

# IDEAS



Image credit: Bill & Melinda Gates Foundation

## Evidence to improve maternal and newborn health

[ideas.lshtm.ac.uk](http://ideas.lshtm.ac.uk)



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# IDEAS: why & what?

- Maternal survival improving worldwide
  - Deaths concentrated in sub-Saharan African and South Asia
- 40% of all under-five deaths in the neonatal period -- first 28 days of life
- North-Eastern Nigeria, Uttar Pradesh and Ethiopia:
  - 6% of the world's population
  - 10% of global births
  - 16% of global maternal and newborn deaths
- IDEAS: Informed DEcisions for Actions in maternal & newborn health
- Evaluation of BMGF MNH investments across three countries.
- Delivered by London School of Hygiene & Tropical Medicine, with local partners HealthHub, JaRCo, and Sambodhi



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# Our objectives

1. To build capacity for measurement, learning & evaluation.
2. To measure efforts to enhance interactions between families & frontline workers and increase the coverage of critical interventions.
3. To explore scale-up of maternal and newborn health innovations.
4. To investigate the impact on survival of maternal and newborn health innovations implemented at scale.
5. To promote best practice for policy.



Credit: Bill & Melinda Gates Foundation



# Research questions

1. To what degree do maternal & newborn health innovations enhance interactions between families and frontline workers, and intervention coverage in key districts? How?
2. What maternal and newborn health innovations have been successfully scaled-up to other areas of Ethiopia, North-Eastern Nigeria and Uttar Pradesh? What helps and what hinders scale-up?
3. Where maternal and newborn health innovations have been scaled-up, has intervention coverage & newborn survival improved as a result?



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# Theory of change



## INNOVATION

Maternal & newborn healthcare is delivered in a new way



## ENHANCED INTERACTIONS

between families and frontline workers



## INCREASED COVERAGE

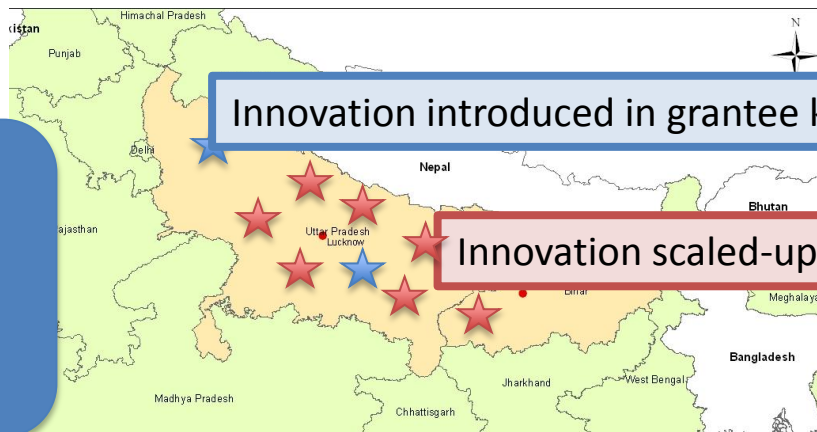
of critical interventions (practices that save lives)



## HEALTH OUTCOME

Improved maternal & newborn survival

**SCALE UP**  
adoption of innovations beyond initial areas





# Innovations

- Bill & Melinda Gates foundation maternal & newborn health implementation grantees
- Ethiopia
  - JSI (L10K); Save the Children (SNL); Emory University (MANHEP)
  - Example: Community-based data for decision making
- North-East Nigeria
  - Society for Family Health
  - Example: Call centre for front-line workers & families
- Uttar Pradesh, India
  - Public Health Foundation of India; Intrahealth (Manthan); Harvard SPH (Better Birth); PATH (Sure Start)
  - Example: Safe childbirth checklist



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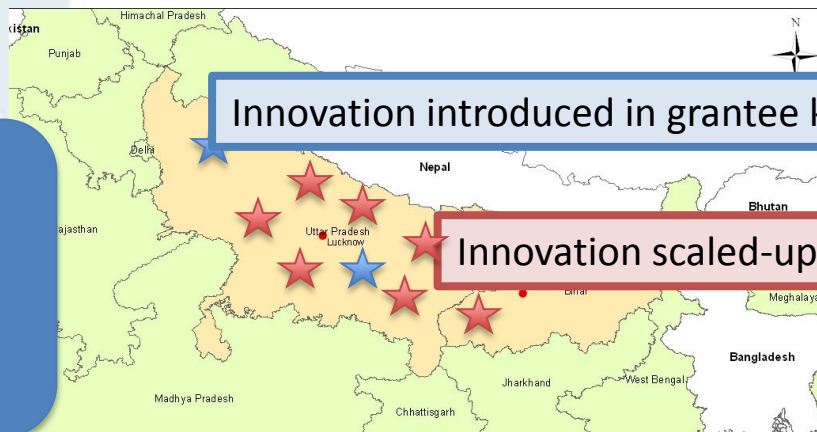
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# Enhanced interactions between families and front-line workers: more, better, efficient, equitable

## More

- Mean number of antenatal care interactions
- % of women having at least 4 antenatal care interactions
- % of births attended by a skilled provider
- % of newborns with danger signs who sought care outside the home

## Better

- % of interactions where appropriate activities carried out
- % of front-line workers with knowledge of appropriate care
- % of women with knowledge of danger signs
- % of primary care facilities where essential commodities are available

## Efficient

- Reduced costs, increasing quantity or quality of output

## Equitable

- Reducing inequities between families in number & quality of interactions; coverage
- Socio-economic status of households; ethnicity; distance



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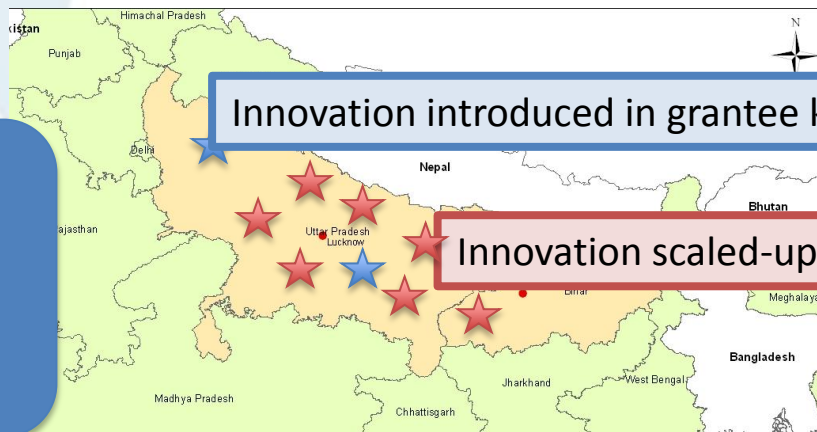
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# Coverage of critical interventions in MNH

Pregnancy	Intra-partum	Immediate newborn	Maternal post-partum
T T vaccine	Prophylactic uterotonics to prevent PPH	Clean cord care (cutting, tying, nothing put on cord)	Detection and treatment of anaemia
Iron supplementation	Management of PPH using uterine massage and uterotonics	Thermal care (immediate drying, wrapping, immediate skin to skin, delayed bathing)	Detection and treatment of post partum sepsis
Prevention of malaria with IPTp and personal use of ITNs	AMTSL (above + cord traction)	Detection and appropriate management of complications (infection, respiratory, LBW, preterm)	
Syphilis prevention and management	Hand washing with soap by delivery attendant	Breastfeeding (immediate (<1hr) and exclusive (3 days))	
	Caesarean sections		
	Use of gloves by delivery attendant		

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# Baseline study in Nigeria

June 2012

- Before-after comparison of interactions between families and front-line workers, and of intervention coverage, 2012-2014
- Household survey
  - All resident women aged 13-49; Women aged 13-49 with a live birth in last 24 months
- Facility survey
  - Sub- and primary level facilities for readiness/routine data extraction
  - Referral level facility for routine data extraction
- Front line health worker survey
  - Volunteers/community workers; Midwives/nurses at primary level facilities
- Sampling & methods
  - 40 clusters (enumeration areas) from Gombe State (PPS)
  - Visit all households , interviewed all women aged 13-49, extra module for women with a recent birth
  - Identify and interview the frontline workers assigned to each cluster
  - Identify and survey the primary care facility
  - Identify and survey the nearest referral facility



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# Gombe State, Nigeria



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# Results from primary health care facilities



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# Basic infrastructure & staff

Item	n/N
Clean water supply	19/25
Functional sterilizer	13/25
Functional fridge	12/25
Motorised transport for referral available	4/25
Light source 24 hrs a day	3/25

## Staff

Cadre	At least 1 employed	At least 1 at work today
Clinician	15/25	9/25
Nurse/midwife	13/25	6/25



# Essential equipment

Item	n/N	Item	n/N
Fetal stethoscope	25/25	Vacuum extractor	4/25
Adult and baby scale	17/25	Partograph	6/25
Sphygmomanometer	21/25	Nasogastric tube	4/25
Haemoglobinometer	15/25	Suture materials and needles	18/25
Thermometer	22/25	Cord clamp, tie and scissors	19/25
Stethoscope	23/25	Soap	21/25
Mucus trap	4/25	Newborn resuscitation device	4/25
Speculum	9/25	Manual vacuum aspirator	8/25

# Essential drugs & vaccines

Item	n/N	Item	n/N
Iron and folic acid	20/25	Uterotonics	15/25
Antimalarials (IPTp)	21/25	Corticosteroids	3/25
Penicillin	13/25	Ergometrine	15/25
TT vaccine	18/25	Antibiotics for sepsis	9/25
BCG vaccine	14/25	Tetracycline eye ointment	10/25
Amoxicillin	16/25	Cotrimoxazole	17/25
Vitamin K	11/25	Iv-Gentamycin	9/25

# Usual practice in primary care facilities

	n/N
Use of partograph	22/25
Active Management of 3 <sup>rd</sup> Stage of Labour	8/25
Newborn stays with mother after birth	1/25
Newborn weighed immediately	8/25
Newborn bathed within 24 hours	9/25
Vitamin A administered before discharge	16/25
BCG administered before discharge	12/25



# Conclusions

- IDEAS aims to improve the health and survival of mothers and babies through generating evidence to inform policy and practice
  - Ethiopia, North East Nigeria and Uttar Pradesh, India
- Early baseline data, primary health facilities in North-East Nigeria
  - Fewer than half had qualified staff in place
  - None had basic equipment and drugs to provide essential antenatal, intra-partum, post-partum or post-natal care
  - Practices known to save maternal and newborn lives are not widely observed
  - Huge scope to improve health indicators



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