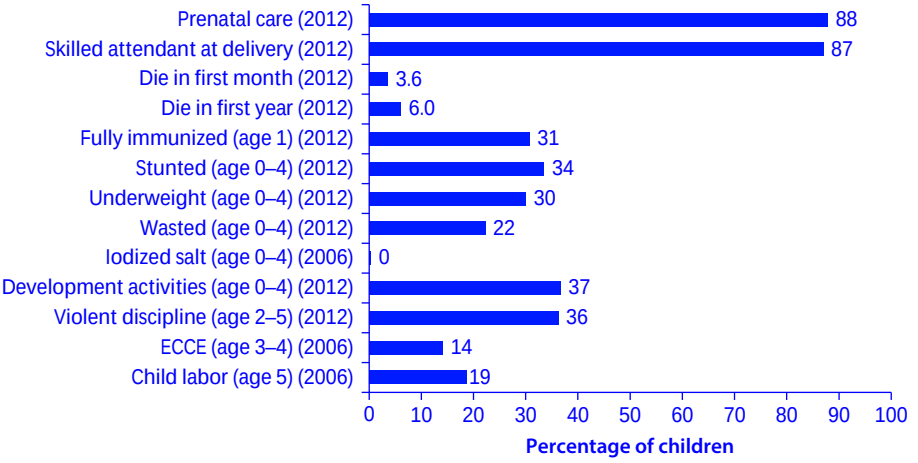
Early Childhood Development in Djibouti

WORLD BANK GROUP

F 5.1 ECD I



World Bank calculations based on Djibouti PAPFAM 2012 and Djibouti MICS 2006.
ECCE = early childhood care and education; ECD = early childhood development.

B 5.1 ECD I E D

Prenatal care
Trained attendant at delivery
Neonatal mortality (dying in the first month)
Infant mortality (dying in the first year)
Fully immunized
Stunting/Height-for-age
Underweight/Weight-for-age
Wasting/Weight-for-height
Early childhood care and education
Parental development activities
Violent child discipline
Child labor

and these relationships). For the overall country context, see box 5.2. Finally, the analysis measures the gaps and extent of inequality in ECD outcomes. The analysis is based on the latest available data: the Pan-Arab Family Health Survey of 2012 and the Multiple Indicator Cluster Survey (MICS) from 2006. The data cover the various dimensions of early childhood from before a child is born up until the age of school entry (six years old, in Djibouti).

S r i al, Health Care, and N trition

The first step in healthy ECD is simply surviving early childhood. In Djibouti, 1 in every 17 children dies by age one. As of 2012, infant mortality, dying in the first year of life, was 60 deaths per thousand births,[1] a rate that is more than twice

the average for the Middle East and North Africa (MENA) region (24 per thousand) (UNICEF 2014). Most of infant mortality is neonatal mortality, deaths in the first month of life. As of 2012, the neonatal mortality rate in Djibouti was 36 deaths per thousand births. Early mortality represents the ultimate loss of human potential, and reducing under-five mortality rates by two-thirds from 1990 to 2015 is one of the Millennium Development Goals (MDGs). Djibouti has made limited progress in reducing neonatal and infant mortality over time; over the six years from 2006 to 2012, infant mortality decreased only slightly, from 67 deaths per thousand births (Ministry of Health and League of Arab States 2007) to 60 deaths per thousand births.

Addressing both early mortality and ECD begins during pregnancy and delivery. Delivery with a skilled attendant[2] is vital to reducing newborn mortality and morbidity. Prenatal care and delivery care are important components of achieving the MDGs. In Djibouti, 88 percent of mothers who had live births[3] had received prenatal care from a health professional, and 87 percent of the births were

92 percent (delivery care). Rates in 2012, 88 percent for prenatal care and 87 for delivery care, therefore represent a slight decrease in early health care.

The full immunization of children plays an important role in reducing childhood diseases that can hamper growth or cause death. Yet, only a third (31 percent) of children age one in Djibouti are fully immunized. Children are

F 5.3 A H -A -A -H C
H R P D P
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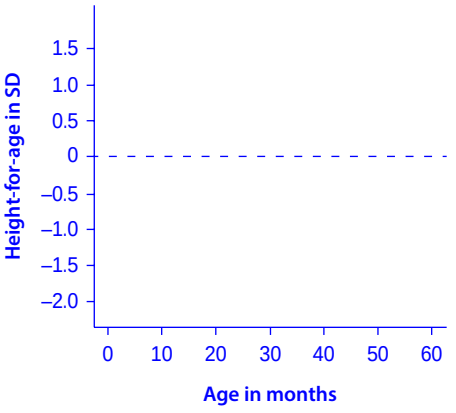
a. Height-for-age

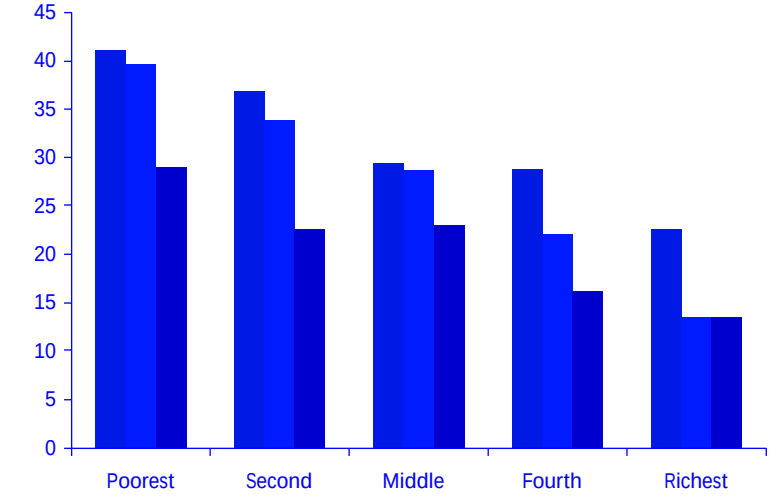


World Bank calculations based on Djibouti PAPFAM 2012.
SD = standard deviations. Most interviews took place in June, July, and August, so those would be "month zero."

early than female children, but this is a pattern that is common globally due to genetic factors (Hill and Upchurch 1995). The relationship of early mortality with wealth and education does not follow a clear systematic pattern, and there are also no differences by region or urban versus rural. When accounting for multiple characteristics, the relationship between characteristics and early mortality was not significant.[16]

Although there were no associations with early mortality, the use of prenatal care is associated with wealth and education. For instance, while 68 percent of births in the poorest fifth of households received prenatal care, 98 percent of births from the fourth and richest wealth levels did so. Mothers with no education had an 84 percent chance of prenatal care, while mothers with basic education had a 97 percent chance, and mothers with a secondary or higher education a 98 percent chance. There are also large differences based on residence in the use of prenatal care, which likely represent differences in access to health infrastructure. While 96 percent of births in urban areas received prenatal care, just two-thirds (67 percent) of births in rural areas received prenatal care. Access to prenatal care

F 5.5 P C A 0 4



World Bank calculations based on Djibouti MICS 2006.

likely to be immunized than children in other districts. Children with more educated fathers and from the top two wealth levels were also significantly more likely to be immunized.

While malnutrition threatens all children, poorer children and those living in rural areas are more likely to be malnourished. In Djibouti, 41 percent of children from the poorest fifth of households compared to 23 percent from the richest fifth of households are stunted (figure 5.5). Being underweight or wasted likewise decreases with wealth. Rates of stunting are higher in rural areas (42 percent) than urban areas (30 percent), and higher in other districts (39 percent) than Djibouti proper (30 percent). Similar patterns are observed for being underweight or wasted. Having a secondary educated mother or father decreases the chances of malnutrition.

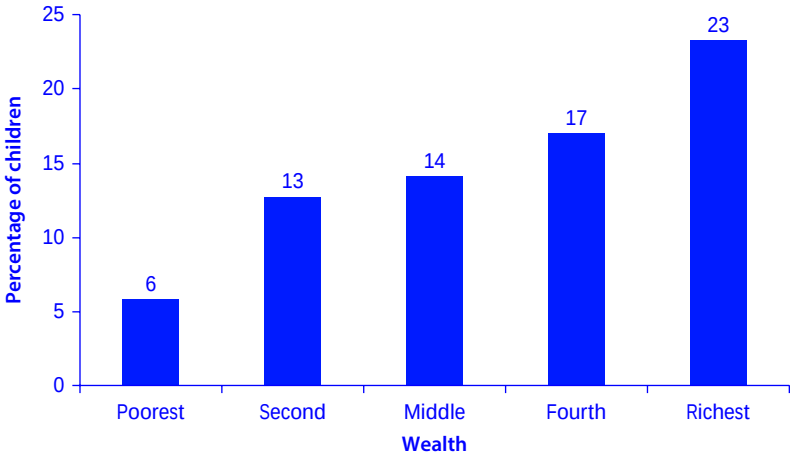
Even after accounting for other background characteristics, wealth shows a strong relationship with malnutrition. The chances of being stunted significantly decreased at the highest wealth level. The chances of being underweight, as well as being wasted, are lower in the fourth and richest levels compared to the poorest 20 percent of households.

Social, Emotional, and Cogniti e De elopment

Social, emotional, and cognitive development are related to the wealth level of the child's household, parents' education, and the location of the household. Poorer children, from the lower four wealth levels, are less likely to experience at least four development activities than children from the richest fifth of

households (figure 5.6). Children in rural areas and other districts are also less likely to experience development activities than children in urban areas and Djibouti proper. Children with uneducated mothers have only a 33 percent chance of experiencing development activities, compared to a 51 percent chance for children with mothers with a secondary or higher education; similar patterns are observed for fathers. Taking into consideration multiple characteristics, children living in Djibouti proper as compared to other districts, and children in the

F 5.7 P C A 3, 4 A ECCE, L



World Bank calculations based on Djibouti MICS 2006.

richest fifth of households (7 percent). Children also engage in labor in both urban and rural settings, although rates are higher for rural children. The lower rate of child labor in Djibouti proper as compared to other districts is statistically significant, even after accounting for other factors. After accounting for other factors, children from the richest fifth of households are less likely to be engaged in child labor than children from the poorest fifth of households. However, children with mothers with secondary education are more likely to be engaged in child labor.

C F O H D

Children in Djibouti face unequal opportunities for healthy development, based on factors beyond their control. To measure the extent of inequality, the analysis calculates (a) the percentage of opportunities that needed to have been distributed differently for equality of opportunity to have occurred for each of the ECD indicators, and (b) the chance of whether these differences might have occurred by random variation (table 5.1).

For prenatal and delivery care, 6–10 percent of opportunities for early health care would have to be distributed differently for equality of opportunity to have prevailed. There is also substantial inequality in immunizations and stunting, but this could be due to chance. There is inequality in terms of early cognitive and socioemotional development; inequality is particularly high for ECCE, but differences could be due to chance. Differences in development activities are high, with 13.9 percent of opportunities needing to be redistributed, and this is not due to chance. Violent discipline and child labor also show substantial inequality.

5.1 P... O... B... R...

Prenatal care	6.4**
Skilled delivery	9.6***
Fully immunized	22.2
Stunted	9.6
Development activities	13.9*
Violent discipline	11.6
ECCE	34.6
Child labor	23.2

World Bank calculations based on Djibouti PAPFAM 2012 and Djibouti MICS 2006.
Neonatal and infant mortality not modeled given statistical insignificance of overall regression models.
Significance level: * = chance < 5%, ** = chance < 1%, *** = chance < 0.1%. ECCE = early childhood care and education.

5.2 C... B... C... I...

Prenatal care	28.8	6.3	10.2	32.4	22.2	n.a.
Skilled delivery	30.2	4.4	9.2	37.5	18.7	n.a.
Fully immunized	40.6	2.9	28.1	3.9	22.0	2.6
Stunted	52.9	2.7	12.0	21.4	10.7	0.2
Development activities	13.4	8.9	3.5	8.7	64.2	1.2
Violent discipline	36.7	11.7	13.8	10.6	27.0	0.3
ECCE	21.3	21.3	32.4	3.5	20.9	0.5
Child labor	35.3	6.1	22.4	0.7	31.7	3.8

World Bank calculations based on Djibouti PAPFAM 2012 and Djibouti MICS 2006.
Shapley decompositions of the dissimilarity index. n.a. = not applicable.

Wealth, parents' education, and geographic differences all contribute to children's unequal chances. Table 5.2 shows the different contributions of circumstances to inequality for different outcomes as percentages. Wealth plays a particularly large role in early health and nutrition, contributing approximately a third to a half of inequality for each of these measures. Parents' education is particularly important for inequality in ECCE. Rural versus urban differences make a particularly large (around a third) of the contributions to inequality in prenatal and delivery care. Regional differences matter for almost all outcomes, but especially for inequality in development activities. A child's sex contributes very little to inequality.

Children tend to be consistently advantaged or disadvantaged across a variety of different dimensions of ECD, and can face very different life chances based on just a few characteristics. Early childhood is when cycles of poverty and inequality are transmitted across generations. If we observe a child who lives in rural other districts, in the poorest 20 percent of households, and with uneducated parents (a least advantaged child) and compare that child to one

who has parents with higher education, is from the richest 20 percent of households, and lives in urban Djibouti proper (a most advantaged child), we find that they have very different chances of healthy ECD. Figure 5.8 presents the chances of different ECD indicators for these "least advantaged" and "most advantaged" individuals.

On almost every indicator, the least advantaged child faces a poorer chance for healthy development. Comparing the least and most advantaged, the gap in prenatal care is 38 percentage points, and the gap in having a trained attendant at delivery is 54 percentage points. The least advantaged child is more likely to die in the first month or year of life. The least advantaged child is 5 percentage points less likely to be immunized, 21 percentage points more likely to be stunted, 29 percentage points more likely to be underweight, and 18 percentage points more likely to be wasted. There is a 37 percentage point gap in development activities, with the most advantaged child being more than twice as likely to experience these activities. The largest relative difference is in ECCE

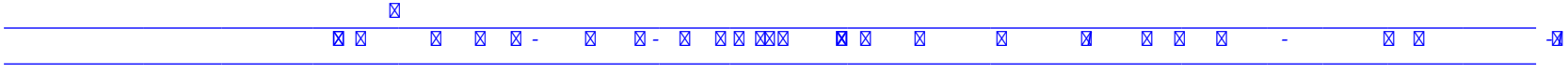
attendance, where the most advantaged child is seven times more likely to attend ECCE than the least advantaged child. The least advantaged child is also more than twice as likely to be engaged in child labor, and slightly less likely to be violently disciplined.

5B.1 I B C

Gender																	
Male			4.0	6.8	31.7	33.7	−1.05	31.1	−1.19	23.6	−0.81	38.2	38.2	12.4	18.1	53.3	50.9
Female			3.2	5.1	29.7	33.3	−1.11	28.6	−1.08	21.0	−0.60	35.0	33.7	16.0	19.1	46.7	49.1
Wealth																	
Poorest	68.4	58.2	3.5	5.1	25.9	41.1	−1.36	39.7	−1.50	29.0	−0.93	26.0	24.5	5.8	22.6	26.1	31.2
Second	91.3	95.2	3.4	6.6	24.4	36.9	−1.24	33.8	−1.35	22.6	−0.93	39.4	42.9	12.8	30.6	21.6	20.5
Middle	94.7	98.9	4.0	5.1	16.9	29.4	−0.99	28.6	−1.10	23.0	−0.66	33.7	37.2	14.2	14.8	17.5	18.0
Fourth	97.9	99.7	4.2	8.1	42.7	28.8	−0.93	22.0	−0.84	16.1	−0.46	34.9	39.2	17.0	15.5	17.2	16.1
Richest	97.6	99.6	2.9	5.4	44.8	22.5	−0.54	13.4	−0.43	13.4	−0.23	56.6	47.2	23.3	7.4	17.1	14.1
Mother's ed cation																	
None	84.3	83.5	3.9	6.4	28.7	34.3	−1.14	31.5	−1.22	23.1	−0.81	32.9	36.1	10.3		61.1	65.2
Basic	97.3	96.6	3.0	4.2	39.4	31.5	−0.93	24.0	−1.06	19.9	−0.65	41.9	51.8	12.9		18.7	11.2
Secondary+	97.9	98.9	2.0	4.9	32.0	26.9	−0.76	18.6	−0.49	14.5	−0.07	51.0	39.6	27.8		17.9	8.7
Missing/DK						35.8	−1.13	33.9	−1.22	25.1	−0.64		[illegible]		6		

None 84.3 U0.5 97.3 [illegible]

5B.1 I B C



A 5C: R ECD I B A M C

5C.1 R ECD I M B C

R ral		–	–						–		
Djibo ti proper compared to other districts				–				+		+	–
Wealth 20% of ho seholds compared to poorest											
Second		+	+								
Third			+								
Fourth		+	+	+		–	–				
Richest			+	+	–	–	–	+			–
Female											
Mother's ed cation compared to illiterate											
Basic education	–	+									
Secondary +											+
Missing/Don't know											
Father's ed cation compared to illiterate											
Basic education		+	+	+							
Secondary +		+	+								
Missing/DK		–		+							
Observations (N)											

17. In the regression model, no differences were statistically significant, likely due to a relatively small sample of one-year-olds.
18. In the regression models, there were not any statistically significant predictors of development activities or violent discipline except for the father being missing, increasing the chance of violent discipline.

R

Hill, Kenneth, and Dawn M. Upchurch. 1995. "Gender Differences in Child Health: Evidence from the Demographic and Health Surveys." *Population and Development Review* 21 (1): 127–51.

Ministry of Health (Djibouti), Institute of Statistics and Demographic Studies, and League of Arab States. 2012. *Second Djibouti Survey of Family Health EDSF/PAPFAM*