## The Effectiveness of Community Health Care Programs

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By

Beverly Ochieng and Dan Kaseje

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ISBN (10): 1-5275-1679-2 ISBN (13): 978-1-5275-1679-3 This book is dedicated to all Community Health Workers across Africa in promoting access to health for all and their efforts towards universal health coverage

### TABLE OF CONTENTS

List of Abbreviations	Xii
Chapter One	1
The Rise and Rise of Community Health Workers	
Beverly M. Ochieng and Dan C. Kaseje	
1.1 Introduction	1
1.2 The background to large scale programmes	
1.3 Some definitions	
1.3.1 Community based health care (CBHC)	3
1.3.2 Community Health Workers	
1.4 Models of CBHC programmes	
1.4.1 The establishment of CBHC programmes in Africa	
1.4.2 Emergence of CHW Programmes in the recent years	
Chamten Tura	12
Chapter TwoThe Contribution of Tropical Institute of Community Health (TICH)	13
to the CHW Growth and Development	
Dan C. Kaseje and Beverly M. Ochieng	12
2.1 Background	
2.2 Introduction	14
	17
through research and teaching	
2.3.1 The origins of TICH	18
2.3.2 Engaging policy makers in research and health	10
improvement	19
2.3.3 Developing an Academic Community Partnership	21
Program	21
2.3.4 Tropical Institute of Community Health and Development	22
(TICH) partnership model	
2.3.5 TICH Mentorship program	23
2.4. The importance of the contribution of TICH in context	27
2.4.1 Community and Policy Partners:	
2.4.2 South-South and South-North Collaboration:	
2.4.3 Ongoing Capacity-Building	
2.5. Training Managers and Policy Makers for CBHC	
2.5.1 Introduction	
2.5.2 The design, implementation monitoring and evaluation	33

2.5.3 Evidence of contributions demonstrated	34
2.5.4 The importance of these findings	34
2.5.5 Conclusion	
er en	•
Chapter Three	38
Effectiveness of CHWs Towards Universal Health Coverage and Drive	ers
of their Retention and Effectivenesssuccess	
Beverly M. Ochieng	
3.1 The purpose	
3.2 Introduction and Background	
3.3 Recruitment	
3.3.1 Recruitment factors that influence retention	
3.3.2 Recruitment factors that influence UHC outcomes	42
3.3.3 Involving the community in selection of CHWs	43
3.4. Training	44
3.4.1 Training approaches	
3.4.2 Training factors that influence retention	
3.4.3 Training factors that influence UHC outcomes	48
3.5. CHW Supervision and performance management	49
3.5.1 Supervision by district or health facility staff	
3.5.2 Community supervision	
3.5.3 Group supervision	
3.5.4 Peer supervision	
3.5.5 Dedicated supervision	
3.5.6 Facilitators of CHW supervision	
3.5.7 Supervision and performance management factors influen	
retention	
3.5.8 Supervision and performance management factors that	
influence UHC outcomes	56
3.5.9 Supervision, performance management, incentives,	
remuneration and recognition	56
3.6 CHWs' relationships with the health system	
3.6.1 Strategies to develop functional relationships between	
CHWs and the health system	59
3.6.2 Level of respect for CHWs from higher-level health	
workers	60
3.6.3 CHWs' relationships with the communities	
3.6.4 Defining a healthy, trusting relationship with community	
actors	64
3.6.5 Strategies to develop functional relationships between	
	66

3.6.6 Different forms of community engagement for specific types
of CHW roles60
3.6.7 Challenges
3.6.8 The interface landscape
3.7 Roles, functions and tasks of CHWs
3.7.1 Task shifting and recognition; factors influencing retention
and health outcomes
3.8 Intergated approaches89
3.9 Cost-Effectiveness of Interventions and Services Provided
by CHWs
3.10. Drivers of Community Health Worker Performance
3.10.1: Resources
3.10.2 Health system
3.10.3 Relationship to the health system factors influencing
retention
3.10.4 CHWs' relationships with the health system factors
influencing UHC outcomes
3.10.5 Other factors influencing performance of CHWs
3.11 Strategies for improving CHW performance and quality care 10°
3.11.1 Remuneration and incentives
3.11.2 Remuneration and incentives factors influencing UHC
outcomes
3.12. Challenges, Conclusions and Recommendations
Chapter Four 11:
Rise and Assessment of CHW Programmes
Beverly M. Ochieng and Dan C. Kaseje
4.1 Introduction
4.2 Mobile health technology
4.3 Community Health Workers Programme performance and its
assessment
4.4 Defining CHW and CHW programme performance
4.5 CHW programme performance frameworks
4.6 Approaches to assessing CHW programme performance 118
4.6.1 The use of meeting minutes, training and accreditation
logs, and reports from CHWs and supervisors 118
4.6.2 The use of information from the routine health information
system
4.6.3 The use of information from existing periodic national
surveys 12

4.6.4 Periodic internal or external CHW programme	
assessments	
4.6.5 The use of primary studies and research tools	122
4.6.6 CHW programme assessments: a focus on programmatic determinants of performance	122
4.6.7 Contextual factors influencing CHW programme	123
performance	125
performance	123
Chapter Five	129
Strengthening Community Health Strategy for Sustainability	
and Scaling Up	
Dan C. Kaseje and Beverly M. Ochieng	
5.1 Introduction	
5.2 Strengthening the Community Health Strategy	130
5.2.1 Planning, coordination, and partnerships of Community	
Health Worker Programmes.	
5.2.2 Policy options for planning, coordination, and establishme	
of partnerships for CHW initiatives	132
5.2.3 Approaches to national-level multi-stakeholder	122
coordination	133
5.2.4 How can initiatives for CHWs and other FLHWs be best coordinated?	136
5.2.5 Recent trends in policy discourse regarding the planning,	150
coordination, and partnership formation for CHW	
programmes	138
5.2.6 Countries that have a strong record in planning, coordinatio	
and partnership development for CHW programming	
5.2.7 Plan for the long term	141
5.3 Governance of Community health workers Programmes	142
5.3.1 Governing in the context of health systems	
5.3.2 Governing of CHW programmes	145
5.3.3 Important considerations for governing CHW	
programmes	
5.4. Challenges	
5.4.1 Challenges of CHW supervision	151
Chapter Six	154
Conclusions	
Beverly M. Ochieng and Dan C. Kaseje	
6.1 Lessons Learnt, Conclusions and Recommendations	154
6.2 Conclusions	

The Effectiveness of Community Health Care Programs	XI
References	173
Figures and Tables	238

#### LIST OF ABBREVIATIONS

**AIDS** Acquired immune-deficiency syndrome AIM Assessment and Improvement Matrix

ANC Antenatal care

APOC African Program for Onchocerciasis Control

ART Anti-retroviral therapy

Accredited social health activist **ASHA CBD** Community-based distribution Community Based Health Care **CBHC** Census-based, impact-oriented **CBIO** CCM Community case management CDI Community-directed intervention

CHA Community Health Agent CHC Community health committee

CHD Child Health Day

CHIS Community health information system

CHW Community health worker

Community-based management of severe acute **CMAM** 

malnutrition

**COVID** Coronavirus disease

CPR Contraceptive prevalence rate DALY Disability-adjusted life year DHS Demographic and health survey **DMPA** Depot-medroxyprogesterone acetate

DOTS Directly observed therapy, short course (for tuberculosis)

EPI **Expanded Program on Immunizations FCHV** Female community health volunteer

FP Family planning

HIV Human immunodeficiency virus

iCCM Integrated community case management **IPTc** Intermittent preventive therapy to all children

ITN Insecticide-treated bed net

LiST Lives Saved Tool

**LMICs** Low- and middle-income countries LQAS Lot quality assurance sampling MCH Maternal and child health

MCH-FP Maternal Child Health-Family Planning MOH Ministry of Health

NEP National evaluation platform NGO Non-governmental Organization

ORS Oral rehydration solution
ORT Oral rehydration therapy

PD Positive deviant
PHC Primary health care
RDT Rapid diagnostic test

RCT Randomized controlled trial SDG Sustainable Development Goal

TB Tuberculosis

TBA Traditional birth attendant

TTBA Trained traditional birth attendant UNICEF United Nations Children's Fund WHO World Health Organization

#### CHAPTER ONE

## THE RISE AND RISE OF COMMUNITY HEALTH WORKERS

#### BEVERLY M. OCHIENG AND DAN C. KASEJE

In this chapter we seek to address questions such as: Why is this book necessary at this time? What has happened to community health worker (CHW) programmes in Africa over the past two decades? What models are being used? We have included case studies to illustrate success stories and experiences. The case studies provide vivid insights into the types CHW models that have been used as well as their relevance. They illuminate answers to the questions above, as well as issues of sustainability, tenure of service and career paths.

#### 1.1 Introduction

What has happened to CHW programmes in Africa over the past two decades? There is a rapidly growing global awareness of the potential of large-scale CHW programmes for accelerating the achievement of universal health coverage (UHC). CHW programmes have contributed to improved access to and coverage of health services in remote areas leading to improved health indicators (Perez 2009). According to World Health Organization (WHO) report "Working together for health," there have been innumerable experiences with CHWs throughout the world with programmes ranging from large-scale, national programmes to small-scale, community-based initiatives (WHO 2006). There is need for a text which brings together the key elements of CHW programmes for implementers, academics, researchers and managers.

#### 1.2 The background to large scale programmes

The Declaration of Alma-Ata (WHO and UNICEF 1978), which was the first major global health document to assert the importance of CHWs, was reaffirmed on its 40th anniversary in the 2018 Declaration of Astana (WHO and UNICEF 2021). WHO created a guideline for optimizing the contribution of CHW programmes to health systems (WHO 2021). The Director-General of WHO and the World Health Assembly strongly affirmed the importance of 1.2 CHWs for achieving UHC and strengthening primary health care (PHC) (Ghebreyesus 2020; World Health Assembly 2021). The growing interest globally in large-scale CBHC programmes is based on the increasing evidence of their potential (Agarwal et al. 2019) to contribute towards attaining local, national, and global health goals, including UHC (Schneider et al. 2016) and to tap into one of the critical resources for improving health in low-income settings by the communities themselves (Agarwal et al. 2019; Schneider et al. 2016; World Health Assembly 2019).

For decades, the relevance, effectiveness, and acceptability of CHW programmes have been debated. The global health community is guided by the goals of achieving UHC and ending preventable child and maternal deaths by 2030 (USAID 2016). Achieving these goals will require strengthened primary health care (PHC), which—in turn—requires wellsupported CHWs. WHO and the World Health Assembly in 2016 called for renewed efforts to realize the potential contribution of CHWs as members of multi-professional PHC teams (WHO 2016). In 2018, WHO released a new guideline—based on systematic reviews of existing literature and programme experience—for health policy and systems support to optimize CHW programmes (WHO 2018; Cometto 2018). This book offers specific guidance on: selection, pre-service education, certification, supervision, remuneration and career advancement, planning, community embeddedness, and health systems support. In 2019, the World Health Assembly urged Member States to integrate CHW within their health systems and provide them the necessary support to deliver safe and high-quality care, drawing on insights from the new WHO guideline (World Health Assembly 2019).

National and international decision-makers continue to turn to CHWs to strengthen health systems in the context of achieving universal health coverage and delivery of the Sustainable Development Goals (SDGs) particularly SDG 3—good health and wellbeing. CHW programmes have proven to be instrumental in promoting primary health care in low-income

settings, as well as in fragile contexts. The role of CHW to accelerate progress in achieving the health-related sustainable development goals in Africa is unprecedented given their contribution to health promotion, education and disease surveillance. Based on the WHO guideline on health policy and systems support to optimize CHW programmes, governments and their partners will further steer improving CHW programmes, including fully integrating them at scale in respective health systems.

#### 1.3 Some definitions

#### 1.3.1 Community based health care (CBHC)

CBHC is needed because facilities are often far away, people are reluctant to use them, or they are over-crowded. CBHC has contributed to improved access to and coverage of health services in remote areas leading to improved health indicators (Perez 2009). According to the WHO report "Working together for health," there have been innumerable experiences with CHWs throughout the world with programmes ranging from large-scale, national programmes to small-scale, community-based initiatives (WHO 2006). The capacity of health programs to effectively engage communities and establish CBHC programmes depends in part on the policy framework of the government and the degree to which it fosters strong partnerships between MOH programs and communities. This depends on the quality of leadership of the health system, and the importance given to building community partnerships, and the manner in which local people are treated by the health staff.

#### 1.3.2 Community Health Workers

Lewin and colleagues describe CHWs as the non-professional community-based health workers who been trained to perform specified tasks at community level, paid or voluntary, but have no formal paraprofessional certificate (Lewin et al 2010). Lehmann and Sanders in their review published by the WHO (Lehmann and Sanders 2007), state that "CHWs ...should:

- be members of the communities where they work,
- be selected by their communities,
- be answerable to the community for their activities,
- be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers".

The International Labour Organization (ILO) (2008) described CHWs as: "provid[ing] health education and referrals for a wide range of services, and ...support and assistance to communities, families and individuals with preventive health measures and gaining access to appropriate curative health and social services. They create a bridge between providers of health, social and community services and communities that may have difficulty in accessing these services". This definition puts the CHW more definitively onto the PHC service delivery team, with the responsibility of providing information and support. They require formal or informal training and are recognized by the health and social services authorities".

According to ILO's new International Standard Classification of Occupations (ISCO-08) classification (ILO 2012), there are several categories of workers that can be considered CHWs. The term refers to health workers who have a role and profile consistent with ILO ISCO category 3253 (community health workers), who may be community health officers, promoters, aides, educators, or volunteers. Their job descriptions include home visitation, giving information, supporting clients to access services, dispensing commodities, and monitoring and collecting data. In 2013, the Global Health Workforce Alliance and its partners issued a joint statement (Global Health Workforce Alliance and Frontline Health Worker Coalition 2021) in which the term "community health worker" was used to refer to a wide range of both volunteer and remunerated health providers working within the community. In the important recent WHO guidance on policy and systems support for CHW programmes (WHO 2018), supports the definition but focuses tasks on health promotion, and linking the community with the health system being integrated into PHC teams.

In a 2018 review, Scott and colleagues (Scott et al. 2018) described "community-based health workers" as "based in communities, beyond PHC facilities or based at peripheral health posts that are not staffed by doctors or nurses, either paid or volunteer, not professionals and ... having at least some training. In 2017, Olaniran and colleagues (Olaniran et al. 2017) carried out a systematic review of definitions of CHWs and concluded that: (1) CHWs have an in-depth understanding of the community culture and language, (2) they are given standardized jobrelated training of a shorter duration than health professionals, and (3) a primary goal of their service is to ensure culturally appropriate health services to the community. The authors propose three categories of CHWs, based on educational prerequisites and duration of pre-service training: (1) lay health workers with little or no formal education who are

given a few days to a few weeks of training, (2) those with some secondary education and subsequent informal training, and (3) those with some secondary education and training lasting from a few months.

Lack of formalization enhances their effectiveness to function as neighbors to their clients grappling with similar contextual issues. Some CHW cadres are paid salaries, others work as volunteers, as salary payments may place them in a different social category to those they serve and reduce their accountability to their communities. Some work full-time. and others work only a few hours per week, allowing them to continue regular livelihood activities as their neighbors, who are also their clients. Some have a wide array of tasks and responsibilities, and others have a narrowly defined scope of work, consistent with the necessary part time role that most volunteers can sustain. Some have close interaction with health staff based in facilities and others operate far away and function in a very independent manner. Community leaders, special community committees, and groups within the community, particularly women's groups, can play an important role in supporting CHW activities, in a way that allows them to remain embedded in their communities, participating in their selection, guidance, support supervision and oversight.

In all case s, community-level providers need to have some kind of linkage to the formal health system for proper training and supervision and for access to medicines, supplies and equipment. The Global Health Workforce Alliance, hosted by the World Health Organization, has given immediate priority to the expansion of education and training to increase the number of community- and mid-level health workers, alongside highly skilled staff, the first step in ensuring that "all people, everywhere, shall have access to a skilled, motivated and facilitated health worker within a robust health system" (Nsigaye et al. 2009).

The World Health Organization began to explore the implications of the new approaches to provision of medical care and to health promotion that were based on principles of social justice, equity, community participation, disease prevention, multi-sectoral collaboration, decentralization of services to the periphery as close as possible to the people, use of appropriate technology, and provision of services by a team of workers, including community-based workers. These new ideas led to the WHO book published in 1975, entitled Health by the People that consisted of a series of case studies from different countries where CHWs were the foundation of innovative community health programs (Newell 1975). The book was part of the intellectual foundation for the International Conference on

Primary Health Care at Alma-Ata, Kazakhstan in 1978, sponsored by WHO and UNICEF and attended by official government representatives from virtually all WHO and UNICEF member countries, making it the first truly global health conference. The Conference resulted in the Declaration of Alma Ata, which called for the achievement of Health for All through primary health care. The Declaration was clear in defining a role for CHWs when needed. Article VII.7 of the Declaration states:

Primary health care... relies, at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries and community workers as applicable, as well as traditional practitioners as needed, suitably trained socially and technically to work as a health team and to respond to the expressed health needs of the community (WHO 1978).

Thus, the Declaration explicitly defined CHWs as one of the important providers of primary health care in certain circumstances. In the 1970s and 1980s, there was a proliferation of government CHW programs at national scale in Tanzania (Heggenhougen and Magari 1992), Zimbabwe (Sanders 1992), Malawi, and Mozambique (Coyle et al. 1992). During this same time there was also the beginning of smaller CHW programs operated by non-governmental organizations (NGOs) in many low-income countries around the world.

Community Health Workers, that are trained lay volunteers, are an important part of a "task-shift" strategy and may help address the growing crisis of health worker shortages (Ochieng et al. 2014; Perez 2009; Haq and Hafeez 2009). In many countries, CHWs have acted as a bridge between formal health systems and the community (Hag and Hafeez 2009), enabling health programmes to achieve three interconnected goals: building a relationship between the health care provider and the community; improving appropriate health care utilization; and educating people to reduce health risks in their lives (Nemcek and Sabatier 2003). CHWs provide a critical and essential link with health systems and are a powerful force for promoting healthy behaviors in resource-constrained settings. During the past decade, there has been an explosion of evidence and interest concerning CHWs and their potential for improving the health of populations where health workforce resources are limited. Given the massive shortage of health workers in Africa—recently estimated to be 4.25 million workers—the inequitable distribution of health workers within countries, and the need to accelerate progress in achieving the SDGs for health, it is essential to take stock of the current body of evidence.

#### 1.4 Models of CBHC programmes

#### 1.4.1 The establishment of CBHC programmes in Africa

In many countries CBHC programmes came about as a result of dramatic political transformation, as part of health sector reform processes, or at the initiative of NGOs and faith-based organisations. Examples of the first type of process can be found in Tanzania, Zimbabwe and Mozambique. The earliest origin of the Zimbabwe national program stemmed from a time when comrades (guerrillas) in the Zimbabwe African National Union who were fighting a war to liberate their country helped to establish a community-based public health program in Masvingo Province in the south of the country. When the ceasefire came about and the people in the area realised that the program might end, they turned to the Bondolfi Mission to assist. This developed into a non-governmental CHW program. Based on the idea that there should be an unpaid volunteer health worker (VHW) for every 1-3 villages, 293 VHWs were trained, 35 from other districts. Soon after Independence, the Government committed itself to establishing a National CBHC Program. Although centrally planned and initiated, it was strikingly similar to the Bondolfi project in its technical aspects (Sanders 1992).

In Tanzania, as in Mozambique, CHW programmes, under different names, were introduced as part of the process of decolonisation, as both countries dramatically redefined their political approach and philosophy. In Tanzania after 1967, the government set out to promote rural development and mobilised the country's resources to eliminate poverty, ignorance and disease. It focused on local contribution (self-reliance) with the goal of state ownership and control of the major means of production to ensure equity. Three levels of administration were introduced: central, regional and district. The district was further divided into divisions, in turn comprising administrative wards made up of ten "cells" each with 10 households. Viable villages or "Ujamaa" of 100-500 households were encouraged. In dealing with the major health problems, primarily infectious and parasitic diseases, typified by malaria which was the leading cause of hospital admissions, the Health Ministry developed a decentralised health system comprising district hospitals, health centres, dispensaries and village health posts in each Ujamaa village. These village health posts were to provide treatment for minor ailments, first aid for more serious illness and injury and a base for health campaigns such as "Mtu ni Afya -Man is Health" and "Chakula ni Uhai - Food is Life" (Newell 1975). In all three countries CHW programmes came about as one aspect of much broader political, 'revolutionary' transformation, with a focus on liberation, democracy and self-reliance.

Ghana, Niger and Somalia are examples of countries that introduced CBHC as part of health sector reform initiatives, aiming to enhance accessibility and affordability of health services to rural and poor communities within a PHC approach. In Ghana, the Ministry of Health introduced substantial numbers of community or village health workers in the late 1970s as part of a substantial review and reorganization of MoH activities aimed at implementing PHC strategies (Morrow 1983). The initiative was driven by the MoH, and integrated into the National Health Service structure, with the MoH providing training, technical supervision and necessary supplies. In Niger, CBHC programmes evolved from the work of volunteer health workers whose work started in the late nineteen sixties in the primarily agricultural Maradi Department, along the Nigerian frontier with a population of 730,000 people (Fournier and Djermakove 1975). Since 1963 Niger had a rural extension service (animation rurale) which promoted community development schemes characterised by voluntary participation. In the Ministry of Health, a 10-year plan from 1965-1974 set out the principles governing the training of village health workers and traditional birth attendants.

Bentley (1990) reports on a fascinating initiative in the northwest of Somalia in the mid-1980s, which provided access to basic health care to large numbers of rural communities, including nomads, before it fell victim to the civil war after 1988. Before 1980 the health status in Somalia was among the worst in the world, with a child mortality rate of 257/1,000 live births and maternal mortality of 1,100 per 100,000 live births. A project to introduce a PHC approach was started by government in the semi-arid and semi-nomadic northwest, with technical and financial support from UNICEF in 1982.

While emphasizing community ownership and participation, all of these projects were initiated and driven by central government. Sauerborn et al. (1989) report on a CHW initiative in Burkina Faso in the mid-1980s, which was started by the doctor at the local medical centre. While again the program emphasised community participation in the selection and management of CHWs, the authors found that the program had a low utilisation rate due to the fact that communities had not been part of setting up the structures, and political tensions had quickly emerged between traditional hierarchies and the structures set up under the new regime. There are innumerable examples of projects established by NGOs and

faith-based organisations. As a rule, these came about as a result of local or church initiatives. While the former often pursue a specific developmental aim, the latter usually combine a missionary agenda with health-oriented work. Two examples representing both types of initiatives are the project of the *Bahá'í International Community* and the *Women's Health Organisation of Nigeria (WHON)*.

WHON - Women's Health Organisation of Nigeria: This NGO, set up in 1992 implemented projects addressing reproductive health. It involved the training of volunteer reproductive health workers and developed training materials for them. Beyond reproductive health, their scope of activities included treatment of minor ailments and dispensing of essential drugs. The Ntyang women's group in Razek, fan village Fan District was one of the remote areas in Nigeria in Plateau State. The group was founded in 1991 and had a membership of 170 rural women. The group had 9 officials who had run their various posts for more than three years. These were elected after leadership training provided by WHON. The training discussed elements of running groups democratically and taking collective decisions and conflict resolution. The group met once a month during which they had reproductive health education, health talks, and participated in weaving, knitting, plating, making pomade, and baking and making mud pots. These were sold to generate income. The group, in alliance with WHON, set up a volunteer reproductive health worker's program, provided essential drugs for the management of reproductive health problems and minor ailments, and also provided non-chemical family planning devices, all in the primary health care context. Services were rendered to the community members through the community drug store located in a strategic place in the district, which was easily accessible by the community members. The group attended to a total number of 1.193 adults and children in a period of eighteen months (1995-1996): 812 adults and children in 1997. In 1998 the group attended to at least 374 clients

Community health workers in Kenya stirred broad changes: A project of the Bahá'í International Community, active in more than 200 communities in Western Kenya "to promote vaccinations and to build a new level of intersectoral and interfaith collaboration by stimulating the construction of latrines and helping create better access to clean water" (Lehman 2007). The project made use of 98 CHWs. The project follows a model used with great success by Bahá'í communities in other African countries. (Similar projects exist in Burkina Faso, Chad, Uganda and Zambia). Drawing on a strong base of local Bahá'í communities in a

region, volunteers for the program are sought. They are then given several weeks of training in basic health care techniques at a regional Bahá'í institute. Based in part on the UNICEF/WHO/UNESCO "Facts for Life" program, the training focuses on simple things like promoting hygiene and breast-feeding, understanding elementary nutrition, the importance of immunization, and stopping infantile diarrhoea.

After the training, the volunteers are sent back to their communities, having been asked give 10 hours a week of their time as community health workers. Project administrators continue with regular visits to give encouragement and support; follow-up training is also offered. While many other non-governmental organizations and government agencies run similar programs to train and support community health care workers, the Bahá'-írun programs have been especially effective because of their low dropout rate, the emphasis on service to everyone in the community, and the manifest volunteerism of the workers.

#### 1.4.2 Emergence of CHW Programmes in the recent years

CHWs came back into prominence globally as the World Health Organization (WHO) promoted task-shifting to alleviate over-stretched health care systems (Schneider et al. 2008). More recently, various countries have also begun to invest again in large-scale CHW programs. In 2004, Ethiopia began its CHW program to train Health Extension Workers, who now number more than 30,000 (Bhutta 2010). The workers are literate, adult females who have completed 10th grade and who are from the local community (Ethiopia Ministry of Health 2010). These workers primarily serve in newly constructed health posts and provide services that include provision of basic first aid, contraceptives and immunizations and diagnosis and treatment of malaria, diarrhoea and intestinal parasites (Gopinathan et al. 2012). Uganda began a national CHW program as part of its village health team strategy in 2003 (Bhutta 2010). In the past decade, as rigorous evidence has continued to accumulate on the effectiveness of interventions delivered by communitybased workers, enthusiasm has grown for a stronger investment in CHW programs as a strategy for accelerating progress in reaching the SDGs for health primary health care. In spite of the growing enthusiasm for expanding CHW programs, as evidenced by a recent high-level call by a global Technical Task Force to train one million CHWs in Africa (Earth Institute 2011), it remains the case that, as Frankel noted two decades ago (Frankel 1992), our knowledge of the effectiveness of large-scale CHW

programs remains limited, and the challenges faced by early large-scale CHW programs appear to still be present.

A recent renewed interest in CHW programs has been sparked by an increasing number of studies demonstrating the effectiveness of programs using CHWs in achieving demonstrable health benefits that directly related to the health-related Sustainable Development Goals (SDGs), namely reducing child malnutrition, reducing child and maternal mortality, and controlling HIV/AIDS, tuberculosis (TB) and malaria. Thus, with the slow pace of progress in reaching the health-related SDGs in so many priority countries, expanding CHW programmes held the potential for accelerating progress. In addition, over the past decade there has been increased attention give to what is now called the global health workforce crisis and the recognition that there will not be sufficient health manpower in virtually all countries around the world to meet the need and the demand. So, in this sense, there will of necessity be an ongoing process of task shifting in order to extend services to those who need them in the face of a shortage of physicians, nurses, and other higher-level health professionals.

South Africa provides an interesting case study in this regard. Although the country had developed a CHW cadre earlier, CHWs were not included in the first post-Apartheid health system because CHWs were seen as second-class providers of care (van Ginneken et al. 2010). However, with the expanded need for health care providers in the face of the AIDS epidemic (particularly for hospice care early on) and the availability of funding to support testing and long-term treatment of AIDS patients, CHWs have more recently come to be seen as an integral part of a wellfunctioning health system. South Africa is now in the process of beginning to develop a primary health care system modeled after Brazil's, in which CHWs are foundational. As government interest in and commitment to CHW programming has waxed and waned over the past 50 years, there has been at the same time a steadily growing and increasingly positive experience among international and national NGOs engaged in health programs in using CHWs to carry out community-based programming, particularly for child survival programming.

There is also increasingly support for other types of selectively focused programming such health education and health promotion for specific diseases or conditions, provision of family planning services, as well as detection and treatment of HIV/AIDS and TB cases. This transition is aptly summarized by Bhutta and colleagues: During the 1980s, CHWs were considered a cornerstone of primary health care, as envisioned by the

Alma Ata Declaration, but its importance declined in the 1990s with a changing focus on alternative vertical programs and service delivery models. It is now evident that this change in direction was misplaced and given the increasing interest in integrated primary care and the recognition of the enormous mismatch between disease prevalence and optimal care, there has been a rekindling of interest in the importance of CHWs [p. 13] (Bhutta 2010).

#### CHAPTER TWO

# THE CONTRIBUTION OF TROPICAL INSTITUTE OF COMMUNITY HEALTH (TICH) TO THE CHW GROWTH AND DEVELOPMENT

DAN C. KASEJE AND BEVERLY M. OCHIENG

#### 2.1 Background

In this chapter we seek to present the experience of Tropical Institute of Community Health (TICH) that has contributed to the expansion of effective CHWs, the Saradidi Community Health Worker model. The Saradidi rural health program (SRHP) was established in 1979 sponsored by the Department of Community Health, University of Nairobi in partnership with the Anglican Church of Kenya and the Ministry of Health, following the 1977 World Health Assembly resolution and 1978 Alma Ata Declaration on Primary Health Care. This transformational project promoted health for all by addressing the situations that shape the health status of people. The founders saw community-based health care (CBHC), in which CHWs were central, as the means to achieve "health for all," by addressing the diseases of poverty (infections, malnutrition, maternal and child morbidity and mortality). Projects included malaria control that used both biomedical and community-based approaches including reducing the impact of malaria in pregnancy; diarrhoeal disease control; family planning, and malnutrition reduction strategies. The focus of the program was expanded with the addition of agriculture, water and sanitation activities. Community agricultural workers were trained to work alongside CHWs. This integrated program resulted in substantial maternal and infant mortality reductions through eradication of cholera, reductions in malnutrition, use of family planning methods, access to antenatal care and skilled deliveries (Kaseje and Sempebwa 1989).

The programme scaled-up CHW initiatives at the county level, through founding the Community Initiatives Support Services (CISS), which

extended and sustained CHW model to many parts of Siaya County. In parallel, we scaled-up to nearby Kisumu County in partnership with Aga Khan Health Services, Kenya. The reversal in health indicators in the 90s led to willingness among Kenyan policy-makers to consider CHW, and an openness to work with TICH to find solutions, which ended in to negotiation of CHW into the public sector with the development of the second Health Sector Strategic Plan 2005–10 (Kenya Ministry of Health 2005), which incorporated CHWs as community health strategy.

We describe further institutionalizing Community Based Health Care in Sub-Saharan Africa initially in an existing academic setting (University of Nairobi) and later by institutionalizing this program a newly established Tropical Institute of Community Health and Development, in Western Kenya. We explain how the CBHC program evolved. Our interest in this area has been sustained by our passion to use research evidence to influence policy, making health care more accessible to all, in the spirit of the Alma Ata Declaration (WHO 1978).

#### 2.2 Introduction

TICH early work was influenced by strong mentors, in the Department of Community Health, University of Nairobi, and at the Harvard School of Public Health where Prof. Dan Kaseje worked as a lecturer and studied. TICH joined the East African Community Based Health Care movement in 1979, a network that came into being following the 1977 World Health Assembly resolution and 1978 Alma Ata Declaration on Primary Health Care (PHC). Roy Shaffer, Miriam Were, Panina Ocholla and Geraldine Heusing were members of this network; they led the development of courses to train trainers and facilitators of CHWs. This begun our interest in linking training, practice and research to policy advocacy.

Working in the community in Saradidi, Siaya County Kenya, and with the assistance of the British Voluntary Service Overseas, TICH established a rural health program, building a health centre to be the hub of health services and research. This was the start of our health systems-oriented research program. We saw community-based health care as the means to achieve "health for all" since this approach addressed the diseases of poverty such as infections, malnutrition, maternal and child morbidity and mortality and chronic illnesses. However, there was an urgent need to demonstrate the effectiveness of community-based health care and we initiated this research in Saradidi.

The first funded research project was a malaria control initiative that used both biomedical and community-based approaches. This study, undertaken in partnership with Dr. Harrison Spencer, an expert from Center for Disease Control, and John Hopkins University, in USA, steeped us in a culture of research rigor. Other projects followed: additional studies on malaria control, supported by TDR / WHO; research on diarrhoeal disease control to address the problem of cholera that was becoming endemic in the area, and studies of family planning with funding from Family Planning International Assistance, malnutrition reduction strategies supported by DANIDA, and hypertension and salt use funded by Medical Research Council (MRC). This started off as an epidemiological study but later Neil tried to introduce an intervention phase, not explained before, and the community did not accept, citing the risks of placebo salt loading that could cause hypertension. The next research project was on reducing the impact of malaria in pregnancy in a study that compared weekly chemoprophylaxis with monthly presumptive treatment, both administered by community health workers.

The Saradidi program was expanded with the addition of agriculture, water and sanitation activities funded by TEAR Fund, UK. Community agricultural workers were trained to work alongside community health workers. This integrated program resulted in maternal and infant mortality reductions in three years through the eradication of cholera, reductions in malnutrition, improved use of modern family planning methods, and better access to antenatal care and skilled deliveries.

Despite positive results demonstrated by these community-based approaches to health care, the studies had been undertaken with similar populations e.g. Kakamega Primary Health Care (Were 1982) and Saradidi health program (Kaseje and Sempebwa 1989). Improvements in district health indicators did not follow, indicating that either district-level program scale-up had not been achieved or additional system-level interventions were needed to improve population health status. Several non-governmental organizations in Kenya implemented community-based approaches that emphasized engagement with communities; these did not add evidence to our work as they did not include strong research components to inform policy and practice.

TICH did have some success in scaling-up community based primary health care initiatives at the county level. To facilitate this, we founded the Community Initiatives Support Services (CISS) International, which extended and sustained the Saradidi CBHC model to many parts of Siaya

County. In parallel, we had the opportunity to scale up CBHC to neighbouring Kisumu County with the support of Agha Khan Health Services, Kenya, funded by the Agha Khan Foundation and CIDA Canada. While spearheading implementation of CBHC in Kisumu County, we continued with an integrated research agenda to document and disseminate results of the CBHC model. However, TICH used a more traditional "push" approach to disseminating our research findings, placing maximum effort on producing results and then trying hard to package and communicate these results to policy makers and other users. It became apparent that despite our accumulating evidence, scaling up these community-based approaches in Kenya's public health care system was hindered by the lack of a national policy framework. It would take some different ways of working with policy-makers and a couple of decades of research to convince the Kenvan government to adopt a national "community health strategy" that would provide all communities with an essential package of care for health.

In the midst of this early work on CBHC, an international career opportunity emerged. By the end of the eighties, the visibility of our Kenyan work in many parts of Africa led to me being invited to head the Christian Medical Commission, which was reputed to have mothered the primary health care movement long before the Alma Ata Declaration. After five years in this role, I moved to head the Health Department at the International Federation of Red Cross Red Crescent Societies. These positions enabled me to influence the adoption of a CBHC approach in a wider range of settings and to consider the importance of professional education in achieving the goals of CBHC. For instance, we successfully supported a reorientation of medical education in South Africa to CBHC, ahead of their independence in 1994. During this period, there was emerging evidence from many countries was consistent with our earlier findings from the Saradidi project regarding the effectiveness of community based PHC (Haines et al. 2007).

But the slow pace of change persisted in Kenya despite implementation of national policies during the 1980s including those focused on primary health care (PHC), decentralization, and health care financing reforms. The main driver for these policies was the need to improve health status of the population by enhancing equity in accessible health care. Although Kenya had formally adopted the tenets of primary health care in 1986, the community-based dimension was left out, as seen in the first national health sector strategic plan implemented between 1999 and 2004. An evaluation of this implementation revealed many gaps, explaining a