Revitalising primary health care

the role of lay health workers

Lay or community workers can be a valuable resource in response to the human resource crisis in many low- and middle-income countries. Successful interventions by lay health workers have led to improvements in maternal and child health, including reductions in mortality and morbidity from common childhood illnesses, and effective support to people receiving treatment for tuberculosis. Simon Lewin and Claire Glenton of the LAYVAC (Lay health workers for vaccination) Project Group give more of the story.

Thirty years after the Alma-Ata Declaration, the World Health Organization (WHO) and a wide range of other agencies are calling for the revitalisation and reinvigoration of the primary health care approach. A key component of primary health care as envisaged at Alma-Ata is the lay or community health worker (LHW). The 1970s saw the rapid expansion of many LHW programmes in low- and middle-income settings. For example, the Auxiliares de Medicina Simplificada (Simplified Medicine Auxiliaries) programme in Venezuela trained thousands of LHWs, or "little doctors" as they are known locally, to provide health services to indigenous groups and isolated communities across the country. Recruited from the communities they serve, and skilled in primary health care, this cadre are still respected locally for their medical proficiency.

In Nepal, the Female Community Health Volunteer (FCHV) Programme, established by the government in 1988, now has more than 48,000 trained women who spend on average five to six hours a week on activities tied primarily to maternal and child health. The FCHVs are trained to deliver a number of key interventions, including the distribution of vitamin A supplements and oral rehydration salts; antenatal care; participation in vaccination campaigns; and, in some cases, the diagnosis and treatment of childhood pneumonia. The programme is generally seen as a key contributor to the decrease that Nepal has achieved in childhood mortality and morbidity over the last two decades.

Across a wide range of settings in both the North and the South, LHWs perform diverse functions related to health care delivery. The term 'lay health worker' is broad in scope and includes, for example, community health workers, village health workers, health promoters, treatment supporters and birth attendants. While LHWs are usually provided with informal job-related training, they have no formal professional or para-professional tertiary education and can be involved in either paid work, as in the Venezuelan programme, or voluntary care, as in the Nepalese FCHV system.

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The renewed interest in LHWs has been prompted by a number of factors. These include the human resource crisis in the health care systems of many low- and middle-income countries; the AIDS epidemic; the resurgence of other infectious diseases such as tuberculosis (TB); and the difficulties faced by the formal health system in providing adequate care for people with chronic illnesses. An increasing emphasis on partnership with community-based organisations and consumer involvement in health care has also contributed to this renewed interest in some settings. It has been suggested widely that LHWs may play an important role in extending services to 'hard to reach' groups and in substituting for health professionals in a range of tasks, thereby helping to achieve the Millennium Development Goals for health.

This interest in LHW programmes has also revived questions regarding the effectiveness and cost of such programmes. Before scaling up these interventions, policy makers need evidence that they do more good than harm.

Evidence on the effectiveness of LHW interventions is developing rapidly. A global review of best evidence in this area, undertaken as part of a Norwegian Research Council funded study of LHW programmes (see http://sintef.org/Teknologi-og-samfunn/global-helse/Helsetjenester/LayVac/), identified a number of important messages. The review shows that the use of LHWs in maternal and child health programmes can have promising benefits across a range of outcomes, compared to usual care or no intervention. These benefits include increasing the uptake of immunisation in children and promoting breastfeeding, particularly in settings where breastfeeding rates are low. The review also concludes that LHWs can be effective in reducing mortality and morbidity from common childhood illnesses, including acute respiratory infections (ARI), malaria, diarrhoea, malnutrition and other illnesses during the neonatal period. The tasks undertaken by the LHWs in

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these studies were wide. They included educating mothers in their homes and in the community about ARI, malaria, and immunisation; distribution of de-worming tablets and vaccines; first line treatment of cases, for example with anti-malarials or antibiotics; and referral of severe cases to health facilities.

The review also suggests that LHWs can successfully support people receiving treatment for TB and achieve treatment outcomes equivalent to support delivered by professional providers. In addition to supervising and supporting TB treatment, tasks undertaken by the LHWs in these studies included the follow up of patients who had failed to adhere to treatment and referral of patients with TB-like symptoms. Other studies in the review, focusing on chronic diseases such as hypertension, suggest that here also LHWs can provide supportive care effectively.

A key question for policy-makers in low and middle income country settings is the extent to which this research evidence is applicable to their setting. Factors that need to be considered in assessing whether the effects of LHW programmes, as outlined above, are likely to be transferable to other settings include:

- Whether the studies from which the evidence was drawn were conducted in similar settings to that in which the implementation decision is being taken.
- Whether there are important differences in on-the-ground realities and constraints that might substantially alter the feasibility and acceptability of a LHW programme, compared to the sites in which the studies were done. For example, whether there is financial and political support for LHW programmes, including support from health professional organisations.
- Whether there are important differences in health system arrangements that may mean that a LHW programme could not work in the same way as in the sites in which the studies were conducted. For example, if there is no mechanism for employing LHWs within the public health system in the implementation setting.
- Whether there are important differences in the baseline conditions between where the studies were done and the implementation setting. For example, if the incidence of TB is much lower than in the study settings, perhaps making it less cost-effective to employ LHWs to support TB patients.
- The availability of routine data on who might benefit from the intervention (e.g. children whose immunisation is not up-to-date). Such data are needed to target these programmes towards the areas of greatest need.
- Whether there are sufficient resources to provide ongoing clinical and managerial support for LHWs and to ensure the availability of supplies and equipment, such drugs and vaccines.

(also see http://www.hpme.utoronto.ca/Assets/events/hsr07/lavis2.pdf)

Improving access to primary health care since Alma-Ata has faltered in many countries. LHWs are one of a number of promising health systems strategies to improve the delivery and performance of primary health care in low- and middle-income settings. These programmes need to be tailored to local circumstances and health systems and, where the evidence base is weak, implemented in the context of rigorous evaluation.

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