Re-Engineering Primary Health Care:

A Formative Process Evaluation of rPHC Implementation in King Sabata Dalindyebo Sub-District in the Eastern Cape Province

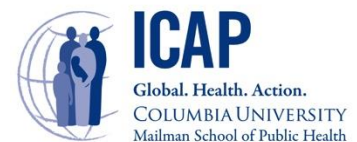### June 2015

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Acknowledgements

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We wish to thank the communities and families in KSD sub-district who participated in this evaluation, and the other implementing partners who contributed their insights and expertise.

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Executive Summary

In 2010, the Department of Health of South Africa launched a "Re-engineering Primary Health Care" (rPHC) initiative, aiming to shift the focus of primary health care to a health-promoting community-based model. At the heart of the program are ward-based primary health care outreach teams, comprised of generalist community health workers (CHWs) supervised by facility-based nurses.

With the support of the Eastern Cape Department of Health (ECDOH), ICAP at Columbia University conducted a formative process evaluation to describe the implementation of ward-based rPHC activities in one sub-district between January 2012 and December 2013. King Sabato Dalyindebo (KSD) sub-district of OR Tambo District was selected by ECDOH as the evaluation location. The process evaluation used both qualitative and quantitative methods, including in-depth interviews with implementers and nurses, focus group discussions with CHWs and community members, structured surveys of knowledge and satisfaction completed by nurses and CHWs, and review of existing DOH data on training and service delivery.

Key findings included:

1. **Ward-based outreach teams were launched by December 2013.** By the end of 2013, KSD sub-district had trained, staffed and launched ward-based outreach teams in all 35 wards, with more than 100 CHWs engaged in community-level activities.

2. **Outreach, counseling, and adherence support services were being delivered to communities.** CHW encouraged community members to seek facility-level health care services, and assisted in the identification and referral of HIV and tuberculosis (TB) defaulters, linking these patients back to treatment.

3. **The outreach teams have added value, but their performance has not been rigorously evaluated.** Although implementers and nurses indicated that investments in CHW training had improved the capacity of outreach teams, quality had yet to be assessed. Community members were deeply appreciative of CHW outreach services, but noted some concerns about confidentiality. Lower-than-expected CHW test scores on the evaluation surveys suggest that retention of knowledge may be a challenge. CHWs reported low levels of field-based supervision and minimal feedback or performance reviews, and fewer than half the CHWs rated their own team's work as good or excellent.

4. **Household profiling data have yet to be utilized to guide programming.** Although a very large amount of household "profiling" data had been collected, implementers and DOH noted concerns about data quality. In addition, information about the prevalence and distribution of illness had not been aggregated or analyzed by the sub-district or District DOH, and there were substantial backlogs in the aggregation of descriptive data about rPHC activities (e.g., number and type of visits) and entry into the Demographic and Health Information System (DHIS). This prevented DOH from using the data to inform policy or guide programs.

In summary, the rPHC program has tremendous potential to link communities with prevention, care and treatment services. The process evaluation highlighted achievements and challenges, as well as areas where intensified support could have substantive impact.

I. Introduction and Background

In 2010, the Department of Health of South Africa launched a national primary health care initiative, with the goal of strengthening existing strategies to support health promotion, disease prevention, and early disease detection. The strategy, called "Re-engineering Primary Health Care" (rPHC), aims to support a preventive and health-promoting community-based PHC model.[1] [2]The three core elements of the rPHC strategy are: 1) ward-based primary health care outreach teams, 2) district clinical specialist teams, and 3) school health teams. The ward-based outreach teams are the heart of the program, which aims to integrate a complex array of existing lay health workers into the formal primary health care system. These outreach teams include generalist community health workers (CHWs) supervised by facility-based nurses.

Although the national Department of Health provided high-level guidance, PHC training curricula, and monitoring and evaluation (M&E) indicators which are aligned with the district health information system (DHIS), the implementation of rPHC activities was left to the discretion of individual provinces. Each province implemented the rPHC strategy following its own policies and timetables and utilizing its existing funds and systems. By mid-2014, at least 1,063 ward-based outreach teams were active nationwide. [3] At the time of this assessment, Eastern Cape province had introduced ward-based teams in three of 37 sub-districts.

In 2014, ICAP at Columbia University was asked to conduct a formative process evaluation to describe the implementation of ward-based rPHC activities in one sub-district of Eastern Cape Province. The project was funded by the U.S. Centers for Disease Control and Prevention (CDC) and was supported by the Eastern Cape Department of Health (ECDOH). ECDOH selected the King Sabato Dalyindebo (KSD) sub-district of OR Tambo District (Figure 1) as the site of the evaluation, based on District-level interest. The process evaluation focused on rPHC activities between January 2012 and December 2013, using both qualitative and quantitative methods, including in-depth interviews with implementers and nurses, focus group discussions with CHWs and community members, structured surveys of provider knowledge and satisfaction, and review of existing DOH data on training and service delivery.

Figure 1: Map of Eastern Cape Province highlighting KSD Sub-district
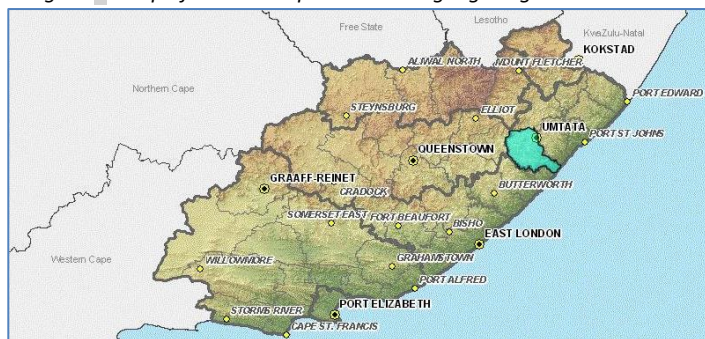
The Eastern Cape province is one of the poorest provinces in South Africa. Although rates of infant and child mortality have declined in recent years, they remain among the highest in the country. Leading causes of death are TB, HIV/AIDS, and lower respiratory infections; cerebrovascular disease and cardiovascular disease are also amongst the top five causes of years of life lost.[4] OR Tambo is the second largest district in Eastern Cape, with a population of 1.36 million;[5] its health system is strained by limited financing and a substantial disease burden, and it recently placed 49th out of 50 in a ranking of district health system performance in South

Africa.[6] The district is amongst the most deprived in the country, with 68% of households lacking access to piped water in 2011.[7]

Within OR Tambo District, most of the population is concentrated in the western part of the district, around its major urban center, Mthatha (formerly Umtata). KSD sub-district has a population of 451,710 people in 105,240 households; its 35 wards range in size from 1,360 to 5,567 individuals (Figure 2).[8] More than half of KSD residents (55%) live below the poverty line and 35% are dependent on social grants; the official unemployment rate is 38.3%. The KSD human development index (HDI) is 0.49, considerably lower than the national HDI of 0.66. The sub-district contains four hospitals, four health centers and 39 rural clinics; the urban area of Mthatha has one additional health center and two additional clinics.[9]

Figure 2: The 35 Wards of KSD sub-district
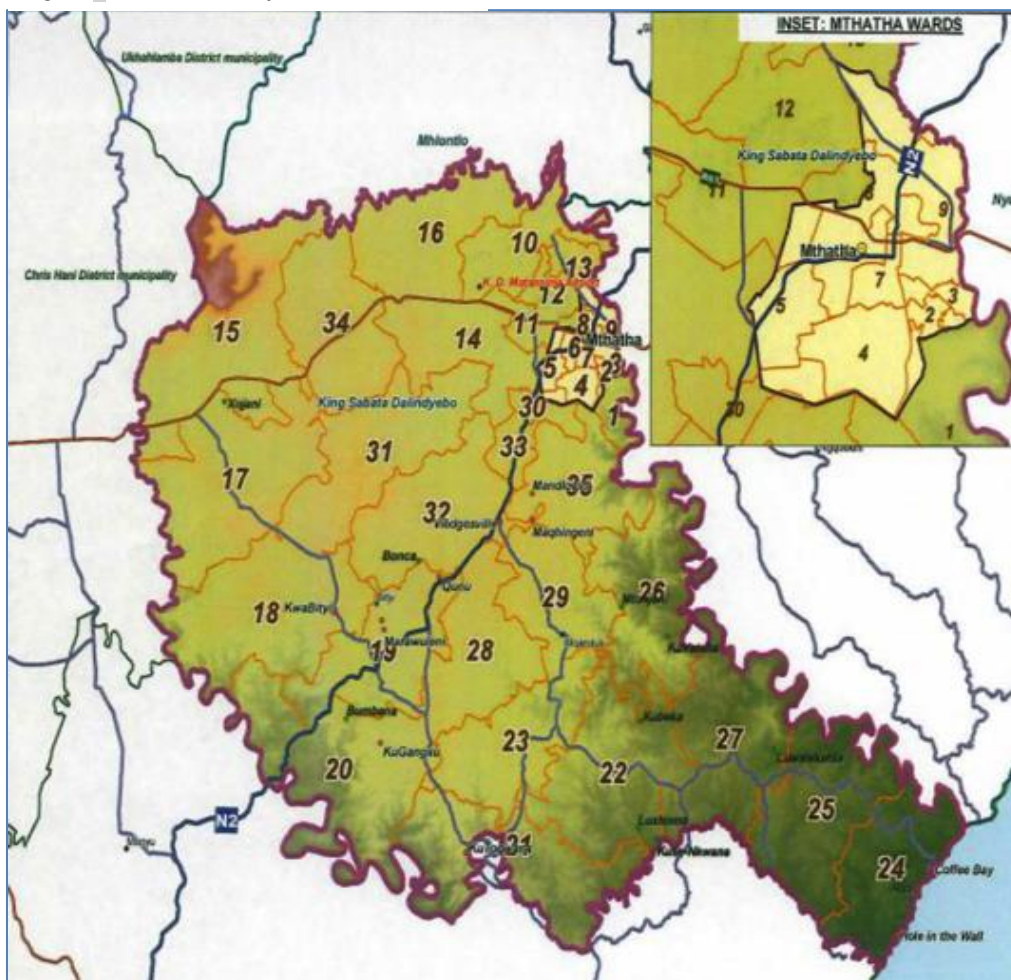
The Eastern Cape Department of Health (ECDOH) adopted the national rPHC strategy in 2011, rebranding it as primary health care "revitalization" rather than "re-engineering," and ensuring its alignment with provincial preparations for National Health Insurance (NHI) plan. Recognizing the centrality of the district health system to rPHC, ECDOH piloted rPHC activities in three sub-districts, starting in 2012: King Sabata Dalindyebo (KSD), Intsika Yethu, and Uitenhage.

Following document review and key informant interviews, the evaluation team developed a logic model for rPHC in Eastern Cape by reviewing planned and ongoing activities and categorizing interventions into four domains: Demand, Access, Quality and Health Systems Strengthening (DAQS), an approach that ICAP has utilized successfully in previous process evaluations.[10,11] The logic model was shared with ECDOH and implementing partners for feedback and revisions; the final version (Figure 4, logic model) summarizes rPHC plans to increase awareness of the need for care, facilitate linkages to health services, provide training and supplies to improve the quality of care, and strengthen health systems to ensure program sustainability.

The original plan for ward-based outreach services in Eastern Cape was for each health clinic in the pilot areas to have at least one outreach team comprised of a professional nurse and six CHWs, responsible for 1,500 local households (6,000 people). In some planning documents, the inclusion of health promoters and environmental health technicians is also mentioned. The DOH developed a detailed list of core competencies for CHWs (Appendix A, competencies), as well as a CHW scope of work (Appendix B, SOW).   The eight key elements of the scope of work are summarized in Figure 3.   While CHWs have been active in Eastern Cape for decades, novel elements of the ward-based outreach teams included integrating CHWs into the public health care system, standardizing CHW roles and training, team leadership by facility-based professional nurses, and a broad mandate beyond home-based care services.

Figure 3: Scope of Work for CHW on rPHC Outreach Teams:

Improve the quality of life of community members by mobilizing for improved access to and delivery of Primary Health Care at local level within the context of an inter-sectoral environment.
1. Promote health and prevent illness
2. Conduct community assessments and mobilize around community needs
3. Conduct structured household assessment to identify their health needs
4. Provide psychosocial support to community members
5. Identify and manage minor health problems
6. Support screening and health promotion programmes in schools and Early Childhood Development (EDC) centers
7. Promote and work with other sectors and undertake collaborative community based interventions
8. Support continuum of care through service coordination with other relevant service providers

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Because school health and district specialist team activities were quite limited during the evaluation timeframe, the project focused on the implementation of rPHC outreach teams.

Figure 4: rPHC Logic Model			
Inputs	Activities* **Black = outreach teams; Green = school health activities; Blue = specialist teams**	Outputs	Outcomes
- Program plans - Existing guidelines - Funding - Implementing partners - Health workers - Training center/ trainers / training curriculum - Equipment and supplies - Vehicles - Basic infrastructure - Information and communication technology (ICT)	Demand: - Train and supervise CHWs to provide home-based screening (e.g., for under nutrition/growth failure, immunization coverage, pregnancy/ANC coverage, demand for contraception, depression, acute illness such as diarrhea and pneumonia, and eligibility for social support/grants) - Enable CHWs to participate in existing community-based health promotion campaigns (e.g., health fun walks, information campaigns) - Enable CHWs to participate in existing community-based screening programs for HIV, HTN, and DM - Meet with community leaders to inform them of new program Access: - Train and supervise CHWs to provide home- and community-based health education (e.g., to promote newborn care, infant and child feeding, ORT and hand washing) - Train, equip and supervise CHWs to provide home-based health services (adherence support and medication refills to individuals with chronic disease, education/counseling re: acute diarrhea) - Train, equip and supervise CHWs to provide home-based health education and post-natal care to pregnant women - Train, equip and supervise CHWs to provide referrals to health facilities and social services - Enable CHWs to participate in community-based interventions (e.g., vaccination, vit A) - Buy equipment and supplies for outreach teams Buy equipment and supplies for school health teams Support School Health Promotion Team to provide school-based screening for hearing, sight, dental, speech, immunizations, vitamin A and minor ailments Support referral systems for school children who screen positive Quality: - Train outreach teams (CHWs and nurses) on rPHC activities - Train outreach team leaders (nurses) on leadership and management - Provide regular supportive supervision to outreach teams Hire and supervise district clinical specialist teams Systems strengthening: - Map health needs at the household level - Provide technical assistance for M&E systems - Develop an electronic database to capture household profiling data - Second a rPHC coordinator to KSD sub-district to support project management and evaluation - Establish a rPHC sub-district Technical Task Team to coordinate activities and inputs - Provide orientation to key stakeholders (clinic managers, clinic committees)	Utilization: Increase in: - Hand washing - Appropriate newborn care - Appropriate infant and child feeding - Immunization rates - Vitamin A coverage - Deworming - ANC coverage - Percent of women booking first ANC visit before 20 weeks - PMTCT coverage - Facility-based delivery - Post-natal care coverage - Contraception use - HIV testing and linkage to care - TB case-finding - Referrals to health facilities - Increased utilization of clinic-based services for adults (ANC, HIV, NCDs) and children (vision, hearing, dental, speech) Quality: - Increased retention of patients in chronic care for HIV, TB and NCDs - Increased completion rates for TB treatment Systems Strengthening: - Stronger M&E systems - Stronger sub-district management systems	Reduction in maternal mortality Reduction in newborn mortality Reduction in < 5 mortality Reduction in mortality from HIV/AIDS Reduction in mortality from TB Increased life expectancy

II. Methods

A. Evaluation Team

Dr. Miriam Rabkin, Associate Professor of Medicine and Epidemiology at Columbia University's Mailman School of Public Health (MSPH), and Dr. Anthony Mutiti, Technical Director at ICAP in South Africa led the evaluation team. Dr. Judith Mwansa and Dr. Tonderayi Macheka (ICAP in South Africa) and Dr. Wafaa El-Sadr (ICAP at Columbia, MSPH Epidemiology) were co-investigators. The team included three additional individuals with expertise in public health and research methods, as well as five skilled local data collectors.

B. Evaluation Design

The formative process evaluation was a strategic assessment of rPHC implementation in KSD during its early phase (January 2012 – December 2013). Building upon the established Liman and Steckler process evaluation framework,[12] ICAP aimed to assess the following elements:

- *Reach* (the proportion of the target population that participates in the intervention, e.g. number of households contacted by PHC outreach teams)
- *Dose delivered* (the amount of the intended intervention that is delivered to program participants, e.g., number and types of services provided by PHC outreach teams)
- *Fidelity* (the quality of the interventions, e.g., quality of CHW services provided)
- *Emergent properties* (e.g., positive synergies and unintended consequences)

The evaluation design was finalized after a detailed review of program theory, and used both qualitative and quantitative methods, including in-depth interviews, focus group discussions, structured surveys of knowledge and satisfaction, and review of existing DOH data on training and service delivery (see Table 1).

Qualitative approaches (in-depth interviews and focus group discussions) were used to explore the views of implementers and health care workers regarding rPHC implementation, barriers and facilitators. The level of awareness, perceptions, and utilization of rPHC services amongst community members was examined in select wards of KSD sub district. Qualitative data collection included:

- 14 in-depth interviews (IDI) with implementers and Department of Health staff at the provincial, district and sub-district levels
- 13 in-depth interviews (IDI) with nurses based at selected KSD health facilities
- 12 focus group discussions (FGDs) with 91 community health workers (CHW) working on rPHC outreach teams
- 18 FGDs with 64 community leaders and 136 community members in KSD

Quantitative approaches (i.e., knowledge and satisfaction questionnaires) were used to shed light on the type and quality of services provided to community members by rPHC outreach teams. Program documents and pre-existing publically available data were also reviewed to explore program context and implementation ("dose delivered"). Quantitative data collection included:

- 13 knowledge and satisfaction surveys with nurses
- 91 knowledge and satisfaction surveys with CHWs

TABLE 1: Data collected

IDI with implementers	IDI with nurses	FGD with community representatives	FGD with CHWs	Knowledge and satisfaction surveys (nurses and CHW)
14	13	18 FGD with 200 community representatives	12 FGD with 91 CHWs	104 (13 nurses, 91 CHW)

C. Sampling, Recruitment, and Data Collection:

With the exception of implementer IDIs, data collection took place at a convenience sample of 13 health clinics and in their catchment areas (map figure 3, list of sites Appendix C).

Figure 3: Location of r-PHC Process Evaluation Sites
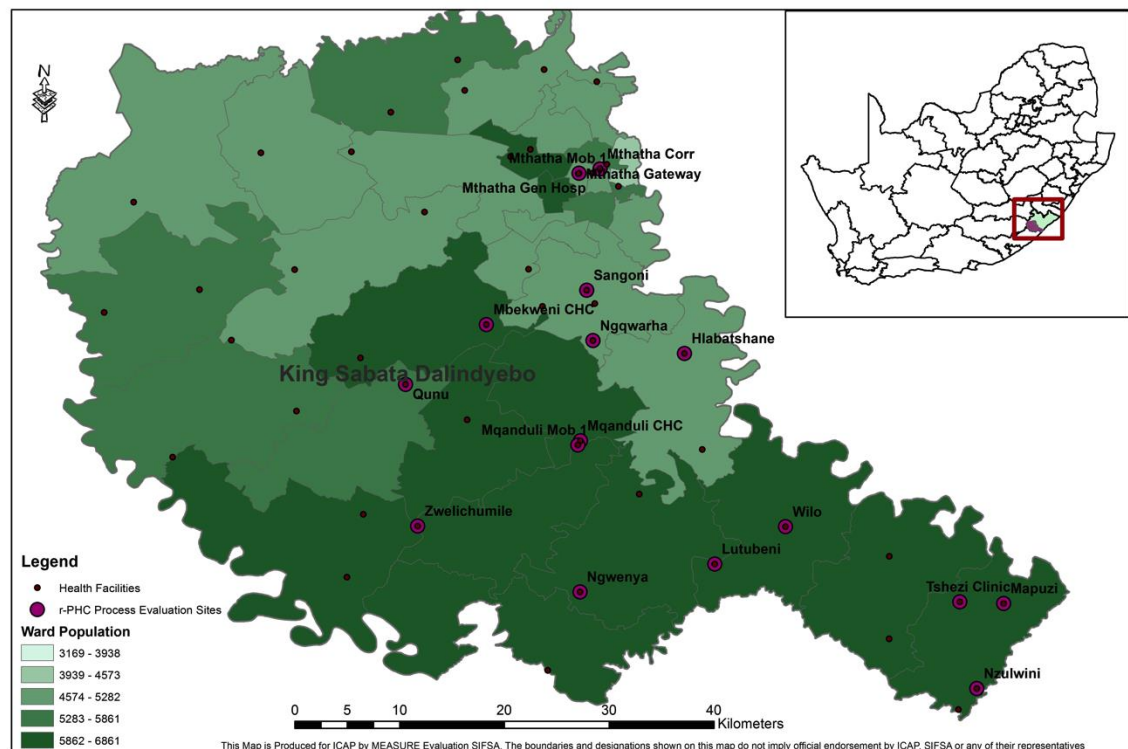
In-depth interviews with implementers:

The evaluation team conducted 14 semi-structured in-depth interviews with policy makers and implementers at the provincial, district and sub-district levels. The interviews assessed, among other areas, perceptions of r-PHC program successes and challenges, and views regarding future implementation of primary health care initiatives. Participants were identified by purposive sampling followed by snowball sampling, and included DOH staff as well as implementing partners (including both of the rPHC implementing partners working in KSD sub-district). Trained interviewers obtained informed consent for the IDIs, which were conducted in person (n=12) and via telephone (n=2) from mid-May to mid-August, 2014. Interviews lasted between 30 and 60 minutes and were conducted in English; they were audio recorded, transcribed, and reviewed for accuracy and completeness by senior research staff before analysis.

In-depth interviews with nurses:

To collect information regarding r-PHC implementation, the evaluation team conducted semi-structured in-depth interviews with 13 nurses working at health facilities in KSD sub-district. The KSD sub-district Manager provided a list of 27 nurses in 35 wards. The team was able to contact 13 of the nurses within the evaluation timeframe, invited them to participate, and obtained informed consent. Of the 13 nurses interviewed, 12 were currently leading ward-based outreach teams; and one was the operational manager at a clinic whose outreach team was supervised by nurse at another health facility. Interviews were conducted in person in July and August 2014; they lasted 60-90 minutes and were conducted in English. Interviews were audio recorded, transcribed, and reviewed for accuracy and completeness by senior research staff before analysis.

Focus group discussions with CHWs:

The 12 nurses leading outreach teams invited the CHWs they supervised to a meeting with evaluation staff. The evaluation team then met with CHWs (without their supervisors present) to explain the study, invited CHWs to participate, obtained informed consent, and conducted 12 FGDs with 91 community health workers (CHW), exploring the following themes: rPHC outreach team activities, perceptions, barriers, and lessons learned. FGDs were conducted in Xhosa between July and September 2014; each took approximately two hours. FGDs were audio recorded, translated into English and then transcribed. A bilingual senior research staff member validated each focus group transcript and recording for completeness and accuracy before coding was performed. Data were then coded by question, using content analysis to analyze the data.

Knowledge/satisfaction surveys with nurses and CHWs:

To gain insight into the fidelity of r-PHC services, the evaluation team asked the 13 nurses who participated in IDIs and the 91 CHW who participated in FGDs to complete self-administered knowledge and satisfaction surveys. The written surveys included 131 questions, covering demographics, training, rPHC outreach team experience, job satisfaction, and basic PHC knowledge. The knowledge section of the survey included 96 questions from the pre/post-test developed by the Foundation for Professional Development and used to assess provincial rPHC training by the Eastern Cape DOH. The survey took an average of 60 minutes to complete; it was written in English, but evaluation staff were available to provide Xhosa interpretation if needed, and to answer clarifying questions. This strategy was identical to the one used for the original pre/post tests done by the Foundation for Professional Development following their CHW training. Data from the paper-based surveys were entered into an Epi Info database, with internal data quality checks for valid entries, skip patterns, range checks, and missing values.

Focus group discussions with community leaders:

In order to identify community perceptions and uptake of rPHC services, the evaluation team conducted five focus group discussions with 64 community leaders in three of the wards served by the 13 evaluation sites. The study team worked closely with DOH clinic supervisors to sensitize communities. Community leaders were engaged via three entry points: clinic committee members, political leaders, and traditional leaders. The study team met with local chiefs and community leaders to explain the evaluation and its purpose; participants then volunteered to take part in the FGDs and provided informed consent. FGDs were conducted in Xhosa between July and September 2014; each took approximately two hours. FGDs were audio recorded, translated into English and then transcribed. A bilingual senior research staff member

validated each focus group transcript and recording for completeness and accuracy before coding was performed.

Focus group discussions with community members:
In order to assess the reach and uptake of rPHC outreach services, the evaluation team conducted 13 focus group discussions with community members most likely to have contacted rPHC outreach teams: 7 FGD with 89 community members with chronic diseases (including HIV/AIDS, hypertension, and diabetes) and 6 FGD with 47 women who were pregnant and delivered babies during the study period (2012-2013). Participants were identified by purposive sampling via the 13 clinics and referred by CHWs familiar with community members in their catchment areas. Following informed consent, FGDs were conducted in Xhosa between July and September 2014; each took approximately two hours. FGDs were audio recorded, translated into English and then transcribed. A bilingual senior research staff member validated each focus group transcript and recording for completeness and accuracy before coding was performed.

D. Data Analysis

Qualitative data (in-depth interviews and FGDs) were entered, cleaned, and analyzed using the NVivo Software Package (Version 10). Audio recordings from in-depth interviews with nurses and implementers were transcribed verbatim. Those from focus group discussions were translated to English from Xhosa, transcribed by bilingual research assistants, and reviewed for completeness by the bilingual study coordinator. Data were then coded by question and theme. The research team used content analysis to analyze data from in-depth interviews and focus group discussions. Team members consulted to reach consensus on data interpretation. Issues that were unclear were clarified by study participants and implementers to ensure accuracy.

Quantitative survey data were entered, cleaned, and analyzed using Epi Info. First level analysis identified measures of central tendency: means, modes, medians. Second level analysis sought to identify relationships through tabulation of outcome/output variables against basic background characteristics captured at the beginning of each instrument.

E. Ethical Review

The evaluation protocol was approved by the Eastern Cape Department of Health, the Columbia University Institutional Review Board (protocol IRB-AAAN2057), and the Ethics Committee of the University of the Free State (protocol ECUFS NR 22/2014).

III. Results

A. Implementation of Ward-Based Outreach Teams in KSD sub-District

Within King Sabata Dalindyebo (KSD) sub-district, rPHC activities were financed by the Province and the District and managed and supervised by the sub-District. The rPHC initiative did not have a separate budget, but was a part of the Community Health Services program area.

A sub-district Technical Task Team was established in April 2012, and included representatives from the KSD sub-district office, the OR Tambo District Health Office, and implementing partners. Chaired by the KSD sub-district manager, the Technical Task Team met monthly to review rPHC implementation progress and discuss challenges.

ICAP at Columbia University, a CDC-funded PEPFAR implementing partner, was asked to assist with rPHC implementation in the Mqanduli area of KSD (see map, Figure 3). ICAP also hired and seconded a rPHC Coordinator to the KSD sub-district, worked with the Technical Task Team to identify training needs and support health worker training, developed and piloted an electronic database to capture household profiling data, supported a 2013 training workshop on monitoring and evaluation, and procured initial equipment and supplies for outreach teams. The Donald Woods Foundation participated in Technical Task Team meetings. At the same time, Health Systems Trust and other partners supported preparations for the National Health Insurance (NHI) pilot in the district; for example, a nationwide audit of health facilities occurred between May 2011 and May 2012, during the beginning of the study period. In October 2013, rPHC implementation support activities were transitioned from ICAP to Health Systems Trust, which became the rPHC implementing partner in KSD.

2012 Activities:

In 2012, rPHC activities in KSD focused almost exclusively on training, preparation, and household surveys ("profiling"). **Training** for CHWs and nurses was coordinated by the Eastern Cape Regional Training Center, using a curriculum developed by the Foundation for Professional Development and endorsed by the ECDOH: *Community Health Worker Project Orientation and Basic Training Programme*. The curriculum consisted of 10 days of classroom training followed by a 5-day practical training, which included hands-on training in the use of rPHC reporting tools. The training included a written, self-administered pre- and post-test. In addition, clinic managers, clinic committee members, ward councilors and chiefs were oriented to the new rPHC initiative, and ICAP provided CHWs in the Mqanduli area with ongoing supportive supervision as well as community health care kits (minor equipment and supplies to enhance the quality of patient care at the community level).

Household profiling consisted of an intensive effort on the part of CHWs, who fanned out across the sub-district to enumerate households and to collect basic health indicators. Profiling activities began in the first quarter of 2012 and continued throughout 2013, supported by standardized household registration and follow up forms developed for the rPHC initiative (Appendix D). CHWs were tasked with submitting the forms on a weekly basis to their team leader, who would then aggregate the data, share with facility managers, and submit to the DOH for entry into DHIS. Of note, the initial version of these paper-based reporting tools was developed by the District DOH; subsequent Province-level revisions led to the later introduction of a second version of the paper-based tools. In addition, as KSD had no electronic database or

data entry staff at the time household profiling was launched, electronic data entry began in April 2013.

2013 Activities:

In 2013, rPHC activities expanded to include home visits and outreach services as well as ongoing household profiling. CHWs provided health education, counseling and adherence support to community members, and worked to identify those in need of facility-based services and to link them to care. Descriptive data regarding outreach team activities – e.g., the number and type of visits – were captured in DHIS starting in April 2013.

Staffing and Structure of Outreach Teams:

Very few *de novo* staff were hired to support the rPHC initiative; most were shifted from existing positions within the sub district. One exception was the appointment of a sub-district rPHC Officer, who was hired and trained by an implementing partner and seconded to the KSD sub-district between June 2012 and September 2013. This individual's role was to support the planning, implementation, and reporting of the rPHC demonstration project. The rPHC Officer was not replaced after rPHC implementation support was transitioned to another implementing partner in October of 2013, but some of these duties were shifted to existing sub-district staff.

By mid-2013, approximately 100 CHWs were working on rPHC outreach teams (DHIS data, 2014 IDP review). All were recruited from existing programs and projects within KSD sub-district. Of the 91 CHWs who completed the evaluation survey in 2014, the average time spent working in KSD was 10 years and 82% reported working in KSD for five years or more. The majority (88%) of CHWs participating in the survey were women; their median age was 41 years (range 22-57 years) and 38% had completed secondary school.

Eight of the 13 nurses who participated in the study were women, their median age was 52 years (range 25-66 years), and they had worked in KSD sub-district for an average of 6.7 years. Two of the 13 had previously retired and re-entered the workforce.

Due to the shortage of CHWs, the scarcity of nurses at KSD health facilities, and the competing demands on nurses' time, plans for the configuration of rPHC outreach teams changed during the early stages of implementation. The initial plan had been to have one rPHC outreach team at each of the 41 health clinics in the sub-district; this was changed to one rPHC outreach team per each of the 35 wards. In densely populated Mqanduli, this meant changing the target from one team at each of 17 health clinics to one team in each of 8 wards.

The size and staffing complement of outreach teams was also adjusted during implementation; in addition to fewer teams, the teams had fewer members than planned. The 13 nurses completing in-depth interviews for the evaluation reported a median team size of four people, and the shift from one team per clinic to one team per ward meant that in some cases, nurses were supervising multiple outreach teams. None of the teams included health promoters or environmental health technicians.

A final adjustment to the plan was the integration of school health teams and community outreach teams due to limited human resources. As noted below, this limited the activities within schools, as outreach teams had multiple competing demands; it also strained the capacity of outreach teams to provide community-based services.

Training:

According to sub-District records, 152 CHWs and 25 team leaders received rPHC training between January 2012 and December 2013. In addition, 60 clinic managers were oriented to rPHC by an implementing partner during this timeframe.

The Regional Training Center has pre-test and post-test data for 330 CHWs trained in rPHC in 2012-2013; these include CHWs working in multiple sub-districts, not just KSD. Average pre-test and post-test scores on this written examination were 76% and 79% respectively; the median pre-test score was 76%, rising to 80% on the post-test.

Of the 91 CHWs completing the evaluation survey, 63 (69%) reported having received training on rPHC; 61 of the 63 (96.5%) described training of 5 days or more, but only 39 (61.9%) reported any field work ("non classroom" training). In the time since their baseline training, 8/61 (12.5%) reported receiving refresher training. Of the 13 nurses completing the survey, 10 reported rPHC training and 4 reported that some of that training included fieldwork. When asked about supervision, 74% of CHWs indicated that their supervisor visited them in the community at least once a month, but only 35% said that their supervisor occasionally observed service delivery.

Equipment and supplies:

The DOH reported that all clinics in KSD received computers in the context of rPHC and NHI preparations. In addition, an implementing partner procured 96 community health care kits[1] for rPHC teams and minor medical equipment and supplies for school health programs.

When asked about the availability of equipment and supplies, the nurses and CHWs surveyed indicated that the tool kits were rapidly exhausted and supplies were rarely replaced. The vast majority (99%) of the CHWs surveyed said that their outreach teams did not have sufficient equipment, as did 77% of the nurses.

- "The tool kits were great, but they ran out and were difficult to keep in stock." – Implementer
- "We were able to get computers to all the clinics in KSD, but the challenge there is that people don't know how to use them and the training hasn't reached them as of yet." - ECDOH
- "In KSD we don't have resources, we sometimes do not have paper to make copies …we do not have original things we have photo copies, we do a photo copy of a photo copy of a photo copy of a photo copy until that copy fades and we cannot see what is written on it." – Nurse

B. Outreach Team Activities: Reach and Dose Delivered

Profiling:

A review of available data and follow up via key informant interviews indicates that the number of households profiled between January 2012 and December 2013 remains unclear. Paper-based profiling reports were not entered into an electronic database prior to April 2013, and the reports conducted before this date had not been enumerated, compiled, or analyzed at the time of the study. Starting in April 2013, profiling activities were entered into the electronic database and reported in DHIS records: DHIS data indicate that outreach teams profiled 21,710 (20.6%) of

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[1] These "tool kits" contained materials for delivery and newborn care, gloves, thermometers, blood pressure machines, stethoscopes, weighing machines, antiseptics, rain coats, job aides, and other minor equipment and supplies to promote optimal care.

the 105,240 households in the subdistrict between April and December of 2013. Information collected included: names of household members; socioeconomic data such as number of grants, number of household members working, and number in school; information about household infrastructure, such as electricity, running water and sanitation facilities; health screening questions, such as whether anyone in the house has a chronic cough, unmet needs for HIV testing or family planning, or takes chronic medications; and more detailed screening questions about pregnancies, recent births, and child health (see Appendix D).

As of end-2014, however, these data had not been aggregated, analyzed, or used by MOH to guide policy or by the outreach teams to guide CHW priorities or activities. (See "Fidelity" section, below).

Outreach Team Home Visits:
By December 2013, all 35 wards in KSD had active outreach teams, although transportation barriers markedly limited access to more remote areas (see supporting data from focus groups and KII below). According to DHIS data, these teams conducted 10,094 follow-up home visits between April and December of 2013, in addition to the profiling visits noted above. Table 2 shows the activities reported in DHIS. The majority of visits were related to pregnancy, child care, and adherence support. Details on specific activities are not available. CHWs also referred community members to health facilities for assessment and care.

Table 2: DHIS rPHC data April-December 2013 (cumulative)

Registration visit	21,710
Follow-up visit	10,094
Supervised visit	913
Visit with pregnancy care	703
Visit with post-natal care	532
Visit with child < 5 years	6,490
Visit with adherence support	7,442
Visit with home-based care	367
Support group meetings	1,235
Client referred to health facility	1,100
Client referred to social services	161
Back referral form received	316

Other Activities:
The rPHC CHWs also participated in measles and polio immunization campaigns and vitamin A distribution, as well as community health awareness initiatives focusing on testing for HIV, hypertension and diabetes.

C. Community Perspective: Uptake and Dose Received

Dose received: community awareness of programs
When asked about community perceptions, CHWs felt that communities were aware of their presence and role, a consensus shared by all 12 CHW FGDs.

- "They know me in my location, because I am always present when there is an imbizo [community meeting]. I then provide advice and educate the community on services available at the clinic. Like testing, TB, Pap smears and dangers of not knowing your [HIV] status. So they know about my job." – CHW

- "They know our job at the location where I work, because on our first visit the board called a meeting and we were formally introduced to the chiefs, headmen and the community at large." – CHW

- "Community members are aware of us. When they have a health problem and do not want to go to the clinic the come to our houses for us to give them advice. Then we accompany them to the clinic if they scared to go alone."

Despite ongoing efforts at community sensitization by implementers and DOH, awareness of the rPHC program amongst community leaders and community members was limited. Community leaders and community members were very familiar with CHWs, who have been present in KSD sub-district for decades, and both groups reported the presence of CHWs in some parts of the sub-district (in particular, those easier to reach via road). In three of the five community leader FGDs, none of the participants recognized the rPHC program when described; only one community leader FGD included participants who could describe the general role and purpose of rPHC outreach teams. Community members were quite aware of CHW programs in general, and were largely appreciative of their efforts despite some concerns regarding confidentiality (see Fidelity section, below). However, respondents also identified non-rPHC programs when asked about CHWs (e.g., loveLife, hospice programs, etc.), indicating that the distinct roles of the rPHC teams were unclear.

- "We see all these people but do not know which program they represent." – Community member

- "I don't think they know about the outreach but only us, the community health workers that knows the outreach, they just notice our regular visibility though they do not know the name of the program." – CHW

- "The OR Tambo district is part of the NHI pilot process so it has been involved with many activities at all levels so it's very difficult to isolate the implementation between that and r-PHC." – Implementer

D. Fidelity

The evaluation did not directly assess rPHC service quality, but triangulated via interviews and focus groups with providers (nurses, CHWs) and recipients (community members) of rPHC outreach services. Service utilization data was reviewed via DHIS reports, and CHW and nurse knowledge of rPHC was tested and compared to average pre- and post-test scores of rPHC trainees in OR Tambo district.

Coordination and oversight:
One theme that emerged from IDI with implementers and nurses was the challenge of oversight and coordination. Because ECDOH needed to design and develop its own rPHC implementation strategy with limited resources and few implementing partners, this led to implementation challenges.

- "If I could have it over, I would say there should have been a national indaba or a workshop but implementation happened only along the development of policy documents. Everybody was not clear what was supposed to be done and once we heard this on the ground, we heard that people just assembled teams but weren't sure what they were supposed to do." – Implementer

- "The challenge is: we still need a dedicated person to coordinate the program. I am assigned but I have my own work and that's a challenge because this is a priority program so apart from what I am already doing I have to prioritize it. And so it means then that there is some kind of straining of the available resource at provincial level. There needs to be someone dedicated to drive this program at the sub-district level as well….there needs to be someone." - Implementer

The rPHC Officer seconded to the sub-district DOH was perceived as a valuable asset, and was greatly missed when the position became vacant in October 2013.

- "When I arrived here July 2013 there was someone responsible for this program, things were going very well then because we had somebody to air out the frustrations and challenges, now that there is no one responsible you don't have a person to share with." – Nurse

- "In this year [2014], the person who controls r-PHC is not so effective because she doesn't call the meetings, she does not ask for reports at the end of every month. She doesn't visit the facilities." – Nurse

- "The manager of the r-PHC is no longer visiting the facilities, no longer calling the meetings and not even asking for the report. And if I can go to the KSD offices and ask for the report form, they don't even have that…." – Nurse

- "And another thing that went wrong in the KSD there is no one to directly report to, there is no one somebody responsible for the program, it's an orphan. Today you are given this person, the next is somebody else, that other day somebody who will say I don't even know what you are doing, do your thing or educate me. So there is no one focusing on this somebody who will be the mother of rPHC. I think that contributes to the non-resource of the program because there is no one responsible for this program, I think that is very important." – Nurse

Quality of services: use of data to guide programs

Although the rPHC teams spent more than a year profiling households and visiting more than 21,700 people in KSD sub district, implementers and DOH staff confirmed that the data they collected were largely unusable. Data on service statistics – the number and type of outreach team visits – were entered into DHIS starting in April 2013, but earlier service data have not yet been aggregated or entered into the electronic database. And, as noted above, despite the use of detailed reporting tools (Appendix D), the profiling information collected about burden of disease and health needs at the household level has yet to be aggregated, analyzed, or used to guide CHW activities or to inform MOH policy or service delivery at the community, facility, sub-District, District or Provincial levels. Informants attribute this to incomplete data and poor data quality.

- "We could not analyze the data, it is just sitting here." – Implementer

- "Even with the profiling we didn't capture the e-profiling like we should so there is nothing we can do about it … so profiling was done but it's not being analyzed." – DOH

- "We have data elements but the interpretation of the data elements by the outreach team are still having a challenge there because most of them we find that just by looking at the data you can see that interpretation is not good of data elements." – Implementer

- "Initially the program was not loaded on DHIS, so we had to use manual reporting but as time went on our national indicator set was introduced … so that needed resources to consolidate the data, so at the facility level to consolidate and be verified from the team leader and then to the facility manager and then the sub-district manager and it's a process that requires a lot of work and a lot of effective process so we had to do all of those things with data verification workshops … but I must state it very clearly. We are not yet at the point where the data is at the level we want it to be…" – Implementer

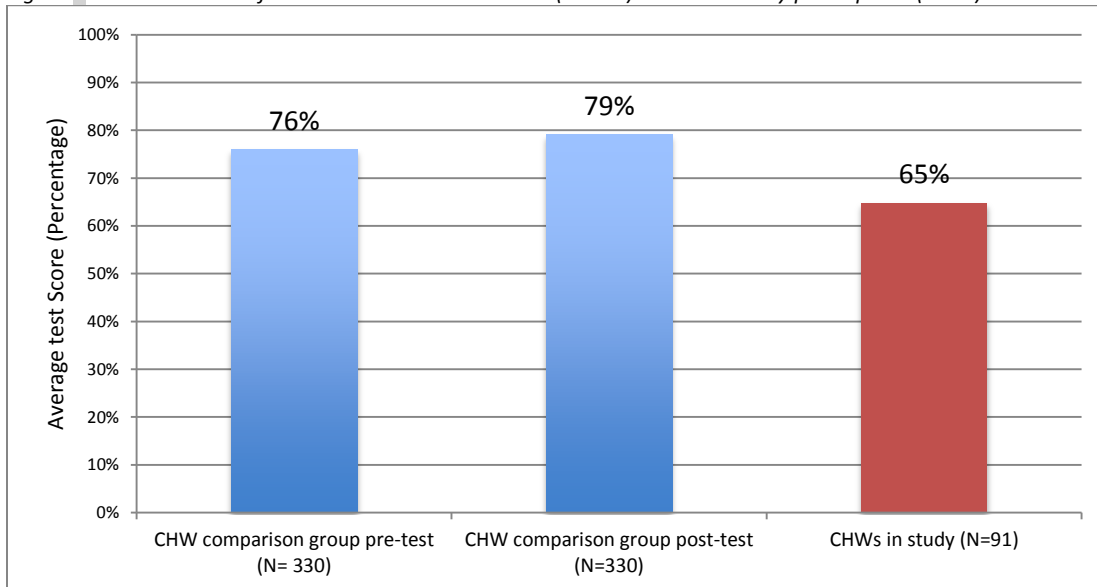## Quality of services: outreach services

The study explored rPHC outreach service quality by assessing the performance of CHWs and nurses on a standardized test of PHC knowledge, via closed-ended questions on the surveys completed by nurses and CHWs, through in-depth interviews with implementers and nurses, and through focus group discussions with CHWs and community members.

- *CHW and Nurse knowledge of rPHC basics:*

As indicated above, the study used an existing test of basic rPHC knowledge developed by the Foundation for Professional Development (FPD) for use as a pre/post test in the context of rPHC training in OR Tambo District. CHW performance was compared to the scores of all CHWs undergoing rPHC training in OR Tambo district in 2012 and 2013, the same timeframe in which participating CHWs were trained and began work on outreach teams.

The average pre-test and post-test scores for the 330 CHWs trained in 2012 and 2013 were 76% and 79% respectively (Figure 5). In contrast, the average score for the 91 CHWs participating in this study was 64.8% (SD 11.9), which was significantly lower than both the prior pre-test and post-test results (p < 0.001). The average score for the 13 participating nurses was 78.6% (SD 8.7).

Figure 5: rPHC test scores for CHW trained in 2012-2013 (N=330) and CHW study participants (N=91)

- *CHW and Nurse perspectives on quality of rPHC outreach services:*

CHWs and nurses were asked about the quality of rPHC outreach services in the context of the knowledge and satisfaction survey, focus group discussions, and in-depth interviews (for nurses). In response to a written question about quality – "the quality of community-based care we provide for people in this community is, in general…" – one of the 13 nurses and 21 of the 91 CHW characterized quality as "excellent" while 6/13 nurses and 28/91 CHW said "fair" or "poor" (Figure 6).

Figure 6: CHW and Nurse perspective on quality of rPHC outreach services

"In general, the quality of care we provide is..."
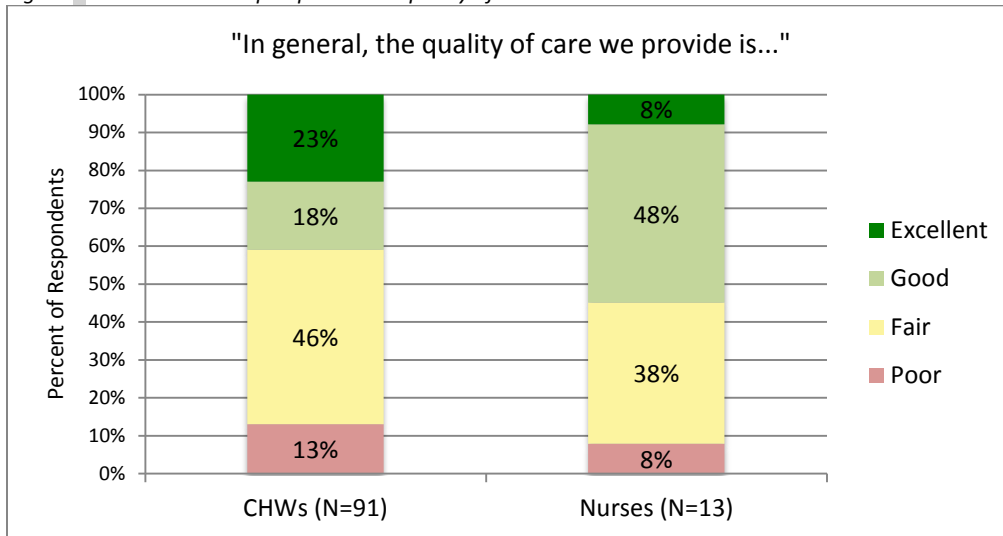
- "We cannot do quality, we cannot do quality, we do not have time to do records, registers. Now that CHWs have been sent out, we have been left with too much load. We have two professional nurses if one is on leave then the load will be left with one nurse. That one nurse has to do all the programs, which is not possible…." – Nurse

- "People have developed negative attitudes towards us. They are fed up on us because we do not have the needed resources." - CHW

- "One [challenge] is we do not have an office, secondly there is no full-time team leader. There are no visits or organization …these things are not happening." - CHW

- "We have no staff. You find you are managing three wards. Most of the staff we are having are retired nurses and we need them, we do need their services but they are not coping, they cannot run fast and another problem we are having is the other staff we have is not permanently employed … so they are not settled so they are going to find another job."- Nurse

- "We have no workspace we have no table, no chairs we just file our papers in the office there." – Nurse

The knowledge and satisfaction survey also asked nurses and CHWs to characterize the effectiveness and fit of their rPHC outreach teams. The majority of nurses (62%) and CHWs (82%) felt the teams were effective (Figure 7), but 62% of nurses and 52% of CHW responded "fair" or "poor" when asked how well the rPHC services fit with community needs and expectations (Figure 8).

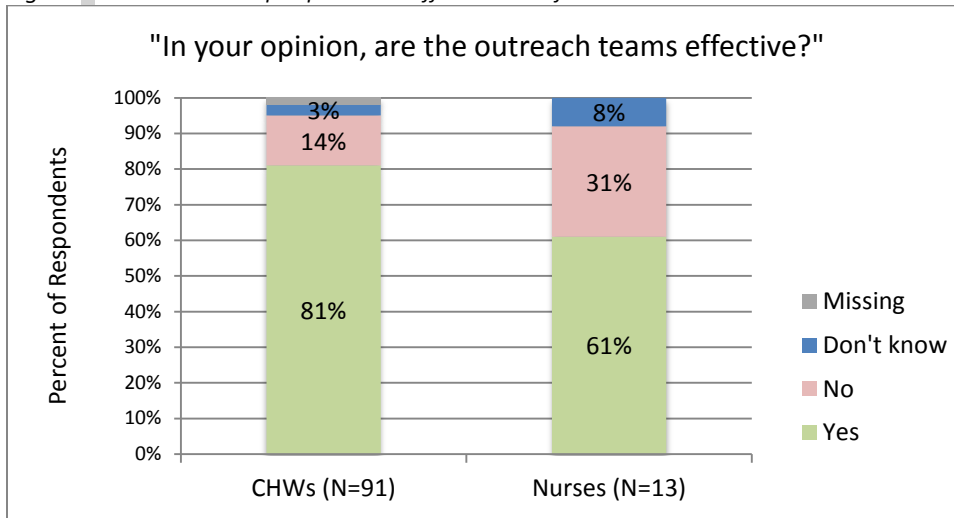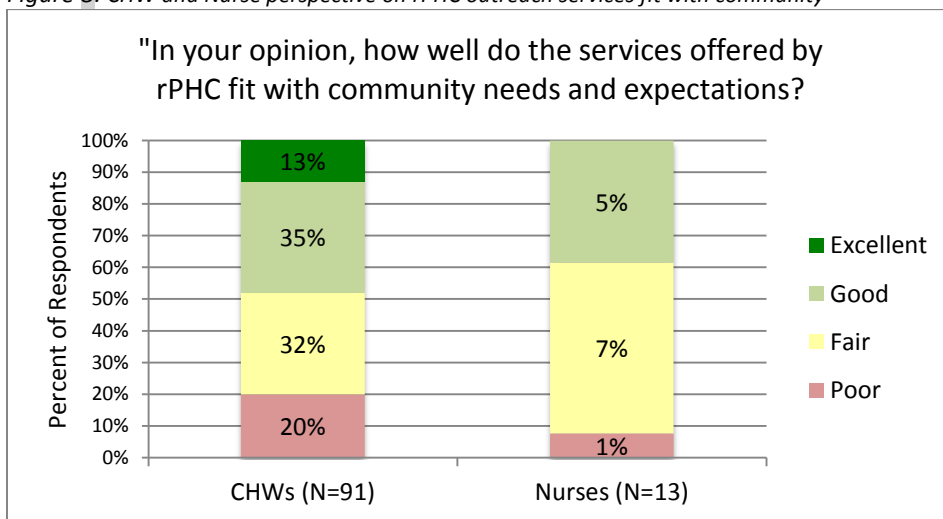*Figure 7: CHW and Nurse perspective on effectiveness of rPHC outreach services*

"In your opinion, are the outreach teams effective?"

Percent of Respondents

CHWs (N=91): Yes 81%, No 14%, Missing 3%
Nurses (N=13): Yes 61%, No 31%, Don't know 8%

Legend: Missing, Don't know, No, Yes

Figure 8: CHW and Nurse perspective on rPHC outreach services fit with community

"In your opinion, how well do the services offered by rPHC fit with community needs and expectations?

Percent of Respondents

CHWs (N=91): Excellent 13%, Good 35%, Fair 32%, Poor 20%
Nurses (N=13): Good 5%, Fair 7%, Poor 1%

Legend: Excellent, Good, Fair, Poor

- "We bring nothing to the community, because elderly people complain that they want their treatment to be brought straight into their homes, but we keep asking them to go the clinics that have no care. So, it would be better if government could equip us with wheelchairs, blood pressure machines, etc. Since we have none of these tools we do not deliver according to our promises, as a result communities lose hope in us." – CHW

- "On the bad side, the Department [of Health] makes us look bad. They make us give empty promises. Because if you want to win the patient's trust, that person needs to eat healthy diet, consume treatment in a proper manner, get good service at the community health centres. Now … there is a shortage of nurses; people get turned away from the clinics because there are no medicines. Secondly, on social issues, when you ask a patient what he/she is going to have for supper, she immediately hopes you are going to provide him/her with food or a solution. In return you only end up understanding his problem but you cannot help him." – CHW

Both nurses and CHWs agreed that key barriers to service quality included lack of transportation, lack of medication and supplies, and scarce human resources. The lack of transportation posed two important barriers – it made it difficult for outreach teams and their supervisors to access communities while also making it difficult for them to effectively refer patients to health facilities. Nurses and CHWs reported that the lack of transportation hampered their outreach activities, particularly to distant communities. They also noted concerns about violence while en route to communities, including fear of mugging and rape.

- "I think transport is the main, the KEY resource that we need, because we can insinuate around stationary and make things happen but transport we cannot, it's just impossible. Transport is the key, key resource that we need for this program because some of the villages are so rural that one cannot walk." – Nurse

- "Point number one is transport, this program from my understanding it is best to be serving who are not going to the clinic who do not have funds to take them to the clinics but we are... supposed to go to them but we don't have transport? It's a conflict." – Nurse

- "They [community members] are aware and they want the program, it is very, very needed by the community but now we can't meet their needs because we also have our own challenges the challenge of the program. Challenge number one is the transport." – Nurse

- "What I'm trying to say is that, we can't reach the unreached that's the problem…. because I though the program is for the unreached areas, so to me it doesn't make any sense because we still can't reach the unreached." – Nurse

- "For example I have not finished the household registration, there are households that I have not touched … because I don't have transport. I started here July 2013 [12 months prior to interview], but about 6 villages… have not been touched." – Nurse

- "It is a vital program, only if it can be resourced, you know I was talking to the chief from [location], they were so excited they needed the program. People really need this program out there. So I had to go back to him and explain that we cannot render the programs we promised to offer because we don't have transport." – Nurse

Once outreach teams reached communities, distance, bad roads, and lack of transportation limited their ability to facilitate referrals and linkages when they identified patients in need of care. The majority of both CHWs (89%) and nurses (85%) said there were no effective transportation systems to bring clients to health facilities, a point strongly made by community members as well. Like the CHWs, community members noted the danger of violent crime during the long walks to health facilities. As noted above, the outreach teams recorded 1,100 referrals to health facilities between April and December of 2013, but received only 316 referral forms in return, suggesting that fewer than 30% of patients completed referrals.

- "The first problem is transport, there are no taxis coming to this facility. Patients suffer because they have to walk or hire vehicles so that they can come here. It is. The area is scattered, the people are far away from the clinic." – Nurse

- "The roads are the main problem. If someone is sick he/she has to be carried with a wheelbarrow as a means of taking him/her to the clinic. If that doesn't work we call an ambulance. But the road becomes unusable if it is raining, so an ambulance becomes unable to come." – Community member

- "Sometimes you find that a person who is sick wants to go to the clinic but cannot because the clinics are too far and they cannot walk, they don't have money for taxi fare and they end up not going to the clinic." – Community member

- "If you have an appointment at the hospital and don't have money you find that you cannot walk to the clinic especially after it has rained because you have to cross a river to get to the clinic, causing you to miss your appointment." – Community member
- "In terms of other health services the clinics are effective but the transport is a problem. People die when they could have been saved." – Community member
- "The problem that I have in the job I am doing is that for example when you visit a community member you find that the person is very sick or old and cannot go to the clinic to fetch their own treatment. When you get to the clinic to collect their treatment for them the nurses at the clinic tell you that the owner of the card must come and take their own treatment and they tell us that beside these people have grant money so they are able to afford taxi money." - CHW

Given the difficulties getting patients to health facilities, CHWs on outreach teams were eager to bring treatment to communities, in addition to profiling activities, health education and advice. While some were able to deliver medications to patients with chronic illnesses, CHWs reported that this was rare, due to inadequate systems, planning, and coordination with clinic staff. The lack of equipment, supplies and medications put outreach team staff in a difficult position, unable to address health needs or to provide effective referrals.

- "Let me put it this way, you spot a thing, you identify a problem but you have no way to solve it. So effectiveness of it…I don't see it. " CHW
- "People have developed negative attitudes towards us. They are fed up on us because we do not have the needed resources." - CHW
- "The rPHC failed to provide the CHWs with equipment and to train them to provide better services. Those are the basic tools needed by the CHWs." – community leader
- "We don't have medication for our clients. They expect us to bring them medication. It is hard when you reach a household you talk and talk but don't provide anything. Some people ask for a lousy panado [acetaminophen] but we don't have." – CHW
- "The outreach team is short staffed and the challenge is that people want us to provide medication as promised." – CHW
- Some [clinics] even don't give us medication because they say, this is our medication! We come with the names of these patients in the community who need chronic meds and they don't believe us." – Nurse
- "When we reach there without BP machines we feel like we are not there…." - Nurse

Staffing and management limitations were more of a challenge on teams without dedicated supervisors, but affected all elements of the rPHC outreach team portfolio. Because teams were reconfigured and reduced in size during implementation, the workload was higher for both nurses and CHWs. The scarcity of supervisory nurses, and the fact that they were required to simultaneously supervise outreach teams, school-based services, and clinic-based services limited their availability and impact. In most cases, supervisory meetings took place at the clinic, rather than in the community. Only one-third (35%) of CHWs reported that their supervisors observed service delivery, and only 20% reported that supervisors provided coaching or skills development (Figure 9). Very few CHWs (8%) reported receiving a formal evaluation of their work in the prior 12 months.

- "The team has fallen short because of the absence of professional nurses who go with them because as community workers they face some things they do not know until they come on Friday. We don't even have communications or telephones to help them." – Nurse

- "We need a team leader who will do home visits with us. The supervisor that we have has never done any home visits with us. We only see her at the end of the month to check on our books. We have incidents that we tell her that need her attention but she tells us that she is busy … she sometimes tells us that she does not have transport to come. We do not know whether we doing things correctly because there is no one to guide us." – CHW

Figure 9: CHW description of supervisory meetings
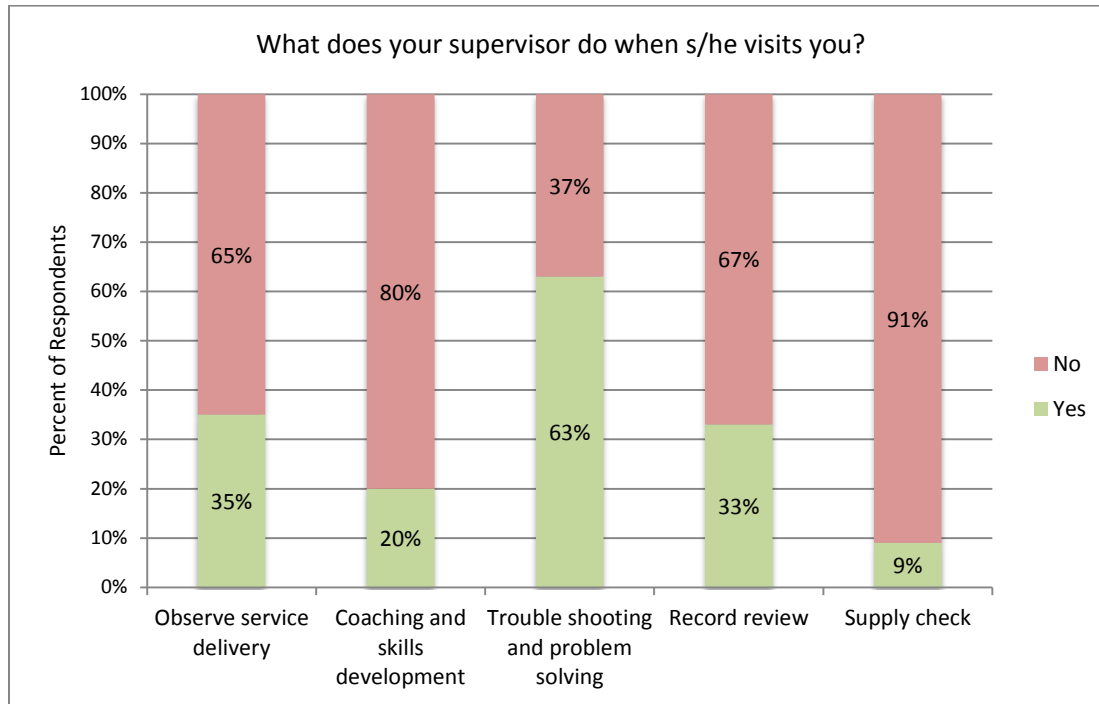
The absence of a nurse supervisor was also noted as problematic in schools, where teachers did not have confidence in CHW dispensing vitamin A or using diagnostic equipment on their own. The decision to merge ward-based outreach teams and school health teams was identified as a challenge by both nurses and implementers:

- "That means you will do the ward based together with the schools that are in your ward and make it one program even though it is supposed to be two different programs. They are adding the school visits/ program without providing us with the resources, there is still no transport, yet they expect us to visit schools…" Nurse

- "There is no clarity between school based and ward based, even the school problems we are also doing that on our wards." – Nurse

- "The school health teams was a challenge because there was no staffing, we had no one to work on these teams. Professional nurses were supposed to be hired for these programs so we lacked staffing and therefore it was not implemented fully until the end when they started merging the ward-based outreach teams and the school health teams." – Implementer

- "What we've tried to do … is to integrate the ward based teams with the school health teams because they appoint a school nurse and we appoint a team leader and what we've found is if we bring them together we can increase our team leaders for both. I don't think we've really developed the integration process very thoroughly until now. For example, with the trainings, we train team leaders on ward based outreach teams and school nurses on

school health. We had one session where we tried to do both but I am not sure we really achieved what we set out to achieve. So it needs a lot more work ... the fact is we don't have a lot of professional nurses. We might have the posts but not the people." – Implementer

Despite these challenges, the majority of CHWs reported job satisfaction. Almost half (45%) strongly agreed and 18% somewhat agreed with the statement: "In general, I am satisfied with this job." CHWs did feel overworked, with less than half (42%) agreeing that their workload was manageable, and *NB* that 75% strongly disagreed with the statement: "I am satisfied with my compensation (pay) compared to similar jobs in other organizations." Despite this, 74% agreed that: "if it were up to me, I would continue to work for this organization for quite some time."

- "What is important is that people like what we are doing and if there is something they do not understand they ask us – the health education is really working." – CHW

- "Since we have started working in the communities, the rate of defaulters has decreased. We encourage them to take their treatment even though they complain about side effects." – CHW

- "There is a greater level of acceptance of illnesses that used to be associated with stigmatization. This happens to the extent that we even visit traditional healers and educate them about such illnesses." – CHW

- "We have managed to give vitamin A to children…we have motivated them to go to the clinic for family planning." – Nurse

- "More mothers come for ANC early and the rate of mothers giving birth at homes has decreased. Pregnant women go to the clinic or health centers to give birth." – CHW

- *Implementer perspective on quality:*

Implementers confirmed that outreach team quality had not been assessed, and noted concerns about the quality of rPHC services being delivered. They concurred with nurses and CHWs that key barriers included staffing and transportation, and raised questions about the effectiveness of CHW training. They also questioned whether CHWs were being adequately supervised, and whether they were providing services best delivered by other cadres.

- "The department didn't train all the CHWs, so that also makes another challenge because in some other areas although there are CHWs, they are not trained so they are not confident of what they are doing and there are sometimes a lot of mistakes because they don't know…" – Implementer

- "We also need to explore the issue around transport. How do we make sure there are bi-directional referrals and just make sure there is a smooth interaction…some CHWs identify issues that we can't address because of that." – Implementer

- "One [challenge] is the issue of staff shortage at facility level and that's affecting how teams are performing, they are not at the level should be at as defined by the guidelines." – Implementer

- *Community perspective on quality:*

As noted above, few community members or community leaders recognized the rPHC initiative by name or description. However, most were aware of CHWs *in general* in their communities, and largely appreciative of their work. While the following comments may or may not apply to

the rPHC outreach teams specifically, they largely mirror what the rPHC staff themselves reported:

- "The service of CHWs is important, because they go an extra mile for their clients, e.g., washing and feeding them. They even collect treatment for clients who are not able to do so." – Community leader

- "What I like about the CHWs is that they are able to book you an appointment to the doctor." – Community member

- "I have heard about positive things this program is doing like visiting very sick people who cannot do anything for themselves clean them and give the person his/her treatment." – Community member

- "They [CHW] have respect, they listen to your problems, and they have a sense of tolerance on clients that are difficult." – Community member

- "…In [area] there is a team of CHWs that are doing a good job. Each of them has a list of clients to provide treatment to them. When they go to work and come back they also provide treatment to patients in certain houses. They do follow-up, if clients are adhering to treatment, and if there are no issues of concern on their heath. Even people that were bedridden and having thin bodies get better and reappear in the community. The problem is that there are few CHWs, so they are not able to serve all the villages around the clinic." – Community member

- "The CHWs go to homes. If someone is sick and not willing to go to the clinic, they have a way of talking to her/him till s/he goes to the clinic. They use the skills they got from their training or the way they were trained." – Community member

- "Community members view CHWs as doing a very good job. Sometimes people are lazy to go to the clinic or even take their children to the clinic for immunization. So CHWs go around checking up on children if have they been for immunization and ask the parent to take the child to the clinic." – Community member

- "The CHWs make a valuable contribution in the community. They have the ability to change the perspective of someone who was in denial of her/his sickness. Consequently the client ends up going to the clinic and making use of the necessary treatment for his sickness." – Community member

- "The CHWs make a positive change to community members. However there are challenges that can be associated with them: They have a shortage of working equipment; despite that, they do their duties up to the best of their abilities. As much as they have a great commitment in their work, the process of visiting households, as females, makes them to be vulnerable to dangerous situations." – Community member

Community members echoed CHW and nurse observations about the transportation barriers faced by outreach teams:

- "…Maybe they do not have transport, we cannot blame them [CHWs], maybe they are struggling with walking, as they do not have transport to take them from one point to another…Maybe they do not have tools to work with." – Community member

- "If only they [CHW] could have transport to take them to the various places. Then we also wouldn't have a problem so that if they get to you and you are very sick they will be able to take you to the clinic or hospital." – Community member

- "The clinics have no ambulances. When one gets sick, it is very difficult to transport him to the hospital. When you call [name of hospital] for an ambulance you are told that there are

no ambulances they have gone to [name of different hospital]...In terms of other health services the clinics are effective but the transport is a problem. People die when they could have been saved." – Community leader

- "They do make efforts to help people reach hospitals especially poor people with no money." – Community member

A specific quality-related issue voiced by community members was concern about confidentiality. Multiple community members reported their impressions that CHW disclosed patient's HIV status, either intentionally or inadvertently, by leaving messages with neighbors. Community workers were also concerned that CHWs were "spreading gossip" about clients.

- "They [CHW] shouldn't be informing neighbours about their patients' confidential information" – Community member

- "I also hear many people that are complaining about their lack of confidentiality in the community so some people end up changing clinics ... as a community health worker you are like a nurse so you should not do these things." – Community member

- "They even gossip about the condition of your home after visiting severely ill people, say bad things like the house is dirty." - Community member

- "I do not like the fact that they gossip about people, exposing their health status. They are doing a great job in the clinic but when they get to the community they change. I dislike that." – Community member

- "A lot of people have not accepted that they are HIV positive. They scared that when a CHW visits she will go and talk about their HIV status to other people that's why they are not accepted in some communities." – Community member

- "The challenge about them is that if they are bringing treatment to you, they ask about you from the neighbors. For example they will ask where is the owner of this treatment disclosing the sickness or illness of that person. As a result everyone in the community end up knowing that you are on treatment." – Community member

- "The only thing that has been a bad experience in most times is when you come to the clinic for blood tests the next thing you hear that a certain community health worker has been talking about that in the streets that is very bad because they are not here to take out our problems." – community member

E. Dynamic and Emergent Properties

In all of the interviews and focus groups, participants were asked about unanticipated effects of the rPHC outreach teams, and about unintended consequences, whether positive or negative. Two main themes emerged from this line of enquiry: the impact of the program on non-rPHC health workers and the impact of the program on communities.

At the community level, implementers and outreach team members were pleased to note that outreach teams identified intersectoral challenges, such as lack of birth certificates and social grants. By linking community members to social agencies and needed social services, CHWs could have lasting impact on individuals and households.

- "[the rPHC program is] already integrated with social development [programs] …so they would find that in this particular household the children don't have birth certificates so these children were having trouble to access social grants…[and the CHWs could refer the family for help]."

At the facility level, CHWs and nurses noted that some clinic staff had not been effectively oriented to the rPHC program in general or the outreach team activities in particular. Colleagues and managers were felt to be unaware of the outreach team's scope of work, and resentful of their "diversion" from clinic activities. At some facilities, outreach teams felt as though they were being blamed for increased workload, and/or disrespected by clinic-based staff.

- "When we [CHWs] come to the clinics they see us as offloading patients on them and their workload increases. It is only recently that we had a meeting to explain our job to them… so that they could understand us. They say 'oh, we don't know these outreach people'." – Nurse

- "I can see that others have attitude on the rPHC because it shortens the staff." – Nurse

- "The nurse in charge here of this clinic received a call that there is a need for a professional nurse to be trained. But it was not mentioned trained to where. So I went there. It [rPHC] was not explained, nobody knows it here in this clinic." – Nurse

- "Some members are not involved, they don't understand what is the good cause of the program, sometimes they think it's just going outside of the clinic to do nothing. They don't understand the main core." – Nurse

An unintended consequence was the concern that a year's worth of profiling activities had raised expectations that outreach teams were unable to meet, due to lack of medications, supplies and transportation. CHW and nurses worried that this would undermine community trust and confidence in their services.

- "I think in the beginning the community supported us but we no longer get support from the community. They are fed up. We couldn't keep our promises." – CHW

F. Key Findings

1. **Ward-based outreach teams were launched by December 2013.** By the end of 2013, KSD sub-district had trained, staffed and launched ward-based outreach teams in all 35 wards, with more than 100 CHWs engaged in community-level activities.

2. **Outreach, counseling, and adherence support services were being delivered to communities.** CHW encouraged community members to seek facility-level health care services, and assisted in the identification and referral of HIV and tuberculosis (TB) defaulters, linking these patients back to treatment.

3. **The outreach teams have added value, but their performance has not been rigorously evaluated.** Although implementers and nurses indicated that investments in CHW training had improved the capacity of outreach teams, quality had yet to be assessed. Community members were deeply appreciative of CHW outreach services, but noted some concerns about confidentiality. Lower-than-expected CHW test scores on the evaluation surveys suggest that retention of knowledge may be a challenge. CHWs reported low levels of field-based supervision and minimal feedback or performance reviews, and fewer than half the CHWs rated their own team's work as good or excellent.

4. **Household profiling data have yet to be utilized to guide programming.** Although a very large amount of household "profiling" data had been collected, implementers and DOH noted concerns about data quality. In addition, information about the prevalence and distribution of illness had not been aggregated or analyzed by the sub-district or District DOH, and there were substantial backlogs in the aggregation of descriptive data about rPHC activities (e.g., number and type of visits) and entry into the Demographic and

Health Information System (DHIS). This prevented DOH from using the data to inform policy or guide programs.

In summary, the rPHC program has tremendous potential to link communities with prevention, care and treatment services. The process evaluation highlighted achievements and challenges, as well as areas where intensified support could have substantive impact.

IV. Recommendations

The rPHC program outreach teams have tremendous potential to improve the health and well being of individuals, families, and communities in South Africa. The program builds on decades of experience and insights about community health needs and barriers, and includes important innovations. By designing crosscutting outreach teams that are integrated into the DOH primary care systems, rPHC has the potential to avoid the fragmentation and inefficiencies of program-specific community outreach, in which implementing partners employ CHWs with different training and scopes of work, focusing on specific health conditions. By supporting CHWs to stay in (or near) their home communities, rPHC can leverage their local knowledge and contextual expertise. And by using outreach teams to link communities and facilities, rPHC has the potential to enhance both coverage and quality of health services.

In 2013-2014, the KSD sub-district successfully launched rPHC outreach teams with modest PEPFAR-funded support, in the form of a seconded rPHC coordinator and technical assistance from one implementing partner. In order to consolidate early successes and enhance program impact, we highlight several recommendations:

1. **Invest in CHWs and supportive systems:**
South Africa's rPHC program has taken the important step of prioritizing ward-based CHWs able to provide comprehensive outreach services, in addition to (and in some cases instead of) the diverse "single purpose" CHWs hired and trained by specific programs to address single health challenges, such as HIV, TB or maternal mortality. In KSD sub-District, this vision has been operationalized via the swift launch of 35 ward-based outreach teams.

In order for these teams to have the desired impact, CHWs require enhanced training and ongoing capacity building and supportive supervision:
- Scopes of work should be clarified, with particular attention to the question of whether or not CHWs are intended to be delivering medication and other treatment to community members.
- Baseline training should be practical, competency-based, and closely linked to CHW scopes of work.
- Training should include concerted attention to skills building in key domains, including: health education; counseling and motivational interviewing; and data collection and documentation.
- Field-based supervision should be institutionalized and consistently provided. Nurse supervisors should routinely provide community-based supervision, observing CHWs and providing structured and supportive feedback.
- Convening annual or semi-annual meetings of outreach teams at the sub-district level will enable ongoing refresher trainings, presentation of data and review of progress, and is strongly recommended.

2. Provide tools to facilitate CHW work:

Sustained support is required for forecasting, procurement and distribution of outreach team equipment and supplies, which should be integrated into routine DOH procedures.

3. Use data for decision making:

Program success is dependent on more effective data collection, analysis, and use of data to guide programming.

- *Data collection and quality:* Enhanced training of CHWs and nursing team leaders is required to support data quality; the use of tablet computers and/or smart phones may enable built-in quality checks. Simplification of reporting tools and templates may also be required.
- *Data analysis and use*: Using a logic model or other systematic approach to identify a small number of priority indicators, reviewing them quarterly, and using the information to reinforce successes and address key barriers will be critical to the ongoing success of the rPHC program. A "cascade" approach to assessment of prevention, care and treatment services will provide a snapshot of program success. For example, irrespective of health threat, the cascade would include: estimated number of people with the condition; % of eligible community members screened/tested; % of those testing positive linked to care; % of those linked to care receiving appropriate services; and in the case of chronic diseases, % of those retained in care and treatment.

4. Address the "transportation gap":

The distance between communities and health facilities is a serious and persistent problem for health systems in the Eastern Cape. At present, ward-based outreach teams are unable to bring care and treatment to communities or community members to health facilities, gaps that can only be addressed via locally-appropriate transport or ambulance services, mobile clinics, community-based health post and/or community treatment groups. CHWs play a vital role, however, providing counseling, education, adherence support and referrals – however, it is critical that they are provided with transportation to and within their assigned communities.

Recognizing that the transportation gap is a serious one for ward-based teams, the rPHC program should identify the most sustainable transportation support available, whether this is motorbikes, bicycles, vouchers for taxis, or another contextually appropriate solution.

5. Continue community engagement:

Engagement of community leaders and community members has been a successful component of the rPHC program, and ongoing outreach and communication will be critical to ensure support for rPHC team activities. Clarification of the expected SOWs for outreach team CHWs is important, particularly regarding delivery of medications and other treatment at the community level.

6. Provide support to sub-district and district-level DOH to ensure rPHC program success:

While rPHC activities are conceptually integrated into DOH planning and implementation, the absence of rPHC staff at DOH in Year 2 was a barrier to program progress. Identification of resources to support dedicated rPHC managers at the district and sub-district levels would have a marked positive effect on implementation. Similarly, the availability of implementing partners to provide day-to-day hands-on support for rPHC program activities would enhance program activities and outcomes.

V. APPENDICES

A. Appendix A: South Africa DOH CHW Core Competencies, Version 2

Core Competencies of Community Health Worker
A Community Health Worker requires the following competencies to function effectively as a member of a Ward-based PHC Outreach Team: **Core Competencies:** 1. Conduct a comprehensive household assessment 2. Promote health and prevent illness 3. Provide psychosocial support 4. Identify and manage minor health problems 5. Conduct community assessments and mobilise around community needs 6. Support screening and other programmes in schools and ECD centres 7. Offer basic first aid and treat minor ailments 8. Conduct a home visit 9. Interview community members and apply interpersonal communication skills 10. Assist community members to access services 11. Refer community members to health, social and other community-based services 12. Promote and work with other sectors and undertake collaborative community-based interventions 13. Advocate for improved health and community services 14. Conduct health promotion and education sessions for communities and their members 15. Understand the principles of PHC and the interventions and services supporting it 16. Understand the health system, the services offered at various facilities and the referral system **Generic Competencies:** 17. Communication 18. Health promotion and education 19. Team work 20. Problem solving 21. Self-management 22. Recording 23. Service co-ordination

Appendix A, Core Competencies, continued:

	Maternal, Child, Women's Health	HIV and TB	Chronic non-communicable diseases	Violence and injury
1. Conduct a comprehensive household assessment: • Biographical profile • Information on health status • Level of health and social risk facing households and individuals • Need for services • Ease of access to health and social services • Identify vulnerable households	• Conduct a developmental assessment for children • Understand basic integrated management of childhood illnesses and use of guidelines • Understand immunization schedules and read *Road to Health* booklet • Understand the nutritional requirements for infants (exclusive breast feeding), children and pregnant women • Knowledge of HIV screening and care in pregnancy and childhood • Knowledge and understanding of antenatal and postnatal care of pregnant women • Screen for reproductive health problems, sexually transmitted infections, family planning requirements and termination of pregnancy • Conduct breast examination	• Understand HIV, TB, the presentation of illnesses, prevention, screening, treatment and support • Understand the requirements for treatment adherence support groups and promotion of treatment compliance • Conduct treatment adherence support groups	• Understand the manifestation of common chronic health problems and factors that promote and prevent these conditions • Use basic screening and assessment tools to screen for risk of chronic health problems • Understand the special needs of persons with chronic diseases, the disabled and elderly • Understand the service network and referral systems for service required to support persons with chronic diseases, the disabled and elderly • Provide education and support to persons with chronic diseases, the disabled, and elderly • Understand the requirements for treatment adherence support and promotion of treatment compliance for persons with chronic illness • Provide adherence support	• Identify households affected by domestic violence and substance abuse • Facilitate access to sexual assault and mental health services • Motivate and refer persons to appropriate substance abuse treatment

	Maternal, Child, Women's Health	HIV and TB	Chronic non-communicable diseases	Violence and injury
			and counseling for new and existing persons on treatment	
2. Promote health and prevent illness • Provide information • Educate on and support for healthy behaviors • Facilitate appropriate home care	• Promote early childhood development and stimulation • Promote and prepare families for parenthood and effective parenting • Promote exclusive breastfeeding • Promote accident prevention and safety in the home • Facilitate basic hygiene and infection	• Understand the principles of HIV and TB prevention programmes • Conduct health promotion and prevention campaigns for HIV and TB • Understand and promote infection control in the home	• Conduct health promotion and prevention campaigns for chronic diseases	• Provide information and motivational interviewing on substance abuse • Provide information on prevention of injuries in homes
3. Provide psychosocial support	• Psychosocial and supportive counselling • Coping mechanisms and emotional support • Knowledge of postnatal blues and depression management	• Understand the principles of providing integrated psychosocial and adherence support to persons on TB, HAART and other chronic disease treatment		• Provide post-trauma counselling
4. Identify and manage minor health problems	• Integrated management of childhood illnesses • Oral rehydration and continuous feeding • Signs and symptoms of pneumonia		• Manage common health problems that affect persons with disability and the elderly including • Foot care • Mobility • Dietary interventions	• Render basic first aid in the home and community

5. Conduct community assessments and mobilize around community needs • Compile a community profile • Identify community resources • Identify health and related services available			
6. Support screening and other programmes in schools and ECD centres			
7. Promote and work with other sectors and undertake collaborative community-based interventions • Address intersectoral issues (e.g., water sanitation and food security)			

8. Advocate for improved health and community services
9. Conduct health promotion and education sessions for communities and their members
10. Conduct a home visit
11. Offer basic first aid and treatment of minor ailments
12. Understand the principles of PHC and the interventions and services supporting it
13. Understand the health system, the services offered at various facilities and the referral system
14. Interview community members and utilize effective interpersonal and communication skills
15. Demonstrate the ability to assist community members to access services
16. Refer community members to health services and social and other community-based services offered by other sectors

17. Communication	• Demonstrate the ability to listen, comprehend, and effectively communicate information, both written and orally, to all individuals

	• Use communication and interpersonal skills to initiate, develop and maintain a supportive, caring relationship with community members • Use verbal and written communication appropriately to communicate with community members • Demonstrate empathy • Use appropriate, accurate and non-judgmental language • Actively listen and attend to client concerns (including body language) • Paraphrase (reframing) what client says to ensure a mutual understanding • Ask open-ended questions to solicit client information and give positive reinforcement • Describe and explain client rights and confidentiality in clear language • Elicit, document and appropriately use community members responses • Convey information that is easily understood and appropriate • Respond timeously and correctly to community member's questions, requests and problems • Communicate in a manner that promotes respect and dignity of community members • Maintain confidentiality of both written and oral communication with community members as well as written records
18. Health promotion and education	• Demonstrate skills in presentation of health information • Provide and present information to community members in an appropriate and clear manner • Use written and visual materials that convey information clearly and respectfully to clients, as well as other service providers and community residents • Present information effectively to small and large groups of community members • Promote appropriate health information within the community
19. Team work	• Identify the structure and purpose of the PHC Outreach Team • Establish and maintain a good working relationship with team members, supervisors and other community-based workers and other colleagues • Understand and respect the roles and skills of all members of the Outreach Team and health and social care teams • Demonstrate understanding of the role of other stakeholders in health care • Participate with members of the health and social care teams in decision-making pertaining to health care delivery • Disseminate information about area of responsibility to other team members • Develop and establish inter-sectoral relationships that promote health care • Function as an effective team member • Form alliances with key players when dealing with community health issues and needs • Work effectively in groups with other community workers to understand and promote change
20. Problem solving	• Identify problems by recognising the difference between current and ideal situations • Determine possible causes of problems from given sources of information

	• Request guidance and assistance from others to identify root causes of problems where own analysis is insufficient • Respond to known information • Interpret information if clues are given • Identify several solutions when analysing a problem, under general supervision
21. Self management	• Demonstrate ability to manage and organise one's self, tasks and work environment • Display the skills necessary for effective personal planning • Have effective time management ability • Demonstrate the skills necessary for effective goal setting
22. Recording	• Complete household registration forms • Ensure information recorded is legible, accurate and relevant • Update household and community records • Accurately record all interventions rendered • Complete weekly and monthly reports as required • Complete community, household and individual assessment forms
23. Service Coordination	• Demonstrate ability to identify and access resources • Demonstrate ability to network and build coalitions with other service providers in the community • Demonstrate ability to provide follow-up

B. Appendix B: Scope of Work for the Community Health Worker, DOH, version 2

Scope of Work for the Community Health Worker
Improve the quality of life of community members by mobilising for improved access to and delivery of Primary Health Care at local level within the context of an inter-sectoral environment.   1. Promote health and prevent illnesses   2. Conduct community assessments and mobilise around community needs   3. Conduct structured household assessment to identify their health needs   4. Provide psychosocial support to community members   5. Identify and manage minor health problems   6. Support screening and health promotion programmes in schools and Early Childhood Development (ECD) centres   7. Promote and work with other sectors and undertake collaborative community based interventions   8. Support continuum of care through service co-ordination with other relevant service providers

	Maternal, Child, Women's Health	HIV and TB	Chronic non-communicable diseases	Violence and injury
1. Promote health and prevent illness • Provide information • Educate and support for healthy behaviours • Facilitate appropriate home care	• Promote key family practices: ○ Infant and young child feeding ○ Newborn care ○ ORT, hand washing ○ Nutrition ○ Postnatal care for women	• Promote HIV prevention including HIV testing, condom use, partner reduction, circumcision, STI treatment • Promote voluntary counselling and testing for HIV • Distribute condoms • Advise on TB infection control in the home	• Provide information on risk factors for chronic diseases	• Provide information and motivational interviewing on substance abuse • Provide information on prevention of injuries in homes
2. Conduct community assessments and mobilise around	• Support immunization, vitamin A and de-worming campaigns	• Support HIV educational and treatment literacy campaigns	• Support exercise, diet and smoking cessation campaigns	• Support pedestrian safety initiatives • Support campaigns to

community needs • Compile a community profile • Identify community resources • Identify health and related services		• Distribute condoms in non-traditional outlets		reduce the availability of drugs and alcohol

3. **Conduct structured assessment to determine:**
• Biographical profile
• Information on health status
• Level of health and social risk facing households and individuals
• Need for services, ease of access to health and social services
• Identify vulnerable households
	• Identify households with children under 5 and women of reproductive age
	• Assess need for and facilitate access to key preventive and care services:
	  ○ Early ANC
	  ○ Immunisation
	  ○ Growth and development
	  ○ HIV screening and care in pregnancy and childhood
	  ○ Contraception, TOP and cervical cancer screening
		• Identify persons at risk of contracting HIV or TB
		  ○ Refer for HCT and screen for TB symptoms
		  ○ Provide adherence support and counselling for those on TB or HAART treatment
		  ○ Facilitate early referral for CD4 testing
			• Identify adults with hypertension, diabetes and depression
			• Identify persons with other chronic diseases and disabilities
			• Facilitate access to facility or specialist care
			• Provide adherence support and counselling for new and existing persons on treatment
				• Identify households affected by domestic violence and substance abuse
				• Facilitate access to sexual assault and mental health services
				• Motivate and refer persons to appropriate substance abuse treatment

4. **Provide psychosocial support**	• Support women with postnatal depression • Support HIV affected and youth and child headed households	• Provide an integrated approach to adherence support for TB, HAART and other chronic disease medication in close collaboration with facility-based counsellors		• Provide post-trauma psychosocial support
5. **Identify and manage minor health problems**	• Identify and treat diarrhoea (ORT and continuous feeding)	• Identify persons with opportunistic infections and refer	• Provide basic stroke support and rehabilitation • Support foot care in	• Provide basic first aid in the home and community as

				diabetics and elderly	required
6.	**Support screening and other programmes in schools and ECD centres**	• Support school screening programmes and campaigns	• Support gender sensitive school and youth HIV prevention programmes	• Support school children who are on treatment for chronic health problems (e.g. diabetes, asthma)	• Identify, support and monitor children that are at high risk of child neglect, domestic violence and abuse, and refer to social development services
7.	**Promote and work with other sectors and undertake collaborative community-based interventions** • Address inter-sectoral issues (e.g., water sanitation and food security)	• Facilitate early birth and death registration • Facilitate access to social grants child care, disability, old age and other social services (e.g. OVC, substance abuse)	• Participate in inter-sectoral prevention campaigns (e.g. HIV and TB, measles)	• Facilitate access to social grants, disability and old age benefits	• Facilitate access to social services for substance abuse and victims of violence and neglect
8.	**Support continuum of care through services co- ordination with other relevant service providers**	• Assist community members to access services (e.g. health and other required services) • Identify and access resources • Network and build coalitions with other service providers in the community • Provide follow-up support and care • Refer community members to health services and social and other community based services offered by other sectors • Utilise health system, the services offered at various facilities and refer appropriately			

C. Appendix C: List of Evaluation Sites

The evaluation was conducted at 13 primary health centers in KSD sub district:
1. Nzulwini
2. Tshezi
3. Wilo
4. Luthubeni
5. Mqanduli CHC
6. Ntlangaza
7. Ngqungqu
8. Zwelichumile
9. Nqwara
10. Hlabatshane
11. Mapuzi
12. Mahlungulu
13. Ngcwanguba

D. Appendix D: DOH Household Registration Forms

Household Registration Form — health / Department: Health / REPUBLIC OF SOUTH AFRICA

Official Household registration number

Clinic name (DHIS name)		Ward (DHIS #)		CHW household identifier number	
Name of household head/contact				Date of visit (dd/mm/yyyy)	
Household street address/descriptive location				CHW name	
				Team name (DHIS name)	

	A	N/A	R
Household respondent A = available; N/A = not available; R = refused			
Were all household members registered in this visit?		Y	N

Household head phone number [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

1. Household member details	b. Date of birth (dd/mm/yyyy)	c. Age in years	d. Gender male	d. Gender female	2. Information about the house		
a. Name					a. Does the house have electricity?	Y	N
1					b. Is there piped water in the house or in the yard?	Y	N
2					c. Is there a working fridge in the house?	Y	N
3					d. Is there a toilet in the house?	Y	N
4					e. Total number of rooms in the house?		
5					f. How many grants does the household receive in total?		
6					g. How many people in the house are currently working?		
7					h. Name of school(s) for learners		
8							
e. Totals							

3. General household screening questions for all households
If YES to any of following questions, refer for further care

Write HH member # in the last column

a. Does anyone in the household have any of the following: *(circle all that apply)* *(refer for sputum test for TB)*								
Cough that won't go away?	Night sweats	Weight loss	Fever		Loss of appetite?	Y	N	
b. It is very important to know your HIV status. Would anyone in the household like to have an HIV test? *(refer for HCT)*						Y	N	
c. Is there anyone who does not use a family planning method but wants to? *(refer for family planning services)*						Y	N	
d. Is there anyone in the household who cannot get out of bed or needs help with daily living activities? *(refer for home-based care)*						Y	N	
e. Do any household members need help applying for social grants? *(refer for social services)*						Y	N	
f. Is this a child (<18 years) headed household? *(refer for social services)*						Y	N	

4. Household screening questions for CHW follow-up
If any of the answers below are YES, this household will need follow-up. Complete page 2 of this form

	Y	N
a. Is anyone in the household currently pregnant or has not had a menstrual period in the last 6 weeks and may be pregnant?	Y	N
b. Has there been a delivery (baby) in the last 6 weeks?	Y	N
c. Are there any children under the age of 5 in the household?	Y	N
d. Is anyone in the household taking daily medication (like TB/ARV/diabetes medication/high BP medication)?	Y	N

Notes:	***DOES THIS HOUSEHOLD NEED FOLLOW-UP?***	
	YES Complete page 2 of this form	**NO** Write date for next HH re-assessment visit

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5. Further assessment and screening questions for all households to be followed by CHW *For each question: If the answer is YES, write the household member number(s) from the list of household member names and details on page 1.* *For any other problems you have identified, write this in the last box in detail and indicate HH member number.* *For questions b-g: check RTHB.* *If a referral is needed, write the total number of clients referred to the clinic for each line.* *If the client was referred elsewhere – indicate the reason, the place of referral and number of referral forms issued in box j.*			HH member number(s)*	Number of *Referral Forms* issued
a. If someone in the house is pregnant, what is the estimated delivery date (EDD)? *Check the ANC card if available or ask mother when her LNMP was and use pregnancy wheel to estimate.* *(Write unknown if delivery date is not known)*	EDD *(dd/mm/yy)*			
b. If there was a birth in the last 6 weeks, what was the date? *Check the RTHB or ask mother for the date of births*	Date of Birth *(dd/mm/yy)*			
i. Was the baby's birth weight under 2500 grams? *Refer to clinic for monitoring. Schedule further home visits*	Y	N		
c. Are there any children under 5 in the house whose immunisations are not up to date? *Refer for catch-up EPI at clinic*	Y	N		
d. Are there any children under 5 who have not had a dose of vitamin A in the last 6 months? *Refer for vitamin A supplement at clinic*	Y	N		
e. Are there any children who have not been weighed according to the growth-monitoring schedule or who show signs of malnutrition/growth faltering? *Refer for growth monitoring. Complete a nutritional assessment and schedule follow-up visits if needed*	Y	N		
f. Are there any children with suspected illness or does mother/caregiver have concerns about any child's current or recent health status? *Assess and refer to clinic if needed. Schedule follow-up visits*	Y	N		
g. Are there any HIV exposed children in the household 6 weeks or older who have not had a PCR test? *Check the RTHB. Refer to clinic for PCR test. Schedule follow-up visit*	Y	N		
h. If anyone in the HH is taking medication for the following, write their HH member number in the box(es) below. TB HIV Hypertension Diabetes Other *(Specify)*	Y	N		
i. Has someone defaulted from treatment? *Write HH member # of defaulter. Refer to clinic for further care and schedule follow-up visit for treatment adherence support.*	Y	N		
j. Any other problems identified (state).				

Comments/Notes

* NOTE: It is expected that an Individual Health Record is complete for every client that is being followed in the household.

CHW Signature _____ Verified by Team Leader _____ on _____ (date)

health

Department:
Health
REPUBLIC OF SOUTH AFRICA

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