The IDEAS Project: evaluating complexity in maternal and newborn health in Ethiopia, Nigeria and India

Joanna Schellenberg

12.45-2, Bennett Room,
Friday 15 November, Keppel Street, WC1E 7HT

IDEAS

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Outline

- Background, motivation
- Objectives, research questions
- Selected methods and results
- Technical Resource Centre
- Who we are
- Highlights and challenges

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IDEAS: Measurement, learning & evaluation of Bill & Melinda Gates Foundation grants in 3 countries

Society for Family Health

COMBINE

L10K

UP Community Mobilization

Sure Start

MaNHEP

Community-based Newborn Care

Manthan

Better Birth

North-East Nigeria

Ethiopia

Uttar Pradesh, India

PACT

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Hadiza

Northeast Nigeria

Nigeria

1 in 29

Lifetime risk of maternal mortality[1]

Abrihet

Ethiopia

Ethiopia

1 in 67

Lifetime risk of maternal mortality[1]

Rani

Uttar Pradesh, India

India

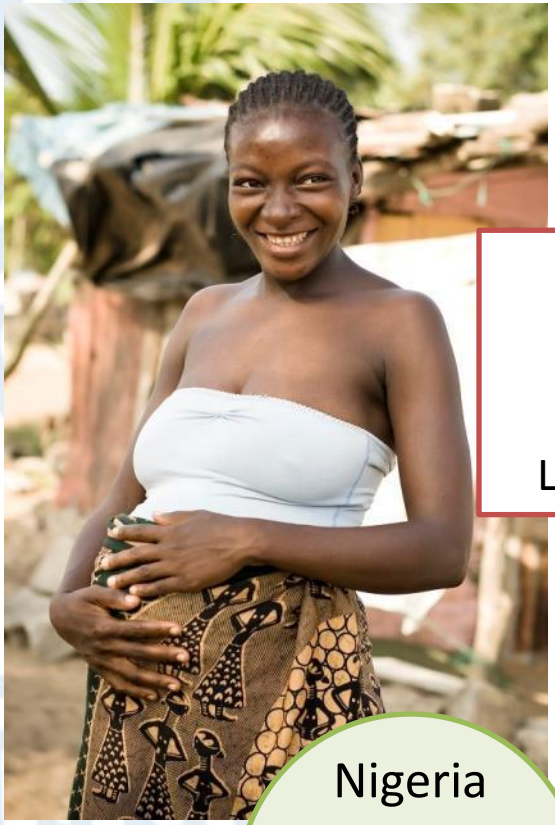
1 in 170

Lifetime risk of maternal mortality[1]

[1] 2010 World Bank: http://data.worldbank.org/indicator/SH.MMR.RISK

Hadiza

Northeast Nigeria



Nigeria

1 in 29

Lifetime risk of maternal mortality[1]

Abrihet

Ethiopia

Ethiopia

1 in 67

Lifetime risk of maternal mortality[1]

UK

1 in 4600

Lifetime risk of maternal mortality

Rani

Uttar Pradesh, India

India

1 in 170

Lifetime risk of maternal mortality[1]

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IDEAS objectives

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

Test the Bill & Melinda Gates Foundation's maternal and newborn health **Theory of Change**

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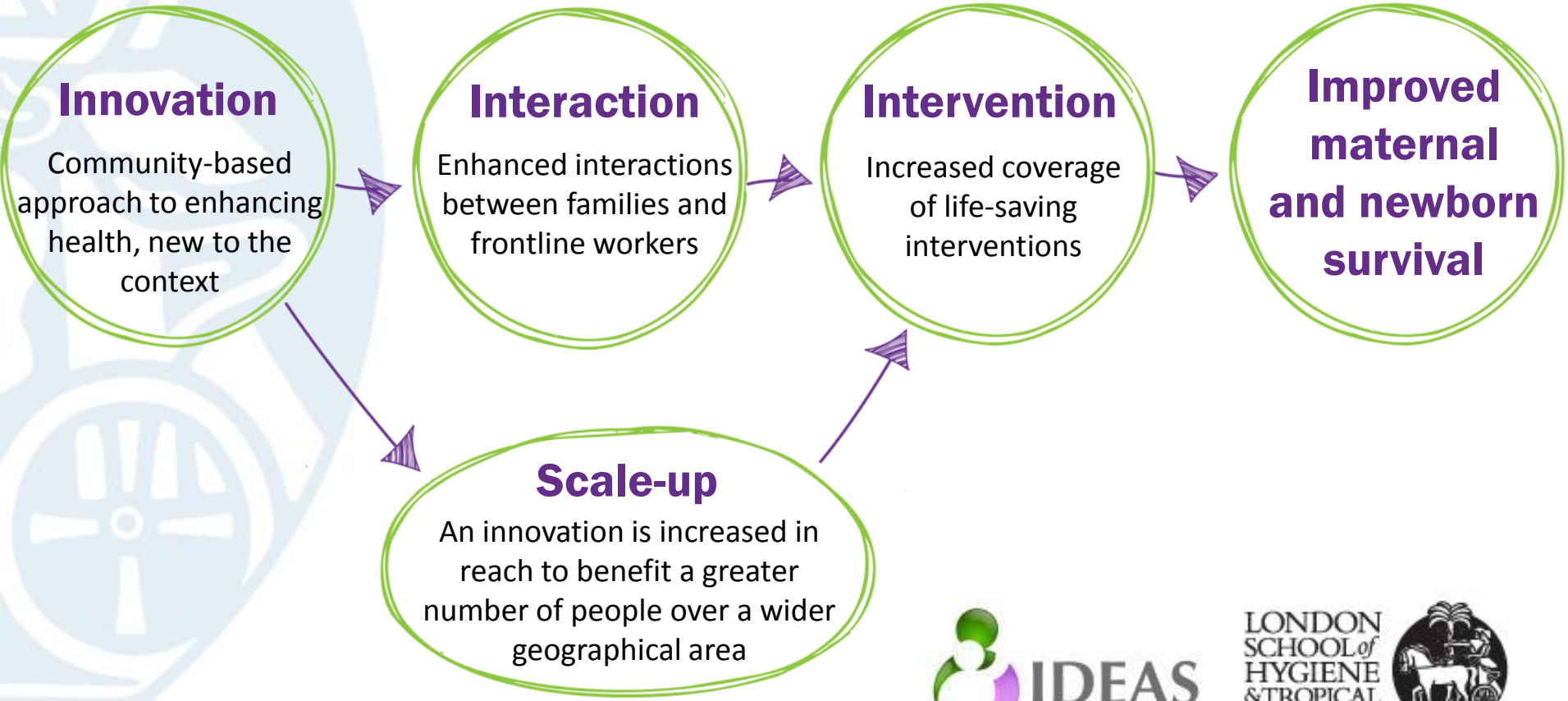
BMGF Maternal & Newborn Health Strategy
Theory of change



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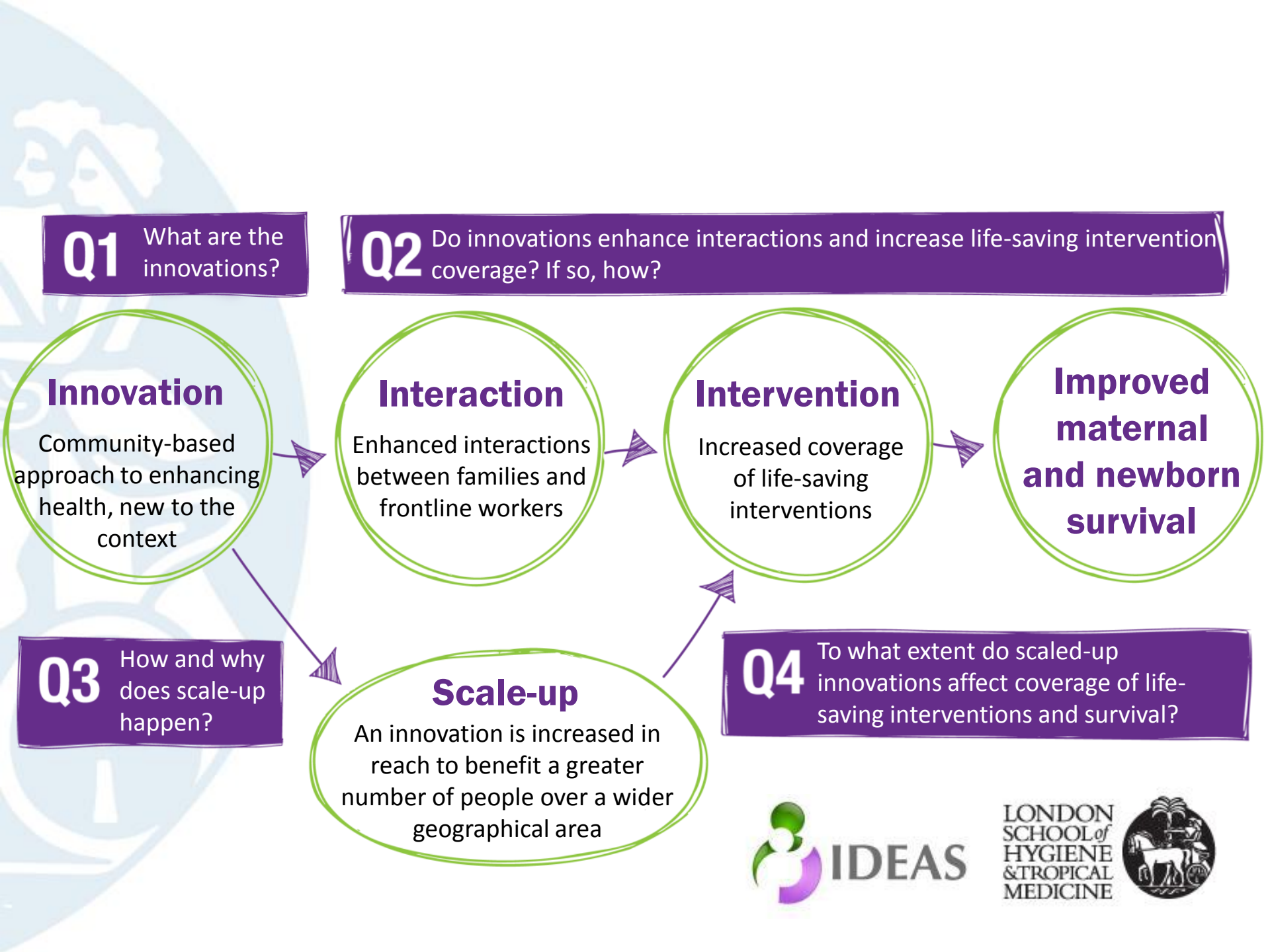
An **innovation** is a approach to improve maternal and newborn health that is new to the setting.

Interactions between families and frontline workers

Evidence-based, life-saving interventions*

Antenatal	Intra-partum	Post-natal & post-partum
• Tetanus toxoid • Iron • Syphilis prevention	• Delivery attendant: hand washing with soap & use of gloves • Prophylactic uterotonics to prevent post-partum haemorrhage • Active management of third stage of labour • Caesarean sections	• Detection & treatment of maternal sepsis & anaemia • Clean cord care • Chlorhexidine on cord • Thermal care • Immediate & exclusive breastfeeding

***Essential Interventions, Commodities and Guidelines for Reproductive, Maternal, Newborn and Child Health.**
PMNCH & Aga Khan University, 2011
http://www.who.int/pmnch/knowledge/publications/201112_essential_interventions/en/index.html


Q1 What are the innovations?
Q2 Do innovations enhance interactions and increase life-saving intervention coverage? If so, how?
Innovation
Community-based approach to enhancing health, new to the context
Interaction
Enhanced interactions between families and frontline workers
Intervention
Increased coverage of life-saving interventions
Improved maternal and newborn survival
Q3 How and why does scale-up happen?
Scale-up
An innovation is increased in reach to benefit a greater number of people over a wider geographical area
Q4 To what extent do scaled-up innovations affect coverage of life-saving interventions and survival?
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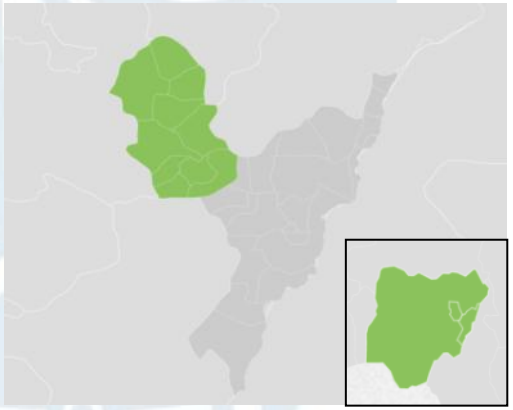
Q1 What are the innovations?

Call Centre

Society for Family Health

Credit: Society for Family Health

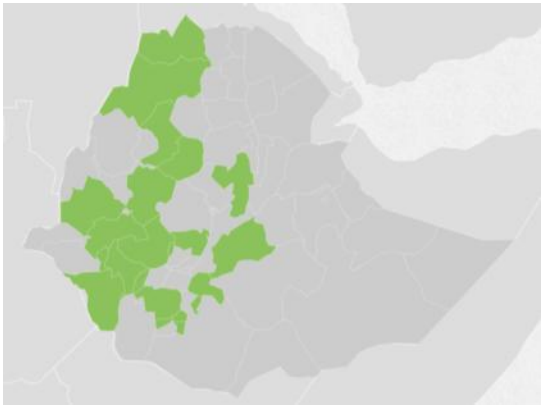


Local Government Areas, Gombe & Adamawa state, North-East Nigeria

HEW training and supervision

Last 10 Kilometers

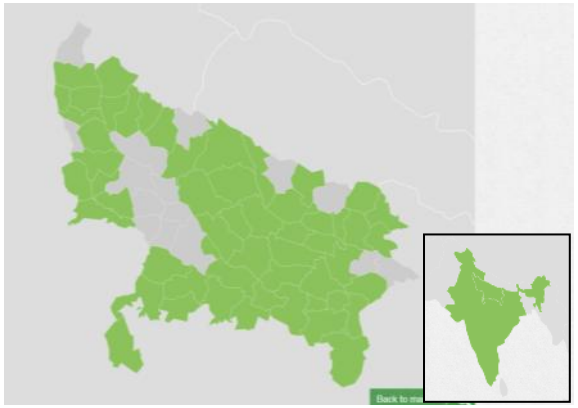
Credit: Bilal Avan



Zones, Ethiopia

Safe Childbirth Checklist

Better Birth



Districts, Uttar Pradesh, India

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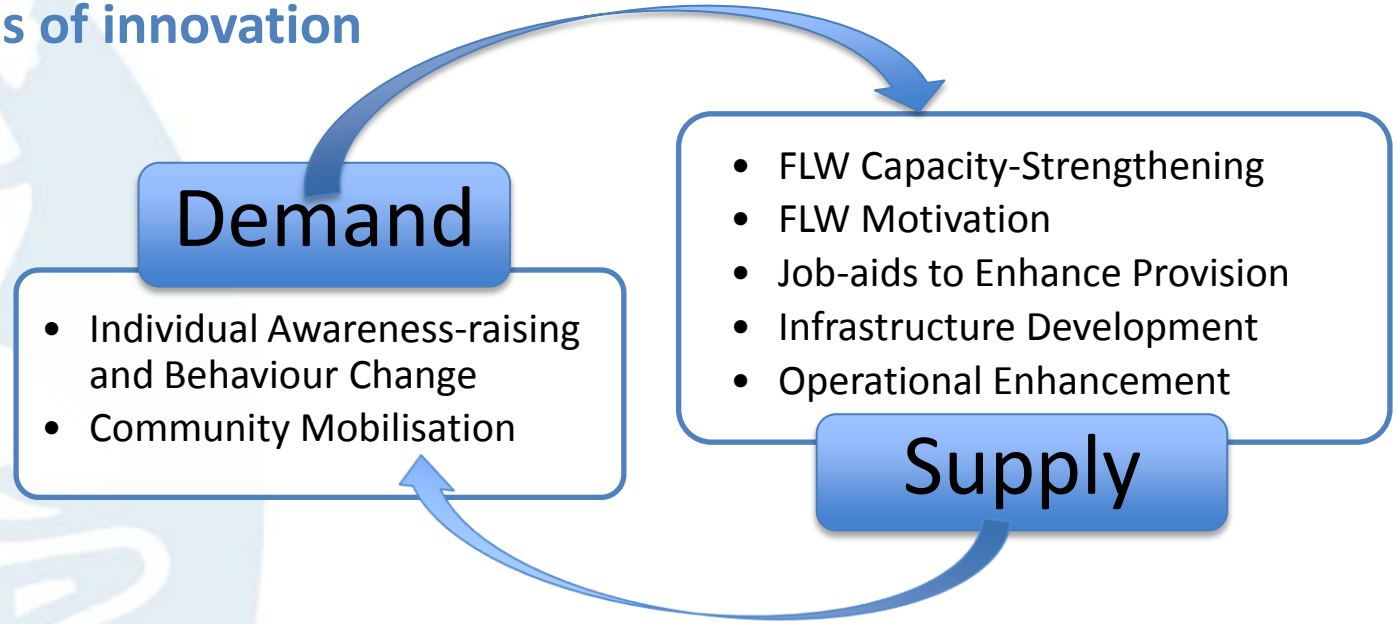
Characterising grantee innovations

Types of innovation



Questions linking to the Theory of Change

1. What are the types of innovation?
2. What are the innovations?
3. How do the innovations enhance frontline worker interactions?
4. What kind of enhancement?
5. What is the geographic scope and timing?

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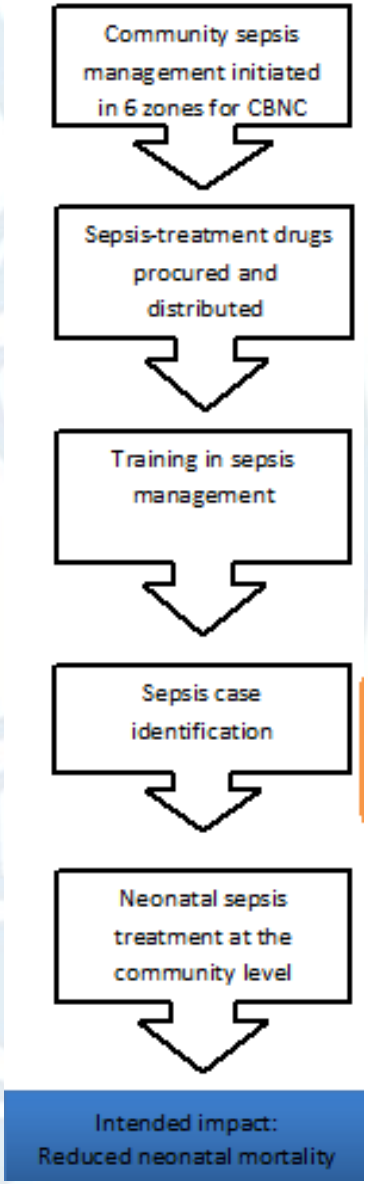
Foundation MNH innovations, by geography and project

Innovation type		Nigeria		Ethiopia			India			
		SFH	**Pact**	**L10K**	**MaNHEP**	**SNL-COMBINE**	**Better Birth**	**Manthan**	**Sure Start**	**Com Behav'r Change**
Demand	Individual awareness raising / beh change	Forum of Mothers-in-Law; Advocacy for men; Mass media event		Family conversations	BCC strategy; Family meetings/ Community gatherings.	Enhance MNH profile in the community.			The 1st Hour campaign; Mothers' Grps; Letter to my Father	Behaviour change management package
	Community Mobilisation	Forum of Mothers-in-Law		PCQI; Community Solutions Fund	Performance monitoring; Family meetings/ Com gatherings	MNH awareness in community structures.			Revitalise Village Health & Sanitation Committees	Create new Self Help Groups and their federations
Supply	FLW Capacity-Strengthen'g	Skilled TBA/PARE deployment; Skilled FOMWAN/EYN deployment.		HEW training and supervision; HDA training.	MNH Care Package.	CHP Training; HEW training; Com-based antibiotic administration		ANM training in Skilled Birth Attendance	ASHA Mentoring/supportive supervision	Capacity Building of the SHGs and their federations.
	FLW Motivation	Financial Incentives for FLW.		Anchors; NFI for HDA		HEW training.			Recognise good performance of ASHAs and VHSC	
	Job-aids to Enhance Provision	FLWs' Toolkit		HEW and HDA Toolkit; Family Health Card	MNH care package.		Safe Childbirth Checklist	mSakhi; mSakhi Newborn Care.	ASHA toolkit	
	Infrastructure Development	Call Centre; Emergency Transport Scheme; Upgrade PHC facilities.	Build and support a TBA Forum					Emergency Medical Transport Scheme.	Revitalise Village Health & Sanitation Committees	
	Operational Enhancement	Mapping; Links with pastoralist / remote communities; CDK supplies through PPMV.	Planning for Institutional Strengthening ; Capacity development for Frontline Org'ns; MNCH value network; Enhanced collaboration - CSOs and Government	Anchors; Improved referral linkages; CBDDM; PCQI. Family Health Card	FLW team development; Performance monitoring.	HEW/HDA linkages	Safe Childbirth Checklist	Mother and Child Tracking System	NGO Partnership architecture	Scaling up of project health innovations

Pathway analysis: community-level neonatal sepsis management in Ethiopia (provisional)



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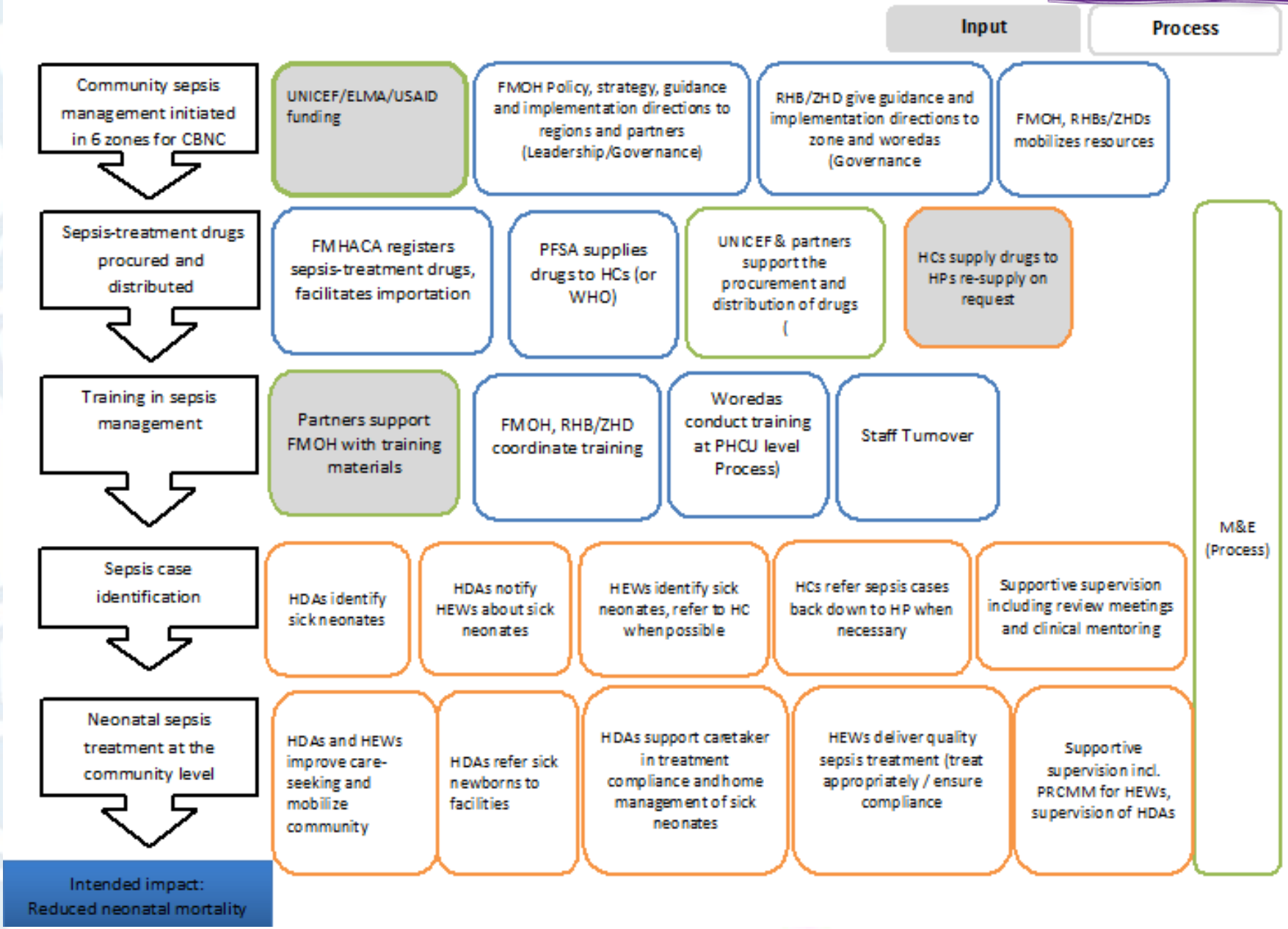
Q1 What are the innovations?

Guide: FMOH / RHB / ZHD/ Woreda



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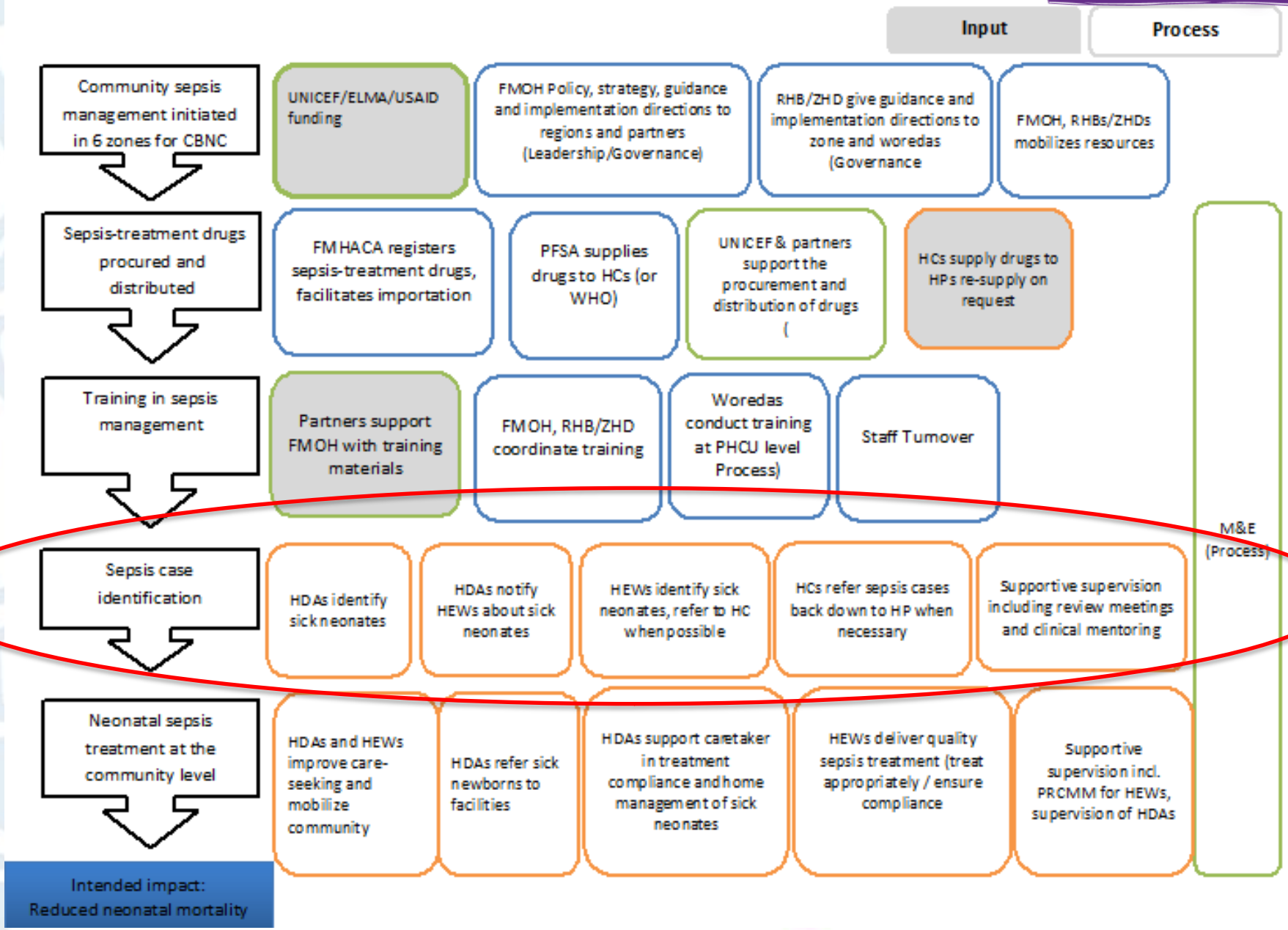

Comment

- Reveals gaps in funding, lack of integration, commonalities …
- Pathways and process evaluations
  - Theory of change for each innovation
  - Monitoring data central
  - Basis for developing implementation strength measure

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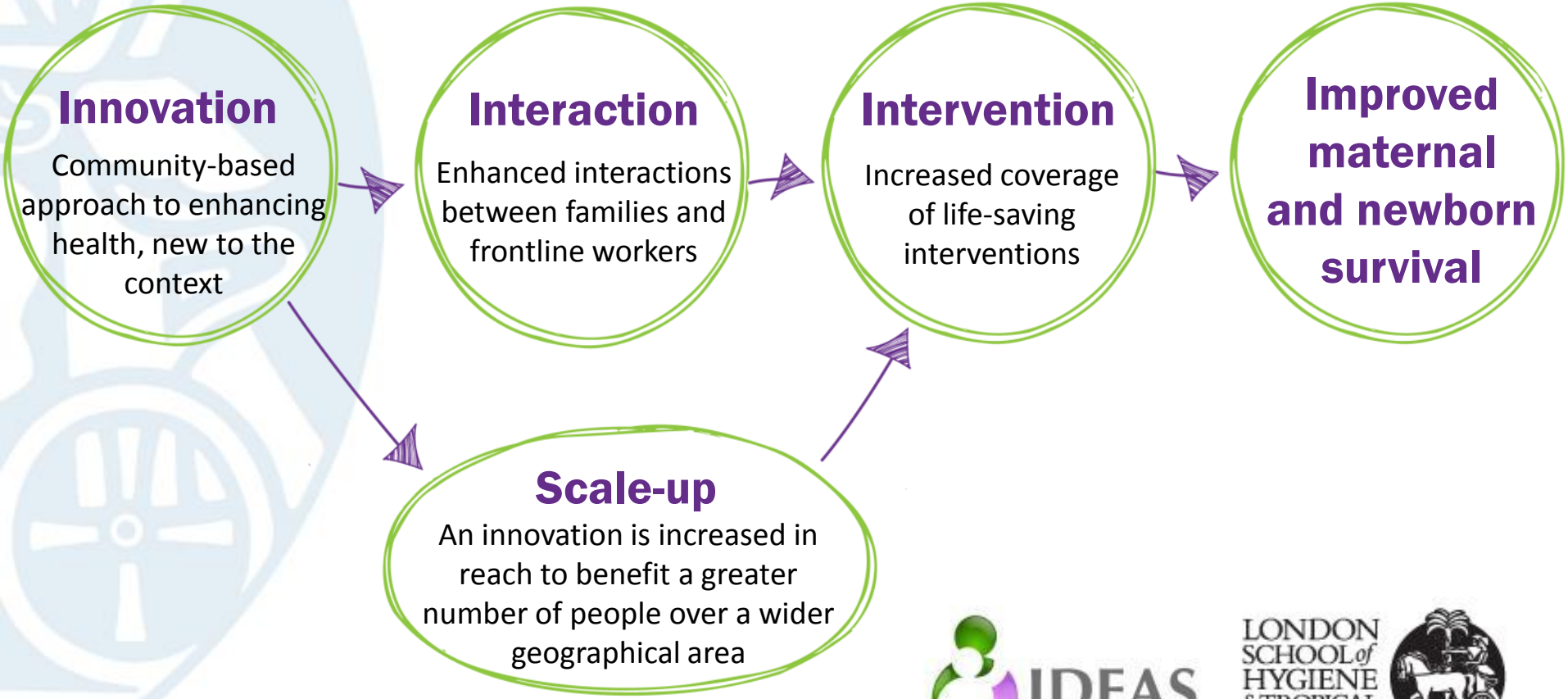
Q2 Do innovations enhance interactions and increase life-saving intervention coverage? If so, how?



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Q2 Do innovations enhance interactions and increase life-saving intervention coverage? If so, how?

- How do enhanced interactions lead to an increase in critical interventions?
  - Qualitative work, 2014

- Cost-effectiveness
  - Economic modelling

- Surveys of households, frontline workers and health facilities.
- Before & after, intervention & comparison areas.
- Tracking contextual factors.
- Baseline 2012, endline 2014+

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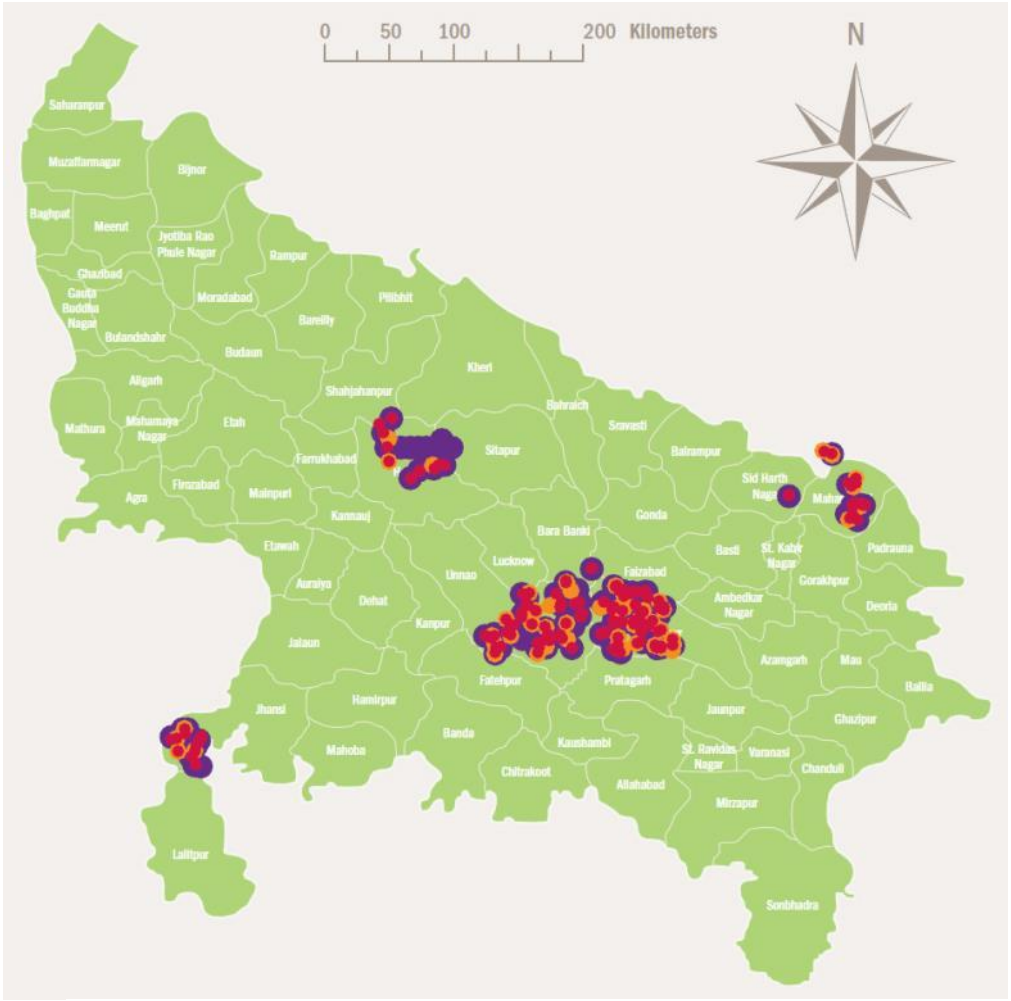
Interactions & coverage study area: Uttar Pradesh, India



BASELINE SURVEY (Nov 2012)

80 clusters

5258 households

604 women with recent birth

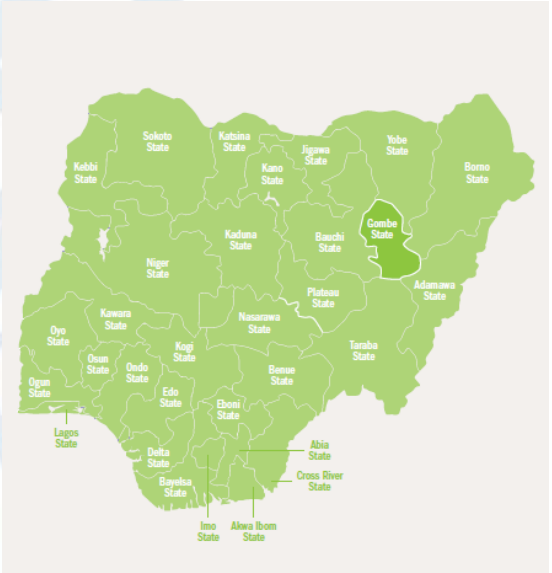
62 Skilled birth attendants

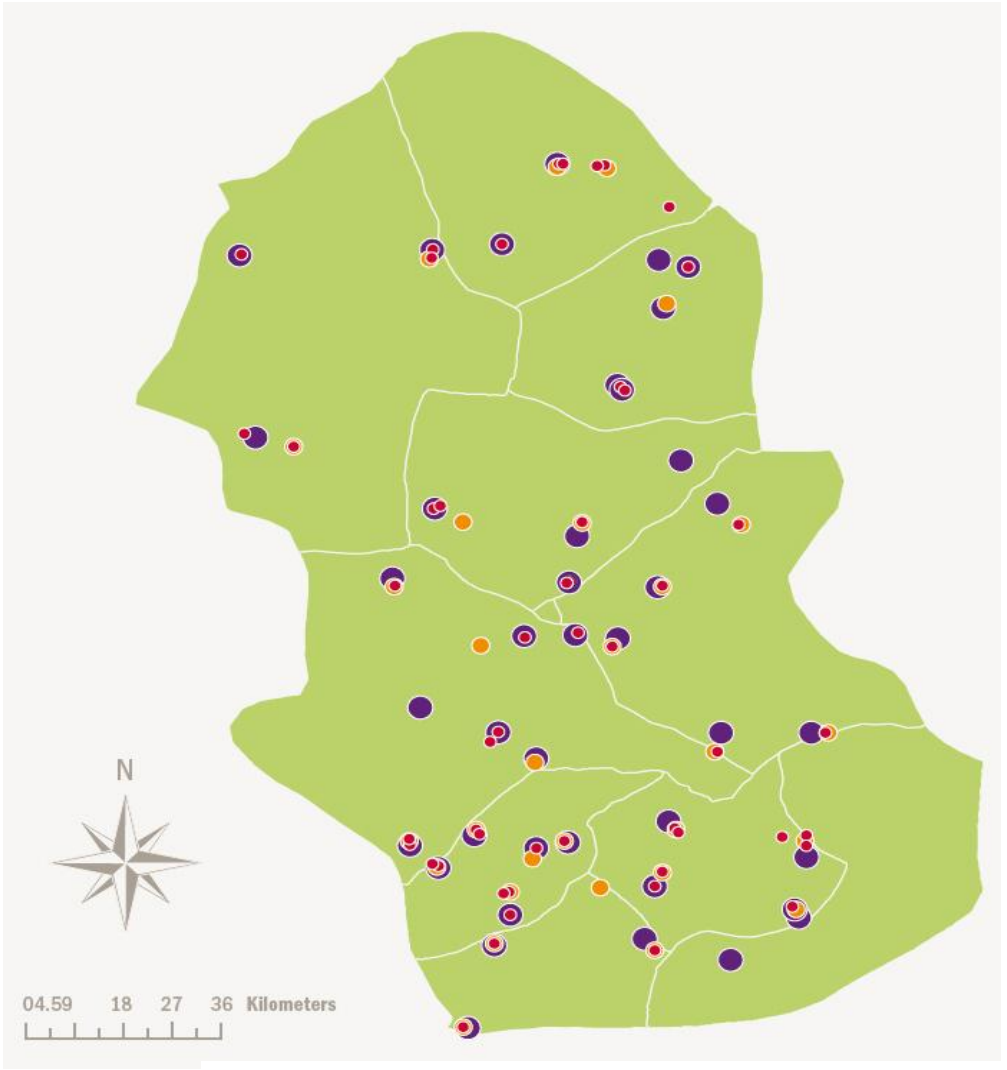
155 Unskilled attendants

60 Primary health facilities

Uttar Pradesh, 2010:
MMR: 440/100,000
NMR: 45/1,000

Interactions & coverage study area: Gombe State, Nigeria





BASELINE SURVEY (June 2012)

40 clusters

1868 households

349 women with recent birth

20 Skilled birth attendants

41 Unskilled attendants

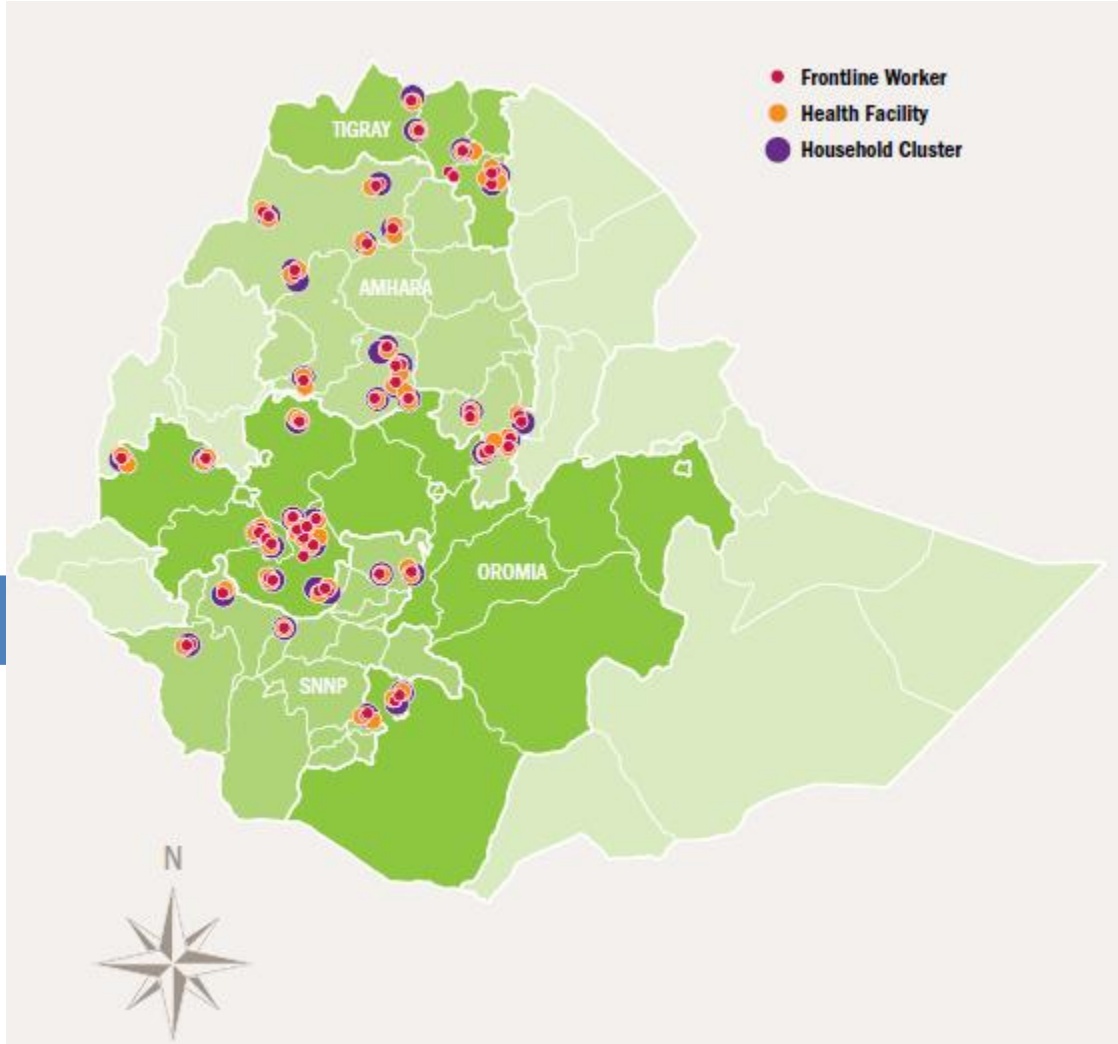
25 Primary health facilities

Nigeria, 2010:

MMR: 840/100,000

NMR: 39/1,000

Interactions & coverage study area: Ethiopia



BASELINE SURVEY (June 2012)

80 clusters

4294 households

533 women with recent birth

77 Skilled birth attendants

239 Unskilled attendants

81 Primary health facilities

Ethiopia, 2010:

MMR: 470/100,000

NMR: 35/1,000

Frequency of interactions

Women with a birth in last 12 months

		NE Nigeria N=348	Ethiopia N=277	UP N=308
		% (95% CI)	% (95% CI)	% (95% CI)
1	Women who had at least one antenatal care visit with a skilled provider	35% (26-43)	32% (22-45)	64% (55-72)
2	Women who had a least 4 pregnancy care interactions (any provider)	40% (30-51)	22% (14-33)	29% (24-36)
3	Facility deliveries (public or private health centre or hospital)	30% (20-40)	15% (8-24)	75% (68-81)
4	Births attended by a skilled attendant (Doctor/nurse/midwife)	22% (14-29)	16% (10-26)	76% (69-81)
5	Women had ≥ 1 post-partum check within 2 days of birth	7% (4-9)	4% (2-7)	56% (50-63)
6	Newborns had ≥ 1 post-natal check within 2 days of birth	4% (2-7)	4% (2-7)	18% (13-25)

Post-natal care processes: reported content of care amongst newborns who had at least one post-natal contact within 48 hours of birth

		NE Nigeria (N=14)	Ethiopia (N=10)	UP (N=56)
		% (95% CI)	% (95% CI)	% (95% CI)
1	Weight checked	14 (3-52)	20 (6-52)	38 (21-57)
2	Cord checked	29 (11-55)	70 (35-91)	55 (39-71)
3	Body examined for danger signs	29 (11-55)	20 (6-52)	11 (5-20)
	Caregiver counselled:			
4	Thermal care	0	20 (5-57)	7 (3-17)
5	Breastfeeding	21 (6-53)	70 (35-91)	63 (48-75)

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Coverage of live-saving interventions: newborn

Women with a birth in last 12 months

	NE Nigeria N=349	Ethiopia N=277	UP N=308
Clean cord care			
Cutting using a new blade	77% (70-83)	79% (70-85)	92% (86-95)
Tying cord with new or boiled string*	61% (51-70)	75% (67-81)	99% (95-100)
Nothing put on cord	74% (67-80)	69% (61-76)	70% (63-77)
Newborns with clean cord care*	28% (20-36)	43% (37-52)	49% (42-56)
Thermal care			
Immediate drying (<30 minutes)*	95% (92-98)	41% (35-49)	88% (83-92)
Immediate wrapping (<30 minutes)*	87% (81-92)	57% (47-67)	78% (71-84)
Delayed bathing (>6hrs)	82% (76-88)	36% (28-46)	24% (18-31)
Breastfeeding			
Immediate (<1hr)	40% (33-47)	50% (42-57)	51% (44-59)
Exclusive (3 days)	43% (36-50)	93% (86-96)	61% (53-69

*Don’t know responses excluded

Comment

- Challenges
  - Time frame different for all the innovations
  - No integration of demand and supply side investments

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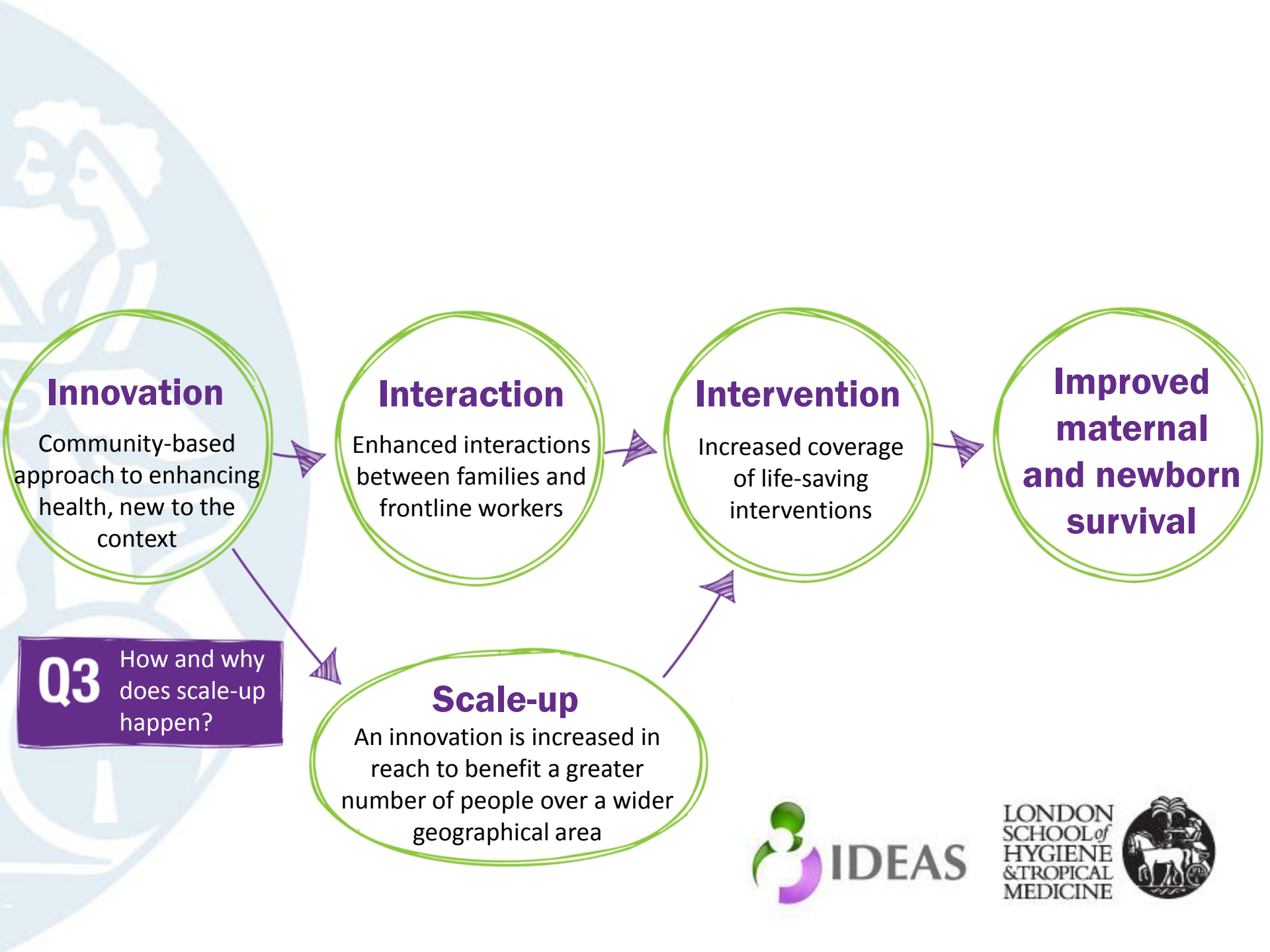
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Q3
How and why does scale-up happen?
Scale-up
An innovation is increased in reach to benefit a greater number of people over a wider geographical area
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Q3 How and why does scale-up happen?

Aims

- To understand how to catalyse scale-up of externally funded MNH innovations and identify factors enabling or inhibiting their scale-up

Scale-up definition

- Increasing the geographical reach of externally funded MNH innovations to benefit a greater number of people beyond grantee programme districts

Methods

- 150 in-depth stakeholder interviews in 3 geographies in 2012
- Follow-up in 2014
- Constituencies in the field of MNH:
  - Government, development agencies, civil society
  - Foundation grantees and programme officers
  - Academics/researchers, professional associations, experts

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To catalyse scale-up:

Q3 How and why does scale-up happen?

- **Integrate scale-up** within plans and resources
- **Design for scale**
- **Build organisational capacity**
- **Advocate** with government decision makers
- Generate and communicate **strong evidence**
- **Align with government**
- **Ensure government involvement**
- **Harmonise efforts** with development partners and implementers
- Invoke **policy champions and networks** of allies/partners
- **Support and build government** capacity for scale-up
- **Work with community leaders** and others to stimulate diffusion

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Harmonisation and alignment

Q3 How and why does scale-up happen?

- Donors and grantees embracing country coordination mechanisms helps to:
  - Strengthen government strategic coordination of external programmes
  - Coordinate evidence presented to government
  - Share learning to strengthen innovations:
- Innovations aligned with government policies:
- Grantees' evidence aligned with government targets and indicators:

'People in India are not combining their expertise...instead of wasting time reinventing the wheel we need to come together...'

'What matters is the government's priority area and if your idea's not there, no matter how much you push, replication and scale-up are almost impossible'

'...the ministry wants to see the results – how the innovation can contribute to the ministry and the health sector...'

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Q3 How and why does scale-up happen?

Comment

- Challenge of high-quality data collection at a distance
- Link to quantitative work has been challenging

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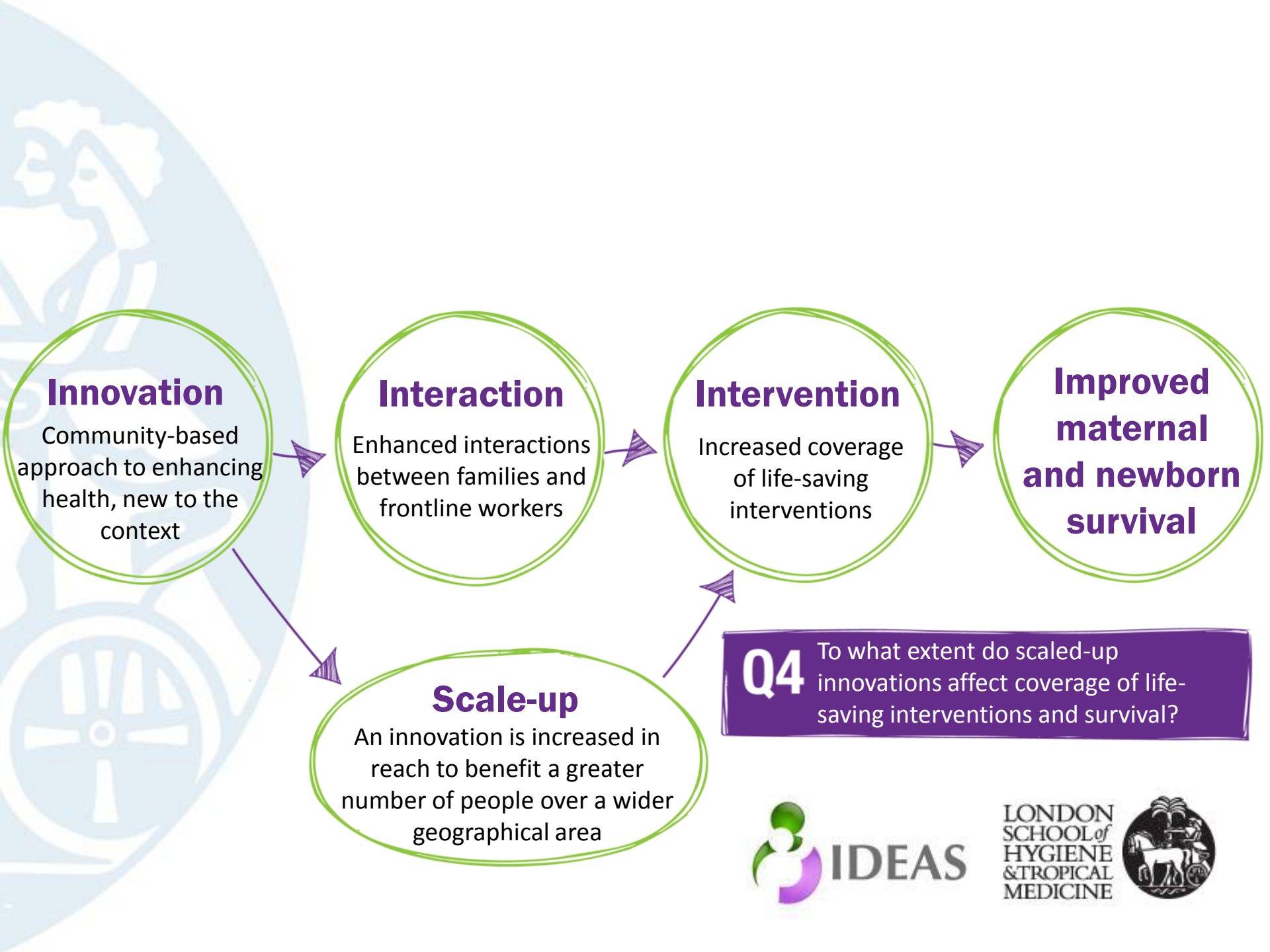
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To what extent do scaled-up innovations affect coverage of life-saving interventions and survival?
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Q4 To what extent do scaled-up innovations affect coverage of life-saving interventions and survival?

- Where community-based maternal and newborn health innovations have been implemented on a large scale beyond grantee areas, **what is the effect on coverage of critical interventions and how does this depend on implementation strength?** What survival impact can be expected?

- ***Implementation strength****: the pooled effect of dose, duration, specificity, and intensity of an intervention – in order to determine how much implementation effort is needed to achieve a meaningful change in coverage and health outcomes.*

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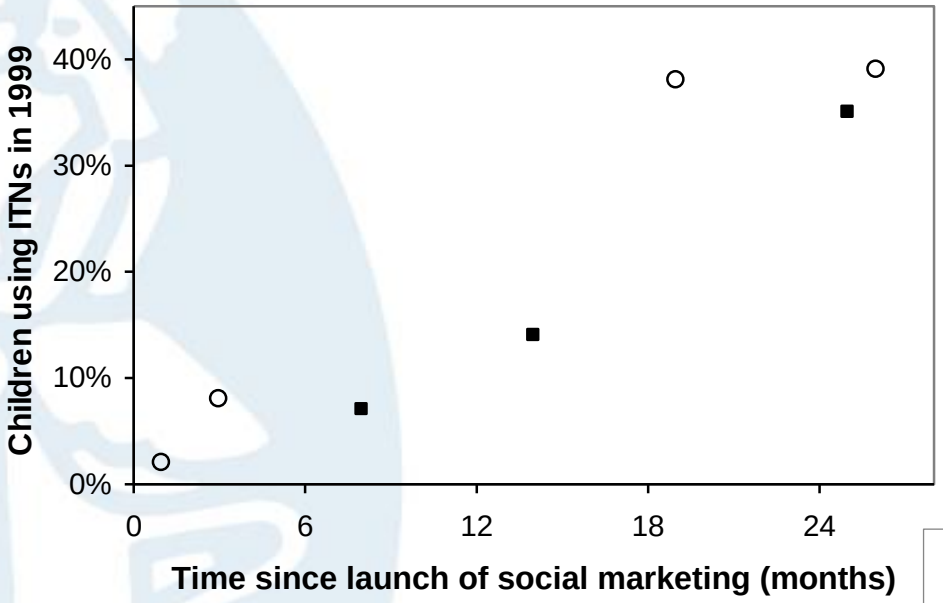
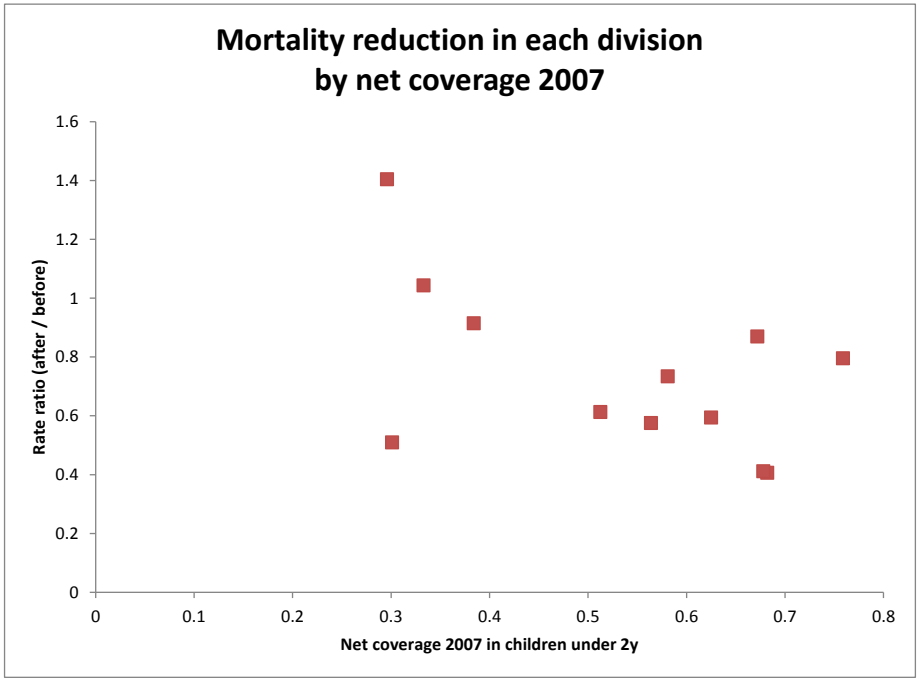
Q4 To what extent do scaled-up innovations affect coverage of life-saving interventions and survival?

Coverage of ITNs in children under 5 years in July-August 1999 by time since start of social marketing programme (Schellenberg Lancet 2004)



Mortality reduction and coverage of treated nets



Examples of dose-response approach from other public health evaluations

Our approach

Q4 To what extent do scaled-up innovations affect coverage of life-saving interventions and survival?

- Victora 2010 Lancet, “National evaluation platform” concept
  - Untouched comparison areas don’t exist, roll-out often national
  - Dose-response analysis: implementation strength vs coverage change
  - Adjust for contextual factors that change over time
  - Monitoring data for the dose, household survey data for the response
- Local stakeholders views
- Data-informed platform for health (DIPH), dual-purpose
  - Feasibility studies in 3 countries
  - BMGF not keen on us being an implementation partner
  - Pilot work needed
- Implementation strength systematic review
- District level data for decision making systematic review
- … but no innovations to study in 2010, 2011, 2012

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Q4 To what extent do scaled-up innovations affect coverage of life-saving interventions and survival?

Scale-up, coverage and survival, country-by-country

- India
  - Undergoing rapid change given new "Technical Support Unit" to support GoUP
- Nigeria
  - Scale-up of SFH innovations to Adamawa State
- Ethiopia
  - Community-based newborn care (CBNC)
    - Design
    - Implementation strength: sensitive issue
    - Moving ahead …

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Q4 To what extent do scaled-up innovations affect coverage of life-saving interventions and survival?

Comment

- Implementation strength
  - Popular concept but not much relevant literature
  - Threat or opportunity?
  - Developing the methodology
- Timing, time scale

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Promoting best practice for policy

- Advocating use of best available evidence to influence policy decisions
- IDEAS will:
  - Synthesise and disseminate maternal & newborn health research findings
  - Disseminate & publish IDEAS own findings
  - Promote exchange of learning
- We aim to:
  - Inform donor strategies, both the Bill & Melinda Gates Foundation and others
  - Influence government policy in Ethiopia, Nigeria & India, and in other countries with high maternal and newborn mortality
  - Influence international policy makers, e.g. WHO
  - Contribute to future research programs.

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Technical Resource Centre

- Provides support to BMGF implementation grantees in measurement, learning and evaluation
  - Continuous survey support to SFH
  - Time and motion study with SNL
  - Reviewing protocols, manuscripts
- Lessons:
  - Implementation grantees did not perceive a need for support and were initially defensive.
  - MLE partner support should be built into the grant.
  - Best success where project teams have a clear view of needs and we plan together
  - BMGF programme officers have a key role to play

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Communications resources

- Website: blogs, news stories, interactive maps, events posts, image gallery
- Quarterly newsletter: highlight IDEAS and grantee work
- IDEAS twitter account
- TRC web seminars – “how to” guides, technical issues, discussion of recent MNH papers

Website: ideas.lshtm.ac.uk

Newsletter sign up: eepurl.com/j3iBz

Twitter: @LSHTM_IDEAS

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Who are we?

- 23 staff
  - 20 in London
  - 1 Addis
  - 1 Delhi
  - 1 Abuja
- 4 partner organisations

PUBLIC HEALTH FOUNDATION OF INDIA

Sambodhi

JaRco Consulting

Healthub

Team members

Dr Elizabeth Allen
Statistician

Dr Bilal Avan
Scientific Coordinator

Agnes Becker
Communications Officer

Dr Della Berhanu
Country Coordinator Ethiopia

Alice Curham
Assistant Project Manager

Dr Meenakshi Gautham
Country Coordinator India

Dr Zelee Hill
Qualitative Lead

Krystyna Makowiecka
Technical Resource Centre Coordinator

Lindsay Mangham-Jefferies
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Dr Neil Spicer
Qualitative Lead on Scale-up

Keith Tomlin
Data Manager

Dr Nasir Umar
Country Coordinator Nigeria

Shirine Voller
Project Manager

Deepthi Wickremasinghe
Information Specialist

Challenges

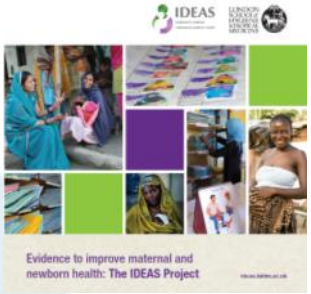
- Change
- Time-scale
- Partnership not in contracts
- Tension: project thinking and review of a long-term strategy

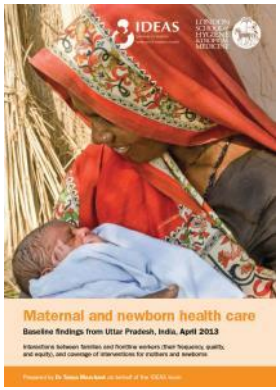
Highlights

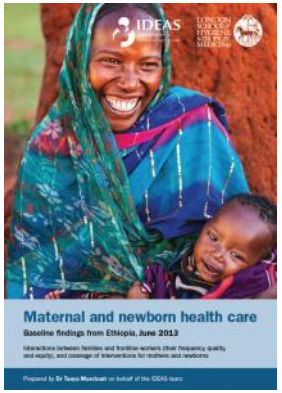
- ‘Ringside seat’
- Dedicated LSHTM team
- Multi-disciplinary
- ‘Nobody knows how to do this’
- Practical, large-scale
- Evaluation

IDEAS

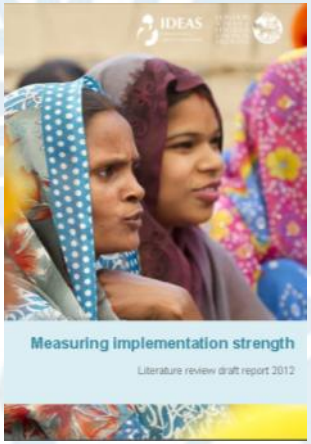
LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE


IDEAS
Evidence to improve maternal and newborn health: The IDEAS Project


IDEAS
Maternal and newborn health care
Baseline findings from Uttar Pradesh, India, April 2013


IDEAS
Maternal and newborn health care
Baseline findings from Ethiopia, June 2013


IDEAS
Maternal and newborn health care
Baseline findings from Gombe State, Nigeria, April 2013

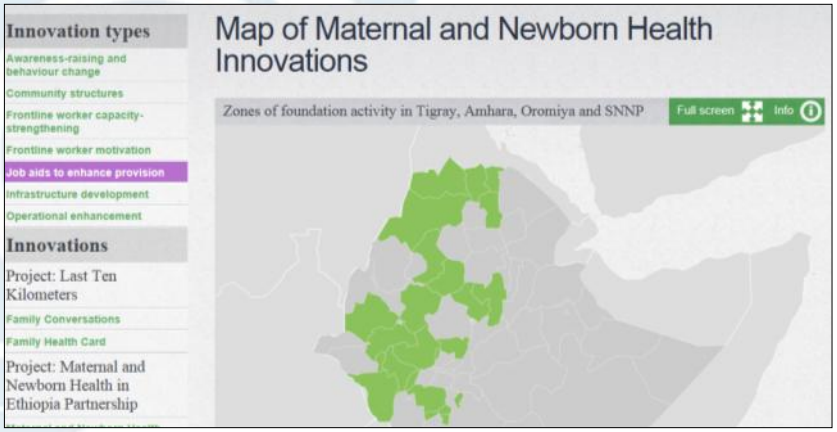

IDEAS
Measuring implementation strength
Literature review draft report 2012


Engaging the public & private sectors in data sharing
to improve maternal and newborn health in Uttar Pradesh, India
August 2013
IDEAS

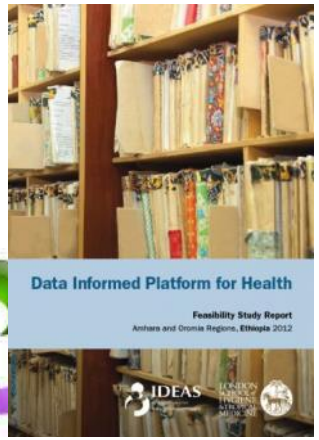

RESEARCH BRIEF
AUGUST 2013
How to catalyse scale-up of maternal and newborn innovations in Uttar Pradesh, India
Key messages
About the study
IDEAS


RESEARCH BRIEF
JUNE 2013
How to catalyse scale-up of maternal and newborn innovations in Ethiopia
Key messages
About the study
IDEAS


RESEARCH BRIEF
MAY 2013
IDEAS
How to catalyse scale-up of maternal and newborn innovations in north-eastern Nigeria
Key messages
About the study


Innovation types
Awareness-raising and behaviour change
Community structures
Frontline worker capacity-strengthening
Frontline worker motivation
Job aids to enhance provision
Infrastructure development
Operational enhancement
Innovations
Project: Last Ten Kilometers
Family Conversations
Family Health Card
Project: Maternal and Newborn Health in Ethiopia Partnership
Map of Maternal and Newborn Health Innovations
Zones of foundation activity in Tigray, Amhara, Oromiya and SNNP
Full screen
Info


Data Informed Platform for Health
Feasibility Study Report
Uttar Pradesh, India 2012
IDEAS


Data Informed Platform for Health
Feasibility Study Report
Amhara and Oromia Regions, Ethiopia 2012
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