localities where these services are absent or have low coverage, use best-practice interactive approaches (practical demonstrations, group and community training, peer-to-peer learning, etc.), and consider including these as part of the social work system (see also recommendation 5).

Referral system

- 4) Gradually expand the responsibility of social workers to follow up with ECD service providers on behalf of vulnerable clients, checking that correct access procedures are being followed and, for example, tracking their place in waiting lists to access services.
- 5) In relation to services that already have a very high coverage (such as birth registration, vaccination, PNC, etc.), use available data (for example from health facilities) to identify and target the few vulnerable women and children who are missing out. Then social workers and health officials could proactively follow up with these particular households through home visits to encourage them to access the service.
- 6) Given the patchy supply of parental education services, consider training social workers to deliver group training on interactive parenting approaches to caregivers, to complement home visits.

INTRODUCTION

This report assesses the key constraints on the supply of (quantity and quality) and demand for early childhood development (ECD) services for pregnant women and children under the age of five in Armenia and puts forth recommendations on how to improve access to ECD services for poor and socially vulnerable families. The government of the Republic of Armenia, with support from the World Bank and other development partners, is currently expanding the existing social work system in Armenia to more actively link vulnerable families to ECD services. A specific objective of the report is to inform the design of this expansion.

The World Bank team carried out a survey of ECD services providers in the four marzes of Ararat, Gegharkunik, Lori and Yerevan. The report draws heavily on the findings of this facility survey (World Bank 2018a), the Integrated Living Conditions Survey (ILCS) 2017,³ the Social Snapshot and Poverty in Armenia (Armstat 2018), the Armenia Demographic and Health Survey (DHS) 2015-16 (NSS 2017), and on other ECD-related studies conducted in Armenia.

The report's assessment and recommendations are also grounded in global evidence on ECD. This evidence highlights the importance to human development of receiving nurturing care in the early years. There is robust evidence that early experiences shape the brain's structure and functioning, and that deprivations during the prenatal period and early childhood can have substantial negative impacts on later cognitive ability and educational achievement (Walker et al. 2011). Early childhood development services that promote nurturing care during this period are cost effective, and programs for disadvantaged children during early childhood have a higher rate of return than programs introduced later in life (Heckman 2006). Services with proven benefits to ECD include antenatal care, promotion of child nutrition and micronutrient supplementation, parenting education, and preschool education. Global evidence points to specific interventions in each area that have proven impact (Engle et al. 2011). Key findings from the impact evaluation literature regarding the design of interventions include the following:

- Disadvantaged children benefit more than advantaged children (Engle et al. 2007). In addition to addressing inequities, services that target disadvantaged children thus have higher absolute returns, whereas services that predominantly reach advantaged children risk exacerbating inequities across the life cycle.
- Longer exposure results in more consistent and greater effects on child development. (Engle et al. 2007).
- Among children under the age of five, younger children benefit more than older children even after adjusting for duration (Engle et al. 2007). While early childhood services generally focus on the period up to ages five or six, evidence

³ A World Bank staff member analyzed data from the ILCS 2017.

shows that adverse exposures do the greatest harm—and effective interventions produce the greatest benefit—during the period from conception to the age of three (Richter et al. 2016).

- For maximum impact, children and their families need to receive comprehensive ECD services that target multiple risks (Britto et al. 2016). In contexts where resources are constrained, there may be advantages to integrating services and using existing delivery platforms (for example, maternal and child health services) as an entry point for promotion of cognitive stimulation (Britto et al. 2016). However, this depends on specific institutional arrangements and capacities in the context, as there may also be risks of overwhelming existing services and compromising quality by piling on too many additional responsibilities (Grantham-McGregor et al. 2014). Moreover, there also are differences in the optimal timing of health/nutrition interventions and cognitive interventions⁴ (Alderman and Fernald 2017).
- Regarding parental education, sessions that directly involve parents and children are more effective than the simply provision of information to parents on child development (Engle et al. 2007). Demonstrations and opportunities for skill building and practice with parents increase effectiveness (Engle et al. 2007).

Countries including Chile, Indonesia and Peru have successfully implemented multisectorial policies with measured impacts on young child development. In Chile, the *Chile Crece Contigo* (Chile Grows with You) system is based on a management model that structures the differentiated deployment of a set of programs, benefits, social services, health care and education to support the development of children according to their specific needs. It is a comprehensive, multisectorial policy with components that monitor and support child development from gestation onward (World Bank 2018c). In Peru, stunting was reduced from 28 percent to 13 percent between 2008 and 2016, thanks to a sustained political commitment that translated into financial and management tools for coordination and accountability of government actors as well as a communication campaign that empowered civil society to become a key, vigilant actor in monitoring children's better nutrition (Marini, Rokx and Gallagher 2017). A similar strategy, called *StraNas Stunting*, was launched in Indonesia in 2017. This strategy recognizes that a multipronged approach is needed for stunting reduction because of the interplay of several factors: quality and quantity of food, recurrent disease and infections, antenatal nutrition, birth outcomes, access to health care, water and sanitation infrastructure, and the ability of households to purchase nutritious foods (Rokx, Subandoro and Gallagher 2018).

⁴ For example, child health visits tend to be concentrated in the first year of life (in line with vaccination schedules), whereas cognitive stimulation interventions are likely to be of benefit longer into childhood.

Taking account of both the global and national evidence, this report assesses both the supply of and access to ECD services in Armenia. In terms of supply, the report considers the coverage, completeness and quality of services. In terms of access, it looks at how access to ECD services varies by socioeconomic status and age group and the specific barriers to access.

The scope of ECD services as defined in this report include those that: (1)

- Reach families with children under the age of five (up to 60 months) and/or pregnant women;
- Cover children who are members of a family ((that is, services for orphans or institutionalized children are not included in the scope);
- are either universal or targeted to vulnerable populations (that is, private services targeted to the better off are not included);
- Are provided by the public sector, non-governmental organizations (NGOs) or development partners;
- And have the objective to promote ECD, as outlined above and including health, nutrition, early stimulation/education, and protection from stress.

The report is structured as follows:

Section 1 describes the **context for ECD services in Armenia**. Child poverty and vulnerability are covered in 1.1; 1.2 focuses on specific risks and protective factors for ECD; 1.3 reviews the legal and policy framework for the provision of ECD services; and 1.4 summarizes key findings from previous studies.

Section 2 describes the **data sources and methodology of the study**

Section 3 describes the **supply of ECD services** in the four marzes covered by the study. An overview of the types of ECD services available is presented in 3.1; 3.2 looks at ways in which services are combined and the extent to which they provide integrated ECD support; 3.3 considers the financial and human resources available to ECD services; and 3.4 summarizes findings on the supply of ECD services.

Section 4 reviews **access to ECD services**, covering both demand and supply side determinants of access. The overall coverage by type of ECD service and age of children is discussed in 4.1; 4.2 presents the findings of the survey in terms of inclusive access for poor and vulnerable children; 4.3 and 4.4 complement the survey findings with information from other sources; and 4.5 summarizes findings on coverage and inclusion.

Section 5 highlights key findings and presents **conclusions and recommendations**. The report's findings are discussed in 5.1; 5.2 highlights key conclusions and 5.3 summarizes recommendations.

1. CONTEXT FOR ECD SERVICES IN ARMENIA

1.1 Child poverty and vulnerability in Armenia

Armenia was considered an important success story among the transition economies from the early 2000s until the global financial crisis in 2008-09, but in the past decade poverty reduction has stalled. In 2017, according to the Statistical Committee of the Republic of Armenia (Armstat 2018), 26 percent of the population lived in poverty (below the national upper poverty line) and 1.4 percent in extreme poverty (below the national food poverty line). An international comparison suggests that Armenia has one of the highest poverty rates in the Europe and Central Asia (ESA) region—higher than other countries with similar rates of per capita income—due to different patterns of growth and wealth distribution (World Bank 2016a).

Factors correlated with poverty incidence include location, age, household size, gender of household head, disability, education and employment. The poverty rate is lowest in Yerevan, at 22 percent, and highest in other urban areas, at 28 percent. Young children are more likely to be living in poverty than other age groups: children in households where the youngest child is age five or younger have a poverty rate of 34 percent. Larger households that include many children also have a higher poverty incidence: households with three or more children under the age of 18 have a poverty rate of 40 percent. Children in female-headed households have a poverty incidence of 37 percent; 39 percent of children living in a household where at least one adult has a disability are poor; and the risk of living in poverty is also higher than average for children in households where the household head has less than complete secondary education or is out of employment (Armstat 2018).

Furthermore, many households are living in multidimensional poverty. Access to decent work and to adequate housing and health services are challenges in Armenia and have implications for the well-being of young children (Martirosova et al. 2017). According to Armstat (2018), 17 percent of poor children live in accommodation that lacks a shower or bath and 36 percent lack hot running water. Heating and water systems are a particular challenge in rural areas, as is transport; rural households residing far from hard surface roads and markets are worse off than others (Armstat, 2018). In Yerevan and other urban areas, cramped living conditions are a major problem (Martirosova et al. 2017).

Another aspect of the context for ECD services is vulnerability of children linked to disability. A survey carried out by the United Nations Children's Fund (UNICEF) and the Ministry of Labor and Social Issues in 2012 found that children with registered disabilities constituted approximately 1 percent of the total child population in Armenia. Based on the international child disability benchmark rate of 2.5 percent, their report suggested that there are likely an additional 1.5 percent (12,000 children) with disabilities who are not registered, and are

therefore invisible to the social services system. Possible reasons for under-registration include the unwillingness of some families to seek certification and the diagnosis-based criteria used in the disability certification system (UNICEF; Ministry of Labor and Social Issues 2012).

Social assistance programs somewhat mitigate child poverty. The Family Benefit Program (FBP) and old age pensions play the most important roles in reducing child poverty through their effect on household income. The poverty-reducing effect of other state allowances targeted to families with children, such as the childbirth grant,⁵ is negligible (Armstat, 2018). Table 1 compares the actual child poverty and extreme poverty rates after receipt of social assistance and what would be the rates if each specific benefit did not exist. It can be seen that old age pensions have the greatest effect in terms of lifting children out of poverty and extreme poverty, largely because of the generous size and coverage of these pensions; 48 percent of children live in a household in which at least one person receives a state pension (Armstat, 2018). The FBP, targeted to poor and vulnerable households, reached 13 percent of all households in Armenia in 2017. Its impact also is important: without the regular FBP benefits, child poverty would be 3 percentage points higher and many more children—4 percent rather than 1 percent—would live in extreme poverty.

Table 1: Effects of social protection benefits on child poverty rates

Child poverty rates	Post-social protection consumption (base rate)	Consumption, net of pension transfers	Consumption, net of social assistance transfers (FBP and other benefits)
Poverty rate	26	45	29
Extreme poverty rate	1	17	4

Source: Armstat 2018.

1.2 Social work and early childhood development

Social work in Armenia is defined by law as “a professional activity carried out through application of psychological and pedagogical methods and techniques with a view to meeting individual social needs to overcome or preclude the difficult life situations⁶ by way of providing tailored assistance to the individual, the family

⁵ The universal child birth benefit was introduced in 1990 and the one-off childbirth assistance benefit for FBP households was introduced in 2007. The amounts of both benefits have been increased over time.

⁶ Difficult life situations are any situation, which a person cannot independently cope with or combination of such situations, including disability, illness, inability of self-service because of age, lack of parental care, poverty, unemployment, family conflicts, mistreatment, violence, trafficking, helplessness, loneliness, social isolation, bad habits, accident or extreme situation, being in a place of detention or return from there, objective situation preventing person’s regular activities, which a person cannot independently overcome

and other social groups”⁷. It is directed to the most vulnerable such as children, elderly, the poor, persons with disabilities and other groups (e.g. drug addicts, sex workers, marginalized groups with no permanent place of residence, homeless people, etc.). “Social case management” commences based on assessment of social needs. A social case is a situation of an individual (family) due to one or several intermingled social needs. Social case management is a process based on the assessment of an individual’s (family) social needs, collaboration and an effort to find available resources which includes the programming of social services delivery equivalent to the needs of social support recipients; assistance in obtaining them, with an aim to meet the social needs of a social assistance recipient⁸.

Recognizing the importance of social case management, the Government prioritized in the 2017-2022 government’s plan the introduction of an integrated social services system, including the development of a social case management methodology and the establishment of a social work institute to develop and certify the required skills. The Integrated Social Service Provision (first adopted by the government in 2010) process focuses on improving the access to and the quality of social services. The Integrated Social Service reform requires effective inter-sectoral collaboration to increase access to and quality of social services and calls for the development of a methodology for “social case managers” – a new job function for existing social workers in Armenia. The legal framework to regulate social case management has been developed⁹ and a draft law on social work has been prepared and is currently in public hearing. However, guidelines to operationalize the existing regulation on social work are missing. Consultations with representatives from Ministry of Labor and Social Affairs (MLSA) and social workers suggest that social workers are currently lacking the skills and tools to work with vulnerable people in a holistic way as case managers. As a result, what happens in the territory is far from a referral system. In order to transform existing social workers into “social case managers”, social workers need to be trained and equipped with the skills and tools they need to assess and manage different and difficult “cases”: for example, referral mechanisms, resource books, assessment and follow-up tools, methodological guides on case conferences, mapping of social services that exists in the community and of the network of public and private providers facilitating access to jobs and access to finance for small scale entrepreneurship projects.

Social workers are critical players to promote behavioral change and communication through their home visits. They are frontline workers who have direct contact with vulnerable households, including those with children at risk of de-

⁷ RA Law on Social Assistance, Article 38.

⁸ RA Law on Social Assistance, Article 2

⁹ The order for home visits and methodological instructions for managing a social case dated September 2016, the social assistance law, annex 2 of decree-1061-N-2015).

velopmental delays. As of today,¹⁰ these home visits tend to focus on collecting information and verifying eligibility for the Family Benefit Program. More recently, the MLSA is working towards developing a referral system that expands the responsibilities of social workers to include at first the provision of information (service intermediation function) and, in the future, a more tailored case management function including also following up with the service providers on the status of beneficiaries for a complete referral process that ensures access of eligible vulnerable populations to available services.

Case managers have an important role in identifying child malnutrition cases as well as in the prevention and treatment. To ensure high performance, case managers should have general knowledge, insights into identification or recognition of malnutrition, know the definitions and terms describing it and symptoms of malnutrition. It is envisioned that case managers are called - within their responsibilities - to identify risks of child malnutrition, assess social needs of families, prepare individual social plans, ensure efficient implementation of the plan, deliver necessary integrated assistance and provide continued counselling to the family as part of their responsibilities.

1.3 Early childhood development: Specific risks and protective factors

Overall, human capital development in Armenia is in line with expectations, given per capita income. Armenia's Human Capital Index (HCI) is estimated to be 0.57, similar to the average HCI for upper middle-income countries.¹¹ This means that a child born today will be 57 percent as productive, as an adult, as he or she could be had he or she enjoyed complete education and full health services. Armenia performs as expected or better than predicted by its income level on the child survival and health/nutrition components of the HCI, but less well than expected on education components.¹²

Health, nutrition and birth registration indicators

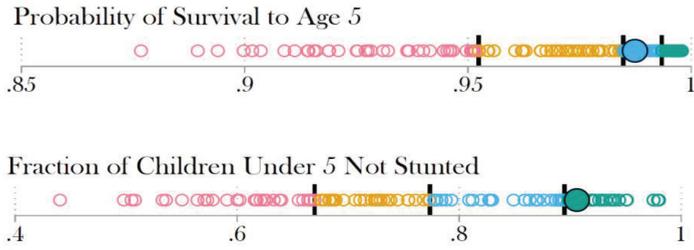
Under-five and infant mortality rates in Armenia declined by more than threefold between 2000 and 2017 in terms of performance, Armenia now falls into the second quintile of all countries in the world for which data are available. It performs even better on preventing childhood stunting, falling into the top quartile of all countries on this measure. Figure 1 illustrates its performance on these components: with the pink portion represents the bottom, or fourth quartile, of countries; yellow the third quartile; blue the second and green the top.

¹⁰ As declared by social workers and beneficiary families of the Family Benefit Program during focus groups discussions in Yerevan in May 2019.

¹¹ The HCI components combine to yield a number between 0 and 1, whereby 1 is perfect health and education and any lower number is a percentage of the full potential a child could have reached with better education and health.

¹² See https://databank.worldbank.org/data/download/hci/HCI_2pager_ARM.pdf, accessed May 14, 2019.

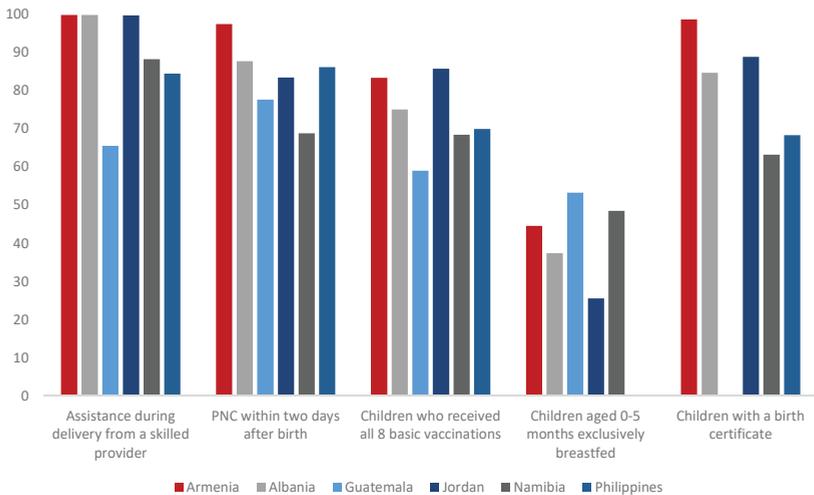
Figure 1: Comparative performance of Armenia on health/nutrition HCI components



Source: World Bank 2018b. Armenia: Human Capital Index. https://databank.worldbank.org/data/download/hci/HCI_2pager_ARM.pdf.

Armenia performs at least as well as comparator countries¹³ on all the maternal and child health, nutrition, and registration measures captured in the Armenia Demographic and Health Survey (DHS) 2015/16 (NSS 2017). Its performance regarding post-natal care (PNC) and birth registration is particularly impressive (figure 2).

Figure 2: Percentage of mothers/children receiving each service



Source: World Development Indicators Database, <https://databank.worldbank.org/data/reports.aspx?source=world-development-indicators>, accessed May 14, 2019.

¹³ Data were unavailable for countries in the region with similar levels of gross national income (GNI): Azerbaijan, Georgia, Macedonia and Ukraine). Therefore, worldwide comparators are used. Countries selected as comparators are those positioned up to five places above and below Armenia, according to the 2017 calculations of GNI per capita on both the Atlas and PPP methods and excluding small island states. Data were drawn from <https://databank.worldbank.org/data/download/GNIPC.pdf>, accessed May 14, 2019.

Detailed performance on maternity care, birth registration, child malnutrition and child health—measures captured in the Armenia DHS 2015/16 —is summarized below.

Maternity care. All women in Armenia receive antenatal care (ANC), including all key procedures, and skilled assistance for delivery; almost all (97 percent) receive appropriate PNC. However, fewer than half take iron or folate/multivitamin tablets (NSS 2017). The main reason for this seems to be that such tablets were not recommended or prescribed to them (World Bank 2016c), which signals a gap in health care providers' communication and/or provision of information. Furthermore, more than half of women of childbearing age (ages 15–49) report that a serious problem in obtaining health care is lack of money for treatment (NSS 2017).

Birth registration. On the positive side, birth registration is almost universal in Armenia, which is important because a birth certificate is often necessary for children to access key services and benefits (including social and childbirth benefits). According to the DHS 2015/16, 99 percent of children under the age of five had their birth registered and have a birth certificate.

Child malnutrition. The DHS 2015/16 found that, among children under the age of five:

- 9 percent are stunted (that is, short for their age, a measure of chronic malnutrition). This is a dramatic reduction from the 18–19 percent of children found to be stunted at the time of both the 2005 and 2010 Demographic and Health Surveys in Armenia. As noted, this is a relatively good performance for a country of Armenia's income level although it is still of concern, given the potential lifelong negative consequences of chronic malnutrition in early childhood.
- Obesity is a growing problem: 14 percent of children are overweight or obese.
- There are significant regional and socioeconomic disparities in child malnutrition rates. The prevalence of stunting and obesity is higher for children in the bottom three wealth quintiles than it is for children in the top two quintiles; children living in rural areas than it is for children in urban areas; and children whose mothers have secondary education or less.
- Social assistance beneficiary households in Armenia are substantially more likely to have children at risk of malnutrition. This conclusion is based on

the World Bank (2016b) Armenia Social Protection Improvement Survey (ASPIS) in four marzes).¹⁴

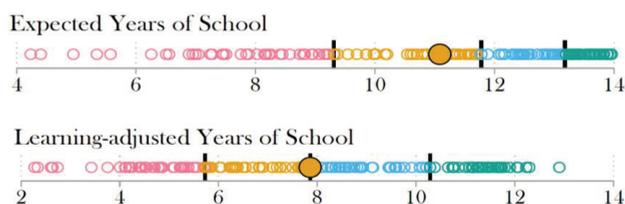
Further, information on child feeding practices in Armenia indicate that almost all children are breastfed at some point. However, only 45 percent are exclusively breastfed for 6 months and only 25 percent of children ages 6 to 23 months are fed in line with acceptable minimum dietary standards (NSS 2017). Insufficient knowledge about appropriate feeding, rather than lack of availability of certain food products, seems to be the reason for the inadequate animal protein in children’s diets, , as almost all households have access to animal protein in the form of poultry, beef and pork and dairy, eggs and milk (World Bank 2016b).

Child health. In terms of vaccination levels, 84 percent of children in Armenia receive all the basic vaccinations recommended by the World Health Organization (WHO) at the correct age; there is no clear association between vaccination coverage and socioeconomic status or mother’s education. Nonetheless, there are some important gaps in caregiver knowledge of childhood disease prevention and practices for treatment . For example, only 43 percent of children under the age of five have their stools disposed of safely; , only 39 percent of children under the age of five who have had diarrhea are given more to drink than usual by caregivers, in line with WHO guidance (NSS 2017).

Education

Armenia does relatively less well on the measures of the education dimension of the Human Capital Index. It falls within the third quartile of all countries, both on years of schooling and on learning-adjusted years of schooling, which takes account of pupils’ attainment (figure 3). No progress has been recorded in recent years on this latter component.

Figure 3: Comparative performance of Armenia on education HCI components

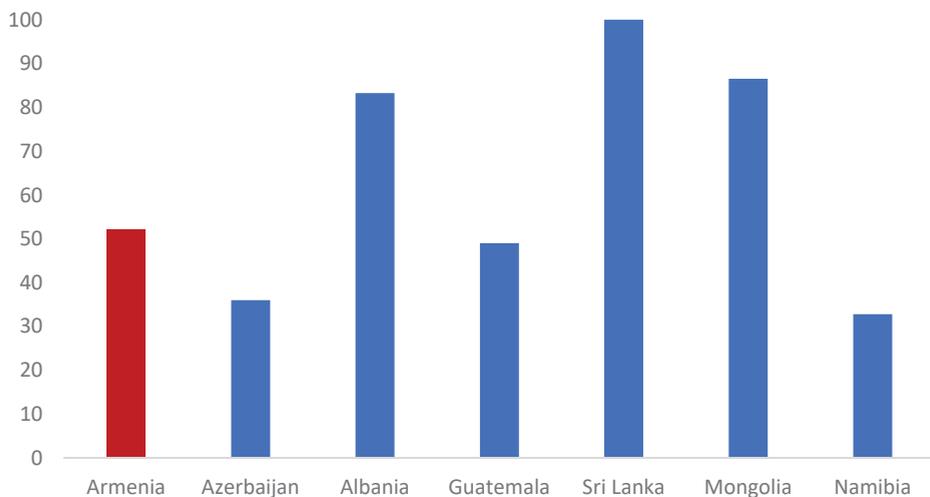


Source: World Bank 2018b.

¹⁴ The ASPIS is representative of the entire population of three marzes and the city of Yerevan, which together account for 53 percent of the total population of Armenia. While a nutrition module was included in order to understand how social assistance can be used as a platform to reduce malnutrition, the primary goal of the ASPIS was not nutrition-related. As a result, the ASPIS was able to capture only a small sample size of children under the age of five, and the findings provided must be interpreted with this limitation in mind. It is reassuring that the overall stunting rate from the ASPIS 2016 is consistent with the DHS 2015/2016-16, at about 9 percent.

While gross enrollment in primary education in Armenia stands at over 100 percent, there are concerns about the school readiness of children entering Grade 1; additionally, although almost all children are enrolled in primary school, the primary completion rate is only 90 percent.¹⁵ The education measures in the HCI do not directly capture ECD. However, given the global evidence that early experiences are critical to later educational attainment, these challenges may be linked back to deprivations in the earliest years of childhood. Compared to countries with similar levels of GNI for which data are available, Armenia performs somewhat less well than the average for this group with respect to enrollment of children in preprimary education (figure 4).

Figure 4: Enrollment of children in pre-primary education (% gross)



Source: World Development Indicators Database.

In summary, it can be seen that effective health services are a protective factor for ECD in Armenia, albeit with a few gaps related to caregiver knowledge and behaviors. At the same time, limited availability and access to early years cognitive development and preschool education appear to be among the key risks to human capital development.

1.4 The legal, policy and program framework for ECD in Armenia

Cognizant of the importance of ECD for human capital development, the government of the Republic of Armenia has developed a legal and policy framework for ECD services in Armenia. The framework comprises cross-cutting

¹⁵ World Bank DataBank - Education Statistics - All Indicators. <http://databank.worldbank.org/data/source/education-statistics-%5Eall-indicators/Type/TABLE/preview/on>, accessed December 19, 2018.

elements and initiatives pertaining to nutrition, child health, education, and social protections and social services. These are summarized below.

Cross-cutting:

- The **United Nations Convention on the Rights of the Child** was ratified by the Republic of Armenia in 1992 and its provisions were subsequently incorporated in national legislation.
- The **Strategic Action Plan on the Protection of the Rights of the Child (2017-21)** and associated Activity Plan constitute a key mechanism through which Armenia's obligations to children are realized and cover child protection, health, education and juvenile justice. Many proposed actions are relevant to children of all age groups and a few activities are specifically targeted to children under the age of five, for example medical care and medical screening of newborns. However, child nutrition is excluded from the Plan and, in relation to early learning, the Plan focuses on the final preschool year (ages five to six). As a result, the Plan provides a rather less- comprehensive framework for the promotion of ECD than did the earlier National Plan of Action for the Protection of the Rights of the Child (2004-15). The earlier plan included more targets of specific relevance to very young children, for example in relation to exclusive breastfeeding, chronic malnutrition, vaccination coverage, rehabilitation of infants with disabilities, and the quality of preschool care and education.
- **Decree N588 of June 21, 2001** established a cross-sectoral national committee of seven ministries to coordinate the **National Plan of Action**, with specific responsibilities defined for individual line ministries. For example, the Ministry of Education, Science, Culture and Sport (MoESCS) had the lead in early childhood education policy design and implementation; the Ministry of Health was responsible for health care and nutrition promotion; the Ministry of Agriculture was responsible for child nutritional intake and food safety; and the Ministry of Labor and Social Affairs (MoLSA) played its role in combating poverty and creating favorable conditions for children's growth and development. However, a Systems Approach for Better Education Results (SABER) assessment carried out in 2012 noted that there was no annual action plan to guide responsible agencies and partners and that collaboration between line ministries was weak in practice (World Bank 2012). In its 2017 assessment, Save the Children (2017) identified substantial continuing inter-Ministerial coordination challenges.
- The **United Nations Convention on the Rights of Persons with Disabilities** was ratified by the Republic of Armenia in 2010.

Nutrition:

- The **Concept on the Improvement of Child Feeding, Annex N 1, Protocol Resolution N 40 of RA Government Session of 25 September 2014** identifies the key nutritional challenges in Armenia and strategies to address them. In relation to the early years, these challenges and strategies include the early initiation of breastfeeding, continuation of exclusive breastfeeding to six months and reduction of stunting in children under the age of five. In relation to supplementary feeding, a key challenge identified in this Protocol is that not only parents but also medical workers lack knowledge on when supplementary feeding should start, the frequency of feeding and recommended foods.
- The **National Breastfeeding Promotion Program and Action Plan (2016-2020)**.
- The Government of Armenia has taken important measures to prevent micronutrient deficiencies. All salt for human consumption is required to be iodized, implementation is monitored in accordance with **Government Resolution 1522-N of 13 October 2011** and, as a result, all households now consume iodized salt (NSS 2017). The fortification of wheat flour with micronutrient elements and vitamins was approved in principle by **Protocol Resolution N6 of 17 February 2011** of the government of the Republic of Armenia.

Child health:

- The **Law on Medical Services for the Population (1996)** stipulates the right of each child to receive free medical care and services within public health programs (Article 10). In order to implement this provision, free delivery care vouchers and state certificates for free child health care (for all services for children up to the age of seven) have been in use since their respective introductions in 2008 and 2011. As of 2011, out-of-pocket expenditures on health were very high and much higher as a proportion of total health spending than in neighboring countries (World Bank 2012). However, recent additional financial contributions within the voucher and certificate programs resulted in a threefold-to-fourfold rise in the wages of health workers, which has significantly contributed to ensuring truly free and affordable health services for mothers and children (NSS 2017).
- The **National Policy and Strategy on the Improvement of Child and Adolescent Health and the Action Plan for 2015-2020**.
- The **National Program on Immunization for 2016-2020**.

Education (Preschool):

- The **Law on Preschool Education**, 2005 commits to preserve and improve the child's physical and mental health; provide harmonious development and education for preschool children; and prepare children for formal schooling. The law states that children have an equal right to receive pre-primary education that can be implemented in a preschool institution, in the family or through private arrangements (Article 23).
- The **Law on Mainstream Education** (which has merged previous laws on special education and mainstream education) stipulates that by 2022, all mainstream schools in Armenia will be inclusive of children with special needs/disabilities (Save the Children 2016).

There is no published strategy on preschool education; the draft Preschool Education Strategy 2016-25 is pending finalization. However, it seems that the priority is one year of education before primary school, as the government has prioritized the introduction of a one-year School Readiness Program for five-to-six-year-old children. The target is for 90 percent of these children to be enrolled; per capita funding is being provided from the state budget with additional support from development partners.

A number of standards frame the preschool education provision and ministries have specific responsibilities regarding these. For example, educational content is the responsibility of the MoES; sanitation of the Sanitary-Hygiene Agency of the Ministry of Health; and construction standards of the Ministry of Urban Development. Some preschool institutions are regularly inspected, although as of 2012, these inspections tended to be irregular and did not extend to community kindergartens (World Bank 2012).

Kindergartens (catering to children ages two years and over) are the responsibility of local communities and funded largely by the community budget. The budget for each kindergarten is based on the number of children attending, hours of operation (relevant for staffing allocation) and the ages of the children (relevant for financing of meals). Yerevan Municipality used its budget to start providing free kindergarten access from 2010, but fees are payable in other marzes and some communities have struggled to provide kindergarten services due to lack of funds.

Social protection and social services:

Several state allowances are specifically targeted at households with young children, including a childbirth allowance and a child care allowance. However, these are one-off or low-level allowances or have low coverage. As discussed in section 1.1, the social protection programs with the greatest impact on child poverty are old age pensions and the poverty-targeted FBP.

An assessment by Armstat (2018) of the effectiveness of the FBP in reaching poor households concludes that targeting is pro-poor. Excluding the value of the transfer itself, 58 percent of beneficiaries of the Family Benefit Program are in the poorest “pre-FBP” consumption quintile (Armstat, 2018). However, coverage is limited, with only one third of the pre-FBP poor covered (Armstat, 2018). The FBP is an on-demand and poverty-targeted program, meaning that households must first apply and are then assessed for eligibility by means of a scoring formula. A key challenge is that many households in need do not apply: in 2016, only 13 percent of all households reported having applied (Armstat, 2017).

Recent reforms have promoted the integration of social services through a one-stop shop model for the provision of different social benefits and services. This model included the common location of the different service providers responsible for pensions, social assistance benefits, employment services and disability certification, and strengthening of the social case management systems. Social workers play an important role in promoting inclusion. They make home visits to vulnerable families (who self-refer or are referred by third parties); assess their needs; refer them to any required benefits and social services; help prepare the required documentation; and even accompany those with mobility difficulties. To date, the range of social services to which clients are referred include child nutrition services, and there is a proposal to widen this remit to include other ECD services (Ministry of Labor and Social Affairs 2016).

In summary, Armenia has in place laws, policies or strategies pertaining to most critical dimensions of ECD: nutrition, micro-nutrient deficiencies, maternal and child health, preschool education, child protection, social protection, and social services.

Nevertheless, there is no cross-cutting ECD policy framework or strategy that would enable the financing and staffing of interventions to be systematically prioritized, sequenced and linked. The World Bank (2012) SABER assessment argued that the National Plan of Action for the Protection of the Rights of the Child (2004-15) in effect provided a comprehensive ECD framework, but the subsequent Strategic Action Plan on the Protection of the Rights of the Child (2017-21) no longer does so due to changes in scope. This Plan does not cover young child nutrition or the cognitive stimulation and social and emotional development of children under the age of five. As a result of the lack of a clear and comprehensive ECD policy framework, it is unclear where certain key ECD services fit and there is a risk that important interventions slip between the cracks. This is a particular risk for the promotion of cognitive, social and emotional development of young children below the age of five, since this important dimension of ECD does not appear to be fully covered by any current legal, policy or strategy document.

1.5 Key studies on early childhood development in Armenia

ECD elements have been included in core government surveys such as the ILCS and the DHS. Several additional, important studies have looked at provision of and access to ECD services in Armenia. Some of these are described below, with full links to the documents in the References list at the end of this Diagnostic Report.

Armenia: Assessment of the Early Childhood Development Policies and Programs, Summary of Policy Recommendations (World Bank 2012), a Systems Approach for Better Education Results (SABER) analysis. This Diagnostic Report makes extensive reference to this comprehensive, multisectoral analysis of ECD policies and programs in Armenia; the only limitation of the SABER analysis is that it is seven years out of date.

Why Should We Care About Care? The Role of Childcare and Eldercare in Armenia (World Bank 2017). This mixed methods study by the Poverty and Equity Global Practice group for the ECA region assessed current arrangements in Armenia for the care of children and older people. While the report focuses on implications for the promotion of women's labor force participation, much of the background data and analysis are useful for this Diagnostic Report of ECD in Armenia.

Assessment on Access of Children to Pre-school Education Services in Armenia (Save the Children 2017). This mixed methods assessment of access to preschool was based on 599 interviews with parents of children ages three to five who were selected to be representative; focus group discussions with deliberately selected groups of parents whose children were not attending preschool education; and key informant interviews with national/regional stakeholders. Among its key findings, the Save the Children report noted that:

- Parents attach a high value to preschool education;
- Preschool education for three-to-five-year-olds in Armenia is largely provided in state kindergartens rather than the private or charity sectors and that preschool education is quite intensive, with most children who attend preschool spending at least four hours every day there;
- The overall supply of preschool education is insufficient to accommodate all children ages three to five, and many parents report bureaucratic hurdles to enrolling their children;
- Vulnerable children (including children with disabilities, children with parents who are not working or have a low level of education, and children living in remote rural areas) are most likely to face challenges in accessing available preschool education services;

- A lack of systematic data collection hampers more in-depth quantitative analysis of supply and access issues for population subgroup, and no institution has a mandate to promote access to preschool education for those currently excluded. Stakeholders attribute this to the non-compulsory nature of the service.

Scenarios for Early Childhood Development in Armenia: Financial and Legal Analysis of National Preschool Education Programs, Policies and Strategies in the Republic of Armenia, (Van Ravens 2008). Although it is somewhat dated, this report, commissioned by UNICEF, presents some interesting analysis of options for sustainable provision of quality ECD services in Armenia. Its key recommendation is that preschool cognitive development services should primarily focus on supporting parents during the critical earliest years through an expansion of parental education, group sessions and/or home visiting. The report also recommended preparing four and five-year-olds for school through a preschool model of lower cost and shorter hours. Parents who want a more extensive service that included meals and daytime naps (for example to ensure child care during working hours) would make a more substantial financial contribution to cover the additional costs.

Cost-benefit Analysis of Alternative Pre-school Education Services in Consolidated Multi-settlement Communities of Armenia (UNICEF 2018). UNICEF Armenia developed and piloted a model of alternative early learning services for small rural communities whereby involved communities identified suitable spaces and community members were trained as caregivers. This report, which included a cost-benefit analysis, demonstrated that the proposed model was cost effective in promoting the cognitive and social development of children in communities with no government-run facilities and where the number of young children was insufficient to justify a standard public kindergarten.

2. DATA SOURCES AND METHODOLOGY

Section 2 discusses data sources, methodology and the challenges encountered in data collection. The analysis presented in this Diagnostic Report combines information from the facility survey designed and implemented in 2018 by the World Bank and administered to providers of ECD services (World Bank 2018a); the 2017 ILCS; the 2015/2016 DHS, the World Bank (2016b) ASPIS; and qualitative evidence from the ECD-related studies in Armenia presented in section 1.4. The design of the facility survey took into account the earlier findings and recommendations. Sections 4 and 5 discuss some of the detailed findings of these reports in relation to specific issues of interest alongside findings from the survey. The facility survey also took into account findings and best practices from other countries, and in particular from similar service surveys in Chile, Costa Rica and Peru aimed at informing referral systems used in home visit programs. The World Bank developed the data collection instrument and the codebook in close consultation with UNICEF and Save the Children. The data collection instrument gathers information on 20 main dimensions including:

- Basic information - name of service, entity responsible for implementation, source(s) of information to complete the database, date information was gathered, and location where service is provided;
- Population of interest - universal or targeted service, population in the early years the service attends, requisites to access, payments associated, and frequency of use;
- Type of service - public sector that regulates the service (such as health, education, social policy, child protection, more than one sector); activities provided (medical care, food provision, food recipes demonstrations, breastfeeding support, care of children, preschool, community and/ or peer-to-peer learning, group training and mentoring, book/toy libraries, provision of materials, child protection from violence); modality in which the service is provided (in center, at home, upon referral, upon demand); main goal of service (support good health of children, support health of pregnant women, promote healthy nutrition, provide child care services, provide early learning and education, promote good parenting, guarantee and promote child rights); and geographical areas where service is provided;
- Beneficiaries - number of beneficiaries, beneficiaries by type (age groups and vulnerable such as poor, children with disabilities, refugees), and service at full capacity (cannot attend any more beneficiaries using its current equipment, workers, capital and other resources);
- Available resources for service provision - staff providing the service (number, by educational level and position in the service provision), last year's total budget, and entity that funds the service.

The complete list of variables is presented in Annex 1.

The survey was administered in the four marzes of Ararat, Gegharkunik, Lori and Yerevan. These were selected to represent urban and rural areas, and were prioritized based on an index that considered four elements.¹⁶ These were the nutrition status of children under the age of five (stunting, overweight and anemia); the percentage of multidimensionally poor, as estimated in a report for the World Bank by Martirosova et al. (2017) ; availability of social services as measured by the percentage of FBP beneficiaries and the number of MLoSA social workers; and the percentage kindergartens that operate on a regular basis during the entire year.

Information was collected for services that met all of the following criteria: (1) attend families with children between the ages of 0 and 5 years and/or pregnant women; (2) attend children who are members of a family, meaning they do not include services for orphans or institutionalized children; (3) are universal or targeted to vulnerable populations (meaning they do not include private services targeted to the better off; (4) are provided by public institutions, NGOs or international donor organizations; (5) have as their objective early childhood development services such as health, nutrition, early stimulation/education, and protection from stress.

The survey was first pre-populated based on a desk review that compiled information from existing sources¹⁷. Existing data were then validated updated and complemented with face-to-face interviews and phone calls with key informants at the facility level (for example, preschool directors and personnel in charge of the administration of the service) and at the marz level (for example, mayors, community leaders, municipality-level representatives from the MoLSA or Ministry of Territorial Administration and Infrastructures (MoTAI) and others identified).¹⁸

Data were collected between March and August, 2018, by four enumerators—one per marz—and one supervisor who planned and oversaw the overall data collection. Activities stopped during the weeks following political events that started

¹⁶ See Annex 2 for the index estimation per marz.

¹⁷ Including, Early Childhood Development, SABER Country Report, 2012; Armenia Comprehensive Food Security, Vulnerability Analysis, WFP, 2017; Research on Development Dynamics of Children enrolled in Preschool Institutions and Observation of Factors Affecting their Development, SA” Center for Education projects” PIU, 2016; Assessment on Access of Children to Preschool Education Services, Save the Children, 2017; Yerevan Municipality official website for kindergarten financial documents: <https://www.yerevan.am/am/finance-docs/#collapseTwo2#collapseWindow18>; “Help your Kindergarten” website <http://www.ognirmankapartezid.am/kindergarten/>; Ministry of Education and Science <http://edu.am/index.php/am/about/view/105>; Ministry of Health <http://www.moh.am/#/1/132>; Ministry of Territorial Administration and Infrastructures <http://lori.mtad.am/about-communities/>, <http://ararat.mtad.am/about-communities/>, <http://gegharkunik.mtad.am/about-communities/>.

¹⁸ Phone and face-to-face interviews were conducted to verify data collected in desk reviews and to gather new information. Based on these interviews, the total number of services pre-identified in desk reviews was reduced from 845 to 797; a service was removed from the list because it no longer exists, it had not operated in the last year or two because of funding issues (for instance, a kindergarten), or it children ages five to six and thus was not a data collection target (examples include school-based preschools established by the World Bank Group and Save the Children).

March 30, 2018, and -which included large-scale protests and the resignation of the prime minister, Serzh Sargsyan. Beyond political reasons, other challenges were related to the data collection process. Examples included identifying the right respondent, the need for multiple phone calls or interviews to gather all the necessary information, and the difficulty of classifying certain types of services given their cross-cutting nature. Finally, the format of some questions in the instrument did not correspond to the format of statistics collected and maintained by institutions. The kindergartens and health institutions do not collect and maintain statistics on indicators such as the nationality and poverty/vulnerability status, for example. The institutions thus had to devote a lot of time to getting required information from beneficiaries' individual files, and the institutions were not always willing to do so.¹⁹

Overall, the ECD facility survey covers 797 providers of services related to early years in the selected territories. These include 391 education/stimulation services, 353 health services, 4 child protection services, and 49 parental education centers and maternity schools. As a consequence of the challenges in the data collection process, some variables had a high incidence of missing data. In particular, informants were rarely able to respond to questions on vulnerability status of beneficiaries: 85 percent of services have no data on the poverty status of its beneficiaries and only 1 percent have information on the refugee status or special needs of service users. It was also difficult to gather information related to beneficiaries' age range for parenting education services that target parents of children under the age of five, but do not monitor the specific age of the children in the household. Additionally, 23 percent of the health services in Yerevan declined to provide information on available resources (budget and staff) used to run the services.

The analysis presented below also relies on core government household surveys such as the ILCS and the DHS, both of which are implemented by the National Statistical Service of the Republic of Armenia (NSS). The ILCS is conducted annually (since 1996) and its results serve primarily to assess the level of consumption-based poverty and other living condition indicators in Armenia. The DHS is conducted every five years (since 2000) and gathers information about key demographic and health indicators, including some related to early years such as breastfeeding practices, nutrition, maternal and child health, childhood mortality, child discipline, and anemia.

¹⁹ For a summary of the data collection design and implementation, including challenges and lessons, see World Bank 2018a.

3. THE SUPPLY OF ECD SERVICES

Section 3 draws on the findings of the facility survey to describe the supply of ECD services in the four marzes of Ararat, Gegharkunik, Lori and Yerevan. Key types of services available is covered in 3.1; 3.2 considers the extent to which comprehensive services are provided through service integration; 3.3 looks at financial and human resources committed to ECD provision; and 3.4 summarizes findings.

3.1 Types of ECD available services

The facility survey collected information on all services for pregnant women and children under the age of 60 months who meet the criteria described in section 2. Providers were grouped into four clusters (health, parental education, education/stimulation and child protection services). Table 2 maps the ECD service providers by the four clusters and by the developmental needs of the child considering that children in different age groups may require different services; for example children under 2 require care and early learning provided in family setting environments, while children between 3 and 5 require to start sharing with peers, develop socioemotional skills and specially children between 4 and 5 need to start transitioning to an ‘educational’ setting to promote school readiness. Table 3 summarizes service provision by the four clusters.

Table 2: Typology of service providers

Stage of development	Pregnancy	Birth	0 to 2 years of age		3 to 5 years of age		All children & pregnant women	TOTAL
Developmental need	Good health & nutrition	Safe birth & post-natal care	Good health & nutrition	Early learning	Good health & nutrition	Early education	Good parenting & guaranteed child rights	
Health services								
Maternity hospital	X	X	X		X			3
Women consultative services	X	X	X		X			3
Feldsher-Akusher post 1/	X	X	X		X			175
Primary health care center 1/	X	X	X		X			60

Med. Ambulatory 2/	X	X	X		X			31
Polyclinic 3/	X	X	X		X			30
Medical center 3/	X	X	X		X			28
Health center 3/	X	X	X		X			13
Hospital	X	X	X		X			2
Child dev. & rehab. services 4/			X		X			6
Children's polyclinic	X		X		X			2
Parental education services								
Parental education center							X	40
Maternity school 5/							X	9
Early years education/stimulation services								
Child development center 6/				X		X		1
Kindergarten						X		344
Early childhood development club 6/						X		1
School-based preschool 7/						X		41
Community-based preschool 6/						X		4
Child protection services								
Child protection services 8/							X	4
TOTAL	797 services							

1/ Outpatient health care in the community, available even in small rural communities 2/Outpatient care, but only found in larger rural communities 3/ In urban communities 4/Rehabilitation services for children with disabilities 5/ Often attached to a maternity hospital 6/ Community-based services, established by international organizations 7/ Preschool class attached to a primary school 8/ NGO-provided services, although given the very small number of providers, these are not always considered a separate category in subsequent analysis

ECD provision in the four marzes in Armenia covered by the survey has three key characteristics. First, it is dominated by center-based provision rather than outreach services or home visiting. Second, it is financed primarily by the state. Third, most services are intended to be universal, with few services targeted to particular social groups.

ECD service provision in Armenia is mostly public and facility-based

Health/nutrition services: Public health facilities reach by far the largest number of beneficiaries of any of the ECD services surveyed (table 3). These provide a wide range of maternal health services (including ANC, delivery and PNC) and child health/nutrition services (including immunization and growth monitoring), and on schedules that align with established protocols. The health facilities are of various types depending on locality (table 3). Some children benefit from ECD health services from more than one provider, and on average each child under the age of five benefitted from 1.5 health services in 2017, the year preceding the survey.

Table 3 Service modalities

Type of service	Health services	Early years education and stimulation	Parenting education /maternity school	Child protection	Total
Number of providers identified	353	391 (of which 344 are kindergartens)	49	4	797
Percentage of services of each type	44%	49%	6%	1%	100%
Average number of services of this type received per child aged under five years*	1.5	0.3	n/a**	0	n/a
Main sources of financing: percentage of services that receive financing from each source	Central government (100%) International organization (56%)	Local government (88%) Central government (12%)	Central government (92%) International organization (10%)	International private sector (100%) International organization (75%)	Central government (56%) Local government (43%)

* This row considers only the services per child under 5 years and not the services per pregnant women, due to lack of reliable data on the number of pregnant women. The source of data on the total number of children under 5 years in the four marzes is the ILCS 2017

** Due to the mixed target group of pregnant women and young children and missing data, we are unable to calculate an equivalent statistic for these services

Early years education and stimulation: Public kindergartens dominate the provision of early years education for children ages three and four, covering more than 30,000 children and accounting for 99 percent of the provision for children of this age group across the four marzes surveyed.²⁰ While school-based preschools are a key provider of early years education in Armenia, they cater almost exclusively to children ages five and over, because statutory funding only starts at this age. A few of these schools do have some four-year-olds enrolled and, given its focus on children up to the age of 60 months, the facility survey captured only these schools. It was found that only in Gegharkunik marz are school-based preschools at all important as providers of education services to children under the age of five, accounting for 12 percent of all early learning provision. Alternative types of early years education and stimulation services that would be expected to reach younger children (including those under three years of age), such as community preschools, child development centers and ECD clubs, are even rarer, reaching less than 70 children in total in the four marzes covered (less than 0.1 percent of all children under the age of five).

Finding that there were over 400 small communities with a population of less than 500 people across the country without any preschool facilities, UNICEF Armenia developed a model of alternative early learning services for small rural communities (UNICEF 2017). Communities ensured suitable spaces to avoid the high costs of construction, and selected community members, often mothers and/or caregivers, were trained to work with the young children. The model was piloted on a small scale in Lori marz. A cost-benefit analysis conducted in 2017 demonstrated that the piloted model was cost effective in communities where the number of young children was insufficient to justify a standard public kindergarten (UNICEF 2018). So far, this pilot does not appear to have led to any expansion of alternative provision, although it may be too early to expect this.

Other services: Only a small number of other ECD services were identified. Forty dedicated parental education centers were found, but only in Lori and Gegharkunik marzes; only nine maternity schools were found across the four marzes. Child protection services are even rarer; these were found only in Gegharkunik marz and reach a very small number of children.

Almost all ECD services receive financing from the state. This funding is from the central government for health services and preschools and from the local government in the case of kindergartens. In the case of health services, such financing is often supplemented by funding from international organizations, but this is less common for education services. Standalone child protection services tend to be internationally financed but, as noted above, operate on a very small scale.

²⁰ This is a percentage of the number of children covered. While 41 preschools are identified in the survey, most enrol very small numbers of children under 60 months of age and instead focus mainly on children ages five to six.

Almost all services are intended to be universally available to young children and or pregnant women, rather than targeted to particular social groups. Child development and rehabilitation centers target children with disabilities and reach just 661 children across the four marzes (0.7 percent of all children under five). Apart from these centers, less than 1 percent of other service providers report that their service is targeted to particular groups, such as poor families, children with disabilities or minorities.

The facility survey found that 89% of services (771 out of the 797 covered) operate at full capacity and that they would need additional resources (renovation of spaces, additional equipment, etc.) to accept more children to properly respond to the demand they are currently attending. Health services in Gegharkunik were for the most part the only exception (informant responded that these services still have space to absorb additional beneficiaries).

3.2 Multi objective ECD services

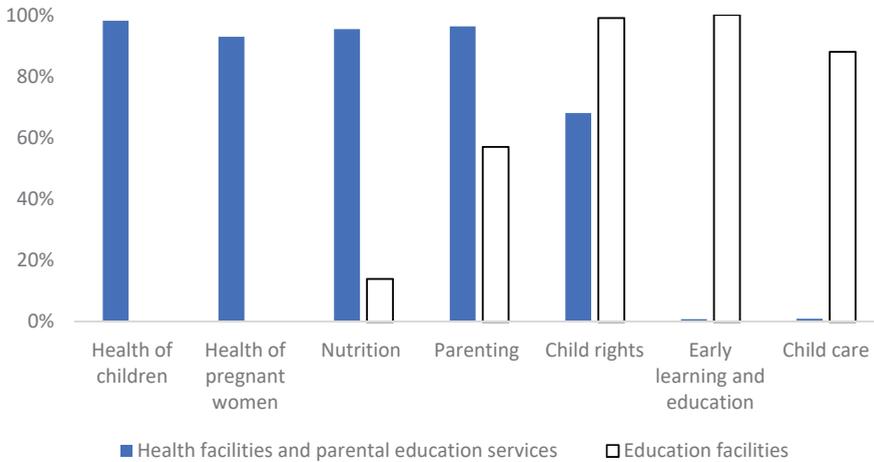
The primary providers of ECD services in Armenia are public health and education facilities. However, global evidence suggests that for maximum impact, children need access to an integrated set of ECD services beyond education and health. In this regard, this section looks at the extent to which public education and health facilities go beyond their core remits to address a broader range of ECD risks in relation to nutrition, child protection, and cognitive, social and emotional development, beginning with a review of stated objectives of key ECD service providers and whether the range of activities they implement support the achievement of these objectives in practice.

The survey facility found that most public ECD facilities have multiple objectives and that two main clusters of ECD providers can be identified with respect to stated objectives.

1. Health facilities and parental education services tend to encompass maternal and child health, nutrition, parenting objectives, and quite often child rights. As shown in figure 5, nearly 100 percent of health facilities and parental education services (shown in blue) have health of children, health of pregnant women, nutrition and parenting among their objectives and 60 percent also have child rights as an objective.
2. Early years education facilities almost always seek to provide early learning and education and child care and to promote child rights and quite often also positive parenting. Nearly 100 percent of education services (shown in red in figure 5) have early learning and child rights in their objectives, over 80 percent have child care and over 50 percent have parenting.

In summary, despite the very limited number of providers specifically dedicated to parental education, nutrition or child rights, most health and/or education providers have objectives that relate to these three areas.

Figure 5: Percentage of Providers with the following objectives



Fulfilling the objectives and aligning with global best practice

Figures 6 and 7 illustrate the extent to which activities undertaken by providers align with global best practice, particularly as concerns parenting and nutrition objectives. Best practice in these cases means involving children well as parents and presenting opportunities for practical learning and practice, rather than just sharing information or instructional materials.

It is notable that while nutritional promotion and parenting are very often cited among the objectives of ECD providers, the related activities of most providers toward these objectives are rather narrowly focused on “breastfeeding support”²¹ and “instructional materials.” Of the providers (regardless of facility type) that include nutrition among their objectives (shown in dark blue in figure 6) and the overlapping set of providers that include parenting among their objectives (shown in light blue), few include any outreach activities. Only 17 percent, for instance, include group training; only 6 percent include peer-to-peer or community education. Furthermore, practical support to parents regarding child feeding in the form of cooking demonstrations or provision of recipes is very rarely provided: just 8 percent of those including promotion of nutrition as an objective and 5 percent of those promoting parenting implement such activities. The only activities that are widely implemented by those providers with nutrition or parenting objectives are the distribution of instructional materials and breastfeeding support.

²¹ Since most providers offering breast-feeding support do not offer group training, it is assumed that the breastfeeding support is mainly provided in the form of one-to-one advice or instructional materials.

Figure 6: Of Facilities with Promotion of Nutrition or Parenting as an Objective, Percentage that Carry out Each Activity

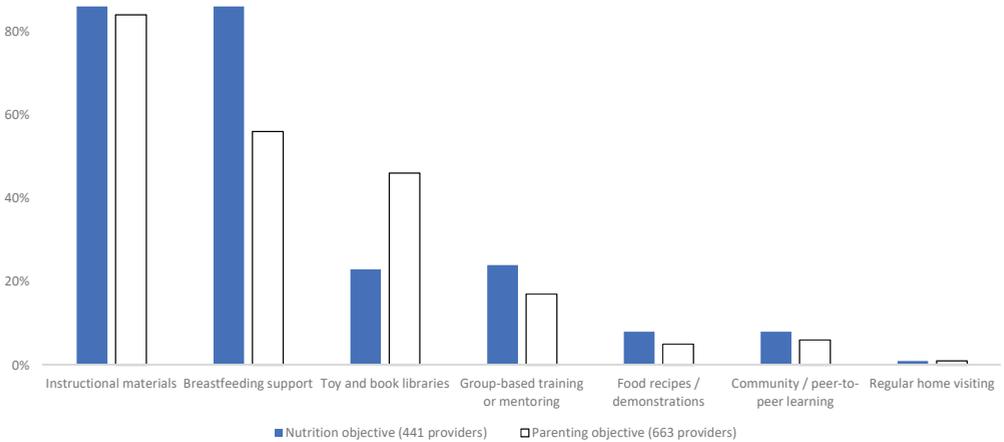
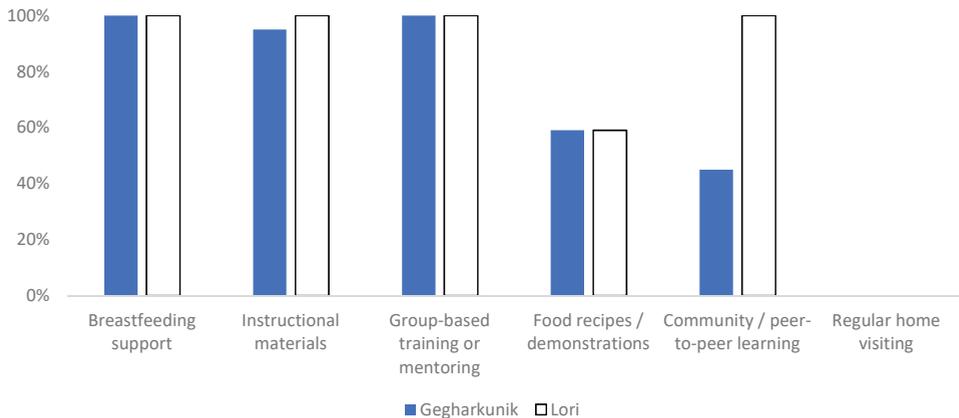


Figure 7: Percentage of Parental Education Centers Providing Specific Services



As shown in figure 7, dedicated parental education centers generally include a wider range of activities than other providers, more in line with global best practice. Group-based training/mentoring and breastfeeding support are universal in the parental education centers identified in the facility survey, and food recipes/demonstration and community/peer-to-peer learning are common. On the other hand, the existence of these centers is limited and varies between marzes. The facility survey only identified such centers in two of the four marzes: Gegharkunik and Lori (section 4.1). Figure 7 shows the percentage of parental education centers implementing each type of activity.

3.3 Budgets and human resources

This subsection examines the financial and human resources invested in ECD services and variation across marzes. It should be noted that there is a substantial lack of data regarding budgets: of the 797 ECD providers identified in the facility survey, 241 (30 percent) provided no information, making it impossible to reliably calculate total budgets for each marz across providers. However, data are available from 335 of 344 kindergartens. As the data on kindergarten budgets are relatively complete, this section focuses on kindergartens.

Table 4: Kindergarten budgets by marz

Marz/Budget in millions of AMD	Ararat	Gegharkunik	Lori	Yerevan	Total
Total budget	1,524	664	1,009	9,047	12,244
Kindergartens with budget data	71	43	68	153	335
Budget per kindergarten	21	15	15	59	37
Average (mean) cost per enrolled child in AMD	295,329	276,852	327,608	487,619	419,716

As table 4 shows, the average (mean) cost per child per year of kindergarten provision is approximately drams 420,000 (approximately US\$882²²). However, there is substantial regional variation, and costs are much higher in Yerevan than elsewhere. The median unit cost of provision is rather lower than the mean, at drams 368,000 per child per year (figure 8); half of all the kindergartens surveyed have annual costs per child between drams 282,000 (US\$592) and drams 450,000 (US\$944).²³

Given that the average parental fee in the three marzes where fees are payable (Ararat, Gegharkunik and Lori) is only drams 53,000 per year (drams 4,400 per month or US\$9), kindergartens in all four marzes are clearly heavily subsidized by local government. The level of subsidization is substantially higher in Yerevan than in the other marzes due to both the higher average budget per child and the fact that no fees are charged in Yerevan.

²² Using exchange rate of 1 Armenian Dram to 0.0021 United States Dollar of July 17, 2019

²³ Authors' calculation from facility survey data.

Figure 8: Average Kindergarten Budget per Child per Year

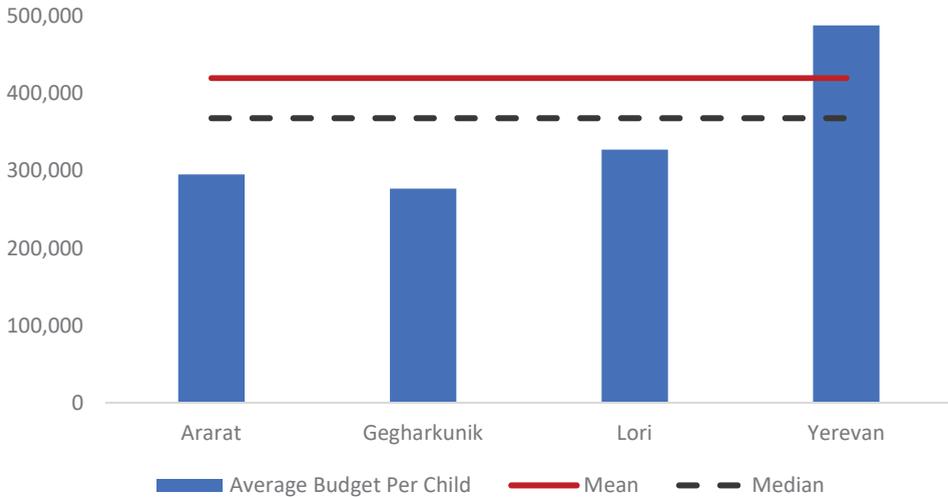


Table 5 shows the total number of staff by marz for those ECD services for which data were available. The data is largely complete except for health services in Yerevan, where 29 percent of such services were unable to provide staffing data. As a result, staff in this category are likely to be substantially undercounted. Even without correcting for this undercounting, staffing of ECD services in Yerevan is much higher than in other marzes.

Table 5: Number of Staff Employed in ECD Services by Type of Service and Marz

Marz	Ararat	Gegharkunik	Lori	Yerevan	Grand Total
Education services	1,352	753	874	4,539	7,518
Health services	1,319	1,354	1,991	5,321	9,985
Other	2	73	45	0	120
Total	2,673	2,180	2,910	9,860	17,623

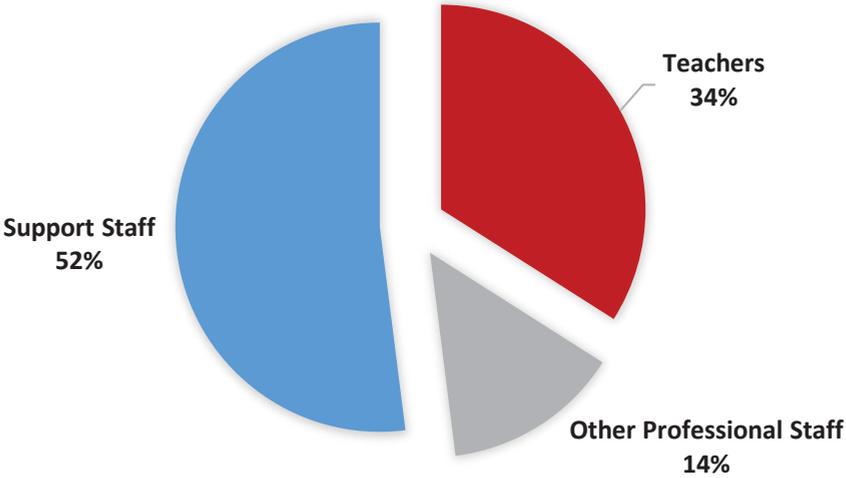
Given that data on staffing of health facilities are incomplete, a detailed analysis was conducted of education services and specifically on kindergartens, which constitute the vast majority of education services. As shown in table 6, the majority of staff working in kindergartens (59 percent) have a college degree, although a much lower percentage (18 percent) have received training on ECD. In terms of total staffing to total children enrolled in the kindergartens in each marz, there is one staff member for approximately every four children. However, this does not necessarily mean that ratios of teachers to children are especially high because

only about one third of total staff are teachers and half of all staff are categorized as support staff²⁴ (figure 9). This pattern of staffing is consistent across marzes. As a result of the low proportion of teachers in the total staff, and despite the overall high levels of staffing, there are on average 12 children per teacher; 20 percent of kindergartens, moreover, have 16 or more children under the age of five per teacher.²⁵

Table 6: Kindergarten staffing

	Ararat	Gegharkunik	Lori	Yerevan	Grand Total
Total staff	1317	711	864	4,533	7,425
Percentage with a college degree	63%	72%	60%	56%	59%
Percentage trained in ECD	19%	28%	29%	14%	18%
Child to staff ratio	3.9	3.4	3.6	4.3	4.1
Child to teacher ratio	11.8	10.0	12.9	12.3	12.1

Figure 9: Composition of staffing in kindergartens

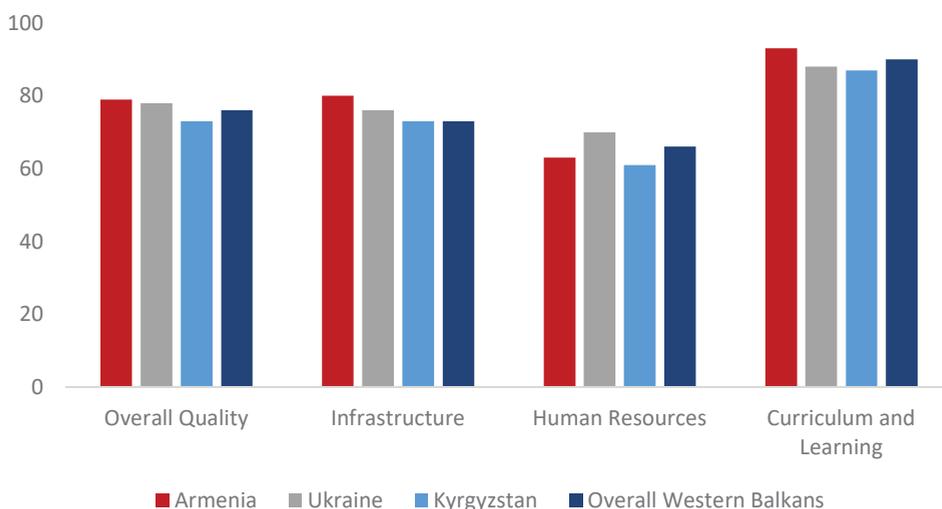


²⁴ The support staff category is comprised of all kindergarten staff who are not directors, teachers, social workers, psychologists, doctors, nurses, therapists, communication specialists or nutritionists. It thus includes administrative and finance staff, cooks, cleaners, etc.

²⁵ As a point of comparison, the maximum allowable number of children ages three or four per teacher in the United Kingdom is 8 or 12, depending on the teacher’s level of qualification. For further information on early years education standards in the United Kingdom, see the Department for Education’s 2017 report, Statutory Framework for the Early Years Foundation Stage: Setting the Standards for Learning, Development and Care for Children from Birth to Five, at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/596629/EYFS_STATUTORY_FRAMEWORK_2017.pdf (accessed December 30,2018).

The findings regarding staffing are consistent with an earlier World Bank (2017a) study that found Armenia’s human resourcing of child care to be relatively weak compared to both comparator countries and to Armenia’s own, more impressive rating on other dimensions of child care quality (figure 10). Its conclusion relied on a human resource index constructed for the report and based on the education levels of caregivers in kindergartens; staff turnover; the caregiver to pupil ratio; and consistency of caregiving, that is, whether a caregiver is designated for each group of children. Furthermore, the World Bank (2017a) study finds that while overall comments about quality of child care are fairly positive, the main concerns raised by parents relate to human resources issues, including caregivers’ lack of basic training or education needed to care for children; lack of attentiveness to children’s basic care needs such as hygiene, feeding and toileting; and ill treatment including verbal abuse. Parents linked these weaknesses to the low wages paid to kindergarten staff.

Figure 10: Childcare Quality Index, Western Balkans countries



Source: World Bank 2017a.

3.4 Summary

Public kindergartens funded primarily by local government, and health facilities, funded primarily by the state, dominate ECD service provision in Armenia. Kindergartens provide 99 percent of all early learning services. Alternative services to promote young child cognitive or social development are very rare.

Almost all services are intended to be universally available rather than targeted to particular social groups such as poor or vulnerable families. The only exceptions are child development and rehabilitation centers, which target children with disabilities.

89% of services (771 out of the 797 covered) operate at full capacity and would need additional resources (renovation of spaces, additional equipment, etc.) to accept more children to properly respond to the demand they are currently attending. Health services in Gegharkunik were for the most part the only exception (informant responded that these services still have space to absorb additional beneficiaries). Most kindergartens and health centers have broader ECD objectives that go beyond their core remit of preschool education or health and that cover, in particular, the promotion of positive parenting, nutrition and child protection. However, the range offered by these centers is not fully in line with global best practice in that there is a high reliance on the provision of instructional materials and little in the way of group-based training or practical demonstrations. Almost all services are center-based; community outreach and peer-to-peer learning are rare and regular home visiting almost unheard of. Dedicated parental education centers undertake a wider range of activities more in line with best practice, but have patchy coverage.

Kindergartens are heavily subsidized by local government budgets, especially in Yerevan. The weakest link in the quality of care in kindergartens may be human resources. People employed in kindergartens tend to have a high level of general education, but not to have received specific training in ECD. A notable feature of kindergarten staffing is the low proportion of total staff who are teachers and the surprisingly high proportion categorized as support staff.

4. ACCESS TO ECD SERVICES

Section 4 discusses issues of access to ECD services, beginning in 4.1 with a discussion of service coverage overall and by age group. It moves on to an examination of how this coverage varies across population sub-groups, focusing on the extent to which services are or are not inclusive of children from poor and vulnerable households, children with disabilities, and children from minority groups. Section 4.2 relies on our facility survey findings; sections 4.3 and 4.4 complement this with analysis of other data, in particular data from the DHS 2015-16 and the ILCS 2017. Findings are summarized and compared with those of previous studies in 4.5.

4.1 Overview of ECD services coverage

The available data permit detailed analysis of the coverage of kindergartens, which comprise the vast majority of early years education provision in the four marzes studied. Only limited information was available on coverage of health and parental education ECD services. Therefore, while Section 3 showed that, on average, children under the age of five receive early childhood health services from 1.5 service providers, lack of data mean that the percentage of children covered cannot be determined—for example, whether 50 percent of children are receiving three services each or 100 percent of children are receiving 1.5 services each, and so on. A better source of data on early years health service coverage is the DHS, which, as noted in Section 1.2, finds very high coverage of key services delivered at health facilities but also some gaps in caregiver knowledge on health and nutrition issues.

Section 3 further highlighted the generally low coverage of specialized parenting education services and the high variability between marzes. The facility survey found parental education centers in only two of the four surveyed marzes—Gegharkunik and Lori. Their coverage is substantial only in Gegharkunik, at about 60 percent of all children under the age of five; in Lori, just 15 percent of children under the age of five are covered. In Ararat marz, parenting education services appear to be almost absent: the survey identified no parental education centers or other institutions providing group-based parenting education at scale. While it is not possible to estimate coverage of parenting education in Yerevan due to data limitations, no dedicated parental education centers were identified. However, public health facilities in Yerevan do appear to be carrying out parenting education. The relatively limited coverage of parenting education services is of concern, given that DHS and ASPIS data suggest that the relatively weak performance on health indicators reflects caregiver knowledge and behavior (for example, regarding child feeding, safe disposal of stools and home treatment of diarrhea) compared to the generally high quality of services directly delivered by health centers.

Using data from the facility survey,²⁶ coverage of children under the age of 60 months was found to vary from a low of 20 percent in Gegharkunik to a high of 45 percent in Yerevan (table 7). Using the ILCS 2017 as the source of data gives a similar pattern: enrollment is lowest in Gegharkunik and highest in Yerevan. However, the percentages of children enrolled are different and generally lower, and these ILCS figures are likely to be more robust. A point that stands out clearly from both sources is that kindergarten enrollment is very much higher in Yerevan than in the other three surveyed marzes.

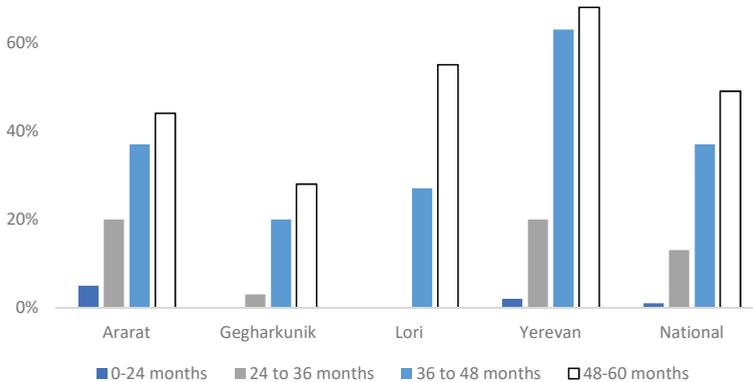
Table 7: Percentage of children ages 0-60 months enrolled in kindergarten²⁷

	Gegharkunik	Lori	Ararat	Yerevan
Population under the age of five	12,380	14,517	18,583	43,393
Number of children enrolled from facility survey	2,423	3,081	5,160	19,666
% Coverage (facility survey data)	20%	21%	28%	45%
% Coverage (ILCS)	8%	19%	20%	31%

Sources: World Bank 2018a and ILCS 2017.

In terms of the age of children enrolled (figure 11), almost all the children under the age of 60 months who receive early education and/or stimulation, across all marzes, are three or four years old (ILCS 2017). Nationally, 49 percent of four-year-olds and 37 percent of three-year-olds are enrolled, while only 13 percent of two-year-olds and almost no children under the age of two are enrolled (ILCS 2017).

Figure 11: Percentage of Children of each Age Group Enrolled in Kindergarten



Source: ILCS 2017.

²⁶ Data from the facility survey on the number of children enrolled were combined with data on the population ages 0-60 months from the ILCS 2017 to obtain coverage estimates.

²⁷ For the purposes of comparison across data sources, analysis is limited here to children attending kindergarten, excluding the minority who attend other forms of early education or child care. .

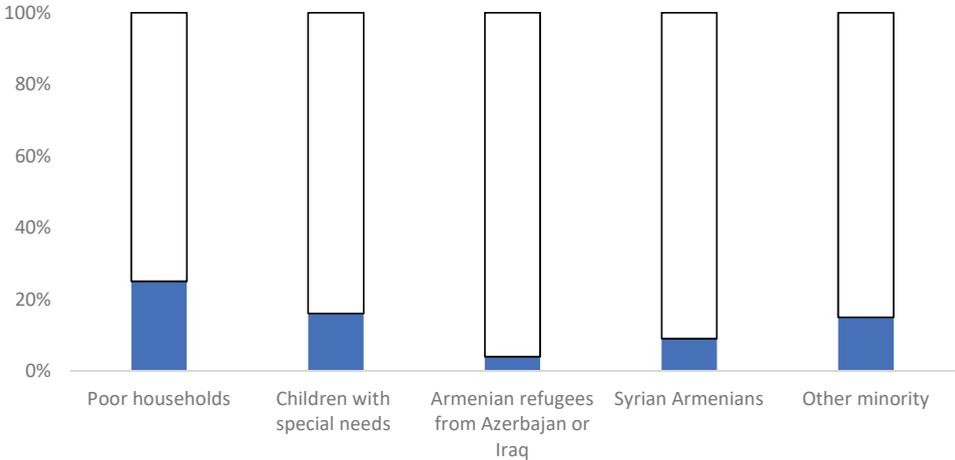
The concentration in kindergartens of older preschool children may not be of concern in and of itself; perhaps the kindergarten environment is more suitable to this age group than to younger children. However, this concentration is of concern when considered alongside the limited availability of alternative early learning services and parenting education. It implies a gap in interventions that promote the cognitive, social and emotional development of the youngest children.

4.2 Access to ECD services based on our facility survey

Data limits had an impact on the findings of the facility survey regarding the inclusion of poor and vulnerable population groups in ECD services. While the survey asked service providers directly about the numbers of beneficiaries from poor households or minority groups and having disabilities, the non-response rate was high. As little direct information on inclusion outcomes is therefore available, this section explores other inclusion-related issues. It first looks at the extent and limitations of data availability, the possible reasons for lack of data, and the implications of this for inclusion. It then discusses financial and non-financial requirements to use various ECD services and the extent to which these constitute barriers to access.

Figure 12 shows the percentage of the 797 services surveyed that provided information on various dimensions of vulnerability. In most cases these data were unavailable.

Figure 12: Percentage of ECD service providers that know how many of their beneficiaries are...



Source: WB ECD facility survey 2018.

The reason for the low response rate generally was that institutions do not collect and maintain this information about their beneficiaries. One possible explanation

is that, in the absence of a specific commitment to target or prioritize poor or vulnerable children for ECD services, these data do not need to be collected for service delivery reasons. Medical services are free for all Armenian children under the age of seven and for pregnant women, so no poverty-targeted subsidies need to be recorded. Access to kindergarten is not compulsory and no institution is mandated to follow up and encourage the enrollment of vulnerable children.

Nonetheless, information as to whether children have special needs or a disability is arguably of direct importance to the delivery of quality ECD services. Children with special needs should have tailored learning plans in kindergartens; parents will need specific advice in parenting sessions; and, in some cases, specialized medical services will be required. Given these factors, it is surprising that only 15 percent of all service providers and 16 percent of kindergartens had information on how many of the children they serve have special needs.

Access requirements and constraints

This section reviews documentary access requirements and the extent to which these are likely to constitute a barrier to entry.

Documentary requirements vary by type of service but are similar across marzes (figure 13). A birth certificate is a requirement for access to almost all health and education ECD services. In some countries this might represent a substantial barrier to entry, but this is much less the case in Armenia as the vast majority of children (99 percent, according to the DHS 2015/16) have a birth certificate. There is little variation in birth registration across income groups, although there are slight regional differences and 3.5 percent of children in Ararat lack a certificate.

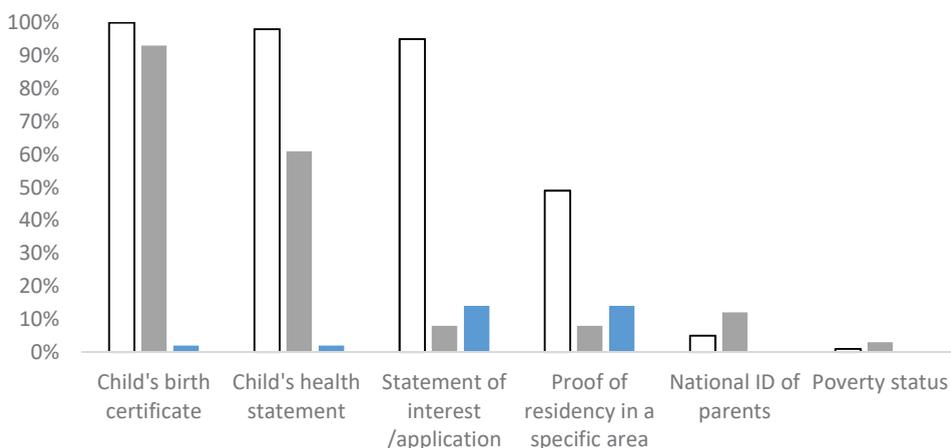
Kindergartens require the greatest number of documents. In addition to the birth certificate, generally a child health statement and an application from the parents are needed. Health services usually also require parents to provide a child health statement. Given that very few services are targeted to poor households, proof of poverty status or the parents' identity card are very rarely access requirements. Other services, such as parental education centers and maternity schools, do not generally ask for any documentation.

With respect to residency in a specific area, there is variation both between services and marzes. Residency generally is not a requirement for access to health services nor a requirement for education service access in Lori or Ararat. It is a requirement for access to all surveyed education services in Yerevan and for a majority of such services (59 percent) in Gegharkunik.

While in theory the documentary requirements do not appear onerous and should not present a substantial barrier to access, Save the Children (2017) noted that parents do report substantial bureaucratic hurdles to entry, including demands for numerous documents and references. It appears that documentary

requirements as well as a range of informal mechanisms are sometimes used as a rationing mechanism in the context of insufficient places to meet demand. The use of intermediaries to facilitate access is reportedly widespread (Save the Children 2017).

Figure 13: Documents Required by ECD Service Providers



Source: WB ECD facility survey 2018.

Fees

Some ECD services apply user fees. Access costs vary significantly between types of service and region. We found that in all marzes, core health ECD services are free. However, some health facilities, especially in Yerevan, offer additional paid services, for example laboratory tests. Other services such as parental education centers, maternity schools and child protection services are invariably free of charge.

In Yerevan, kindergartens are free except to children whose parents lack registration in the city; in these cases, a co-payment of 8,000 drams (US\$17) per month is required. Outside Yerevan, kindergartens charge fees averaging 4,400 drams (US\$9) per month; the average monthly fee in Ararat is 5,200 drams (US\$11) , 3,300 drams (US\$7) in Gegharkunik and 4,000 drams (US\$8.4) in Lori.²⁸

Although kindergarten fees are heavily subsidized, they may still represent a substantial outlay for poor households. For example, 4,400 drams per month is equivalent to 20 percent of average total per child consumption for households

²⁸ These figures were calculated by the authors based on data from the facility survey. While the ILCS gives slightly different figures (perhaps due to the inclusion of private child care facilities), the level and pattern are similar: among the three marzes, fees are highest in Ararat and lowest in Gegharkunik.

living below the upper poverty line.²⁹ It is noteworthy that kindergarten enrollment in Yerevan, where access is free, is very much higher than in the other marzes surveyed (though we cannot know whether the lack of fees is itself the cause of the higher access). Other analysis has flagged the limited extent to which kindergarten fees in Armenia are varied in line with parents' ability to pay. The World Bank (2017a), for instance, found that a relatively low proportion of surveyed kindergartens (30 percent) in Armenia offer price flexibility, compared to 80 percent of kindergartens in the countries of the Western Balkans.

4.3 Access to health services based on DHS

Given the limitations of the survey data with respect to inclusion, this report relied on other sources to complement the findings and specifically on findings of the DHS 2015/16 in regard to ECD health services. The DHS includes data on access to ANC, skilled assistance for childbirth, PNC and child health services, including vaccinations.

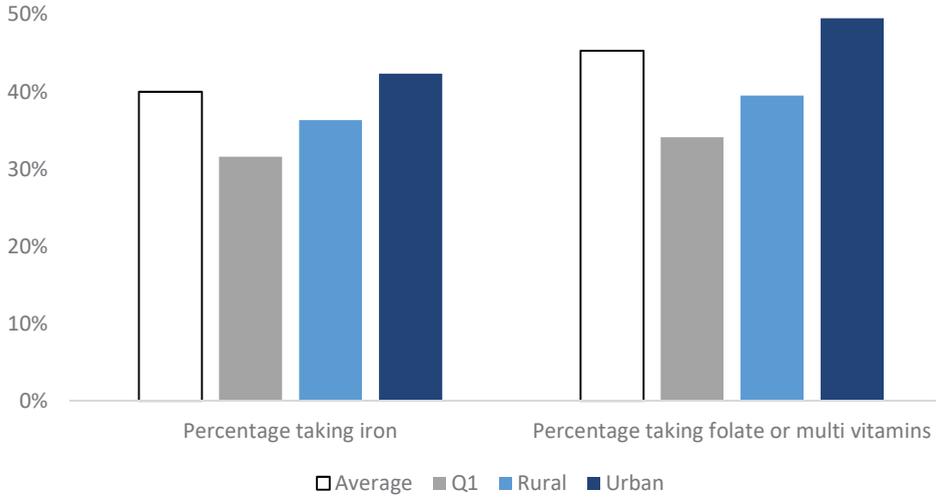
As highlighted in section 1.2, access to maternal health care is very high overall. Almost all women attend all four recommended ANC visits and these visits include all key recommended procedures, with only very small differences by socioeconomic status or mother's education (NSS 2017). The only differences are by region: in Gegharkunik, only 87 percent of women saw a doctor for ANC (compared to 99 percent of women nationally); 10 percent saw a nurse and 3 percent had no ANC (compared to just 0.4 percent nationally). Similarly, childbirth in a health service with skilled assistance and access to PNC are almost universal with no notable differences by socioeconomic status.

On the other hand, the poorest women are less likely to take iron or folate during pregnancy, as are women in rural areas (figure 14).

Similarly, there is no clear association between vaccination coverage and socioeconomic status or mother's education, and 84 percent of children in Armenia receive all the basic WHO recommended vaccinations at the correct age. However, children in the poorest households and with mothers with lower levels of education are slightly more at risk from diarrheal disease (which can be a contributory factor to chronic malnutrition), both because prevalence of diarrhea is slightly higher for these children and because knowledge of oral rehydration salts (ORS) is lower (figure 15).

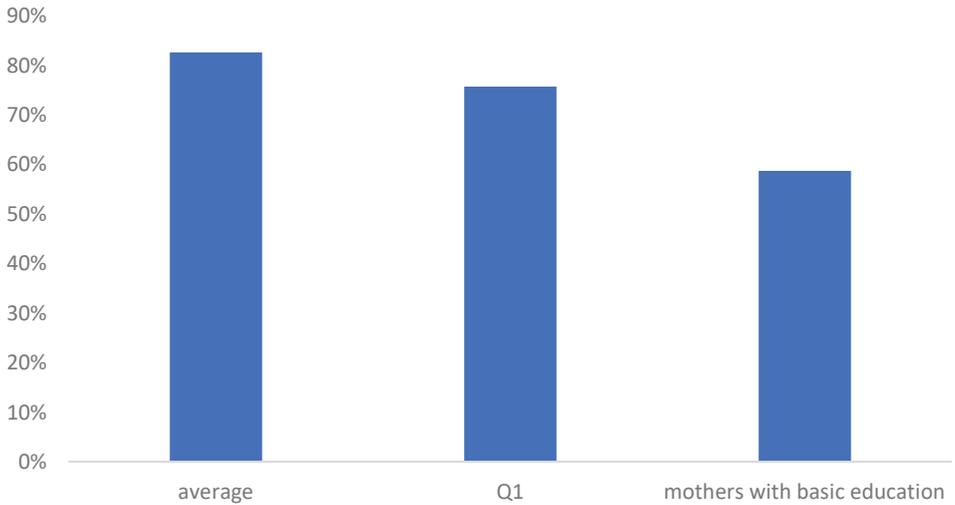
²⁹ This is based on the ILCS 2017. The average consumption for a household living in poverty is 34,517 drams (US\$72) and, according to the equivalence scales used in Armenia, a child is assumed to consume 65 percent of that of an adult (ILCS 2017).

Figure 14: Percentage of Pregnant Women taking Iron or Folate by Background Characteristics



Source: DHS 2015/16.

Figure 15: Percentage of Mothers with Knowledge of ORS



Source: DHS 2015/16.

The key gaps in maternal and health and nutrition outcomes were related to individual/caregiver knowledge and behavior rather than to the quality of service delivery in health centers. This also is the case in relation to inclusion. The very few socioeconomic disparities identified in relation to maternal and child health services relate to differential individual/caregiver knowledge (about supplements during pregnancy and ONS treatment for diarrhea).

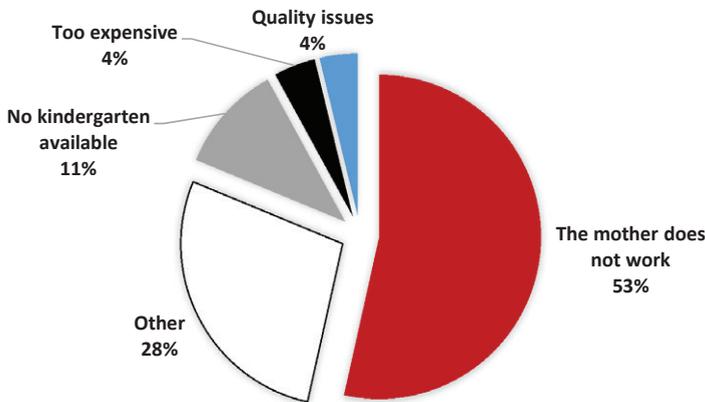
4.4 Access to ECD services based on ILCS

This report uses the ILCS to further explore the extent of inclusion in kindergartens and other early education and child care settings. This section reviews the reasons given by parents of non-enrolled children for their non-attendance and compares the characteristics of children who do and do not attend.

Reasons given for non-enrollment in kindergarten

The ILCS asks caregivers of all children under the age of six years who are not enrolled in child care³⁰ the reasons for this non-enrollment. As figure 16 shows, only a small minority of respondents cited cost and quality issues as the primary reason for non-enrollment. The second most important reason given (28 percent of respondents) was “other” clearly reveals little, and, given this large residual category, it may be useful for subsequent surveys to amend the list of possible responses to capture other important factors. The most common primary reason, given by more than half of respondents is “mother does not work.” Kindergartens do not aim to simply provide child care while mothers work, but also to promote the cognitive, social and emotional development of children. Therefore, it may be worth exploring further whether parents do not see the value of early child development or whether other factors are demotivating caregivers from enrolling their children in kindergarten.

Figure 16: Reasons Given for Children not Attending Childcare



Source: ILCS 2017.

Based on qualitative research, Save the Children (2017) concluded that it is not the case that parents fail to value the kindergartens in promoting children’s

³⁰ The ILCS uses the term “childcare” rather than preschool education in its questionnaire, but there is large overlap of concepts: 91 percent of children in “childcare” are in kindergarten and only 9 percent of children are attending other types of preschool or child care, according to the ILCS 2017.

development. Parents of non-enrolled children reported that they believe kindergartens to be better than the home environment for preparing children for school and for promoting language development, creativity and life skills, and identified supply side issues (including lack of available kindergarten places in the vicinity and quality concerns) as more important factors inhibiting enrollment (Save the Children 2017). The World Bank (2017a) reached similar conclusions regarding the high level of awareness of the social and cognitive benefits of child care among parents in Armenia.

The findings of the ILCS and the other studies are not necessarily contradictory. It is possible that the optional response of “mothers do not work” does not pick up more granular reasons for non-enrollment in kindergarten. For instance, caregivers in a households with non-working mothers may value preschool education in principle but find that the nature of current provision (cost, hours, location, quality or similar issues) means it is not worth sending their children, or perhaps the wording of the ILCS question, which refers to “childcare” rather than early learning services, influences the response.

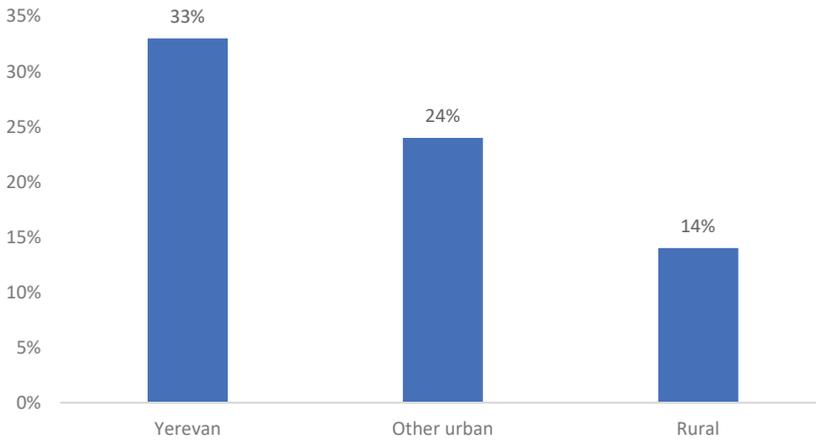
Unfortunately, the ILCS data do not allow for an investigation of these hypotheses. However, both the World Bank (2017a) and Save the Children (2017) have documented some concerns about the quality of child care provision among parents (see also section 3.3); furthermore, the dominant kindergarten model in Armenia provides care for children for nine hours every working day (World Bank, 2017a), which seems more adapted to the needs of working parents than to the needs of non-working parents.

Another point of interest is the two-way interaction between mothers working and child care. Global evidence suggests that the availability of affordable, appropriate child care can promote women’s labor force participation. This was noted by the World Bank (2017a) in a report exploring child care and eldercare in Armenia that also highlighted the very strongly held views in Armenia that women should be primary caregivers and that working outside the home is bad for children. The report noted that 79 percent of parents surveyed agreed with the statement, “A preschool child is likely to suffer if his/her mother works,” and that men and women were equally likely to agree. In this context, alternative models that offer families choices, including parental education and more flexible part-time learning opportunities for children whose mothers are at home full-time, would seem indicated.

The ILCS 2017 data were used to compare the background characteristics of children who are and who are not enrolled in kindergarten nationally.

The percentage of children attending kindergarten or other child care service is much higher in Yerevan than elsewhere. Outside Yerevan, the proportion attending kindergarten is much higher in other urban areas than it is in rural areas.

Figure 17: Percentage of Children Aged 0-60 Months Attending any Childcare



Source: ILCS 2017.

Several factors may explain these differences. Yerevan, for example, is the only marz to provide access to kindergarten free of charge and it has a greater supply overall of facilities, and these factors might contribute to higher enrollment than in other areas. In rural areas, travel distance can be an additional impediment, especially in remote areas. According to the ILCS 2017, 18 percent of all households in Armenia live more than 6 kilometers from a kindergarten or preschool facility, which likely is an obstacle for households without access to a car and/or not served by good roads. Indeed, 82 percent of poor children in Armenia live in households that lack a car (ILCS 2017); Gegharkunik and Lori marzes additionally suffer from particularly low rural accessibility (World Bank 2017b).

Kindergarten attendance varies by socioeconomic status, with children in poorer households much less likely than others to attend. Overall, while 22 percent of children attend child care, only 12 percent of children living in households in the poorest decile and only 17 percent of children in households in receipt of the poverty-targeted Family Benefit do so (ILCS 2017).

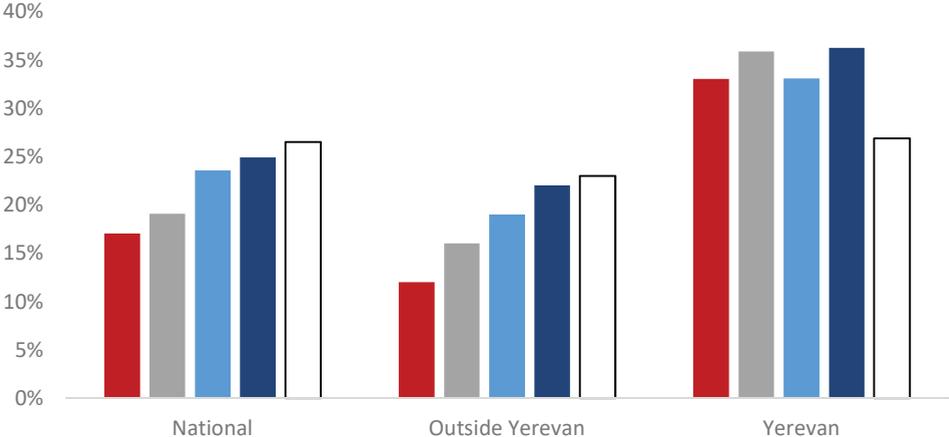
Nationally, kindergarten attendance increases with household income level. However, this pattern is observed only outside Yerevan.³¹ In Yerevan, there is little observable difference across income levels³² (figure 18), possibly due to the free provision and/or greater overall supply. Indeed, children in the poorest quintile living in Yerevan are more likely to be in child care than those in well-off households living elsewhere in the country. That said, there is still much scope to improve access for the poorest and most vulnerable children in Yerevan, as only about one

³¹ The correlation between kindergarten attendance and consumption quintile is statistically significant only outside Yerevan.

³² The sample sizes in the other three marzes of interest are too small to allow for reliable disaggregation.

third of children attend. Global evidence shows that focusing investments on the early learning of disadvantaged children helps to reduce inequities between social groups later in life.

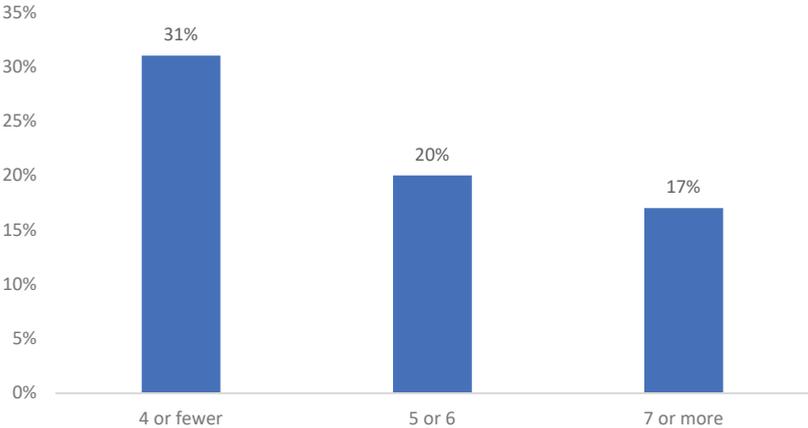
Figure 18: Child care Attendance by Consumption Quintile



Source: ILCS 2017.

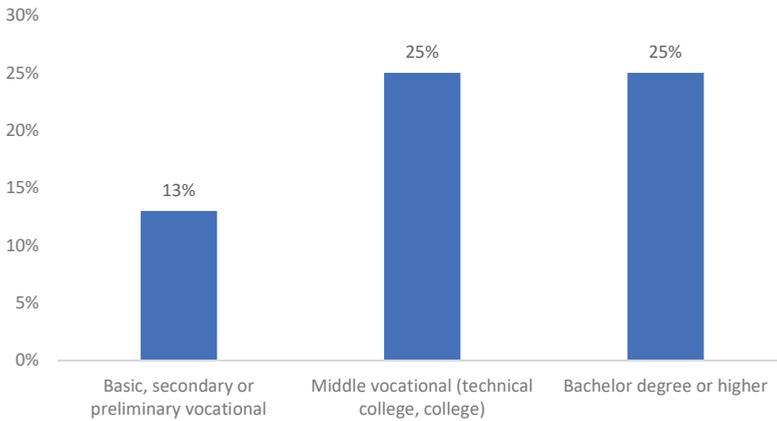
Child care attendance is also correlated with household size and the educational level of adults in the household. Children living in larger households are less likely to attend kindergarten or other child care (figure 19). Children living in households where the highest level of education attained by any adult is secondary or lower are also less likely to attend (figure 20). The gender of the household head makes no difference to attendance, however; nor is there a clear relationship with household dependency ratio.

Figure 19: Childcare Attendance by Household Size



Source: ILCS 2017.

Figure 20: Childcare Attendance by Highest Educational Level of any adult in the household



Source: ILCS 2017.

The ILCS does not provide reliable data on access to kindergartens for children with disabilities, as the number of such children in the sample was very low. However, Save the Children (2017) found that approximately 73 percent of children with disabilities do not attend any preschool educational institution, including private kindergartens, preparatory courses, etc. Among the reasons for this low attendance are the reluctance of kindergartens to enroll children with disabilities, especially physical disabilities, and negative attitudes from other parents (Save the Children 2017).

4.5 Summary

Overall, coverage of key health-related ECD services in Armenia is very high, and for most services there are no differences, or only very small differences, according to background characteristics such as wealth quintile, urban/rural residence and mother's/ adults' in the household educational level. The few identified disparities by socioeconomic characteristics tend to concern parents' health and education-related knowledge or behavior rather than services directly delivered at health centers. While no quantitative data are available on the extent of inclusion in health ECD services of children with disabilities, Save the Children (2017) identified substantial barriers for these children in accessing the services they need due to problems of stigma and discrimination.

Regarding education ECD services, there is a clear correlation between children's attendance and the socioeconomic status of the household. Poorer children have a lower likelihood of attending kindergarten, except in Yerevan where there are no differences in attendance between children from poorer and better-off families. Other household characteristics associated with lower kindergarten attendance

include living in a larger family, living in a rural area and having parents with a lower level of education. In addition, even though fees are heavily subsidized, affordability may still be an issue for the poorest households; it is noteworthy that attendance rates for poor households are far higher in Yerevan, where the service is free, than they are for poor households in other urban and rural areas where a small fee is charged. Distance is also likely to constitute a substantial access barrier in remote rural areas. Documentary requirements to access kindergarten do not appear onerous and in theory should not present an access barrier. However, evidence from other studies suggests documentary requirements are sometimes used, together with informal mechanisms, as a rationing mechanism. No reliable data are available from the ILCS 2017 on the inclusion of children with disabilities or on other dimensions of marginalization such as refugee status, but Save the Children (2017) suggests substantial entry barriers exist.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Armenia's ECD services across the health and education sectors are publicly funded and facility-based. The dominant providers are public health centers and kindergartens.

These services are underpinned by laws, policies and strategies in relation to most critical dimensions of ECD: nutrition, micro-nutrient deficiencies, maternal and child health, preschool education, child protection, social protection, and social services. On the other hand, there is no cross-cutting ECD policy framework or strategy that would enable the financing and staffing of interventions to be systematically prioritized, sequenced and linked. Furthermore, there is something of a policy-strategy gap concerning the promotion of cognitive, social and emotional development of children under the age of five.

The quality of early learning services is comparable to regional comparators (World Bank, 2017a), with the curriculum being a strong point. However, the facility survey flags some issues with human resourcing, specifically that teachers make up only about one third of all kindergarten staff and that more than half of staff are support staff; in addition, while most staff have a college degree, fewer than one in five have received training in ECD. These findings are supported by an earlier World Bank study which identified human resourcing as relatively weak compared to regional comparators based on a composite index taking account of staff qualifications and continuity of care and child-caregiver ratios (World Bank 2017a).

Coverage of key maternal and child health/nutrition services delivered at health facilities is very high, as is birth registration, which underpins access to other services; there are few disparities in access according to household background characteristics (NSS 2017). The few coverage gaps and disparities observed relate mainly to health and nutrition-related behaviors by individuals/parents (NSS 2017). As such, addressing them requires increased attention to the quality and coverage of parental education/communication.

Other ECD services, however, fall far short of universal coverage. Only 20 percent of children under the age of five attend kindergarten, according to the ILCS 2017. There is a particular gap regarding cognitive development/early learning services for children aged below the age of three. Nationally, 49 percent of four-year-olds and 37 percent of three-year-olds are enrolled in kindergarten, compared to only 13 percent of two-year-olds and almost no children under the age of two (ILCS 2017). There are very few alternatives to kindergarten available: other early learning services reach less than 0.1 percent of all children under the age of five in the four marzes surveyed.

Parenting education services are often an effective way of promoting the development of the youngest children. Where dedicated parental education services are available in Armenia, they are free and offer a range of group-based activities and demonstrations in line with recommendations on best practice emerging from the global evidence. However, coverage of these is patchy. To the contrary, while most kindergartens and health centers have broad ECD objectives that in theory also encompass parenting education, in practice their activities in this regard are largely limited to sharing materials. Very few of these centers offer interactive sessions or practical demonstrations in line with global best practice. Thus, there is an important gap in the promotion of the cognitive and social development of children under the age of three which is concerning given the global evidence that the returns from investment are likely to be highest for the youngest children (Richter et al. 2016).

In contrast to the very limited disparities observed in access to maternal and child health services, there are substantial disparities in enrollment in early learning services. First, there are geographical disparities: a higher proportion of children in Yerevan attend kindergarten than do children living in other urban areas, and in rural areas the percentage is lower still. A second set of disparities concerns socioeconomic status. Kindergartens aim to provide universal services, rather than to target particular social groups. However, in practice in most marzes, enrollment is heavily skewed toward children from relatively advantaged backgrounds. The poorer the child, the larger his or her family and the lower the educational level of adults in the household, the less likely the child is to attend kindergarten. Very little data are available on the inclusion of children from refugee households, although qualitative research by Save the Children (2017) suggested substantial exclusion of these groups. Additionally, it is estimated that 73 percent of children with disabilities are excluded from early education (Save the Children 2017).

The disparities in access to early learning in favor of more advantaged groups are also concerning because kindergartens are heavily subsidized. Based on budgetary information from the facility survey, the mean cost per child per year is approximately 420,000 drams (US\$882) compared to an average fee of 53,000 drams (US\$111) in those marzes where fees are payable. The combined effect of heavy subsidization, rationing of access and skewing of access toward more advantaged children results in a minority of (largely better-off) children receiving fulltime, highly subsidized early learning support and many other children receiving none at all. This means that the subsidy is effectively regressive, even if this not the intention. Given the lifelong effects of early childhood interventions, disparities in access risk exacerbating inequities between Armenians instead of reducing them. Furthermore, the disparities are likely to diminish the overall efficiency of ECD investments, given that global evidence finds that disadvantaged children benefit more from them than advantaged children (Engle et al., 2007).

The exception to this pattern of socioeconomic disparities in access to kindergarten is Yerevan, where enrollment rates are very similar for all income groups. This may be linked to the fact that Yerevan is the only marz providing free access to kindergarten and/or that this marz has a much higher overall supply of kindergarten services. There is nonetheless scope to further improve access of poor and vulnerable children even in Yerevan: if enrollment of poor children was higher than that of better-off children, rather than simply similar, this would help mitigate the effects of disparities in home circumstances.

As for the reasons for the observed challenges of coverage and inclusion, these do not appear to be primarily related to lack of parental demand for early education services. The report confirms the findings of two qualitative assessments that parents have a high level of awareness of the benefits of early years education for the cognitive and social development of their children (Save the Children 2017; World Bank 2017a).

Service providers provided very little disaggregated information on their beneficiaries. In the WB facility survey, largely because they do not have this information easily available. If providers do not collect, manage and share data on who is and is not included, there is no basis for these institutions or others, such as social workers, to carry out targeted follow up to promote access of excluded children. In any case, no one has the mandate to promote access to services like kindergarten that are not mandatory, and the incentives to promote access are currently weak, given that services are often already heavily oversubscribed.

5.2 Recommendations

This section considers the implications of the report findings to expand the existing social work system in the country, in relation to the intermediation and the referral functions and how the referral system could be further strengthened.

It is recommended to first strengthen the intermediation function of social workers, then expand the supply of ECD services based on local needs, improve the quality of ECD services based on existing capacity, consider options to improve the efficiency through stronger coordination and on a second phase implement a referral system that tailored to different ECD services and child age groups.

With respect to services with low coverage such as kindergartens and specialist disability services, intermediation and referral by social workers could promote access by enabling poor and vulnerable households to better navigate and access. Evidence suggests that one of the key constraints faced by poor and vulnerable households in accessing ECD services relates to navigating the system and that there is widespread use of intermediaries to access kindergartens (Save the Children 2017). Thus, social workers with good knowledge of available services and how to access them could play the intermediation function by providing up-to-date, accurate information to households about the existing

supply of local services. Social workers with the skills to follow up actively with providers to ensure that correct procedures are being followed—could further promote access to these particular ECD services. For example, social workers could contact kindergartens on behalf of their clients to confirm that the required documentation is complete and to track where the child is on the waiting list in order to ensure that poor and vulnerable households are not deprioritized. Such a system could enable poor and vulnerable households to navigate the systems as effectively as other households and reduce the extent to which service access is skewed toward better-off households.

A more targeted approach would be required to identify and refer those few households missing out to services that already have almost universal coverage such as maternal and child health services and birth registration.

Where coverage is already very high, referral will be unnecessary for most households. Targeted follow up of those few children missing out on services would be more efficient than a broader outreach approach. Health service records could be used to identify children or mothers missing out on key health services such as vaccinations or ANC, rather than relying on social workers to visit all households for identification. Particular focus also could be given to children with disabilities, who face particular access constraints according to the findings of previous analyses. Once identified, these targeted families could benefit from home visiting by health social work personnel who could inform them about and link them to the specific services they are missing out on and offer health and/or nutrition advice.

In any case, the validity and effectiveness of a referral system rest on the existence of service supply, hence should be complemented by efforts to expand and improve key aspects of service supply. Referral of poor and vulnerable households to parental education services would be of value where such services exist and have reasonable coverage, for example in Gegharkunik marz. However, coverage of these services is so patchy that in many areas, referral to them does not seem feasible. Even for three- and four-year-olds, early learning services are in short supply; public kindergartens are the main provider, but spaces are insufficient for full coverage. One of the key lessons from international experience is that the effectiveness of referral systems depends on an adequate supply of services (Roelen et al. 2017). For example, in their comparison of such systems in Chile and Colombia, Camacho et al. (2014) attribute the greater success of the Chile program partly to the fact that this program had resources available to fund an expansion of services to cover targeted households, whereas the Colombia program did not. Where supply side constraints exist, the value added of a referral system will be higher if these constraints are addressed concurrently.

Critically, the type of ECD service required is different depending on the age group, hence the ECD service supply needs to be tailored to the needs of different age groups. There is also strong evidence on the importance of good

quality care services for children under 2 and the potential damage of bad quality services on children development. Based on available evidence, children under 2 require care and early learning (mainly through stimulation of various early development dimensions) provided in a family setting/environment, while children between 2 and 4 need to expand the family setting, start sharing with peers, learn and develop further a variety of socioemotional skills. Children between 4 and 5 need to start transitioning to an “educational” setting like a school. Hence, from the early development point of view, a child under 2 doesn’t need to attend kindergarten to learn. Rather good quality early stimulation and learning program would be needed if the main caregiver works out of home without care support. For children under two the main investment would then be to provide parenting services and to maximize the contacts that children and their caregivers have with the health system.

The supply of early learning and parental services for children below three is limited and needs to be expanded. Early years education and cognitive/social development services experience important supply side gaps for all children under the age of five but especially for the youngest children. In some marzes, increasing the supply of parental education services will be necessary before referral is feasible; the design of services should include practical demonstrations and interactive sessions that involve children as well as parents, in line with global best practice. One way to do this would be to train social workers to deliver group trainings to caregivers. Parental education programs also could be included in pre-service and in-services training programs and/or curricula for ECD teachers.

Although the country has adequate policies in place, implementation is not mainstreamed and there are few monitoring mechanisms. For example, mainstreaming the case management system could play a critical role to identify and refer children, including those with disabilities, to appropriate ECD services.

To support improved inclusion, better data will be needed at facility level. A simple monitoring system might usefully be developed to enable health centers, kindergartens and other ECD service providers to collect and store basic data on their beneficiaries such as age, poverty and disability status, and then share these data to enable social workers to follow up with under-represented groups. The evidence around the supply and demand for ECD services for children with disabilities is even more limited than that on children disadvantaged in other ways. Further in-depth qualitative research will be required to fully understand the issues around ECD and disability. This could then inform the advice and support that social workers provide to families who have children with disabilities. It could also inform the supply side response for children with disabilities, including the human resourcing of kindergartens.

Finally, the results of the facility survey point to consider the following recommendations to address constraints in the supply of early education and cognitive development:

Kindergarten financing formula. Currently, in a context of over-subscription, institutions have no particular incentive to enroll children from poor or vulnerable households or those with special needs. Indeed, they may be reluctant to do so, due to worries about the extra work involved in caring for a child with special needs or the ability of poor parents to pay fees. One way to incentivize providers to prioritize such children would be to consider to modify the funding formula. Rather than a simple per capita formula as at present, the formula could offer to kindergartens a top-up amount for each child living in a family identified as poor (that is, for example, families in receipt of the Family Benefit)³³ or for child with learning disabilities (having an individualized learning plan developed by the kindergarten to take account of his or her special needs). Respondents to the facility survey reported that one challenge is that special educational needs are not formally diagnosed until later in childhood. To address this, a more flexible definition of special needs could be used at this stage of learning, for example, based on identification by parents and confirmed by a teacher independent of the facility,³⁴ while recognizing that these needs might or might not persist and be later formally diagnosed.

Kindergarten subsidization. Currently, nominal fees are charged for a fulltime kindergarten place for all children. In the context of limited supply of kindergarten spaces, access is informally rationed, resulting in a minority of children (currently mainly the better off) receiving up to 45 hours per week of highly subsidized child care and learning opportunities and many other children receiving nothing at all, exacerbating inequities between advantaged and disadvantaged children. Alternative subsidization models could include:

- Providing a certain number of free kindergarten hours per week, for instance 10 hours, for all three- and four-year-olds.³⁵ Different children would attend on different days and at different hours. As a result, all children potentially could attend for 10 hours, with the same infrastructure and staffing, rather than 22 percent of children attending for 45 hours per week.
- Some parents, especially if both are working, would still wish their children to attend fulltime, so the provision of 10 free hours could be balanced by charging higher fees for additional hours to those who wish to purchase them and where spaces are available.³⁶ This option could require some expansion of capacity.

³³ In the United Kingdom, the early years pupil premium provides an additional amount to kindergartens for every enrolled child living in a family that is in receipt of certain poverty-targeted benefits or looked after by the local authority.

³⁴ Some checks and balances would be needed to avoid abuse by the institution to access the top-up financing.

³⁵ In the United Kingdom, initially 10 free hours were provided. This has now increased to 15 hours for all three- and four-year-olds, with additional hours available free to low-income families.

³⁶ This is similar to the model proposed by van Ravens (2008) in a report for UNICEF.

- Fee waivers could be provided for poor and vulnerable children (for example, for Family Benefit beneficiaries and children with disabilities) that could be balanced by slightly higher fees for others. The effectiveness of these would depend on the accuracy of the targeting system. Alternatively, a kindergarten top up to cover fees could be included in the FBP for families with young children enrolled in kindergarten outside Yerevan.

Human resourcing. The World Bank (2017a) recently identified human resources as the weakest element of kindergarten quality. The facility survey carried out for this Diagnostic Report found that teaching staff make up a surprisingly small proportion of total staff and that few staff have received ECD training. Cost-efficient human resource investments to strengthen the quality of the learning that children receive could include restructuring staffing—for example by sharing support staff with similar profiles among several facilities to reduce costs (data would need to be gathered to identify different profiles of support staff)—and offering ECD training to all staff who engage with children.

Alternative provision: Fulltime kindergarten is a relatively expensive model for the provision of early learning. Alternative ways to promote the cognitive and social development of young children, such as mother and toddler groups and part-time ECD centers, may be especially suitable for children under the age of three, children with caregivers at home full time and for children living in remote rural areas with too few children to populate a standard kindergarten. A cost-benefit analysis carried out by UNICEF (2018) indicated that part-time ECD centers staffed by volunteers are a cost-effective alternative to transporting rural children to kindergarten in town. Such models could be expanded to help fill the current gaps in coverage and promote inclusion. It might even be possible to further strengthen linkages between social protection and ECD by employing people as caregivers in these ECD centers through poverty-targeted public works. South Africa, for example, has long implement the Expanded Public Works Program³⁷ a similar model. A recent Save the Children (2018) report analyzes six models of alternative educational services for the early years³⁸ and their financial implications; this study aims to provide information to communities so they can choose the model best suited to their available financial and human resources, space capacities, and number of children.

Specific recommendations, by category of action, can be summarized as follows:

³⁷ For further information on the Expanded Public Works Programme, see the South Africa government website at <https://www.gov.za/about-government/government-programmes/expanded-public-works-programme>.

³⁸ The six models analyzed are school-based preschool, community-based service, mobile service, home-based service, and specialized home-based and typical preschool institutions with inclusive education.

Intermediation service

- 1) Social workers' responsibilities should focus on intermediation by simply providing information to beneficiaries on available services for which they are eligible. For that, it is critical that social workers have detailed information on the range of ECD services available locally and how to access them so that they can provide up-to-date, accurate information to households about the existing supply of local services.

Supply side

- 2) Define the boundaries between the ambition for universal and a more targeted approach that considers current capacities and prioritize the expansion of services for poor and vulnerable children through:

a) Analysis of exclusion

- iv) Support facilities providing ECD services to develop simple monitoring systems that disaggregate beneficiaries by age, poverty status, disability status and other relevant indicators of vulnerability to enable tracking of inclusion and share data with social workers for follow up with excluded groups;
- v) Consider the development of a monitoring system that tracks the developmental trajectory of each individual child and the effective access to key services in all relevant dimensions for their development, expected outcomes by age groups and possible risks (following the example of countries such Chile);
- vi) Carry out further qualitative research on the supply of and demand for ECD services for children with disabilities and special needs, as this remains a key knowledge gap.

b) Efficiency and effectiveness gains

- iii) Strengthen the human resourcing of kindergartens by investing in ECD training of staff and increasing the proportion of staff who are teachers/caregivers. To achieve this at zero net cost, consider analyzing the possibility of sharing support staff with similar profiles (administrative and finance staff, cooks, cleaners, etc.) among several facilities to reduce costs (data would need to be gathered to identify different profiles of support staff);
- iv) Improve the service provision for children with disabilities and special needs, for example through staff training and the development of

tailored learning plans for these children in kindergartens. Use the findings of the qualitative research to develop a specific action plan.

- 3) Expand access to cognitive development/early learning services tailored by age group in all areas and for all pre-school children living in remote rural areas (especially for the youngest children below the age of three).
 - a. Support the supply of alternative site-based early learning opportunities for children such as part-time ECD centers and parent and toddler groups for children younger than age three (in all locations) and all pre-school children living in remote rural areas.
 - b. Support the supply of parental education services in localities where these services are absent or have low coverage, use best-practice interactive approaches (practical demonstrations, group and community training, peer-to-peer learning, etc.), and consider including these as part of the social work system (see also recommendation 5).

Referral system

- 4) Gradually expand the responsibility of social workers to follow up with ECD service providers on behalf of vulnerable clients, checking that correct access procedures are being followed and, for example, tracking their place in waiting lists to access services.
- 5) In relation to services that already have a very high coverage (such as birth registration, vaccination, PNC, etc.), use available data (for example from health facilities) to identify and target the few vulnerable women and children who are missing out. Then social workers and health officials could proactively follow up with these particular households through home visits to encourage them to access the service.
- 6) Given the patchy supply of parental education services, consider training social workers to deliver group training on interactive parenting approaches to caregivers, to complement home visits.

REFERENCES

Alderman, Harold and Lia Fernald. 2017. "The nexus between nutrition and early childhood development." *Annual Review of Nutrition* 37: 447-76. <https://doi.org/10.1146/annurev-nutr-071816-064627>.

Britto, PR, Lye, SJ, Proulx, K, Yousafzai, AK, Matthews, SG, Vaivada, T, Perez-Escamilla, R, Rao, N, Ip, P, Fernald, LCH, MacMillan, H, Hanson, M, Wachs, TD, Yao, H, Yoshikawa, H, Cerezo, A, Leckman, JF & Bhutta, ZA 2016, "Nurturing care: Promoting early childhood development." *The Lancet*. [https://doi.org/10.1016/S0140-6736\(16\)31390-3](https://doi.org/10.1016/S0140-6736(16)31390-3)

Camacho, Adriana et al. 2014. "Addressing access and behavioral constraints through social intermediation services: a review of *Chile Solidario* and *Red Unidos*." Policy Research Working Paper 7136. Washington, DC: World Bank Group. <http://documents.worldbank.org/curated/en/163481468018056906/Addressing-access-and-behavioral-constraints-through-social-intermediation-services-a-review-of-Chile-Solidario-and-Red-Unidos>.

Engle, Patrice L. et al. 2007. "Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world." *Lancet* 369 (9557): 229-42.

Engle, Patrice L. et al. 2011. "Strategies for reducing inequalities and improving developmental outcomes for young children in low-income and middle-income countries." *Lancet* 378 (9799): 1339-53. [https://doi.org/10.1016/S0140-6736\(11\)60889-1](https://doi.org/10.1016/S0140-6736(11)60889-1).

Grantham-McGregor, Sally M. et al. 2014. "Effects of integrated child development and nutrition interventions on child development and nutritional status". *Annals of the New York Academy of Sciences* 1308: 11-32. doi:10.1111/nyas.12284.

Heckman, James J. 2006. "Skill f

ormation and the economics of investing in disadvantaged children," *Science*, 2006; 312 (5782): 1900-02. DOI: 10.1126/science.1128898. Marini, Alessandra, Claudia Rokx and Paul Gallagher. 2017. *Standing Tall: Peru's Success in Overcoming its Stunting Crisis*. Washington, DC: World Bank Group. <http://documents.worldbank.org/curated/en/815411500045862444/Standing-tall-Perus-success-in-overcoming-its-stunting-crisis>.

Martirosova, Diana et al. 2017. "The Many Faces of Deprivation: A Multidimensional Approach to Poverty in Armenia." Policy Research Working Paper 8179. World Bank, Washington, DC. World Bank. <https://openknowledge.worldbank.org/handle/10986/28356>.

Ministry of Labour and Social Affairs (MoLSA) Republic of Armenia. 2016. Draft Order on the Approval of Methodological Instructions on Home Visits, Case Management and Sample Monthly Report on the Number of Home Visits by the Employees of Social Assistance Territorial Agency (Unit).

National Statistical Service (NSS) Republic of Armenia. Ministry of Health (Armenia). ICF. 2017. *Armenia Demographic and Health Survey 2015-16*. <https://dhsprogram.com/pubs/pdf/FR325/FR325.pdf>.

Richter, Linda M. et al. 2016. "Investing in the foundation of sustainable development: pathways to scale up for early childhood development", *The Lancet* 389 (10064).

Roelen, Keetie et al. 2017. "How to Make 'Cash Plus' Work: Linking Cash Transfers to Services and Sectors." Innocenti Working Papers 2017-10, UNICEF, Office of Research - Innocenti, Florence.

Rokx, Claudia, Ali Subandoro and Paul Gallagher. 2018. *Aiming High: Indonesia's Ambition to Reduce Stunting*. World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/30151> License: CC BY 3.0 IGO.

Save the Children, 2016, *Inclusive Early Childhood Care and Development in Armenia: Concept*.

Save the Children, 2017, *Assessment on Access of Children to Pre-school Education Services in Armenia*.

Statistical Committee of the Republic of Armenia (Armstat). 2018, Social Snapshot and Poverty in Armenia. <https://www.armstat.am/en/?nid=82&id=2095>, accessed January 125, 2019.

UNICEF. 2017. *UNICEF Armenia Annual Report, 2017*. https://www.unicef.org/about/annualreport/files/Armenia_2017_COAR.pdf accessed July 10, 2019.

UNICEF. 2018. *Cost-benefit analysis of alternative pre-school education services in consolidated multi-settlement communities of Armenia*.

UNICEF; Ministry Labour and Social Issues. 2012, *It's About Inclusion: Access to Education, Health, and Social Protection Services for Children with Disabilities in Armenia*. Yerevan, Armenia.

van Ravens, Jan. 2008, *Scenarios for Early Childhood Development in Armenia: Financial and Legal Analysis of National Preschool Education Programs, Policies and Strategies in the Republic of Armenia*. UNICEF.

Walker, Susan P. et al. 2011. "Inequality in early childhood: risk and protective factors for early child development." *The Lancet* 378 (9799): 1325-1338. DOI:10.1016/S0140-6736(11)60555-2.

World Bank. 2012. *Armenia: Assessment of the Early Childhood Development Policies and Programs, Summary of Policy Recommendations*. Systems Approach for Better Education Results (SABER). Washington, DC: World Bank.

World Bank, 2016a. *Armenia: Poverty Reduction and Shared Prosperity*. South Caucasus Poverty Team, Poverty and Equity Global Practice. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/898621475640022345/pdf/108742-WP-P160443-PUBLIC-ArmeniaFYFINALENG.pdf>, accessed December 19, 2018.

World Bank. 2016b. *Armenia Social Protection Improvement Survey (ASPIS)*. Washington, DC: World Bank.

World Bank. 2016c. *Childhood Malnutrition in Armenia: Findings from Armenia Social Protection Improvement Survey (ASPIS)*. Washington, DC: World Bank.

World Bank, 2017a. *Why Should We Care About Care? The Role of Childcare and Eldercare in Armenia*. Poverty and Equity Global Practice, Europe and Central Asia Region. Washington, DC: World Bank.

World Bank. 2017b. *Connecting the Dots: Transport, Poverty and Social Inclusion – Evidence from Armenia*. Transport and ICT Global Practice, Europe. Washington, DC: World Bank.

World Bank. 2018a. *Social Worker as Entry Point to Promote Investments in Early Years: Preparation of a Database on Services Targeted to the Early Years (0 to 5 and Pregnant Women)*. World Bank. Washington, DC: World Bank.

World Bank. 2018b. *Armenia: Human Capital Index*, https://databank.worldbank.org/data/download/hci/HCI_2pager_ARM.pdf accessed on 14/05/2019.

World Bank. 2018c. *10 Years of Chile Grows with You (Chile Crece Contigo): Key Components and Lessons Learned for the Setting Up of Comprehensive Child Development Support Systems* (English). Washington, DC: World Bank Group. <http://documents.worldbank.org/curated/en/992351537159031673/10-Years-of-Chile-Grows-With-You-Chile-Crece-Contigo-Key-Components-and-Lessons-Learned-for-the-Setting-Up-of-Comprehensive-Child-Development-Support-Systems>.

World Bank. 2019. *World Development Indicators Database*. <https://databank.worldbank.org/data/reports.aspx?source=world-development-indicators>, accessed May 14, 2019.

ANNEX 1: VARIABLES INCLUDED IN SURVEY OF SERVICE PROVIDERS

Variable	Observations used when gathering data
1. Name of service	Complete name of service, if acronym provide complete name
2. Entity responsible for implementation 2.1 Name of entity 2.2 Is this entity...? 2.2.1 Public 2.2.2 International Donors 2.2.3 NGO 2.2.4 Other, specify 2.3 Does this entity provide this service...? 2.3.1 For a specific community 2.3.2 For a specific district 2.3.3 For a specific region 2.3.4 Nationally 2.3.5 Other, specify	If more than one, provide name of the one in charge of the coordination of implementation Respond 'Yes' or 'No' Respond 'Yes' or 'No' Respond 'Yes' or 'No' Specify other type of entity Respond 'Yes' or 'No' Respond 'Yes' or 'No' Respond 'Yes' or 'No' Respond 'Yes' or 'No' Specify other type of area covered by the entity
3. Source(s) of information to complete this database (complete all that apply) 3.1 Website, if so specify 3.2 Interview, if so: name, organization and position of person interviewed 3.3 Other, specify	Complete name, position and institution
4. Date this information was gathered (Day/month/year)	Day/month/year
5. Location where service is provided 5.1 Is the service provided ...? 5.1.1 In a network of centers (different locations are available in the same district) 5.1.2 In a specific center 5.2 If a specific center, provide address	Respond 'Yes' or 'No' Respond 'Yes' or 'No'

Variable	Observations used when gathering data
5.2.1 Street address 5.2.2 District 5.2.3 Region	
6. Is the service ...? 6.1 Universal 6.2 Target (e.g. to poor families or to minorities)	Respond 'Yes' or 'No' Respond 'Yes' or 'No'
7. What population in the early years does this services attend? Mark all that apply 7.1 Families with pregnant women 7.2 Families with children under 1 year 7.3 Families with children older than 1 but under 2 7.4 Families with children older than 2 but under 3 7.5 Families with children older than 3 but under 4 7.6 Families with children older than 4 but under 5 7.7 Families with children under 5 years, in general 7.8 Families with children under 5 years in general and pregnant women	Respond 'Yes' or 'No' Respond 'Yes' or 'No'
8. Requisites to access the service, mark all that apply 8.1 Poverty status (as defined by social programs) 8.2 National ID of parents 8.3 Children with birth certificate 8.4 Residency in specific area 8.5 Children with health passport 8.6 Statement of interest or general registration from family 8.7 Other, specify	Respond 'Yes' or 'No' Respond 'Yes' or 'No' Specify other requisite asked to access the service
9. Payments associated to service	

Variable	Observations used when gathering data
<p>9.1 Do families need to pay a fee for this service?</p> <p>9.2 If not a fee, is there a copay (e.g. for parts of the service)?</p> <p>9.3 If not free, what is average charge?</p> <p> 9.3.1 In ₦</p> <p> 9.3.2 What is the frequency of this payment?</p>	<p>Respond 'Yes' or 'No'</p> <p>Respond 'Yes' or 'No'</p> <p>Respond 'Per day,' 'Per month,' 'Per year,' 'Per service,' or 'Other'</p>
<p>10. Frequency of use</p> <p> 10.1 How frequently does a typical beneficiary use this service?</p> <p> 10.2 If other, specify</p> <p> 10.3 Is there a recommended frequency for the use of this service?</p> <p> 10.4 If so, please specify</p>	<p>Respond 'Once a year,' 'Quarterly,' 'Once a month,' 'Weekly,' 'Daily,' 'Other'</p> <p>Specify other frequency</p> <p>Respond 'Yes' or 'No'</p> <p>Respond 'Once a year,' 'Quarterly,' 'Once a month,' 'Weekly,' 'Daily,' 'Other'</p>
<p>11. Public sector that regulates the service</p> <p> 11.1 Health</p> <p> 11.2 Education</p> <p> 11.3 Social Policy</p> <p> 11.4 Child protection</p> <p> 11.5 More than one sector is involved</p> <p> 11.6 Other, please specify</p>	<p>Respond 'Yes' or 'No'</p> <p>Specify other sector that regulates the service</p>
<p>12. Type of service, mark all that apply</p> <p> 12.1 Medical care (i.e. immunization, physical growth, laboratory testing, etc.)</p> <p> 12.2 Food provision (e.g. fortified food, baskets of food, etc.)</p> <p> 12.3 Food recipes demonstrations</p> <p> 12.4 Breastfeeding support</p> <p> 12.5 Care of children</p> <p> 12.6 Pre school</p> <p> 12.7 Community (peer to peer) learning</p>	<p>Respond 'Yes' or 'No'</p>

Variable	Observations used when gathering data
12.8 Group training and mentoring 12.9 Book/toy libraries 12.10 Provision of materials: guidelines, interactive audio/visual instruction manual 12.11 Child protection from violence 12.12 Other, specify	Respond 'Yes' or 'No' Respond 'Yes' or 'No' Respond 'Yes' or 'No' Respond 'Yes' or 'No' Specify other type of service
13. Modality in which the service is provided, mark all that apply 13.1 Regular service provided in a center 13.2 Regular service provided at home 13.3 Non regular services provided upon referral 13.4 Non regular service provided upon demand 13.5 Other, specify	Respond 'Yes' or 'No' Respond 'Yes' or 'No' Respond 'Yes' or 'No' Respond 'Yes' or 'No' Specify other modality
14. Main goal of service, mark all that apply 14.1 Support good health of children 14.2 Support health of pregnant women (and postnatal care) 14.3 Promote healthy nutrition (e.g. breastfeeding, balance diet, etc.) 14.4 Provide child care services 14.5 Provide early learning and education 14.6 Promote good parenting in general (integrated package of nutrition, early education/ stimulation and protection of children) 14.7 Guarantee and promote child rights 14.8 Other, specify	Respond 'Yes' or 'No' Respond 'Yes' or 'No' Specify other goal of service
15. Area were service is provided, mark all that apply 15.1 At specific area/district/ community	Respond 'Yes' or 'No'

Variable	Observations used when gathering data
15.2 At selected districts 15.3 At selected regions 15.4 Only rural 15.5 Only urban 15.6 Nationwide 15.7 Other, specify	Respond 'Yes' or 'No' Respond 'Yes' or 'No' Respond 'Yes' or 'No' Respond 'Yes' or 'No' Respond 'Yes' or 'No' Specify other area were service is provided
16. Is the service at full capacity (cannot attend any more beneficiaries using its current equipment, workers, capital and other resources)?	Respond 'Yes' or 'No'
17. Beneficiaries 17.1 How many children under 5 did the service attend last year? 17.2 How many of them are...? 17.2.1 Pregnant women 17.2.2 Children under 1 year 17.2.3 Children older than 1 but under 2 17.2.4 Children older than 2 but under 3 17.2.5 Children older than 3 but under 4 17.2.6 Children older than 4 but under 5 17.2.7 All children under 5 years 17.2.8 All children under 5 years and pregnant women 17.3 Are the majority of the beneficiaries of this service...? Mark all that apply 17.3.1 Armenian citizens in general 17.3.2 Poor (as defined by social programs) 17.3.3 Armenian refugees from Iraq 17.3.4 Armenian refugees from Azerbaijan 17.3.5 Children with special needs 17.3.6 Syrian-Armenians 17.3.7 Other minority	Respond 'Yes' or 'No' Respond 'Yes' or 'No'

Variable	Observations used when gathering data
<p>17.3.8 Other, specify</p> <p>17.4 How many of them are...?</p> <p>17.3.1 Armenian citizens in general</p> <p>17.4.2 Poor (as defined by social programs)</p> <p>17.4.3 Armenian refugees from Iraq</p> <p>17.4.4 Armenian refugees from Azerbaijan</p> <p>17.4.5 Children with special needs</p> <p>17.4.6 Syrian-Armenians</p> <p>17.4.7 Other minority</p> <p>17.4.8 Other, specify</p>	<p>Specify other type of beneficiary</p>
<p>18. Staff providing the service</p> <p>18.1 How many people work in the service?</p> <p>18.2 How many are paid a full salary?</p> <p>18.3 How many are volunteer? (include here those that receive a stipend but not a full payment)</p> <p>18.4 How many work in the service full time?</p> <p>18.5 How many of them have a college degree or higher education?</p> <p>18.6 How many of them have received training to provide early childhood development services?</p> <p>18.7 How many of them are...?</p> <p>18.7.1 Teachers</p> <p>18.7.2 Social workers</p> <p>18.7.3 Psychologists</p> <p>18.7.4 Nutritionists</p>	<p>Number of full-time and part-time staff in charge of providing the service, include administrative personal</p> <p>Number of teachers working in the service, include fulltime and part time</p> <p>Number of social workers working in the service, include fulltime and part time</p> <p>Number of psychologists working in the service, include full-time and part-time</p> <p>Number of nutritionists working in the service, include full-time and part-time</p>

Variable	Observations used when gathering data
<p>18.7.5 Nurses</p> <p>18.7.6 Doctors</p> <p>18.7.7 Communication specialists</p> <p>18.7.8 Therapists</p> <p>18.7.9 Support staff</p> <p>18.7.10 Other, specify</p>	<p>Number of nurses working in the service, include full-time and part-time</p> <p>Number of doctors working in the service, include full-time and part-time</p> <p>Number of communication specialists working in the service, include full-time and part-time</p> <p>Number of therapists working in the service, include full-time and part-time</p> <p>Number of support staff working in the service, include full-time and part-time</p> <p>Specify number and type of other staff providing the service</p>
<p>19. What was last year's total budget for this service? (In ₴)</p>	<p>Total annual budget (last year), in ₴</p>
<p>20. Entity that funds the service</p> <p>20.1 Name of entity funding the service</p> <p>20.2 Is the entity funding the service...?</p> <p>20.2.1 State (government of Armenia)</p> <p>20.2.2 Local government (regional or district)</p> <p>20.2.3 Donor via national NGO/civil society organization</p> <p>20.2.4 National private sector</p> <p>20.2.5 UN/World Bank/international Organization/donor via international NGO/civil society organization</p> <p>20.2.6 International private sector</p> <p>20.2.7 Other, specify</p>	<p>Respond 'Yes' or 'No'</p> <p>Specify other institutions financing this service</p>

ANNEX 2: SELECTION OF MARZES FOR SURVEY

Urban marzes

Region	Stunting (Percentage of children under age 5 classified as malnourished; below 2SD, height for age)	Overweight (Percentage of children under age 5 classified as obese, above 2SD, weight for height)	Percentage of children ages 6-59 months with any level of anaemia	Extreme multidimensional poverty	Kindergartens operate on a regular basis during the whole year	Share of FBP beneficiaries	Number of SW
Yerevan	3.5	11.4	10.4	2.0	94.6	16.0	175.0
Syunik	12.3	12.2	9.8	0.7	100.0	3.4	27.0
Lori	5.6	10.8	33.6	2.8	95.0	19.0	51.0
Shirak	19.5	18.4	21.4	3.9	81.5	14.3	55.0
Kotayk	7.7	4.9	20.2	2.3	100.0	8.8	39.0
Dimensions			0.33	0.33			0.33
Weights	0.11	0.11	0.11	0.25	0.11	0.11	0.11
TOTAL							
Yerevan	0.4	1.3	1.2	0.5	10.5	1.8	19.4
Syunik	1.4	1.4	1.1	0.2	11.1	0.4	3.0
Lori	0.6	1.2	3.7	0.7	10.6	2.1	5.7
Shirak	2.2	2.0	2.4	1.0	9.1	1.6	6.1
Kotayk	0.9	0.5	2.2	0.6	11.1	1.0	4.3
							35.0
							18.5
							24.6
							24.3
							20.6

Rural marzes (50 percent or more of the population is rural)

Region	Stunting (percentage of children under age 5 classified as malnourished; below 2SD, height for age)	Overweight (Percentage of children under age 5 classified as obese, above 2SD, weight for height)	Percentage of children ages 6-59 months with any level of anemia	Extreme multidimensional poverty	Kindergartens operate on a regular basis during the whole year	Share of FBP beneficiaries	Number of SW
Tavush	7.4	7.8	11.2	2.0	94.4	5.0	20.0
Vayots Dzor	11.5	18.9	15.1	1.0	96.4	1.9	18.0
Armavir	9.7	13.1	7.4	2.1	46.4	5.5	31.0
Gegharkunik	9.9	12.3	48.8	1.3	78.3	12.8	39.0
Ararat	13.7	35.9	10.3	1.3	75.8	7.9	36.0
Aragatsotn	18.1	10.3	11.5	0.4	85.2	5.4	26.0
Dimensions			0.33	0.33			0.33
Weights	0.11	0.11	0.11	0.25	0.11	0.11	0.11
							TOTAL
Tavush	0.8	0.9	1.2	0.5	10.5	0.6	2.2
Vayots Dzor	1.3	2.1	1.7	0.3	10.7	0.2	2.0
Armavir	1.1	1.5	0.8	0.5	5.2	0.6	3.4
Gegharkunik	1.1	1.4	5.4	0.3	8.7	1.4	4.3
Ararat	1.5	4.0	1.1	0.3	8.4	0.9	4.0
Aragatsotn	2.0	1.1	1.3	0.1	9.5	0.6	2.9
							17.5