Feasibility of home-based hypertension and physical activity screening in an under-resourced community in South Africa

Acceptability and feasibility of home-based hypertension and physical activity screening by community health workers in an under-resourced community in South Africa

Hypertension, the medical term for high blood pressure, is the main risk factor for ailments such as heart disease, strokes, kidney disease, and even eye disorders.

The Southern African Hypertension Society estimates that about 40% of adults over 25 suffer from hypertension. This indicates that hypertension affects about one billion individuals. Unfortunately, almost half of these individuals are not aware of their condition.

Community health workers (CHWs) are taking up primary care duties in low-and-middle-income countries (LMICs) due to the growing burden of non-communicable diseases (NCDs). The study below investigated how residents of a historically underprivileged South African township felt about house visits led by CHWs with an NCD focus.

## Methodology

This study was conducted in Soweto, South Africa, in conjunction with a series of home visits by CHWs to provide health screening exams in September 2021. Home visits were undertaken using a series of processes: 1) CHWs greeted residents, introduced themselves, and explained the reason for the visit; 2) Secondly CHWs asked for permission to enter the residence; 3) The household members then completed the informed consent procedure; 4) thereafter CHWs carried out a standardized health assessment protocol; and 5) Lastly, household members completed a quick satisfaction survey at the end of the visit.

As a component of an accredited community health work qualification (South African National Qualification Framework Health Promotion Officer/Community Health Worker), CHWs were young adults (ages 18 to 30) undergoing training in health promotion, health behaviour change support, and basic community health screening.

## **Key findings**

During the study period, 173 community households were visited by the CHWs (see Fig. 1 below). Nine people (5%) expressed no interest in participating, while three people (2%) did not answer the door. Out of the 161 community members who remained, 153 (95%) agreed to participate in the study. Eighteen participants either withdrew from the assessments or were unable to complete them because of time constraints. The final sample consisted of 135 people, with a median age of 38 years and a range of 18 to 83 years (56 males and 79 women). Over 50% of the participants said they had between 7 and 12 years of schooling, while roughly one-third said they had more than twelve years.

With over 95% of homes agreeing to participate in the health screenings, the researchers' home-visit strategy demonstrated overall viability in a low-resource



Figure 1: Study flow diagram. \* Participants were unable to complete the measurements and/or questionnaire due to previous scheduled appointments or voluntary withdrawal

neighbourhood. This degree of involvement is comparable to a home-based screening program that was implemented in rural India and reached about 90% of the targeted households (Basu et al. 2019). Additionally, the researchers' discovered that the household members were quite receptive to the advice given, accepted the house visits, and were eager to learn more about their cardiovascular health.

Similar to earlier research done in South African settings (Medina- Marino et al. 2021; Ngcobo and Rossouw 2022), household members expressed a high level of comfort with the CHW-led home visits. This is surprising considering the high reported crime rates in the area, but it also suggests the trusted role that CHWs occupy in the community. According to follow-up interviews, a significant number of community members expressed pleasure with the personalized treatment they received, which they said they were not getting at the local health clinic.

# Conclusion

Given that the community members responded favourably to the blood pressure and physical activity screenings as well as the brief counselling, the success of the home visits in this study underscores the potential to increase easily accessible, community-based health care opportunities for NCD prevention and management. CHWs in LMICs might be the vital force required to confront the rising tide of NCDs through primary prevention and health promotion, given the ongoing growth of CHW duties and responsibilities imposed through the task shifting of health-care services in under-resourced regions.

### **Reference:**

Acceptability and feasibility of home-based hypertension and physical activity screening by community health workers in an under-resourced community in South Africa Mark Stoutenberg<sup>1,2</sup>, Simone H Crouch<sup>3</sup>, Lia K McNulty<sup>1</sup>, Andrea Kolkenbeck-Ruh<sup>3,4</sup>, Georgia Torres<sup>2</sup>, Philippe J L Gradidge<sup>2</sup>, Andy Ly<sup>1</sup>, Lisa J Ware<sup>3,5</sup>

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