Community health workers can play an important role in the prevention and control of non-communicable diseases in poor communities

Countries in transition, such as South Africa, are particularly affected by the increased prevalence of obesity across all economic levels and age groups. Shifts in dietary intake and physical activity patterns to higher fat intake and inactivity are thought to be contributing factors. Prevention and treatment of obesity is therefore necessary to prevent the development of non-communicable diseases (NCDs). Such interventions should be based on education, behaviour change, community participation and local action. In this regard, adequately resourced prevention and intervention programmes should be planned, monitored and evaluated properly.[1] There is an unacceptable gap between knowledge on the development of risk factors associated with NCDs and the translation of this knowledge into successfully implemented intervention programmes.[2] The article by Puoane *et al*.[3] in the current issue of SAJCN is a good example of a community intervention planned as a partnership between an academic research group and community health workers (CHWs) from the community.

The benefits of physical activity for the prevention and control of NCDs are well known.[4-6] Walking is a key focus of public health interventions, but walking for fun is not customary in rural areas.[7] In the study by Puoane *et al*.[3] barriers to physical activity of the CHWs trained to implement this intervention were assessed during stage 1 of the intervention. Early in the planning phase, the health risks of high-fat diets and obesity were explained to the CHWs, who themselves realised that they needed health education.

Community intervention programmes are most likely to be successful if a collaborative approach of participatory research is used.[7-9] Although the knowledge of research investigators can catalogue important factors in the planning of an intervention, community co-investigators or health workers can contribute experiential knowledge of the environment and the community.[8] Community participation is a key principle of the primary health care approach and increases a sense of ownership, thus leading to sustainability of an intervention.[9] Participation of community members may not only result in modification of the initial goals set for an intervention, but it may also contribute, even after the intervention starts, to its sustainability.[8,9]

Success in community-based programmes also depends on socio-political, technical and financial factors.[2,9] Socio-political factors relate to power and social relationships which influence decision-making in a society to support such intervention programmes. Technical factors include the facilities necessary for implementation and the technical ability of the programme personnel to design, implement and evaluate it. Financial factors include external and internal financial support to sustain the programme.[9] In the community intervention described by Puoane *et al*.[3] a great effort was made technically to develop a training manual in co-operation with the CHWs and to empower them with the necessary knowledge to implement the intervention. The intervention was initially funded externally. Regrettably the funding ended by the end of 2003, which not only slowed progress but also underscored the important interplay of these factors in the successful implementation of such programmes.

Socio-political factors affect the physical and social environment of a community. The physical environment also plays an important role in shaping dietary and physical activity behaviours.[10] Environmental determinants of physical activity are often modifiable and can be addressed in interventions. A high crime level in a community and lack of recreation facilities were significantly associated with low levels of moderate and vigorous physical activity. Interestingly, physical activity and inactivity have been found to be associated with very different determinants. Being physically active was most associated with physical environmental factors, whereas inactivity was most associated with socio-demographic factors, such as low maternal education level and low family income.[11,12] The social environment seems to be an even more important independent predictor of physical activity. A study among adults from six European countries showed that low social support from family, friends, school and the workplace contributed significantly to being sedentary.[12] Often these social environmental factors are difficult to address in intervention programmes. Recently a new

initiative, 'Vuka South Africa – Move for your Health', was launched by the South African Department of Health to promote physical activity.[13] The first aim of this initiative is in line with the 'Annual Global Move for Health Initiative' and is to facilitate the development of sustained national and local physical activity initiatives, policies and programmes via a network involving all stakeholders. The information pack and guidelines for the initiative include ideas and examples of how physical activity can be encouraged in different settings. It is to be hoped that this initiative, strongly supported by the Minister of Health, will help get decision-makers to demonstrate political will to initiate and support community-based physical activity interventions to prevent the emerging epidemic of NCDs. More facilities and events where people from resource-poor environments can participate in physical activity in a safe environment are urgently needed.

It is always important to evaluate the sustainability of public health intervention programmes. Sustainability has been defined as continued programme activities, continued measured benefits of the programme for participants and maintained community capacity. Factors influencing sustainability include adaptable programmes, the presence of a 'champion' in the programme environment, the compatibility of the programme with an organisation's mission and procedures, clear benefits for participants and support from stakeholders in other organisations.[14] Permanently appointed CHWs can continue with programme activities and encourage continued community participation. Participatory action research can identify constraints to the success of interventions and inadequacies in the performance of health staff, which can be addressed by additional training as necessary.[2] Research on the outcomes of interventions can make the benefits of the interventions known to the participants, which would encourage them to continue with the programme activities. Furthermore, and as mentioned earlier, community participation during the planning stage will also increase the compatibility of an intervention with the participants' own health aims.[7,9]

In the final analysis, it is only when more research organisations actively promote implementation research and policymakers demand the evaluation of such interventions that the gap between knowledge and implementation of knowledge to prevent NCDs may be reduced.[2] In this regard, previous community interventions to promote walking have had limited success.[7,15,16] Multi-level interventions using a participatory approach, however, did help to bring about changes in behaviour, as well as in the environment,[7,15,16] and showed that 'small steps' to increase physical activity have the potential to promote healthful lifestyle changes that improve quality of life.[6,16] Against this background, of particular importance in the present study[3] was the finding that CHWs were motivated to take action to improve their own lifestyles and to initiate a community event, 'Walk for Life and Prevent Chronic Diseases'. These actions underline the important role CHWs can play in the prevention of NCDs. The fact that progress was hindered when external funding of the programme was ended has important implications for sustainability of any such interventions. It is to be hoped that more permanent positions for CHWs in resource-poor communities can be established within the Department of Health, so that some of these CHWs can focus specifically on the prevention of NCDs. Additional benefits will be job creation and the possibility of curtailing health expenditure for chronic medication for the treatment of type 2 diabetes and hypertension in government clinics.[4,5,6,15]

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