

# ***Effects of institutional, family and child-specific factors on birth registration in selected African countries***

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## **Background:**

The lack of a birth certificate has wide ranging implications for child wellbeing. Early in their life children who lack an official birth certificate may have difficulty accessing schools and health services, and they are also more likely to face greater risk of illegal adoption and trafficking. At a later stage, the absence of the document may also hinder a person's right to employment and full integration into the society they live in.

## **Data and methods:**

This paper examines the effects of individual, household, community and country level factors on probability of birth registration before age 5 in 25 selected African countries using the Demographic and Health Survey (DHS) data available for the latest period. Accordingly, the variables captured in our analysis had four categories; at the primary level we have children, who are nested within households. Households are in turn nested within local areas (enumeration areas) and eventually within the countries. This leads to the following four set of variables which we used in our study:

### *Set 1: Characteristics that vary across individual child:*

Gender of the child, place of delivery, year of birth, birth order of the child, and age of mother at birth of child

### *Set 2: Characteristics that are the same for children residing in the same household/family:*

Gender and age of household head, educational and religious affiliation of the mother, age of mother at first birth, proportion of children dead of all children born to the mother and household wealth index. Given that the information on wealth indices on the DHS data are survey and country specific we have made relevant adjustments to ensure that they are valid for inter-country comparisons.

### *Set 3: Characteristics that are the same for children residing in the same local (enumeration) area:*

Urban/rural residence, primary school attendance rate, proportion of children born in health institution, proportion of women who received at least 4 Antenatal Care (ANC) visits.

### *Set 4: Characteristics that are the same for children residing in the same country:*

Index of governance (effectiveness, political stability, law and order and voice and accountability), mean years of schooling, gross domestic product, health expenditure as percent of GDP, and share of external resources as per cent of total health expenditure. Given the different year of birth of the children in our sample, the aggregate level variables were created by pulling together the values that were relevant at the time of birth for each child.

Given the hierarchical nature of the data a multi-level model with a random effect model was applied.

## **Results:**

Our multilevel model accounts for individual child, household and community level factors. Results from the model suggest that birth registration is affected by individual, household and country level factors. Among country and community level factors, primary school attendance rate in local areas, proportion of children born in health institutions in local areas, proportion of women who received at least 4 ANC visits in local areas, and country level governance index all showed positive and strong impact on probability of birth registration. Among child and household level factors, age and birth order of the child, being born in a health institution, age of mother at birth and child loss experience of the mother all show statistically significant and positive relationships with the probability of registering the birth of a child before s/he is aged 5. Children born to female headed households and the girls have lower probabilities of registration, although the effect was different across countries as are maternal education and wealth status of the household. Interestingly, none of the country level factors except governance had significant impact on the probability of birth registration. Mean year of schooling at country level also had an expected positive sign.