

## MAPPING DIAGNOSTIC DEVICES IN INDIA: a qualitative study

This study is part of a European Research Council funded project investigating the design and use of diagnostic devices in global health (DiaDev). The DiaDev project explores the changing role that diagnostic devices are playing in the transformation of health systems in resource-limited settings. Drawing on novel conceptual and methodological tools from social anthropology, it investigates the social, cultural and technical processes involved in developing, deploying and using diagnostic devices in global health. Through the mapping of diagnostic infrastructures, in-depth ethnographic research and collaborations with stakeholders DiaDev seeks to identify the lessons that can be drawn from the successes and failures of particular diagnostic devices in the places where they are developed and deployed.

The study is coordinated by the University of Edinburgh in collaboration with Kings College London and Kings Health Partners.



## OBJECTIVES

- To develop a transferrable qualitative toolkit to map the strengths and weaknesses of existing rural diagnostic networks. This toolkit will be made widely available in the form of a training manual, and will be designed for use by health researchers who have limited prior qualitative methods training.
- To identify lessons learned from the long-term use and integration of rapid diagnostic tests for malaria and dengue in the rural health system.
- To provide a situation analysis of current diagnostic and laboratory systems for the diagnosis of fever-based diseases in Adilabad district and to identify priority areas for action.
- To better understand interactions between diagnostic devices and other elements of the health system to support health system strengthening.
- To improve understandings of the socio-cultural relationships that underpin technical laboratory systems in India.
- To identify the opportunities and challenges that accompany the development, design and manufacture of innovative diagnostic tools in India.

## KEY QUESTIONS

- What sites, resources and diagnostic practices comprise the current diagnostic infrastructure for fever-based illnesses in India, and how might we map relationships and flows between clinical services, clinical and research laboratories and surveillance systems?
- How did the introduction of Rapid Diagnostic Tests transform the rural health system in Adilabad District and what role do they currently play in disease control efforts?
- What public health problems do communities and rural health workers consider a priority and what role, if any, do/should diagnostic tools play in these?
- What are the key obstacles to diagnostic innovation in India, and what is the experience of people working to develop, design and manufacture diagnostic devices for global health?



## THE RESEARCHERS

### Principal Investigator Dr. Alice Street

Dr. Alice Street is a Senior Lecturer in Social Anthropology at the University of Edinburgh. Dr. Street is a medical anthropologist, whose research has focuses on health systems strengthening, health management and the social life of mobile medical devices in global health.

**Contact:** [alice.street@ed.ac.uk](mailto:alice.street@ed.ac.uk)

### Collaborating Investigator Dr. Nanda Kishore

Dr. Nanda Kishore is a Medical Anthropologist working as Associate Professor in Indian Institute of Public Health Hyderabad. His areas of interests are socio-cultural and ecological concerns of Public Health, Application of technology for inclusive healthcare, Tribal health and Implementation research.

**Contact:** [nandu.k@iphh.org](mailto:nandu.k@iphh.org)

## METHODS

- This participatory, qualitative project draws on a combination of structured and unstructured observations, semi-structured interviews, focus group discussions, and a series of health system mapping techniques - participatory mapping, process mapping, transaction tracing and service availability mapping.
- Qualitative, participatory methods include repeated observation, informal conversations, semi-structured interviews, in depth interviews and literature review, alongside more structured observations, mapping exercises and surveys.
- The methods employed will be built into a qualitative toolkit for mapping national diagnostic infrastructure, and tracing the flows of information, samples, personnel and resources between clinical, laboratory and surveillance services.
- Interviews with diagnostic developers, public bodies, donors, and scientists involved in the development of diagnostic tools for use at the point-of-care.

## COLLABORATION

This project has a collaborative research design. Over the course of the project we will work closely with stakeholders in Telangana's health system and the global health field to refine and adapt the project design, solicit feedback on findings, and develop innovative solutions.

Project website:  
[www.diadev.eu](http://www.diadev.eu)