

## Primary care for chronic conditions in rural India

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# Summary

The objective of this research was to understand how to improve and strengthen care for chronic conditions, like diabetes, in rural India. Chronic conditions are the leading cause of death world over. Low- and middle-income countries such as India bear a large share of this burden. Most of India (up to 70%) lives in villages, many of which even today are remote and hard to reach. The epidemic of non-communicable diseases began initially in urban, high-income regions of India but now is rapidly increasing in rural areas. Sadly though, health care has not kept pace with this rapidly changing pattern of disease. Access and quality of health care for chronic conditions are huge public health challenges in India.

There are many people that are unable to access health care, both geographically and due to the very high cost of quality care. Health care in India is provided both by government and private entities. The preference of private entities is to provide high level tertiary care in cities, while the government remains the main provider of primary and secondary care in rural and remote areas. My research aimed to test local solutions to improve the quality of primary care for chronic conditions provided by the government in a rural region of Southern India.

In order to do so, I first studied the current delivery of care for chronic conditions both in the public and private sectors of health. I identified important gaps in the quality of care such as lack of counselling and support for patients with chronic conditions, lack of regular follow up of patients and processes of care that were centred around doctors and not around patients. I used these insights to co-design with primary care teams of three primary health centres (PHC), a package of interventions to address these gaps. I implemented four interventions; a redesigned workflow for the team, medical records, team-based care and training at PHCs. I evaluated these interventions for effectiveness in treatment outcomes such as control of diabetes and number of follow up visits. At one PHC, implementation was effective, and I was able to show that patients that came for regular follow up had better control of their condition. Even though, only 42% of persons came back for a follow up visit. At the other two PHCs, the implementation of these interventions was challenging and stopped after four months. In one PHC, the team that was engaged from the beginning was transferred; and in another the interventions did not continue after the initial few months. At all three PHCs I found that hierarchies within the health system impeded team-based care whereas team cohesion and the motivation from patients' positive feedback facilitated implementation. The participatory methods used in this research attempted to bring change in the orientation towards team-based care.

Reflections on the findings and a deeper analysis of the local context pointed to the hierarchies within the health care system in India that act as a barrier to team based care. In addition, the orientation of health care delivery towards medicine and treatment and not the person is reasons implementation did not work out as planned. The

insights gained led me to propose and recommend an alternate model of chronic care. I propose a community based, person centred model of chronic care that is engaged with communities, families, and people in their homes. The proposed model of care, places people at the centre of the design and proposes multiple health care workers engaged at the interfaces of the community and health care services. The model has the potential to overcome some of the barriers in terms of time constraint by proposing roles for additional community health workers. More importantly, the model has the potential to change the traditional hierarchical structures towards a people centred approach. A statement of the underlying values of a chronic care model such as personcentred care and team-based care, reorients and serves as reminders of the centrality of people in the model of care.

The health system research presented in this thesis is a step towards reorientation of health care delivery in rural India towards a person- centred model of chronic care that enables continuity, coordination and engagement with people and communities.