

“Need Based Donor Response in Nigeria”

Expanding Capabilities of Data Analysis through GIS

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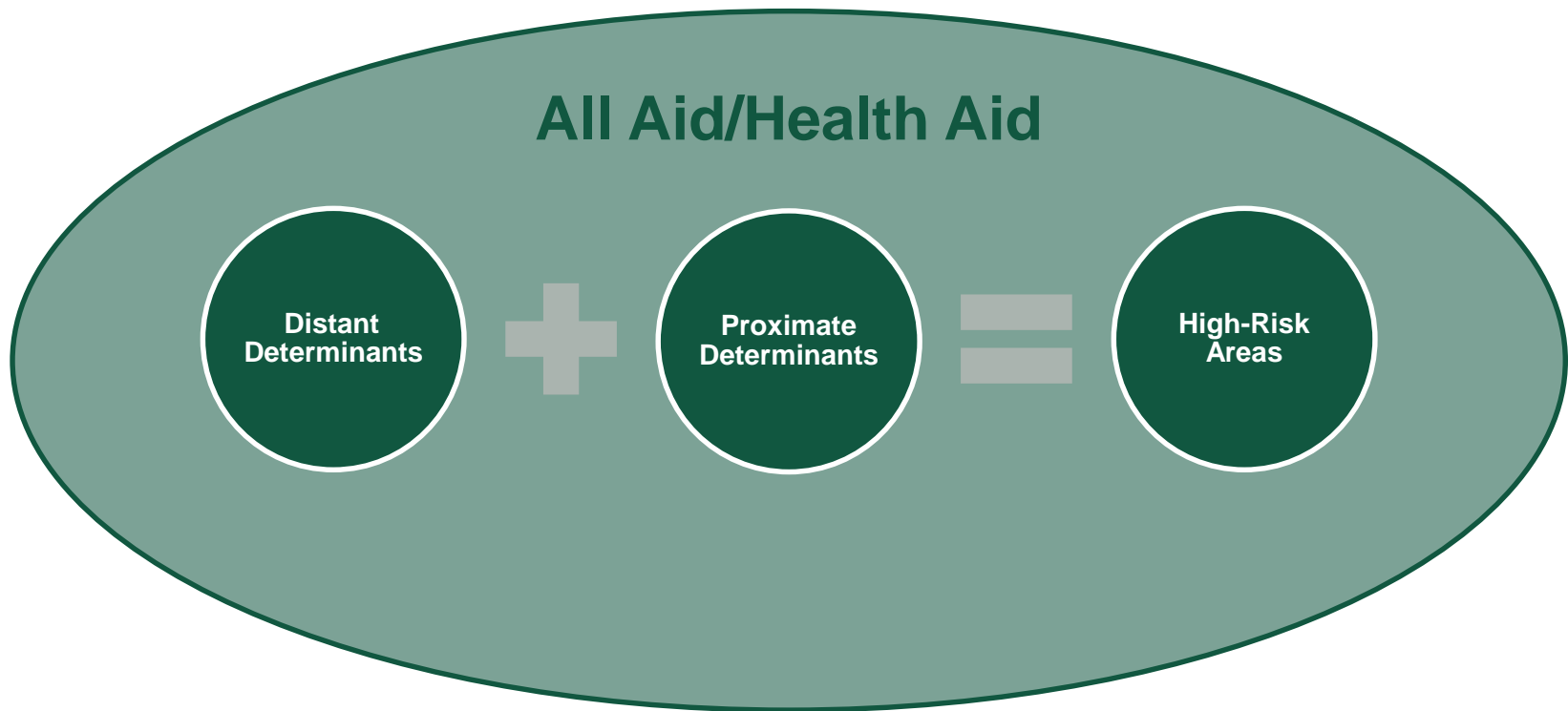
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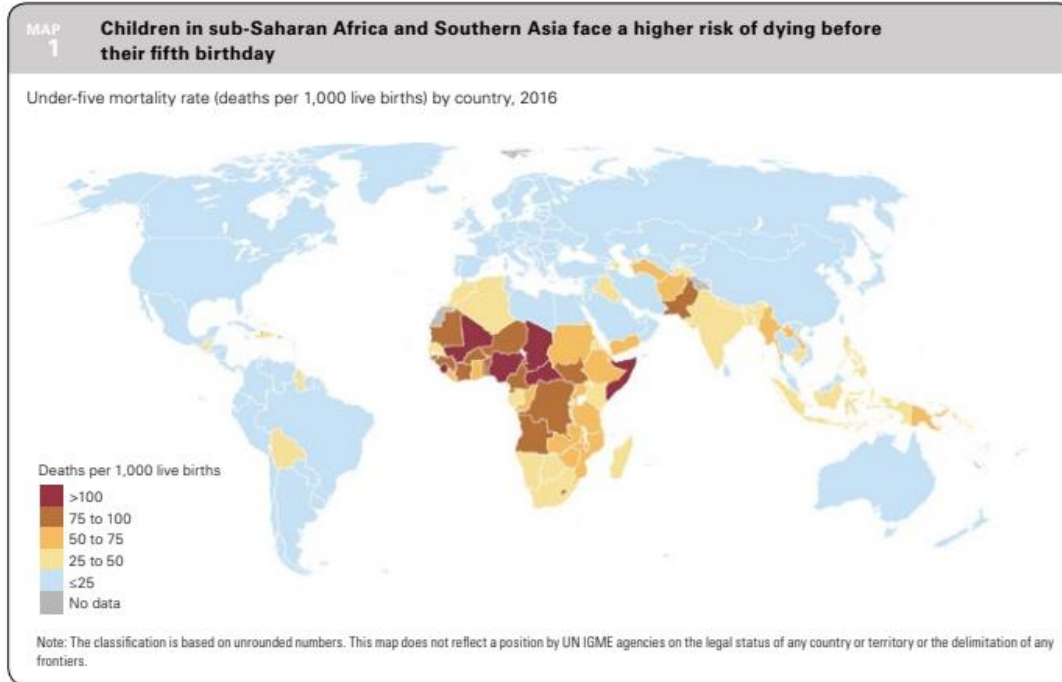
Research Question

**To what extent
does the
geographic
distribution of
aid meet the
needs of high-
risk areas in
Nigeria? |**

Conceptual Framework for Determining High-Risk Areas



Motivation



Source: “Levels & Trends in Child Mortality: Report 2017, Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation,” UN IGME, 2017.

My Contributions



Assign



Check



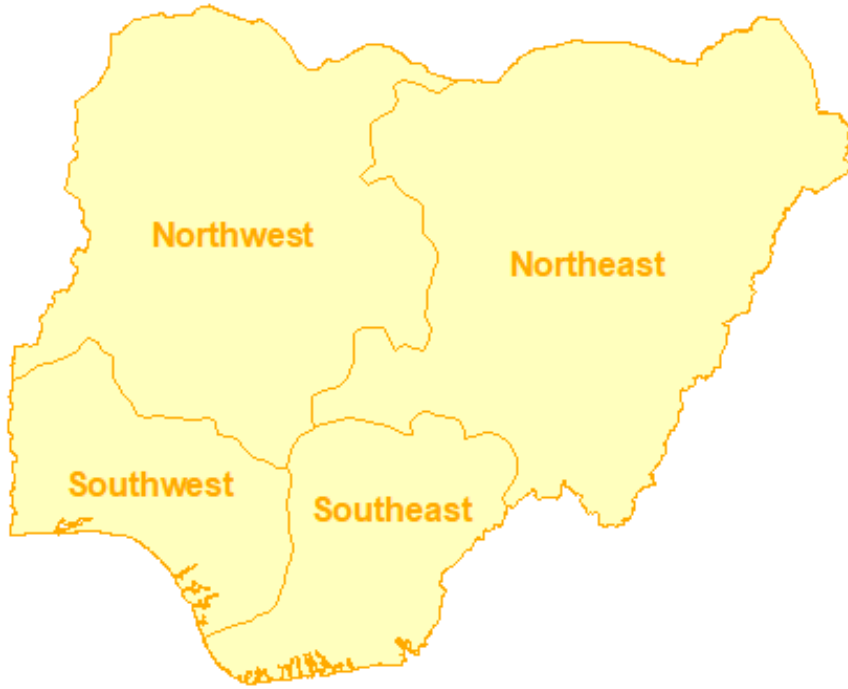
Crosswalking



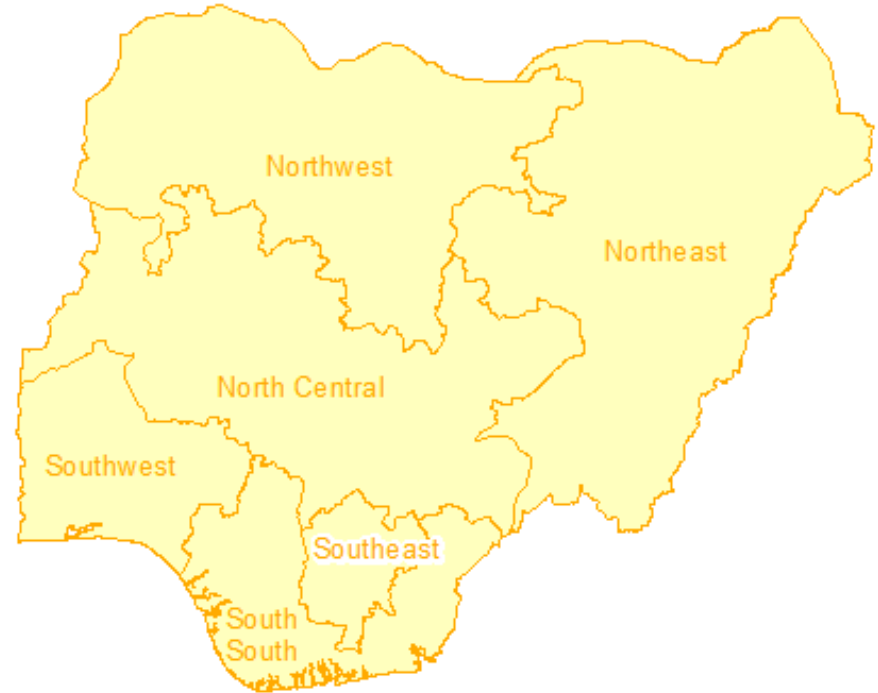
Calculate



Data Challenges: Spatial Crosswalks



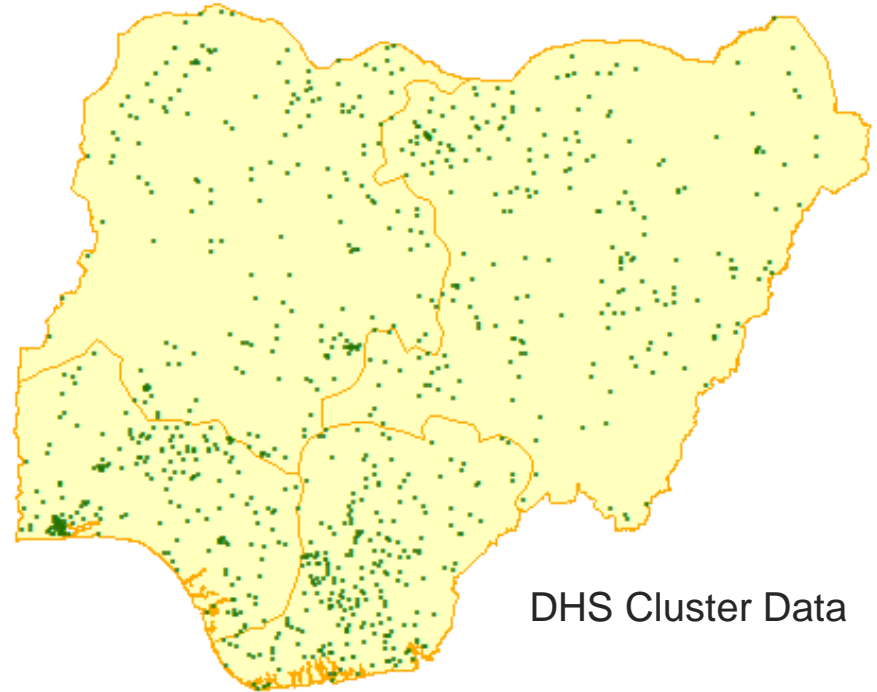
1990 state boundaries



2013 state boundaries

Calculations

- 1995 population estimates for Nigeria, Bolivia, Cameroon, Ghana, India and Indonesia
- Under-five mortality rates
- Neonatal mortality rates
- Percentage of children with diarrhea taken to a health provider
- Prevalence of acute respiratory infection
- Prevalence of fever in children under age
- Prevalence of exclusive breastfeeding
- Delivery care
- Antenatal and postnatal care
- If a child with a fever has taken an anti-malarial drug
- Prevalence of children who in the two weeks prior to the survey had a fever and medical treatment was sought
- Prevalence of children sleeping under bed nets
- Prevalence of HIV/AIDS



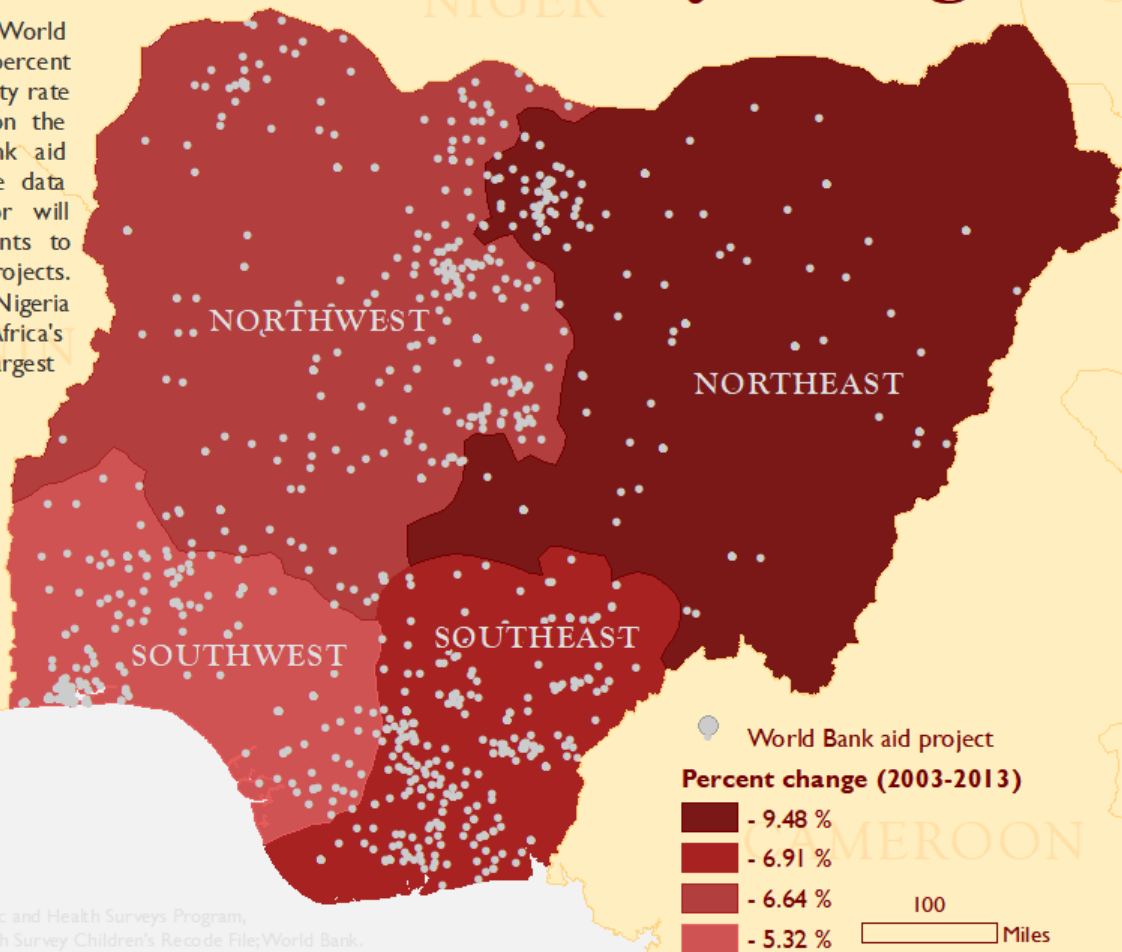
DHS Cluster Data

Aid Projects and Under-Five Mortality in Nigeria



This map of Nigeria shows World Bank aid projects and the percent change in the under-five mortality rate from 2003-2013. The points on the map represent all World Bank aid projects in Nigeria. When the data becomes available, the author will subset the aid allocation points to represent only health aid projects. With 184 million inhabitants, Nigeria makes up 47% of West Africa's population, and has one of the largest

populations of youth in the world (Source: World Bank profile, Nigeria). In the Northeast region of Nigeria in 2003, the cumulative probability of dying by the time a child reaches their fifth birthday was 23.58%. By 2013, this probability had decreased to 14.1%. Though the largest percent change in under-five mortality occurred in the Northeastern state of Nigeria, this state still claims the highest under-five mortality rates. The cumulative probabilities of dying at the beginning of year five in 2013 for the Northwest, Southwest and Southeast states of Nigeria are as follows: 13.38%, 7.13%, and 10.38%.



Questions and Comments?

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