District decision-making for health in low-income settings:

Data-Informed Platform For Health

a feasibility study from India, Nigeria and Ethiopia



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Outline

- 1. Data Informed Platform for Health
- 2. Conduct of feasibility study
- 3. Lessons learnt from the feasibility studies
- 4. Next steps







Background

 Low-resource settings often have limited use of local data for health system planning and decision-making for MNCH services.

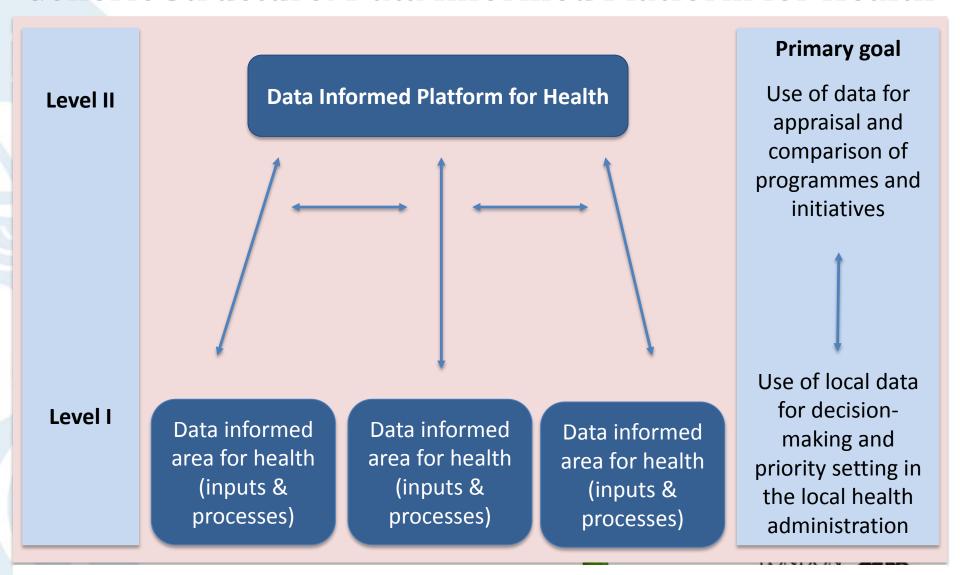
- Key challenges
 - Data quality
 - Professional expertise
 - Information-system infrastructure
 - Robustness of technology
 - Culture of evidence-based decision-making
 - Health system responsiveness





One of the possible solution: Data Informed Platform for Health

Generic Structure: Data Informed Platform for Health



Level I: Primary geographical unit e.g. districts

Level II: Secondary geographical unit e.g. province, state, region or zone

Data Informed Platform for Health

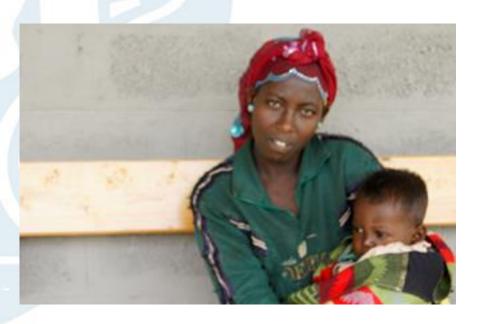
- District as a unit of implementation
- Bringing together diverse public sector services influencing MNCH health
- Role of private sector and NGOs
- District-level databases, potentially linked at regional or federal level
- Implementation research challenge

DIPH feasibility study: India, Ethiopia and Nigeria

Overall aim

To determine whether DIPH approach is technically feasible to implement

Focus: MNH related services offered by public health system and key organisations







Feasibility study

TELOS framework

Greek philosophy of teleology: the study of the nature or intentions of a plan or object.

The concept is used in business and management to assess the feasibility of a new service, programme or initiative.

Five dimensions of feasibility research:

- Technology and Systems,
- Economic,
- Legal and Political,
- Operational, and
- Scheduling feasibility.





TELOS framework: nature of inquiry

	Technology	•	Do stakeholders have the expertise need		
(O)	and System	•	Are additional resources needed in the h		
{ • }~	Feasibility		infrastructure, skills-sets or job aids?		
$\langle \sim \sim \rangle$					

ded?

Economic

nealth system including Is the health system ready in terms of the technology required?

Do the resources needed exist? Will the proposed health service or initiative lead to better use of resources to improve health outcomes, when compared with other options? Are rules and regulations in place to enable stakeholders to



Political Feasibility

Feasibility

support the new service or initiative? Does the essential political will exist? Is there a legal framework to engage with the private sector or



other key service providers? **Operational**

Feasibility Legal and

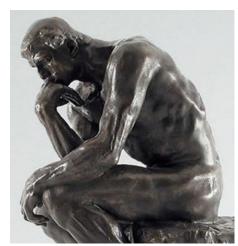
Do existing health system procedures and protocols support the **Feasibility** new service or initiative? How will key collaborators be involved? Schedule



What are the prerequisites before the new service or initiative can begin? Is the service or initiative likely to be developed in time to be useful to the health system?

Methodology

- Context: India, Ethiopia and Nigeria
- Collaborative effort with respective MoHs
- Selection of study districts
- Data collection:
 - In-depth field visit
 - Key informant interviews
 - Service-delivery staff interviews
 - Record and document review
- The readiness to implement DIPH is described on the basis of the relative status of the country according to the feasibility framework



Summary of findings

Components	Specific inquiries considered	India	Ethiopia	Nigeria
Technology and Systems	 Do stakeholders have the necessary background expertise needed for DIPH? Health system readiness in terms of necessary technology required? 	+++	+	1
Economic	Do the resources needed for the DIPH exist?	+++	<u>+</u>	<u>+1</u>
Legal and Political	 Are the necessary rules and regulations in place to enable the stakeholders to support the new health system service or new initiative? Does the essential political-will exist to support the DIPH? 	+++	++	±
Operational	 Do the existing procedures and protocol of health system support the DIPH? 	+++	+	++
Schedule	• What prerequisites need to be in place prior to the execution of the DIPH?	+++	++	<u>±</u>

^{+++ =} sufficient, ++ = basic minimum, + = limited, + = negligible, - = nil

Findings and lessons learnt

Potential challenges

- Utility perspective for the health systems
- Embedding in the health system
- Private sector placement
- Technical capacity building
- Standardisation of decision-making processes
- Network architecture across different levels
- Organisational barriers among public, NGO and private sector
- Data harmonisation
- Performance evaluation

Opportunities - related ongoing initiatives in the country

- M-health
- Score cards on performances







Next steps



- Pilot study
- To build upon the evidence of decision-making at the district level
- Strategies to support readiness and acceptance of private sector
- Streamlining the district level leadership and health system governance
- Scaling up of DIPH in the context of key MNCH interventions and innovations







- Thank you, -







A systematic literature review:

To explore decision-making processes that support the use of health data at district level in low- and middle-income countries

Deepthi Wickremasinghe, Iram Hashmi Ejaz, Joanna Schellenberg, Bilal Iqbal Avan

Improving health worldwide







Are local health data used in decision-making?





- 1. Record keeping in a health post in Ethiopia Neil Spicer
- 2. Data collection in Gombe State, Nigeria Society for Family Health
- 3. Woman adding data to a health form in Uttar Pradesh ,India Meenakshi Gautham

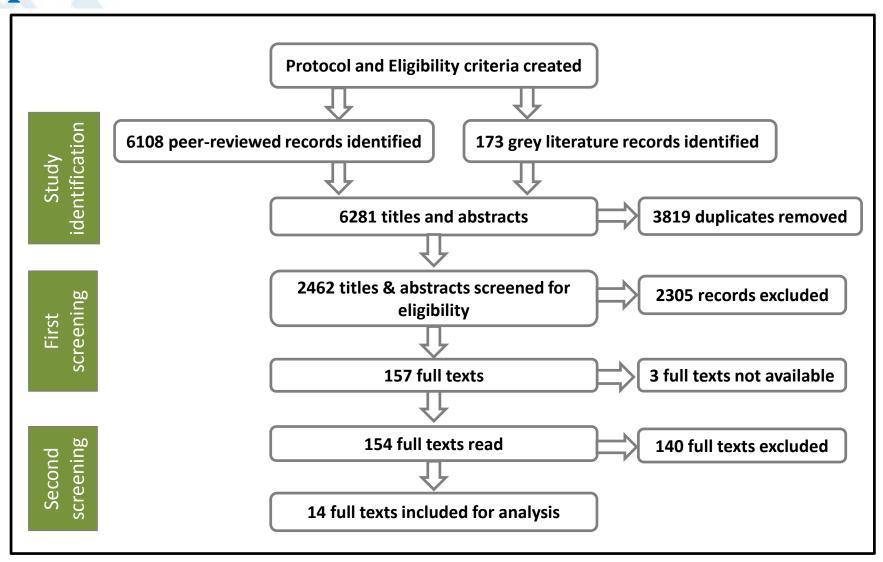




What processes do district decision makers use...



Flow diagram of the systematic review process



What we found: Examples of generic decision-making processes at district level from



Flags from Science Kids ©

What we found: All the decision-making processes included two steps

- 1. Prioritise the health issues to be addressed
- Develop an action plan







Health facility data in Ethiopia - Bilal Iqbal Avan

What we found: Types of data used for decision-making

- Health Management Information Systems data (HMIS)
- Facility records
- Document reviews
- Other sources of data...





What we found: Challenges to decision-making processes



Availability of health and health facility data of good quality



Human dynamics within a formal, data-based decision-making process



Decisions compromised by financial constraints





Interpretation: Three good practices for a decision-making process



Relevant and good quality data are pre-requisite



A structured process, including steps to help build consensus



A well-defined role for the community





Recommendation...



Wider adoption of a decision-making process would be enhanced by standardisation and pre-testing in diverse settings





Content analysis of district level health data and inter-sectoral linkages in India and Ethiopia

Dr. Della Berhanu

London School of Hygiene and Tropical Medicine

Dr. Sanghita Bhattacharyya
Public Health Foundation of India







Current district decision-making process









District decision-making: India

Objective:

- To explore district decision-making structure
- To understand use of data for planning and resource allocation

Study Area:

North and South 24 Parganas districts in West Bengal State

Methods:

- In-depth interviews with 28 representatives of district decisionmaking body in India.
- Observation of 4 district decision-making meetings in India







District decision-making: Structure

- Who?
- What?

When?

Representative?

"District Health Society is a type of district level convergence meeting, where you get all the government officials... So the meeting can determine policy for different health activities like construction, health programmes, funding, budgeting, planning, analysing current health situation of district ..."

[Health department rep.]

As per guideline our department should participate in **District Health Society** meetings but practically they are not aware of importance, and the health department is also not taking initiative to motivate our participation ... Our role is ill-defined..."

[Non-health department rep.]







District decision-making: Process

How?

"We have to go by the priorities set by Government of India state government. Other suggestions from local political or community can be considered and discussed depending upon its usefulness..."

[Health department rep.]

"Funds are not released based on priorities set by us, rather priorities are set based on availability of funds"

[Health department rep.]

However...

"District Health Society only plans for health department.... mostly health department decisions are prioritised at the meeting"

[Non-health department rep.]







District decision-making: Observation on data use

For:

Planning?

"Enormous data is being collected, but remain unutilised due to lack of time and inadequate manpower. Data is a very interesting tool if we use it in a proper way"

[Health department rep.]

"Yes data is useful for planning. E.g Mission director when visited this hospital found bed occupancy rate at 130%. Then proposal of increasing beds in maternity ward from 85 to 120 was developed and put in District Health Society meeting"

[Health department rep.]

Fund allocation?

"There is no such link between funding and data, in my personal opinion funding is very specific (state guideline) and never linked with data ..."

[Non-health department rep.]







Needs identified by stakeholders

District Health Society members identified the following three key needs in terms of current decision-making process:

- Improve coordination between different departments for knowledge interchange
- 2. Increase **use of data** to identify problems and use for planning.
- 3. Develop a structured **decision-making tool** for District Health Society meetings.







Content analysis of district level health data and inter-sectoral linkages in India and Ethiopia







Outline

- Background
- Method
- Findings from India and Ethiopia
- Summary







Background

Why conduct a content analysis of data?

To inform us on data:

- Availability
- Duplication
- Filtration from one level to the next
- Quality

Shared data can provide comprehensive information for local decision-making, aligning health service delivery with the available resources and community health needs







Background

Indian Health System

District Hospital

> 30,000

Community Health Centre

10,000-30,000

Primary Health Centre

5000-10,000

Sub Centre

>5,000

Community health workers 1,000

Ethiopian Health System

Primary Hospital

60-100,000

Health Centre

15-25,000

Health Post

3-5,000







Objectives

To understand the:

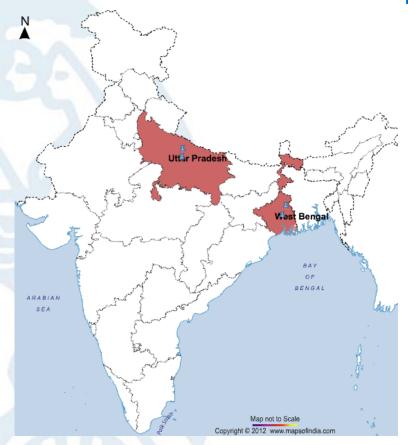
- 1. Volume and types of data collected at different health system levels in a district
- 2. Data flow and data sharing between public and private health system



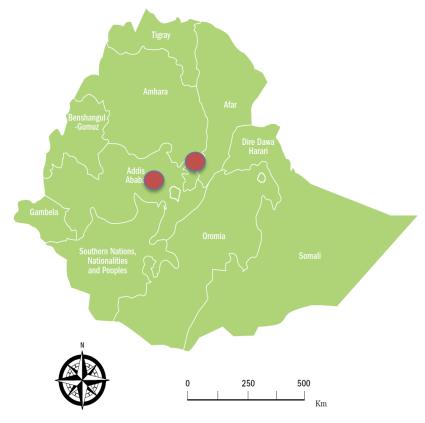




Study areas



 Sitapur and Unnao districts in Uttar Pradesh State



- Dendi district in Oromia region
- Basso district in Amhara region







Methods: Data collection

- Visited 8 public health facilities in each country
- Collected data forms from different public health system levels
- Interviewed individuals at the district level to understand data flow and data sharing







Methods: Content analysis

Data categorisation:

- Used Microsoft Access
- Categorised forms by level of completion and reporting frequency
- Identified and sorted thematic areas into the six WHO health system categories
- Each data element was then categorised into to a thematic area

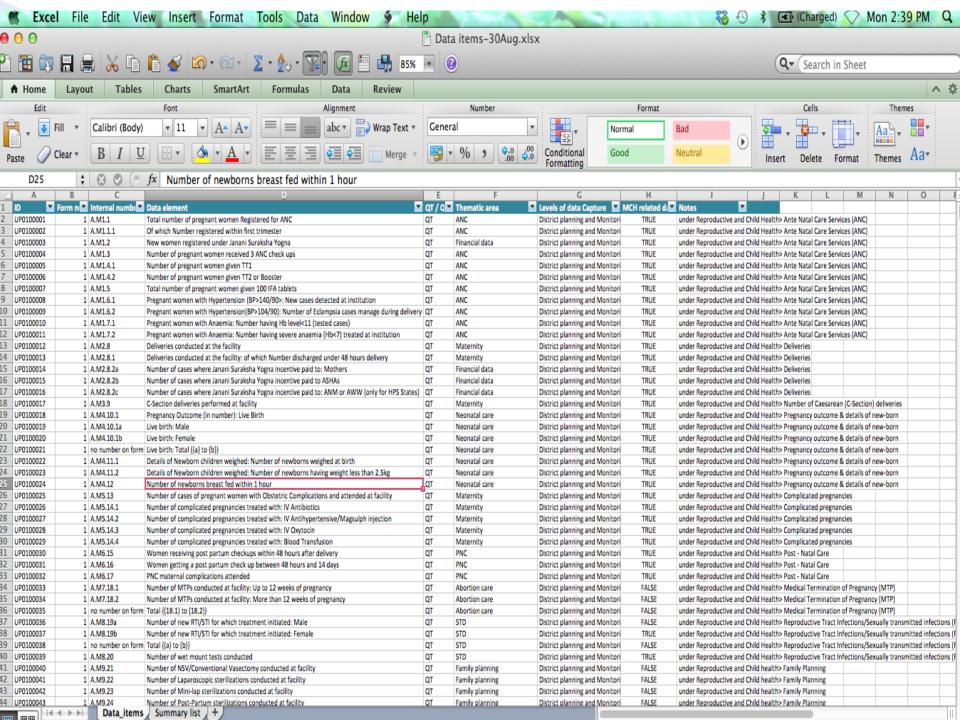
Content analysis:

- To see the type and amount of data available for different health system levels
- Further analysis to understand the MCH service delivery data









Methods Content analysis of data forms

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WHO health system categories	Thematic Areas		
1. Service delivery	 ANC, Delivery, PNC, Newborn care, Immunisation, Nutrition Family planning, Adolescent health Water and sanitation Non-communicable diseases, TB, Malaria, HIV 		
2. Contextual factors	Infrastructure of facilities, households and villagesDemography		
3. Medical supplies	Resources/ supplies		
4. Workforce	Human resourcesTraining		
5. Governance	Management (supervision)Grievance redress		
6. Finance	ExpenditureFinancial incentiveInsurance scheme		

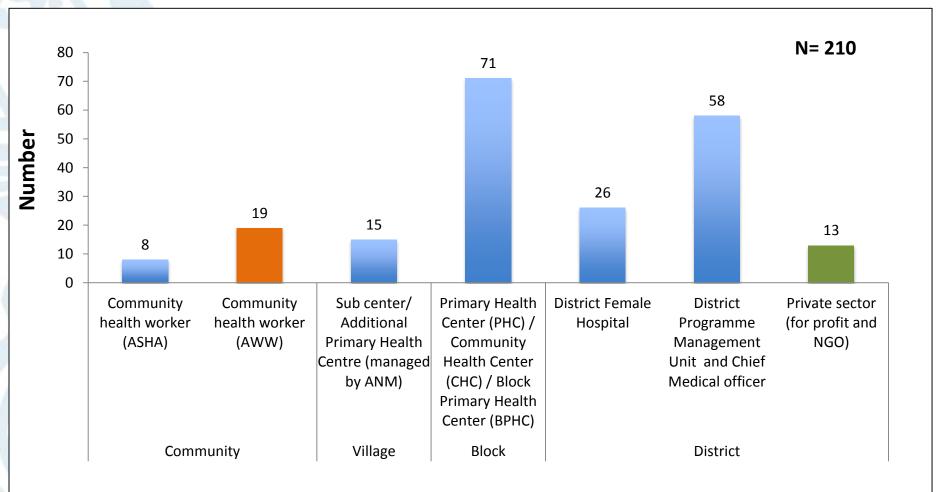
Findings:

Content analysis of district health data and inters-sectoral linkages in India





Volume of data available in a district health system

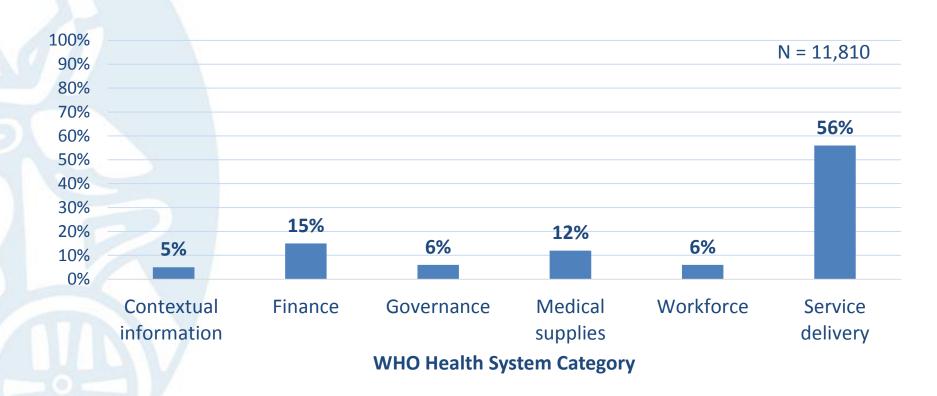








Types of data available in a district health system

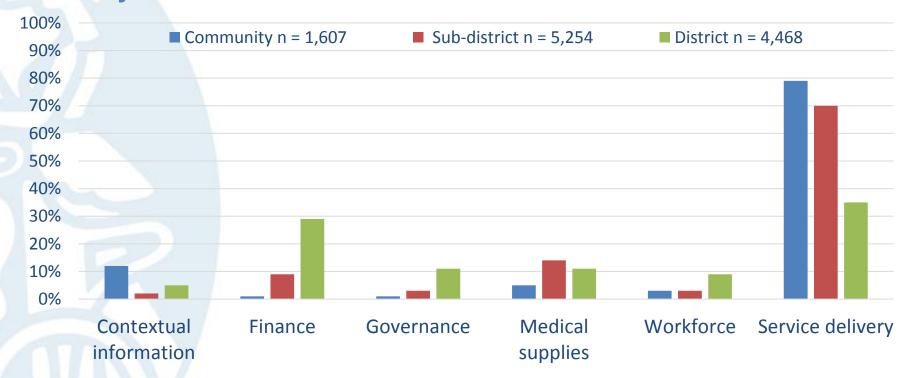








Types of data available at different levels of the district public health system



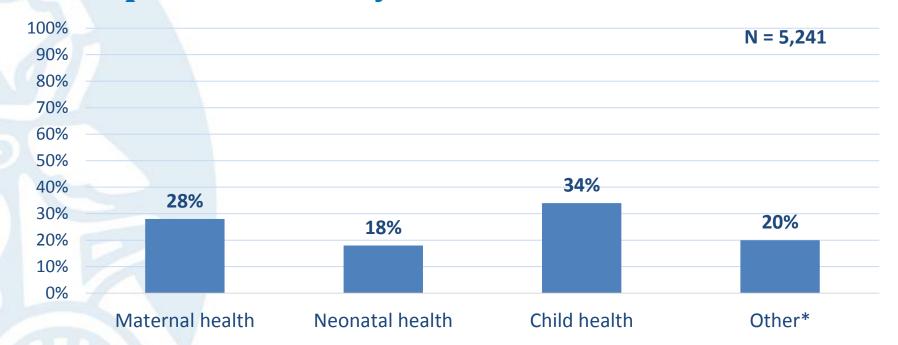
WHO Health System Categories







Maternal, neonatal and child health data collected in district public health system



MNCH Service Delivery Category

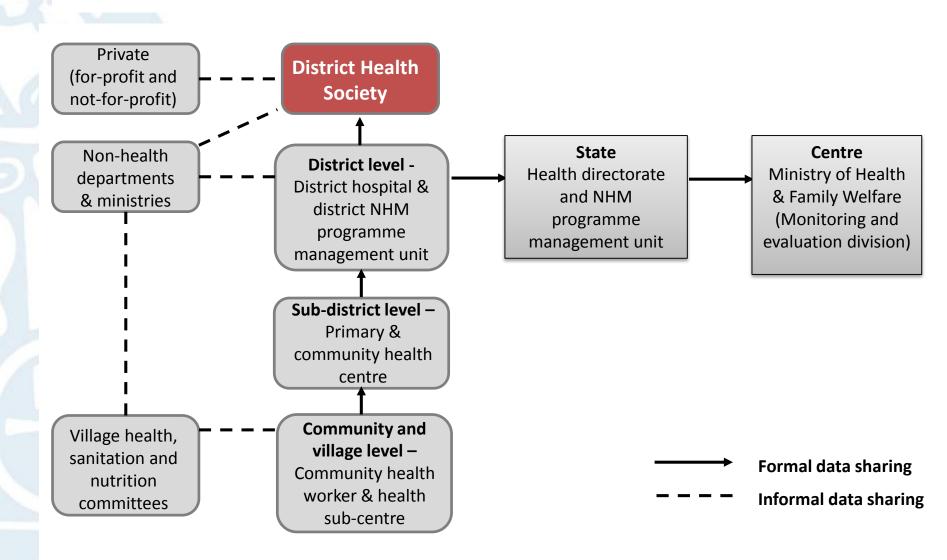
^{*}Integrated MCH programme including nutrition, family planning, abortion, sanitation







Inter-sectoral linkages in health data flow and sharing



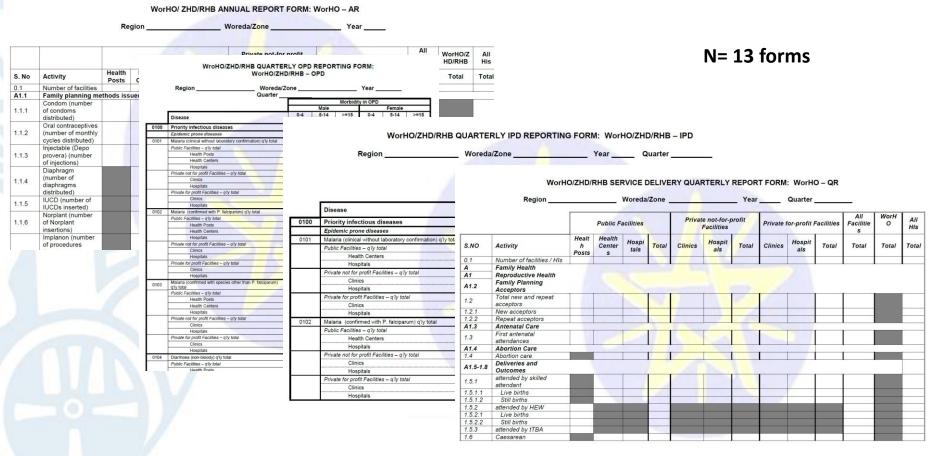
Findings: Content analysis of district health data and inters-sectoral linkages in Ethiopia







Volume of data available in a district health system

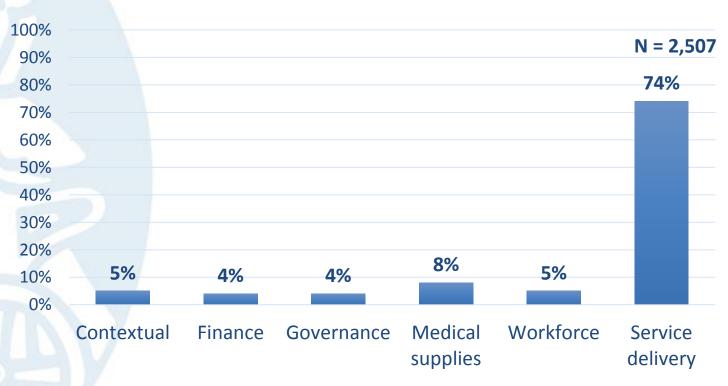








Types of data available in a district health system



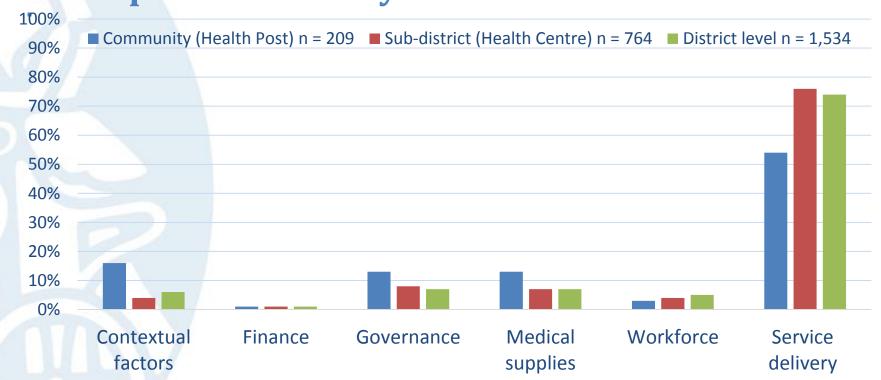
WHO Health System Categories







Types of data available at different levels of the district public health system



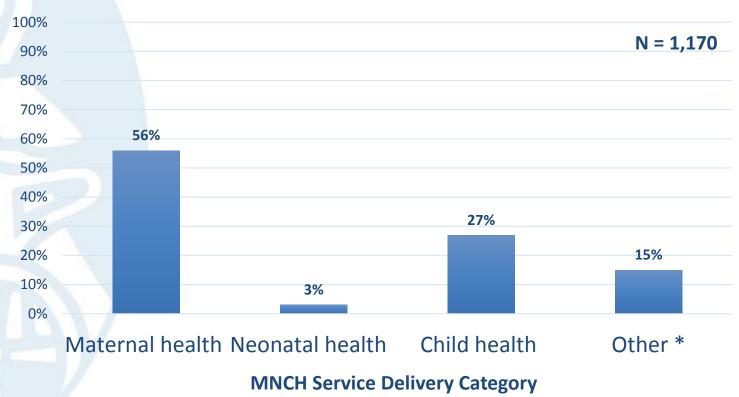
WHO Health System Categories







Maternal, neonatal and child health data collected in district public health system

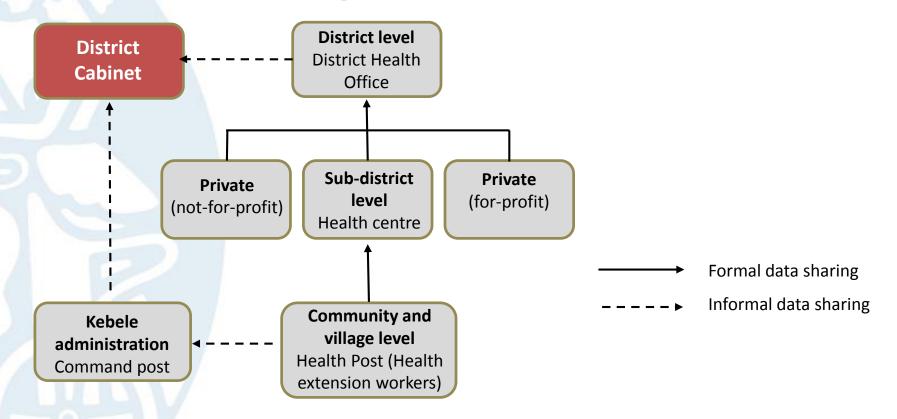


*Integrated MCH programme including nutrition, family planning, abortion, sanitation





Inter-sectoral linkages in health data flow and sharing









Summary

Content

- Information is available on all 6 categories in both countries
- In both countries a majority of the data is on service delivery
- Parsimony vs Diversity of forms (13 vs 210 forms)
- There is filtering of data from the community up
- Unlike in India, in Ethiopia district level collects additional data
- More data on neonates collected in India

Technique

- A new way of looking at the available district level data
- It provides an objective and quantifiable perceptive on what exits
- Allows optimisation of data utility







This study was undertaken under the Informed DEcisions for Action (IDEAS) project, London School of Hygiene and Tropical Medicine

Research team-India

Dr. Sanghita Bhattacharyya, Dr. Aradhana Srivastava, Dr. Bhusan Girase, Ms. Mayukhmala Guha, Ms. Anns Issac.

Research Team- Ethiopia

Dr. Della Berhanu, Mr. Nolawi Taddesse and Seifu Taddesse

Research supervised by

Dr. Bilal I Avan

Principal Investigator

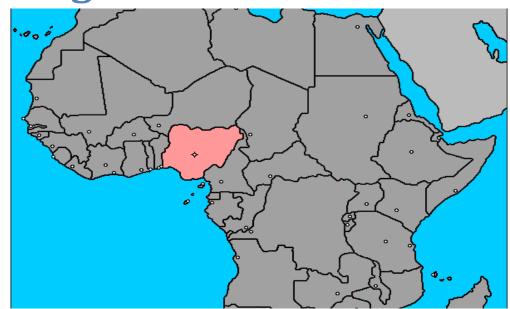
Dr. Joanna Schellenberg







Use of health data for decisions at the district level on maternal and newborn health in Northeast Nigeria



Dr. Nasir Umar
London School of Hygiene & Tropical Medicine

Improving health worldwide

ideas.lshtm.ac.uk





Background: Three-tier system of government

Federal:

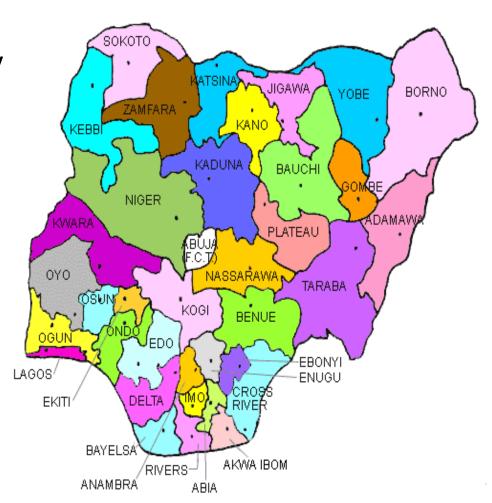
✓ Set strategic decisions or policy goals; resource mobilisation & distribution to attain set goals

State:

✓ Oversee the adoption or adaption of national health policies at the state and LGAs

LGAs:

✓ Decisions on the provision of primary health care







Study setting: Gombe state

- ✓ Located in the North-East region of Nigeria; estimated population of 2.8 million
- ✓ Multi-ethnic and comprises 11 LGAs
- ✓ About 75% of the state is rural



Study setting: Shongom LGA

- ✓ Estimated population of 151,520
- ✓ Purposefully selected







Methodology: Data collection

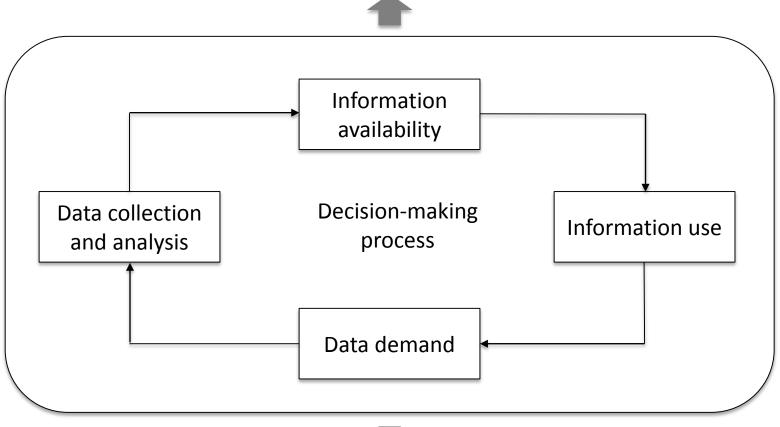
- ✓ In-depth interviews about the generation of maternal & newborn health data and use of data collected to improve maternal & newborn care
- ✓ Key informants: drawn in collaborations with state ministry of health, state ministry for local government affairs, primary health care department of the LGA
- ✓ Interviewees: health administrators, decision-makers, health workers
- ✓ 21 of the 30 interviewees approached agreed to participate (June–December 2012, follow up May –June 2013





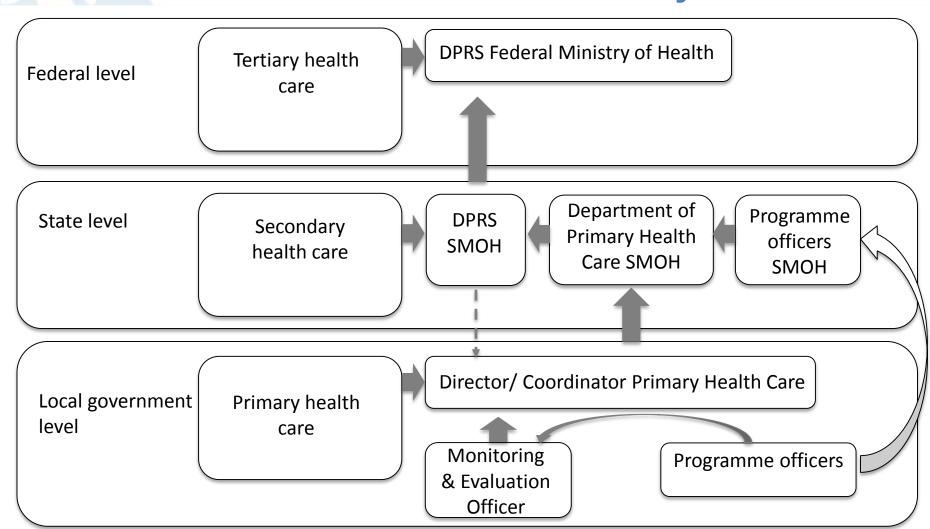
Methods: Data analysis framework

Improved health decisions





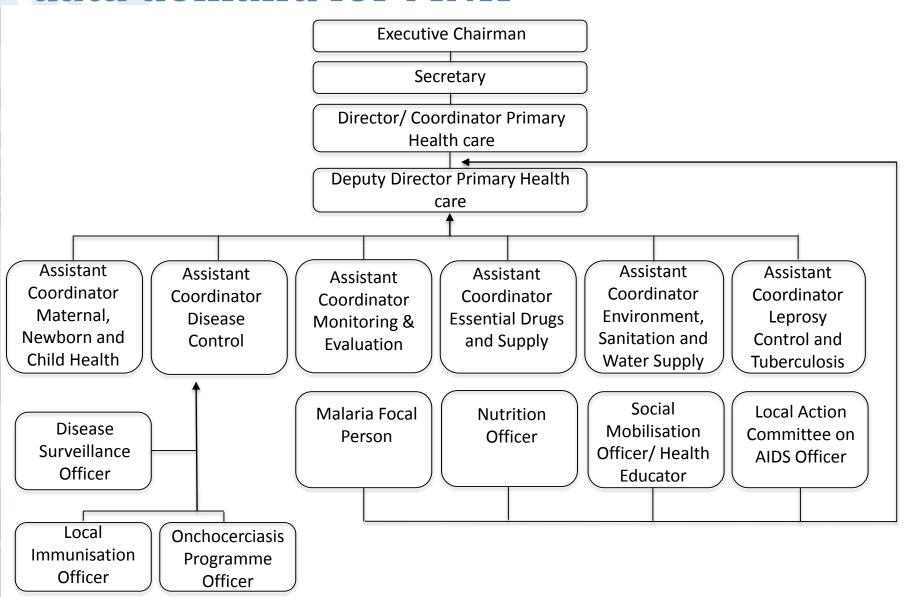
Findings: Data collection, analysis & health information availability for MNH



DPRS: Department of Planning, Research & Statistics

SMOH: State Ministry of Health

Findings: Use of health information & data demand for MNH



General findings

Data collection & analysis

✓ Limited skills of local government area staff to process and use health information

Information availability

✓ Limited access to health information by decision makers

Information use

✓ Inappropriate health information supplied to decision makers.

Data demand

- ✓ Lack of funds for regular data management activities
- ✓ Insufficient organisational support to demand, process and use health information
- ✓ Limited interaction between data producers and data users





Conclusions

Limited use of health data for decisions to improve maternal & newborn health at the LGA level in Shongom LGA



Created by Nicholas Menghini from Noun Project





New developments

- Primary Health Care Under One Roof
 - ✓ One management body
 - ✓ One plan
 - ✓ One monitoring & evaluation
- New national Health Act
 - ✓ Linked budget earmarked for health
- Decentralisation of power/direct
 - funding to LGAs
- Improving security



Thank you very much for listening

Research supervisor

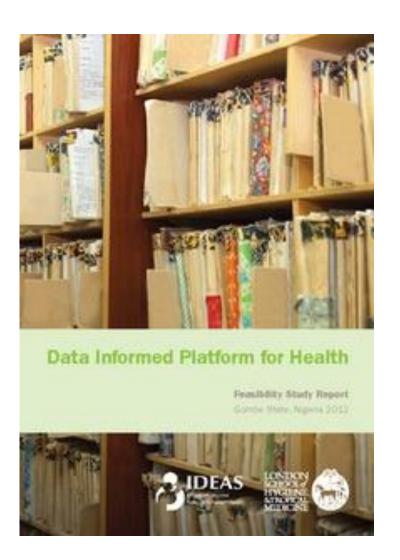
Dr. Bilal I Avan

Principal Investigator

Dr. Joanna Schellenberg

Acknowlegements

HealthHub Nigeria – MLE partner in Nigeria Gombe state MoH, MLGA Shongom LGA







IDEAS private sector study of MNCH data sharing in Uttar Pradesh and West Bengal, India



Meenakshi Gautham, IDEAS-LSHTM
Neil Spicer, IDEAS-LSHTM
Manish Subharwal, IMPACT
Sanjay Gupta, IMPACT
Nirmala Mishra, PHFI





Private sector: important service provider but limited role in public health planning or data sharing

UTTAR PRADESH (UP)

	Government source	Private Source	Total
Institutional deliveries	39%	17.6%	56.7%
Care seeking for an acute illness (fever, diarrhoea etc)	5.4%	92%	97.4%
Regular treatment for a chronic illness (TB, asthma, hypertension, diabetes)	15.6%	43.1%	58.7%

Source: Annual Health Survey, Uttar Pradesh, 2012-13





Difficulties in estimation of institutional deliveries without complete data

WEST BENGAL

Institutional deliveries	North 24 Parganas	South 24 Parganas
Total reported institutional deliveries (to total annual <i>estimated</i> deliveries)	18.7%	28.9%
Total reported institutional deliveries (to total reported deliveries)	88.8%	61.5%

Source: NRHM Factsheet based on district HMIS Apr-Sept 2014





Study objectives

- Determine the composition and role of the private health sector in MNCH services (institutional deliveries, newborn care, immunisation, family planning)
- 2. Assess the status of MNCH data sharing by the private sector at the district level
- 3. Identify the barriers and enablers to data sharing

UP: Hardoi and Allahabad districts

West Bengal: North and South 24 Parganas

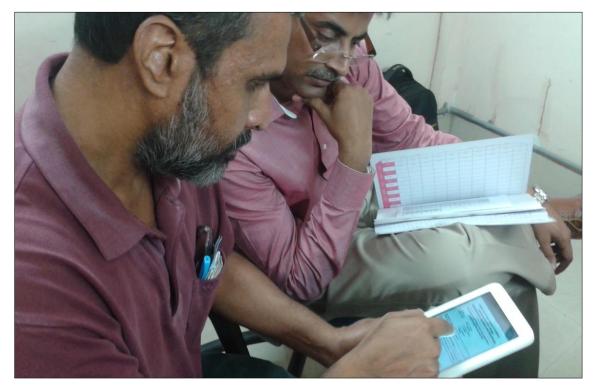




Qualitative study



Secondary data sources: district level routine data



Key informant Interviews

Uttar Pradesh: 54 interviews West Bengal: 36 interviews





Private facilities: features



Outnumber public facilities 2:1



Bed strength: 5 to 500



Licensed and unlicensed



Good data sharing for legislated services and PPPs, but not other services

Standardised and regular data sharing:

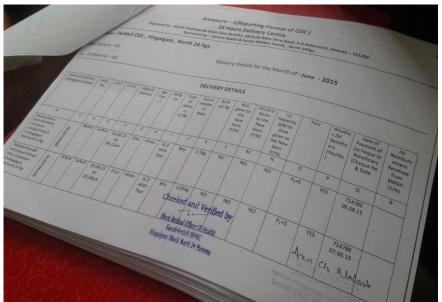
- Ultrasound services
- Medical termination of pregnancy
- Institutional deliveries by Community delivery centres
- Caesarean and normal deliveries by Ayushmati centres
- Online registration by private facilities in West Bengal

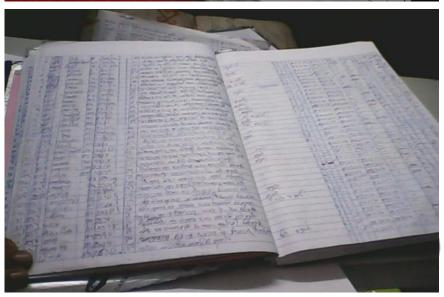
Varying and irregular data sharing:

 By all other private for profit facilities, although most maintain basic data

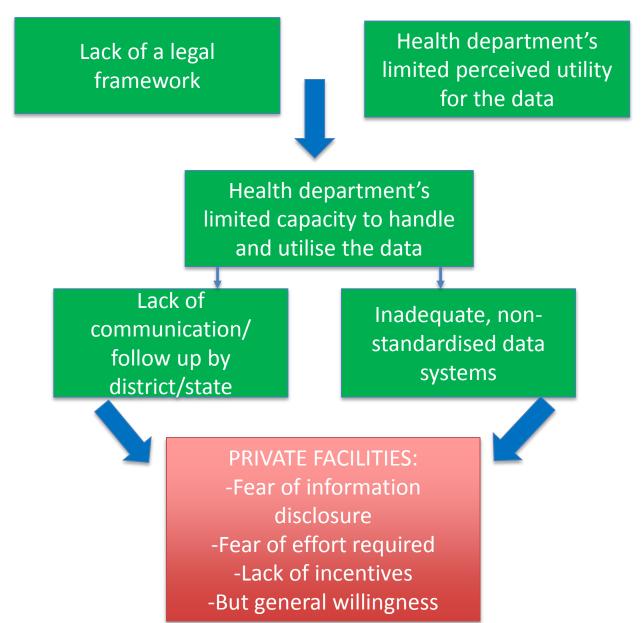
No data sharing:

By private unlicensed facilities





Factors affecting routine MNCH data sharing



Conclusions

- Private sector data is necessary for monitoring health services and outcomes
- Legislation is important but not the only prerequisite for public private data sharing
- Public health departments need to perceive value for data and develop data systems and utilisation mechanisms
- Private sector willingness to share public health data and also for other health engagements needs to be harnessed

Summary

- The 'Data-Informed Platform for Health' introduces a data-based, structured decision-making process at district level
- Literature review shows examples of good practice, but no guideline for decision-making at district level
- Health ministry staff and other stakeholders are receptive
- Private sector (India) shows willingness to participate
- At district level, many health data are available but streamlining is needed
- Feasibility in Nigeria, Ethiopia and India
 - Challenging, need to adapt to context
 - Pilot work ongoing in India