Urban Poverty and Child Health Indicators in Six African Countries with DHS Data (AS81)

An Analysis Brief from The DHS Program

Why study urban poverty and health?

Two-thirds of the global population are forecasted to live in urban areas by 2050, and much of this urban growth will happen in low- and middle-income countries. Continued population growth and rural to urban migration will increase urban poverty. The health consequences and advantages of urban living are not experienced equally by everyone in cities. Understanding differences in health indicators between the urban poor and urban non-poor and how these differences vary across several countries is key to ensure equitable access to health care services and resources for urban dwellers worldwide.

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Which countries were included?

This analysis includes data from six USAID Maternal and Child Health priority countries: Democratic Republic of the Congo (DRC), Ethiopia, Kenya, Nigeria, Tanzania, and Uganda.

What methods were used to conduct this analysis?

Using the UN-HABITAT definition of a slum household as a guide, urban poor households are defined as those in urban areas lacking two or more of the following: durable material for the floor, wall, and roof; not more than three people per sleeping room; access to improved water; and access to improved sanitation. Clusters where more than 50% of households are poor are defined as urban poor areas. Figure 1 shows children under five living in urban poor, urban non-poor, and rural areas by study country. All countries are mostly rural. Tanzania has the lowest share of children living in urban poor areas (3%) and Kenya has the highest share (18%).

Figure 1. *Percent distribution of urban poverty among children under 5 by study country.*

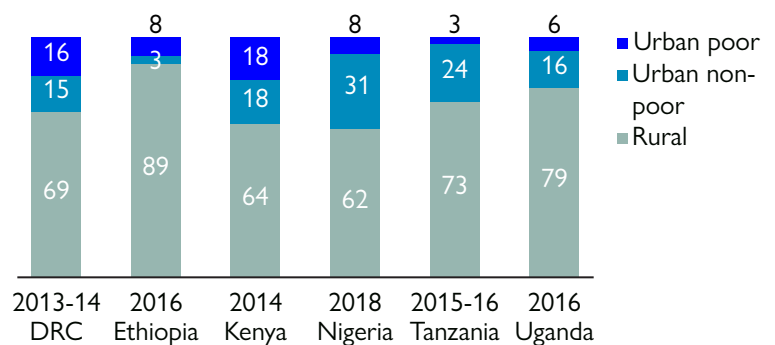|	2013-14 DRC	2016 Ethiopia	2014 Kenya	2018 Nigeria	2015-16 Tanzania	2016 Uganda
Urban poor	16	3	18	8	3	6
Urban non-poor	15	8	18	31	24	16
Rural	69	89	64	62	73	79

Figure 2 highlights the magnitude of urban poor living within urban areas. About half of urban children in the DRC and Kenya live in urban poor areas. While Ethiopia and Nigeria have the same level of urban poor among the total population (8%, see Figure 1), 70% of urban children in Ethiopia live in urban poor areas, compared to 20% of urban children in Nigeria who live in urban poor areas.

Figure 2. Percent distribution of urban poverty among urban children under 5 by study country.
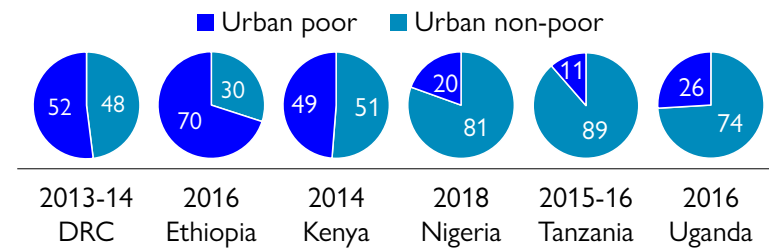
This report explores the relationship between urban poverty and several child health indicators: place of delivery, food given during diarrhea, liquids given during diarrhea, zero-dose children (no DPT 1), breastfeeding timing after birth, weight for age, and weight for height.

Crosstabulations were performed between each health indicator and background variables including urban poverty, region, child's sex, child's age in months, birth order, and mother's education. To further explore how urban poverty impacts health, percent distributions by the mother's background characteristics (including education, type of earnings, and ethnicity), problems accessing health care for self, and availability of health facilities within five kilometers were produced for urban poor, urban non-poor, and rural children under age five.

Regressions were fit to include controls (child's sex, child's age in months, birth order, mother's education) with the urban poverty variable. Code for the household characteristics and to construct indicators of interest is available on The DHS Program Code Share Library.

Figure 3. Summary of adjusted regression results for each indicator for urban poor children under 5 compared to urban non-poor children under 5.

	Health facility delivery	Less or no food during diarrhea	Less or no liquids during diarrhea	Zero-dose children	Breastfed within 1 hour after birth	Underweight	Overweight or obese
DRC	80%	62%	73%	517%	40%	88%	
Ethiopia	65%			470%		132%	90%
Kenya	41%		79%			51%	
Nigeria	55%					38%	80%
Tanzania	85%	70%			41%		
Uganda	49%					108%	

Urban poor children have significantly… [lower odds] [higher odds] …of experiencing [indicator] than urban non-poor children. [Findings not significant]

What are the key results?

Two indicators are consistently associated with urban poverty: health facility delivery and underweight. Urban poor children are less likely to be delivered in a health facility than urban non-poor children in all study countries. Blue cells in the first column of Figure 3 illustrate lower odds of outcome for urban poor compared to urban non-poor children. In all countries except Tanzania, urban poor children have higher odds of being underweight than urban non-poor children, as illustrated by orange cells. Grey cells indicate no significant difference in the indicator between urban poor children and urban non-poor children.

Similar patterns and larger differences are found among rural children across child health indicators and study countries generally.

Other significant findings are sporadic across health indicators and study countries. In the DRC and Ethiopia, urban poor childen age 12-23 months are more likely to be zero-dose children, meaning they have not received the DPT 1 vaccine compared to urban non-poor children. The difference is large: in both countries urban poor children have nearly six times higher odds of being zero-dose children than urban non-poor children. In the DRC and Tanzania, urban poor children have 40% and 41% lower odds of being breastfed within one hour after birth compared to urban non-poor children.

In general, urban poor mothers have lower education, lower cash earnings, and greater problems accessing health care than urban non-poor mothers, especially due to distance and money.

There are fewer public (and private) health facilities available in urban poor areas than in urban non-poor areas. External data sources were linked to DHS survey data at the cluster level for all surveys except Nigeria. By study country, total availability of public hospitals is low, ranging from 6% in Ethiopia to 35% of children under five in Kenya who have at least one public hospital within five kilometers. In all study countries, children had lower availability of public hospitals in urban poor areas compared to urban non-poor areas, though the difference may not be significant in Kenya.

In general there are more public non-hospitals (e.g., health posts and health centers) available than hospitals. Overall availability of public non-hospitals ranges from 17% in Ethiopia to 72% in Kenya. Public non-hospitals are less available in urban poor areas compared to urban non-poor areas across all countries, though the difference is not significant in Kenya and Tanzania. In Uganda, only 41% of urban poor children have at least two public non-hospitals within 5 kilometers compared to 94% of urban non-poor and 52% of rural children.

Figure 4. Children under 5 with at least one public hospital within 5 kilometers.
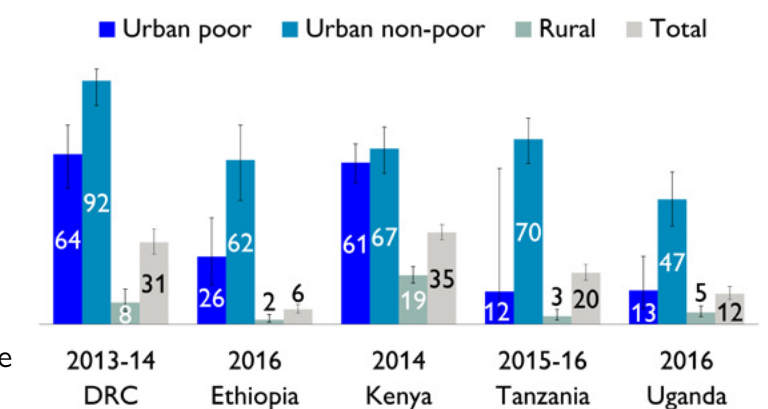
Figure 5. Children under 5 with at least two public non-hospitals within 5 kilometers.
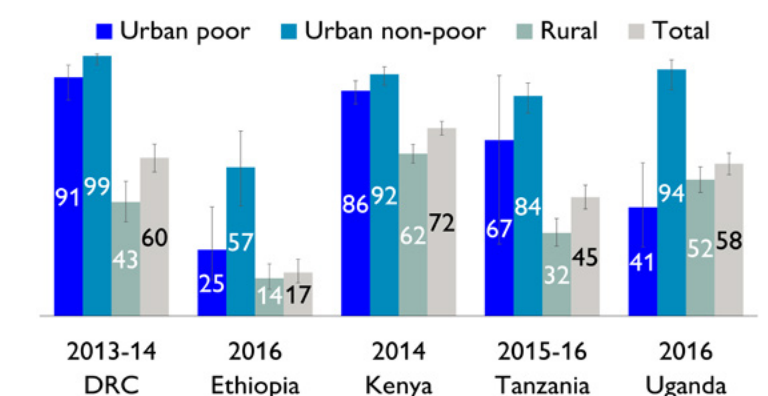
What does this mean?

This analysis shows large disparities between urban poor and urban non-poor children for a selection of child health indicators across six countries. The results highlight the need for targeted urban programs and continued investments in infrastructure to address within-urban disparities and ensure equitable access to health services and resources for all urban dwellers.

Results for each study country are discussed in detail in six country-specific briefs.

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