HEALTH SYSTEMS RESEARCH UNIT

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Understanding out-of-facility primary healthcare models in South Africa

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KNOWLEDGE USERS

Ester Snyman (Strategic Planner), Phumzile Zungu (Monitoring and Evaluation office) and Elizabeth Lutge (Head of Research and Epidemiology) from the Kwazulu-Natal Department of Health (KZN DoH).

PROBLEM AS IDENTIFIED BY THE KNOWLEDGE USERS

On the 14th of March 2018, we met with the knowledge users. The objective of this meeting was to understand what urgent health systems' decisions they are having to make, and how a rapid review could possibly assist in their decision making.

The KZN DoH has introduced out-of-facility primary healthcare (PHC) services such as the ward base outreach teams (WBOTS), and the knowledge users are looking for evidence of the effectiveness of these programs specifically in the South African context. Furthermore, they have questions on the implementation processes for these programs, such as the implementation barriers and facilitators, and how users of these programs experience it. The knowledge users would appreciate research evidence of program effectiveness, so as to assist them in appropriately allocating resources for these programs.

We therefore agreed to conduct an evidence synthesis on the effectiveness, implementation processes, and acceptability of out-of-facility primary care services.

TASK: UNDERSTANDING OUT-OF-FACILITY PRIMARY HEALTHCARE MODELS IN SOUTH AFRICA

Through a quick scoping of the literature it became evident that there are different models of out-of-facility PHC services in South Africa. Furthermore, within each model there are variations across provinces with respect to team composition, functions, and reporting structures at a local level. Thus, it is important for the synthesis team to understand the model(s) that exist in Kwazulu-Natal before we can pursue a more detailed synthesis.

In this document, we present a summary of the scoping of the literature to contextualize our task and understanding of knowledge users' request.

ABBREVIATIONS

ART	-	**Antiretroviral therapy**
LHW	-	**Lay health worker**
CBC	-	**Community-based Care**
FHS	-	**Family Health Strategy**
KZN	-	**Kwazulu-Natal**
HIV	-	**Human Immunodeficiency Virus**
KZN DoH	-	**Kwazulu Natal Department of Health**
MSF	-	**Medécins Sans Frontières**
NCD	-	**Non-communicable disease**
NGO	-	**Non-Governmental Organisation**
TB	-	**Tuberculosis**
SA NDoH	-	**South African National Department of Health**
PHC	-	**Primary HealthCare**
WBOT	-	**Ward-based outreach team**
WC DoH	-	**Western Cape Department of Health**
WHO	-	**World Health Organisation**

OUT-OF-FACILITY PRIMARY HEALTHCARE MODELS IN SOUTH AFRICA

The South African National Department of Health (SA NDoH) has been re-engineering PHC [1], and while these efforts are ongoing, there have been particular shifts around 2009 and 2011, where new models of care, focusing on out-of-facility PHC , were introduced. Below we present the most common models reported in the literature. The models are categorised into approaches for population health and approaches for specialized care for stable chronic disease patients.

SUMMARY OF OUT-OF-FACILITY PRIMARY HEALTHCARE MODELS IN SOUTH AFRICA

	Ward-Based Outreach Teams	Health Post	Community Base Care	Central Chronic Medicine Dispensing and Distribution	Adherence Clubs
Model Origin	Brazil	Cuba	South Africa	South Africa	Western Cape, South Africa
Staff	➢ Professional nurse ➢ Lay health workers (LHWs) ➢ Environmental health officer ➢ Health promotion officer	➢ Retired nurse ➢ LHWs	➢ Nurse ➢ LHWs contracted by an NGO	Various staff from: ➢ health facility ➢ medication service provider ➢ community based pick-up points	➢ Facility manager ➢ Club nurse ➢ Pharmacist ➢ LHW ➢ Data capturer
Reporting structure	Reports to the clinic nurse	Reports to the health post nurse	Reports to the clinic nurse	Reports to the health facility	Reports to the clinic manager
Target population	Community (ill and well individuals)	Community (ill and well individuals)	Not well defined	Patients stable on chronic disease medication	Patients stable on chronic disease medication
Duties	➢ Basic preventative care and health promotion ➢ Identify people at risk ➢ Support adherence in chronic care ➢ Basic first aid ➢ Refer patients to the clinic	➢ Basic health promotion ➢ Distribute chronic medication ➢ Perform basic household tasks ➢ Refer patients to health posts	Not well defined in the literature	*Health facility* ➢ Sends scripts to medical service ➢ Follow-up on defaulting patients *Medication service provider* ➢ Pre-packs pills ➢ Distributes to pick-up points ➢ Reports defaulters to the health facility	➢ Group counselling ➢ Brief symptom screening ➢ Distribution of prepacked pills ➢ Refer members with complications to the clinic

TARGET POPULATION: WHOLE POPULATION

The new models targeting population health are seen as ways of strengthening and improving PHC services, and access to PHC at the community level, as well as a strategy to revitalise the PHC system [2].

Ward-Based Outreach Teams

The South African WBOT model is based on a similar community health outreach system used in Brazil. In 2011, following the Minister of Health's visit to Brazil to learn about their community outreach system, a national mandate was communicated regarding the establishment of ward-based PHC outreach teams, also known as municipal ward-based PHC teams (WBOTs). WBOTs were to be implemented as a means of bringing PHC closer to the people [2].

The WBOTs are composed of lay health workers (LHWs), environmental health and health promotion practitioners, and led by a professional nurse. These teams are deployed in communities to "promote child, adolescent and women's health; provide basic preventative care and health promotion and education; identify people at risk; support adherence in chronic care; offer home-based care; assist in early detection and intervention of health problems and illness; offer basic first aid and emergency interventions; and help integrate care at the community level " (p. 2)[3].

In the mid-1990s, Brazil introduced a community health outreach system called the Family Health Program (FHP) which later became known as the Family Health Strategy (FHS) [4]. Each FHS team consists of a physician, a nurse, a nurse assistant, and between four and six full-time LHWs [4]. The teams cover up to 1,000 households each. The FHS were initially introduced to improve and maintain child and maternal health outcomes [4]. The introduction improved child health and infant mortality and reduced post-neonatal death due to diarrhoea and infection [4]. These positive results, encouraged the evolution of FHS to be more inclusive of other primary care services such as chronic care. These services were expanded to all Brazilians. By 2014, FHS were serving 62% (120 million people) of Brazil's population [4].

Table 1 below, shows the WBOTs' implementation progress across South African provinces by 2015.

Table 1: WBOTs by province, 2015 [5]

Province	WBOTs	Wards with WBOTs	# Wards	% wards with WBOT
Eastern Cape	395	401	715	56.1
Free State	557	95	317	30.0
Gauteng	242	277	507	54.6
KwaZulu-Natal	57	131	828	15.8
Limpopo	319	231	543	42.5
Mpumalanga	79	61	402	15.2
North West	589	278	383	72.6
Northern Cape	97	81	194	41.8
Western Cape	-	-	387	-
Grand Total	**2,335**	**1,555**	**4,276**	**36.4**

The implementation of WBOTs varies across provinces with respect to team composition, functions, and reporting structures. The Health posts in Gauteng, and community-based care (CBC) model in the Western Cape, described below, are examples of these variations.

Health posts

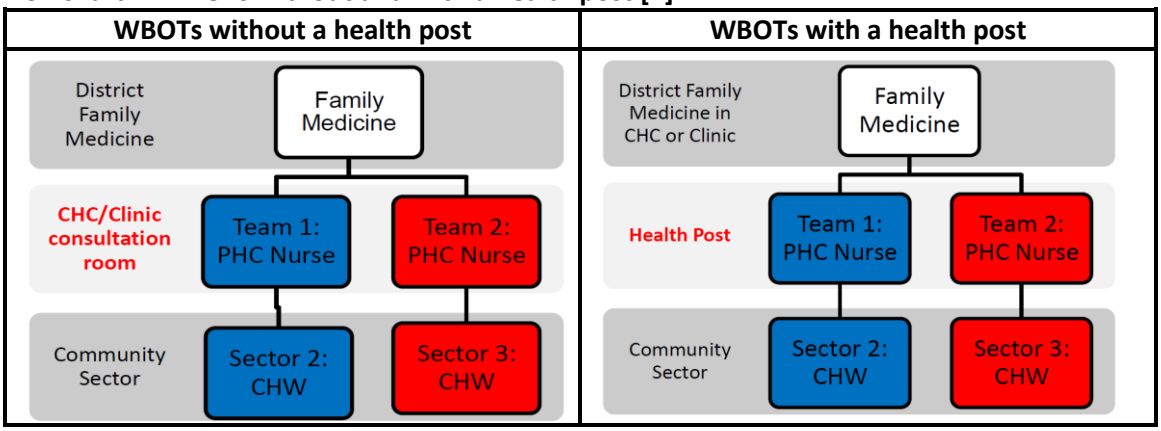
In the City of Tshwane (Gauteng), WBOTs are not clinic-based, but based in, and run from, health posts [6]. A health post is located in an existing local service site, such as a school, non-governmental organisation (NGO) office or church. The health post acts as a health facility that is linked to a clinic, but is closer in proximity to the community than the clinic is, so as to enable patients to access basic health services. Therefore it acts as a link between a fixed health facility and the community, through LHWs [7].

Health posts were established in the Sedibeng district in 2009 as a way of bringing PHC services closer to the community. The implementation of health posts was led and refined by a Cuban doctor who was active in the district. In 2011, subsequent to the establishment of WBOTs, the district adapted their health posts to be inclusive of WBOTs [7].

In Sedibeng district, WBOTs consists of 6-10 LHWs (sourced from a NGO that provides services in the same area), and are led by a retired nurse as the team leader. The WBOTs are assigned households where they conduct their daily visits. During these visits, they provide services such a basic health promotion, distribute chronic medication, perform basic household tasks for the ill, and refer patients to health posts [7].

Flowchart 1 below, depicts the reporting structure of the WBOTs programme with the health post versus one without a health post.

Flowchart 1: WBOTs without and with a health post [7]



Community-Based Care

The Western Cape Department of Health (WC DoH) does not have the WBOTs and/or health posts, but instead funds NGOs to manage home and community-based care teams.

In 2014, Schneider and colleagues reported that in 2013, the WC DoH had contracted 72 NGOs, who had recruited 3,594 LHWs to delivery CBC [8]. The LHWs are supervised by nurses in a ratio of about 20 LHWs to one nurse supervisor [8].

The LHWs perform a range of duties that are not well defined in the literature. However, Schneider and colleagues (2014) state that the current CBC delivery model dates back to the emergence of community-based responses to the de-hospitalisation and palliative care for bedridden HIV/AIDS patients, in an era when anti-retroviral therapy (ART) for HIV was not yet universally accessible [8].With greater access to ART, the CBC focus shifted to adherence support for those on ART, TB treatment and other chronic disease [8, 9].

TARGET POPULATION: STABLE CHRONIC DISEASE PATIENTS

Some provincial department of health have established specialised out-of-facility strategies to manage stable chronic disease patients. These strategies are aimed at decongesting clinics. The strategies are also aimed at rewarding patients for adhering to their medication, by allowing them the flexibility to collect their medication at convenient locations that are in closer proximity to their homes than the clinic.

Adherence clubs

In 2011, the WC DoH rolled-out ART adherence clubs in the Cape Town Metro. By 2015, more than 1,308 ART clubs were established in the city, providing ART care to over 32,425 patients [10].

Adherence club are run by the following staff *(Figure 1 depicts the organogram of the adherence club staff).*

- a facility manager who has overall responsibility for the club;
- a club nurse who oversees the activities of the club and is responsible for members that are referred to the clinic for assessment;
- a pharmacist packs the medication in advance of the club meeting;
- LHWs prepare and facilitate the club meeting and also provide basic clinical assessment;
- a data capturer transfers records from club attendance registers into the facility electronic registers [11].

Figure 1: Organogram of the Adherence club staff [12]

Centralised Chronic Medicines Dispensing and Distribution

The SA DoH in partnership with various medication service providers (such as Medipost, Optifarm and Phamary direct) launched the Centralised chronic medicines dispensing and distribution (CCMDD) program in several provinces [12].

The CCMDD program allows stable chronic condition patients to collect repeat medication from a convenient pick-up point (i.e shop or schools) near their home or work, and at a time suitable to them. Patients can also nominate two other people who can collect medication on their behalf [12].

Consulting nurses and/or doctors are the only ones who can refer patients to be registered to the CCMDD program. At registration patients choose their pick-up point from a database of registered facility and out-of-facility pick-up points. Once the patient is registered, their medication script is sent to the medication service provider. The medicine service provider pre-packs the medication and then dispenses it to the chosen pick-up point [13, 14].

Uncollected medication from the pick-up-points is sent back to the medication service prover. Who then reports back to the health facility on patients who have collected their medication and those who have not [15].

Figure 2 below, shows the medical service providers operating in different provinces and the different pick-up-points options; Phase one is health facility options and Phase two are community based options.

Figure 2: CCMDD service providers and pick-up-points [14]

CCMDD SERVICE PROVIDERS

MEDIPOST	OPTIPHARM	PHARMACY DIRECT
Kwa Zulu Natal	Limpopo	Eastern Cape
	North West	Free State
		Gauteng
		Mpumalanga
		Northern Cape

PICK UP POINT SERVICE PROVIDERS

PHASE ONE	PHASE TWO
Pharmacies	Adherence Clubs
General Practitioners	Community Based Pick Up Points
Occupational Health Clinics	

NEXT STEPS IN PRODUCING AN EVIDENCE SYNTHESIS

Since all of these models are operating simultaneously, it is likely that there is cross-pollination between them, because provincial health systems do not operate in isolation. It is therefore likely that the KZN out-of-facility PHC service model combines elements of all the models, as well as others not described here. We kindly request further detail on the specifics of the KZN model, so that we can more carefully target our question and search strategy to interventions within that model. We also invite comments on our understanding of the models presented in this document, and corrections to any misinterpretation and missing components. Your feedback will help us to refine our response and focus our literature search as we continue with the synthesis process.

SYNTHESIS TEAM

Prepared by: Hlengiwe Moloi (Senior scientist), with support from Karen Daniels (Principal investigator) and Willem Odendaal (Project manager).

CONTACT

Hlengiwe Moloi
Senior Scientist: Health Systems Research Unit, South African Medical Research Council
Email: Hlengiwe.Moloi@mrc.ac.za, Tel: +27 21 938 0601, Website: www.samrc.ac.za
Francie van Zijl Drive, Parow Valley | Cape Town| Western Cape

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Alliance for Health Policy and Systems Research

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