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Empowerment of Women and Girls

A Case Study of Community-Level Intervention for Non-Communicable Diseases in Khayelitsha, Cape Town

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September 2013

The IDS programme on Strengthening Evidence-based Policy works across seven key themes. Each theme works with partner institutions to co-construct policy-relevant knowledge and engage in policy-influencing processes. This material has been developed under the Empowerment of Women and Girls theme.

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A CASE STUDY OF COMMUNITY-LEVEL INTERVENTION FOR NON-COMMUNICABLE DISEASES IN KHAYELITSHA, CAPE TOWN

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List of Abbreviations

BMI	Body mass index
CDL	Chronic diseases of lifestyle
CHWs	Community health workers
CVD	Cardiovascular disease
DOH	Department of Health
LMIC/MIC	Low and middle-income countries
NCDs	Non-communicable diseases
NGO	Non-governmental organisation
PHC	Primary health care
SACLA	South African Christian Leadership Assembly
TB DOTS	Tuberculosis directly observed treatment, short-course
VRHI	Vietnamese REACH for Heath Initiative
WHO	World Health Organization

1 Background

1.1 Introduction

Non-communicable diseases (NCDs) have become a major cause of mortality globally, but especially in low and middle-income countries (LMIC), where nearly 80 per cent of all NCD related deaths occur (World Health Organization (WHO), 2011). South Africa, a middle-income country (MIC), has begun to grapple with the effect of a high burden of disease imposed by NCDs along with other diseases and conditions (Bradshaw *et al*. 2002). In 2004, NCDs related to dietary intake, such as cardiovascular disease (CVD), diabetes mellitus, along with certain cancers and respiratory diseases were responsible for 12 per cent of the global disease burden (Mayosi *et al*. 2009). In the Western Cape Province, where the intervention in question was implemented, NCDs were the leading cause of mortality in adults aged 40 years and older in a pooled estimate of causes of death between 2003 and 2006 (Groenewald *et al*. 2008).

The mortality pattern reflects the differential impact that NCDs have on sections of a 'community' with particularly higher rates in the poorer areas (*ibid*. 2008). Deaths resulting from all NCDs were highest in two of the poorest sub-districts in the Cape Town Municipality between 2003 and 2006. These were 844.3 per 100,000 in Khayelitsha and 810.1 per 100,000 in Mitchell's Plain, compared to 431.8 and 540.2 per 100,000 recorded in the wealthier Northern and Western sub-districts, respectively (Groenewald *et al*. 2008). Mortality rates for NCDs in the two poorer sub-districts were well above the national and provincial averages for the same period. Apart from the burden posed by NCDs, Khayelitsha has the highest burden of HIV and AIDS compared to other districts (Groenewald *et al*. 2008). Studies have shown that women, especially in developing countries, are the worst affected by this pandemic compared to male counterparts. Over the years researchers have found a link between HIV and the development of NCDs. It has been reported that those with HIV infection have an increased risk of infectious diseases as well as NCDs such as cancer and diabetes (UNAIDS 2011). Furthermore, antiretroviral treatment has been associated with increased risk of hyperlipidaemia (Segarra-Newnham 2002), diabetes and hypertension (Diouf *et al*. 2012). This raises the importance of integrating the management of chronic conditions such as HIV and AIDS with NCDs, as well as the inclusion of NCDs in women's health programmes.

NCDs are associated with modifiable personal, social and environmental factors, which in turn, are related to a complexity of several factors including economic and political (Puoane *et al*. 2013). Lifestyle factors such as smoking, alcohol abuse and physical inactivity, along with obesity, which is largely triggered by unhealthy food consumption, are known to contribute to the NCD epidemic. All known CVD risk factors, such as hypertension, obesity, diabetes, smoking and alcohol abuse, have been shown to be more prevalent among poorer communities such as in Khayelitsha and Mitchell's Plain in comparison to other wealthier neighbourhoods, even within the same province (Groenewald *et al*. 2008).

Obesity has been found to be more prevalent among females of African descent (Puoane *et al*. 2002). In addition, in the South African Demographic Survey it was reported that 55 per cent of women and 30 per cent of men were considered overweight or obese (Department of Health 2007). Disturbingly, a similar pattern was observed in the South African Youth Risk Behaviour Study in 2008, where 19.5 per cent of adolescents aged 13–19 years were overweight and 5.3 per cent were obese, and significantly more females (7.2 per cent [5.6 – 9.3]) than males (3.3 per cent [2.1 – 5.4]) were obese (Reddy *et al*. 2010). Additional evidence shows that NCDs do not begin in middle adulthood, but much earlier in the

lifespan, suggesting the importance of research and interventions in earlier life stages to prevent later onset (Barouki *et al*. 2012).

Effective NCD reduction will have to acknowledge the multifaceted nature of the drivers of the epidemic and incorporate a multi-layered approach (WHO 2012). In South Africa, as in most developing nations, detection and management of NCDs take place predominantly in health facilities (DOH 2011) in a health system already weakened by a human resource crisis and poor health infrastructure among other factors. Existing health systems need to be reorganised and refocused – including the integration of community health workers (CHWs) – if expanded prevention, surveillance and management of chronic illnesses including NCDs (Reddy 2003) are to be achieved.

Empirical evidence points to the growing need to utilise the services of CHWs both for bridging the human resources gap and ensuring effective delivery of preventive and health promotion services to individuals and communities (Earth Institute 2013 and McCord *et al*. 2013). In North Carolina USA, the Eastern band Cherokee Indian women project demonstrated that women who were exposed to health education delivered by CHWs had better knowledge of cervical cancer screening and had more Pap-smear tests done in the preceding year compared to women in the control group who had no exposure to CHWs (Bouchon 2012). In South Africa, the Kgatelopele CHW programme was initiated by the Gauteng Provincial Department of Health in collaboration with a Non-governmental organisation, Hands of Hope. This programme provides another example of the usefulness of CHWs in improving hypertension and diabetes management among patients through home services carried out by CHWs. The project showed that participants who were managed by a CHW in addition to clinical management demonstrated a slight improvement in their blood pressure compared to those without any CHW contact. This was despite the programme not meeting many requirements of a standard CHW programme (Ndou *et al*. 2013).

Besides impacting on NCDs, ample examples exist showing the effectiveness of CHWs in improving health outcomes among communities in the developing world. In California, USA, the Vietnamese REACH for Heath Initiative (VRHI) managed to improve the number of local women who sought and had Pap-smear testing, mammogram or clinical breast examination for the early detection of cancer after encounters with CHWs compared to those who had no such encounter (Trust for America's Health 2009). In Bangladesh, a community intervention project utilising CHWs to deliver home messages resulted in improved health-seeking behaviour among pregnant women and better health outcome for their newborns (Baqui and El-Arifeen 2007).

1.2 Current policy responses and debates

There has been a growing interest in tackling the burden of NCDs in South Africa. In September 2011, the South African government convened a summit on the 'Prevention and Control of Non-Communicable Diseases' which produced a declaration that endorsed action aimed at various levels of risk factors, i.e. behavioural, environmental and structural, and further acknowledged the need for intersectoral collaboration.

A Strategic Plan for Non-Communicable Diseases, 2012–2016, which provides a framework for reducing the burden of NCDs has been made available. The plan proposes a comprehensive approach to combat NCDs and focuses on three strategies: (1) prevention of NCDs and promotion of health and wellness at population, community and individual levels; (2) improving the control of NCDs through health systems strengthening and reform; and (3) monitoring of NCDs and their main risk factors and conducting innovative research.

A new holistic approach has been advocated with the 'integrated World Health Organization chronic disease model of care', Strengthening Primary health care, and the development of community-based care to support health centres and people with NCDs in the forefront (Bradshaw *et al*. 2011). This recognises the importance of community involvement in the race against NCDs and the need to utilise resources in communities for action.

The South African government has adopted the Primary Health Care (PHC) re-engineering strategy as a means of strengthening the effectiveness of the current health system. This approach has the potential to address NCDs comprehensively as its focus will be on health promotion, disease prevention and referral for curative care to improve health outcomes (DOH 2011). This approach will also assist in building the capacity of CHWs in the management of chronic conditions and provide support to CHWs through a professional nurse, health promoter and environmental officer who form part of the PHC outreach team.

In 2001 the School of Public Health at University of the Western Cape (UWC) commenced the implementation of an intervention to address the burden of NCDs in a low-resource area of Khayelitsha, an urban township of Cape Town. The intervention involved working with community health workers and engaging them as change agents to reach out in this community to address NCDs. Community members, mostly females, were screened for individual risk factors and the CHWs were trained to promote healthy lifestyles. Between 2001 and 2005 the intervention was implemented in five stages, which included collecting baseline data for analysis by the research team and subsequent evaluation of the measures taken. This case study is a description and reflection on this original intervention as it was implemented between2001 and 2005, and a reflection on its subsequent evolution. The case study has been prepared by UWC researchers in March–April 2013. Ethics permission was granted by the UWC ethics committee for interviews to be conducted with key stakeholders in order to assess the current status and the extent of knowledge about the NCD specific measures that were implemented from 2001–2005. Stakeholders were also asked to offer their opinions as to what a 'good practice' intervention to address NCDs in Khayelitsha should include.

The case study has been written up as a contribution to the Empowerment of Women and Girls theme of the Accountable Grant at the Institute of Development Studies (IDS). In particular it relates to the sub-theme that focuses on the health of women and girls in rapidly urbanising settings in Kenya and South Africa.

NCDs are affecting both men and women in a setting like Khayelitsha. However, there are particular factors that need to be considered with respect to the way in which this burden of disease impacts on the health of women and girls in such contexts. In Khayelitsha, women are centrally involved in purchasing and preparing food, and it is also not uncommon for women to work in the informal sector selling prepared foodstuffs. Women are also affected by the pervasive insecurity of this area, which has a limited number of safe spaces for doing physical activity. A high proportion of CHWs in such a setting are women. Therefore, it is opportune to consider the extent to which an intervention like the one being described and reflected upon in this case study is better able to address the NCD burden affecting women in rapidly urbanising contexts. How might an intervention of this nature speak to current policy plans of the South African government to address the burden of NCDs and to expand the use of CHWs? Can an intervention like the one described in this case study influence 'good practice' and speak to interventions being designed for the broader population?

The case study is structured in the following way. Section 2 outlines the intervention as it was implemented in stages between 2001–2005. Section 3 reports on the interviews that have been conducted with stakeholders in March and April 2013. Section 4 discusses the interview data and reflects upon the implications for the current policy plans for addresses the burden of NCDs in South Africa. Section 5 concludes the case study with a view to future

interventions to address the NCD burden, specifically for women and girls, in contexts like Khayelitsha.

2 Description of the intervention

A community-based intervention programme to increase community awareness about primary prevention of NCDs was implemented in Khayelitsha from 2001–2005. The project was initiated in response to community requests after an increased number of people were found suffering from hypertension and diabetes. This project aimed to develop a NCD model with the assistance of CHWs, informed by the WHO strategy for prevention and control of NCDs (WHO 2004).

2.1 Setting

This project took place at two informal sub-sections in Khayelitsha, with a population in the region of 400,000. About 70 per cent of households have a size of 4.0 people and 54.1 per cent of the population is unemployed (Khayelitsha ALHDC 2005). Many people from rural areas move to Khayelitsha in search for jobs, though opportunities are scarce. The project estimated to benefit a target population of approximately 1,000 households in Sites B and C (two of the designated residential neighbourhoods) of this township.

The living environment of Khayelitsha 2005. Photograph by School of Public Health

2.2 Community intervention model

CHWs, lay people with a minimum basic education, are selected by the community where they live. Their role in Health Promotion and Prevention is being increasingly recognised in the health sector and at the level of policymakers. At the time of the intervention, CHWs who participated were employed by Zanempilo, a large non-governmental organisation (NGO) that was active in the area for more than two decades, with the aim of improving health in the community. Each CHW took care of an area comprising 100–150 households. They spent their time making 'home visits' in their area, administering directly observed short-course therapy for tuberculosis (TB DOTS), family planning and were also involved in community events to promote health and prevent disease. In 2000, Zanempilo added a health-promotion component to their activities, which focused on reducing CVD risk factors, as a request from the community.

This project included 44 CHWs, residing in Site B and Site C, Khayelitsha, who were targeted to serve as change agents because of their instrumental role in the community.

They were mostly women (80 per cent) of whom 80 per cent lived in informal shacks and 20 per cent in formal housing. Their ages ranged between 28 and 60 years (mean 43.2±7.2 years). Their average educational level was ten years' schooling. Community-based programmes in many countries have found that with appropriate training, experienced CHWs can be effective motivators (Manandhar *et al*., 2004).

2.3 Framework for intervention

A health promotion approach, based on the framework provided by the Ottawa Charter (WHO 1987) was employed in developing this community-based intervention. The development of personal skills among health workers was essential to strengthen community action in demanding an environment that promotes healthy choices, which should translate into reorientation of health services and public policy.

The CHWs' intervention process followed five development stages which utilised a triple-A approach to identify the causes of unhealthy behaviours and action taken to modify these. Table 2.1 outlines these steps.

Table 2.1 Community health workers' intervention process in Khayelitsha (2001–2005)

Stages of intervention process	Key activities
Stage 1 (2001): Assessment of the risk factors among CHWs	• Anthropometric measurements. • Eating patterns. • Perceptions of body weight and body images. • Barriers to physical activity.
Stage 2 (2001): Assessment of the risk factors among the community members	• A community survey with measures similar to those used in stage 1.
Stage 3 (2002): Situational analysis by CHWs	• Mapping exercise to identify locations and resources that contribute to unhealthy lifestyles. • Setting agenda to discuss the magnitude of the problems and the importance of primary prevention of the risk factors.
Stage 4 (2002–2003) Training programme for the CHWs	• Development of a training programme for CHWs to equip them with essential knowledge and skills to modify their lifestyles and be a change agent to their community. • Participatory training programme was given to the CHWs in forms of lectures, practice with visual aids and case study – Training Manual was developed. • Setting goals for actions to modify lifestyle behaviours: reduction in salt, sugar and fat consumption, and food portion sizes; weight loss and increase in physical activity were high on the agenda.
Stage 5 (2004–2005): Community inventions by CHWs	Activities planned and implemented by the CHWs: • Fun walk: 'Walk for Life' and 'Health Walk'.

	• Diabetes awareness drama. Health club: weekly sessions including baseline measurements; physical activity; and talks and discussion on nutrition, healthy cooking and benefits of physical activity as well as other topics.

2.3.1 Stage 1: Assessment of the risk factors for NCDs in the CHWs (2001)

CHWs from Sites B and C had their own anthropometric parameters and eating patterns assessed. Knowledge, beliefs and attitudes about their body weight, body image and barriers to physical activity were explored. Data collection took place from September 2000 to August 2001.

Anthropometric measurements of all CHWs were taken by trained research assistants using a standard protocol, while information on eating patterns was collected through structured interviews. Focus group discussions were used to explore perceptions about the causes, advantages and disadvantages of being overweight, reasons for consuming fat and food preparation methods, and barriers to physical activity. They took photographs to provide visual images of food portion sizes and observations in the areas visited, such as street vendors selling unhealthy food and liquor stores.

Key findings from this stage (Table 2.2) showed that a large percentage (95 per cent) of CHWs were overweight (body mass index (BMI) 25–29 kg/m^2) or obese (BMI >30), and therefore at risk for developing NCDs (Puoane *et al*. 2005). The CHWs also had misconceptions about causes and treatment of hypertension and diabetes (Sengwana and Puoane 2004). Eating patterns revealed the consumption of cheap fatty fried foods. Reasons for consuming fried food were taste, satisfaction, and what it does to the body: 'If you are plump, you look happy and people think that you can afford to feed yourself' (Puoane 2004). The CHWs lacked knowledge on nutrition and the risk of high fat intake, which was indicated by statements i.e., 'People who boil food are not civilised. Fried food is attractive, tasty – like *Chicken Lick'n*'. 'Chicken skin is very tasty because it contains fat. It makes you satisfied. We can't throw the skin away. We even buy skin and fat from local shops.' (Chopra and Puoane 2003). Observation of cooking methods revealed unhealthy practices, such as cooking chicken with skin in 300 ml cooking oil. Portion sizes served were almost triple the suggested serving size (Puoane *et al*. 2005). Photographs of local shops confirmed the information provided by CHWs that unhealthy food choices were being promoted in the township environment. Crime, lack of safety, cultural beliefs, and lack of green areas and recreation facilities in the township interfered with participation in physical activities (Puoane, Bradley and Hughes 2005).

Table 2.2 Assessment of the risk factors for non-communicable diseases among the community health workers

Factors assessed	**Results**
Anthropometric parameter	95 per cent of the CHWs were overweight (BMI ≥25) or obese (BMI ≥30).
Knowledge on NCDs risk factors	Poor
Understanding of nutrition	Poor
Perceptions on body image or size	'plump body symbolises wealth and happiness'; 'big *is* good and beautiful'.
Eating patterns	Excessive sugar and fatty fried foods.
Cooking practices	Unhealthy: cooking chicken with skin in 300 ml oil;

	adding too much salt for satisfaction of taste.
Environment	Promotes unhealthy food choices: most local shops sell cheap fatty foods and don't stock healthy foods, e.g. low-fat milk; street vendors sell fatty meat and sausages and rarely fruit and vegetables.
Physical activity	Poor: crime, lack of safety, culture beliefs, lack of green areas and recreation facilities.

2.3.2 Stage 2: Assessment of the risk factors for NCDs in the community: A Baseline Community Survey (2001)

The CHWs were divided and assigned to an intervention group (Site C) and a control group (Site B) with the aim of implementing interventions at a later stage. A survey of 800 households in Khayelitsha was conducted to ascertain hypertension and self-reported diabetes rates, risk factors for chronic diseases such as smoking, physical inactivity, excessive alcohol intake, obesity and eating patterns. Knowledge of community members about the risk factors and prevention of NCDs was also assessed. Data were collected through individual interviews on a convenience sample of one adult per selected household, who was available at the time of the visit. Data obtained indicated prevalence of obesity (46 per cent), hypertension (88.6 per cent) and self-reported diabetes (12.5 per cent). These data confirmed the high burden of disease from these NCDs in poor urban communities, as discussed in Section 1. Factors influencing an unhealthy lifestyle are discussed in Stage 3.

2.3.3 Stage 3: Situational analysis (2002)

2.3.3.1 Mapping exercise

In preparation for community interventions, the CHWs conducted a situational analysis in the community where they worked to obtain information from places they thought were promoting or undermining healthy lifestyles. They drew up a map of the area and counselled their neighbours about identifying resources that influenced or discouraged healthy living. A pair of CHWs who lived in the area facilitated the mapping exercise identifying main streets, churches, and schools as boundaries. They also identified places that sold fruit and vegetables, fatty meat, cigarettes, and alcohol, and the location of recreation areas. On completion of the mapping exercise, questions relating to risk factors for NCDs were discussed, i.e.: (1) do you think overweight is a problem in your community? If so explain; (2) who suffers from high blood pressure and diabetes in your area?; (3) what factors do you think are responsible for these conditions?; (4) is alcohol a problem in your area?; (5) which people are the most affected by alcohol, and why?; and (6) what do you understand about eating healthy foods and how do you feel about this concept?

For the situational assessment, each CHW living in Site C purposely selected one local shop and two street-vendor stands for interviewing. Twenty local shop owners and 40 street-food vendors were interviewed on food sold, business practices and perceptions of what constitutes healthy foods. Ten meetings were facilitated for the mapping exercise. In addition, the CHWs obtained a list of foods sold, and pricing in local shops. Photographs of food sold by vendors and the surroundings were also taken.

The assessments revealed that a large percentage of food vendors sold fatty meat and sausages, few sold fresh fruit and vegetables, and there was easy access to alcohol. Participants were concerned about the presence of *shebeens* (township bars) in close proximity to schools, since this could encourage drinking among the youth. Prices of healthy foods were higher than those of unhealthy ones. Discussions during community situational

assessment meetings revealed that socio-economic issues contributed to unhealthy food choices, as indicated by the following comments:

> I have been poor for most of my childhood, now I have a husband who works and can afford to feed me, why should I punish myself?'; 'You want me to starve myself, the next thing, a car accident, and I am dead. Let me eat what I like and be happy'; and 'I have been deprived since I was a child. This is the time to enjoy myself by eating what I like. I like my food.

2.3.3.2 Setting the agenda to discuss the extent of the problem of NCDs and the importance of primary prevention of risk factors (analysis)

On completion of the risk factor assessment, feedback on the results of anthropometric measurements, using WHO cut-off points, were used to explain the risk associated with different BMI levels (WHO 2000). In addition, the consequences of a high-fat diet, the benefits of reducing fat intake and increasing fruit and vegetable consumption were explained. At the end of the presentations, CHWs were given time to think about their results and small-group discussions were held to plan the way forward. At the end of these discussions, one CHW said:

> 'We have been discussing our results. I am going to speak for the group. We do not know what to eat to be healthy. We have realised that we have been poisoning ourselves with unhealthy food. We need to be educated, we do not want to die and leave our young children behind. We need help.'

This statement led to a participatory community intervention for primary prevention of NCDs which formed part of the next and final stages.

2.3.4 Stage 4: Action: Training programme for CHWs (2002–2003)

This active stage of the intervention was developed in three inner steps:

2.3.4.1 Development of a training programme for CHWs

An interactive training programme was employed which aimed at empowering CHWs with knowledge and skills to make healthy food choices and increase their level of physical activity. By the end of their training they were expected to be agents of change who would influence their communities to adopt healthy lifestyles by being positive role models. In addition, CHWs were anticipated to use key messages to increase awareness and promote healthy lifestyles among community members.

An advocacy meeting was held to motivate stakeholders to support CHWs in their effort to increase community awareness of risk factors and preventive NCD strategies. Stakeholders, including community members, doctors, professional nurses, shop owners, school teachers, and health promotion and environmental officers were invited. The Deputy Director of Chronic Diseases for the Western Cape spoke briefly about the burdens associated with NCDs, and the need for preventive action.

The coordinator for CHWs presented the training agenda and highlighted the activities. These included arranging community walks, educational meetings to create NCD awareness, and working in partnership with the community to plan and implement appropriate interventions.

2.3.4.2 The training programme

Training was participatory. Lectures were given to the CHWs in Site C once a week for 3 hours each and continuously for a year from October 2001 to 2002. Learning was reinforced

with the use of visual aids, including examination of visceral animal organs. Case studies, specifically developed for this population group, were used to reinforce learning and encourage critical thinking. In each topic, the causation of CVDs and NCDs was explained, preventive measures were highlighted, and a key message was provided to inform the community. The training was facilitated in English and isiXhosa, a local language spoken in Khayelitsha. A training manual was developed by combining the lectures from the training programme and piloted with CHWs from Site B before being finalised.

2.3.4.3 Actions to modify lifestyle behaviours for CHWs (goal targeting)

During the training sessions, CHWs were asked to identify modifiable risk factors and to set goals relating to identified behaviours, barriers to achieving these goals, and how to overcome these barriers. The aim of this exercise was to help them realise that behaviour modification is a stepwise process that incorporates targeted goals. Before proceeding to the next topic, achievement of goals and failure to achieve them were discussed. Several goals were targeted including a reduction in salt, sugar and fat intakes, and food portion sizes. Weight loss and increased physical activity were also high on the agenda.

However, their efforts were hindered by family, community members, and environmental factors. Some of their comments were noted: 'Even if we want to cut down on the fat and salt that we eat, children do not listen. When they cook they add salt and fry the food'; 'When we attend community parties, we are served large portions of the best meat, cakes, etc. – community members know us'; and 'When we do home visits we become hungry and are tempted by the food already fried in the environment, including fried tripe, sausages and "vetkoek" [equivalent to donuts].'

2.3.5 Stage 5: Community interventions by CHWs (2004–2005)

The aim of the interventions was to develop practical, feasible, sustainable and culturally suitable environmental programmes to improve the quality of life of community members in Khayelitsha according to their identified needs. With the help of researchers and health professionals, the CHWs used the information obtained in Stage 3 to plan interventions in the community.

They met with residents to develop a community map. The goal was to involve community residents in identifying available resources for promoting healthy living in their environment. CHWs used the information collected during mapping exercises to plan interventions in the community. Some of the CHWs' activities to increase community awareness regarding NCDs included discussions on eating healthily, group walks, developing and staging a drama to disseminate messages about prevention and control of NCDs, and initiating a health club.

2.3.5.1 Fun walks

Soon after the CHWs were empowered with additional knowledge and skills to prevent NCDs, awareness-raising events, *Walk for Life* and *Health Walk*, were held annually from 2001 to 2003 and in 2005. These fun walks ensured that community members could see the benefit of engaging in physical activity and healthy lifestyles. The CHWs took the responsibility of advertising and promoting these events.

Community Walk, Khayelitsha 2005, photograph by Naashon Zalk

Promoting exercise in Khayelitsha 2005, photograph by Naashon Zalk

2.3.5.2 NCDs awareness Drama

CHWs, professional actors and community members developed a drama aimed at raising awareness of risk factors for diabetes and promoting the importance of adherence to diabetes treatment, including taking medication. Key messages were: to eat healthily and have regular meals; be physically active; not drink excessive amounts of alcohol; and adherence to medication and treatment regimens.

The drama was performed at community halls, local clinics and in the streets during Diabetes Awareness Week in November 2003 reaching more than 1100 people at 13 sites in Khayelitsha. At the end of each performance, the audience was interviewed to assess their understanding of the messages sent out. There were requests for more performances in the area and neighbouring communities.

2.3.5.3 A Health club (support group for NCDs)

During January 2005, the seven CHWs who continued working with the project, participated in planning and developing a health club, *Masiphakame Ngempilo yethu* (Let's stand up for

our health). CHWs received training on the types of physical activities which they could teach community members, such as stretching before and after a walk. Each CHW recruited five members in the surrounding area to join the club. Baseline information of club members included weight, height, waist and blood pressure measurements, and data on their eating patterns.

At each session club members were led through a series of physical activities followed by talks and discussions on healthy nutrition, cooking techniques, the importance of physical activity and other topics. A session, *Healthy Cooking Practice*, was demonstrated monthly where everyone tasted the food and shared recipes. At the time of implementing the intervention, the club members met weekly, and their number increased from 35 members in 2005 to 152 in 2006.
CHWs acted as role models and agents for disseminating the information in the community. They maintained an attendance list; measuring and recording member's BMI and blood pressure. Members were referred to the local PHC facility if necessary. They also participated in the session to support the club members in improving their physical activity.

Promoting health eating in Khayelitsha 2005, photograph by School of Public Health

Exercise classes in Khayelitsha 2005, photograph by School of Public Health

2.3.6 Problems experienced during the process of developing interventions

The training lasted longer than originally planned because of CHWs' prior obligations and time constraints. The intended three-month training continued for over a year. Some sessions were delayed because of conflicting community meetings. By the end of 2003, Zanempilo funding ended, which meant retrenchment of the CHWs who had to take employment elsewhere, which slowed down progress. However, six remained while others were employed to run the clubs.

2.4 Outcome of intervention

The study revealed that obesity and risk factors for NCDs are common among CHWs and the community members. These participants are at substantial risk of developing NCDs related to their obesity, poor nutrition, lack of physical activity, and cultural perceptions. Our findings on women being overweight were similar to those of Mvo *et al*. (1999) who reported that overweight black urban women were perceived to be affluent and happy. The participants preferred to be overweight because of the stigma associated with thinness as a manifestation of AIDS (Puoane *et al*. 2005; Puoane, Bradley and Hughes 2005).

This study demonstrated the importance of involving CHWs in the initial process of developing a targeted community intervention. An active participatory approach was applied in a multiple-stepwise process and data collection to identify cultural and environmental beliefs, and attitudes of the CHWs and the community members influencing their lifestyle behaviours.

The participatory process transformed the CHWs, motivating them to take action to improve their lifestyles, which led to several encouraging moves. An example is a logo, *Walk for Life and Prevent Chronic Diseases*, designed by one initiative involving organising a fun walk to create awareness among community members of the need to be physically active to prevent NCDs.
Several activities were begun in the community. These included health clubs set up by CHWs focusing on diet and physical activity. Educational talks were planned, with mobilisation of community leaders to join the initiative in reducing NCD risk factors. Overall, we expected and hoped for increased community demand for nutritious food and a healthful environment, which will promote a healthier lifestyle.

Equipment obtained for the project gym. Photograph by School of Public Health, 2005

2.5 Evolution of the intervention

The intervention was aimed at primary prevention at community level and has evolved. Currently, CHWs work in health clubs/support groups that primarily comprise clients with chronic conditions. Their roles in the health clubs/support groups are as follows:

1. Providing health education.
2. Collecting of medication from the health facility.
3. Delivery of medication to support group members.
4. Taking body measurements (blood pressure, blood glucose and weights).

Support groups which CHWs are facilitating have increased, as they began to assist in groups that either existed in the community or were newly formed. Most of these support groups mainly comprise the elderly, who already have chronic conditions. Because these groups are conducted during the day, working people with chronic illnesses cannot access this intervention.
These CHWs are now employed by an NGO called SACLA (South African Christian Leadership Assembly) which receives funding from the provincial government.

In order to assess the current operation of the programme in 2013 and to determine in what way this resembles 'good practice', we interviewed a selection of key stakeholders identified for this intervention. The following section presents the findings from these interviews and the data have been analysed according to emerging themes. The stakeholders were selected to incorporate a range of positions in order to elicit diverse perspectives of the original intervention and the current NCD activities of the CHWs.

3 Findings of the stakeholder assessments of the intervention

Figure 3.1 Actors and Stakeholders

3.1 Bringing services to the community

This intervention was viewed as bringing health services to the community instead of people/clients being attended at the health facility:

> People used to go to clinics for the whole day at least there is a place now in the community where they can be attended to. Those that are working can go to work and be assured that they have their measurements taken and also receive their medication without losing a day's work. (CHW)

> In the past those with chronic disease were seen as doomed as they will have to use medication forever. This programme gave people hope. (CHW Coordinator)

> We have also used the CHWs in activities that we had in the church support group and they have assisted with body measurements. (Preacher's wife)

3.2 Community health workers are easily accessible to community members

Since CHWs reside in the community, people find it easier to ask them questions and have a discussion about their conditions. They were said to have a listening ear compared to the nurses at the clinics who are often pressurised by time as most of the PHC facilities tend to be overcrowded. People also appreciate the fact that they do not have to wait in long queues at the health facilities to receive assistance:

> Knowing that CHWs are visiting people and also doing door-to-door puts me at ease, as I know that they are assisting people. (Councillor)
> Having CHWs in the community we do not have to fetch medicine from the clinic and wait in the queue. (Beneficiary)

> Clubs should be extended. We get our medication on time without hassles and we don't have to wake up early at about 5am or 6am and stand in long queues at the clinic. (Beneficiary).

3.3 Increasing awareness about NCDs

Having CHWs talking to people either in their homes or at support groups, and also having awareness campaigns where people could have their blood pressure and blood sugar measured, increased their understanding about these conditions:

> Some people live with symptoms without understanding that they are sick, but CHWs increased awareness about the symptoms and what to do to prevent them. (Preacher's wife)

> Most of the time people have these conditions such as a constant headache and they never bother to seek help. CHWs tend to explain to people in the community that headaches can mean that a person has hypertension and, therefore, often encourage them to seek assistance at the nearest health facility. (CHW Coordinator)

> The health knowledge that we have was limited, at least now I know something. (Beneficiary)

This intervention further empowered CHWs with knowledge relating to the environmental issues that have an influence on NCDs and thus they became more aware about the dangers of these conditions:

> At the beginning we were not even aware about the dangers of the food sold by vendors and the CDL [chronic diseases of lifestyle] training enlightened us. (CHW)

> At times when you visit the clinic and notice that there are certain procedures that are not done you end up having questions because now you have knowledge about how you are supposed to be treated. (CHW Coordinator)

3.4 Perceptions about chronic diseases of lifestyle training

CHWs who participated in this intervention felt that their training was more practical and gave them skills to deal with problems in real situations.

> Because we had cooking demonstrations using less fat and more vegetables, we were able to practise this in our houses and to help our neighbours change their cooking practices for better health. (CHW)

> The training provided was useful and relevant to the work they do in communities. (CHW Coordinator).

Although the training was viewed as helpful, coordinators felt that on-going training is essential to ensure that newly recruited CHWs are also knowledgeable. Furthermore, the training received has made the CHWs visible to the Department of Health as they are often called upon to assist in campaigns and activities relating to NCDs. One of the coordinators commented as follows:

> When there are jamborees our CHWs are often called to come and assist with taking measurement such as blood pressure, weights etc. At times we even assist in areas or locations even though those are not our areas. (CHW Coordinator)

3.5 Perceived roles in the NCD programme in the community

Most of the respondents could identify a role that they could fulfil. The Preacher's wife felt that their church has a role to play in the prevention of NCDs, 'We sometimes have talks about diabetes or hypertension; we have also changed the way we cook during church celebrations'.

However, the political leader could not identify his role in the prevention of NCDs. Nonetheless, he could identify a general role; this is to encourage the community so that they are more receptive to the work done by CHWs.

3.6 Challenges to the intervention

Despite the perceived advantages related to this intervention many of the respondents identified challenges. These included lack of finance to conduct activities, poor referral to health facilities, poor working relationships with the local facility and lack of resources. Lack of financial assistance was viewed as a hindrance as they could not maintain the cooking demonstrations that were initially part of the intervention.

The poor links with facilities meant that the clients who were often referred by CHWs sometimes did not receive the necessary attention:

> At times when you find a problem and send the person to the facility the nurses do not attend to them although the client may tell them that they were sent by a CHW. (Preacher's wife).

In addition, there tend to be poor relationships between CHWs and health facilities:

> There are facilities where CHWs are disregarded and we therefore don't have a good relationship with them; however, that does not apply to all the facilities. (CHW Coordinator).

This was also identified by the respondent from the provincial Department of Health, who mentioned the poor relationship between health facilities and CHWs.

Lack of equipment required to conduct intervention activities was also identified as a challenge in the implementation of the intervention.

3.7 Perceived ideal programme

Although visioning an ideal programme for this setting was challenging, the respondents had ideas on how some of the components would be helpful in creating 'good practice' NCD community intervention. Their ideas have been summed up in Table 3.1.

Table 3.1 Summary of components that make up an ideal community intervention

Components/activities of the programme	Comments
Education about conditions (e.g. diabetes and hypertension)	'People still need to be taught about diabetes and hypertension, especially on ways to prevent it.' (Preacher's wife)

Clear referral pathways	‘If nurses in the clinics could respond to the referrals made by the community health worker then interventions such as these will be beneficial to community members.’ (CHW)
Build relationships with the health facilities	‘There is a need to build relationship with the clinics so that they understand what is done in the community.’ (Preacher’s wife)
Provision of incentives (such as food)	‘People come to support groups hungry and therefore providing food in these groups will bring more people to health clubs.’ (Preacher’s wife)
Constant updating and training of CHWs	‘Training of community health workers so that they have current knowledge is important.’ (Coordinator)
Focus on those with NCDs as well as those at risk	‘A project that focuses on people that already have the diseases as well as helping those who don’t have the condition yet will be useful, as there are people in the community who are at risk and yet do not attend support groups.’ (Coordinator)
Observe people in their homes	‘If they could work with people that are at home and assist them with issues related to food as people cannot take medication on empty stomach.’ (Political leader)
Integrated approach to the management of chronic disease at community level	‘There is a need to integrate NCDs and communicable diseases, meaning that support groups should therefore not only focus on NCDs.’ (Prov DOH official)

4 Discussion

4.1 Sustainability and accessibility

Interventions that utilise local people who know the language and culture of the population they work with are likely to be sustainable, provided that support and resources are made available. For example, in an interview, one of the CHWs expressed a need for the availability of a blood pressure machine to enable people to have their blood pressure checked whenever they felt the need to do so instead of having to wait for a doctor's appointment.

The expectation of training CHWs on primary prevention of NCDs was to recruit people around their work areas to develop a health club where people could regularly meet and share information and concerns about health including NCDs, such as diabetes and hypertension.

This assisted in sustaining the interventions. This initiative has even been extended to nearby churches, which actively participate in raising awareness about healthy living. In addition, creating health clubs in areas where they live has made the intervention accessible to community members. However, accessibility is limited only to non-employed community members, thereby excluding a large number of people in the community.

Threats to sustainability include high turnover of CHWs, who often leave the programme for better opportunities. Currently employed CHWs receive a stipend with no additional benefits, but because of the lack of security in terms of funding it becomes difficult to retain them.

4.2 Empowerment

People who have attended the interventions were largely women, who have benefited by gaining knowledge and skills about healthy eating and the preparation of healthy meals. This in turn has benefited their families and children, as women tend to be the preparers and procurers of food. Consequently, they have a greater impact on influencing healthy eating behaviours that may assist in reducing obesity.

The development of a Training Manual, made available to the Department of Health and including other stakeholders, has made it easy to train CHWs. This has the potential to empower them with knowledge and skills which can assist them in making informed decisions to further empower their communities in turn.

4.3 Appropriate technology

This intervention used technology which included visual aids to deliver nutrition education in line with the country's food-based dietary guidelines. Cooking demonstrations using locally consumed foods were appropriate for this intervention as they were acceptable to the community members involved.

4.4 Focus of the intervention and intersectoral collaboration

One of the shortcomings of these community interventions was the focus on individual behaviours or risk factors for NCDs instead of addressing broader social determinants including environmental factors. Although social, cultural, structural and environmental determinants were identified in the research aspect of the study, addressing them needed

active involvement of other sectors. This was not possible because of many other competing priorities in the community. For example, some stakeholders felt that the provision of employment or of accommodation was more of a priority than tackling risk factors for NCDs. The lack of intersectoral collaboration therefore limited the impact this intervention could have had, as the involvement of other sectors could possibly have resulted in more benefits.

4.5 Community needs

In settings such as these, with more than half of the population unemployed, a lack of formal housing and high crime rates, there tend to be competing interests and priorities which may marginalise health-related issues.

4.6 How this relates to current government policy

The focus of current government policy is on prevention and promotion. This intervention previously focused on primary prevention, although it has evolved to include secondary prevention. The health promotion aspect of the intervention has been limited to education, nutrition and physical activity, neglecting strategies to modify environmental influences.

The use of CHWs to implement this intervention is in line with the new South African government policy initiative: PHC re-engineering. This emphasises the prevention and management of chronic diseases at community level, focusing on assessment, screening and campaigns. However, the PHC re-engineering policy puts emphasis on household-level intervention. People who therefore may not be involved in health clubs will also benefit, since CHWs will be involved in screening, adherence support, foot care and advocating healthy lifestyles, i.e. dietary intake and physical activity.

4.7 Strength and limitations of this study

The strength of this intervention study lay in the fact that the project leader and research staff shared the same language and cultural background as the CHWs. Before the data collection process, an established relationship of trust was developed through informal discussions, social gatherings and dedicated time commitment with the CHWs. Limitations include CHWs losing their jobs and/or taking up employment elsewhere, thereby slowing down the process.

4.8 Recommendations

Women were in the forefront of this intervention, both as implementers and beneficiaries. Their actions and behaviour as role models should influence their family members. However, it is imperative to begin to raise the interest of men in health, particularly in such a patriarchal community. In addition, there is a need to extend similar programmes to schools to influence learners (girls and boys) as this may have an influence on their future health behaviours as well as reduce the burden of obesity and NCDs.

Comprehensive approach: Risk factors are distributed throughout the lifecycle. Therefore, there is a need to implement prevention programmes that focus on early life and throughout adulthood at all Government levels.

Integration of conditions: There is a need for women's health programmes where an integrated management approach to HIV and NCDs is implemented, as these conditions tend to co-exist in the same communities.

Multisectoral approach: Risk factors for NCDs are multi-factorial. Therefore, in order to prevent and plan for action, different sectors need to be involved. Furthermore, there is a need to involve community leaders to ensure buy-in.

5 Conclusions

Implementation of the WHO global strategy for prevention and control of NCDs is challenging in poor communities as was the case in this intervention. Education does not guarantee behaviour modification of community members and CHWs.

Unless the environment is conducive and encourages healthy living, NCDs will continue to be a burden among the poor population of South Africa. This intervention has assisted in putting the problem of NCDs in poor communities on the agenda of government and other stakeholders. This should lead to policies which support healthy lifestyles by rendering healthy foods cheaper and regulating unhealthy foods by such actions as imposition of taxes. Similarly, actions are required to promote physical activity, including improving community security by monitoring crime and creating more accessible open spaces.

The use of CHWs in the planning and implementation of such an intervention enhances accessibility and sustainability. However, to maintain the benefits of such programmes there is a need to invest in continuous training, provision of resources and lobbying of political leaders for buy-in. Women as implementers and beneficiaries were in the forefront of this intervention that focused on changing individual behaviour.

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