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# Measuring skilled attendance at birth using linked household, health facility, and health worker surveys in Ethiopia, North-East Nigeria, and Uttar Pradesh, India

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**IDEAS**  
Evidence to improve  
maternal & newborn health

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# Women increasingly deliver with skilled birth attendants



Estimated that 56% of maternal, fetal and newborn deaths could be prevented if all births were assisted by a skilled attendant in a facility providing basic emergency care (State of the World's Mothers, 2013)

# What is the measurement problem?

“What gets measured gets done”  
(and we don't measure enough)

ESTIMATES OF EFFECTIVE COVERAGE:

# 1. Are health facilities ready?



What proportion of births took place in a primary health facility that was ready for clean delivery care?

## 2. Are skilled birth attendants prepared?



What proportion of skilled birth attendants had all the basic items ready at the last birth they attended?

What was the effective coverage?

### 3. Do skilled birth attendants take life saving actions during births?



What proportion of skilled birth attendants administered prophylactic uterotonics to prevent post-partum haemorrhage at the last birth they attended?

What was the effective coverage?

# Methods with IDEAS

- Cluster sample survey of households in 2012 in NE Nigeria, Ethiopia, and Uttar Pradesh, plus surveyed frontline health workers and primary care facilities serving the selected households
- Surveyed all households and interviewed all women aged 13-49 in selected clusters (mean cluster size: 58 households)
- Survey instruments compatible with other large-scale questionnaires:
  - Household survey: special module for women with a birth in last 12 months to collect detailed information about care and behaviours
  - Facility survey: availability and functionality of items for maternal and newborn health care, staffing, and work load
  - Health worker survey: training, cadres, actions at last birth attended





# Study area – Gombe State, Nigeria

## THIS SURVEY (June 2012)

40 clusters

1868 households

349 women with recent birth

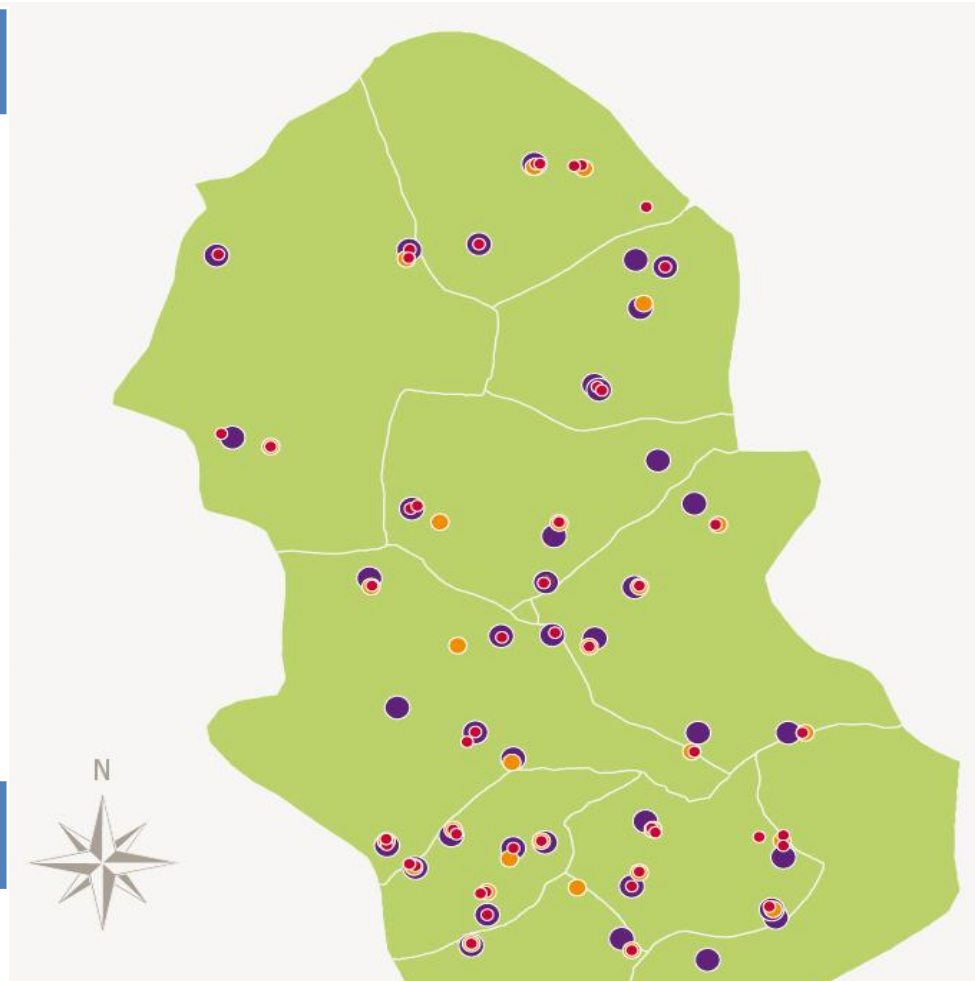
20 Skilled birth attendants

41 Unskilled attendants

25 Primary health facilities

22% delivered with a SBA

30% delivered in a facility



**Nigeria, 2010:**

MMR: 840/100,000

NMR: 39/1,000

# Study area – Ethiopia

THIS SURVEY (June 2012)

80 clusters

4294 households

533 women with recent birth

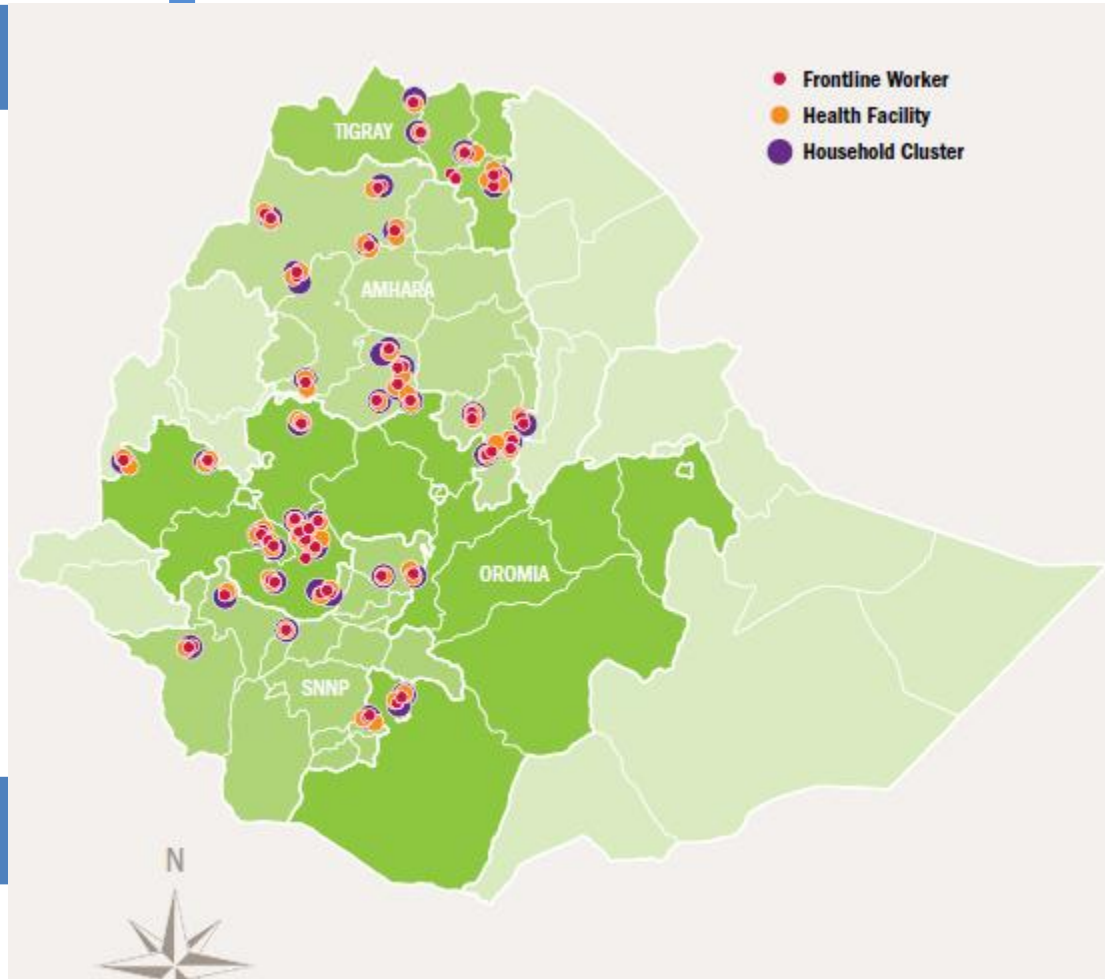
77 Skilled birth attendants

239 Unskilled attendants

81 Primary health facilities

16% delivered with a SBA

15% delivered in a facility



**Ethiopia, 2010:**

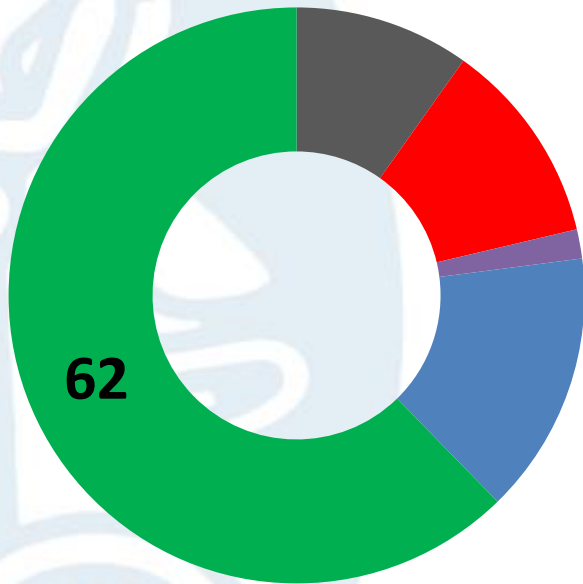
MMR: 470/100,000

NMR: 35/1,000

# Facility Readiness: infection prevention

disinfectant, disposable gloves, soap, clean cord cutter, cord tie

## Uttar Pradesh



Service not provided

**Service provided, not available, items missing**

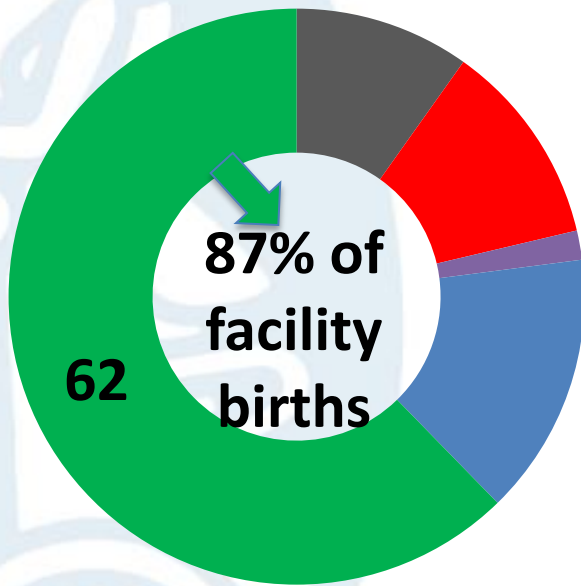
Service provided, not available, all items present

Service provided, available, items missing

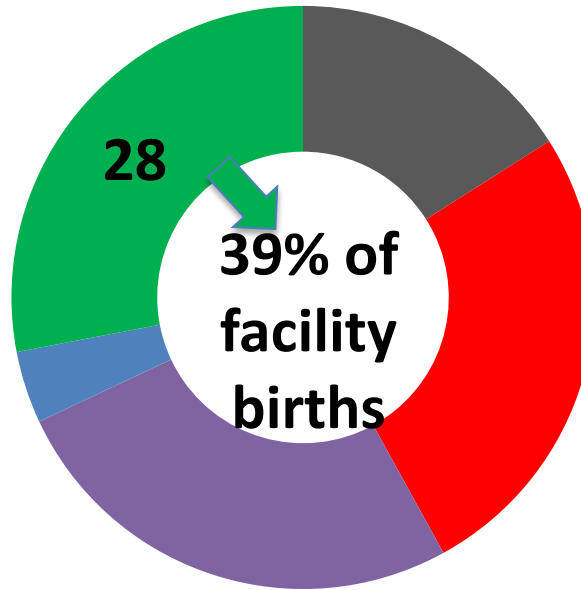
**Service provided, available, all items present**

# Facility Readiness: infection prevention: disinfectant, disposable gloves, soap, clean cord cutter, cord tie

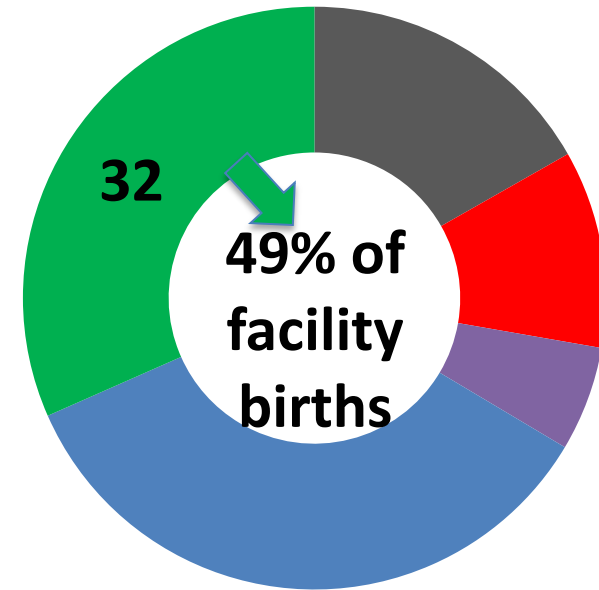
Uttar Pradesh



NE Nigeria



Ethiopia



Service not provided

Service provided, not available, items missing

Service provided, not available, all items present

Service provided, available, items missing

Service provided, available, all items present

# Skilled birth attendant reported actions at last birth attended

## Items prepared: %

Disinfectant

Gloves

Gauze

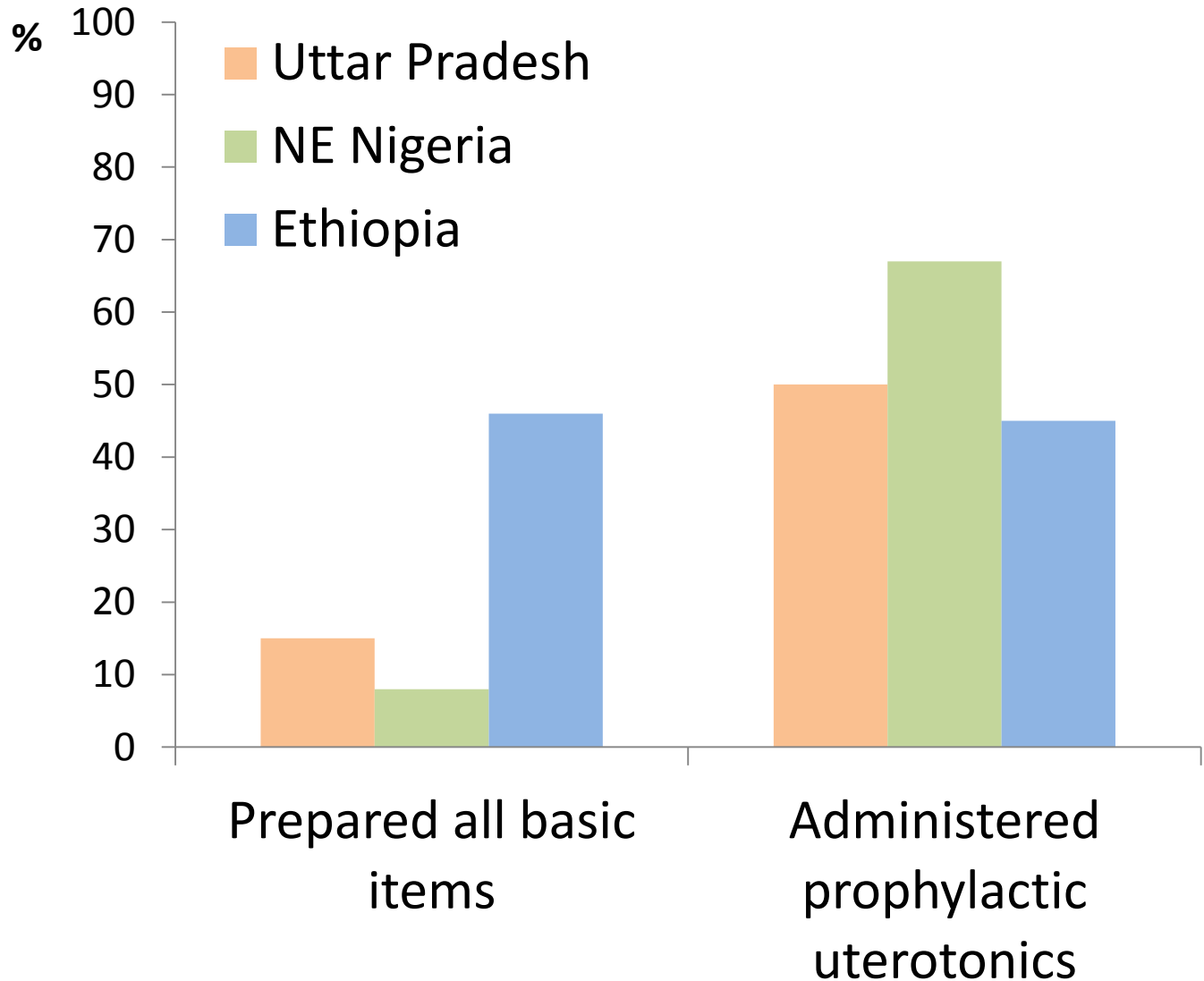
Uterotonic

Clean cloths

Sterile blade

Cord ligature

Eye ointment

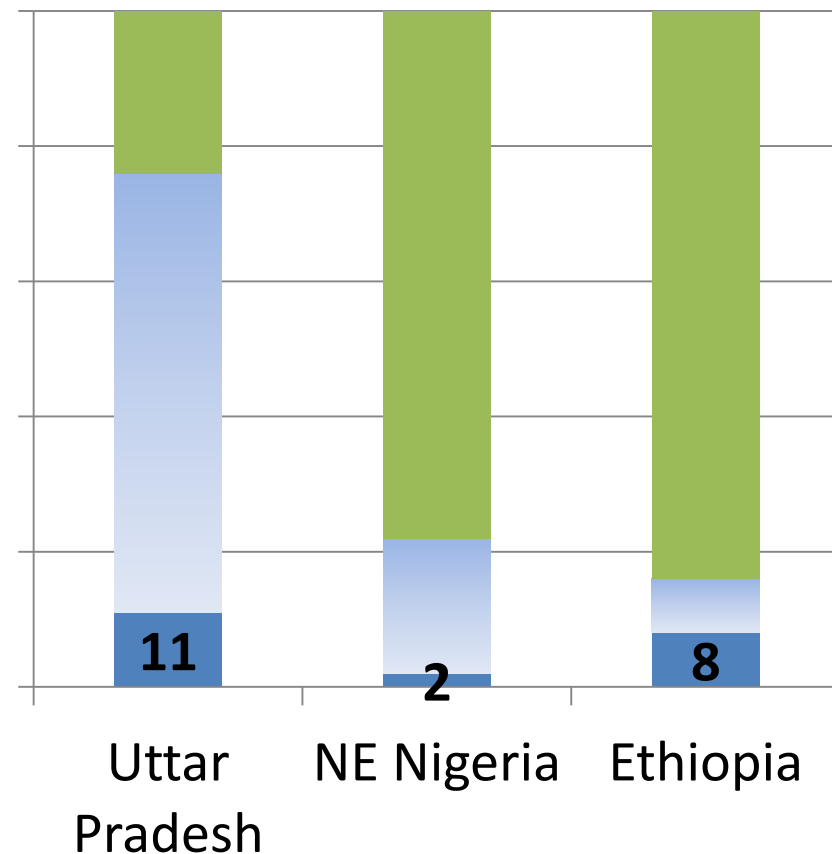


# Effective coverage: components of skilled birth attendance

## Items prepared:

Disinfectant  
Gloves  
Gauze  
Uterotonic  
Clean cloths  
Sterile blade  
Cord ligature  
Eye ointment

- SBA where SBAs are prepared
- SBA where SBAs not fully prepared
- No SBA



# Limitations

- Facility and frontline worker survey only extended to primary level care provision in this enquiry
- Facility readiness only assessed on the day of survey – does not reflect duration of stock-outs
- Likely (?upward) responder bias by skilled birth attendants – no observation of behaviours
- Skilled birth attendant information refers to the last birth attended: effective coverage estimates don't directly measure behaviours for individual women





# Summary



1. PHC deliveries in a 'ready' facility	87%	39%	49%
<b>Skilled birth attendance</b>	<b>76%</b>	<b>22%</b>	<b>16%</b>
<i>Effective coverage</i>			
2. Quality SBA	11%	2%	8%
3. Prophylactic uterotonic	38%	15%	7%

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REPRODUCTIVE &  
CHILD  
HEALTH

- **Centre for Evaluation**  
*Improving global health practice  
through evaluation*

## In-country MLE partners:

- Ethiopia: JaRco Consulting  
[www.jarrco.info](http://www.jarrco.info)
- Nigeria: Health Hub  
[www.africahealthhub.com](http://www.africahealthhub.com)
- India: Sambodhi  
[www.sambodhi.co.in](http://www.sambodhi.co.in)

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