

# **THE GEOGRAPHY OF COVERAGE**

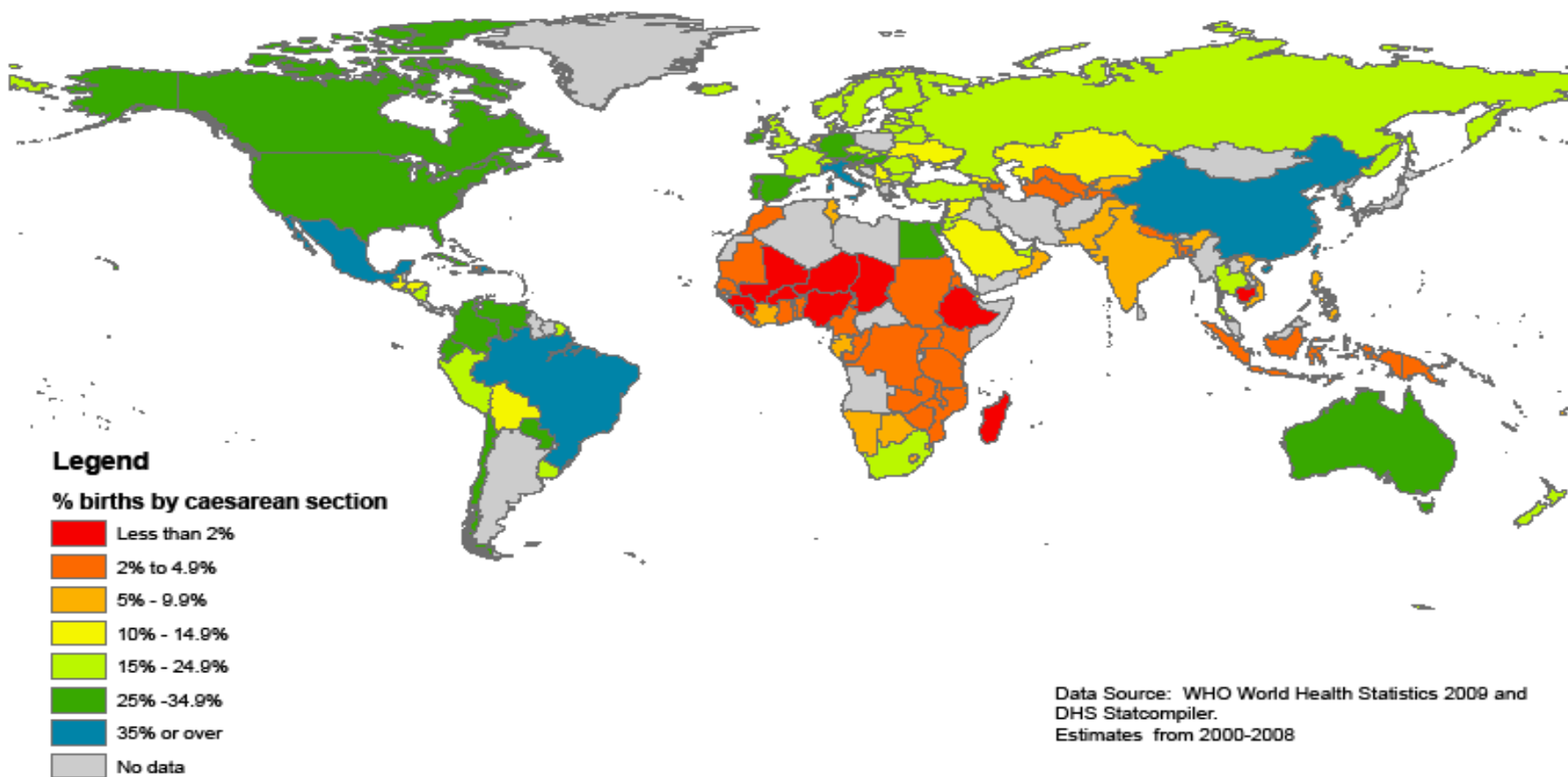
**Professor Wendy J Graham**  
**Impact, University of Aberdeen**

**&**

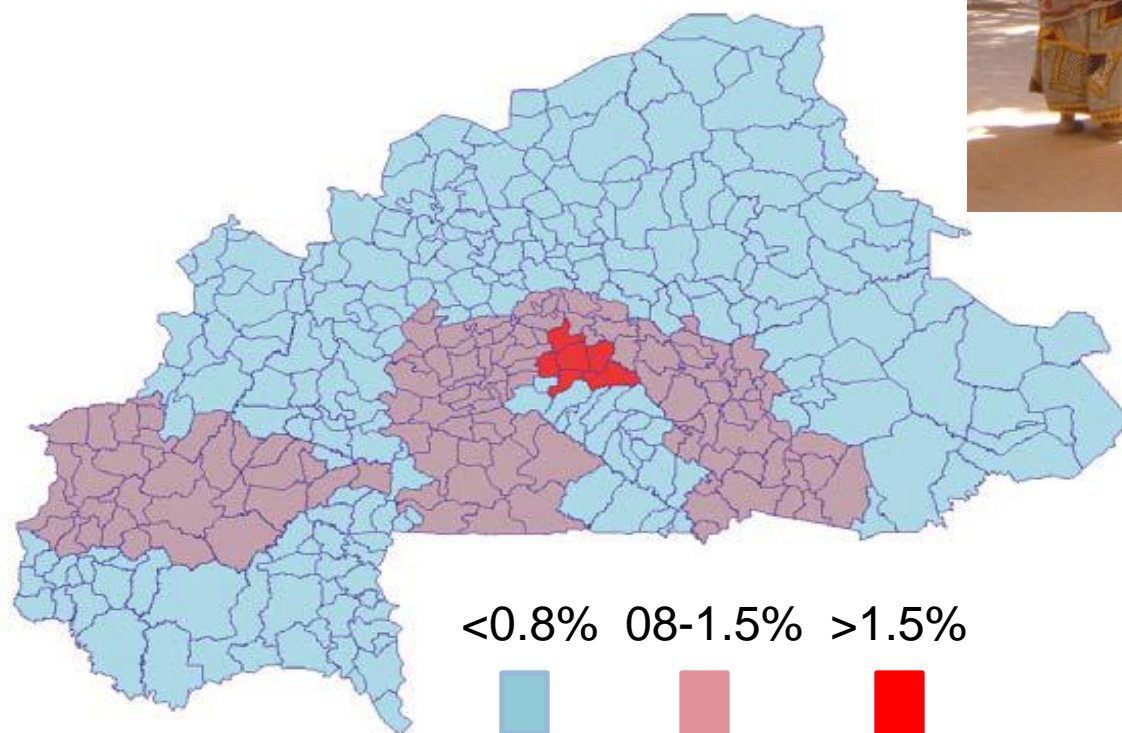
**Dr Sennen Hounton**  
**UNFPA, New York**

**Presentation for Countdown Equity Working Group**  
**Women Deliver conference: June 7<sup>th</sup> 2010**

# The power of communication



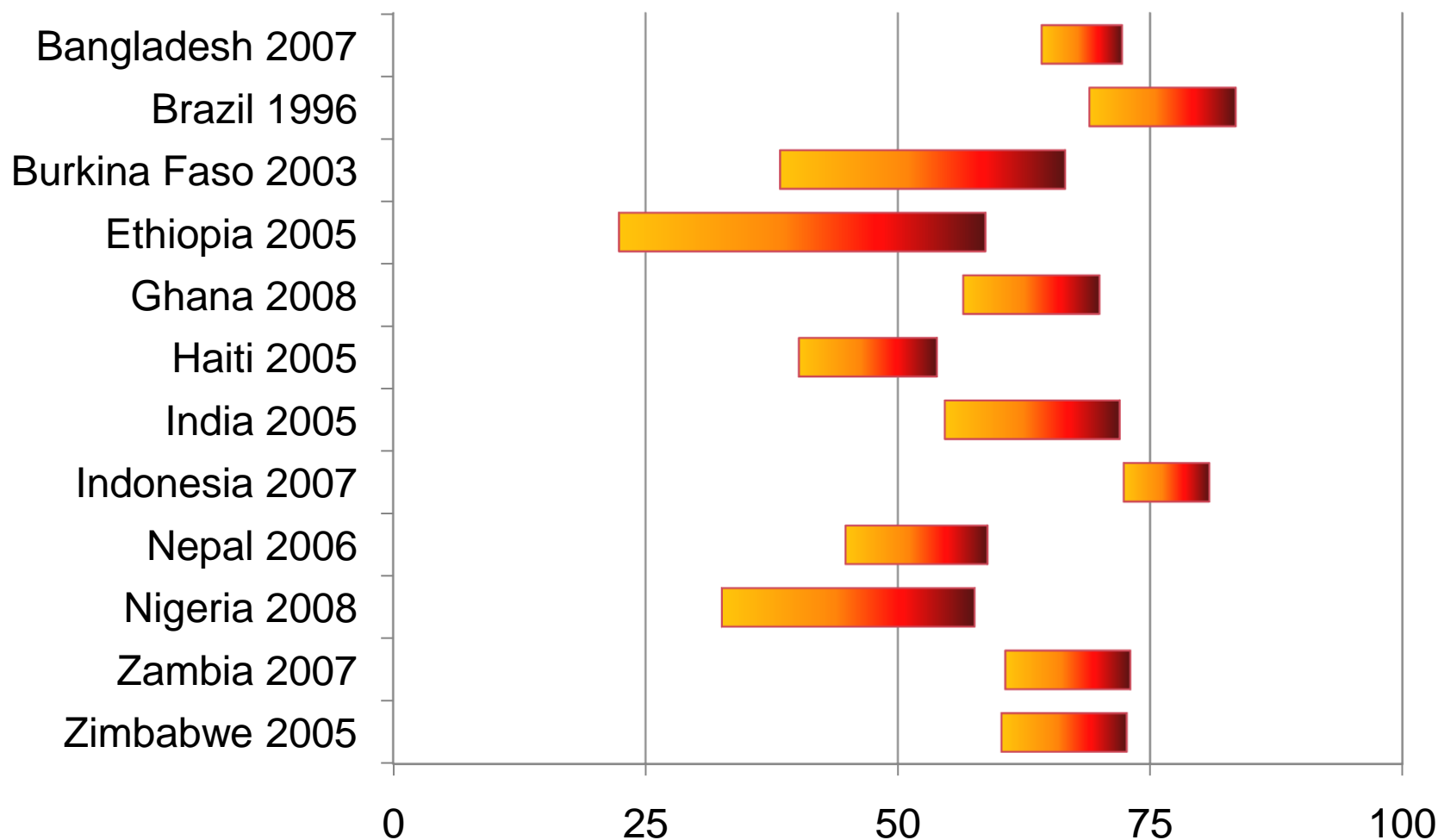
Data Source: WHO World Health Statistics 2009 and  
DHS Statcompiler.  
Estimates from 2000-2008



**% of deliveries by caesarean section:  
Burkina Faso 2003**

# Capturing geographical inequities in coverage

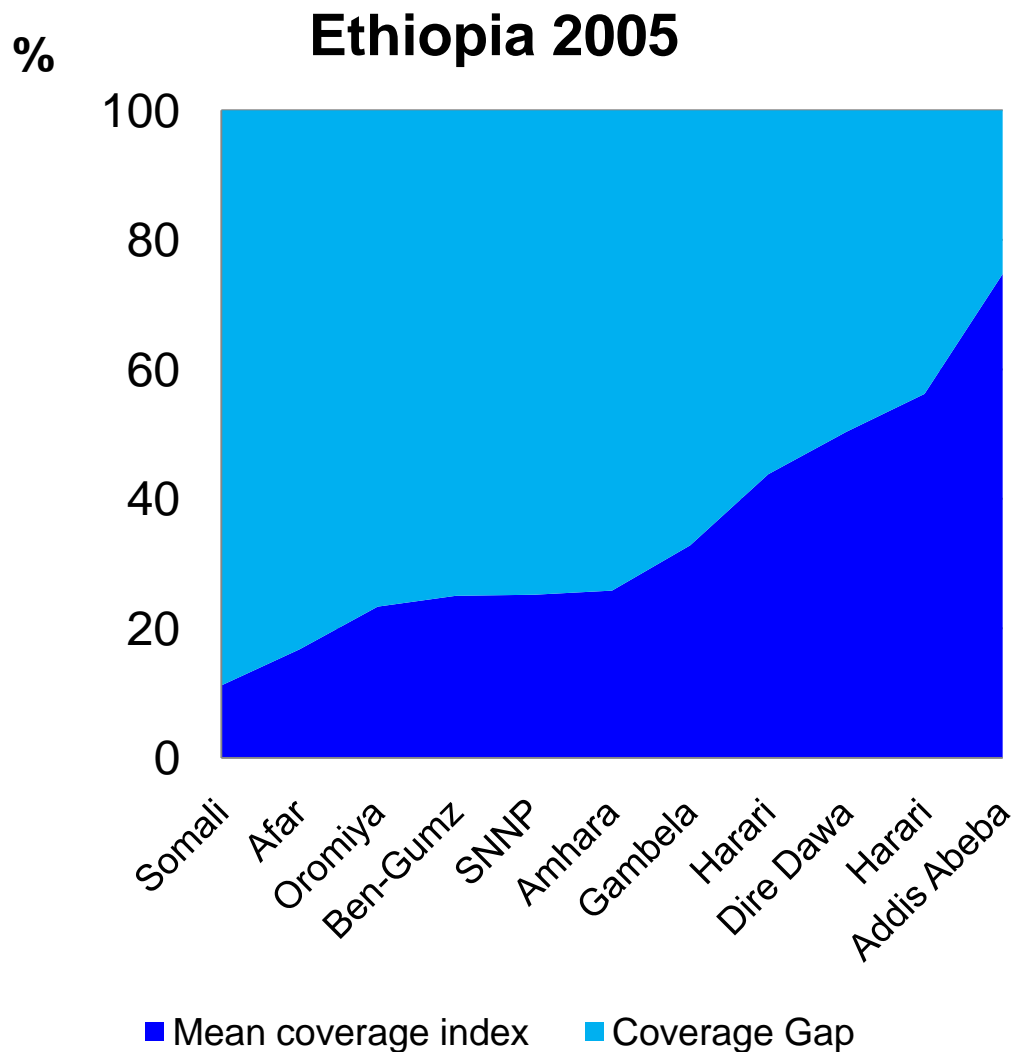
## Mean coverage index\* for rural & urban areas



\* Based on 8 maternal & child health services

Rural Urban

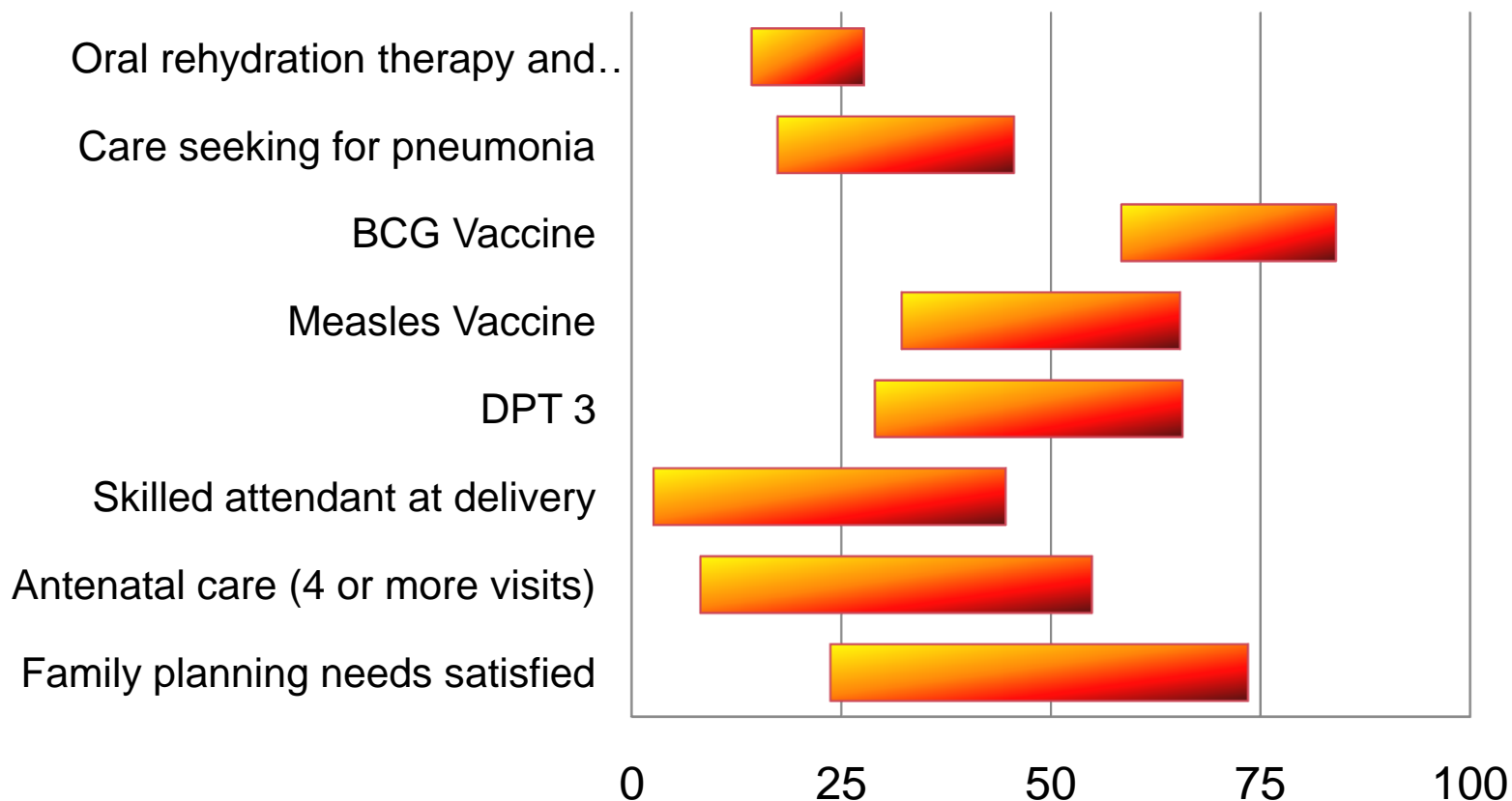
# Mean coverage index\* & coverage gap across administrative regions



\* Based on 8 maternal & child health services

# Geographical inequities by types of service

## Ethiopia 2005

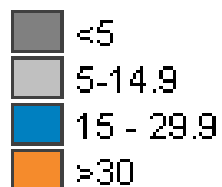


\* Midwives, nurses, doctors

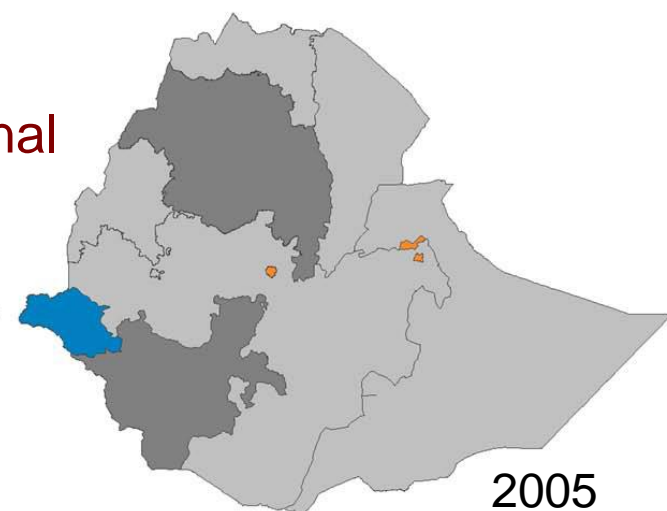
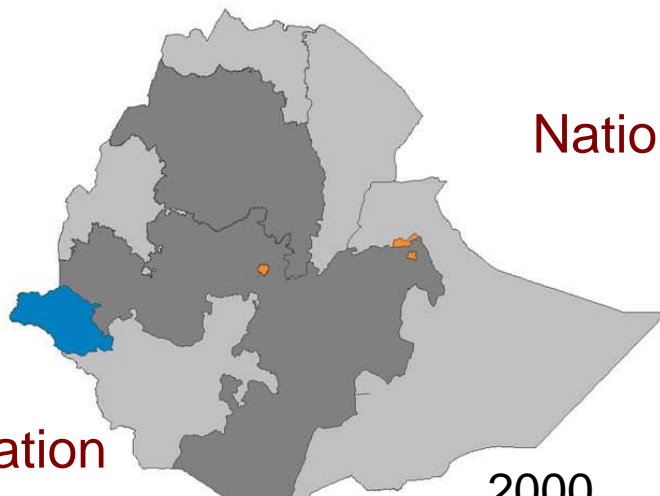
Rural  Urban

# Tracking progress over space & time: deliveries with skilled attendants\*, Ethiopia

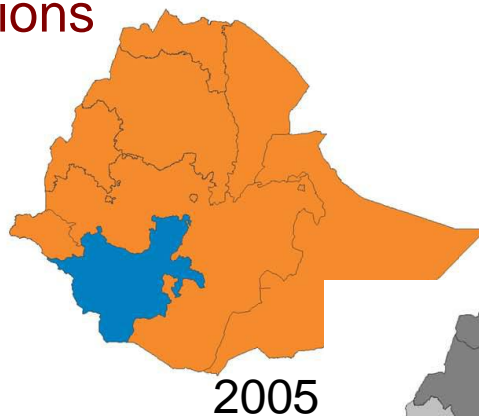
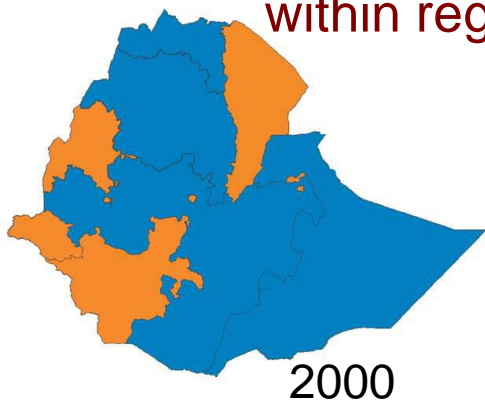
% deliveries with skilled attendants



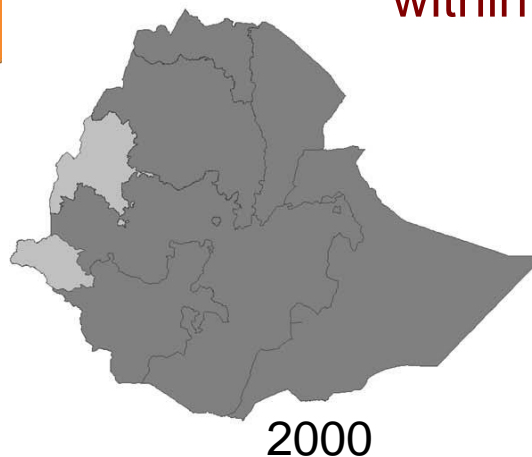
National



For urban population  
within regions



For rural population  
within regions



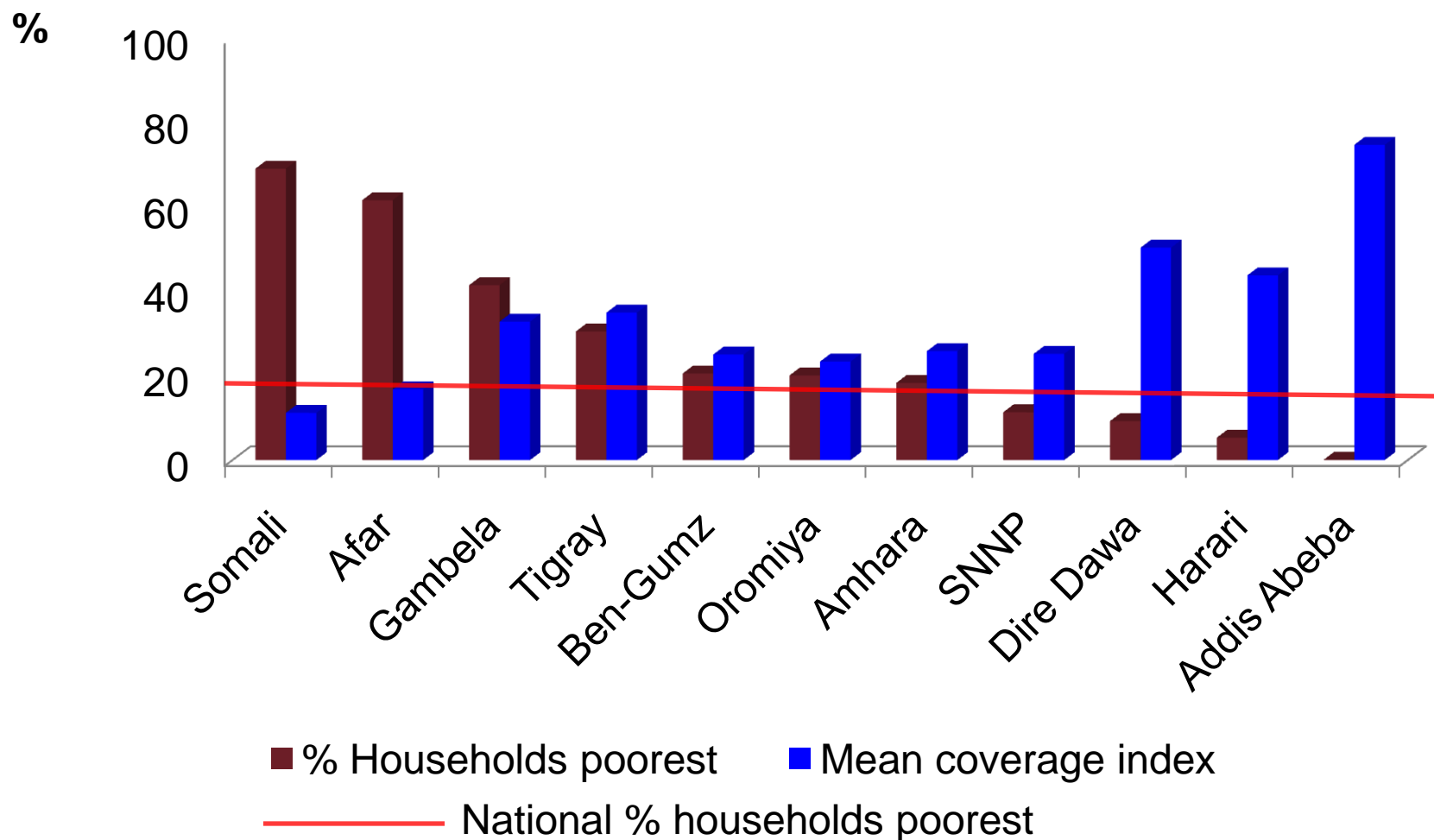
\* Midwives, nurses, doctors

# What are the reasons for geographical inequities?



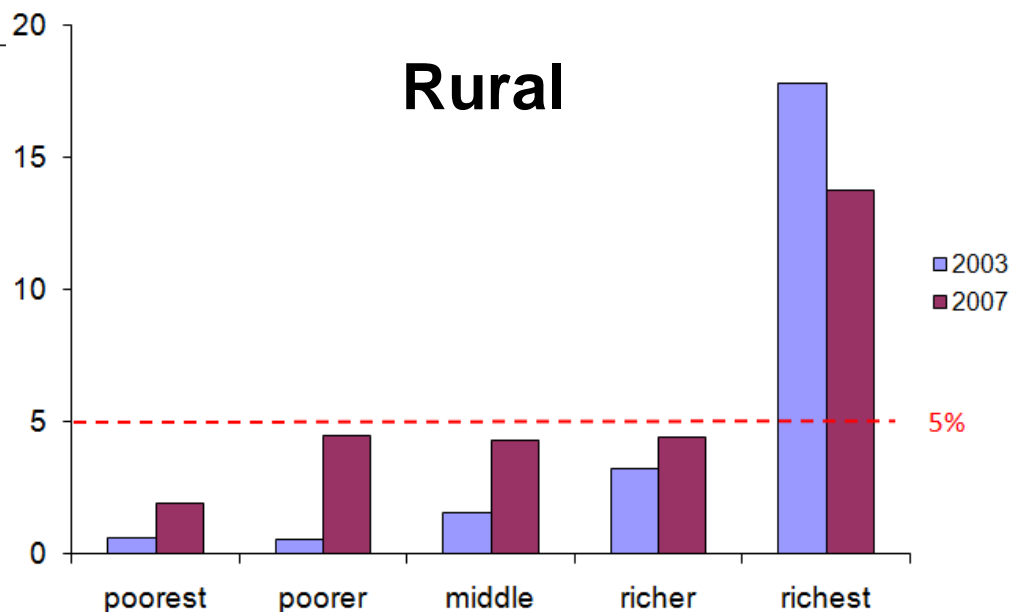
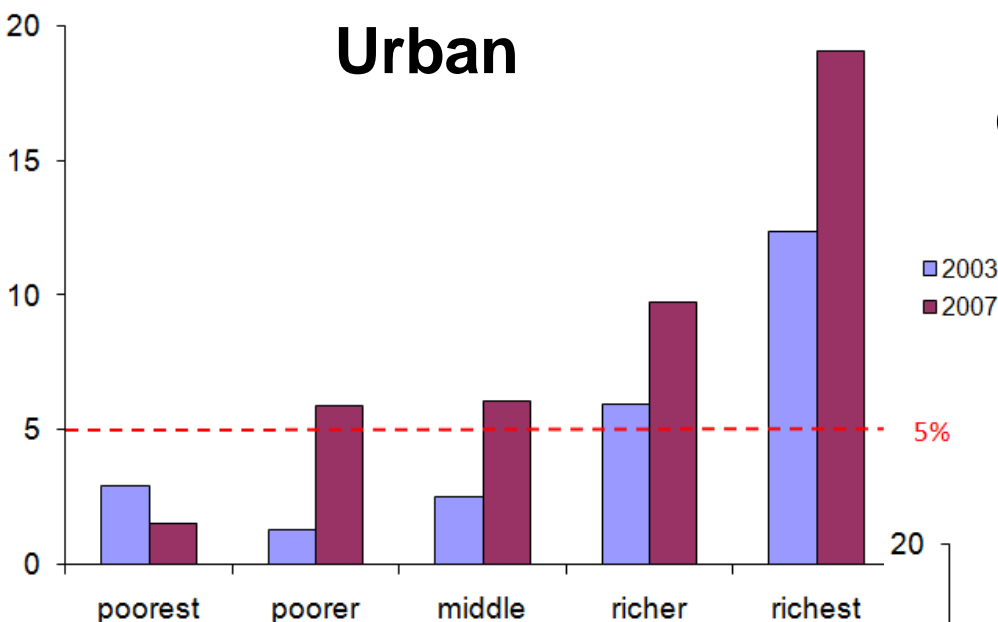
# Inter-relationship with poverty

## Proportion of households in region in poorest category & mean coverage index: Ethiopia 2005



# Financial barriers

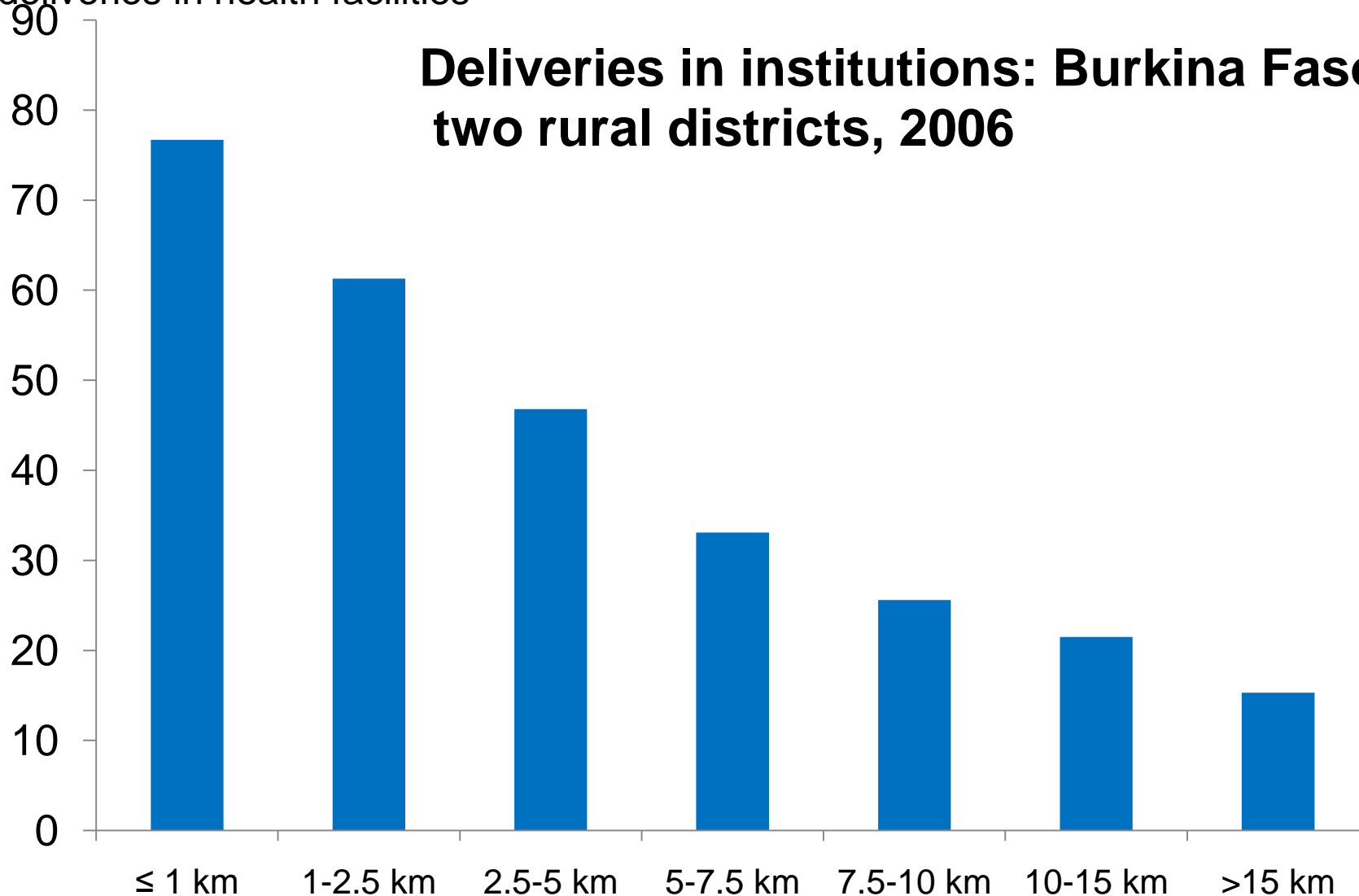
## Coverage of acute care in urban & rural areas: caesarean section, Indonesia



# Physical barriers: distance

% deliveries in health facilities

## Deliveries in institutions: Burkina Faso, two rural districts, 2006

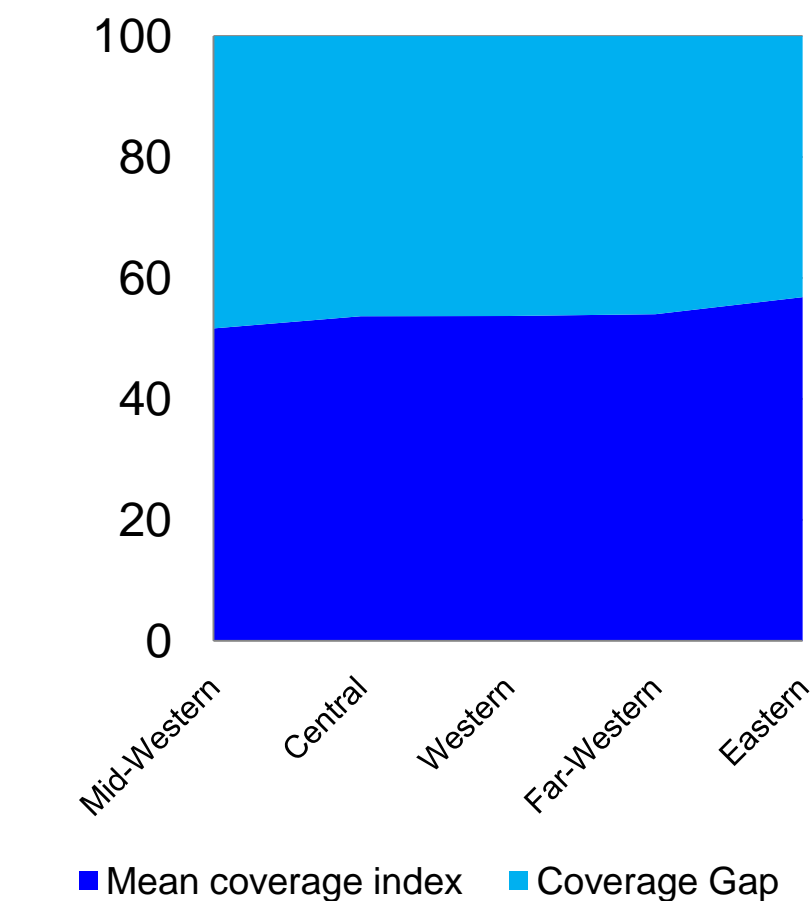


Source: Impact

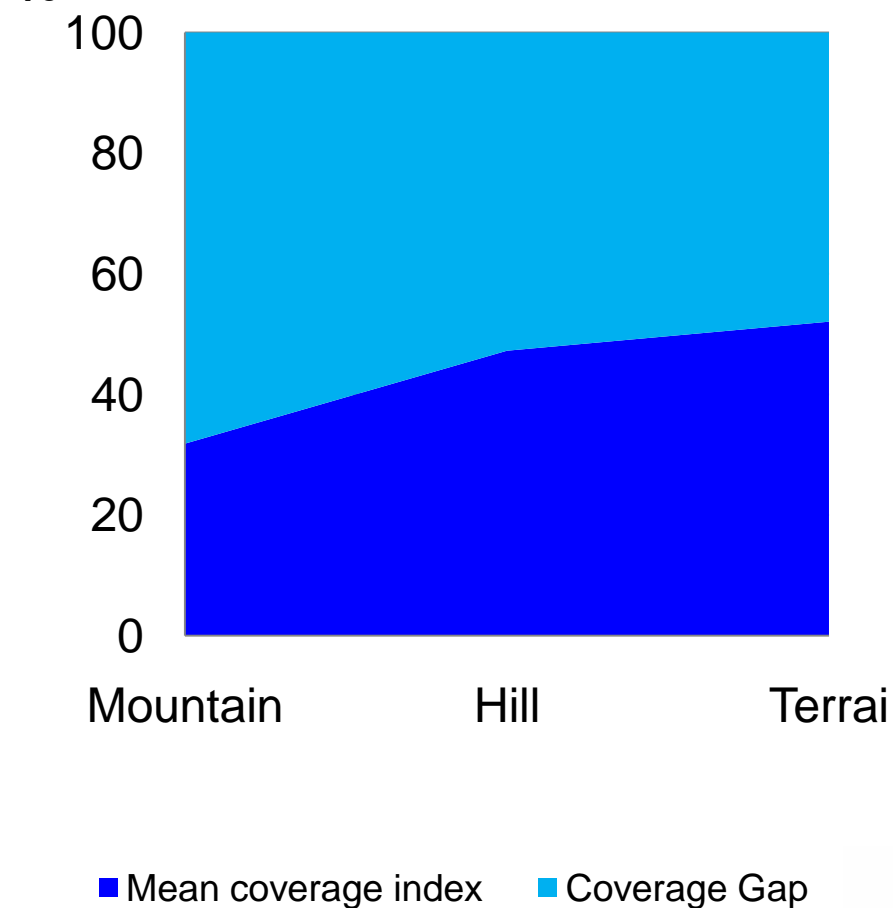
Distance to health facility

# Comparing coverage across administrative versus physical areas: Nepal 2006

**Administrative regions**

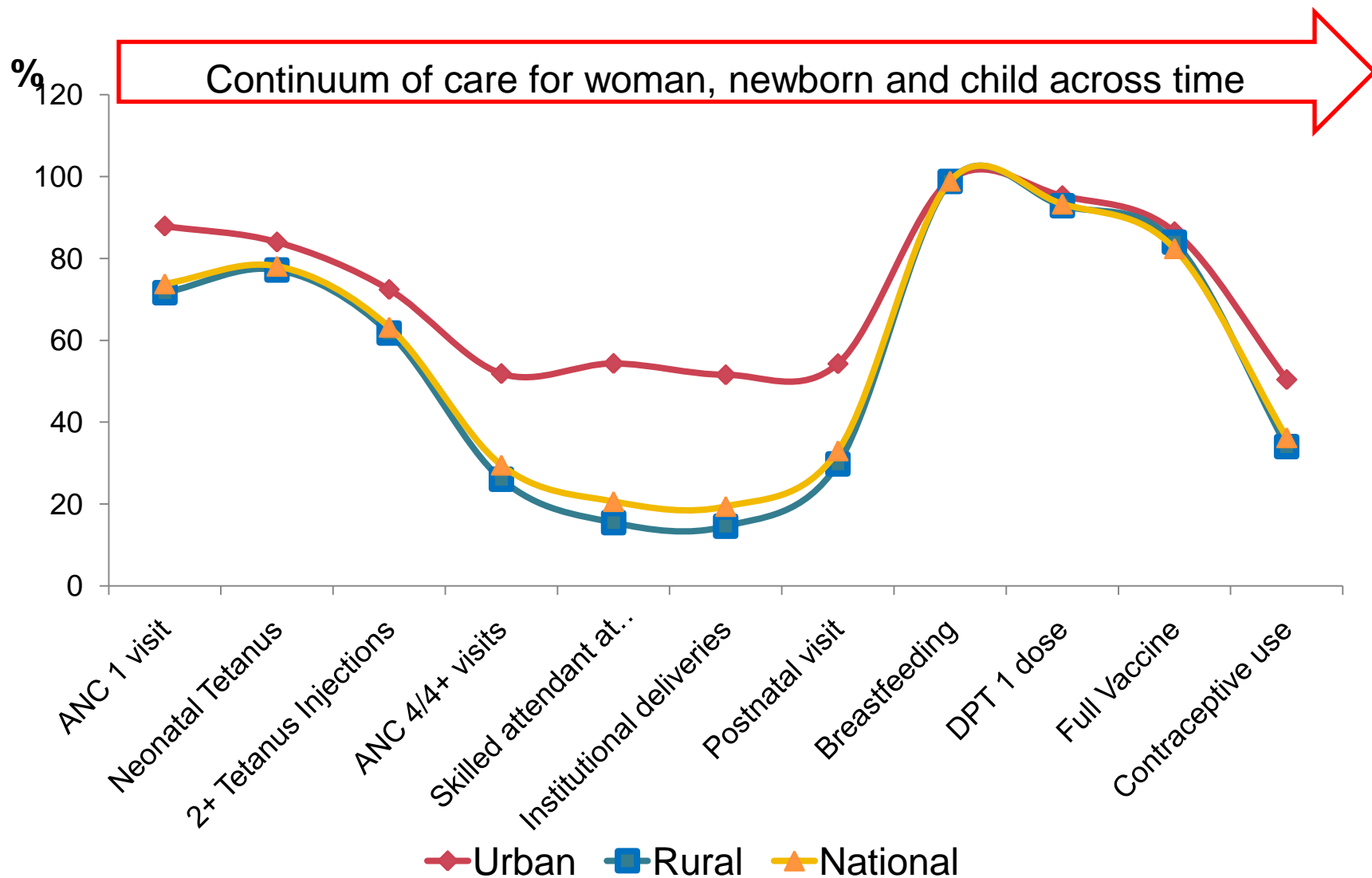


**Physical areas**

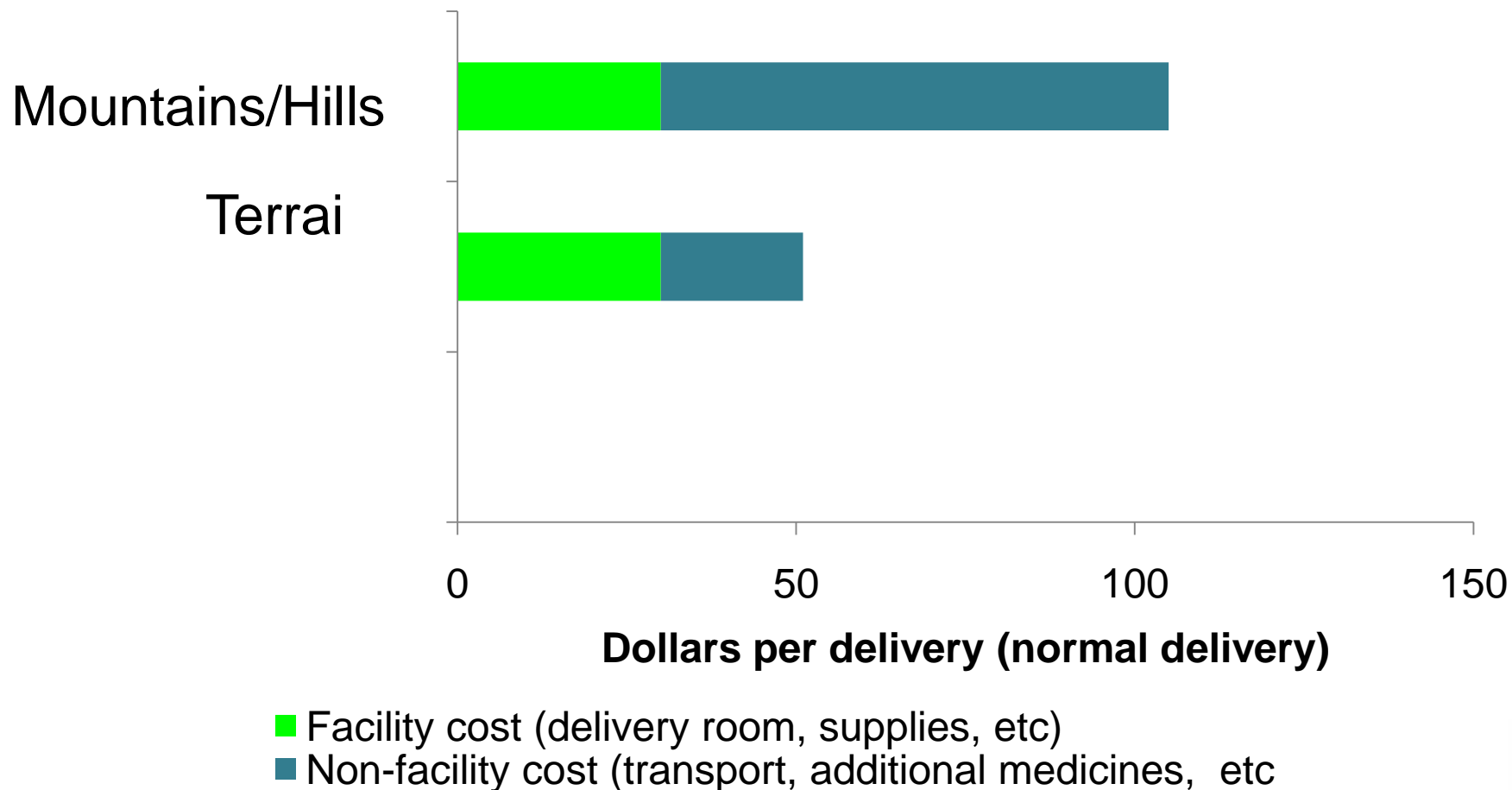


# **What are the implications of geographical inequities?**

# Dipping-in-and-out of the health system: Nepal 2006



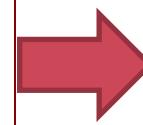
## Geographic targeting of barriers to uptake of care: facility deliveries, Nepal 2005



**INPUTS  
TO CARE**

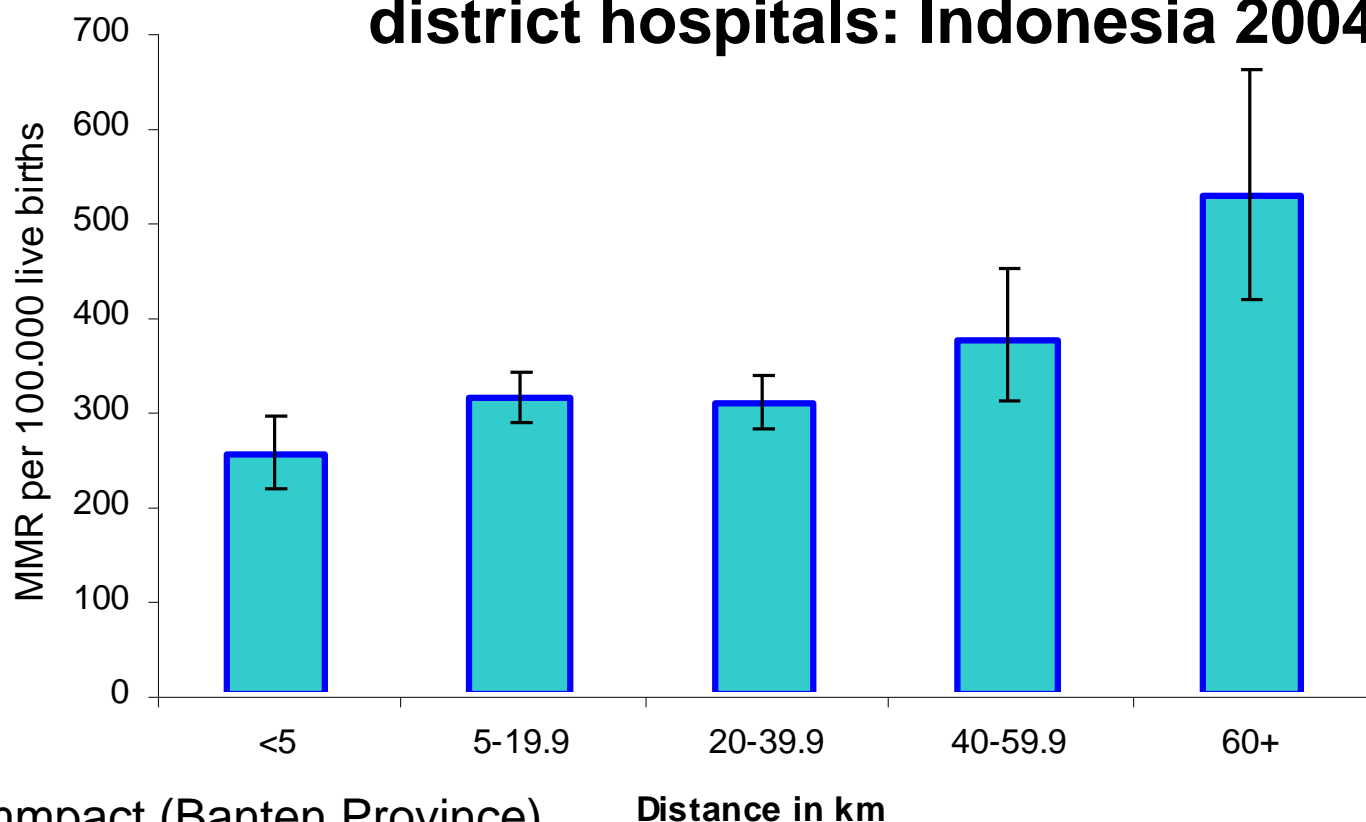


**PROCESSES OF CARE:  
EFFECTIVE COVERAGE**



**OUTCOMES  
OF CARE**

## Maternal mortality by distance to district hospitals: Indonesia 2004-6





# Data & research implications

- Data gaps: inputs; barriers to access; quality of care; outcomes
- Data-capture gaps: potential of technologies - GPS, mobile phones, PDAs
- Communication gaps: “clever” maps - overlaying inputs, processes & outcomes



# The Geography of Coverage: key messages

***The power of communication:*** maps & other visual presentations of geographical inequities in coverage can appeal to many different audiences.

***Reducing barriers to timely access to quality care:*** geographical inequities highlight barriers of special relevance to childbirth & so to achieving MDG4 & 5.



# Acknowledgements

*With special thanks to:*

- *Impact colleagues at the University of Aberdeen:  
Ann Fitzmaurice and Jacqui Bell*
- *UNFPA for supporting parts of the analysis*
- *Countdown to 2015 & Equity Working Group members*

# *Thank you*