

**Alliance for Health Policy and Systems Research  
Flagship Report 2014**

**Medicines in Health Systems: Advancing access, affordability  
and appropriate use**

**Chapter 5 – Annex 2**

**Task-shifting to peer educators in Cambodia**

Natalie Eggermont<sup>1</sup>, Josefien van Olmen<sup>1</sup>, Maurits van Pelt<sup>2</sup>, Wim van Damme<sup>1</sup>

<sup>1</sup>Institute of Tropical Medicine, Antwerp

<sup>2</sup> MoPoTsyo, Cambodia

**Chronic Life-Long Conditions** (CLLC) are the most important cause of mortality worldwide and the major burden falls in low and middle income countries (LMICs), posing a serious threat to social and economic development. (1)

In this **case-study**, we describe and evaluate the work of a Cambodian NGO, named 'MoPoTsyo'. The NGO aims to empower people living with diabetes to self-manage their condition by creating networks of community-based diabetes peer educators. The case study sets forth to

1. describe the activities of the peer-educator networks (PENs) and how they have evolved over time in response to a changing environment;
2. discuss the results achieved by the intervention, looking at both intended and unintended consequences of the networks on patients, health workers and other actors involved in the intervention;
3. explore the perspective of key stakeholders in the Cambodian health system vis-à-vis the peer-educator networks.

The methodology consisted of a literature review of both published and grey literature, extended with field research in a rural district with a mature PEN. During the fieldwork semi-structured interviews were conducted with various stakeholders; including NGO staff, front-line health workers, pharmacists and policy makers. Data from all these sources was triangulated and a draft of the case-study was reviewed by key informants to increase validity.

**MoPoTsyo** establishes patient networks organizing diabetes screening and care in the community, anchored on peer-educators. Peer-educators, previously patients in the program, start their work by screening for diabetes in the community, using urine strips. The rest of their activities (on average half a day per week) focus on providing community members living with diabetes and/or hypertension with reliable information and basic skills. The emphasis is on self-measurement of glucose levels and adaptation of life style, including nutrition and daily exercise (2). Since its conception, the activities of the NGO have grown substantially in response to emerging challenges and gaps in the health care system. At the start, the activities of the peer-educators complemented another NGO project, running a diabetes clinic where patients could go for consultations, laboratory testing and medication. When funding dried out and prices at the clinic started to rise, MoPoTsyo management decided to start supplying medicines for their members through a *Revolving Drug Fund*. MoPoTsyo procures a set of diabetes and hypertension medicines on the international market and sells them to contracted pharmacies, which sell them to patients at a fixed price per tablet. The revenue is used to sustain the supply of medicines. Until recently most contracted pharmacies were private pharmacies, but the NGO is now also working with pharmacy outlets within public facilities. In addition to getting involved in medicine supply, MoPoTsyo started to organize medical consultations and laboratory services for its members after rolling out

networks in rural areas where trained professionals and equipment are scant. Consultations are carried out by a diabetes specialist contracted by the NGO and take place twice a month in the district referral hospital, in each district where a PEN exists. During the consultations, the peer educator is responsible for crowd control, registration, blood pressure and blood glucose measurement, weighing and other functions usually performed by nurses. Blood sample collection for the laboratory tests is carried out in the community and specimens are transported to the central lab. Other services, like eye screening, are organized in collaboration with external (private not for profit) clinics. The patients pay a modest fee for all of these services; the poorest are covered by a Health Equity Fund. The peer-educator plays a central role in guiding the patient through these services and deciding at which time they should be accessed. They receive an incentive for each of their activities (screening, monitoring, education sessions) and a travel reimbursement. In addition, a bonus is provided based upon the evaluation of their work through the NGO's monitoring and evaluation system. The services were initially organized in a rather vertical way, with little integration into the public health system, but the NGO is increasingly trying to involve local authorities and health facilities. Interestingly, for some Operational Districts, the decision has been made that the government will take over the management of the PEN. (3)

Overall, the PENs achieve good **outcomes**. The network reaches 32.8% of the target population and currently has 12 496 people registered (4). A previous external evaluation in one of the rural areas where peer-educators are active has demonstrated positive results of the intervention in terms of health outcomes, ability to self-manage and treatment adherence. Significant improvements in fasting blood glucose (FBG) and both systolic and diastolic blood pressure (BP) were observed in patients after being in the program for at least 2 years, with about one third of patients reaching treatment target for FBG and two thirds for BP. More than two-thirds of patients reported improvement (“better” or “much better” on a visual analogue scale) in terms of health, ability to control their condition and adherence to both medication and life-style adjustments; compared to before they had joined the program. (2) There are some important challenges, however. Some peer educators start taking up tasks that are not part of their formal package or do not adequately refer patients to the health centre when necessary (2). There is also evidence from internal evaluations that some peer educators abuse the incentive system to earn money. Other challenges relate to the Revolving Drug Fund. Currently, there are only a limited number of pharmacies contracted and some patients have to travel quite far to get their medicines. In addition, some of the pharmacies have inconvenient opening hours with the result that patients find the door closed after a morning of travelling. In some areas the peer educator takes up an active role as mediator: they collect the medicines for their patients and prepare them in separate packages at home, distributing them when the patients come for education sessions or follow-up.

**Stakeholders’ perception** of the PENs was generally positive, but there were important differences between the health centre areas – each covered by another peer-educator. Some peer-educators take up an active role liaising with health workers, while others remain passive. In areas with active peers, front-line health workers referred each diabetes patient to the peer-educator and saw this as a beneficial cooperation for both parties. In the others, patients presenting with diabetes were referred to the district hospital. In none of the areas, we found signs of competition between the network and other health service providers. Respondents pointed out that, before the existence of the PEN, patients were at home, sick and unaware of their diagnosis, and now they come to the health centre and the pharmacy for treatment, bringing relatives and buying other products. Regarding task-shifting to expert patients all respondents recognized the important role patients can play in community-outreach and patient counselling and support. However, opinions varied around the extent to which peer-educators can provide care for diabetes and the extent to which the network as a whole can organize services. While the peer-educators themselves had the feeling they could extend their roles if properly trained – e.g. prescribing medicines – most health workers and managers saw patient-experts as one actor in a wider system, in which each actor carries different roles and responsibilities. The role of peer-educators, in their view, should be limited to health promotion and prevention activities. Managers also did not

think the networks should take on as much responsibility in terms of service delivery as they are doing now. They emphasized that the health system should be responsible for lab services, consultations and medicine supply. The weak collaboration of the NGO with the public health system was seen as a serious problem. The MoH condemned the verticalized approach of the networks, organizing services in parallel to the public health system, and questioned its sustainability. There was concern the activities would stop in case donor funding dries out. Concerning the Revolving Drug Fund, contracted pharmacies were mostly positive. Although working with the NGO implied an administrative burden, the partnership brought benefits to the pharmacies: patients bought other products and boosted the pharmacies' reputation in their village, bringing new customers. Other pharmacies did not seem to regard the contracting as unfair competition: most of them did not sell any diabetes medicines and, for those who did, it didn't constitute an important part of their revenue base. Managers however did see a problem with the Revolving Drug Fund, as it goes against official government policy that medicines should be provided for free. Finally, the stakeholders had a different vision for diabetes care in Cambodia in the future. All non-MoPoTsyo staff saw the networks as a transition phase towards a more clinic-based model, with an essential package of intervention offered by qualified nurses at health centers and specialized care in diabetes clinics. The PENs would continue to have a role in community outreach and health promotion. Within the NGO, by contrast, the long-term vision is to expand the responsibility of the peer educators and to continue the service delivery as currently organized by the networks. The role of doctors would be marginalized to rare complicated cases and to start or adjust treatment when deemed necessary by the peer. They support more integration with the public health system but believe patients should remain *central* agents in the provision of diabetes care via self-management and peer-support.

Some important **lessons** come out of this case-study. One is that, to improve access to medicines for CLLC in LMICs different building blocks of the health system should be addressed (5). The intervention, initially focusing on patient counselling, has grown into a comprehensive intervention, now including medicine supply, laboratory services and medical consultations in collaboration with health authorities. Another lesson is the importance of adaptive change. We cannot take the model of the PENs and implement it in another context; a successful intervention requires learning and adaptation along the way. It is essential to understand *how* and *why* the PENs have changed over time. Key to success is to build processes for learning and flexible implementation (6). An important challenge, relevant for many NGO projects, is to develop rather than to distort the health market (7). In fighting CLLCs we should avoid repeating previous mistakes of vertical programs depending almost entirely on external funding. MoPoTsyo has developed internal mechanisms for sustainable financing and is increasingly working together with health authorities. When monitoring outcomes attention should be paid to both

intended and unintended effects, so the influence of one intervention on the health market as a whole can be assessed and adaptive changes made where necessary.

## References

1. WHO (2011) Global status report on noncommunicable diseases 2010. Available at <[http://www.who.int/nmh/publications/ncd\\_report2010/en/](http://www.who.int/nmh/publications/ncd_report2010/en/)>
2. Eggermont N (2011) Evaluation of a peer-education program for diabetes and hypertension in rural Cambodia. Thesis submitted for the degree of master in medicine, Ghent University. Available at <<http://ebookbrowse.com/thesis-natalie-mopotsyo-evaluation-pdf-d352080109>>
3. MoPoTsyo (2011) Peer Educator Networks for people with diabetes mellitus and/or high blood pressure in Cambodia – ‘Healing a market for health’ 2005-2010.
4. MoPoTsyo (2013) Annual report 2012.
5. Bigdeli M *et al.* (2013) Access to medicines from a health system perspective. *Health Policy and Planning* 28, no. 7: 692–704.

6. Paina L and Peters DH (2012) Understanding Pathways for Scaling up Health Services Through the Lens of Complex Adaptive Systems. *Health Policy and Planning* 27, no. 5: 365–373.
7. Peters DH, Paina L and Bennett S (2012) Expecting the unexpected: applying the Develop-Distort Dilemma to maximize positive market impacts in health. *Health Policy and Planning* 27 Suppl 4: iv44–53.