Household Wealth Relative to Community Wealth: Associations with Specific Asset Ownership and Maternal and Child Health Indicators (AS76)

An Analysis Brief from The DHS Program

Why Study Relative Wealth?

The DHS measures wealth two ways: first with an asset-based index that estimates a household's living standard and second, with wealth quintiles which place each household in one of five quintiles, from poorest to wealthiest, based on their wealth compared to the national population. Higher household wealth quintile has been associated with many positive health outcomes. However, a household's wealth compared to the average wealth of their community may also play a role in their health. In this study we explore this concept of relative community wealth. First by examining the relative contribution of particular assets to a household's relative community wealth. Second, we examine the association between a household's wealth status relative to its community and use of various MCH services. That is, are women from households that are wealthy relative to their community more or less likely to receive adequate ANC compared to women from household that are poor relative to their community?

Which countries were included in the study?

This analysis used the most recent DHS data from the rural areas of the Democratic Republic of Congo, Zambia, Indonesia, Ghana, Haiti, Kenya, Mali, Nigeria, Pakistan, Senegal and Liberia. Results are provided both across countries and for individual countries. This brief highlights the results from Nigeria, using data from the 2018 Nigeria Demographic and Health Survey.

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Categorization of households and countries

Households are categorized according to their wealth relative to their community's average wealth:

- Households that are poor compared to community
- Households that are similar to community
- Households that are rich compared to community

Countries are categorized according to the proportions of households living in communities of similar wealth:

- Heterogeneous: Countries with lower proportions of households living in communities of similar wealth.
- Homogeneous: Countries with higher proportions of households living in communities of similar wealth.

What are the key results from Nigeria?

- Nigeria is categorized as a homogeneous country where more than half (54%) of the rural households are located in communities of similar average wealth to their own. The highest degree of homogeneity is seen in the wealthiest quintile, but is evident at all wealth levels, with at least 38% of households living in communities of similar wealth in each quintile (Figure 1).

- Households within wealth quintiles 2, 3, 4 and 5 that are poor relative to their community are more likely to have electricity. Households across all quintiles that are wealthy relative to their community are more likely to own a vehicle. The same is true for telephone ownership among poorer households. At higher levels of wealth, ownership of telephones is nearly universal.

- Descriptive statistics show that, as expected, the receipt of most of the maternal and child health indicators increase with household wealth. Stunting and wasting decrease with household wealth.

- For all 3 maternal and reproductive health (MRH) indicators (4+ ANC visits, health facility delivery, and mCPR), relative wealth is significant. The probability of receiving each of the MRH indicators is higher for women from poor households relative to their community compared to women who are rich relative to their community, no matter their household wealth quintile. The difference is largest in 4+ ANC visits where women from poor households relative to their community had on average a 9% higher probability of the outcome compared to women who are rich relative to their community (Figure 2).

- For the child health indicators (receipt of DPT3, ARI, fever, and diarrhea care-seeking, and exclusive breastfeeding), relative community wealth is only statistically significant for DPT 3 vaccination: children from poor households relative to the community have on average a 9% higher probability of DPT3 vaccination when compared with children from rich households relative to the community (Figure 3).

- Households that are rich relative to the community have a higher probability of stunting (11%) and wasting (3%) across quintiles. This difference decreases as household wealth increases.

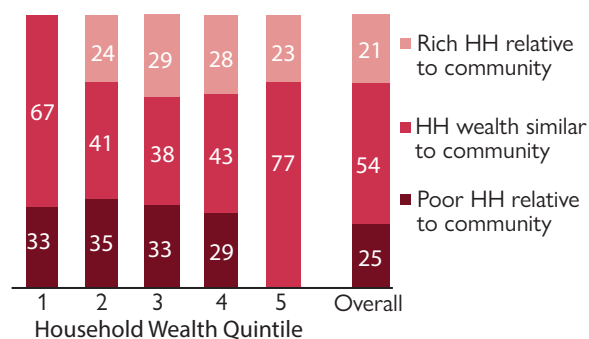**Figure 1. Distribution of household wealth relative to community average, Nigeria 2018**

Figure 2. Predicted Probabilities of 4+ ANC visits by Wealth Quintile, Nigeria 2018
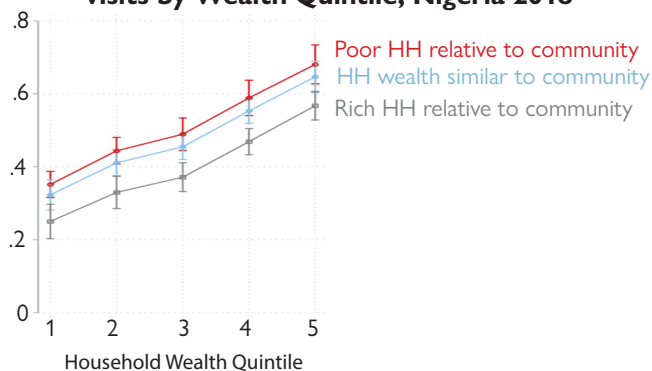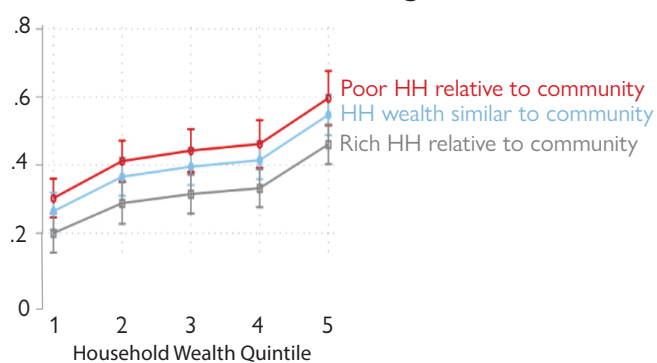

Figure 3. Predicted probabilities of DPT3 by Wealth Quintile, Nigeria 2018

These same results are presented for all 11 countries included in the analysis. See the full report (AS76) on The DHS Program website for more details.

How Should These Results be Used?

In nearly all countries, households that are poor relative to their communities were more likely to use ANC, facility delivery, or vaccination service. These services require qualified medical providers, and in the case of facility delivery, infrastructure. Relatively wealthy communities are more likely to have adequate health services including these resources. A household that is poor relative to the community is potentially better able to access the improved infrastructure and health care services of a relatively wealthy community. This finding does not hold for community-based services, which suggests that a household's wealth relative to the community has an important but variable influence on access to specific health services and across different countries.

More countries need to be analyzed to examine the associations across additional asset groups and MCH indicators and to ensure that these findings are robust.