WHAT CAN BE LEARNT FROM REGIONS IN THE SOUTH WITH NEAR-COMPLETE CHILD IMMUNIZATION?

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**INTRODUCTION**

- **Immunization** – eradication of small pox, lowered incidence of polio by 99%, reduced disabilities and death
  
  ...is one of the most successful and cost effective public health investments

- ‘complete’ child immunization - 90%+ coverage *(WHO definition)*
  
  ...rare achievement in the South!
GHANA REGIONAL IMMUNIZATION RATES

Upper West: 91%
Brong Ahafo: 92%
Ashanti: 86%
Western: 79%
Central: 71%
Greater Accra: 76%
Eastern: 83%
Volta: 83%
Northern: 58%
Upper East: 85%
RESEARCH QUESTION

- Upper West and Brong-Ahafo are among the poorest regions in Ghana...

- What explains why they are doing better than all the other regions?
METHODS I

- Ghana Demographic and Health Survey data 2008
- Calculated immunization prevalence by region
- Calculated regional rank order (1 = highest, 10 = lowest)

- Household level socioeconomic status
- Maternal health literacy
- Community health infrastructure and health status
- Religious and ethnic affiliations
- Use of maternal and child health facilities
- Maternal decision latitude
- Participation in public health child vaccination campaigns
Methods II

- Rank order data analysed using cluster analysis
  - SPSS hierarchical analysis
  - Euclidian distances, Ward’s method
  - Agglomeration
  - Cluster analysis results hypothetical example
RESULTS

- The PDR were not similar to each other on any of the factors investigated.

- For the seven factors, the region with the highest immunization rate compared most closely with the regions ranked 3rd, 5th, 6th, 7th, 8th and 10th.

- The two PDR do not closely share characteristics that might explain their PD status,

- study failed to differentiate the PDR from the other regions.
Cluster analysis with regions as cases, data from Ghana Demographic and Health Survey 2008 and Ghana Health Service 2008

Dendrogram for household-level socioeconomic status

Region:
Rank (1 = best)
For complete child immunization

Variables:
Wealth index
Maternal education
Maternal employment
Paternal education
Paternal employment
Health insurance
Money for health care

Regions with 90%+ complete child immunization
Cluster analysis with regions as cases, data from Ghana Demographic and Health Survey 2008 and Ghana Health Service 2008

Dendrogram for community health infrastructure and health status

Region:
Rank(1= best)
For complete child immunization

Variables:
Under 5 mortality
Distance to medical help
Physician coverage
Nursing coverage

Regions with 90%+ complete child immunization
CONCLUSION

- Even the poorest regions/communities, with very disparate characteristics can achieve excellent results

- Maybe ‘one size fits all’ does not work for some public health issues like immunization

- Immunization campaigns may need to be tailored at the regional – or even sub-regional -- level
THANK you!!