



Effective Coverage in Urban Poor Areas (AS89)

An Analysis Brief from The DHS Program

Why study urban poverty and effective coverage?

Two-thirds of the global population are forecasted to live in urban areas by 2050. Advantages of urban living are not experienced equally by everyone living in cities. Urban poor people have been found to experience poorer health outcomes than the urban non-poor due to lack of access and low quality health care.

This study uses Demographic and Health Survey (DHS) and Service Provision Assessment (SPA) data to calculate effective coverage cascades for antenatal care (ANC) and sick child care for urban poor and urban non-poor populations. Effective coverage incorporates multiple aspects of health system performance—need, use, readiness, and quality—into one measure shown as a cascade (see Figure 1). The first column represents the target population who has a need for the health service. This study concerns two target populations: women who gave birth at least once in the previous two years and children under age 5 with symptoms of diarrhea or acute respiratory infection (ARI) in the two weeks before the survey. The cascade continues with the second column representing service contact coverage: those in the target population who seek care at a health facility.

Input-adjusted coverage incorporates a measure of health facility readiness and represents those who sought care at a health facility that has all necessary inputs to deliver

the health service. In this study, intervention-adjusted coverage includes women who received four or more ANC visits at a health facility that was “ready” and children under age 5 diagnosed with diarrhea or pneumonia who received appropriate treatment from a health facility that was “ready”. Finally, quality-adjusted coverage includes a measure of quality of care. Quality-adjusted care represents the proportion of the target population who received the complete intervention at a high level of quality from a health facility that was ready to provide the health service.

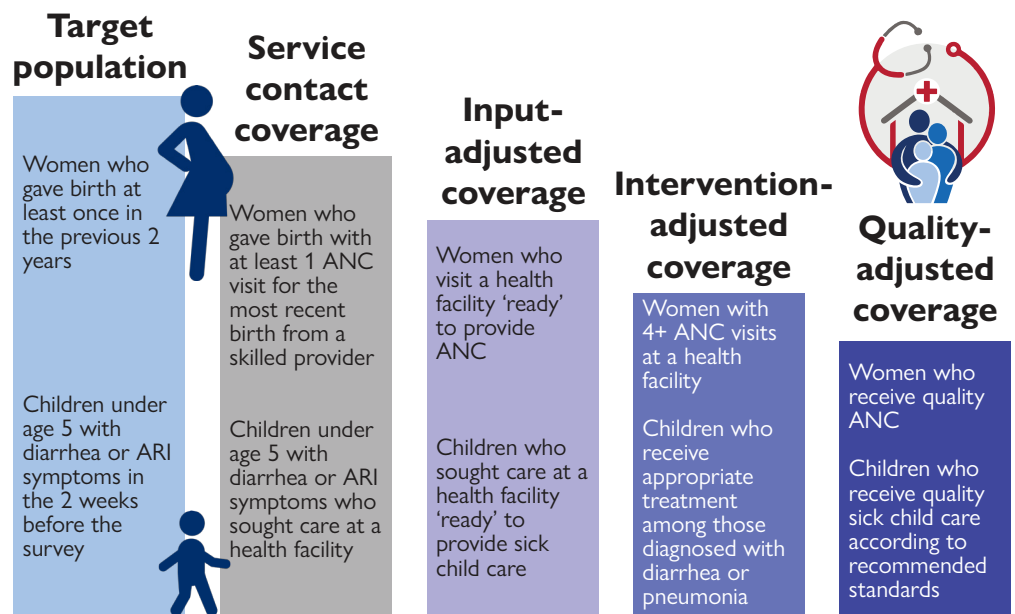


Figure 1. Effective coverage cascade for antenatal care (ANC) and sick child care. Each step in the cascade is the product of the measure in the column and all measures in previous columns.

Which countries were included in the study?

This analysis includes data from DHS and SPA surveys from Afghanistan, Democratic Republic of the Congo (DRC), Ethiopia, Haiti, Nepal, and Tanzania.

What methods were used?

Guided by the UN-HABITAT definition of a slum household, urban poor households include those in urban areas lacking two or more of the following: durable material for the floor, wall, and roof; fewer than four people per sleeping room; access to improved water; and access to improved sanitation. Urban poor clusters are those where more than half of households are poor.

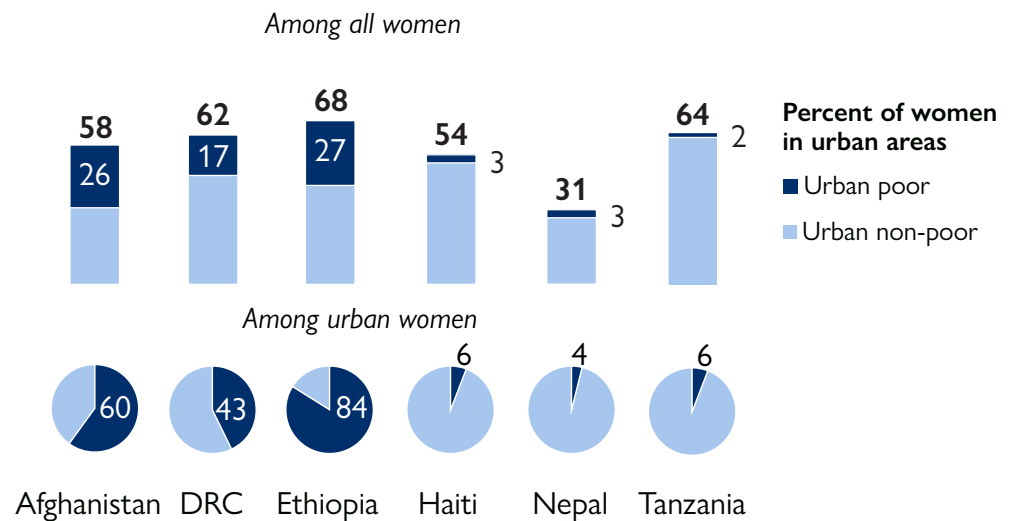


Aerial view of Gondar town city, Ethiopia.
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In Ethiopia, over two-thirds (68%) of women live in urban areas, and most urban women are poor (see Figure 2). Conversely in Nepal, only about one-third (31%) of women live in urban areas and very few urban women are poor (4%). The proportions of children under age 5 who live in urban areas and in urban poor clusters are similar to those of women and can be found in the appendix of the full report.

Effective coverage cascades were calculated for ANC and sick child care. Nonoverlapping confidence intervals were used to determine significant differences in effective coverage between urban non-poor and urban poor populations.

Figure 2. Percent of women living in urban poor clusters

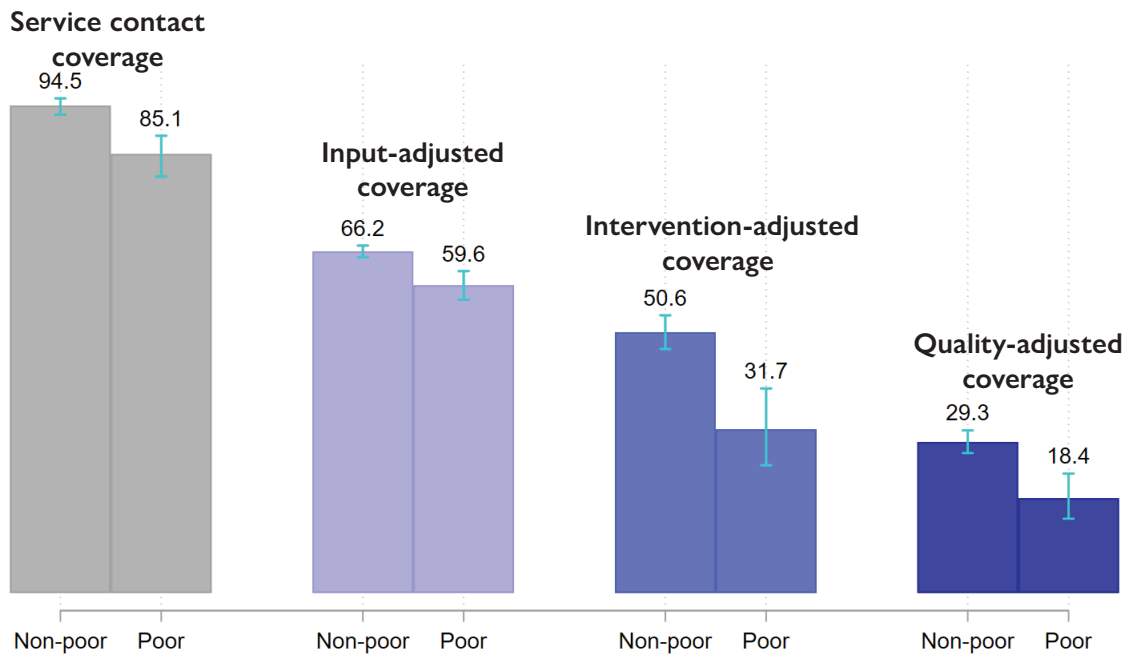


What are the key results?

Significant differences are observed in effective coverage of ANC between urban non-poor and urban poor women in DRC, Ethiopia, and Haiti, countries that vary greatly in the proportion of urban poor women (84% in Ethiopia, 43% in DRC, 6% in Haiti). Haiti is the only country where there are significant gaps (e.g., confidence intervals do not overlap) between urban poor and urban non-poor women at all steps in the effective coverage cascade for ANC. Urban non-poor women have higher service contact coverage, with 95% receiving at least one ANC visit from a skilled provider compared to 85% of urban poor women (see Figure 3).

Input-adjusted coverage, which includes facility readiness to provide ANC, is higher among urban non-poor women than urban poor women in Haiti (66% versus 60%). Half (51%) of urban non-poor women received the complete intervention of attending at least four ANC visits at a health facility, (intervention-adjusted coverage) compared to 32% of urban poor women. Quality-adjusted coverage in Haiti is 29% for urban non-poor women compared to 18% for urban poor women.

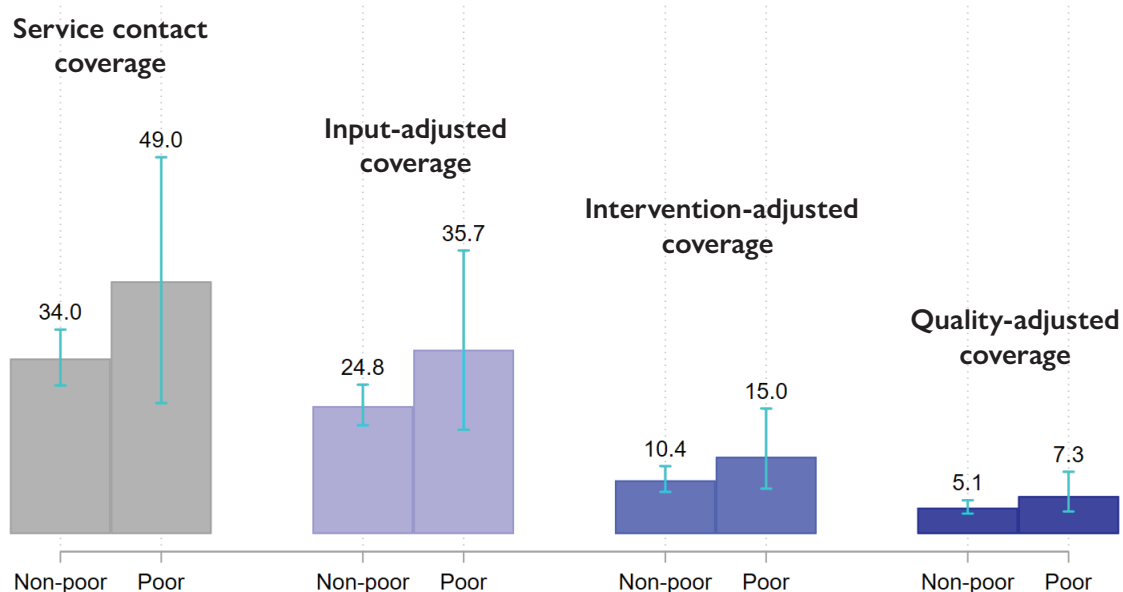
Figure 3. ANC effective coverage cascades for urban non-poor and urban poor women in Haiti



No significant differences are observed in sick child care effective coverage between urban poor and urban non-poor children. This is due in part to small sample sizes of sick children. In this analysis, few children under age 5 reside in urban poor clusters in Haiti, Nepal, and Tanzania, which meant fewer cases in the target population for the sick child care effective coverage cascade.

In Haiti, sick child care coverage is higher for urban poor than for urban non-poor at each step of the effective coverage cascade, although differences are not significant (see Figure 4). Service contact coverage for sick child care is low; 49% of urban poor and 34% of urban non-poor children with symptoms of diarrhea or ARI sought care at a health facility. This contrasts with Afghanistan, Nepal, and Tanzania, where sick child care coverage is higher for urban non-poor, and DRC, where sick child care coverage does not vary by urban poverty status.

Figure 4. Sick child care effective coverage cascades for urban non-poor and urban poor children sick child care in Haiti



Haiti has the lowest intervention-adjusted sick child care coverage of all six study countries, at only 10% for urban non-poor and 15% for urban poor children. Quality-adjusted sick child care coverage is even lower, at 5% for urban non-poor and 7% for urban poor children.

Service contact coverage is the only measure of the four used in the sick child care effective coverage cascade that can be calculated separately for urban poor and urban non-poor children. This means that differences between urban poor and urban non-poor in sick child care coverage are likely larger than those observed in this study.

What does this mean?

Disparities in effective coverage of ANC were observed between urban poor and urban non-poor women, with the urban poor being worse off, in half of the study countries. Health interventions in urban areas should focus on increasing coverage and improving quality of ANC services in urban poor areas.

This study extends the literature on equity in effective coverage by comparing effective coverage cascades for two essential primary health care services by urban poverty status. Future research should improve on methodological limitations, such as using external measures of poverty to classify catchment areas around facilities to better illuminate intra-urban inequities.



Kathmandu, Nepal. © qojoo / Adobe Stock

Code to construct the ANC and child health indicators can be found in chapters 9 and 10 on The DHS Program's Code Share Library on GitHub at <https://github.com/DHSProgram/DHS-Indicators-Stata>.

The code for this analysis was adapted from earlier effective coverage analysis code which can also be found on The DHS Program's Code Share Library on GitHub at <https://github.com/DHSProgram/DHS-Analysis-Code/tree/main/EffectiveCoverage>.

This brief summarizes The DHS Program's Analytical Studies 89, by Sara Riese and Shireen Assaf with funding from The United States Agency for International Development through The DHS Program implemented by ICF. For the full report or more information about The DHS Program, please visit <https://dhsprogram.com/publications/publication-as89-analytical-studies.cfm>.