Process Evaluation Report

Maternal and Child Health Routine Home Visitation

Iranda and Nyagoto Catchments
Kisii County, Kenya

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EXECUTIVE SUMMARY

Kenya is one of the six countries in East Africa and has one of the fastest growing population of the African nations. Pre-term birth complications, birth asphyxia, and birth trauma account for 8% of deaths. Kenya has limited resources for maternal and newborn health, low basic emergency obstetric and newborn care coverage, and poor community involvement in maternal and newborn health. Focusing on Kisii county, the county has limited access to healthcare and healthcare facilities often lack infrastructure, water, and health professional staff. The county has a neonatal mortality rate of 23 per 1,000, infant mortality rate of 43 per 1,000 live births, and child mortality of 60 per 1,000 live births. Acute respiratory infections, malaria, and diarrhea are the leading causes of morbidity in children under five years of age.

To respond to these health challenges in Kisii County, the Kisii Konya Oroiboro Project (KIKOP), a community-based public health program, was developed to reduce maternal and child mortality in the Kitutu Chache Sub-County of Kisii, Kenya. The project is a partnership between the Curamericas Global and the Kisii County Department of Health (KCDOH) and aimed to increase access to quality, respectful maternal/newborn services; improve attention to obstetric emergencies; increase provision of essential newborn care; and reduce child stunting in under-two children. To implement these strategies, a community-based intervention model called the Routine Home Visitation (RHV) model is utilized to deliver health education to individual households and brings health services to people's homes.

This report is a detailed summary of a mixed-methods process evaluation that assessed the implementation of the RHV intervention in the Nyagoto and Iranda catchments of Kisii County. The purpose of this process evaluation is to assess the quality and adherence of the implementation, documents its strengths and weaknesses, and recommends necessary adaptations needed to the implementation plan and the program. This report provides CHV's performance data to inform decision-making around opportunities for improvement and new implementation tools and strategies that may be more feasible for the context and resources currently available. Finally, the report will highlight the potential programmatic changes that can be made to the intervention and better understand the motivation and barriers to participation in the program.

Nilpa Shah, a Master of Public Health (MPH) student at the University of California, Los Angeles, led this research project from June to August 2020 as part of the MPH practicum field studies project. Curamericas Global Program Manager, Barbara Muffoletto, supervised the project and KIKOP team, Kevin Kayando and Anne Kerubo, helped guide the development of research questions and handled data sources. Shah was responsible to conduct the literature and background reviews, develop interview guides and informed consent; develop research design; clean and analyze quantitative data using Microsoft Excel; develop thematic codes and analyze qualitative data using Dedoose; and interpret the results to comprise this report. The background research and needs assessment documented in this report was based on literature review, previous field notes, Curamericas Global internal documents, and previous Curamericas Global process evaluation reports. Due to the travel restrictions due to the COVID-19 pandemic during this period, the research design, data analysis, and interpretation was conducted in the United States, whereas the quantitative data collection and focus group interviews were conducted by the KIKOP team in Kisii county, Kenya.

BACKGROUND

Kenya at a Glance

Kenya is one of the six countries in East Africa and has one of the fastest growing population of the African nations. In 2014, its population was 44.3 million which is projected to increase by 77% to a total population of 65 million by 2050.[1] Approximately 26% of its population lives in urban areas and the rest of the 74% lives in rural region.[1] Kenya scored 0.59 on the Human Development Index in 2017, with 1.0 being the highest level on this index, making Kenya a country at medium development.[2] It continues to struggle in areas of education, employment, and healthcare. The median age of Kenya's population is 19.7 years and about 50.3% of its population is female. The fertility rate for women is an average of 4.9 children during her lifetime.[1] The average life expectancy in Kenya for women is 65 years of age, whereas for men it is 60 years.[1] Approximately 42% of its population is below the age of 15 years and merely 2% of its population is 65 years of older.[1] Kenya has been a high-risk area for malaria, tuberculosis, HIV/AIDS, diarrheal diseases, malnutrition, and stroke. Maternal and child health remains a significant challenge in Kenya.

Pre-term birth complications, birth asphyxia, and birth trauma account for 8% of deaths. Kenya has limited resources for maternal and newborn health, low basic emergency obstetric and newborn care coverage, and poor community involvement in maternal and newborn health. An estimated 7,700 women have died due to pregnancy-related issues every year since 2005. Top causes of maternal mortality are hemorrhage, obstructed labor, and eclampsia. Indirect causes for maternal death are HIV, anemia, cardiovascular issues, and malaria. Utilization of antenatal care and skilled birth attendants are lower among women who are less educated, poor, and live in rural regions mainly due to its cost, limited transportation, and poor road networks and infrastructure.

An average of 108,000 infants die in Kenya before reaching the age of five according to the United Nations International Children's Emergency Fund. The infant mortality rate for Kenya is 39 per 1,000 infants. Diarrheal diseases, HIV/AIDS, and lower respiratory infections cause majority of these deaths.[1] Moreover, lack of maternal knowledge about treating diarrhea, not seeking appropriate care for pneumonia, and a strong preference to self-treat malaria delay critical care required to prevent infant mortality.

Maternal and Child Health in Kisii County, Kenya

Kisii County in the southwest region of Kenya is organized into nine constituencies: Bobasi, Bonchari, Bomachoge Chache, Bomachoge Borabu, Kitutu Chache North, Kitutu Chache South, Nyaribari Chache, Nyaribari Masaba, and South Mugirango. The county divides into further subdivisions of 45 wards, 100 locations, 238 sub-locations, 3,175 villages, and 141 community units. Kisii County has a dense population of approximately 2,800 people per square mile. It has limited access to healthcare and healthcare facilities often lack infrastructure, water, and health professional staff. It spends approximately $14.94 per capita on health than the national average of $15.95. Similarly, it has less health professions per capita than the national average: 21 nurses, 3 doctors, and 10 clinical officers per 100,000 people in Kisii County in comparison to 55 nurses, 10 doctors, and 21 clinical officers per 100,000 people nationally. Health facilities serving the population include 32 community health units, 84 dispensaries, 28 health centers, and 14 hospitals with 41 doctors and 504 nurses among other health workers.

The Multiple Indicator Cluster Surveys in 2011 reported about 23% of children under age five were underweight and 35% of the children were stunted in Kisii County. The survey also reported that only 57.8% of women delivered at a health facility; 36.2% delivered at home out of which only 53% attended by skilled personnel; 41% mothers exclusively breastfed their children for at least 5 months; and only 52.5% of married or partnered women of age 15-49 used any modern method of family planning. Kisii County also has a high

infection rate for HIV/AIDS and malaria and in 2014, only 72% of the children were immunized compared to the national average of 77%.

Common causes of morbidity in adults and children of Kisii County include malaria, diarrhea, skin diseases, and respiratory infections. The county has a neonatal mortality rate of 23 per 1,000, infant mortality rate of 43 per 1,000 live births, and child mortality of 60 per 1,000 live births. Acute respiratory infections, malaria, and diarrhea are the leading causes of morbidity in children under five years of age. Moreover, many deaths are due to a lack of knowledge and a lack of medical professions for emergency responses and the birthing process. County health authorities also acknowledged that the health data might be under-reported which may contribute to the under-estimation of mortality rates for the region.

To respond to these health challenges in Kisii County, the Kisii Konya Oroiboro Project (KIKOP), a community-based public health program, was developed to reduce maternal and child mortality in the Kitutu Chache Sub-County of Kisii, Kenya. The project is a partnership between the Curamericas Global and the Kisii County Department of Health (KCDOH) that aims to reduce neonatal and maternal mortalities, and morbidity and stunting among children under two. This paper will focus on the program implementation in two catchments of Kisii County: Iranda and Nyagoto.

Needs Assessment: Iranda and Nyagoto Catchments

A census for Iranda was conducted between March to June 2019 and Nyagoto was conducted between September to Dec 2019. Table 1 shows the comparison of census data for both catchments Iranda and Nyagoto in a tabular manner and is also summarized below the table.

Indicators	Iranda	Nyagoto
Total Population	14,351	11,204
Number of Communities	30	33
Average Household Size	4.1	3.8
Household		
Total Households	3,491	2,913
Improved Water Source	98%	100%
Private Latrine in the Household	15%	9%
Has Handwashing Station	11%	2%
Proper Flooring	29%	13%
Modern Fuel sources	3%	1%
Transportation Available	13%	7%
Women of Reproductive Age (Age 15-50)		
Number of WRA	3,628	2,774
WRA with Health Card	908 (25%)	462 (17%)
WRA with a LLITN	3,167 (87%)	1,625 (59%)
WRA with HIV VCT in last 6 months	1203 (33%)	543 (20%)
Pregnant Women		
Number of Pregnant Women	137	95
Pregnant Women with Health Card	92 (67%)	65 (68%)
Pregnant Women with LLITN	125 (91%)	71 (75%)
Pregnant Women with VCT in last 6 months	110 (80%)	65 (68%)
Number of Live Births	316	222
Rate of Infant Mortality (per 1,000 live birth)		
Miscarriages (pregnancy loss <7 months of gestation)	320	28
Stillbirth (pregnancy loss ≥ 7months of gestation)	89	63

Indicators	Iranda	Nyagoto
Early Neonatal Mortality (0-6 days)	35	27
Neonatal mortality (0-28 days)	38	32
U1 Infant Mortality	79	54
U2 Child Mortality	80	59
U5 Child mortality	89	63
Children U2		
Number of children U2	558	442
U2 with Health Facility Delivery	399 (72%)	288 (65%)
U2 with Health Card	519 (93%)	393 (89%)
U2 with LLITN	519 (93%)	353 (80%)
Education of U2 Mothers		
No formal education	20 (4%)	11 (3%)
Completed lower primary, but not upper primary education	154 (31%)	112 (27%)
Completed upper primary, but not secondary education	191 (38%)	196 (47%)
Completed secondary education	88 (18%)	76 (18%)
Completed post-graduate or college education	66 (13%)	26 (6%)

Table 1 Needs Assessment: Iranda and Nyagoto catchments

Population and Household

In Iranda, the census identified 14,351 people living across 30 communities. The mean household size for Iranda is 4.1 persons per household. In Nyagoto, the census identified 11,204 people living within 33 communities. The mean household size was 3.8 persons per household.

Iranda and Nyagoto has 3,491 and 2,913 households respectively. Households are primarily earthen and do not have proper flooring. Iranda has 29% of houses and Nyagoto has 13% of houses with proper flooring. Multiple fuel types were reported in each household; however, majority of the houses used wood as a fuel source, with 3% of houses in Iranda and 1% of houses in Nyagoto that do not utilize modern sources of fuel. Iranda reported only 15% of and Nyagoto reported 9% of its households that had an improved latrine that was defined as a facility that is not shared with other households and connected to a sewer tank that is either a completely covered latrine pit or a composing toilet. Iranda also had about 98% of its households with an improved source of water and Nyagoto had 100% of its households with an improved source of water. However, only 11% of households in Iranda and 2% of households in Nyagoto had handwashing station with soap, water, and a receptacle for handwashing. Lastly, residents were asked about the type of transportation used for family, if any, and 13% of households in Iranda and 7% of households in Nyagoto reported having any family transportation available to them.

Women of Reproductive Age

Women of reproductive age (WRA) is defined as women between the ages of 15-50 years. At the time of the survey, 3,628 WRA lived in the Iranda catchment area and 2,774 WRA lived in Nyagoto. 3,167 (87%) WRA in Iranda and 1,625 (59%) WRA in Nyagoto reported that a long-lasting insecticide-treated net (LLITN) was over their sleeping space. Only about 908 (25%) or WRA in Iranda and 462 (17%) WRA in Nyagoto reported having their health cards and only 33% (1203) WRA in Iranda and 543 (20%) of WRA in Nyagoto attended HIV Volunteer Counseling Therapy (VCT) within the past six months.

Pregnant Women

The census identified 137 pregnant WRA in Iranda and 95 pregnant WRA in Nyagoto. As compared with non-pregnant WRA, pregnant women tended to more frequently report having an LLITN over their sleeping space, having their health card, and attending HIV VCT. About 125 (91%) pregnant women in Iranda and 71 (75%) pregnant women in Nyagoto reported having an LLITN; 92 (67%) pregnant women in Iranda and 65 (68%) pregnant women in Nyagoto reported having their health card; and 110 (80%) pregnant women in Iranda and 65 (68%) pregnant women in Nyagoto reported attending HIV VCT.

Infant and Child Mortality

In Iranda, a total of 320 women responded to having a miscarriage (i.e. pregnancy loss < 7 months of gestation) and 89 women responded to having a stillbirth (i.e. pregnancy loss ≥ 7 months of gestation during the past year. In Nyagoto, 28 women reported to having a miscarriage and 63 women reported to have stillbirth. The mortality rate for infants under 1 year of age is 79 deaths per 1,000 live births in Iranda and 54 per 1,000 live births in Nyagoto. These rates are higher than the respective rates in both Kenya (34 deaths per 1,000 live births) and Kisii County (43 deaths per 1,000 live births) rates. Moreover, the child mortality rate for children under the age of five was 89 deaths per 1,000 live births for Iranda and 63 deaths per 1,000 live births for Nyagoto. These rates are higher than the respective rate estimated for Kenya (46 deaths per 1,000 live births).

Children under the Age of Two

The census identified 558 children in Iranda and 442 in Nyagoto living in the catchment area that were under the age of two (U2). There were 316 live births in Iranda and 222 live births in Nyagoto in the past year. With regards to the place of delivery of the U2 children, 399 (72%) children in Iranda and 288 (65%) children in Nyagoto were reported to have been delivered at a health facility by a health professional. Almost 519 (93%) reported that they possessed the U2 health card of each child in Iranda and 393 (89%) reported that in Nyagoto. Similarly, 519 (93%) respondents in Iranda reported that an LLITN was over the child's sleeping space, whereas 353 (80%) reported that in Nyagoto.

Education of U2 Mothers

Most mothers of U2 children had some education in both catchments. Only 20 (4%) in Iranda and 11 (3%) in Nyagoto reported no formal education. Among mother's who were educated, 154 (31%) women in Iranda and 112 (27%) women in Nyagoto reported their highest level of education to be lower primary; about 191 (38%) women in Iranda and 196 (47%) women in Nyagoto reported completing upper primary as the highest level of education; 88 (18%) women in Iranda and 76 (18%) women in Nyagoto completed secondary; and 66 (13%) women in Iranda and 26 (6%) women in Nyagoto had some college education following secondary.

PROGRAM DESCRIPTION

Goal and Objectives

The goal of the KIKOP program is to reduce maternal and child mortality and morbidity by improving community health education by employing a community-based intervention models based on the Community-based, Impact-Oriented Methodology. The three main objectives of the program are as follows:

1. Reduce maternal mortality during pregnancy and delivery by 50%.
2. Reduce neonatal (i.e. infants who are less than 28 days old) mortality by 35%.
3. Reduce long-term, extreme malnutrition (i.e. stunting) by 50%, from 15.4% to 8%.

Strategies and Activities

The main strategies to accomplish the program goal and objectives are to increase access to quality, respectful maternal/newborn services; improve attention to obstetric emergencies (including postpartum hemorrhage); increase provision of essential newborn care (including neonatal resuscitation); and reduce child stunting in under-two children. To implement these strategies, a community-based intervention model is utilized.

Community Health Volunteers

Community health volunteers (CHV) are an important healthcare resource in Kisii County. They play a critical role in the implementation of primary healthcare, mobilizing communities in taking care of their health, and providing basic healthcare at community level.[3] KIKOP staff provides training to build the capacity and knowledge of CHV in disease prevention, health promotion, and simple curative care to help and lead their communities to improve their health and wellbeing. CHVs are additionally trained on leadership skills, counselling and communication skills, health promotion, and basic life-saving skills. The CHVs support the project in data collection and health education through regular routine home visitation to pregnant women and mothers of children under the age of two in their community. CHVs mobilize communities, plan events, collect data, assist with routine home visitations (described below), and discuss challenges with KIKOP staff.

KIKOP CHVs are community members that receives specific health education training to impart advice and guidance to the households they serve and to record and collect vital health data to support the ongoing monitoring of health outcomes. In the RHV intervention, each CHV is assigned to a community in a catchment and is responsible for monitoring the health status children under the age of two years of age and pregnant or post-partum women within that community. The CHVs work no more than 20 hours a week and receive a stipend of $25/month for their time. The time and the number of households that CHVs are responsible for varies depending on the community.

When a CHV is recruited for the project, they receive an orientation for 3-5 days that covers multiple topics on maternal and child health and how to conduct data collection. KIKOP provides biannual refresher training to review these topics again. Monthly meetings and training workshops are scheduled for 30-60 minutes to review one specific topic based on the staff's awareness of CHV needs and gaps in the field. These monthly meetings are highly interactive and review the key takeaways of annual trainings sessions. Lessons include topics such as nutrition for pregnant women, danger signs during pregnancy, diarrhea prevention and treatment for children, etc. If a CHV is absent during the training, a CHV buddy, CHV chairman, or the field officer, trains that CHV outside of the meeting. The absent CHV then sends the RHV data with the buddy CHV.

Routine Home Visitation

The routine home visitation (RHV) model is a community-based service strategy that delivers health education to individual households. This model helps those women and children who may never visit a health clinic near them. RHVs provide an opportunity for the program staff to understand the needs of the mothers and their infants and the barriers they face in successfully adopting and maintaining health behaviors. This method also builds trusting relations with the families and brings health services to people's homes.

RHVs are conducted by a CHV where they provide updated health and preventive education information and collect demographic information through census and vital events methodology. RHVs are an opportunity for CHVs to experience firsthand what an individual mother and her family is experiencing. These visits can become a time for mothers to share private thoughts, concerns, loss, grief, and hopes. CHVs may support the family by providing counselling, thinking about the ways to move forward together, and giving tips and advice to promote healthy behavior and environment for the mother and her family. CHVs also review the health status of the family; reinforce behaviors that are protective and beneficial; and provide education to the

family on how to adopt and practice health behaviors; offer care, guidance and support to empower family members to take responsibility for their well-being; provide accurate health and preventive education information; and collect updated demographic information (census and vital events).

The intervention consists of quarterly home visits for a total of 11 visits starting when a woman's pregnancy is captured to when the child turns two years old. Traditional birth attendants, spouse, or partners are encouraged to be present at the visit but are not required. RHVs occur through scheduled visits that target mothers who are pregnant, that have recently given birth (puerperal), or that have children under the age of two (U2).

CHVs are provided with a hanging scale, mid-upper arm circumference (MUAC) strip, measuring board, and data collection forms to complete the home visit. CHVs use RHV forms (Appendix A) and flip charts (Appendix B) during the visit that has a series of questions to help standardize the routine home visitations and report the content of the visitation. If the mother provides an answer that indicates a gap in health knowledge or lack of a healthy behavior, the CHV uses the opportunity to discuss the topic with the mother.

KIKOP staff, KIKOP nurses, KIKOP field officers, and CHV chairs/supervisors regularly attend RHVs alongside the resident CHV for quality check. Observation and quality control are monitored through quality improvement and verification checklists (QIVCs) (Appendix C), which are used throughout the training cascade to assess and standardize group facilitation, household visits, and feedback.

Health Education and Promotion

RHV model delivers community-driven health education using culturally sensitive strategies to empower the community to take charge of their health. Sample of health education topics during each type of visitation is available in Table 2. The topics shift depending on where in pregnancy or post-partum the women is in and the relevancy of the topic to the mother; for example, exclusive breastfeeding is not promoted at the 9-month visit.

Pregnant Women	Puerperal Mothers	U2 Mothers
• Prenatal nutrition and vaccination • Malaria prevention and hygiene • Maternal deworming medicine • Exclusive breastfeeding and infant nutrition • Birth planning • Water treatment and storage • Handwashing station and latrine hygiene • Danger signs during pregnancy • HIV Volunteer Counseling Therapy	• Danger signs of pregnancy and delivery • Danger signs during post-partum • Danger signs in newborn • Malaria prevention • Neonatal cord care • Maternal and newborn nutrition • Maternal emotional health • Care Group participation • Exclusive breastfeeding	• Vaccinations • Deworming medicine • Maternal and child nutrition and vitamin supplementation • Care seeking for diarrhea, cough, and fever • Family planning • Danger signs of newborns • Symptoms of pneumonia and malaria • Water treatment and storage • Handwashing resources and latrine hygiene

Table 2 Sample health education topics

CHVs are trained on delivering education regarding basic concept of care of a mother before and during pregnancy, during childbirth, and after delivery. The education includes the importance of growth monitoring, nutritional assessment, importance of immunization for infants and young children, and maternal, infant, and child nutrition. The CHVs are also educated on providing knowledge of disease prevention of malaria, sexually transmitted infections, HIV, and tuberculosis. CHVs provide education and skills to mothers and child caretakers on water treatment, proper feces disposal, water storage, hand

washing, treatment of diarrheal disease by using this routine home visits model. Lastly, CHVs emphasizes health eating, physical exercises, regular check-ups, prevention of injuries, and reduction of drug and substance abuse. The education enables the mothers to increase control over and to improve their health.

Education for pregnant and new mothers is on the recognition of danger signs (during pregnancy, delivery and post-partum period), the importance and process of developing a birth plan, antenatal care, and male involvement in maternal and newborn care. Education will be provided to puerperal and mothers of U2 on the prevention and treatment of pneumonia and malaria, the detection of newborn danger signs and importance of care-seeking upon recognition of signs, general neonatal care, and the importance of using long-lasting insecticide-treated net (LLITNS).

Stakeholders

Organizational Stakeholders

Curamericas Global

Curamericas Global is a global health non-profit organization (NGO) that partners with underserved, low-resource communities to make sustainable and measurable improvements in the health and well-being of the communities. The vision of Curamericas Global is to treat and prevent illness to create a world free of suffering by creating lasting benefits through education and long-term partnerships with communities and local NGOs to implement evidence-based strategies through community-led, long-term projects that empower communities to take control of their own health. Curamericas' projects embody values of equity, compassion, and empowerment through data-driven decision making to create programs that are sustainable through partnership and changes in individual behavior and social norms. Curamericas Global oversees all aspects of project implementation and evaluation, provide technical assistance to Kisii County Department of Health (KCDOH), and transfer and track funds distributed through RMHC and other sources.

Kisii County Department of Health

Curamericas Global collaborated with the Kisii County Department of Health (KCDOH) in Kisii County, Kenya to implement the Kisii Konya Oroiboro Project (KIKOP) project to reduce maternal and child mortality and morbidity from preventable diseases. The goal of this mutual partnership is to increase access to quality, respectful maternal/newborn services; improved attention to obstetric emergencies; increased provision of essential newborn care; and reduced child stunting in under-two children. KCDOH's ensures that partner health facilities are receiving the support and supplies guaranteed by government policy and provides funding for the Project Coordinator and Ministry of Health Liaison and for the time and transportation of the Ministry of Health staff to project meetings and trainings. The partnership between Curamericas Global and KCDOH is formalized with an memorandum of understanding as shown in Appendix D.

Local Stakeholders

KIKOP Staff

KIKOP staff consist of nine full time staff, three Field Officers, two Project Assistants, two KIKOP nurses, a Community Support Supervisor, and one Project Coordinator based in a central office in Matongo Health Centre. The three Field Officers (FO) are focused on community outreach including the management and oversight of resident Community Health Volunteers.

Ministry of Health

The Ministry of Health Liaison represent and promote the project among Kisii County and Sub-County officials to gain additional support for the project in the form of funds, staff, supplies, etc.

Community Partners

KIKOP engages multiple community partners in the implementation of the project with the goal of fostering local cooperation and ownership to increase the impact and sustainability of the project. Clan Elders are the link between the project and the Community Health Volunteers (CHV). The members Village Health Committee share data and health education at community assemblies and lead community initiatives. The CHVs support the project in data collection and health education through regular routine home visitation to pregnant women and mothers of children under age two in their community.

PROCESS EVALUATION

This report will review the process evaluation of the Routine Home Visit component of the KIKOP project in Iranda and Nyagoto catchments of Kitutu Chache South and North sub-county of Kisii County, respectively. RHV intervention was launched in the catchment area of Iranda in July 2019 and in Nyagoto in February 2020. Both Nyagoto and Iranda are in their early phases of implementation.

Purpose

The purpose of this process evaluation is to assess the quality of the implementation in its initial stage of operation. The process evaluation is an important tool to measure the adherence of the program and inform the program team of any necessary adaptations needed to the implementation plan and the program. This report will serve as a tool to understand the insights of CHVs, their experiences conducting RHVs, and their recommendations in improving the program delivery. The evaluation will provide performance data to inform decision-making around opportunities for improvement and new implementation tools and strategies that may be more feasible for the context and resources currently available. The goal is to uncover intervention strengths and weaknesses in relation to quality of implementation and intervention-based data capture.

This evaluation aims to provide monitoring data that can help adjust the program implementation as needed to ensure theoretical integrity and program quality (fidelity), all program components of the intervention are delivered (dose received – completeness), and if CHVs are receiving and using materials/resources provided to them (dose received – satisfaction). Moreover, the aim of this report is to document feedback from CHVs (dose received – satisfaction), monitor numbers and characteristics of participants to ensure sufficient numbers are being reached (reach), and ensure recruitment protocol is being followed (recruitment). Lastly, the evaluation will report the physical, social, and political environment in which the program is being implemented and how it affects the implementation (context). This report will highlight the potential programmatic changes that can be made to the intervention and better understand the motivation and barriers to participation in the intervention.

Logic Model

Table 3 features a logic model with details about the components for the routine home visitation program that were the focus of this process evaluation.

Inputs	Activities	Outputs
Organizational Stakeholders • Curamericas Global • Kisii County Department of Health **Local Stakeholders** • KIKOP • Ministry of Health • Community Health Volunteers and Chairs • Field Officers (FO) **Materials** • Quality Improvement and verification checklists (QIVC) • Visit cards for RHVs • RHV schedule and tracking system • RHV data collection forms • RHV data collection instruments	**CHV Training** • CHVs receive training on conducting RHV and data collection • CHV receive training on maternal and child health (MCH) topics **Vital events Registration** • Identification and registration of new pregnancies **Data Collection** • CHVs collect RHV data • KIKOP staff collects RHV data from CHVs during monthly meetings • Field officers check visit cards • Field officers conduct quarterly QIVC assessment	**CHV Training** • Bi-annual CHV training on confidentiality and data collection • Monthly training on MCH topics **Routine Home Visits** • 2 prenatal visits any time before delivery • 3 puerperal visits within 48 hours, 7-14 days, and 30-60 days of live birth • 6 U2 home per at 3, 6, 9, 12, 18, and 24 months **Quality Checks** • CHVs receive at least 80% or higher on QIVC • CHVs conduct at least 80% of the intended RHVs

Table 3 Logic model for the implementation of Routine Home Visitation program

Research Questions and Indicators

The research questions for this process evaluation focused on understanding the fidelity, dose delivered, dose received, reach, recruitment, and context of the program. The key indicators are the aspects of the program that must be measured to assess program implementation. The research questions and key indicators are as listed below in Table 4.

Evaluation Focus	Research Questions	Indicators
Fidelity: To what extent was the RHVs implemented as intended based on the underlying theory and project plan?	1. Are CHVs completing all components of RHVs as intended?	• Percent of women who received first and second prenatal visit. • Percent of women who received two prenatal home visits. • Percent of women who received first, second, and third puerperal visit. • Percent of women who received three puerperal home visits. • Percent of women who received first, second, third, fourth, fifth, and sixth U2 visit. • Percent of women who received six U2 home visits.
	2. Are RHVs being completed in the timeframe that they are	• Percent of puerperal RHVs completed as intended within 72 hours, 7-14 days, and 30-60 days.

Evaluation Focus	Research Questions	Indicators
	intended to be completed?	• Percent of women who received all three puerperal visits as intended on time • Percent of U2 RHVs completed as intended at 3 months, 6 months, 9 months, 12 months, 18 months, and 24 months. • Percent of women who received all six U2 visits as intended on time.
	3. Are CHVs evaluated as intended?	• Percent of CHVs who were evaluated for prenatal, puerperal, and U2 visits. • Percent of CHVs who were evaluated for all three (prenatal, puerperal, and U2) visits.
	4. Are CHVs completing RHVs with an acceptable standard of quality?	• Percent of CHV receiving 80% or above on prenatal, puerperal, and U2 QIVCs. • Percent of CHV receiving 80% or above on all three (prenatal, puerperal, and U2) visits.
Dose delivered (completeness): To what extent did CHVs complete program activities as intended?	5. Are CHVs exhibiting interview skills at an appropriate standard of quality?	• Average across CHVs on QIVC items score assessing interview skills during prenatal puerperal, and U2 visits. • Average QIVC items score assessing interview skills during prenatal, puerperal, and U2 visits for each CHV.
	6. Are CHVs completing the most important components of prenatal, puerperal, and U2 RHVs?	• Average across CHVs on QIVC items score assessing the most important activities of the prenatal, puerperal, and U2 RHV components. • Average QIVC items score assessing the most important activities of the prenatal, puerperal, and U2 RHVs component for each CHV.
	7. Are CHVs reviewing birth plans during pregnancy visits?	• Percent score across CHVs on prenatal QIVC item assessing review of birth plans across CHVs.
Reach: To what degree or extent did the RHV intervention reach the community members it intended to reach?	8. Are family members participating in RHVs with mothers?	• Average across CHVs on QIVC checklist item assessing family member participation in prenatal, puerperal, and U2 visits.
	9. What is the average CHV workload?	• Number of women in each CHV's workload. • Number of visits completed by each CHVs.
	10. How many women participated in the program?	• Percent of pregnant, puerperal, and U2 women in RHV program.
Recruitment: Procedures used to maintain participant involvement in the intervention.	11. What planned and actual procedures are used to encourage continued involvement of individuals?	• Ways CHVs encourage participation of mothers in the program • Barriers to maintaining participation of mothers in the program
Context: What aspects of the environment	12. Which cultural, social, physical, or organizational factors	• Social, cultural, and organizational barriers CHVs experience while conducting RHVs. • Implementation activities that are most important for mothers according CHVs.

Evaluation Focus	Research Questions	Indicators
influence program implementation?	influence how RHVs are completed?	
Dose received (satisfaction): To what extent were CHVs satisfied with the intervention activities?	13. How do CHV's feel about their role and responsibilities?	• Tasks that CHVs like about their job • Tasks that CHVs think should be improved
	14. How do CHVs feel about their work management and workload?	• Feelings about CHVs current workload. • Work strategies that CHVs utilize for smooth RHVs.
	15. Do CHVs have the resources, tools, and training to carry out the RHVs and collect data as intended?	• Parts of data collection and reporting process that works well. • Challenges CHVs face in data collection. • Tools or resources that are helpful for CHVs.
	16. How satisfied are the CHVs with the data collection, training and support they receive from KIKOP staff?	• Activities or topics that CHVs may need more training from KIKOP staff. • Engagement of CHVs with KIKOP. • Ways to improve meetings and training with KIKOP.

Table 4 List of research questions and key indicators used for the process evaluation

METHODS

The study period of interest for Nyagoto was February 1, 2020 to June 14, 2020 and for Iranda was July 2019 to June 30, 2020. Primarily, the author reviewed the background of the intervention, Kisii County and community, and KIKOP project. This involved reviewing program materials, logic models (Table 3), previous research reports, and meeting with Curamericas Global and KIKOP stakeholders. This provided a deeper understanding of the program inputs, activities, and outputs which helped with development of the research questions. Research questions (Table 4) were identified by the author and reviewed by the project team to check if they cover all the evaluation priorities. Based on the research questions, indicators for these questions were developed (Table 4). Indicators with specified numerators and denominators were developed and edited to make sure the feedback from program management was incorporated.

It is important to note that all the data reflected in this report is based on quality of the data sources which may be subject to error. Moreover, since the analysis was only conducted by one researcher, the analysis may be subject to minor measurement error.

Quantitative Methodology

Data Sources

Three types of data sources were utilized: Pregnancy and Puerperal Registers, U2 Registers, and QIVC checklist for RHV intervention. The RHV register is the primary tool for monitoring outputs, process indicators, outcome indicators, and actual project impacts. Quality Improvement and Verification Checklists (QIVC) are conducted by Field Officers where CHVs are scored on important aspects of the RHVs for all three types of visits: prenatal, puerperal, and U2 RHVs. KIKOP staff entered these scores on QIVC checklists in Microsoft Excel on a quarterly basis retrospective of this evaluation.

Once all data was ready, data was cleaned and organized for efficient data analysis. Duplicate data points were removed whereas missing data points were entered into the datasheets with the consultation with KIKOP staff. Upon data cleaning, using unique Excel functions and formulas, data was combined into summary tables and visual graphic charts.

Data Analysis

For quantitative data, Microsoft Excel was used to conduct the analysis. Mainly, two forms of analysis were performed on the RHV data: completeness and completeness on time.

Pregnancy visits were only considered in the analysis if the pregnancy was captured prior to the visit. Moreover, if the expected delivery date was after the data source completion date, any missing visits were not counted as incomplete, as the CHV had future opportunities to complete those visits. Moreover, children born before the program implementation were not included in the pregnancy visit analysis since they were born before the initiation of the project. However, these children were included in the puerperal and U2 visits based on the number of days since birth and if the CHV would have an opportunity to make a timely visit. Lastly, if the mother travelled, migrated, or resisted, the RHVs were not counted in the analysis.

The formulas for calculating if the visits were completed on time were developed by comparing the visit date with the intended time frame. For example, the intended period to complete the second puerperal visit is 7-14 days of the birth of the child. If the CHV completed the visit in this period, the visit was counted as completed on time, otherwise it was not counted as completed on time.

The data for QIVCs are collected on a quarterly basis. CHVs in Nyagoto were only evaluated for the second quarter of the year i.e., April – June 2020, whereas CHVs in Iranda were evaluated for the first two quarters of the year i.e., January – June 2020. Thus, QIVCs scores for Iranda were combined to find an average score for each question to get a cumulative QIVC score per CHV during the study period of interest.

Lastly, evaluation of important components of RHVs was conducted during QIVC analysis which included interview skills; review of birth plan; prenatal, puerperal, and U2 content indicators; and motivating family members to attend RHVs. RHV interview skills for CHVs include but not limited to, introducing themselves, active listening, eye contact, adequate time to answer questions, providing helpful feedback, thanking mother for their time, etc. The top prenatal indicators for CHV performance include discussing antenatal care and exams, importance of exclusive breastfeeding, importance of delivering in a health facility, and providing education about danger signs during pregnancy. Some of the top puerperal indicators include emphasizing the importance of exclusive breastfeeding, educating mothers about the danger signs, improving mothers knowledge about the child's health and maternal infection, discussing the importance of vaccination for the child, and educating about vitamin supplementation. The top U2 indicators include family planning needs, proper hygiene and handwashing methods, child's nutritional status, and child measurements such as weight, height, and mid upper arm circumference.

Qualitative Methodology

Research Summary

The qualitative study complements the quantitative analysis of the process evaluation and informs recommendations for areas of improvement and new tools or strategies to increase program fidelity. Focus group interviews were conducted to investigate the experiences of the CHVs who lead the implementation of the Routine Home Visitations (RHV) project.

The qualitative evaluation was designed to gather contextual insight of CHV's caseload; facilitators and barriers to completing RHVs; satisfaction with role and responsibilities; preparedness and training; engagement with KIKOP staff; strategies recommended by CHVs for effective implementation; and CHV

needs to completed RHVs. The research questions that utilized the focus group are described in Table 4 and listed below as well:

1. What planned and actual procedures are used to encourage continued involvement of individuals?
2. Which cultural, social, physical, or organizational factors influence how RHVs are completed?
3. How do CHV's feel about their role and responsibilities?
4. How do CHVs feel about their work management and workload?
5. Do CHVs have the resources, tools, and training to carry out the RHVs and collect data as intended?
6. How satisfied are the CHVs with the data collection, training and support they receive from KIKOP staff?

Data Collection

Overall, 4 focus groups were conducted for CHVs per catchment and 2 focus groups were conducted for CHV chairs per catchment, for a total of 6 focus groups (3 focus groups per catchment). Nyagoto catchment was represented by 14 CHVs out of 39 total CHVs (7 CHVs per focus group) and Iranda catchment was represented by 14 CHVs out of 32 total CHVs (7 CHVs per focus group). Both chairmen from each catchment participated in the focus groups. The choice to conduct focus group interviews as the preferred mode of data collection was influenced by financial considerations of the KIKOP staff and the team involved with the administration, facilitation, note taking, translation, and transcription of the interviews. The assumption was that the focus group will be easier and more efficient to conduct given the short timeframe of the evaluation and the inability of the researcher to travel to Kenya due to the COVID-19 pandemic travel restrictions.

Sample size was determined before the interviews based on the number of participating CHVs and CHV chairs in the RHV program. Including all chairs and CHVs, approximately 40% of representation was achieved in Nyagoto and 50% in Iranda catchments during these CHV focus groups. The sample was selected based on the convenience. All CHV chairs participated in the focus groups from the two catchments.

Interview guides developed the year before were revised to reflect the new research questions for both Nyagoto and Iranda catchments. The interview guides were designed for semi-structured, focus-group interviews. The questions in the interview guide were based on the research questions that were of interest to the program management. The interview guide (see Appendix E) includes the facilitator instructions, verbal informed consent, ground rules, research goal, research questions, interview questions, potential probes, and transitions between different sections. The interview guide was used to facilitate the discussion during each focus group and included questions such as "How do you feel about your job responsibilities," "How much time do you spend each week on the tasks involving home visits," "What factors influence whether a home visit goes well or not," "What challenges do you personally face in completing the home visits during a month," and "What strategies do you use to help ensure that a home visit go smoothly?" Mainly, the questions in the focus group interview guide emphasized CHV's feelings about their roles and responsibilities; management of work and workload, influence of cultural; social, physical, and organization factors; satisfaction with data collection process and reporting; and support and training from the KIKOP staff. Additionally, an informed consent form was developed for the participants to review and sign before participating in the focus group (Appendix F).

The interview guides were written in English and translated to Kikisii by the facilitator during the focus group discussions. Each interview had a KIKOP facilitator and notetaker/timekeeper. Due to limited funding, focus group facilitators were chosen such that they work primarily in a different catchment in an attempt to reduce interviewer bias. Prior to conducting the interviews, all the facilitators worked with the KIKOP staff to discuss and translate the questions together. The interviews were then recorded and translated and transcribed in English by one KIKOP volunteer.

A single researcher conducted the qualitative analysis. This involved reading the transcript and finding preliminary themes based on the research questions (see Appendix G). The transcripts were coded and analyzed using Dedoose software.[4] Once coding was completed, each individual code was analyzed separately to find sub-themes. Meaning within each code was condensed and abstracted, and relevant and representative quotations were selected to illustrate the main points. If there was doubt about the content of a quotation, the context from which quotations was taken was utilized to ensure that the meaning was still consistent with the theme of the code.

QUANTITATIVE RESULTS

Nyagoto Catchment

Routine Home Visitations

Prenatal Visits

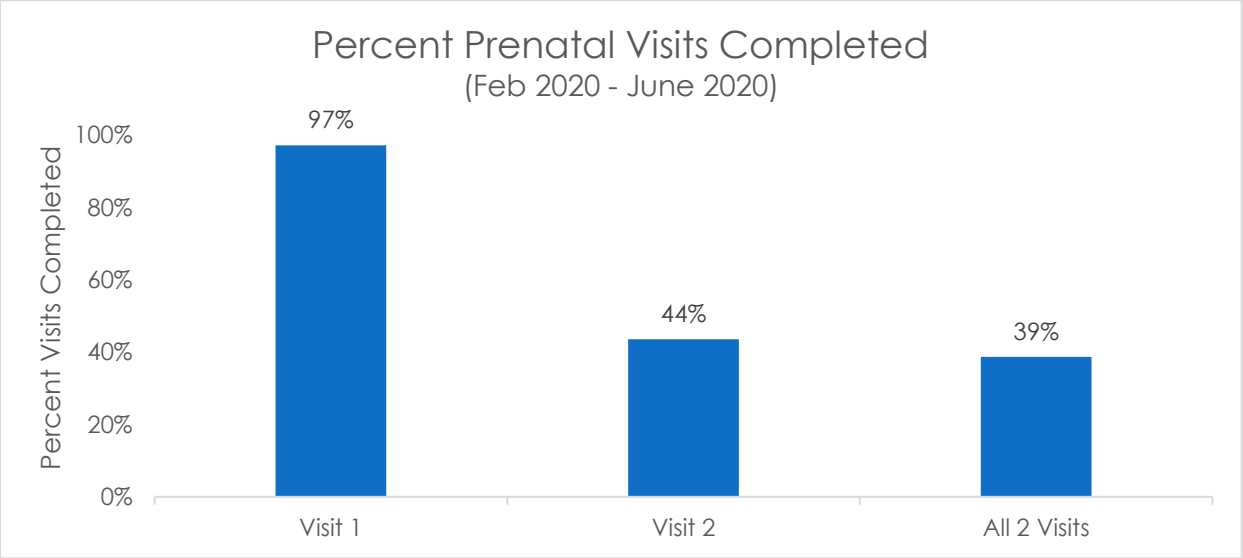


Figure 1

Prenatal Visits	Intended	Completed
Visit 1	107	104
Visit 2	62	27
All 2 Visits	62	24

Table 5

Prenatal visits did not have a time component to evaluate. Thus, only the percent of prenatal visits completed was evaluated. As depicted in Figure 1, for prenatal RHVs, 97% of the intended visit 1 were completed and 44% of intended visit 2 were completed. However, only 39% of both visit 1 and visit 2 that were intended were completed for prenatal RHVs. Visits 2 dramatically falls below the 80% benchmark for completion, whereas visit 1 has an extremely high completion rate.

Puerperal Visits

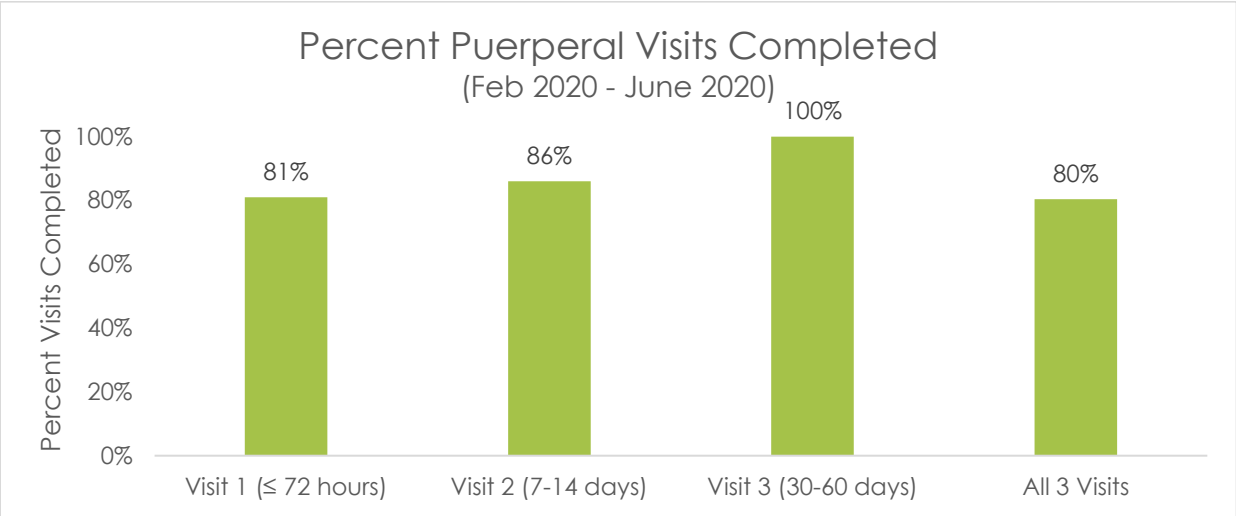


Figure 2

Puerperal Visits	Intended	Completed
Visit 1 (≤ 72 hours)	79	64
Visit 2 (7-14 days)	86	74
Visit 3 (30-60 days)	88	88
All 3 Visits	56	45

Table 6

For puerperal RHVs, we see a slow increase in the percent of intended visits completed as we follow visit 1 to visit 3. Overall, 81% of the intended visit 1 were completed, 86% of the intended visit 2 were completed, and 100% of intended visit 3 were completed. Moreover, only 80% of all three puerperal visits intended were completed in total during this period. Overall, of the visits that were completed, all three types of puerperal RHVs had a high rate of completion on time and passed the 80% benchmark for completion as shown in Figure 2.

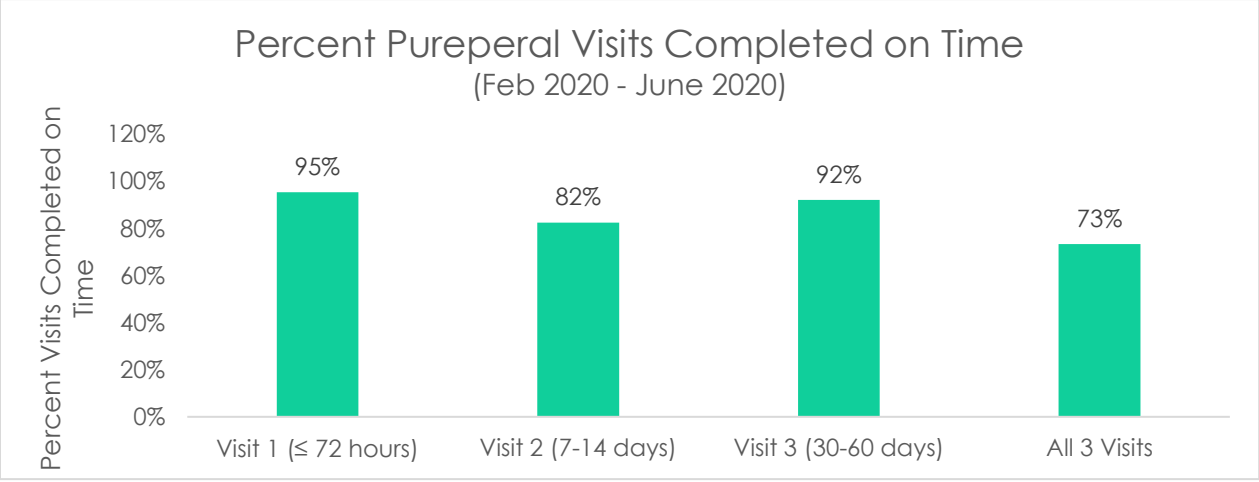


Figure 3

Puerperal Visits	Completed	Completed on Time
Visit 1 (≤ 72 hours)	64	61
Visit 2 (7-14 days)	74	61
Visit 3 (30-60 days)	88	81
All 3 Visits	45	33

Table 7

When the time component is added to the completed puerperal visits, we can see that all three puerperal visits had a high rate of completion on time. More specifically, about 95% of visit 1 that were completed were completed on time. Similarly, 82% of visit 2 and 92% of visit 3 that were completed were completed on time. Of all the visits, only 73% of all three puerperal visits completed for a given participant were completed on time during this period. Overall, of the visits that were completed on time, all three types of puerperal RHVs surpassed the 80% benchmark for visit completion as represented in Figure 3.

U2 Visits

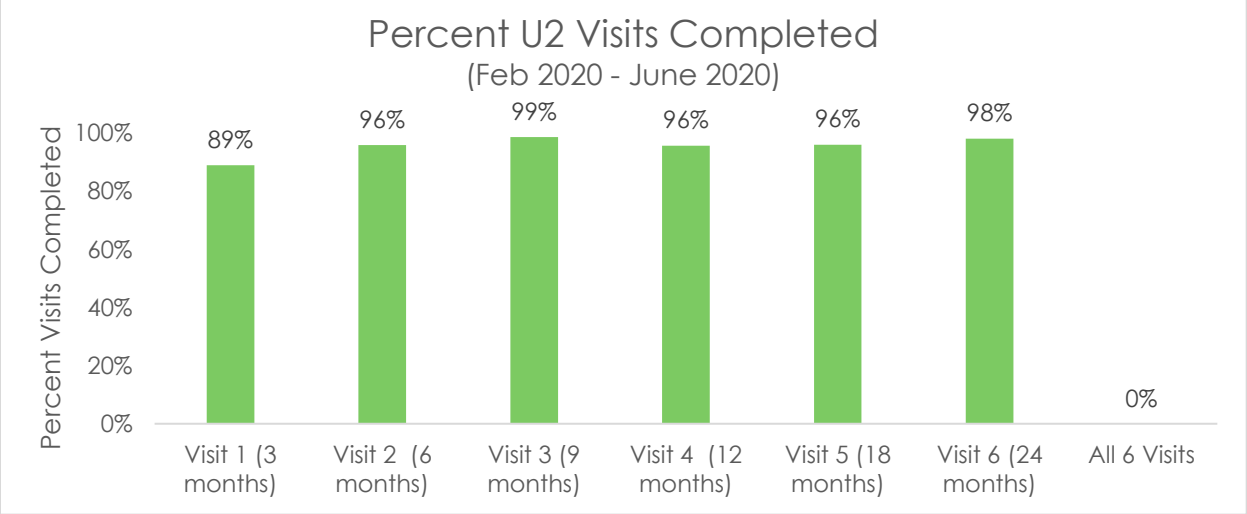


Figure 4

U2 Visits	Intended	Completed
Visit 1 (3 months)	73	65
Visit 2 (6 months)	73	70
Visit 3 (9 months)	79	78
Visit 4 (12 months)	70	67
Visit 5 (18 months)	76	73
Visit 6 (24 months)	54	53
All 6 Visits	0	0

Table 8

All six U2 visits achieved the benchmark 80% completion rate as shown in Figure 4. The percent of U2 visits completed ranged from 89% to 99% of the intended visits. Specifically, 89% of visit 1, 96% of visit 2, 99% of visit 3, 96% of visit 4 and visit 5, and 98% of visit 6 that were intended were completed. Zero percent of visits were completed for when all six visits of U2 RHVs intervention were intended.

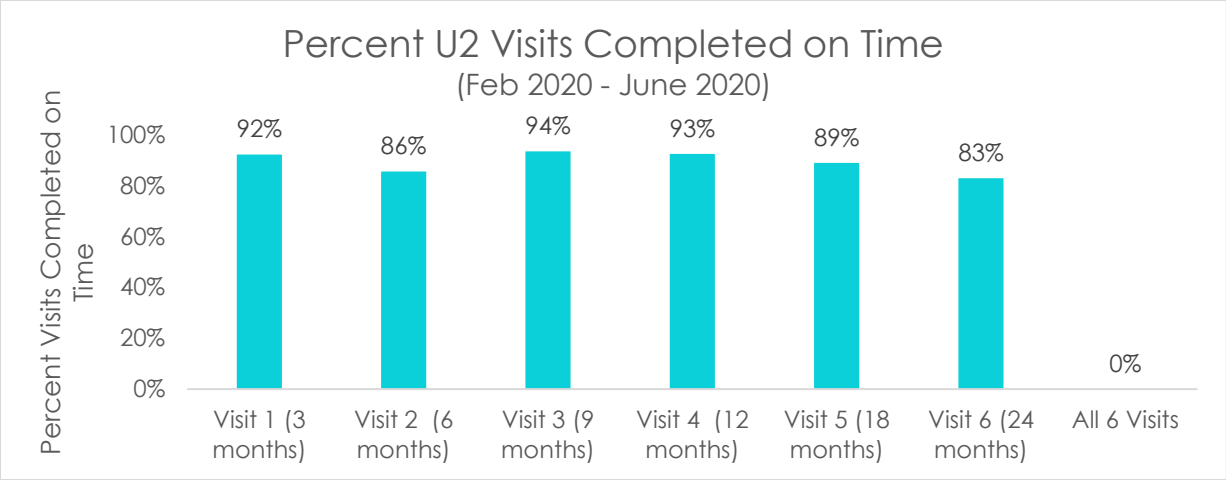


Figure 5

U2 Visits	Completed	Completed on Time
Visit 1 (3 months)	65	**60**
Visit 2 (6 months)	70	**60**
Visit 3 (9 months)	78	**73**
Visit 4 (12 months)	67	**62**
Visit 5 (18 months)	73	**65**
Visit 6 (24 months)	53	**44**
All 6 Visits	0	**0**

Table 9

Figure 5 shows the percent of U2 visits that were completed which were completed on time. The plot shows that all six U2 visits had a high rate of completion on time. More specifically, about 92% of visit 1, 86% of visit 2, 94% of visit 3, 93% of visit 4, 89% of visit 5, 83% of visit 6 that were completed for U2 visits were completed on time. Of all the visits, 0% of all six U2 visits that were completed for a given participant was completed on time during this period as reflected in Figure 4 and 5. Overall, of the visits that were completed on time, all six types of U2 RHVs surpassed the 80% benchmark for visit completion.

Summary

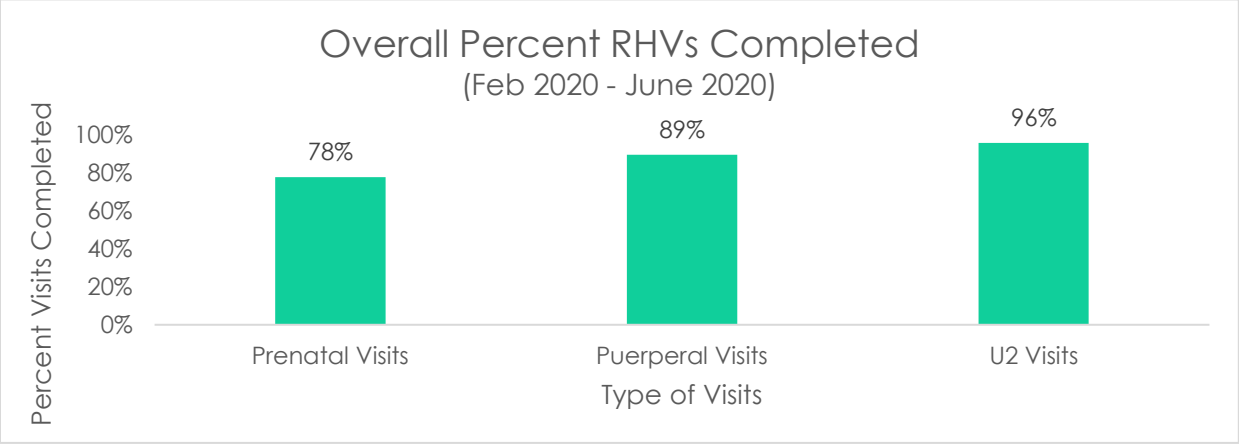


Figure 6

Type of Visits	Intended	Completed
Prenatal Visits	**169**	**131**
Puerperal Visits	**253**	**226**
U2 Visits	**425**	**406**

Table 10

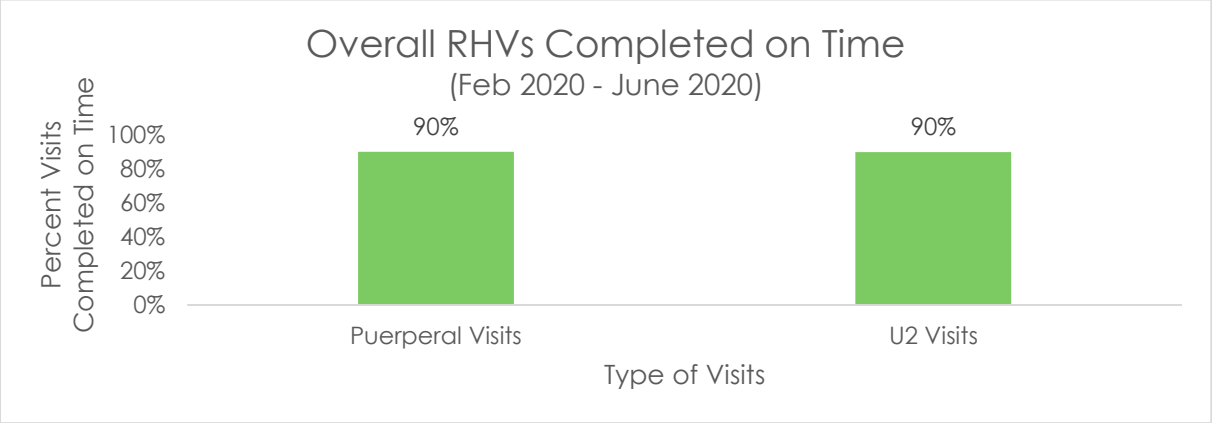


Figure 7

Figure 6 and 7 depicts the summary of routine home visitations between February to June 2020. Figure 6 shows that 78% of all intended prenatal visits were completed, 89% of puerperal visits intended were completed, and 96% of the U2 visits that were intended were completed. Puerperal visits and U2 visits bypassed the 80% benchmark completion rate, however, prenatal visits fell shy of the 80% benchmark. Figure 7 shows the RHVs which were completed that were on time. As shown, 90% of the completed Puerperal visits and U2 visits were completed on time. This shows that majority of the RHVs were completed on time. As shown in Figure 7, prenatal visits did not have a time component; thus, it was not added to the analysis for RHVs completed on time.

Type of Visits	Completed	Completed on Time
Puerperal Visits	226	203
U2 Visits	406	364

Table 11

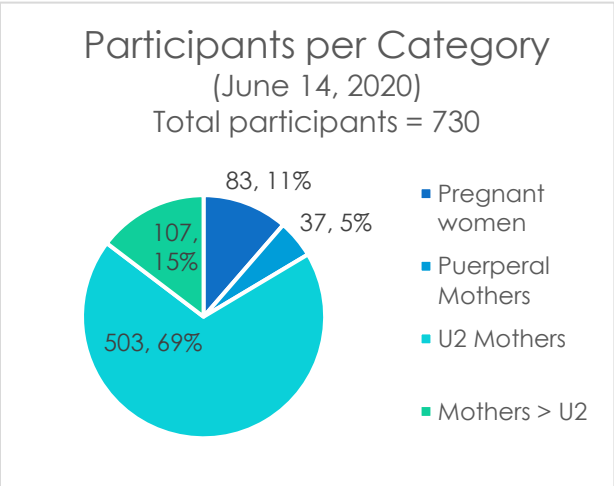


Figure 8

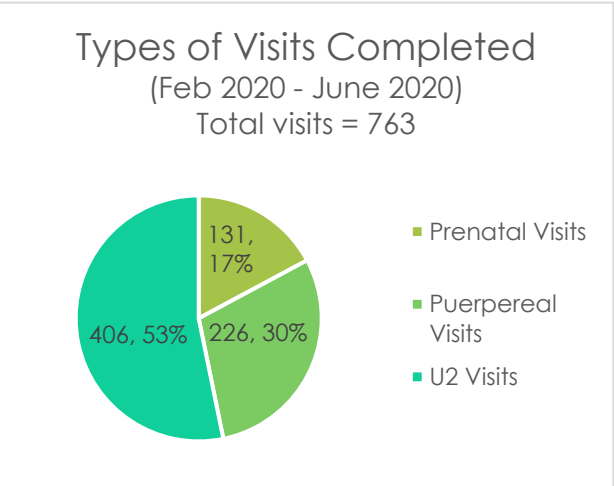


Figure 9

Figure 8 and 9 shows the summary of routine home visitations conducted by the CHVs. Figure 8 represents the number and percent of total women participants in each type of categories: pregnant, puerperal, and U2. Please note, since pregnancy and age are fluid concepts, the analysis for this data was conducted for where the women and their children are in the program on June 14, 2020 since this was the last day of data entry. Pregnant women are those are were pregnant on June 14, 2020, puerperal mothers are those who had a baby who was 0 days to 60 days old, and lastly, U2 women are those who had children who were 61 days to 2 years old. Some women graduated from the RHV program as their children passed the age of two years as shown as "Mothers > U2." As shown, about 11% of women were pregnant, 5% were puerperal mothers, and 69% were mothers of U2 children; lastly, about 15% of mothers did not fall into any of these categories since their child passed the age of two.

Figure 9 represents the total number of visits conducted by all CHVs together and the number and percent of visits in each category in the period between Feb 2020 – June 2020. As shown in Figure 9, majority of the visits completed were U2 visits (53%), followed by puerperal visits (30%), and lastly prenatal visits (17%). This trend is due to the set-up of the number of visits necessary in each visit types. More specifically, U2 visits require 6 visits, puerperal visits require 3 visits, and prenatal visits require 2 visits.

CHV Evaluation and Performance

Aggregate Level Analysis

This section represents an aggregate level of analysis for CHV performance on QIVC.

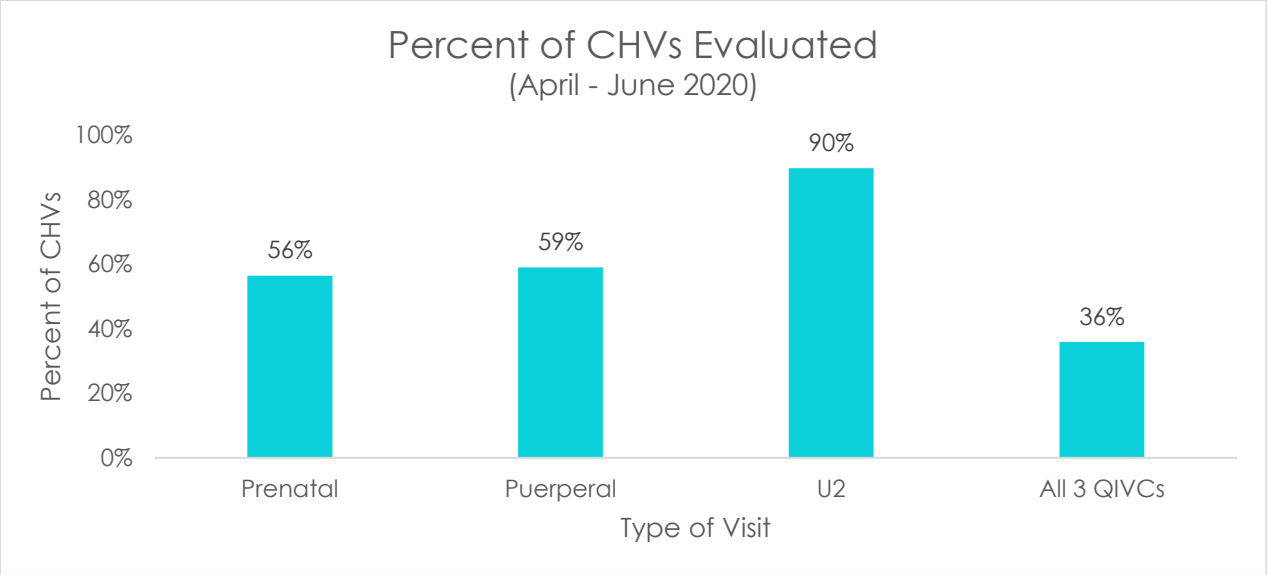


Figure 10

Type of Visits	Total CHVs	Total CHVs Evaluated
Prenatal	39	22
Puerperal	39	23
U2	39	35
All 3 QIVCs	39	14

Table 12

Of the 39 CHVs participating in the KIKOP project RHV intervention from the Nyagoto catchment, only 36% of the CHVs were evaluated for all three types of visits (prenatal, puerperal, and U2). As shown in Figure 10,

about 56% of CHVs were evaluated for prenatal visits, 59% of CHVs were evaluated for puerperal visits, and 90% of the CHVs were evaluated for U2 visits.

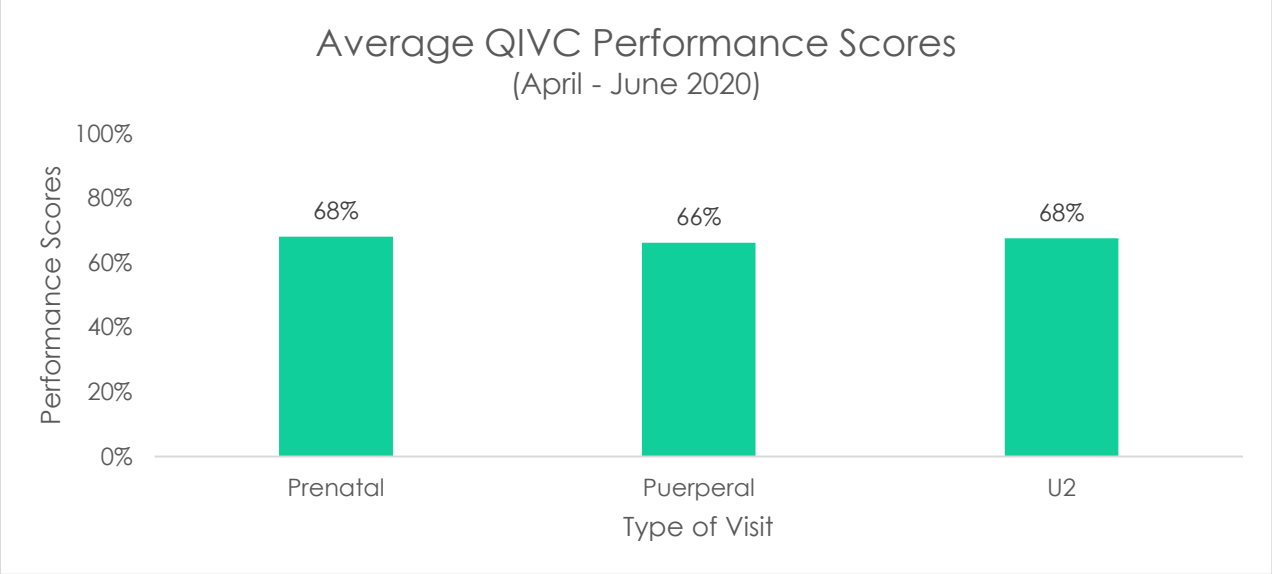


Figure 11

As shown in Figure 11, the performance scores for all three types of visits largely were similar. The average performance score for prenatal visits was 68%, for puerperal visits it was 66%, and U2 visits was 68%. On average, the performance score for all three types of visits was 67%. None of the types of visits reached the 80% proficiency benchmark for RHVs.

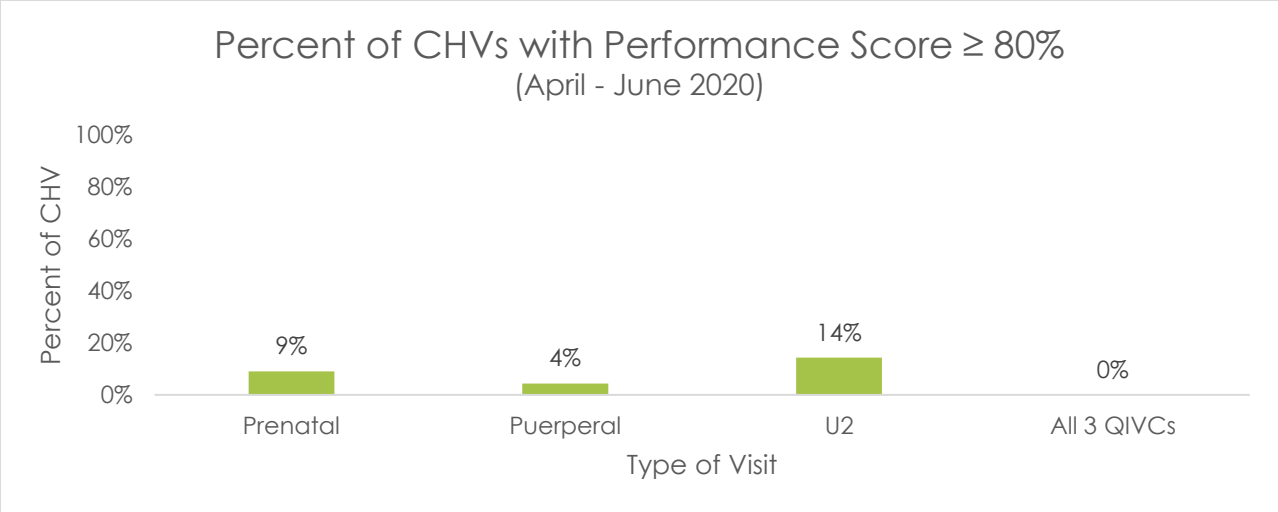


Figure 12

Type of Visits	Total CHVs Scoring >= 80%
Prenatal	2
Puerperal	1
U2	5
All 3 QIVCs	0

Table 13

Figure 12 shows the percent of CHVs who scored greater than or equal to 80% on their QIVC performance. Specifically, 9% CHVs reached the benchmark in prenatal visits, 4% of CHVs reached it in puerperal visits, and 14% of CHVs reached it on U2 visits. Of all the CHVs that were evaluated for all three types of visits, 0% of the CHVs reached the 80% benchmark on all three QIVCs altogether.

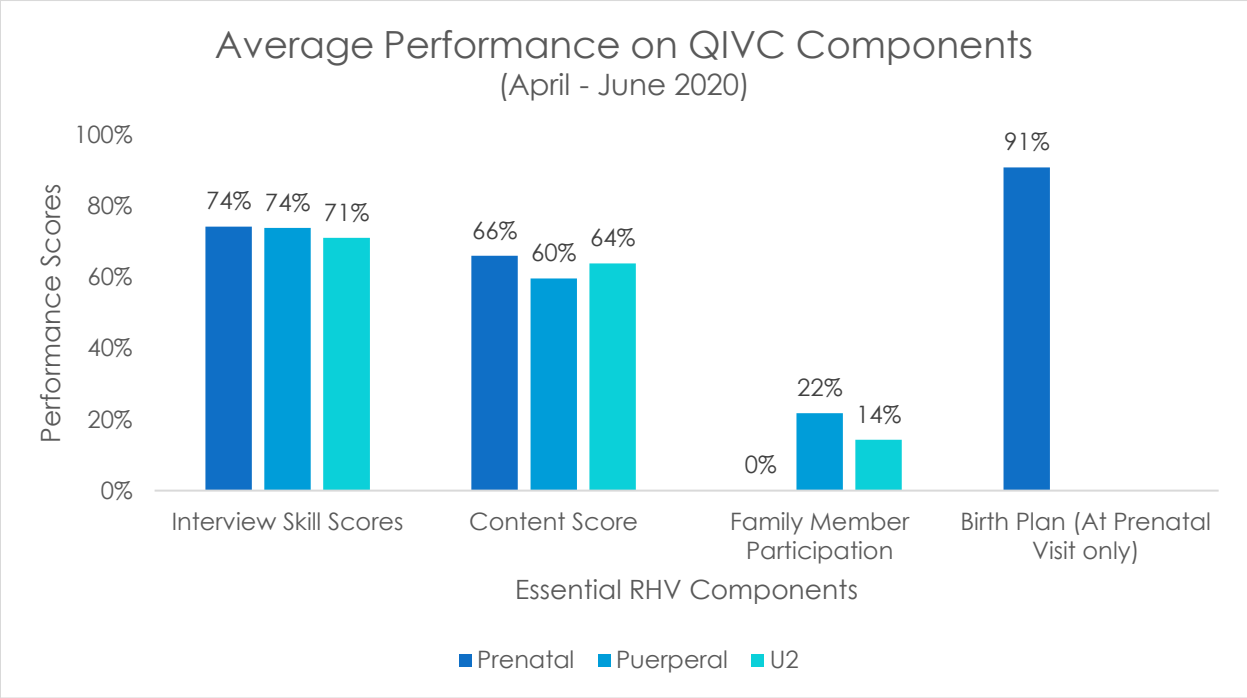


Figure 13

Overall, figure 13 represent the specific performance on the most essential components of each RHV type. For interview skills, the average performance scores for all visit types was very similar. The average interview skills component score on both prenatal visit and puerperal visits was 74% and on U2 visits was 71%. The average score on interview skills for all three QIVCs was 73%. The average performance for individual content skills was also very similar for all three types of RHVs. The average score on QIVC for content skills for all three types of visits was 63%. The content skills performance score for prenatal visits was 66%, for puerperal visits was 60%, and for U2 visits was 64%. The performance score that represented promotion of family member participation during the RHV visits was extremely low. On average, CHVs received 12% on all three types of visits. More specifically, CHVs received 0% on prenatal visits, 22% on puerperal visits, and 14% on U2 visits. Lastly, birth plan was only evaluated for prenatal visits. The performance score evaluating completion or review of birth plan during prenatal visits was 91%, highest of any prenatal RHV components.

Individual Level Analysis

This section represents an individual level analysis of CHV workload and performance on QIVC.

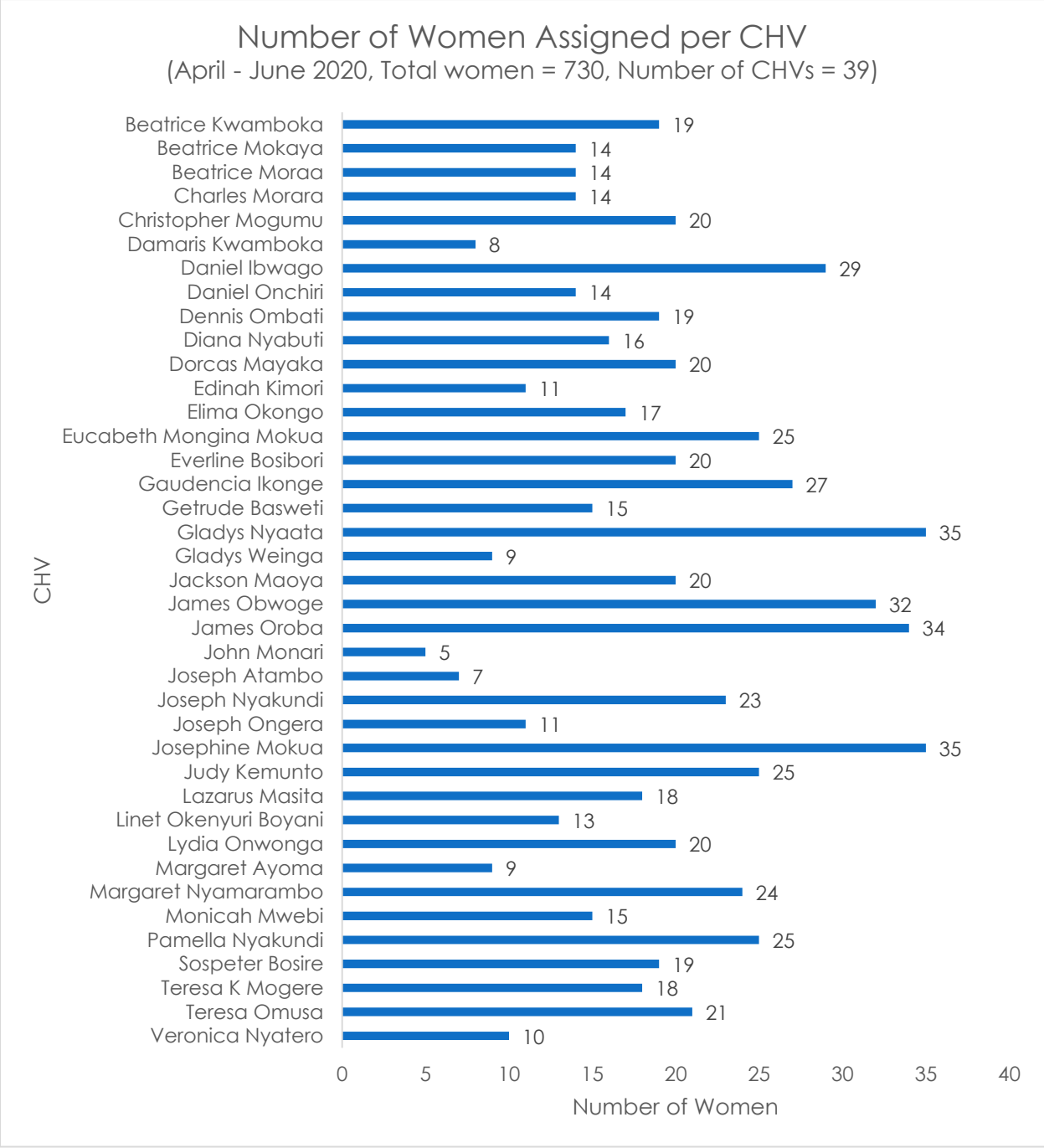


Figure 14

As depicted in Figure 14 above, the distribution of the number of women that each CHVs are responsible for varies greatly per CHV. The number of women per CHV ranged from 5 to 35 women, with an average of approximately 19 women per CHV. About 19 CHVs are below average with the number of women ranging from 5 to 18 per CHV and 20 CHVs are above average with the number of women ranging from 19 to 35 per CHV. By the end of the data collection period, a total of 730 women were assigned to 39 CHVs.

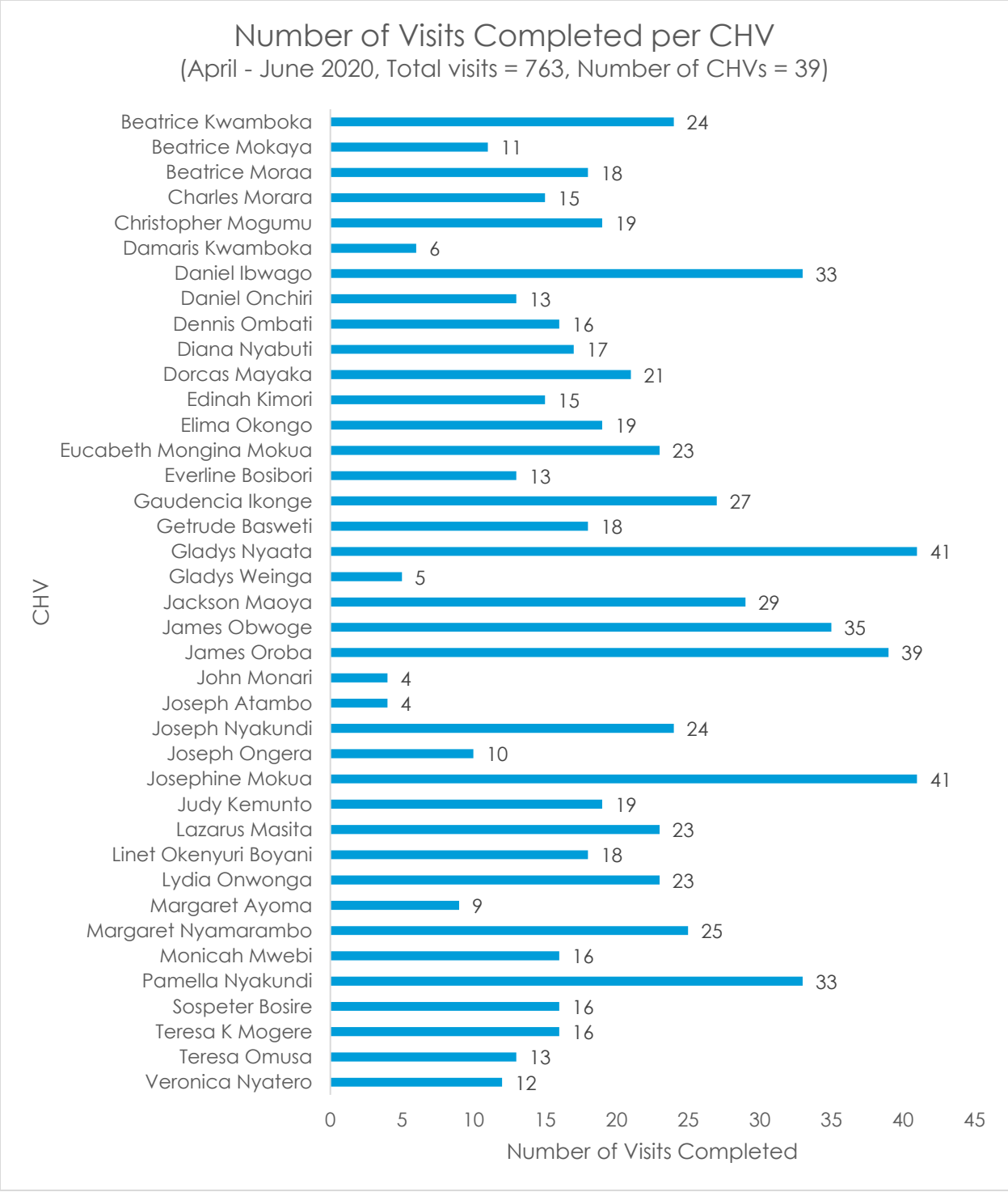


Figure 15

As a result of the varied number of women assigned per CHV, the number of RHVs completed by each CHVs also varied greatly. As depicted in Figure 15, the number of RHVs completed by each CHV ranged from 4 to 41, with an average of approximately 20 RHVs completed by each CHV. About 24 CHVs are below average with the number of RHVs completed ranging from 4 to 19 and 15 CHVs are above average with the number of

RHVs completed ranging from 20 to 41 per CHV. By the end of the data collection period, a total of 763 RHVs were completed in all by 39 CHVs.

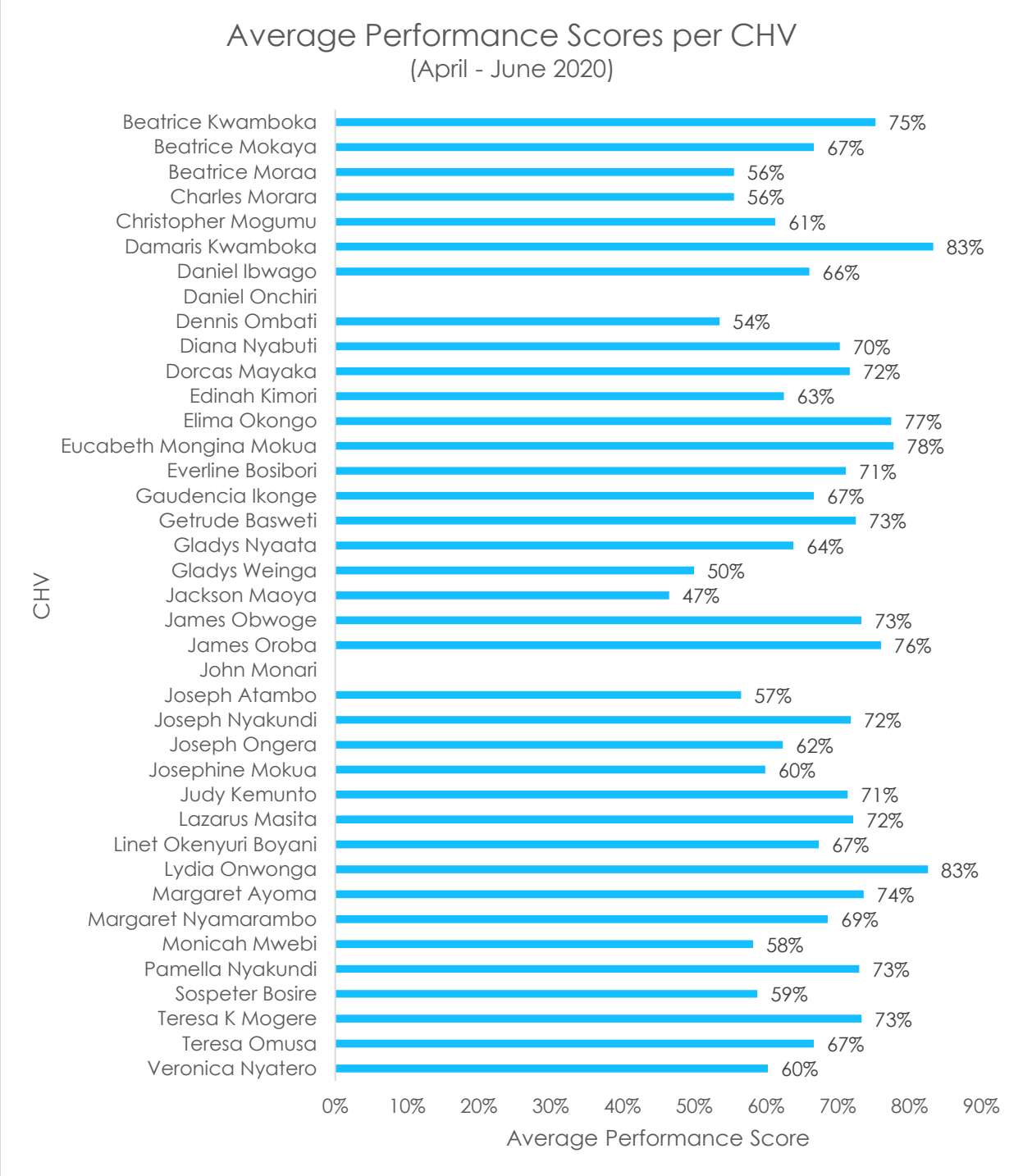


Figure 16

Figure 16 represent the average performance scores of all three types of RHV visits per CHV. Of the CHVs that were evaluated, Damaris Kwamboka, Elima Okongo, Eucabeth Mokua, James Oroba, and Lydia Onwonga were among the top 5 CHVs to have the highest average QIVC score for all three visits. Their averages ranged

from 76% to 83%. However, only two of these CHVs achieved the 80% benchmark. Beatrice Moraa, Charles Morara, Dennis Ombati, Gladys Weinga, and Jackson Maoya were among the low 5 CHVs for the average scores on QIVCs which ranged from 47% to 56%. Moreover, about 20 CHVs scored lower than 70% performance score on average for all types of RHVs. As shown in Figure 16, two CHVs, Daniel Onchiri and John Monari, were not evaluated for any visits and is represented as a gap in the plot.

For more details on the performance scores on specific content level of individual RHVs breakdown per CHV, please refer to Appendix H.

Iranda Catchment

Routine Home Visitations

Analysis for Iranda catchment's routine home visitations was performed for the entirety of the intervention period as well as on a quarterly basis.

Prenatal Visits

Prenatal visits did not have a time component to evaluate. Thus, only the percent of prenatal visits completed for the entire intervention period and number of visits per quarter was evaluated.

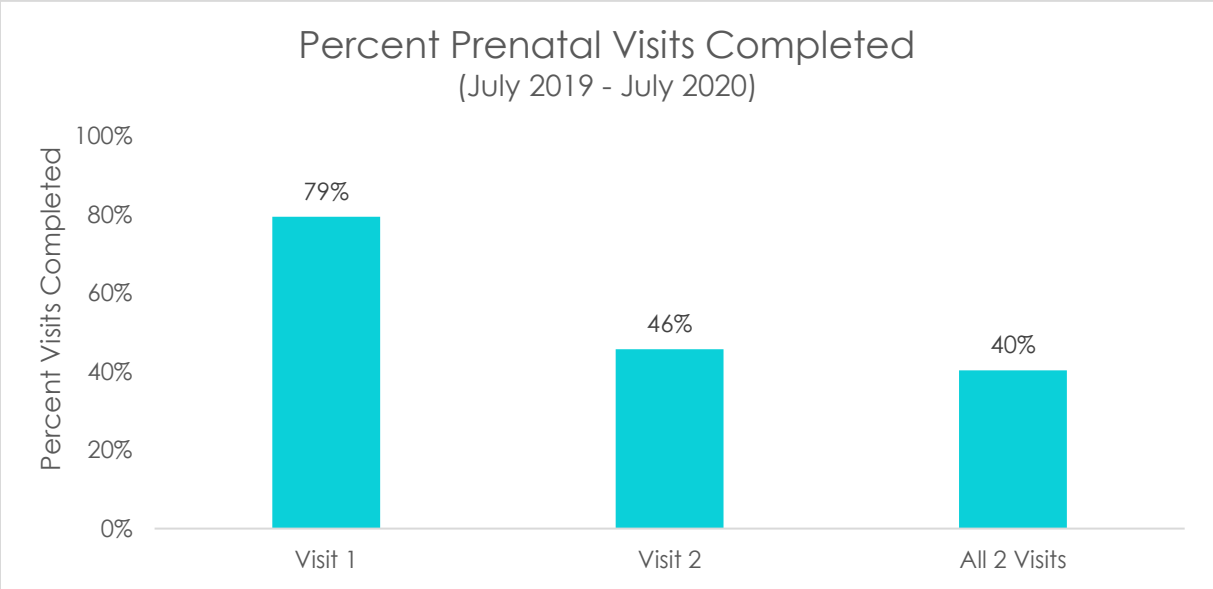


Figure 17

Prenatal Visits	Intended	Completed
Visit 1	262	208
Visit 2	221	101
All 2 Visits	221	89

Table 14

As depicted in Figure 17, for prenatal RHVs, 79% of the intended visit 1 were completed and 46% of intended visit 2 were completed. Moreover, only 40% of both visit 1 and visit 2 that were intended were completed for prenatal RHVs. Visits 2 dramatically falls below the 80% benchmark for completion, whereas visit 1 is below, but close to this benchmark completion rate.

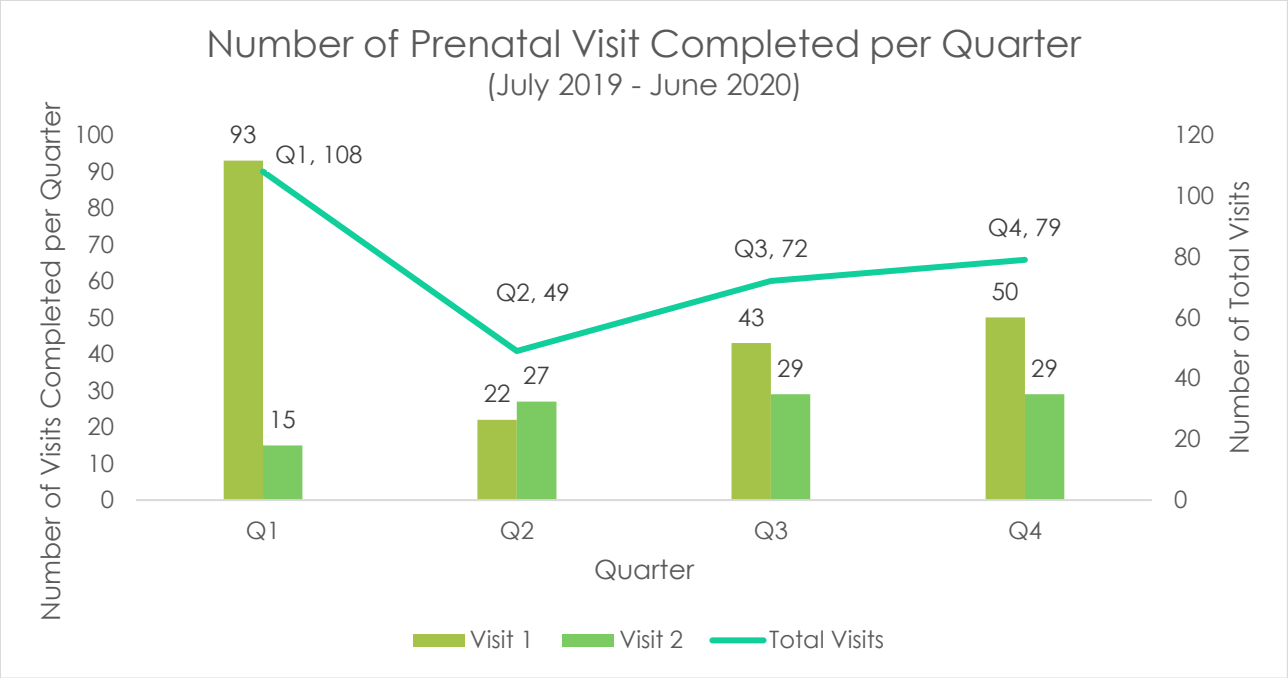


Figure 18

Figure 18 represents the number of prenatal visits completed per quarter. Quarter 1 had the greatest number of Visit 1 (93); however, quarter 1 had the least number of Visit 2 (15). When visit 1 and visit 2 were combined, quarter 1 had the greatest number of total visits completed (108). Quarter 3 and 4 has a similar trend where more visit 1 were completed compared to visit 2; however, quarter 2 had the opposite trend. Overall, there was a drop in the total number of visits in quarter 2 to 49 total prenatal visits, and the number increased to 72 visits in quarter 3 and 79 in quarter 4.

Puerperal Visits

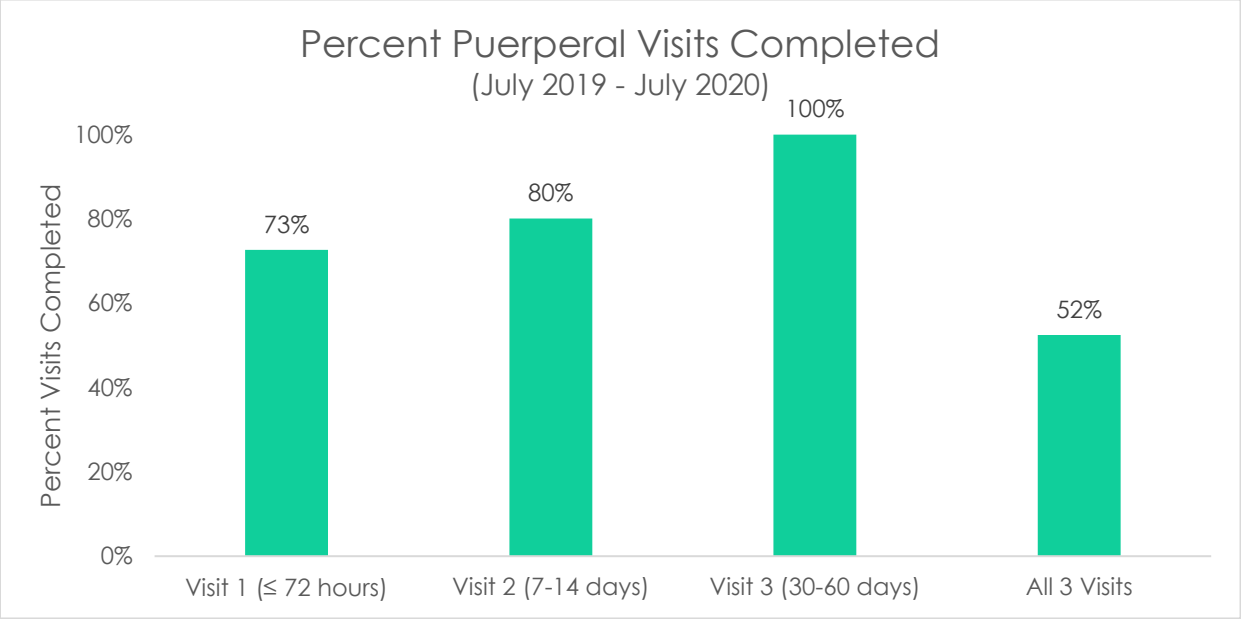


Figure 19

Puerperal Visits	Intended	Completed
Visit 1 (≤ 72 hours)	216	157
Visit 2 (7-14 days)	226	181
Visit 3 (30-60 days)	213	213
All 3 Visits	225	118

Table 15

In Figure 19, we see a slow increase in the percent of intended puerperal visits completed as we follow visit 1 to visit 3. Overall, 73% of the intended visit 1 were completed, 80% of the intended visit 2 were completed, and 100% of intended visit 3 were completed. Moreover, only 52% of all three puerperal visits intended were completed in total during this period. Overall, of the visits that were completed, all three types of puerperal RHVs had a high rate of completion, but only Visit 2 and 3 passed the 80% benchmark for completion.

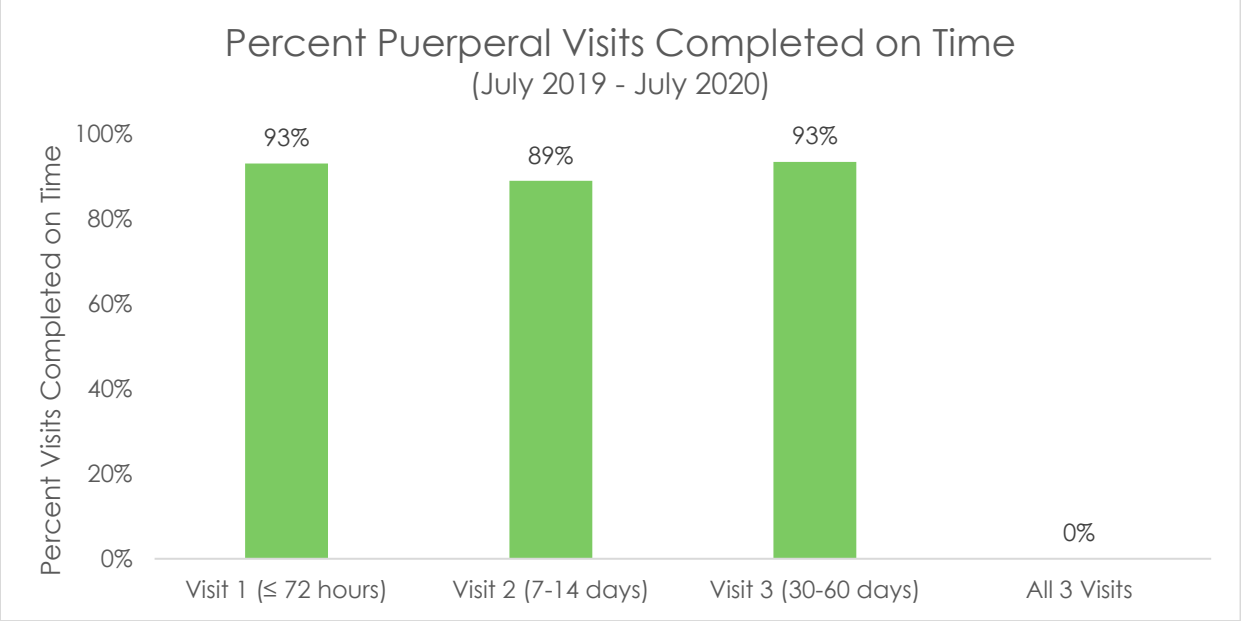


Figure 20

Puerperal Visits	Completed	Completed on Time
Visit 1 (≤ 72 hours)	157	146
Visit 2 (7-14 days)	181	161
Visit 3 (30-60 days)	213	199
All 3 Visits	118	0

Table 16

As shown in Figure 20, when the time component is added to the completed puerperal visits, we can see that all three puerperal visits had a high rate of completion on time. Specifically, about 93% of visit 1 that was completed was on time. Similarly, 89% of visit 2 and 93% of visit 3 that were completed were on time. Overall, of the visits that were completed on time, all three types of puerperal RHVs surpassed the 80% benchmark for visit completion. Of all the visits, 0% of all three puerperal visits completed for a given participant was completed on time during this period.

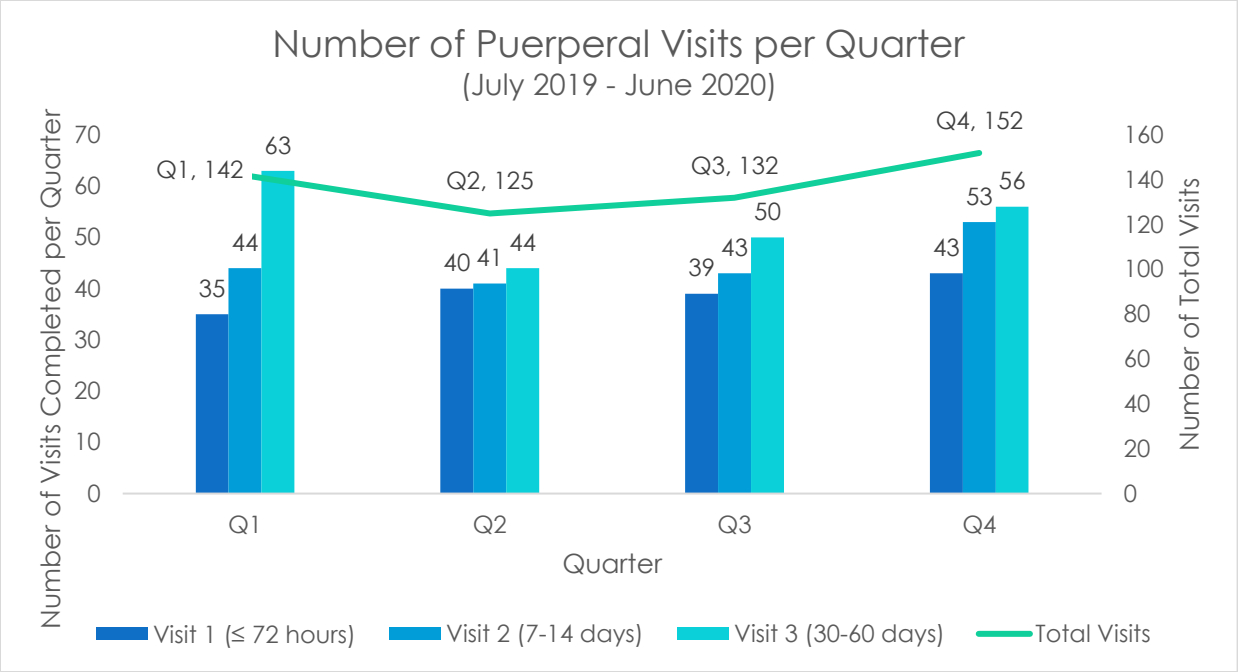


Figure 21

As seen in Figure 21, all four quarters had a similar trend where a higher number of Visit 3 were completed compared to the number of Visit 2, which was higher than number of Visit 1. The greatest number of Visit 1 and 2 were conducted in Quarter 4 at 43 visits and 53 visits respectively, whereas the greatest number of Visit 3 were conducted in Quarter 1. The total number of visits that were conducted per quarter had an overall upward trend with a slight dip in quarter 2 at 125 visits in total. Quarter 4, in total, had the greatest number of visits completed at 152 visits.

U2 Visits

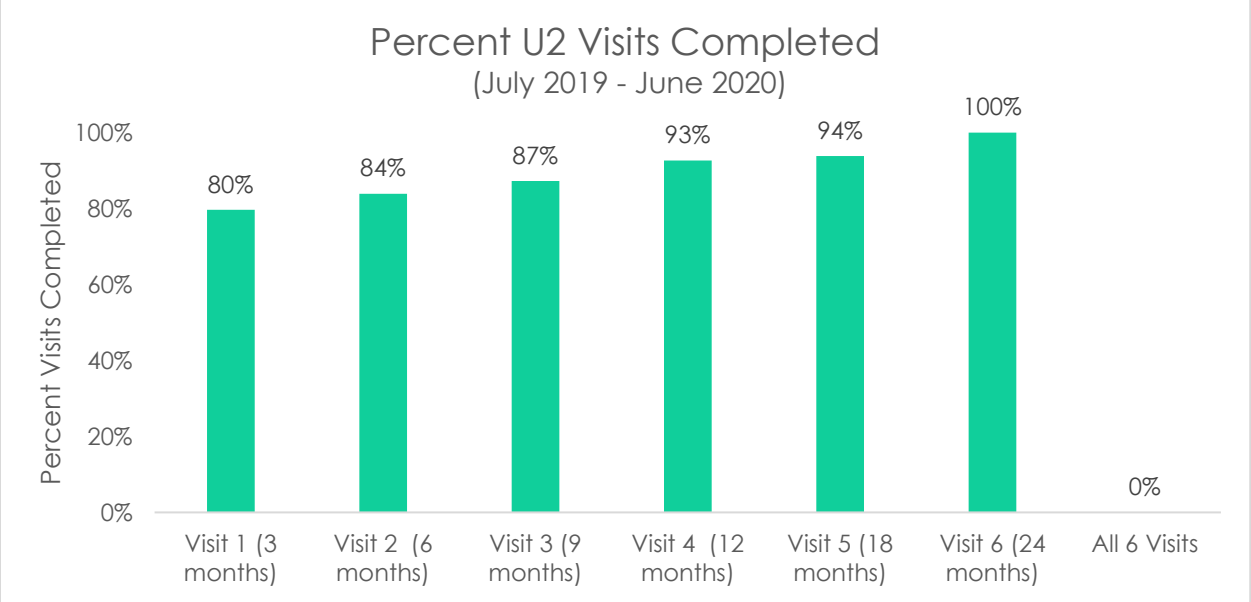


Figure 22

U2 Visits	Intended	Completed
Visit 1 (3 months)	285	227
Visit 2 (6 months)	255	214
Visit 3 (9 months)	259	226
Visit 4 (12 months)	245	227
Visit 5 (18 months)	226	212
Visit 6 (24 months)	155	155
All 6 Visits	0	0

Table 17

Figure 22 represents the percent of visits completed of the intended U2 visits. As shown, all six U2 visits achieved the benchmark 80% completion rate. The percent of U2 visits completed ranged from 80% to 100% of the intended visits. Specifically, 80% of Visit 1, 84% of Visit 2, 87% of Visit 3, 93% of Visit 4, 94% of Visit 5, and 100% of Visit 6 that were intended were completed. Zero percent of visits were completed for all six visits of U2 RHVs intervention.

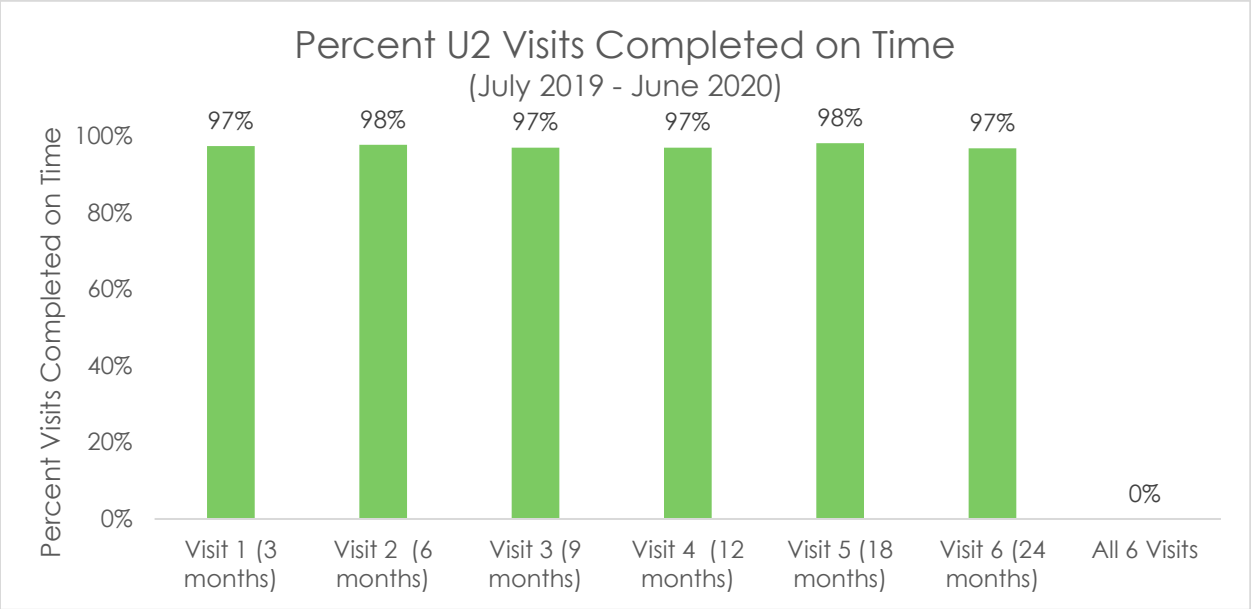


Figure 23

U2 Visits	Completed	Completed on Time
Visit 1 (3 months)	**227**	**221**
Visit 2 (6 months)	**214**	**209**
Visit 3 (9 months)	**226**	**219**
Visit 4 (12 months)	**227**	**220**
Visit 5 (18 months)	**212**	**208**
Visit 6 (24 months)	**155**	**150**
All 6 Visits	**0**	**0**

Table 18

Figure 23 shows the percent of U2 visits that were completed which were on time. The plot shows that all six U2 visits had a high rate of completion on time. Specifically, about 97% of Visit 1, 98% of Visit 2, 97% of Visit

3, 97% of Visit 4, 98% of Visit 5, and 97% of Visit 6 that were completed for U2 visits were completed on time. Of all the visits, 0% of all six U2 visits that were completed for a given participant was completed on time during this period. Overall, of the visits that were completed on time, all six types of U2 RHVs surpassed the 80% benchmark for visit completion.

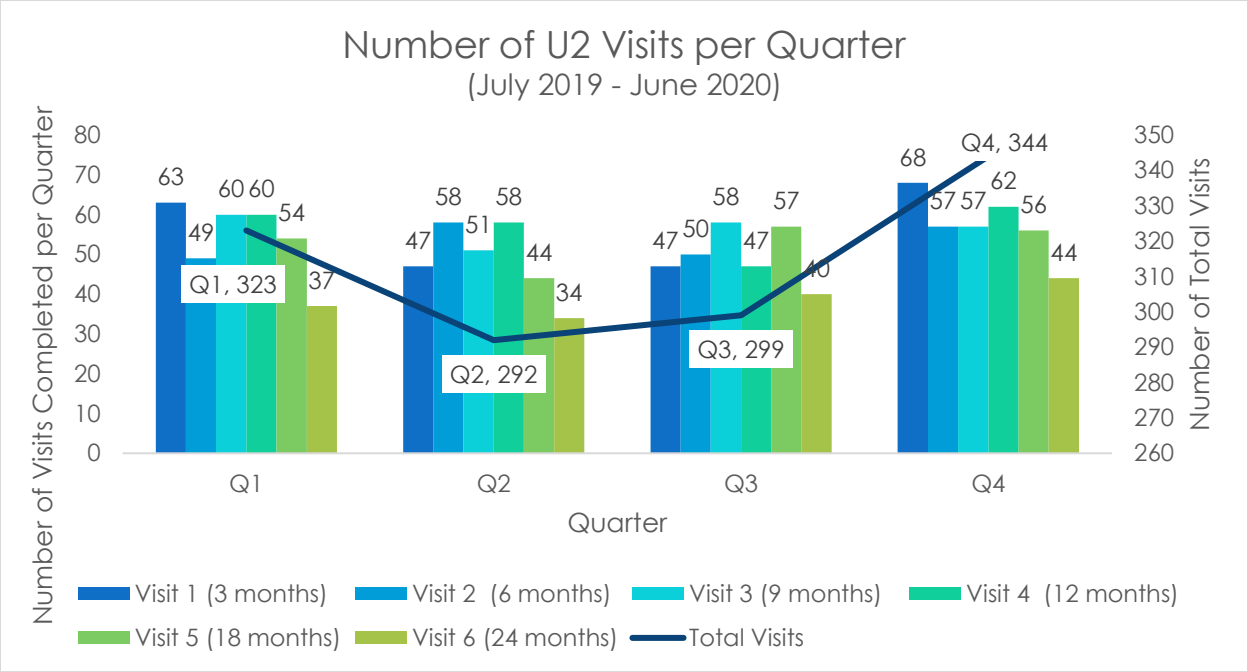


Figure 24

Figure 24 represents the quarterly breakdown of all six U2 visits that were conducted during the intervention period. As shown, the overall trend line for the total visits shows that the Quarter 4 had the greatest number of visits at 344 visits, with Quarter 1 coming in second at 323 visits, Quarter 3 coming in third at 299 visits, and Quarter 4 coming in the last at 292 visits. Moreover, Visit 6 tends to be the least conducted in any given quarter. Visit 1 to Visit 5 seems to range between 44 to 68 visits among a given quarter.

Summary

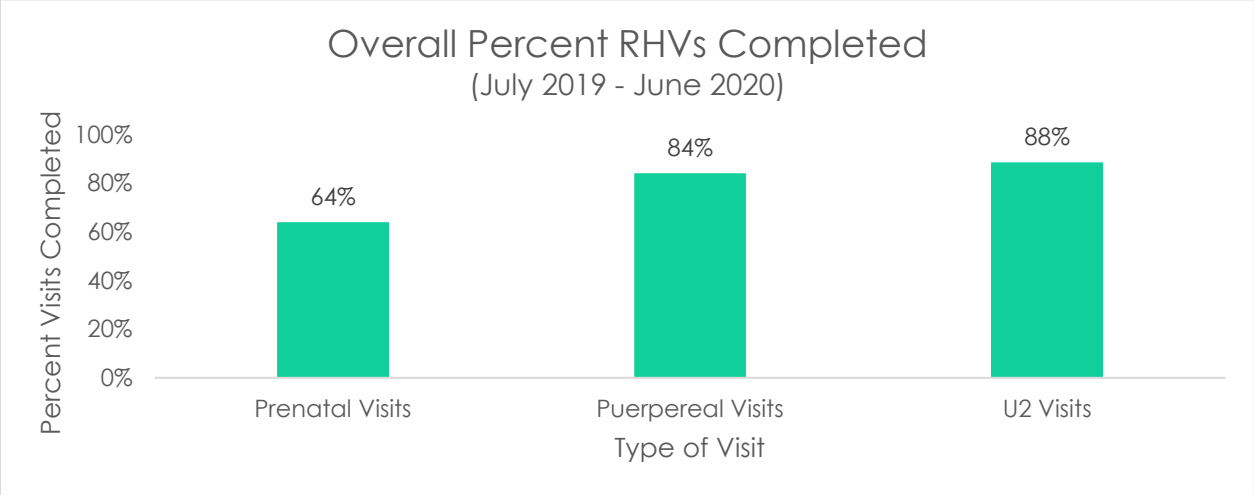


Figure 25

Overall	Intended	Completed
Prenatal Visits	483	309
Puerperal Visits	655	551
U2 Visits	1425	1261

Table 19

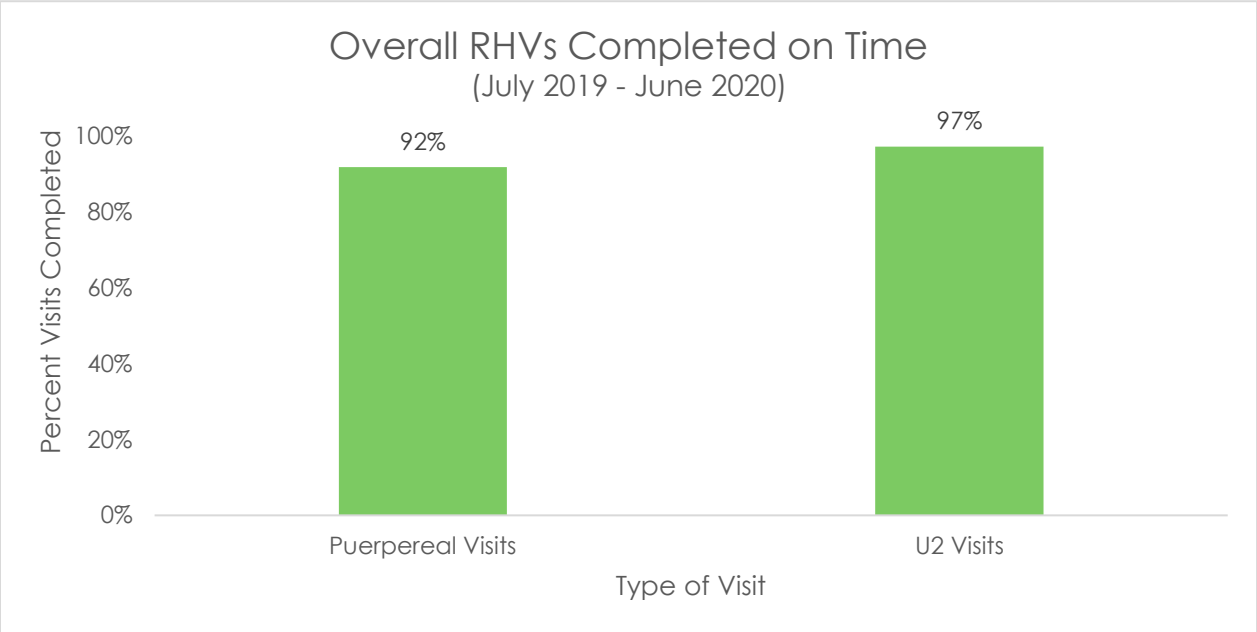
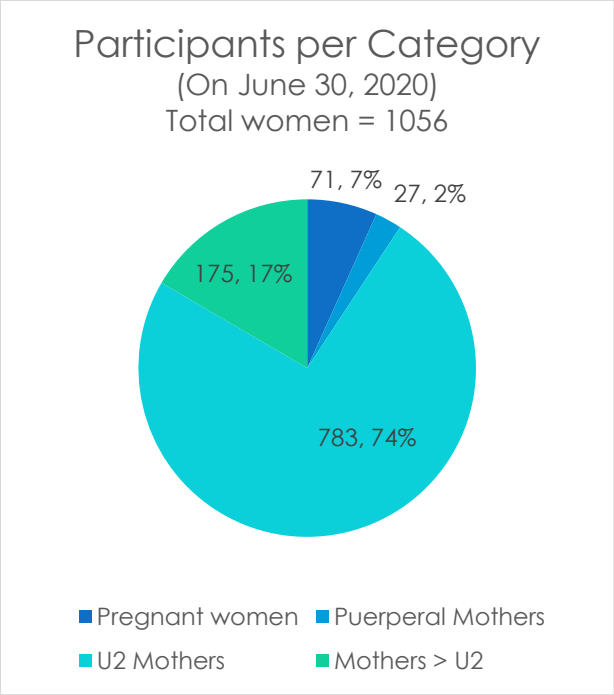


Figure 26

Type of Visits	Completed	Completed on Time
Puerperal Visits	551	**506**
U2 Visits	1261	**1227**

Table 20

Figure 25 and 26 depicts the summary of routine home visitations between July 2019 to June 2020. Figure 25 shows that 64% of all intended prenatal visits were completed, 84% of puerperal visits intended were completed, and 88% of the U2 visits that were intended were completed. Puerperal visits and U2 visits bypassed the 80% benchmark completion rate, however, prenatal visits fell below the 80% benchmark. Figure 26 shows the RHVs that were completed that were on time. As shown, 92% of the completed Puerperal visits and 97% of the U2 visits were completed on time. This shows that majority of the RHVs were completed on time. As shown in Figure 26, prenatal visits did not have a time component; thus, it was not added to the analysis for RHVs completed on time.



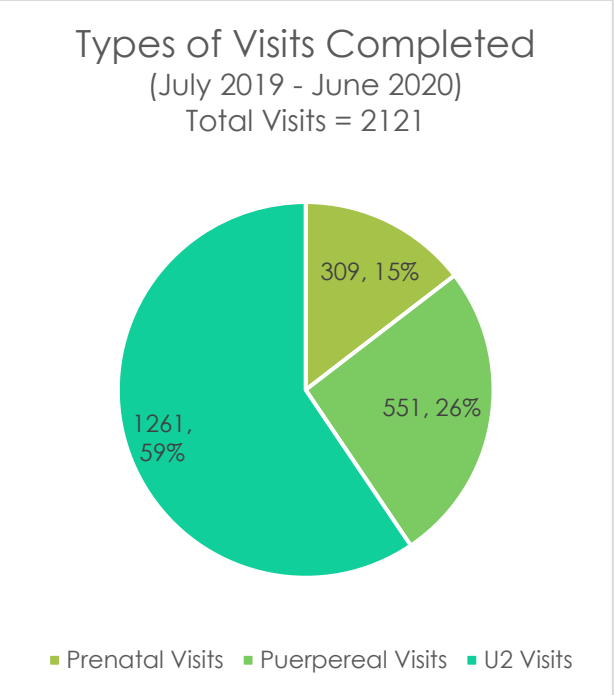


Figure 27

Figure 28

Figure 27 and 28 shows the summary of routine home visitations conducted by the CHVs. Figure 27 represents the number and percent of total women participants in each type of categories: pregnant, puerperal, and U2. Since pregnancy and age are fluid concepts, the analysis for this data was conducted for where the women and their children are in the program on June 30, 2020. Pregnant women are those are were pregnant on June 30, 2020, puerperal mothers are those who had a baby who was 0 days to 60 days old, and lastly, U2 women are those who had children who were 61 days to 2 years old. Some women graduated from the RHV program as their children passed the age of two years as shown as "Mothers > U2." As shown, about 7% of women were pregnant, 2% were puerperal mothers, and 74% were mothers of U2 children; lastly, about 17% of mothers did not fall into any of these categories since their child passed age of two. Majority of the women fell in the U2 category because the definition of U2 incorporates a longer period of time compared to the other categories i.e., pregnant and puerperal mothers.

Figure 28 represents the total number of visits conducted by all CHVs together and the number and percent of visits in each category in the period between July 2019 – June 2020. As shown, majority of the visits completed were U2 visits (59%), followed by puerperal visits (26%), and lastly prenatal visits (15%). This trend may be due to the set-up of the number of visits necessary in each visit types. More specifically, U2 visits require 6 visits, puerperal visits require 3 visits, and prenatal visits require 2 visits.

CHV Evaluation and Performance

Aggregate Level Analysis

This section represents an aggregate level of analysis for CHV performance on QIVC.

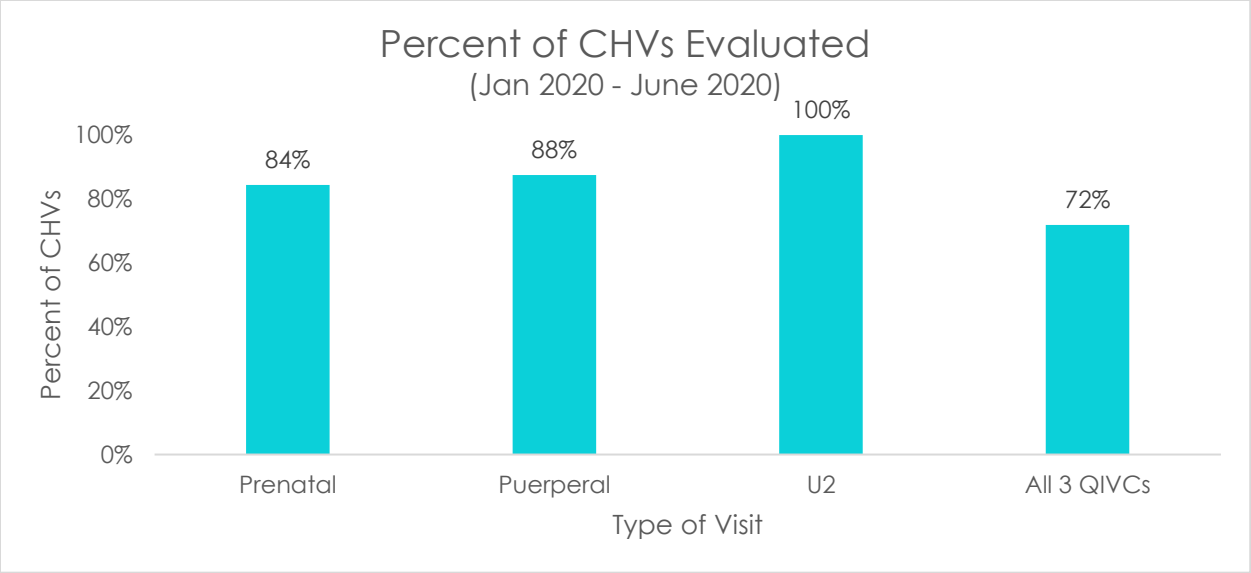


Figure 29

Type of Visits	Total # CHVs	Total # CHVs Evaluated
Prenatal	32	27
Puerperal	32	28
U2	32	32
All 3 QIVCs	32	23

Table 21

Of the 32 CHVs participating in the KIKOP project RHV intervention from the Iranda catchment, only 72% of the CHVs were evaluated for all three types of visits (prenatal, puerperal, and U2). As shown in Figure 29, about 84% of CHVs were evaluated for prenatal visits, 88% of CHVs were evaluated for puerperal visits, and 100% of the CHVs were evaluated for U2 visits.

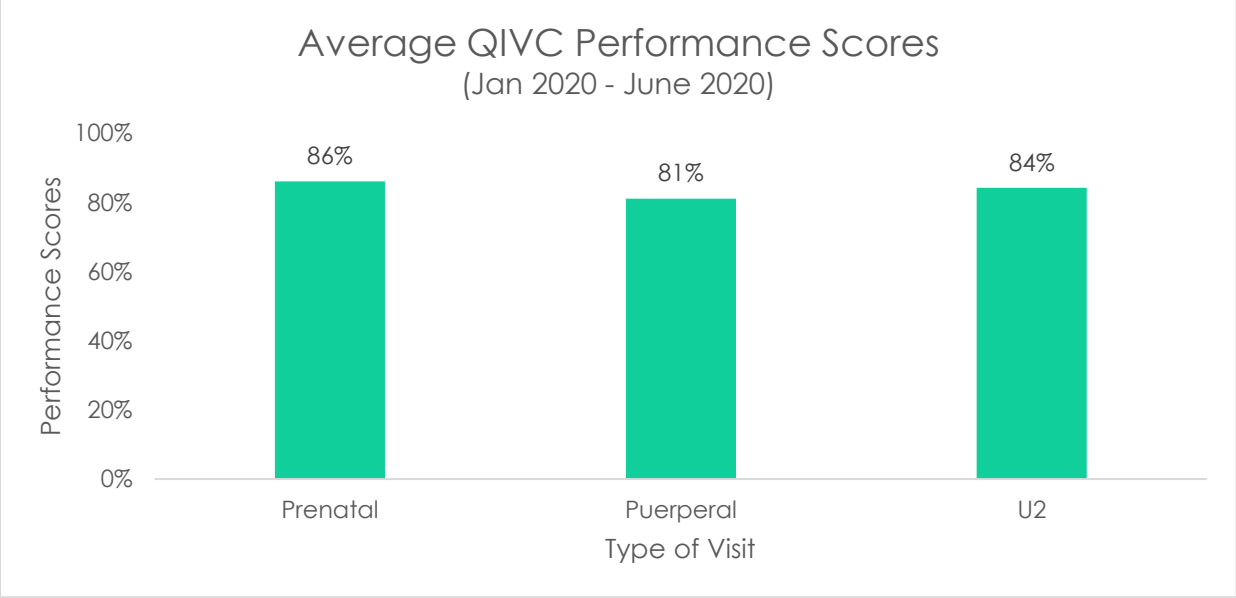


Figure 30

As shown in Figure 30, the performance scores for all three types of visits largely were similar. The average performance score for prenatal visits was 86%, for puerperal visits it was 81%, and U2 visits was 84%. On average, the performance score for all three types of visits was 84%. All three types of visits reached the 80% proficiency benchmark for RHVs.

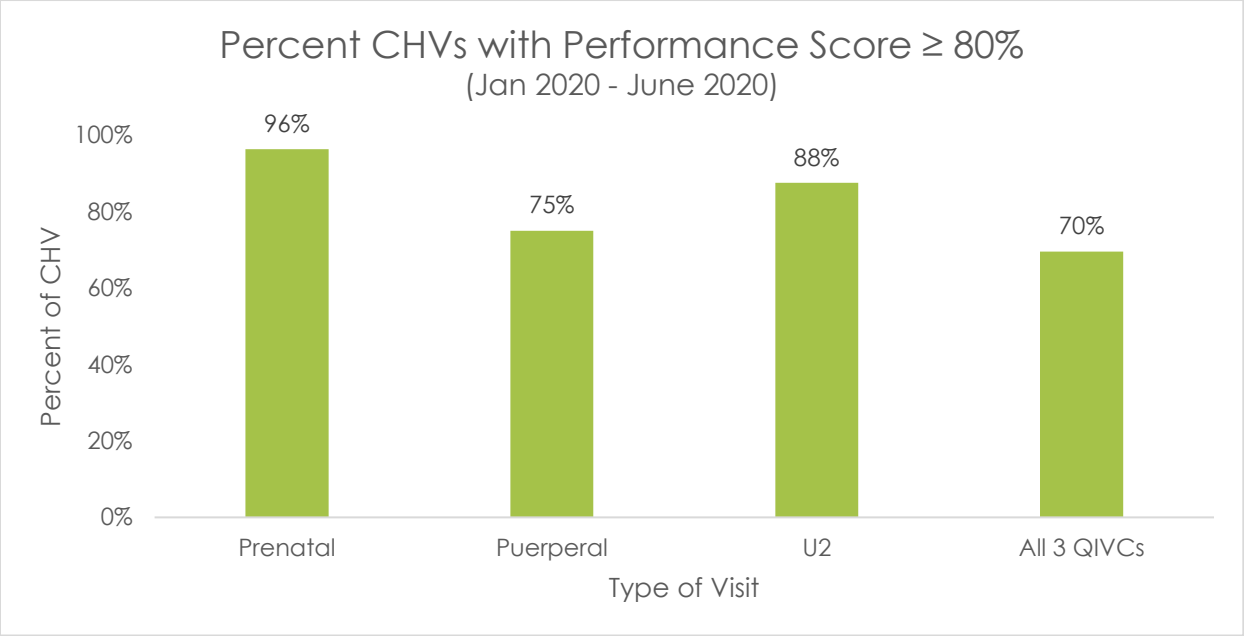


Figure 31

Type of Visits	Total CHVs Scoring >= 80%
Prenatal	26
Puerperal	21
U2	28
All 3 QIVCs	16

Table 22

Figure 31 shows the percent of CHVs who scored greater than or equal to 80% on their QIVC performance. Specifically, 96% CHVs reached the benchmark in prenatal visits, 75% of CHVs reached it in puerperal visits, and 88% of CHVs reached it on U2 visits. Of all the CHVs that were evaluated for all three types of visits, 70% of the CHVs reached the 80% benchmark on all three QIVCs altogether.

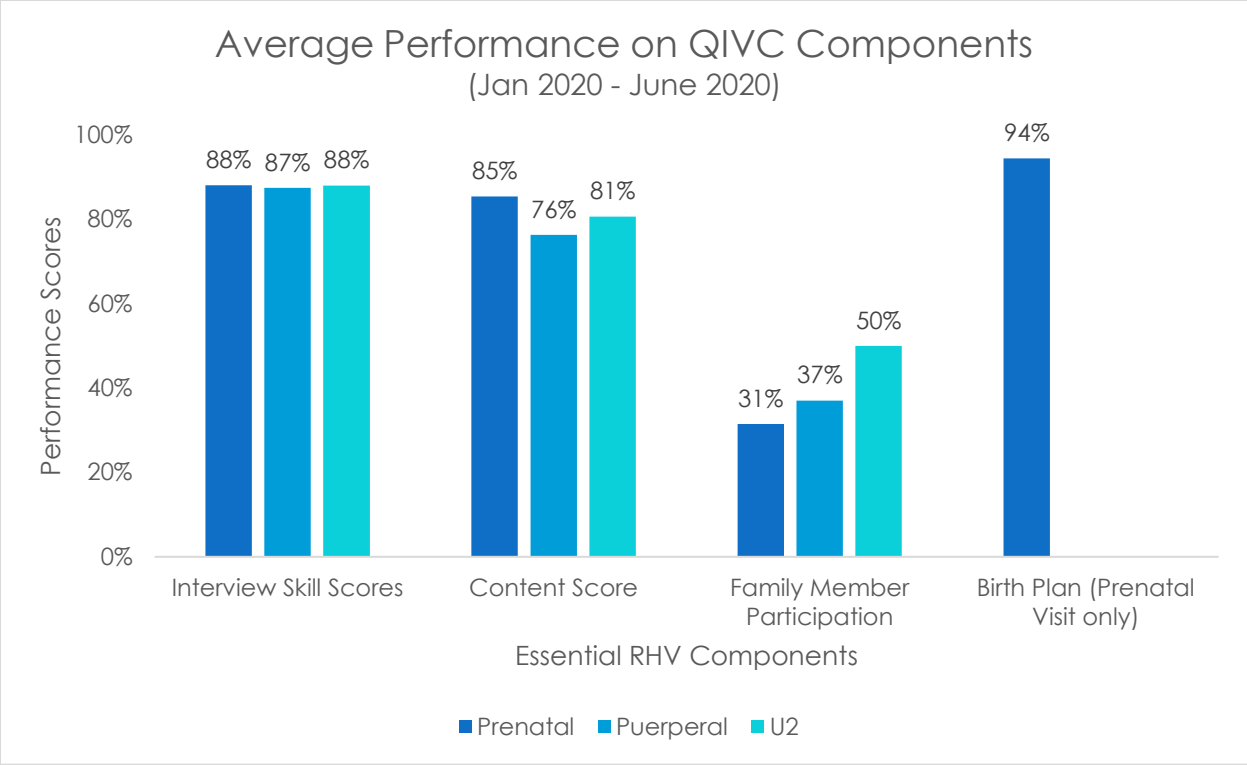


Figure 32

Overall, Figure 32 represent the specific performance on the most essential components of each RHV type. For interview skills, the average performance scores for all visit types was very similar. The average interview skills component score on prenatal visit was 88%, puerperal visits was 87%, and on U2 visits was 88%. The average score on interview skills for all three QIVCs was 88%. The average performance for individual content skills varied slightly for all three types of RHVs. The average score on QIVC for content skills for all three types of visits was 81%. The content skills performance score for prenatal visits was 85%, for puerperal visits was 76%, and for U2 visits was 81%. The performance score that represented promotion of family member participation during the RHV visits was lower than other components of RHVs. On average, CHVs received 40% on all three types of visits for family member participation. More specifically, CHVs received 31% on prenatal visits, 37% on puerperal visits, and 50% on U2 visits in family member participation component of QIVCs. Lastly, birth plan was only evaluated for prenatal visits. The performance score evaluating completion or review of birth plan during prenatal visits was 94%.

Individual Level Analysis

This section represents an individual level analysis of QIVC performance for CHVs.

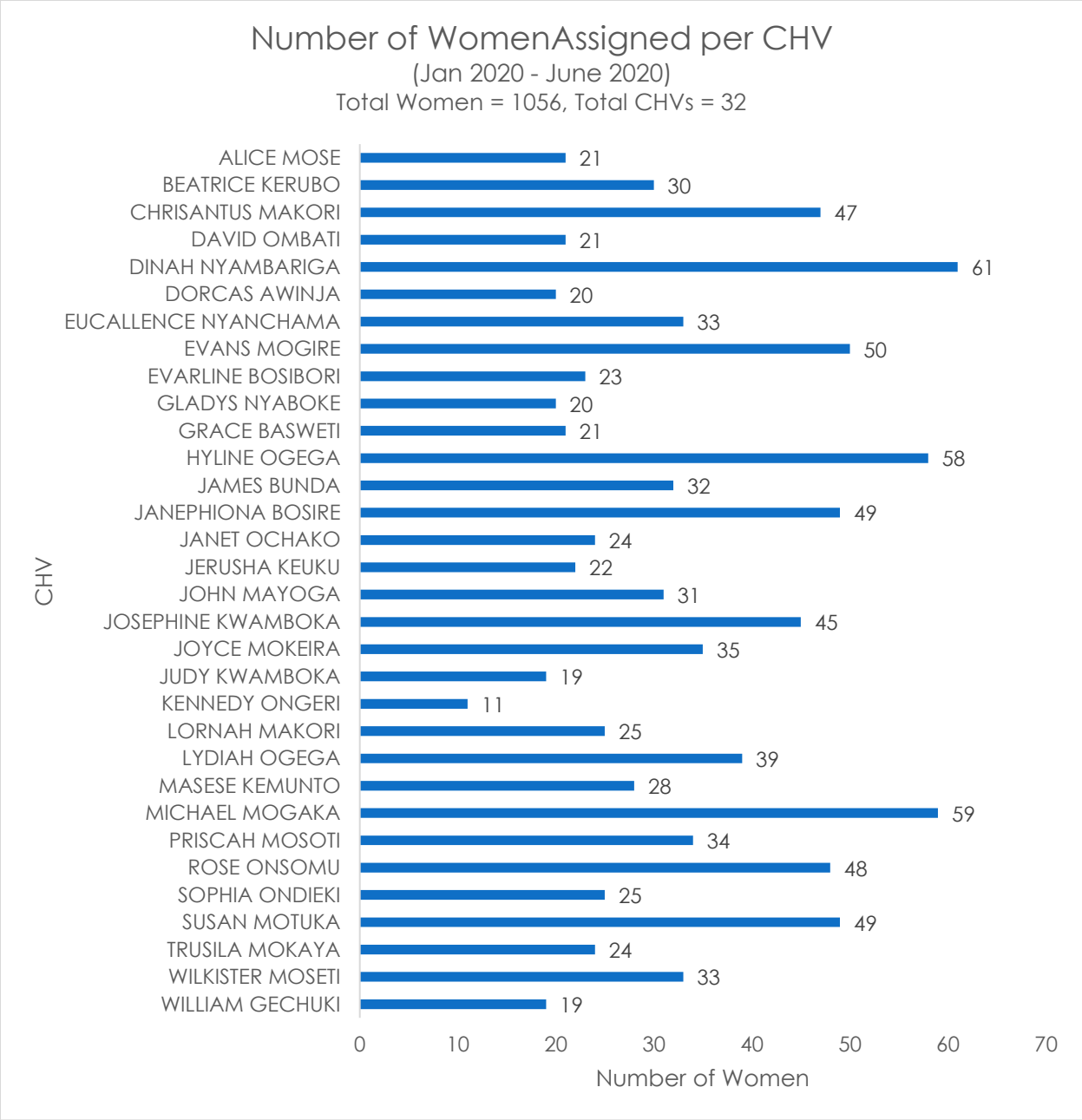


Figure 33

As depicted in Figure 33, the distribution of the number of women that each CHVs are responsible for varies greatly per CHV. The number of women per CHV ranged from 11 to 61 women, with an average of approximately 33 women per CHV. About 18 CHVs are below average with the number of women ranging from 11 to 28 per CHV and 14 CHVs are above average with the number of women ranging from 33 to 61 per CHV. By the end of the data collection period, a total of 1056 women were assigned to 32 CHVs

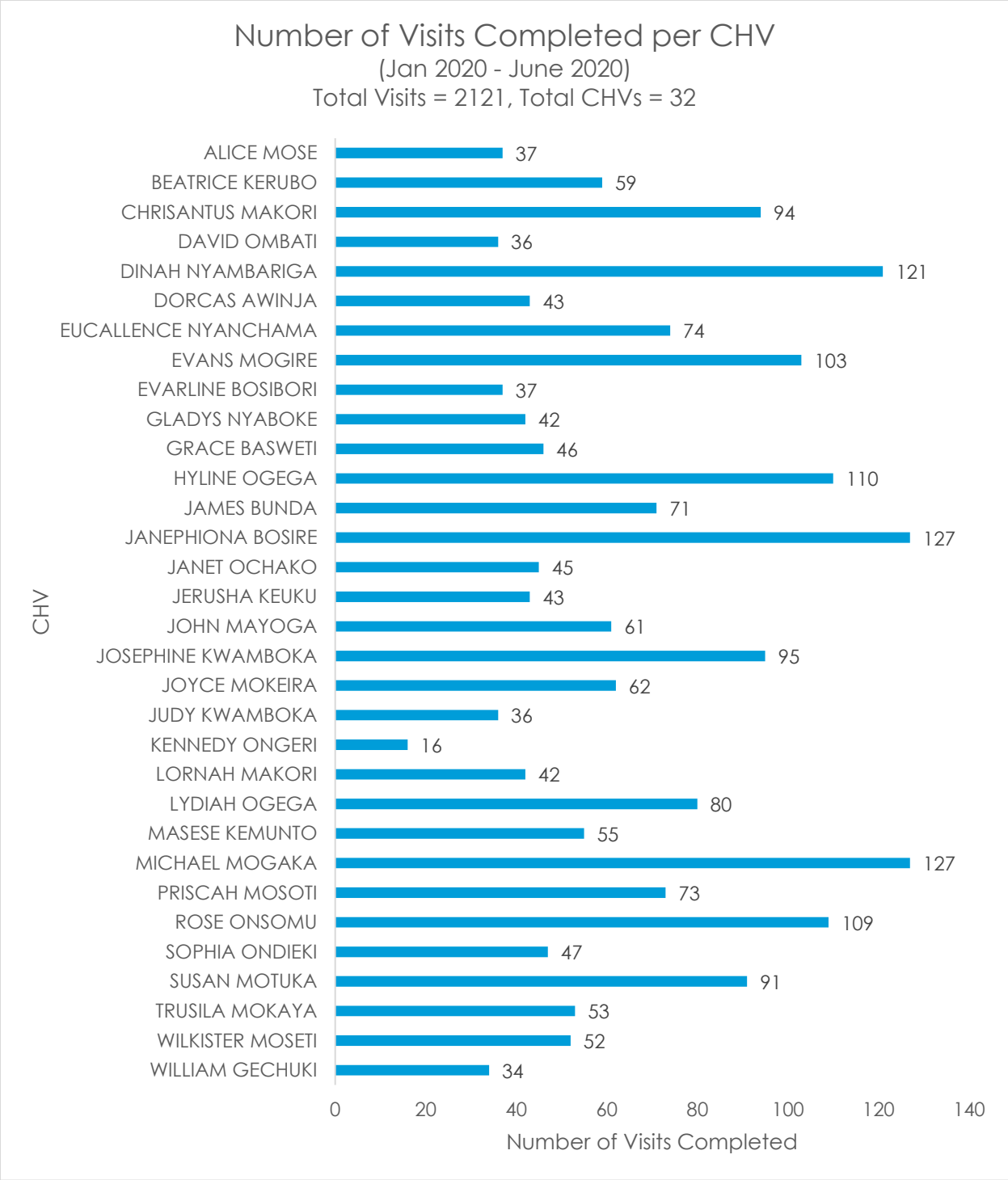


Figure 34

As a result of the varied number of women assigned per CHV, the number of RHVs completed by each CHVs also varied greatly. As depicted in Figure 34, the number of RHVs completed by each CHV ranged from 16 to 127, with an average of approximately 67 RHVs completed by each CHV. About 19 CHVs are below average with the number of RHVs completed ranging from 16 to 62 and 13 CHVs are above average with the number

of RHVs completed ranging from 71 to 127 per CHV. By the end of the data collection period, a total of 2121 RHVs were completed in all by 32 CHVs.

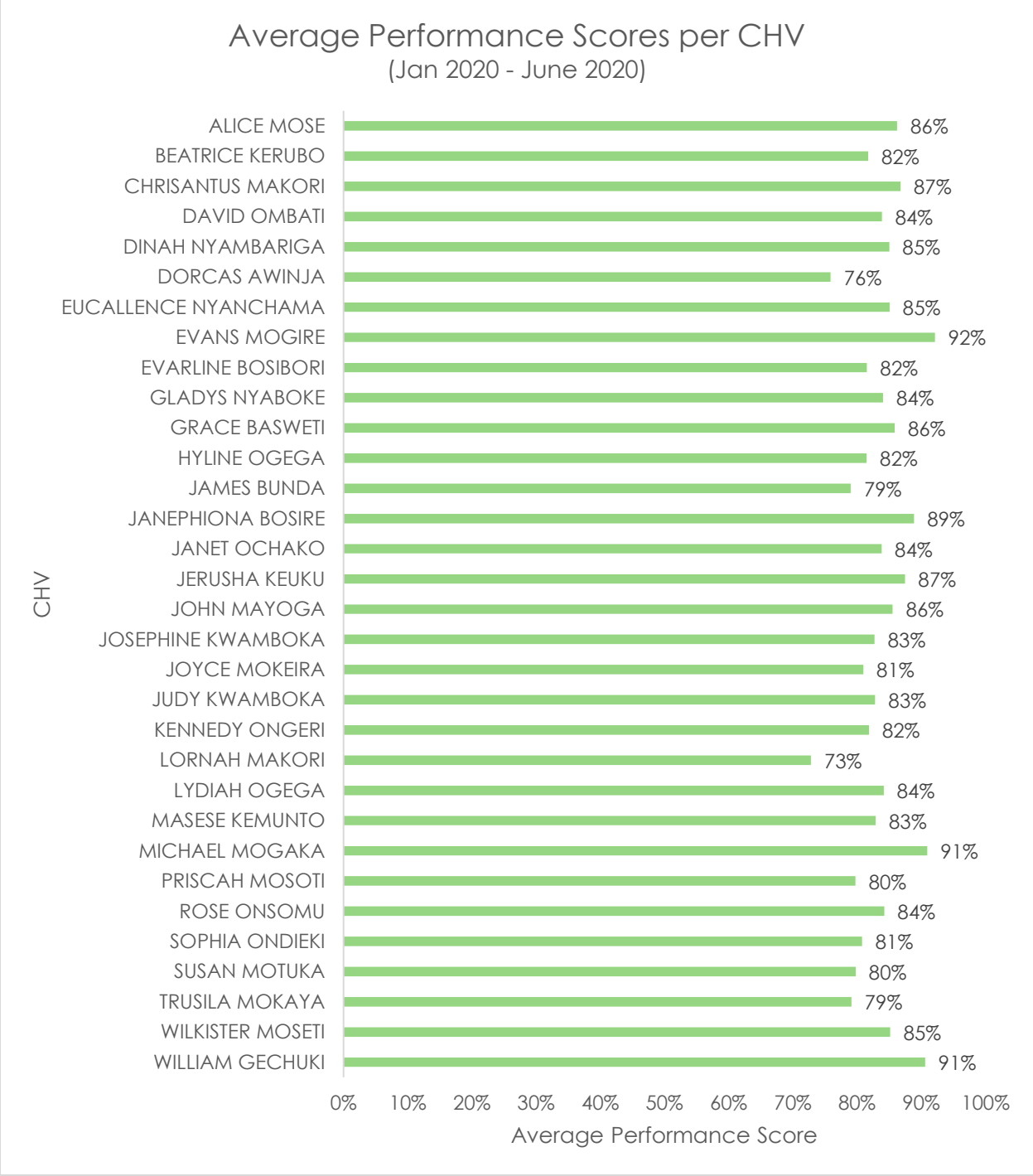


Figure 35

Figure 35 represent the average performance scores of all three types of RHV visits per CHV. Of the CHVs that were evaluated, Evans Mogire, Michael Mogaka, William Gechuki, Janephiona Bosire, and Jerusha Keuki were among the top 5 CHVs to have the highest average QIVC score for all three visits. Their averages ranged from 87% to 92%. Lornah Makori, Dorcas Awinja, James Bunda, Trusila Mokoya, and Priscah Mosoti were among

the low 5 CHVs for the average scores on QIVCs which ranged from 73% to 80%. Overall, 28 CHVs that were evaluated had a performance for all RHV types at the 80% benchmark.

For more details on the performance scores on specific content level of individual RHVs breakdown per CHV, please refer to Appendix H.

QUALITATIVE RESULTS

Common Themes: Nyagoto and Iranda

Topic 1: CHV Workload Management

Theme 1: CHV responsibilities

One of the responsibilities of CHVs is to collect data for vital events such as pregnancies, births, and deaths. Majority of the tasks involve collecting census and mapping. Moreover, CHVs also share data with KIKOP and village committees and monitor important health events of the community members to help create better education and programs for the village.

> *"My role as a CHV is reporting vital events, new births in the village every month as well as deaths. I also do mapping and census in the village and advise people during the community meetings and tell them how they are supposed to live in terms of hygiene, health, and nutrition." (Participant 2, Nyagoto, Focus Group 3)*

> *"Part of our roles is collecting data from our community… Like the number of households, the number of members in the household, if there is a pregnant woman or children under 2 years, or anyone who is HIV positive. Also collecting vital events is part of my role… As well as attending the village health committee quarterly… we share as a community and analyze our progress within that quarter." (Participant 2, Iranda, Focus Group 1)*

> *"As a CHV, I ensure that all households have a latrine, a leak-tin and dish rack…Another thing is monitoring the immunization schedule of the child so that they can get all the injections and how the child is weaned when they get to 6 months." (Participant 2, Iranda, Focus Group 2)*

The CHVs report that their responsibility is also to provide health education to the participants. CHVs expressed that the education is dependent on which stage of pregnancy or motherhood the women is in. For women who are pregnant, CHVs teach women about danger signs during pregnancy, developing birth plans, sleep hygiene, etc. After delivery, CHVs teach mothers about advantages of breast feeding; holding, covering, carrying, bathing, and feeding the baby; monitoring infant's health for danger signs; immunization and vaccination; adherence to medications; etc. With a global pandemic of COVID-19, CHVs also provide education about the exposure and protection from the novel virus.

> *"The most important part for the mother and child is explaining to them the importance of exclusive breastfeeding, immunization which is very important to the child, and thirdly a balanced diet. The mother should know what they can eat so that they can have enough milk to exclusively breastfeed the child… as well as hygiene, emphasizing on the four critical moments of hand washing for the child and mother so that they maintain hygiene." (Participant 5, Iranda, Focus Group 2)*

> *"I also tell them the advantages of their children finishing all their immunizations…. I also tell them to boil their water because there are a lot of diseases they can contract. I also tell them that… they should ensure they sleep under a mosquito net whatever the season,*

whether rainy or not, they should sleep under the mosquito net." (Participant 1, Nyagoto, Focus Group 1)

Another part of CHV's roles and responsibilities is to encourage women to attend the clinic. In addition, if they know of a non-participant is sick, they also motivate them to attend a hospital or a clinic to get better care. Some CHVs motivate women to attend clinics when they find out they are pregnant or when they gave birth by telling them about the benefits of seeing a health professional who will also provide them with materials such as mosquito nets. Moreover, CHVs also encourage women to get a clinic card and register for the Linda Mama program which helps them to track their health status.

"We also refer [tuberculosis patients or chronic disease patients to the clinic] as well as teach them on how tuberculosis is transmitted and how a tuberculosis patient should be taken care of… Maybe their immunity is low, so you tell them to go to hospital and emphasize that that our facility in Nyagoto has a really good doctor who is in charge of the people whose immunity is kind of low. They can even give them some flour to make porridge with." (Participant 2, Nyagoto, Focus Group 1)

"When I visit them, I explain why [pregnant women] need to visit the clinic and how important it is to get a medical check to know her progress alongside the child she is carrying." (Participant 4, Iranda, Focus Group 2)

Many CHVs also provide skill building strategies to the women and mothers on how to create proper and safe latrines, personal hygiene, balance diet, filtering and boiling drinking water, saving money, hand washing, making a dish rack, saving money, etc.

"The work I do to support the community is by showing them how to prepare a kitchen garden, making a dish rack, and cleanliness in the compound, removing the stagnant water in the prevention of malaria." (Participant 3, Iranda, Focus Group 2)

"Another thing is the construction of toilets which they never used to do there before because they never knew the importance of having a toilet." (Participant 2, Iranda, Focus Group 2)

"After they get pregnant, if they have 50/=, they can use 20/= and then keep 30/=. Or they can use 30/= and keep 20/= which will help them when it is time to deliver and the husband is not around. The money they had saved will help them buy some linen… as well as a razor blade because they might even give birth along the way." (Participant 2, Nyagoto, Focus Group 1)

Theme 2: Time Required

CHVs reported that the time that one spends on each RHV depends on the state of the household and the mother. For example, there might be family conflicts or women must complete household chores that adds more time to an average visit.

"The home visit is dependent on the state of the mother, if they are busy or if they are ready. In my case, I do inform them earlier so that makes me to take a shorter time… depending if I found them attending to something. Especially the pregnant mothers they are not in a hurry. They will come slowly and take their time asking you questions" (Participant 2, Iranda, Focus Group 3)

"If you find that that home has some challenges say they had quarreled, you have to take your time and observe if these people will welcome you." (Participant 4, Nyagoto, Focus Group 2)

"That depends on the house you have visited. There are households that you will visit then you find the owner is not cooperating and that will take you more time. Also, there are

households you will visit, and the owner is cooperative... Therefore, it depends on the household you visited." (Participant 1, Nyagoto, Focus Group 2)

"The time you spend there, depends on the state of the person you went visiting. You might find that they do have some work then they make you wait for them to finish whatever they are doing before you talk to them." (Participant 7, Nyagoto, Focus Group 2)

Due to the challenges associated with visiting a household as described above, the time that CHVs reported for RHVs varied. CHVs report spending about 10 to 60 mins per visit and conduct RHVs 3-6 days a week. CHVs also reported spending approximately 6-24 hours per week on their responsibilities and about 1-4 hours per day. This reflects that CHVs workload varies depending on the number of women that they are responsible for and the number of visits they have allocated per day or per week.

"When doing the home visits, time from one home to the next varies… when teaching them I can take something like 1 hour depending on the questions. Like on the part of the pregnant mother, you can take your time while asking her questions, which might take you like 1 hour" (Participant 4, Nyagoto, Focus Group 3)

"For me… if I visit the pregnant mother or the child it does take between 30-45 minutes because now, we are used to it. There before, I used to take something like 2 hours. However now that I am used to doing it often, I can take 45 minutes with a pregnant mother and if they are ready. In a week I usually go 3-4 times." (Participant 4, Iranda, Focus Group 3)

"I have programmed in a week to take 4 days to do work assigned by KIKOP; therefore, I might take 8 hours to serve the village in a week." (Participant 1, Iranda, Focus Group 2)

CHVs reported their travel time depends on the distance between households and ranged from 5 - 60 mins.

"… my travel time depends. I usually travel uphill which takes me around 30 minutes to get to the said household." (Participant 6, Nyagoto, Focus Group 3)

"When doing home visits, I use 15 minutes travelling to the household. However, if it is far, I can take 1 hour." (Participant 1, Nyagoto, Focus Group 3)

Theme 3: Expansion of Role

CHVs reported that many times because they are known as village nurses or doctors, they seem to be providing health referrals and care coordination that is outside the scope of their training and education. Some CHVs describe providing advice and suggestions about ways to handle family conflicts.

"Even the patients suffering from other disease come to consult with me in the house. Then you tell them the steps they can follow to get to hospital" (Participant 7, Iranda, Focus Group 3)

"Another challenge is I might get to a home and find that someone has a wound, and since they recognize me as a doctor, they tell me that the child got into an accident and how can they deal with it." (Participant 4, Iranda, Focus Group 2)

"As a CHV what I do aside from the work assigned to me by KIKOP is sometimes I might go to a family and find that they were in conflict. Since you cannot just start talking to a pregnant mother or one who has under 2 children, you have to create a peaceful environment, then encourage them before you start dealing with health-related issues." (Participant 3, Nyagoto, Focus Group 3)

CHVs also mentioned that many times they must source equipment, food, gifts, or money to provide to the mothers and/or their child. CHVs also sometimes have to go to the clinic to ask for medications or first aid kit.

"As a CHV I would try and source for a mosquito net for a newborn who does not have it so that they can sleep under a mosquito net because it is very important to them." (Participant 2, Nyagoto, Focus Group 3)

"As a CHV, if I am visiting a mother who has given birth and I find that I have an unused towel at home or a baby shawl, I will offer them what I have if they do not have them." (Participant 4, Nyagoto, Focus Group 3)

"As a volunteer our people, especially when doing the home visits, you might find some households that are poor and do not have anything… As a volunteer, I would give them something, you might find that you have something that you had saved for yourself… I might offer her some money and tell her to use it in buying some soap to use in bathing the baby or can use it in buying some potatoes or milk." (Participant 1, Nyagoto, Focus Group 1)

"When you ask the mothers if the child was dewormed, they usually say they were not dewormed. You find that they have not been dewormed till they are 2 years. This makes me to go personally to the hospital and ask for the deworming tablets to give to those who did not get." (Participant 7, Iranda, Focus Group 3)

CHVs also mentioned that many times they find themselves helping the women with chores, creating hand washing stations, latrines, etc.

"Also, sometimes you might tell the mother that they need to build a hand-washing station outside the toilet then they tell you they thought you would help them in doing that. If you have some time you tell them to give you a container, then you cut it, and make a hand washing station, and show them how they can use it and where they can put the soap." (Participant 2, Nyagoto, Focus Group 1)

"I would also like to add that sometimes as you are visiting a homestead you would find that they do not have food, or they are just having bananas. As a CHV I would tell the mother to even prepare beans for the family instead of meat. If they do not have the beans, I can even help them with a small dish to cook for them, so you find that I have helped her in terms of food." (Participant 1, Nyagoto, Focus Group 3)

"If I am visiting a mother who has given birth… if she is no strong enough to fetch water, I will also help them get water, do dishes or even cook for them before I leave." (Participant 4, Nyagoto, Focus Group 3)

CHVs report escorting or taking women to the hospitals or clinics when they do not have support.

"The issue of transport, let us say a pregnant mother needs fare to go to the hospital; therefore, you will be needed to give or escort them consuming your time in doing the extra work in your village." (Participant 2, Iranda, Focus Group 2)

"When a mother is about to give birth, but you find that the mother in law is not around to take them to hospital, as a CHV I would offer to take them. I might even consider sleeping in the hospital for 2 days so that I can help the mother during and after delivery before coming back home with her." (Participant 6, Nyagoto, Focus Group 3)

Theme 4: Workload management strategies

CHVs engage their colleagues and KIKOP in challenges cases. CHVs mentioned that facilitation from leadership such as supervisors or village chief helps mother implement the education provided during RHVs and steer community members to respect CHVs and for mothers to take them seriously.

"When doing counselling you can go as a team. You can find 2 to 3 CHVs and ask them to accompany you for home visits. When you get to the targeted home, you tell them that you were taking a walk through the village then decided to visit them, even if you had just

targeted that particular home. If the mother had resolved not to go to the clinic because they are not in good terms or the husband does not want to accompany their wife to hospital, you tell your colleagues that they need to counsel the family because of the highlighted reasons." (Participant 2, Nyagoto, Focus Group 1)

"You might have talked to the mother during the first visit but when you go for the second visit you find that they have not implemented what you taught them. In that case, you have to invite a KIKOP officer on another day to come and accompany you so that the mother can take what you teach them seriously in order to have a difference. Therefore, it makes our work easier when we invite the staff and they are willing to come help us." (Participant 7, Nyagoto, Focus Group,3)

"At times you might visit a home whose religious beliefs do not allow them to go to hospital. When you get there, they send you away saying that they pray to their God and want nothing to do with hospitals. In such cases, the chiefs should be involved so that they can help us know how we can go to this households by getting someone to escort us because sometimes you might get there and they chase you away." (Participant 4, Nyagoto, Focus Group 3)

CHVs reported that a strategy that helps them complete their tasks is to organize their days and weeks for RHVs prior to starting the visits. They review their lists of households that they are supposed to visits to help with time management. Some CHVs also review the lessons that they are supposed to give to the participants prior to their visits, so they are ready and prepared during the RHVs to provide the necessary education and answer questions.

"You first go through [educational subjects] before visiting the mother so that when you get where you are doing the home visit, you just do the summary faster to save time." (Participant 3, Iranda, Focus Group 2)

"From my home I will organize myself by looking at the checklist and noting down their name so that once I get there all I do is ask for their book. This makes it easy if you have already filled the name, your village, and other things. The rest becomes easy." (Participant 5, Nyagoto, Focus Group 3)

"What will make your work to go on well is going through your form list to know how many homes you are supposed to visit then you organize yourself as to what time you are supposed to leave and the time you will spend in each household," (Participant 4, Nyagoto, Focus Group 3)

CHVs also mentioned that scheduling future visits, letting the mother know when they will visit next, and working around the mother's schedules help make the RHVs efficient. Moreover, some CHVs reported that they also follow-up with the mother a few days before the visit or the same day before the visit to make sure they are available. Some CHVs know the schedule of the mother and create visitation plans around their schedules.

"As you do the visits, you get to know your client and at what time they are found at home… You know when they are free or what they are doing so as to choose when to visit. I do not usually visit around lunch time because I might interfere with their meal." (Participant 6, Iranda, Focus Group 3)

"What makes my work easier is calling the household and asking when they are free so that I can visit them." (Participant 1, Nyagoto, Focus Group 3)

"I also alert the mother I will be visiting so that they are aware. If they had some work they were planning to do, they can finish early so that when we have the conversation we will be settled." (Participant 7, Nyagoto, Focus Group 3)

CHVs describe that it is very important to create a positive bonding with the mother. Various strategies were given as examples to create a sense of friendship between the mother and the CHV. One key method to create a sense of trust among the mothers is to keep the information that CHVs learns during the RHVs confidential.

> *"As a good volunteer you have to persevere and keep secrets as well because you might get there and find the family is in conflict. If you go and tell outsiders what you found happening there, they will not trust you next time." (Participant 1, Nyagoto, Focus Group 3)*

Other CHVs mentioned that it is important to be happy, friendly, and compassionate towards the mothers even if they are not open and trusting. A repeated theme that emerged among CHVs was that they must be kind and open to the mothers to create a relationship with the mothers.

> *"I call the child by their name, if it is [Joe] I will greet them "Hello [Joe]!" For the mother, I will ask "[Jane] how are you doing. Today I have come to visit you." Even if they are not in good moods, you just maintain a happy mood and they will not shout at you. You can comment on how they look if they look tired. From that they will know that you have noticed how they feel, then they welcome you to start the conversation." (Participant 1, Iranda, Focus Group 3)*

> *"For me the pregnant mother, most especially the young girls who do not want you to know that they are pregnant are the ones that have a problem. Even those who are married but are still young, they do not want to open up. You must be friendly with them to get close so that they can open up, if they do not want to open up, you just leave them, then tell them that you will come to visit another time. Therefore, you find your own tactics to befriend them so that they can open up." (Participant 7, Iranda, Focus Group 3)*

Lastly, CHVs described the importance of bringing family members, especially husbands, in the conversation about the mother and the infant's health.

> *"When you get to the household and find that both the husband and wife, you do not go directly to the mother to interview them… you are supposed to talk to the man and ask if you can speak to the wife. If they have agreed, you can call the wife aside and tell them to feel free and open up then you finish the excuse." (Participant 2, Iranda, Focus Group 2)*

> *"You are supposed to communicate with both the husband and wife. If the husband is at home, alert him on when you will be visiting them and when you communicate with the wife you tell her to inform the husband to wait for me. When teaching them, if the woman is pregnant and you are talking about her diet, the husband gets to know what is needed to help the mother's immunity as well as the infant." (Participant 2, Nyagoto, Focus Group 1)*

Topic 2: Satisfaction with CHV Role and Responsibilities

Theme1: Helping and educating community get stronger

Majority of the participants from both Nyagoto and Iranda reported satisfaction in their role due to its reach and support in their community. Their role in educating their community is seen as a major indicator in CHV satisfaction. Many CHVs reported their decision making in becoming a CHV to be the much-needed improvement in their community in terms of maternal and child death. Many CHVs described that they feel satisfaction in their work when they see certain illnesses and diseases decline or eradicated in their community.

> *"What made me to become a CHV in my community is the fact that most women in my village were not that educated. Therefore, when I gained the education from KIKOP, I*

decided to go into my village and educate women on the advantages of taking the children to the hospital, feeding their children, and raising them in the right manner." (Participant 5, Nyagoto, Focus Group 2)

"I also want to help not only my village, but also the entire sub-county to grow, so that it can be known that a certain place, through KIKOP, the Nyagoto sub-county has improved." (Participant 3, Nyagoto, Focus Group 2)

"What made me to become a CHV is taking the message I get from the training to the mothers at home so that they can improve from home, so as to reduce deaths, reducing still births in the village, and to improve their hygiene." (Participant 6, Iranda, Focus Group 3)

"I will not stop even if I become grandmother because I am impressed when I see the children have grown and the mothers are going to the clinic. That is what impresses me." (Participant 7, Iranda, Focus Group 3)

CHVs are motivated to continue as a CHV when they see positive health behavior changes in their communities. Some CHVs are motivated in their role when they see the child that they visited healthy and grown up. Other CHVs describe satisfaction when mothers adhere to the education and guidelines that they provide during the home visits. Many CHVs also reported that they enjoy teaching their community members on health and hygiene.

"I also enjoy when I see the child that I have been taking care of for the last 2 years has graduated successfully because that is "KIKOP's child." Because they have obeyed everything that we taught them, they have not contracted any sickness, they are doing well, and maintained personal hygiene, it makes me happy." (Participant 1, Iranda, Focus Group 1)

"As a CHV, nowadays people have improved. For instance, the pregnant women give birth in hospital. People know about personal hygiene; they build latrines and eat a balanced diet as I had taught them. So that is what I needed." (Participant 4, Iranda, Focus Group)

"I enjoy my work because after I have taught the mother then I visit next and find that she has implemented what I had taught them I feel that I am doing meaningful work." (7, Nyagoto, Focus Group 3)

Theme 2: Learning and receiving training

Many CHVs in Nyagoto and Iranda mentioned that they are motivated to perform and continue their role as a CHV due to the training they receive for their position. Many CHVs like learning, not only for themselves but also for their community as it impacts their ability to serve their communities. Some CHVs like learning about health issues that affect their communities which makes them feel valuable in their village. CHVs also report that the training that they receive from KIKOP, allows them to have the knowledge of a "local health officer" or a community health worker.

"I would like to keep getting this kind of training going on so that I can become a valuable person in my village as well as other villages. I will be valued even within the following generation." (Participant 5, Nyagoto, Focus Group 2)

"I like doing home visits because they help me gain knowledge as well as I get to learn." (Participant 1, Iranda, Focus Group 1)

"I like my role because it has given me encouragement as well as knowledge on how I can live with my family. I have also taken it outside, explaining to my relatives the same way I explain to others as a community health worker." (Participant 6, Iranda, Focus Group 3)

Theme 3: Receiving recognition, respect, and trust

CHVs feel respected and valued in their roles because the chief, village elders, and mothers recognize them as “sisters” or nurses. CHVs also feel that they are contributing to a larger cause in their community as a village nurse or a doctor.

> *“For instance, … I helped a doctor's child. One of the parents was a doctor and the other a nurse, and it was in the evening around 6:00 PM. When they called me, we took the child to hospital, the child was remaining with 30 minutes of survival. Nowadays, they like asking for my help; therefore, this work encourages us even when we are referred to as "sisters" in the villages it makes me happy.” (Participant 3, Iranda, Focus Group 3)*

> *“I enjoy doing this work because when I visit a household, the husband and wife will handle me well as a doctor and that makes me feel like I am fit to be a community doctor.” (Participant 2, Nyagoto, Focus Group 3)*

Moreover, with the recognition and respect, the community members often look up to the CHVs to provide advice and education on important health issues. The community members feel comfortable in reaching out to them. Furthermore, CHVs are also called “teachers” as they educate the community and are recognized for their expertise.

> *“Because most people are knowledgeable now, they even respect me in the village. When they, meet me they will ask for advice and even ask me to educate them more, making me to keep on teaching them.” (Participant 4, Iranda, Focus Group 3)*

> *“What makes me to enjoy this work the most is the fact that I am respected in the village. For instance, when I pass by the village someone can call me, tell me that their child has a cold, and ask me what medicine they are supposed to give them.” (Participant 1, Nyagoto, Focus Group 3)*

Theme 4: Building connections

About equal number of CHVs in both Iranda and Nyagoto reported that one of the many reasons they like their role is that they are able to create friendships with other CHVs, KIKOP staff, and other families that they visit. The CHVs enjoy the interaction they have with other CHVs because they counsel each other in solving problems and critically think of solutions.

> *“As KIKOP has programmed me to visit and interact, now we have gotten used to each other and [CHVs] have become friends.” (Participant 1 Iranda, Focus Group 2)*

> *“I have learnt on how to make masks and sanitizers as well as interactions and socializing which have made me personally to improve health wise as well as socially.” (Participant 3, Nyagoto, Focus Group 3)*

Theme 5: Workload Satisfaction

Overall CHVs are very satisfied with their work and responsibilities especially when they see women appreciating and trusting them and implementing the education that they previously provided.

> *“What impresses me is when I call them for the lessons, and they attend well and when they appreciate after being taught and be happy about it.” (Participant 3, Iranda, Focus Group 2)*

> *“When I sit to talk to the mother or the couple, I usually feel good because as time goes by you find that they trust me because I keep their secrets.” (Participant 3, Nyagoto, Focus Group 3)*

"I enjoy my work because after I have taught the mother then I visit next and find that she has implemented what I had taught them I feel that I am doing meaningful work." (Participant 7, Nyagoto, Focus Group 3)

CHVs reported overall satisfaction with data collection processes and reporting methods. They report that the forms are straightforward and systematic and with time, the forms have improved which increased their satisfaction with the processes.

"On the forms I would like to commend KIKOP. Before we used to have very complicated forms, but they improved them so that we can understand." (Participant 2, Iranda, Focus Group 3)

"[Data collection questions] are systematic… It is just okay, but in any case, if there is anything that can be added it is okay for the betterment of our work, but it should not be reduced." (Participant 1, Iranda, Focus Group 1)

Theme 6: Suggestions for increasing satisfaction

Overall, CHVs in both Nyagoto and Iranda had many suggestions to improve their satisfaction with their roles and responsibilities. A common theme emerged where CHVs requested an increase in their stipend which would increase their motivation to perform. CHVs also requested money for transportation, personal grooming, uniforms, and buying appropriate clothing items for home visitations. CHVs also feel motivated by receiving soap and would possibly like this incentive to be increased.

"I could suggest KIKOP to support us financially because as you are doing the visits you look clean and presentable so that we can do more visits." (Participant 3, Iranda, Focus Group 3)

"… if they can they increase the "token" with even 3000/=" (Participant 1, Iranda, Focus Group 1)

"What will make me to continue being a CHV is … KIKOP to support us with transport and lunch so that it will be somehow bearable to move from house to house in my village to check and support the mothers and children as well as to educate them about their health generally." (Participant 3, Iranda, Focus Group 2)

"The soap you used to issue us with, if possible, can be increased and we will appreciate." (Participant 3, Nyagoto, Focus Group 2)

Some CHVs also mentioned that they should be recognized by the government and the ministry of health for the work that they do and should be provided monetary benefits. Moreover, CHVs also raised that meetings with clan elders should be regularly be scheduled to inform them of the important work that CHVs are doing in the community. Some suggested that if KIKOP leaves the county, the ministry of health should hire them as their employees rather than volunteers, to allow them to continue the work CHVs are currently doing.

"I know that KIKOP partners with the government. Therefore, I would like to ask the government to recognize us. While KIKOP is there they can speak on our behalf because you know us better, but the government does not recognize us that much. You know how the government behaves. For instance, during this time we have the Corona pandemic; people volunteer to give supplies to the interior areas. Therefore, we should not just depend on what we have only, but the supplies from the government should also be brought so that we can divide among our people." (Participant 2, Iranda, Focus Group 3)

"Because the clan elders and TBAs are supposed to know what is going on as we are working as a team. Therefore, such meetings should be there so that the clan elders can know the work we do, and they usually help us in the village... Those meetings are very important, they should not be done away with.... The elders are very important because if I

go somewhere and the client becomes troublesome, I will call the clan elder and tell them [to talk to the mother]." (Participant 1, Iranda, Focus Group 1)

"I would like to ask the KIKOP staff to communicate with the Ministry of Health (MoH) since they are here for a while. If they talk to the MoH, when [KIKOP] leaves we will not hang and fail to do our work. They should notify them so that they can put us on a payroll, so that we can be recognized in the future as we help the people in the village." (Participant 4, Nyagoto, Focus Group 3)

"What I would like to say is the KIKOP team should continue progressing since if it stops, our villages will not grow as well. Therefore, the program should continue with support from the government." (Participant 7, Nyagoto, Focus Group 3)

Topic 3: CHV Preparedness and Competency

Theme 1: Satisfaction with training provided

Overall, CHVs seemed like they were well prepared and had confidence in their ability to train and educate the mothers.

"When we go collecting the vital events from the women who have children or those who have any kind of problem, we were taught by KIKOP and were told on how we are supposed to fill that form." (Participant 1, Nyagoto, Focus Group 1)

"No, I am usually set, any question [the mother] asks, I am very comfortable [to answer]." (Participant 1, Iranda, Focus Group 1)

CHVs in both catchments want to gain more training and skills. CHVs reported that they would like refresher training every few months and gain new skillset.

"What I would like them to add is the meeting time, so that they can educate us more… we would like them to continue [meetings and trainings] and add more time so that we can become more knowledgeable and transfer it to the people we teach." (Participant 1, Iranda, Focus Group 3)

"[KIKOP] should also give us more training so that we can know better to help our people in the villages." (Participant 1, Nyagoto, Focus Group 3)

"I think we should not be going a long time without getting educated. We should be getting seminars for refreshing and reminding us because at times we forget." (Participant 6, Iranda, Focus Group 3)

Topics that CHVS report needing more training include challenging topics such as prenatal care, hygiene, maternal and child nutrition and new topics such as HIV/AIDS, cancer, hypertension, and malaria.

"We should focus more on home births/deliveries. We should compare the home deliveries with the hospital deliveries. As well as the defaulter tracing for immunization." (Participant 6, Iranda, Focus Group 2)

"Another thing I would like to request the KIKOP staff to give us a lesson on first aid, so that as their medical officer, we have a know how to go about any accidents in the village like when a person has fainted and we know how to handle it." (Participant 1, Iranda, Focus Group 2)

"Together with the danger signs of Malaria, [pneumonia] also have some complications. Therefore, we should be taught more about them so that we can differentiate the major ones from the minor ones." (Participant 4, I Iranda, Focus Group 2)

"The part we are supposed to be taught more on is hygiene… We are also supposed to be taught on the advantages and disadvantages of having a hand washing station. I need

that to be taught more since washing hand has 5 stages that people do not know." (Participant 6, Nyagoto, Focus Group 3)

"When reading the health card. Especially on the part that has a graph, it is usually challenging to read those Kilos. Another subject is the miscarriage part because when asking the mother what happened to the baby they are reminded [of the baby] and brings a bad mood. Therefore, I would ask if we could get a training where we will be taught on how we can explain to them a way that they will not take it in a negative manner as they are reminded of the past." (Participant 1, Nyagoto, Focus Group 3)

CHVs recommended that training can be improved in various ways through dramatization, skits, film, and retreats. Moreover, CHVs like team-building games that provides more hands-on and practical approach to the topics that they are learning during the training session. Overall, CHVs agreed that the training should include more practice sessions either with their colleagues or supervisors.

"They should find a bigger field that we use for the activities and making us happy." (Participant 3, Iranda, Focus Group 3)

"In the training, I would also ask they add something like drama. When we have Barraza's, we can dramatize to teach the people. As they watch that practically, they grasp it better." (Participant 1, Nyagoto, Focus Group 3)

"I would also like to say they should bring us some film so that we can watch the process in practical, for a quick memory. By watching the whole process, it becomes easy." (Participant 4, Nyagoto, Focus Group 3)

"… after every training they should give us print outs which we can use for reference. This will help us so much since there are a lot of things that we are usually taught that we forget." (Participant 2, Nyagoto, Focus Group 3)

"[KIKOP] should do some practical [training]. Most especially, if possible, we should meet with the pregnant mothers alongside KIKOP staff so that they can get to give feedback because you might find there are areas we did not explain to them well but when they share we become confident enough." (Participant 3, Nyagoto, Focus Group 3)

Theme 2: Suggestions of materials for mothers and children

CHVs reported that they should have notes or pamphlets that they can leave for the mothers with the day's lesson or health education. CHVs also requested that they should be provided with referrals so that they can leave it with the mothers.

"We should have some notes that you can leave with [the mothers] so that she can use to refer because once we leave you find that she had not grasped what you went to teach her." (Participant 3, Nyagoto, Focus Group 3)

"What I would need an improvement in from KIKOP is providence of referral receipts. When referring pregnant mothers or any sick person, referral receipts are needed as the mother will feel secure to go to the clinic knowing that she has been sent by the CHV. Also, when they get to the facility, they will know that she was sent by the CHV from the community." (Participant 3, Nyagoto, Focus Group 3)

CHVs also requested that they be provided some form of gift or souvenirs for every child visit. Suggestions of materials for mothers and children include money, mosquito nets, food, etc. Culturally, children and women are expecting appreciation of implementing the lessons from RHVs in the form of something that is tangible.

"What I would need the KIKOP group to help us with is when visiting the mothers at home… I should go with a mosquito net... That will make them be happy and receptive of us during the next visit since we do gift them." (Participant 7, Nyagoto, Focus Group 3)

"I feel like when the child is about to graduate, we could get something small to give as an appreciation that they have taken good care of the child." (Participant 1, Iranda, Focus Group 1)

"Sometimes you find that you do not have anything in your pocket as you do the visits. Sometimes you find that the kid is running to receive you and you do not have something small like biscuits to give them. You know kids believe that as a doctor you must have brought something good apart from the health. If possible, we should even have some biscuits to give them so that they can be excited by your arrival, however you find that we are not empowered to that extent." (Participant 2, Nyagoto, Focus Group 3)

Theme 3: Suggestions of resources that will help during conducting RHVs

Many CHVs requested that they should be provided new uniforms, raincoat, rain boots, umbrella, and bag to carry materials for RHVs. Moreover, with the global COVID-19 pandemic, CHVs also requested that KIKOP provide them with personal protective equipment because many families are skeptical about CHVs entering their homes or touching their hospital cards. Also as mentioned in Theme 1, Sub-Theme 5, CHVs requested an increase in their stipend to help with travel fees incurred during RHVs.

"The change of weather poses a problem since we do not have umbrellas or raincoats because there are times it rains the whole day making it hard to reach the households you were planning to visit. Therefore, there are things we are supposed to be empowered with." (Participant 2, Nyagoto, Focus Group 3)

"They should add us another T-shirt we wear to home visits because you might find the one you were given has been torn by a rat. Therefore, they should give us another one since we have worn the one that they gave us for a long time." (Participant 6, Nyagoto, Focus Group 3)

"For me, I would like to ask KIKOP during this time of Corona to assist us with the protective clothes." (Participant 5, Iranda, Focus Group 2)

"Now that there is Corona, someone can ask you why you would want to see their hospital card and the regulations due to Corona do not allow that. Therefore, we need something like gloves that we can use when handling their book. Sometimes they are not sure if we have touched our noses." (Participant 4, Nyagoto, Focus Group 2)

CHVs also requested other resources that would help with data collection. These resources include tape measurements, bags, pens, notebooks, electronic forms, etc. Moreover, CHVs requested KIKOP should provide them with notes or notebooks that will help with revision of their training. CHVs also requested stickers or certificate of visitation for each participant as a form of proof for supervisors that they visited a particular household. Lastly, a suggestion provided to help with emergency was for hospitals to have a toll-free number that CHVs can call without worrying about phone airtime and get immediate help.

'We can even use the tape measure if it can help. They should give us an alternative." (Participant 3, Iranda, Focus Group 3)

"I also wanted to mention about how we walk around with the scale and mid-upper arm circumference (MUAC) board. The board usually discourages people especially women, they do not like that board since the timber resembles a lot of things. If they could bring it in another form like a white plastic, so that it does not look that way it could be better. Most mothers would say "my child cannot lie on that board"… Therefore, you should look into the issue of the board." (Participant 2, Iranda, Focus Group 3)

"I also want to add on the collection, I would suggest KIKOP to help us, because at times when we are writing we might run out of ink. Therefor we would request for electronic forms." (Participant 3, Iranda, Focus Group 3)

"What, I would ask is when training us they should bring us notebooks that they leave us with for revising. Once they have taught us and left, we might forget. However, if they leave us with some notebooks or with notes we can go back and refer so that we can remember." (Participant 1, Nyagoto, Focus Group 3)

"You might get an emergency at night and your phone does not have airtime. Therefore, there should have a toll-free number in the hospital so that when we call, they know it is a CHV who is calling from level 1, so that they respond immediately to have easy communication." (Participant 4, Nyagoto, Focus Group 3)

"We should have at least a certificate. Also, what they want is some stickers that once you have visited the household you can write that you visited the place and stick it there to show that you visited them. Because at times they might say you have never visited them." (Participant 1, Iranda, Focus Group 1)

CHVs requested that they be provided some basic medications, malaria kit, and first aid kit for emergencies. Medications may include paracetamols, painkillers, and Panadol syrup. In addition, CHVs requested that they should be provided with thermometers, especially for referral purposes and even more crucial during the current COVID-19 pandemic. CHVs also provided suggestions on ways to support women to have clean water and practice proper hygiene.

"Most mothers do not treat their drinking water. If we can provide them with tablet called "Pull" that they can mix with their water, even if the water looks clean, it removes the dirt. If we could get such things, we use to show them how to purify their water." (Participant 2, Iranda, Focus Group 3)

"You might visit and find as the child was playing, they have been hit with a stone and they are bleeding. Even giving the child some first aid, becomes a problem. In my opinion, I feel like if I had the first aid kit it could have really helped me." (Participant 2, Iranda, Focus Group 1)

"Sometime after measuring the child's weight and height you will need to know their body temperature. Therefore, if [KIKOP] could provide use with a thermometer, we check the child's temperature we can tell if they are supposed to be referred and note down their temperature." (Participant 4, Nyagoto, Focus Group 3)

"For me, I would like to ask KIKOP during this time of Corona to assist us with… the machine they use to check the temperature, so that we can test people at home." (Participant 5, Iranda, Focus Group 2)"

"What I would like is for KIKOP to help us with a kit that will have essential drugs, so that when we get an emergency case, we can even give painkillers. That will go a long way." (Participant 5, Iranda, Focus Group 2)

Topic 4: Barriers to Completion of RHVs

Theme 1: Barriers to conducting RHVs

CHV reported that sometimes their personal life may affect their availability. They might have a family emergency in the middle of conducting an RHV and they may have to leave immediately. They may themselves be sick which hinders their target RHV completion. Moreover, with the COVID-19 pandemic, it is becoming challenging and difficult to conduct RHVs due to their concern of their safety and health.

"When doing home visits, there are times you might find that something has happened at home. Then I get a phone call to come and solve it and that will make me to cut the home visit short to go solving the issue." (Participant 1, Iranda, Focus Group 2)

"The problem that makes me not to complete my monthly target is sickness. When you become sick it becomes a hindrance from finishing the visits." (Participant 3, Iranda, Focus Group 2)

Weather was frequently listed as a source of barrier to completing RHVs. Rain was a common issue where a CHV may have to leave immediately while conducting a RHVs as they do not have appropriate rain clothes. Rain was also an issue to go to women's houses to conduct RHVs.

"There are times when I am conversing with my client, then it begins to rain. So, I stop there and leave, making me not to finish talking with them." (Participant 6, Iranda, Focus Group 2)

"Mostly when I have planned to do the home visit, you find that it has rained and I do not have an umbrella or gumboots to wear when going there, it becomes a challenge." (Participant 3, Iranda, Focus Group 2)

"Another thing is when we go collecting data during such a time, the rain usually affects our schedule because sometimes you find that we do not have umbrellas that will help us to shelter when collecting data. Not even the raincoat. Therefore, those are the other challenges that prevent us from completing the home visits." (Participant 7, Nyagoto, Focus Group 2)

"AS a CHV the things that will make our work not to go as planned is when it has rained heavily preventing you from visiting the mother. Sometimes when you had planned to visit 2 or 3 household in a day, then it begins raining while you are in one household, making it hard for you to move to another household." (Participant 1, Nyagoto, Focus Group 1)

Disbelief in science and/or religious views were commonly listed as barriers that CHV faced while conducting RHVs. Some women may have strong religious views and may not agree to visit a hospital, while others may think of coronavirus as a scheme to make money.

"People's [religious] beliefs limit them because some of their elders tell them that they do not need to see the doctor because God is enough. They tell you that they are filled with the holy-spirit and only God can help them." (Participant 2, Iranda, Focus Group 3)

"When you start teaching [women about coronavirus], some will take it in while some will dismiss you saying, 'Corona is a scheme to get money because it is just a flu.'" (Participant 3, Iranda, Focus Group 3)

"At times you might visit a home whose religious beliefs do not allow them to go to hospital. When you get there, they send you away saying that they pray to their God and want nothing to do with hospitals." (Participant 4, Nyagoto, Focus Group 3)

A barrier that CHVs face while educating mothers is that some women have trouble understanding and following the information. They fail to learn the material and implement it.

"For me, it is the pictures. When you are there, you tell the mother to pick which picture represents them, then they fail to pick." (Participant 6, Iranda, Focus Group 2)

"When you go for the second visit and find that [women] did not follow the instructions in visit one, and you fail to know how to teach them best so that they can understand." (Participant 3, Nyagoto, Focus Group 3)

Theme 2: Issues surrounding mothers

A very commonly listed barriers that surrounds the family was domestic and marital issues. Many CHVs reported that if a couple is having marital issues or a fight, it will prevent them to either start data collection or may have to stop in the middle of an RHV session.

"You might go to the home and find that [the couple is] quarreling… and that makes it impossible to interview the mother. Then you are forced to go and come back much later." (Participant 1, Iranda, Focus Group 1)

"You might find the man is a drunkard and he had an argument with the wife, so the wife migrated. Therefore, collecting data in such a situation becomes a problem." (Participant 1, Nyagoto, Focus Group 1)

"You might go to a home and find that they had fought, and everyone is quiet. In order for you to gather them so that you can proceed with the visit, it takes a lot, making it quite a challenge. Therefore, you have to leave, so that you can find another day." (Participant 2, Nyagoto, Focus Group 1)

CHVs also reported that some families and some mothers are not truthful about their health status. CHVs also mentioned that mothers may dismiss them because they do not trust the CHVs to keep their health and family issues private and confidential. Pregnancy, especially in young women, or women with HIV are often stigmatize which also adds to the reasons of them not being open and truthful with CHVs.

"For me the pregnant mother, most especially the young girls who do not want you to know that they are pregnant are the ones that have a problem. Even those who are married but are still young, they do not want to open up." (Participant 7, Iranda, Focus Group 3)

"When I do a home visit and I can clearly see the woman is pregnant, but they refuse to accept. I plan on coming back again to come to confirm then they accept." (Participant 2, Iranda, Focus Group 2)

"To add on that, you might mothers who are pregnant but are also HIV positive therefore finding it hard for them to give you their hospital card since they want to make it a secret. They think you might go exposing them." (Participant 2, Nyagoto, Focus Group 1)

"Another challenge is the issue of the hospital book. When you ask some mothers for the book, they feel like you want to know their status because she is HIV positive; therefore, they take you in circles. Telling you that it is their child or husband who kept the book, or it got burnt. Some may tell you that they went home and left it there." (Participant 2, Iranda, Focus Group 1)

As mentioned in Topic 3, Theme 2, many mothers and families expect money or gifts from the CHVs when they visit. Some women dismiss the CHVs to enter or conduct the RHV without a gift for them or their child.

"[Women], indeed, want us to give them something that is tangible. In my village they do ask for soap or money." (Participant 6, Iranda, Focus Group 3)

"What we usually face is when going for a home visit the mother begins to ask, 'what you have brought them, have you brought money or anything of that sort?' You tell them you have just come to talk to them. Then they will tell you if you do not have any money or soap, they do not have time to talk or listen to you." (Participant 3, Iranda, Focus Group 3)

"When you have visited a household 2-3 times they usually ask if there is any amount of money you can give them so that they can buy some food for the child. Therefore, there are things that the mothers require more than what we teach them." (Participant 5, Nyagoto, Focus Group 2)

"You might get to a home, after teaching them, they tell you that they thought you would give them some money to use when going to hospital. Sometimes they might tell you that they thought you would give them some food for the children after teaching them." (Participant 2, Nyagoto, Focus Group 1)

Mothers availability and accessibility becomes a major challenge for CHVs to complete their planned RHVs. Some mothers may be busy with her children or household chores or is tired, whereas some mothers may have travelled away temporarily, or got married and migrated permanently.

> *"The challenge I face is the young girls who give birth or those who have gotten married while still young. You might register them this time, but the next time you go to visit them you do not find them at home." (Participant 7, Iranda, Focus Group 3)*

> *"You might go to one home for instance and find the mother. Then she fails to give you time to talk to her, she acts like she is too busy." (Participant 1, Iranda 6, Focus Group 1)*

> *"There are places you have to travel uphill and after you get there, the mother tells you that she is tired and you should, therefore, visit the following day." (Participant 6, Nyagoto, Focus Group 3)*

> *"Another factor that causes a problem is when you find that the wife has migrated to live with their husband, for instance, if he works in Nairobi or Kisii town. Then when you want to check on the baby, say you want to weight the baby, you find that she has moved to the husband. Therefore, it becomes a bit challenging since you cannot collect the data as require." (Participant 1, Nyagoto, Focus Group 1)*

Theme 3: Data Collection issues

CHVs reported that they sometimes have issues with data collection of the child's measurements. This maybe because CHVs have different procedures to gather child's measurements or the child is not cooperating and CHVs cannot easily gather the necessary measurements. Sometimes mothers do not want CHVs to touch their babies or use old measurement boards that look very old due to their concern of their child's safety. CHVs suggested that child measurement is challenging because they do not have enough training on it.

> *"The issue of measuring the weight pauses a challenge since you might go two different CHVs and after measuring you find different Kilograms then when you compare with what you had gotten previously. You find that they do not comparable bringing a challenge." (Participant 3, Iranda, Focus Group 2)*

> *"The part of using the MUAC, it becomes challenging because you might find that the baby is crying, making it hard to get the exact figure. Also, when measuring the height, you find that the child does not want to corporate. Let us say the previous time they corporate and I got the correct measurements at 68 then next time they start misbehaving giving me the inconsistent results like 65 or 67, bringing confusion since the length graph starts going down." (Participant 2, Iranda, Focus Group 2)*

> *"What I can say is that is close to a challenge is what we call a MUAC… sometimes you find we do not know how to use it and reset it to 0 it can be a challenge together with the height; if you do not know how to weigh it can also pause a challenge." (Participant 2, Iranda, Focus Group 2)*

> *"When measuring using the MUAC at times [mothers] do not even want you to hold their hand so that you can access them." (Participant 4, Nyagoto, Focus Group 3)*

CHVs in both catchments reported that the topic of family planning right after birth is challenging and a hard question to ask mothers who have freshly delivered a child, especially during the 72-hour puerperal visit. CHVs also mentioned that many women complain that a lot of questions that are repeated between the visits. Moreover, visiting a mother who lost their child either in stillbirth, miscarriage, or early neonatal death is sensitive and becomes a challenge as it reminds the mother of their lost child. Lastly, male CHVs reported that women are uncomfortable answering questions about contraceptives to them and those questions should be restructured.

"Sometimes when you visit a mother whose child had died, they tell you that they do not want you to talk to [a CHV] because they say you are reminding them." (Participant 4, Iranda, Focus Group 3)

"There is a question that you ask a mother who has given birth and the child is 3 months and it makes them laugh because it looks like I am asking mistakenly. Or they feel a bit ashamed because it asks if they are pregnant 3 months after giving birth." (Participant 2, Iranda, Focus Group 1)

"There are questions that are repeated in the first and second visit. The women usually complain why you are asking them the same questions in every visit… Yes, if it is asked in visit 1 it should be changed in visit 2." (Participant 6, Nyagoto, Focus Group 3)

"There is a question that is usually repeated… when the mother has delivered, within 72 hours, there is a question that asks if the mother is currently pregnant. How can I feel free to ask that question as the mother is fresh from having birth and she has not even finished 4 days? I feel uncomfortable to ask that question." (Participant 7, Nyagoto, Focus Group 3)

"As a male CHV, there is a part of family planning contraceptives. Most women do not feel free to answer, and it has gotten to a point where they complain. Therefore, they should find a way that question can be asked." (Participant 3, Nyagoto, Focus Group 3)

Topic 5: CHV Engagement with KIKOP

Theme 1: Communication with KIKOP

Many CHVs reported that communication with KIKOP is easy and do not have any trouble reaching out to them. CHVs appreciate the flexibility that their supervisors provide them, making them appreciate their work more. CHVs want their supervisors to stay with them, especially during challenging times as during the COVID-19 pandemic. CHVs also appreciate that KIKOP staff treats them with respect and value them as important part of the health program.

"We usually do communicate with the supervisors, especially my supervisor is very flexible. Sometimes when a form is left behind, we can agree on how to get it. Therefore, the communication is easy." (Participant 2, Iranda, Focus Group 3)

"The good part is if the supervisors could remain it could be good especially during this time of Corona and since we do not know when it will end. However, currently KIKOP said that the supervisors should meet with their people to give them their reports… I feel like that part is going on well." (Participant 6, Iranda, Focus Group 2)

"Everything in the data collection process does work well since the KIKOP staff explained well." (Participant 5, Nyagoto, Focus Group 2)

"You know there are places you might go and be told off like you are not needed. Here we are not treated in that manner and KIKOP recognizes us a people and they involve us in their activities. That is what impresses me because we get to share." (Participant 3, Iranda, Focus Group 3)

Many CHVs like to get feedback on their work because it helps them learn and fix the mistakes they made going forward. Also, supervisors/field officers are helpful to the CHVs in case of challenges and finding ways to overcome any hurdles in completing the RHVs.

"The good thing is that after collecting all the data, we meet with our field officers who receive the reports. In case you had any challenge from the village, you can raise to the officer who give me the way forward if there is any issue that I did not know how to address." (Participant 5, Iranda, Focus Group 2)

"The part I enjoy most when collecting data is when we are reviewing. This is because there are areas you would find I have made mistakes, then I get corrected, and I help my colleague as well." (Participant 4, Nyagoto, Focus Group 3)

"In my opinion, sharing feedback is good since there are areas you have a weakness and through this, you will improve in the next submission." (Participant 3, Nyagoto, Focus Group 3)

Theme 2: Suggestions for KIKOP

Overall, CHVs suggested that KIKOP should support them with data collection whenever possible and be closer geographically in case of any issues. Moreover, due to the recent rise in challenges surrounding the health books where nurses or doctors are not correctly filling the book, CHVs want to speak with the healthcare center nurses and doctors to make the process more standardized and help CHVs interpret the data.

"The head of KIKOP [should] go to the ANC and speak to the nurses, so that they can write well on [health clinic] book in a way we can read." (Participant 1, Iranda, Focus Group 3)

"I must have the KIKOP staff so that when I have a problem, I can tell them to go and help me in a particular area. Therefore, [KIKOP staff] should be closer so that when I call them, they can come to help me." (Participant 1, Iranda, Focus Group 3)

CHVs want KIKOP to stay in the community because it has brought positive changes in their town.

"On my part I can say, we [should] get enough time with [KIKOP] because we need them. We have indeed noticed the change that has happened in our community." (Participant 2, Iranda, Focus Group 1)

"I would also like to thank KIKOP for the enlightenment they have brought in our community. We never used to have all this information there before, but now we know and are grateful. They should continue giving us the knowledge past what they have already done so that our community can also grow, and we will thank God as well." (Participant 7, Nyagoto, Focus Group 2)

"KIKOP has been teaching us good things which has helped a lot of people in the community." (Participant 4, Nyagoto, Focus Group 2)

"Through KIKOP, we are valued, and we would not want to let them down. So, we will teach others whatever they have taught us, so that we can continue helping them. We are grateful to KIKOP for the training they keep giving us." (Participant 3, Nyagoto, Focus Group 2)

Because CHVs notice the positive change in the community, they recommended that the KIKOP program should be expanded to the rest of the community. The education can be provided to the community about hygiene and general health; moreover, KIKOP should also start educating older adults on how to take care of themselves.

"Those who are yet to get [health education/safe water consumption] are those we have not visited. That is why we said that they should be brought together, and we visit them all whether they are young or old they should all get educated." (Participant 4, Iranda, Focus Group 3)

"They should also educate the elderly people on how they should be living and taking care of themselves." (Participant 5, Iranda, Focus Group 3)

Unique Themes: Nyagoto

Topic 1: Barriers to Completing RHVs

Theme 1: Data collection issues

CHVs in Nyagoto reported that due to the COVID-19 pandemic, collecting measurement data has been challenging because they are not able to touch the babies due to the concern of their safety.

> *"Since there is corona outbreak, it becomes a problem to weigh the child or measure their height because you cannot hold their children." (Participant 1, Nyagoto, Focus Group 1)*

> *"For instance, we were warned against weighing children due to Corona and those are the challenges we are facing." (Participant 4, Nyagoto, Focus Group 2)*

Unique Themes: Iranda

Topic 1: Satisfaction with Role and Responsibilities

Theme 1: Monetary benefits and other gifts motivates CHVs

CHVs and CHV chairs in Iranda reported that one of the many reasons that they were motivated or continue to be motivated to be a CHV with KIKOP are the "little soap" and stipend provided to them. CHVs report that they sometimes use the soap themselves or provide it to the women participants if they notice a need. Moreover, the small stipend that they receive helps the CHVs to travel for the home visits or buy food and essential items for their own homes.

> *"What motivates me to keep on being a CHV is, being supported with KIKOP, even the "little soap" they give motivates me to go to the ground and work hard until we succeed to reduce mortality rate and death rate of under 2s." (Participant 1, Iranda, Focus Group 2)*

> *"I also feel good because at the end of the month I usually get my small token, it helps me to travel or even buy sugar in my house for my kids" (Participant 2, Iranda, Focus Group 1)*

Topic 2: Barriers to Completing RHVs

Theme 1: Barriers in working with mothers

CHVs in Iranda reported that a lack of physical space in women's houses because a common reason for them to not be able to find privacy to talk or for reasons that women cannot practice the lessons they are taught in the RHVs.

> *"Times when visiting a person, I find that they have company making it hard for me to deliver the message." (Participant 3, Iranda, Focus Group 3)*

> *"You might get to some households where many people necessitating you to sit and wait until you get an opportune moment to ask, that is a challenge. [There is no privacy.] Yes, even at times you just have to leave, then you come visiting some other time." (Participant 1, Iranda, Focus Group 1)*

> *"Sometimes when talking about personal hygiene during a home visit, you find that the mother sleeps in the same room with the chicken. It is a big problem because they say that if they leave them outside, they will be stolen." (Participant 1, Iranda, Focus Group 1)*

Theme 2: Data collection issues

CHVs reported a lack of standardization in how the health book is filled by the clinic or the doctor/nurse. Sometimes the handwriting is hard to understand or the data is illegible. This creates more work for them because they need to spend more time on finding the correct information leading to an increased time for each RHV. Moreover, some clinics forget to enter the data in the health books which becomes a challenge in corroborating the mother. Lastly, some women do not have the health book.

> *"When doing the home visit, when I ask the mother if their child is getting a particular injection, they tell you that they did. However, you find that it is indicated from the back of the book instead of in the front pages." (Participant 5, Iranda, Focus Group 3)*

> *"When going for the visit, in the child's hospital book that indicates how the child is getting immunized, some doctors do not indicate clearly. They repeat writing, cancelling out what they had already written making it hard to figure out the number. Even the month. That makes it hard for you to fill he form." (Participant 1, Iranda, Focus Group 3)*

> *"What makes me not complete the home visit is that when filling the form, you might find that [women] do not have the book. So, you will need to go get them the book before proceeding with the visit." (Participant 6, Iranda, Focus Group 2)*

> *"You might find that the child has gotten the Vitamin A injection but instead of writing it where I can find it, [nurses] write it in another section. And because I know the page it is supposed to be written, I look for it in that page and I fail to get it. But if you ask the mother, she tells you they got the injection. So, it gives us a challenge. When you peruse through, you find where they have written, you cannot understand some handwriting." (Participant 1, Iranda, Focus Group 1)*

DISCUSSION

Overall, both the quantitative and qualitative analysis demonstrated that the Routine Home Visit (RHV) program is on track at a satisfactory level for both Nyagoto and Iranda catchments.

The quantitative analysis represent that the intervention is carried out as intended. Nyagoto had 97% of prenatal visit 1 completed whereas Iranda only had 79% of its visits completed. More focus needs to be put on completing the second prenatal visit for both catchments as Nyagoto had a 44% completion rate and Iranda had 46% completion rate. Both catchments had a very low rate of completion of both prenatal visits. More of the intended puerperal visits were completed by Nyagoto catchment than Iranda; however, both catchments achieved a 100% completion rate of puerperal visit 3. Nyagoto had 80% of completion of all three puerperal visits versus Iranda only had 52% of all three of its puerperal visits completed. Majority of puerperal visits were completed on time for both catchments; however, Iranda fell at zero percent when compared to 73% for completion of all three puerperal visits on time. Except for U2 visit 6, Nyagoto achieved a higher percent completion of U2 visits than Iranda catchment, but neither of the catchments completed all six of the U2 visits. Since Nyagoto catchment started the program in February 2020 and Iranda started in July 2019, it makes sense if CHVs do not complete all six U2 visits since they did not have an opportunity to complete all six visits from when a child is 3 months old to 2 years old. However, even for the limited time that the program in place for, the percent of visits completed per category, is impressive and generally over 80%. Moreover, all the visits were completed on time if looked at individual visits; however, none of the visit types (i.e. prenatal, puerperal, and U2) had all set of the visits completed on time altogether for either catchments.

Overall, most of the RHVs are carried out by CHVs as they were intended and on time. During the study timeframe of February 2020 to June 2020, CHVs in Nyagoto completed an average of 88% of the visits that were intended and 90% of the visits that were completed were in the appropriate timeframe in total. During

the period of July 2019 to June 2020, CHVs in Iranda completed an average of 79% of its intended visits and 95% of these completed visits were on time. A similar trend is seen in both the catchments where the majority of the U2 and puerperal visits are completed, but the completion of prenatal visits was below the 80% benchmark completion rate. Prenatal visits are the only visit type that does not have a time component scheduled in the intervention. Reduced completion rate for prenatal visits maybe due to the unstructured form of visits. Also, due to an unreliability of the exact day of childbirth, CHVs may not be able to complete the second prenatal visit before the birth of the baby. In summary, Nyagoto CHVs completed about 131 prenatal visits, 226 puerperal visits, and 406 U2 visits over the course of four months, whereas Iranda CHVs completed 309 prenatal visits, 551 puerperal visits, and 1,261 U2 visits over the course of twelve months. For the participant types, majority of the women who participated in RHVs fell in the U2 category for both the catchments. We see an increased number of U2 women and U2 RHV visits because the definition of U2 incorporates a longer timeframe compared to prenatal and puerperal visits.

For Nyagoto, an area of improvement includes quarterly evaluation of all CHVs based on the QIVC checklists, as currently only 36% of the 39 CHVs were evaluated for all three visits. Nyagoto had about 72% of their CHVs evaluated using the QIVC checklists. The difference may be due to the limited time that intervention has been in place in Nyagoto and also the onset of the COVID-19 pandemic precautions and restrictions during these four months. Overall, majority of the evaluation was completed for U2 visits; however, evaluation of prenatal visits and puerperal visits can be improved in both catchments. The average performance scores for Nyagoto CHVs was 67% which fell below the 80% benchmark and for Iranda CHVs was 84%, which is above the 80% benchmark. In Nyagoto, of all the CHVs that were evaluated for all three visits, none of the CHVs received a performance score above 80%; however, 70% of Iranda's CHVs that were evaluated received a performance score above 80%. The analysis also showed that the essential component skills for each CHVs in Nyagoto and Iranda can be improved, especially the skill to motivate family members to attend RHVs. Iranda CHVs fared better in all the essential RHV components than CHVs in Nyagoto. In Nyagoto, the lower performance score in content for each type of visit maybe due to the newness of the material that was taught to the CHV, suggesting that CHVs should be given more frequent trainings and training materials. The analysis also showed a significant variation in CHV workload in both catchments with respect to the number of women they are responsible for and number of visits that they completed. This can be a potential indicator of the difference in completion rate and QIVC scores. Currently, the number of women in each CHV's workload ranged from 5 women to 35 women in Nyagoto and 11 to 61 women in Iranda. Moreover, in Nyagoto, the number of RHVs completed by each CHV ranged from 4 to 41 RHVs, with an average of approximately 20 RHVs per CHV. In Iranda, the number of RHVs completed by each CHV ranged from 16 to 127 RHVs, with an average of approximately 67 RHVs per CHV. The difference in the intervention period is represented in the CHV workload as Iranda CHV has a higher workload than Nyagoto. This is an important indicator for Nyagoto predicted workload in the future as the intervention matures during the next year.

In the qualitative analysis, CHVs feel motivated and enjoy the prestige that comes due to their position. They cite respect that comes from being a CHV pushes them to learn more and help their community. Some CHVs also reported that they enjoy teaching their community on how to be healthy and they feel satisfied when they see a positive difference around them. CHVs also reported that with their position, they have created positive connections with their fellow CHVs and mothers they visit. CHVs mentioned that if they can be provided with an increased stipend or funds to support their RHVs, they will be even more motivated to perform and help support their communities.

Overall CHVs have a diverse set of responsibilities that span from providing health education, collecting vital data, referring women to clinics, and teaching women strategies to support their journey on healthy living. The time required to conduct each visit depends on the situation in the household. Some barriers that CHVs list that increases the time maybe marital or domestic issues, women are busy with household chores, child is not in a good mood to allow for data collection, or if the women needs to attend to their children during the visit. CHVs highlight program awareness as an influential factor in women's willingness to cooperate as well

and strategize involving village elders or KIKOP supervisors if needed. CHVs also mentioned that they feel that they usually need to explain their role to the family they are visiting which increases the time an RHV takes. CHVs also feel that some added activities that they are responsible for is providing health referrals or trainings to community members who are not part of the RHV program, escorting women to the health clinic when she does not have support, or provide their help in a mother's household chores when CHV is conducting the RHV.

CHVs listed many strategies that support them in performing and conducting RHVs. Some of them include getting support from other colleagues in challenging cases, scheduling visits with mothers beforehand, notifying the mothers before the visit, and organizing their day or week prior to the visits. Moreover, CHVs also mentioned that they must develop positive bonds with the mothers and be friendly and compassionate towards the mothers to receive warmth and responsiveness from the mothers. CHVs should also involve the husbands in the conversations about the mother or the child's health and, more importantly, keep the information about the family confidential. These strategies would help develop a trusting relationship with the mother which would help make future visits more efficient. Overall, CHVs are satisfied with their workload and responsibility. CHVs also think that they are trained well, and the data collection processes are straightforward.

Even though CHVs feel confident and prepared to conduct RHVs, they would still like to learn more and gain additional training on new and challenging topics. Some of these topics include prenatal care, hygiene, maternal and child nutrition and new topics such as HIV/AIDS, cancer, hypertension, and malaria. Some CHVs also mentioned that they would learn more effectively if the trainings are more practice oriented and hands-on. Some suggestions were to have dramatization of challenging situations during the monthly meetings, watching a film with the trainings, having a team retreat, and performing skits. CHVs like the team building exercises that are part of the trainings.

To help women learn better during the RHVs, CHVs suggested providing mothers with pamphlets or flyers with the information and lessons from their RHV session. CHVs also reported that it will be beneficial if the mothers have referral cards that they can be use when they visit the hospital or a clinic. Majority of the CHVs asked for a small gift or stipend that they can provide the children or the mother as it is commonly expected by the mothers. If the CHVs do not bring anything during the visit, some women are not happy, and some do not allow them to conduct the RHV.

CHVs suggested that they would appreciate if they are provided new uniforms or replacement uniforms for those who had it for a while. Since weather and rain is a common barrier for CHVs to conduct the RHVs, majority of the CHVs would like to receive raincoats, rainboots, and umbrella to help them travel to different houses when it is raining. CHVs also requested resources such as tape measurements, bags, pens, notebooks, and electronic forms that would help with data collection. Additionally, they asked KIKOP to provide them with notes or notebooks that will help with revision of their training. CHVs also requested stickers or certificate of visitation for each participant as a form of proof for supervisors that they visited this household. Lastly, a suggestion provided to help with emergencies was for hospitals to have a toll-free number that CHVs can call without worrying about phone airtime to get immediate help.

Disbelief in science and religious views were commonly listed as barriers that CHV faced while conducting RHVs. Some women may have strong religious views and may not agree to visit a hospital. CHVs also reported that some families and some mothers are not truthful about their health status. Mothers may dismiss them because they do not trust the CHVs to keep their health and family issues private and confidential. Pregnancy, especially in young women, or women with HIV are often stigmatize which also adds to the reasons of them not being open and truthful with CHVs. Mother's availability and migration also creates additional barriers for the CHVs since they have to reschedule and conduct the visit another day. It is also challenging to ask question about birth planning to women who have recently given birth and CHVs recommended removing the question from the puerperal 72-hour visit. Moreover, participants complain

because a lot of questions are repeated within the RHV visits and they feel like they are repeating the same information. Lastly, gender-based barriers also creates additional challenges where male CHVs are given uncomfortable looks from women participants when they are asked about contraception.

Unique barriers in Nyagoto included women's hesitancy in letting CHVs touch their child due to COVID-19 pandemic. They are concern that CHVs might have touched non-sanitized platforms which can be transferred to their child. Unique barrier listed by CHVs in Iranda included lack of privacy or lack of physical space to conduct the CHV. Moreover, lack of physical space was also listed as a reason for mothers' inability to practice the hygiene lessons taught during the RHVs in Iranda. CHVs in Iranda also mentioned an important barrier in data collection – issues with health books. Some issues that were listed were the inability to find the data in the correct place, illegibility of nurse or doctor's handwriting, or clinical staff forgets to enter important information in the health books. CHVs in Iranda largely asked KIKOP staff to work with the health clinic staff to make this process more standardized.

Overall, CHVs are satisfied with the communication from KIKOP and feel supported by them. CHVs enjoy getting feedback and learning from their mistakes. Overall, CHVs suggested that KIKOP should support them with data collection and training whenever possible and be closer geographically in case of any issues. Because CHVs notice the positive change in the community, they recommended that the KIKOP program should be expanded to the rest of the community and suggested that the health education should be provided to both young and old members. Lastly, CHVs recommended that KIKOP should work with the government and gain buy-in, so when KIKOP leaves the county, the government can easily hire them and they can continue their important work.

RECOMMENDATIONS

Due to a variability in caseload for CHVs, systems need to be placed to support CHVs have an evenly balance workload. Solutions can include teaming up CHVs who have nearby communities in order for them to share the workload in case of an imbalanced workload. Moreover, additional CHVs can be recruited in order to share the workload in a community with high need. Further analysis needs to be performed to understand the association between caseload and RHV completion rate for each CHV.

Due to the variation in the timeframes required for each visit, a reliable scheduling and notification system needs to be incorporated in the intervention for the CHVs. This will help ensure that the CHVs are vigilant of any births in order to conduct puerperal visits. Moreover, this system that automatically populates and sends notifications to CHVs for upcoming RHVs would be extremely helpful to support CHVs in completing the RHVs on time. This notification system can be in the form of electronic notifications, phone notifications by KIKOP staff, or distributing weekly/monthly lists of upcoming RHVs for each CHVs. An additional method to help with notification and timely completion of visits can be providing mothers with appointment cards that they can keep safe as a reminder of their next visit. This will prevent mothers to miss their scheduled meetings and for CHVs to figure out another time to conduct the meetings.

CHVs should be provided with uniforms, bags, raincoats, rainboots, umbrellas, pen, and notebooks to help them conduct the RHVs effectively and on time. Moreover, it will be beneficial for the participants to receive pamphlets or flyers as resources to review after each RHV. This will help with retention and implementation of the material that is taught during the RHV. Additionally, CHVs should be provided with some form of gifts or souvenirs to give to each women or child after the visit as that is often listed as a source of tension between the mother and the CHV. Lastly, providing proper height boards is also strongly recommended as that is a common barrier in data collection.

It is also recommended that a new layer of confidentiality be added to the data collection process by adding an informed consent form for each visit for mothers to read and sign. This will help mothers have a peace of mind and help develop their trust in CHVs and improve their willingness to participate.

Overall, CHVs have embraced their role as a CHV and have expanded their role for admirable reason; however, their expanded role as an acknowledged village doctor or nurse can add more work to their busy schedules leading to workload exhaustion. KIKOP leadership should have a discussion about the amount of flexibility that is appropriate and expected for the intervention during one of the training meetings.

Due to personal interest to gain more knowledge and training, additional health topics should be added to the monthly training agenda, with a focus that fits with the context of the intervention goals and suitable for the target intervention group. Overall, focus of the next set of trainings should be put on completing two prenatal visits, three puerperal visits, and six U2 visits. Since prenatal visits had the list amount of completion rate for both the catchments, additional training should be provided for prenatal visits. An opportunity to improve can be increased training on visitation to women who had a miscarriage or stillbirth, in addition to prioritizing RHVs that are pregnant or had recently given birth.

Next, to add to the training, additional training should be provided to the CHVs to motivate family member participation in the RHVs. The quantitative data shows that CHVs received very low percent on the question that measures if they are motivating family members in the RHVs during the quality checks. However, the qualitative data shows that CHVs know the importance of including family members in the RHV discussion, but still struggle with motivating them to come to the RHVs. Thus, more focus on the barriers and mitigating them should be part of the next set of trainings.

Lastly, for the purpose of process evaluation for a future setting, the data sheet should have pre-filled drop-down menu for common fields such as CHV and community names. This will prevent spelling errors and automation of analysis using formulas in Microsoft Excel. Additionally, KIKOP staff should regularly add reasons for missing a visit in the datasheet which would also help with the Excel formulas. To help with systematic notification of upcoming RHVs for each CHV, a combination of formulas and conditional formatting on Excel is highly recommended due to its automation and systematic process for notification for missing or upcoming RHVs. This method can easily be transferred and created for individual CHVs as to provide a list of upcoming RHVs to CHVs during the monthly meetings.

LIMITATIONS

Limitations of this process evaluation include the breath of content covered in the evaluation, potential researcher bias, and research design. The content that was included in the process evaluation research questions was limited to the background documents that were provided to the researcher. Although the evaluation was comprehensive, further investigation would be recommended for topics that would provide a deeper understanding of the intersection of different issues that CHVs face while conducting RHVs. Moreover, the focus groups were facilitated by KIKOP staff which may have influenced CHV perspectives to different questions that were posed. CHVs may also not feel comfortable in sharing any issues or challenges that they face that may be critical to their job security. This may lead to the qualitative data to be skewed in the positive direction. Moreover, the researcher noticed issue of language barrier while reviewing the interview transcripts. Some CHVs did not answer the questions in the interview guide in a way that they were intended to be answered. This can be due to the fact that the interviews were not conducted in the same language in which the interview guide was developed, and some nuances were lost in translation. Since the interview recordings were also recorded and translated to English, there is a higher chance that some of the nuanced cultural and lingual contextual factors have faced about in the interview were also lost during translation. Some of the quantitative data sources also had missing data which led to gaps in the analysis and the researcher had to work with the supervisors to understand the reasons of the missing data and if some of

the data can be entered into the datasheets. Lastly, the qualitative analysis was conducted solely by one researcher, and as a result, it may be subject to researcher bias. It is highly recommended for future process evaluation to have more than one researcher working collaboratively to ensure the analysis and interpretation have a higher level of objectivity.

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APPENDIX

A: Sample RHV questionnaire used by CHVs during RHVs

3 MONTH VISIT

Provide education, counselling and support to mother and/or family on all areas where health indicator is not satisfactory.

Catchment (circle)	Matongo / Iranda/ Nyagoto		
CHV Name	_____	Community	_____
Household ID	_____	Care Group Number	_____
Mother's Name	_____	Child's Name	_____
Child date of birth (DD/MM/YYYY)	___ / ___ / _____	Gender (circle)	Male Female

Information on Mother and Delivery						
Does mother have formal Maternal-Child Health Booklet?			YES			NO
Visit date (DD/MM/YYYY) *If visit not completed, enter reason: M=Migrated, T=Traveled, R= Refused visit, D= Child died, or U=Unavailable*						
Was visit completed within a month of the child turning 3 months old?			YES			NO
In the last month, did your child suffer from the following illnesses? F= Health Facility. C= Chemist. T= herbalist/traditional healer *Mark all that apply*	**YES**	**NO**	**If yes, care sought at**			**If yes, treatment received**
			F	**C**	**T**	

Malaria						
Diarrhea						
Pneumonia						

Newborn/Infant Danger Signs		**Did mother list at least 3 danger signs or symptoms?**	
NEWBORN/INFANT: Sometimes newborns have severe illnesses and should be taken immediately to a health facility. What types of symptoms would cause you to take your newborn to a health facility right away?	_____ _____ _____ _____	YES	NO
DIARRHEA: Sometimes your children may have diarrhea and show symptoms which indicate that they should be taken to a health facility immediately. What symptoms of diarrhea would cause you to take your child to a health facility right away?	_____ _____ _____ _____	YES	NO
PNEUMONIA: Sometimes your children show symptoms which indicate that they have pneumonia and should be taken immediately to a health facility. What types of symptoms indicate they child has pneumonia?	_____ _____ _____ _____	YES	NO
MALARIA: Sometimes your children show symptoms which indicate that they have malaria and should be taken immediately to a health facility. What types of symptoms indicate they child has malaria?	_____ _____ _____ _____	YES	NO

Malaria Prevention - LLITN	**YES**	**NO**	**Were all observations to all questions in the table YES?**	
Observe where the child sleeps at night. Is this area covered with a bed net?			YES	NO
Is the bed net over the child's bed complete (free from holes and tears)?				
Observe where the mother sleeps at night. Is this area covered with a bed net?				
Is the bed net over the mother's bed complete (free from holes and tears)?				

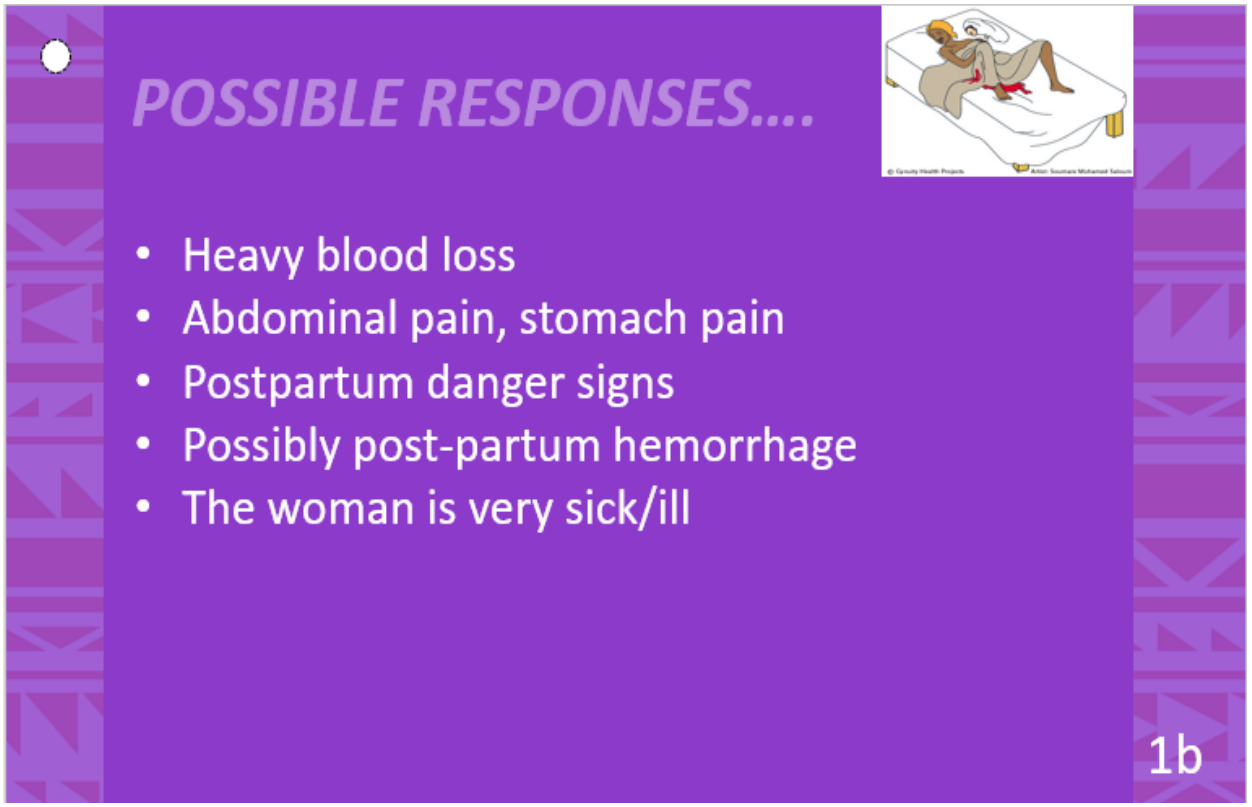
Child Nutritional Status				
Weight (kg):		**Underweight?** *Weight for age.* *(See page 27 & 29 in booklet*	YES	NO
Height (cm):		**Child Stunted?** *Age for height.* *(See page 28 & 30 in booklet)*	YES	NO

Nutrition for Mother and Child	**YES**	**NO**	**Has the child been exclusively breastfed?**	

Since birth, has the child had anything to drink besides breastmilk (water, tea, coffee, etc)?				YES (Mark "No" to both questions)	NO
Since birth, has the child had anything to eat besides breastmilk (matooke, ugali, biscuits, etc.)?					
Is mother currently taking folic acid/Iron				YES	NO
If breastfeeding, is mother eating 2+ extra meals a day?				YES	NO
Water and Sanitation			**YES**	**NO**	**Does family treat water with a modern method and store water correctly?**
Does the mother use a modern method for the proper treatment of water?				YES (Mark "Yes" to both questions)	NO
Is water stored safely in a container with a narrow opening (<3cm), or is water stored in covered tank/cistern?					
Does mother know the 4 critical moments for handwashing?				YES	NO
VISIT	Mother's Signature	Signature CHV	Spouse's Signature (if attended session)	Name & Signature KIKOP Staff (if attended)	
3 Month					

Comments about visit:

B: Sample flip chart used by CHVs during RHVs



TAKE ACTION…

Danger signs after birth – seek help immediately at your nearest clinic:

1c

EXPLAIN….

Postpartum maternal danger signs:

- **Signs of post-partum hemorrhage**: heavy blood loss, dizziness, heart beating fast
- **Signs of blood clotting**: pain, redness or swelling of lower legs, shortness of breath
- **Signs of pre-eclampsia/eclampsia:** headaches, nausea, vomiting, stomach pain, feeling tired/dizzy, convulsions or seizures
- **Signs of infection**: fever, shivering, abdominal pain and/or smelly vaginal discharge

1d

C: Quality Improvement and Verification Checklist (QIVC) for RHVs

Prenatal Home Visit QIVC

Use to evaluate: CHV

Date: _____ **Community**: _____ **Visit Number: _____**

Name of CHV: _____ **Name & title of evaluator**: _____

#	Interview Skills	YES	NO
1	Did the CHV introduce themselves and provide a warm and friendly greeting?		
2	Did the CHV encourage the expecting mother's partner or family members to participate?		
3	Did the CHV sit at the same level as the expecting mother?		
4	Did the CHV speak slowly and clearly?		
5	Did the CHV encourage comments by providing eye contact, nodding, and/or smiling to show he/she was listening?		
6	Did the CHV give the expecting mother time to answer questions?		
7	Did the CHV provide the expecting mother with helpful feedback?		
8	Did the CHV respond to and educate the mother in a respectful way at all times?		
9	When leaving, did the CHV thank the expecting mother for her time?		
#	**Content**	**YES**	**NO**
10	Did the CHV ask for the expecting mother's formal Maternal-Child Health Card and provide her with one if necessary?		
11	Did the CHV update the formal Maternal-Child Health Card appropriately? (recording weight, antecedents, prenatal checks, etc.)		
12	Did the CHV discuss any issues noted on the health visit form with the expecting mother (e.g. missed ANC check, not enough weight gain, TT vaccinations, etc.)		
13	Did the CHV discuss the importance of ANC exams?		
14	Did the CHV discuss the important things that can be done to keep herself and the baby healthy?		
15	- Vitamin supplements?		
16	- TT1 -TT5 vaccinations		
17	- Number of times a day she should eat?		
18	- Kinds of food she should be eating?		
19	Did the CHV discuss ways that she can protect herself and the baby from malaria?		
20	Did the CHV tell the expecting mother how to get an LLIN if she was lacking one?		
21	Did the CHV ask the expecting mother if she was aware of the danger signs during pregnancy?		
22	- During delivery?		
23	- During post-partum?		
24	Did the CHV educate the expecting mother on danger signs she was not aware of?		
25	Did the CHV emphasize the importance of care seeking upon recognition of danger signs?		
26	Did the CHV ask the expecting mother if she had experienced any danger signs recently? (*Headache, vaginal bleeding, swelling of fingers/face/legs, fever, pain in mouth or stomach, lack of fetal movements, and prior pregnancy complications*)?		
27	Did the CHV discuss the importance and benefits of delivering in a health facility?		

28	Did the CHV discuss ways the expecting mother can prepare for delivery and offer suggestions?		
29	Did the CHV discuss the importance of exclusive breastfeeding and provide instruction?		
30	Did the CHV ask the expecting mother where the baby will sleep and where they will stay during the day?		
31	Did the CHV discuss personal hygiene with the expecting mother and provide her with any suggestions for improvement?		
32	Did the CHV observe the dwelling hygiene of the home and provide the expecting mother any suggestions for improvement?		
33	Did the CHV observe the water and sanitation of the home and provide the expecting mother any suggestions for improvement?		
34	Did the CHV ask the expecting mother if she had any doubts or questions about her health or her baby's health?		
35	Did the CHV complete or review the Birth Plan Form with the expecting mother?		
36	Did the CHV discuss family planning with the expecting mother?		

Provide an overall evaluation of the CHV's performance in the space below. Include specific observations, including comments about content/educational messages.

How many YES ____ **How many NO ____** **Signature of CHV: _____**

Total number of questions ____ **Score ____%** **Signature of Evaluator: _____**

Puerperal Home Visit QIVC

Use to evaluate: CHV

Date: _____ **Community**: _____ **Visit: _____**

Name of CHV: _____ **Name & title of evaluator**: _____

#	Interview Skills	YES	NO
1	Did the CHV introduce themselves and provide a warm and friendly greeting?		
2	Did the CHV encourage the mother's partner or family members to participate?		
3	Did the CHV sit at the same level as the mother?		
4	Did the CHV speak slowly and clearly?		
5	Did the CHV encourage comments by providing eye contact, nodding, and/or smiling to show he/she was listening?		
6	Did the CHV give the mother time to answer questions?		
7	Did the CHV provide the mother with helpful feedback?		
8	Did the CHV respond to and educate the mother in a respectful way at all times?		
9	When leaving, did the CHV thank the mother for her time?		
#	**Content**	**YES**	**NO**
10	Did the CHV ask for the mother's formal Maternal-Child Health Card and provide her with one if necessary?		
11	Did the visit take place during the appropriate timeframe after the birth (48 hours/7-14 days/30-60 days)?		

12	Did the CHV capture if the mother had signs and symptoms of (1) post-partum hemorrhage, (2) infection, (3) pre-eclampsia/eclampsia, (4) thromboembolism, or (5) any other post-partum complication since delivery/last RHV visit ?		
13	If yes, did the CHV ask about treatment or refer the mother to a health facility?		
14	Did the CHV ask if the child experienced (1) fast breathing, (2) convulsions, (3) severe chest in-drawing, (4) fever, (5) low body temperature, (6) jaundice in the first 24 hours, (7) yellow palms and soles, (8) trouble feeding well, and (9) no spontaneous movement in the past week?		
15	If yes, did the CHV ask about treatment or refer the mother to a health facility?		
16	Did the CHV ask and discuss the mother's knowledge of the danger signs during pregnancy, delivery, post-partum, and for newborns?		
17	Did the CHV emphasize the importance of care seeking upon recognition of danger signs?		
18	Did the CHV ask the mother if she had any doubts or questions about her health or her baby's?		
19	Did the CHV discuss the importance of malaria prevention by using household bed nets over the sleeping areas?		
20	Did the CHV discuss the importance of exclusive breast feeding?		
21	Did the CHV discuss the importance of maternal nutrition including iron and folic acid?		
22	Did the CHV discuss the mother's Care Group participation and the importance of regular attendance?		
23	Did the CHV ask about the mother's emotional well-being?		
24	Did the CHV educate the mother about any incomplete health services (e.g. vitamin supplementation, vaccinations, etc.) and explain how to get them?		
25	Did the CHV ask if there were barriers that might prevent the mother from practicing protective health behaviors for herself and the baby? Did the CHV discuss possible solutions?		

#	FOR POSTPARTUM CHECK UP (<48 Hours or 7 to 14 days)	YES	NO
26	Did the CHV capture the date of the delivery?		
27	Location of the delivery?		
28	Outcome of the delivery?		
29	Birth weight and height (on health card)		
30	ANC care (e.g., LLITN, TT vaccination, iron/folate supplements, deworming) ?		
31	Did the CHV ask the mother about any maternal or neonatal complications during pregnancy and during delivery?		
32	- If yes, did the CHV ask if she or the baby receive care in a health facility?		
33	Did the CHV ask or confirm if the mother has a completed birth plan?		
34	Did the CHV check the newborn's umbilical cord stump for infection?		
35	Did the CHV educate the mother about how to care for the newborn, especially the umbilical cord stump?		
36	Did the CHV bring a scale, sling, MUAC strip, and height board to the visit?		
37	Did the CHV hang the scale at eye level to see the exact weight of the infant and calibrate it correctly?		
38	Did the CHV correctly place the newborn in the sling, looking out for the baby's safety when weighing?		
39	Was the newborn weighed with the least amount of clothes possible?		

40	Was the newborn's height correctly measured?		
41	Was the newborn's nutritional classification completed correctly?		
42	Did the CHV inform the mother of the newborn's nutritional status?		

Provide an overall evaluation of the CHV's performance in the space below. Include specific observations, including comments about content/educational messages.

How many YES ____ **How many NO ____** **Signature of CHV: _____**

Total number of questions ____ **Score ____%** **Signature of Evaluator: _____**

Under-2 Home Visit QIVC

Use to evaluate: CHV

Date: _____ **Community**: _____ **Visit: _____**

Name of CHV: _____ **Name & title of evaluator**: _____

#	Interview Skills	YES	NO
1	Did the CHV introduce themselves and provide a warm and friendly greeting?		
2	Did the CHV encourage the mother's partner or family members to participate?		
3	Did the CHV sit at the same level as the mother?		
4	Did the CHV speak slowly and clearly?		
5	Did the CHV encourage comments by providing eye contact, nodding, and/or smiling to show he/she was listening?		
6	Did the CHV give the mother time to answer questions?		
7	Did the CHV provide the mother with helpful feedback?		
8	Did the CHV respond to and educate the mother in a respectful way at all times?		
9	When leaving, did the CHV thank the mother for her time?		
#	**Content**	**YES**	**NO**
10	Did the visit last between 20 and 45 minutes?		
11	Did the CHV ask for the mother's formal Maternal-Child Health Card and provide her with one if necessary?		
12	Did the CHV update the formal Maternal-Child Health Card appropriately? (e.g. vaccine and vitamin supplement information)		
13	Did the CHV ask the mother all of the questions on the RHV?		
14	Did the CHV weigh the child and measure MUAC using the MUAC strip?		
15	Did the CHV correctly classify the child's nutritional status?		
16	(*9, 12, 18 and 24 month visits only*) Did the CHV correctly mark whether the mother is feeding her child a minimal acceptable diet?		
17	Did the CHV observe the child's sleeping area to see if it is covered with a bed net and check the bed net for holes and tears?		

18	Did the CHV educate the mother on the danger signs, water treatment methods, and critical moments for handwashing she could not recall?		
19	Did the CHV correctly determine if the mother's family planning need is met?		
20	Did the CHV correctly indicate if water is stored safely?		
Provide an overall evaluation of the CHV's performance in the space below. Include specific observations, including comments about content/educational message.			

How many YES ____ **How many NO ____** **Signature of CHV: _____**

Total number of questions ____ **Score ____%** **Signature of Evaluator: _____**

D: Memorandum of Understanding between Curamericas and Kisii County Department of Health

MEMORANDUM OF UNDERSTANDING BETWEEN CURAMERICAS GLOBAL, AND KISII COUNTY DEPARTMENT OF HEALTH (KCDOH) FOR THE IMPLEMENTATION OF KIKOP COMMUNTIY-BASED MATERNAL, NEONATAL, AND CHILD HEALTH CARE PROJECT

Curamericas Global, Inc., of Raleigh, NC, USA, hereinafter referred to as Curamericas, and the Kisii County Department of Health, hereinafter referred to as KCDOH, enter into this Memorandum of Understanding (MOU) for the joint implementation of the Kisii Konya Oroiboro Project, hereinafter referred to as KIKOP. Both Curamericas and the KCDOH seek to further the goals set forth below and to outline the understandings and intentions with regard to these shared goals. The Parties seek to share their respective strengths, experiences, technologies, methodologies, and resources (including human, in-kind, and monetary) in order to achieve these goals. Curamericas and KCDOH may be referred to individually as "Party" and collectively as "Parties."

The Parties share the following goals:

- Increased access to quality, respectful maternal/newborn services;
- Improved attention to obstetric emergencies;
- Increased provision of essential newborn care;
- Reduced child stunting in under-two children; and
- Promote safe reproductive health behaviors among adolescents ages 10-19

The above goals will be reached by adopting Curamericas' Community Birthing Center model and adolescent health program in catchment communities and in Matongo Health Centre, Iranda Health Center, Nyagoto Dispensary, and any other facility selected within the stipulated timeframe hereinafter referred to as Partner Health Facilities.

MUTUAL UNDERSTANDING

It is mutually understood by and between the Parties that there is recognized value in working together to ensure sustainability of the project so that it can continue to operate and provide maximum benefit to the beneficiaries. In recognition of this, the Parties agree to collaborate for mutual benefit as follows:

RESPONSIBILITIES OF BOTH CURAMERICAS AND KCDOH

- The joint hosting of an annual inter-agency stakeholders meeting with members of Ministry of Health (MoH) and other government officials. This regular performance review would provide the opportunity to share project results and best practices with other health facilities that might not be under KIKOP and to gain the support of officials in and outside the MoH. Curamericas will be responsible for costs related to this meeting (such as tea and materials), however, Curamericas will not be responsible for stipends/per diem/transport

paid to participants. KCDOH will work with KIKOP to find a meeting location within the KCDOH/local government facilities that are without rental costs, however other arrangements may need to be made according to the availability and suitability of the space.

- Joint hosting of at least one stakeholder meeting annually between key KCDOH, KIKOP and Curamericas staff with the purpose of sharing project outcomes, needs and partner roles. Curamericas will be responsible for costs related to this meeting (such as tea and materials), however, Curamericas will not be responsible for stipends/per diem/transport paid to participants. KCDOH will work with KIKOP to find a meeting location within the KCDOH/local government facilities that are without rental costs, however other arrangements may need to be made according to the availability and suitability of the space.
- Both Parties will work together to ensure 24/7 maternal care at Partner Health Facilities for the duration of this MOU. KCDOH will actively work to absorb nursing staff into the MoH to help ensure 24/7 maternal services at Partner Health Facilities.
- Both Parties will work with the Governor's and other relevant offices to secure a reliable power source, running water and facility equipment for Partner Health Facilities by September 30, 2021.
- Both entities will work to create a project evaluation plan by September 30, 2020 that meets MoH standards and includes priorities and the participation of both parties. This plan may be revisited on an annual basis as requested by Curamericas or KCDOH.
- A detailed budget will be created and approved by both parties before the close of the prior project year and will include both Curamericas and KCDOH contributions.
- Parties will collaborate to arrange an annual audit of all project expenditures that is conducted by a USG-approved outside auditor. Take immediate corrective action to remedy any findings that may arise from said audits, including financial restitution to Curamericas of any improperly expended funds.
- Parties will collaborate in the development of outreach and education materials regarding the programs for external audiences. Where relevant, branding will be accomplished in accordance with the Parties' respective legal, policy and procedural requirements.
- To maintain, at all times the highest possible organizational ethical standards in the execution of this project.
- To comply with all applicable Certifications and Assurances, including but not limited to: Assurance of Compliance with Laws and Regulations Governing Non-Discrimination; Certification Regarding Lobbying; Certification Regarding Terrorist Financing; Certification Narcotics Offenses and Drug Trafficking; Certification of Compliance with the Standard Provisions Entitled "Condoms" and "Promotion or Advocacy of the Legalization or Practice of Prostitution or Sex Trafficking."
- To adhere with all laws of their respective countries.
- To apply rigorous accounting practices, policies, and procedures to ensure accountability in the use of all project funds.
- To respect each other's confidentiality policies, with the mutual understanding that the Parties intend to publicize their alliance and its objectives without disclosing any confidential or proprietary information of the other Party [or Parties].

RESPONSIBILITIES OF CURAMERICAS

- To manage and backstop the project, securing and deploying resources, providing support to project staff, and overseeing all aspects of project implementation and evaluation.
- To provide directly to or to broker for KCDOH and its staff training and technical assistance for the capacity-building of KCDOH human resources.
- To monitor program compliance with all required Certifications, Assurances, and Provisions and to initiate immediate corrective action if non-compliance is detected.
- To include KCDOH and KIKOP as part of team invited to participate and host leadership trips at Curamericas project sites around the world. Travel expenses to and from host country for KCDOH representatives will be covered by KCDOH. KIKOP travel will be limited to when funds are available and will be covered by Curamericas. Curamericas will cover food and lodging at destination site.
- To include KCDOH in Curamericas fundraising materials to solicit cash and in-kind donations destined for the project, and to direct all such restricted donations towards the fulfillment of the project.

- To oversee the project monitoring and evaluation system, including the procurement of necessary technical assistance and expertise for project staff training.

RESPONSIBILITIES OF KCDOH

- KCDOH will actively advocate and work towards meeting the criteria set forth in the attached document **"Community Birthing Center (CBC) Standards"** which details the requirements of a CBC. This includes, but is not limited to:
    - Ensuring a reliable and consistent supply of all non-pharmaceutical supplies necessary for successful implementation of the project. These supplies include, are not limited to: latex gloves, cord clamps, LLITNs, gauze, an infant scale and a length board.
    - Ensuring a reliable and consistent supply of all pharmaceutical supplies necessary for the successful implementation of the project. These supplies include, are not limited to: oxytocin, PMTCT medications, family planning supplies, ACT, Albendazole, Vitamin A capsules, ORS packets, HIV VCT services and supplies, iron folate and folic acid supplements, and newborn vaccinations.
    - Maternal health services available 24 hours, 7 days a week, every day of the year.
    - Provision prompt ambulatory services from Partner Health Facilities to referral facilities including support of the system with necessary services, including but not limited to fuel and a driver 24/7
- KCDOH will continue to pay at least half the salary of Project Coordinator, valued at 60,000Ksh/month with opportunity for an annual raise based on project success. Changes in personnel filling this position and any other position within the project must first be approved by KIKOP and Curamericas.
- In the case the policies are established to provide payment of CHVs, KCDOH will advocate that KIKOP CHVs be given priority to fill this role in their respective communities.
- KCDOH is charged with providing any and all payments of voluntary stipends and per diems for the time and transport of County, Sub-County MoH and government representatives at project feedback meetings and trainings.
- KCDOH will provide a meeting space and chairs for County and Sub-County feedback meetings and annual stakeholders meetings to KIKOP free of charge.
- KCDOH will provide office space for KIKOP staff that is sufficient for project coordination and is outfitted with reliable electricity, water and access to a bathroom.
- KCDOH will provide a vehicle for KIKOP use. The vehicle will receive quarterly repairs covered by KCDOH. KCDOH will cover an anticipated 30% of fuel (30,000Ksh/quarter)
- KCDOH will provide annual assessment and feedback to key project staff through a formal evaluation
- To implement quality assurance procedures to ensure compliance with the Certifications, Assurances, and Provisions, as well as with all applicable rules, policies, regulations, and laws of the Government of Kenya, the Ministry of Health, and the Ministry of Labor.
- Regular communication with project staff to ensure project alignment with MoH priorities, understand the progress made by the project on the ground level, and discuss opportunities for the advancement of MNC health care in Kisii County.
- To provide financial oversight for the project and ensure proper deployment of all project resources and adherence to the uses for which funds are intended.

RESPONSIBILITIES OF KIKOP STAFF

These responsibilities are in addition to areas of responsibility listed in individual job descriptions and work plans.

- To maintain professional and cooperative relationships with all project partners and stakeholders, including but not limited to Kenya's Ministry of Health and other relevant Government of Kenya ministries and representatives; the County Health Management Team and Medical Officer; other cooperating NGOs and PVOs; and all cooperating beneficiary communities.
- To recruit, orient, train, and supervise the human resources and staff necessary for the execution of this project and provide said persons with the material and logistical support necessary for them to execute their assigned tasks.

- International volunteer teams and interns are considered as part of the KIKOP project. Work plans for teams and individuals will be made with priority given to the project and with consideration provided for KCDOH priorities.
- To provide quarterly and annual reporting to partners at KCDOH and Curamericas Global on project progress, results, opportunities, and barriers.
- To utilize funds as stated in the Curamericas/KCDOH-approved budget and to maintain expenditures within 10% of cost category total budgeted amount unless prior approval is received from Curamericas Global.
- To oversee the daily deployment of project staff and the execution of the project interventions in the targeted communities and to communicate project plans, achievements and needs no less than twice monthly with Curamericas through conference calls through KIKOP and/or KCDOH staff.
- To request, receive, and properly account for all project funds in accordance with all Curamericas and KCDOH reporting and accounting requirements.
- To maintain rigorous records of all project expenditures, including written itemized receipts of all purchases made, and to present to Curamericas said records and receipts as requested.
- To provide Curamericas monthly Expenditure Reports, quarterly Progress Reports and any other reasonable requested reports and data needed for the ongoing execution, monitoring, evaluation, and continuous quality improvement of the project and for the release of project funds
- To negotiate, sign, and implement Memorandums of Understanding in consultation with KCDOH and Curamericas Global with other NGOs and PVOs in the project service area with whom project activities and services will be coordinated to delineate mutual roles and responsibilities.
- Represent the project at local, regional, and national level meetings.

GENERAL TERMS

- This Memorandum shall be effective from September 30, 2020 through December 31, 2026 unless otherwise amended by mutual agreement of the legal representatives of Curamericas and KCDOH. Nothing in this MOU shall be construed as an exclusive working relationship.
- KIKOP shall be the implementor this memorandum on behalf of KCDOH and CURAMERICAS global as an independent agency
- All project staff will be employees of KIKOP or KCDOH and not Curamericas
- Disbursements are dependent on successful implementation in the previous year including timely fiscal and programmatic reporting
- No person should be excluded from activities under this Memorandum on the basis of race, ethnicity, color, gender, national origin, age, religion, genetic information, disability, veteran's status, sexual orientation, gender identity, or gender expression.
- Either Curamericas or KCDOH may request in writing amendments, additions, or deletions to this Memorandum, whereupon the other party will have 30 days to respond to the requested changes. Agreed upon changes will be incorporated in a new updated Memorandum to be signed by the legal representatives of Curamericas and KCDOH
- If either Curamericas or KCDOH determines that the other party is not in compliance with the roles and responsibilities delineated in this Memorandum, it will inform the other party in writing so said party may take immediate action to restore compliance. If, however, compliance is not restored within a 30-day period, this continued lack of compliance may be grounds for unilateral termination of this Memorandum
- Either Curamericas or KCDOH may request in writing an end to this Memorandum prior to its scheduled expiration date. Said request must be made at least 60 days prior to the requested date of termination. However, termination of this Memorandum does not exempt either party of its fiscal responsibilities, and both must provide full accounting for all funds received.

As legal representatives of the Kisii County Department of Health and Curamericas Global, we agree to the terms of this Memorandum and recognize that this Memorandum became effective as of January 1, 2021.

_____ _____

Andrew Herrera **Madam Sarah Omache**

Executive Director, Curamericas Global Inc.
Witnessed by: Barbara Muffoletto

Minister of Health Kisii County
Witnessed by: Dr. Geoffrey Ondeyo Otomu

_____

Kevin Kayando Aulla
Project Coordinator, KIKOP
Witnessed by: Anne Kerubo Nyangweso

E: Focus group interview guide

Perspectives of Community Health Volunteers (CHVs) on Routine Home Visits

Nyagoto and Iranda Catchments Focus Group Discussion Interview Guide

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Location (circle one): _Nyagoto / Iranda_

Interview Format: _____Focus Group____

Facilitator Name: _____

Note-taker Name: _____

Focus Group ID: _____

Number of Participants: _____

Date: _____

Start time: _____ **/ End time:** _____

Purpose

To investigate the delivery of the KIKOP Routine Home Visits (RHVs) by Community Health Volunteers (CHVs) for pregnant women and mothers with children under the age of two. The goal of the focus group is to understand the implementation strengths and challenges experienced by CHVs from their perspective. It will also serve to gather contextual insight on how well components of the RHVs are translating for members of this rural community. The analysis of the interviews will inform recommendations for process improvements and increase program fidelity and delivery.

Review and Sign Consent Form

Prior to bringing the group together, review the consent form with participants individually and collect their signatures or fingerprints on the informed consent form.

Introduction

Hello. Thank you all for taking the time to speak with me today. My name is ***(insert name)*** and I am the ***(insert position/title)*.** The purpose of this focus group is to learn more about how the routine homes visits are carried out in the **(Nyagoto/Iranda)** catchment. I am interested in learning about what it is like for you to conduct home visits so that I may learn more about things that are working well and things that may need improvements according to you. It is also a chance for you to share your suggestions.

I would like to ask you in a series of questions about your individual experiences and things that you have noticed while being a community health volunteer and completing home visits. Please know that there are no right or wrong answers to these interview questions. I would request if you can provide your honest opinions, thoughts, and observations to these questions. If you feel uncomfortable answering a certain question, please let me know and you can skip it. If someone else has already expressed what you intended to say, you can simply indicate that. Our discussion will take no more than 90 minutes.

This interview will be recorded and **(*insert name*)** will be taking notes so that we can ensure we record your responses accurately. We will record your voices and take notes during the interview, but your name will not appear in any document or report. What you say will be completely anonymous. We ask that you keep the conversation confidential, especially what others have said in this group interview.

Do you have any questions regarding purpose of this interview?

(If no questions) Before I start the recording, can I please confirm your name?

(Confirm names) Do you have any questions or concerns before we begin?

Setting of Ground Rules

During our discussion, you will all be sharing your personal thoughts and opinions about your experiences with routine home visits. We value your opinions and want everyone to feel comfortable sharing their experiences. To encourage this, we have set some ground rules for our conversation today: treat everyone with respect and create a space safe for everyone to have an open conversation about the discussion topics.

- Treat one another with respect
    - There may be times that you disagree with others in this discussion. During these times, I encourage you to be kind to the other participants when you discuss your opinions.
    - Show respect to other members by not interrupting them when they are speaking.
- Create a safe space for conversation
    - What is said here, stays inside this room. Remember not to repeat or share what others say during our conversation outside of this room.
    - Speak as openly as you feel comfortable.

Are there any other ground rules you would like to have for our conversation today?

(If yes, add them to the list of ground rules for the focus group participants)

Feel free to interrupt me if you have any questions or do not understand something I say. Do you have any questions or concerns before we begin?

(If no questions) Okay I will start the recording now.

(Start the recording) Let us begin.

Part I: Introduction

To get us started I have a few questions that will help me get to know you and your role as a CHV with KIKOP.

1. Can you tell me the community and the catchment you represent as CHV?
2. What motivated you to be a CHV?
    a. If they do not mention, ask specifically about:
        i. What made you want to participate as a CHV?
        ii. What motivates you to continue participating as a CHV?

Transition: Next, I would like to know more about your responsibilities as a CHV and the time that you spend on different tasks.

Part II: CHV's feelings about their role and responsibilities

3. Can you tell me a little about the responsibilities you have as a CHV?
    a. If they do not mention, ask specifically about:
        i. Responsibilities regarding home visits
        ii. Responsibilities on the Village Health Committee
        iii. Responsibilities regarding the collection of vital events throughout the year
    b. Are there responsibilities that you currently have that you were not aware of when you became a CHV with KIKOP?
4. Are there other things you do in your role as CHV to support the health of your community?
    a. Are there responsibilities that are assumed of a CHV or frequently requested by moms but not part of your job description?
5. How do you feel about your job responsibilities?
    a. What do you like?
    b. How could it be improved?

Transition: Thank you for sharing some background information on your role and responsibilities as a CHV. Now I want to know how you manage your workload and your responsibilities as a CHV.

Part III: Management of work and workload

6. Can you tell me about the amount of work and time that is required to complete all the responsibilities of the home visits?
    a. How do you feel about the amount of work required for each RHV?
    b. How much time do you spend each week on the tasks involving home visits?
    c. Can you tell me about the amount of travel that is required to complete the home visits?
    d. How much time do you spend traveling to your home visits each week?

Transition: Thank you for sharing. Now I will ask some questions about your experiences completing routine home visits and the challenges that you face.

Part IV: Influence of cultural, social, physical, and organizational factors on RHVs

7. What factors influence whether a home visit goes well or not?
    a. Interviewer can use the following prompts to spur discussion: Presence of the husbands or partners during the visit; Moms' availability/is busy/distracted in doing household chores; Relationship troubles with child's father; Women want to hide pregnancy or stigma about health conditions; Not having a separate physical space that allows for privacy during RHVs; Visit type
8. In your opinion, which aspect of the RHVs do you think are the most important to mothers and children?
    a. Have mothers made comments about aspects they feel are most important?
    b. Have mothers made comments about aspects they feel are most helpful?
9. Which aspect of the home visit, if any, do you think should be removed from the visit?
10. In your role as CHV, can you tell me about any challenges you personally face in completing the home visits during a month?

a. Interviewer can use the following prompts to spur discussion: Unpredictable weather, not having appropriate clothes for rain, traveling/distance)
b. In instances when you could not complete home visits, what were the exact reasons?
c. Do you feel you have all resources you need to complete the home visits

11. What strategies do you use to help ensure that a home visit go smoothly?
    a. If not mentioned, prompt specifically about:
        i. Strategies to schedule home visits
        ii. Strategies to complete home visits
        iii. Strategies you use to save time

Transition: Thank you for sharing your direct experiences carrying out the home visits. Next, I would like to now talk about the your experiences being trained to carry out the responsibilities of a CHV and the monthly group meetings you have with KIKOP staff where you share your vital events, turn in home visit forms, and have group discussions and trainings.

Part V: Satisfaction with data collection process, training, and support from KIKOP staff

12. What do you think about the data collection and reporting process?
    a. What part of the data collection and reporting process do you feel works really well?
    b. What parts of the data collection and reporting process have been challenging?
    c. What parts have you had requested help with from KIKOP staff?
    d. What parts of the forms are the hardest to ensure they are accurate?
13. How prepared do you feel to teach and speak about all the subjects covered in the home visits?
    a. What subjects, if any, do you feel you could learn more about?
    b. Which subjects, if any, do you feel you have a hard time describing to mothers?
        i. If not mentioned, ask specifically about:
            1. Weighing/measuring the child
            2. Counseling the mother
            3. Reading the health card
            4. Filling out the questionnaire
14. In what ways could KIKOP better train and support you as a CHV?
15. Can you describe your engagement/communication with KIKOP team during the monthly meetings?
    a. If not mentioned, prompt specifically about:
        i. Which parts of the meetings do you enjoy the most?
        ii. Which parts of the meetings do you think can be improved?
    b. What do you think the meetings should focus on the most?
        i. Training
        ii. Team building games
        iii. Sharing feedback with staff
    c. How do you share feedback with the KIKOP staff?
        i. Are KIKOP staff receptive of the feedback they received from CHVs?

Thank you for sharing your thoughts on your CHV training and support from KIKOP staff. We are at the last part of the interview. I have a few concluding questions about your experience as a CHV.

Part VI: Concluding questions

16. What tips would you recommend to new CHVs starting?
17. What part of being a CHV do you enjoy the most?

Conclusion

Before I end the interview, I want to check if anybody have any comments or suggestions regarding the discussion we just had. Would you like to add anything or discussion something that you think is important for us to know, but was not covered during this discussion?

(If no questions or comments) *Thank you so much for your participation and all of the input you provided today. We appreciate your feedback and we will use what you said here today to improve the KIKOP program. Thank you again.*

(End Recording)

F: Focus group informed consent

CURAMERICAS GLOBAL

CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: Satisfaction of Community Health Workers in Routine Home visits

Principal Investigator: Dr. Henry Perry
Principal Investigator Company: Curamericas Global
Principal Investigator Phone number: (919) 510-8787
Principal Investigator Email Address: hperry2@jhu.edu
Co-Investigators: Kevin Kayando Aulla, Anne Bitengo Nyangweso, Barbara Muffoletto, Nilpa Shah

Funding Source and/or Sponsor: KIKOP and Curamericas Global

INTRODUCTION

Dr. Henry Perry, Kevin Kayando Aulla, Anne Bitengo Nyangweso, Barbara Muffoletto, and Nilpa Shah, from KIKOP and Curamericas Global are conducting this research study. This study is being funded by KIKOP and Curamericas Global. You are selected as a participant in this study because you are part of the KIKOP project as a CHV who both conducts RHVs and receives trainings from KIKOP staff. Your participation in this research study is voluntary.

WHAT SHOULD I KNOW ABOUT A RESEARCH STUDY?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

WHY IS THIS RESEARCH BEING DONE?

The purpose of this research study is to collect important information for the Ministry of Health and the KIKOP project about the progress of Routine Home Visits (RHVs) in the communities served by the KIKOP project in Kisii County. The research study aims to understand the delivery of the KIKOP RHVs by Community Health Volunteers (CHVs) for pregnant women and mothers with children under the age of two. We want to understand the experiences of CHVs regarding implementation strengths and challenges to gather their insights on how well components of the RHVs are translating for members of this rural community and how to improve the KIKOP project. The interviews will inform recommendations for process improvements and increase program fidelity and delivery. This study may also help us better understand what motivates CHVs to

participate and what barriers they face during RHVs. The information you provide will be shared with the Ministry of Health and KIKOP staff to improve the project and home visit intervention with the ultimate goal of reducing maternal and newborn deaths in Kisii County. Your participation is a very important contribution to the health of your community and the county.

HOW LONG WILL THE RESEARCH LAST AND WHAT WILL I NEED TO DO?

Your participation in this focus group will last approximately 90 minutes.

If you volunteer to participate in this study, you will be asked to join a focus group and the researcher will ask you a series of open ended questions about your experiences as a CHV, conducting RHVs, and your trainings through KIKOP. These questions will be asked to help make improvements of the KIKOP project and improve your experience as a CHV.

ARE THERE ANY RISKS IF I PARTICIPATE?

There are no anticipated risks or discomforts. Even though we emphasize to all participants that comments made during the focus group session should be kept confidential, we cannot monitor if participants repeat comments outside of the group at some time in the future. We encourage you to be as honest and open as you can but remain aware of our limits in protecting confidentiality.

ARE THERE ANY BENEFITS IF I PARTICIPATE?

You may benefit from the study because the information gained from this focus group will help to make improvement of the KIKOP project and improve your experience as a CHV.

The results of the research will help understand how well the components of the RHVs are translating to the members of the rural communities. The results will inform recommendations for process improvements to increase program fidelity and delivery, directly increasing the impact of the program on the health of pregnant women and mothers with children under the age of two.

HOW WILL INFORMATION ABOUT ME AND MY PARTICIPATION BE KEPT CONFIDENTIAL?

The focus group discussion will be audio recorded and a note-taker will take detailed notes, so we can capture your comments in the transcript for analysis.

Use of personal information that can identify you:

Every effort will be taken to protect your identity as a participant in this study. Your name will not appear on any transcripts.

How information about you will be stored:

A unique identifier will be provided to participants to help connect them with the interview transcript and notes from today. The unique identifiers and participant names will be kept on two separate documents to minimize loss of confidentiality. The researchers will do their best to make sure that your private information is kept confidential. Information about you will be handled as confidentially as possible, but participating in research may involve a loss of privacy and the potential for a breach in confidentiality. Study data will be physically and electronically secured. As with any use of electronic means to store data, there is a risk of breach of data security.

People and agencies that will have access to your information:

The research team, authorized Curamericas Global personnel, and KIKOP, may have access to study data and records to monitor the study. Research records provided to external collaborators will not contain

identifiable information about you. Publications and/or presentations that result from this study will not identify you by name.

KIKOP and Curamericas may have access to identifiable information as part of routine processing of your information, such as interview coordination, processing payment, etc. However, they are bound by strict rules of confidentiality.

USE OF DATA FOR FUTURE RESEARCH

Your data, including de-identified data may be kept for use in future research.

WILL I BE PAID FOR MY PARTICIPATION?

You will not be paid for your participation in this research study.

WILL IT COST ME ANYTHING TO PARTICIPATE IN THIS STUDY?

It will not cost you anything to participate in this research study.

WHO IS SPONSORING THIS STUDY?

This research is funded by Curamericas Global. This means that the research team is being paid by the sponsor for doing the study. The research team consists of paid staff of the KIKOP project. These results will be used to improve RHV implementation in your community. Negative nor positive feedback about the project will not affect future funding.

WHO CAN I CONTACT IF I HAVE QUESTIONS ABOUT THIS STUDY?

You have the right to ask, and have answered, any questions you may have about this research. If you have any questions, comments or concerns about the research, you can talk to the one of the researchers listed on the first page of this form.

WHAT ARE MY RIGHTS IF I TAKE PART IN THIS STUDY?

- You can choose whether or not you want to be in this study, and you may withdraw your consent and discontinue participation at any time.
- Whatever decision you make, there will be no penalty to you, and no loss of benefits to which you were otherwise entitled.
- You may refuse to answer any questions that you do not want to answer and still remain in the study.
- You will be given a copy of this consent form. You should ask the researchers named above, or staff members who may assist them, any questions you have about this study at any time.
- You have the right to request a copy of this informed consent for your records.

HOW DO I INDICATE MY AGREEMENT TO PARTICIPATE?

If you want to participate in this study, you should sign and date below.

SIGNATURE OF THE PARTICIPANT

_____	_____	_____
Name of Participant	Signature of Participant	Date

SIGNATURE OF PERSON OBTAINING CONSENT

_____	_____	_____	_____
Name of Staff	Signature of Staff	Contact Number	Date

G: Qualitative Analysis Code List

Parent Code	Child Code	Sub-Child Code	Definition
Barriers	Barriers affecting work completion	CHVs personal life	Apply code when participant mention their personal life can affect their work
		COVID	Apply code when participant mentions issues due to COVID 19
		Disbelief, religion, and politics	Apply code when participant mentions when a family's religion or beliefs becomes an issue in engaging them in the program
		Educating mothers is hard	Apply code when it is challenging to teach mothers
		Weather	Apply code when participants mention weather as a barrier in their work completion
	Barriers related to data collection	Issues related to RHV questions	Apply code when participants mention issues with questions in the RHV forms
		Issues with hospital book	Apply code when participants mention problems with the hospital book
		Measuring child vitals	Apply code when participants mention problems with collecting child vitals
	Issues surrounding mothers	Domestic and marital issues	Apply code when participant mention a family's domestic issue affect their work
		Mothers are not truthful or do not trust CHVS	Apply code when mothers do not trust CHVS and creates an issue
		Mothers ask for gifts or resources	Apply code when mothers ask for a gift from the participant
		Mothers' resistance and unavailability	Apply code when mothers are unavailable or resistant to participant
		No privacy	Apply code when mothers do not have privacy to support them in the program
Engagement with KIKOP	Asking KIKOP to stay		Apply code when participants want KIKOP to stay
	Communication		Apply code when participants like communication with KIKOP
	Expanding program to rest of community		Apply code when participants want to expand the KIKOP program to the rest of the community
	Suggestions		Apply code when participants have suggestions to improve satisfaction of working with KIKOP
	Instruments and resources	Data collection instruments	Apply code when participants ask for improved data collection tools

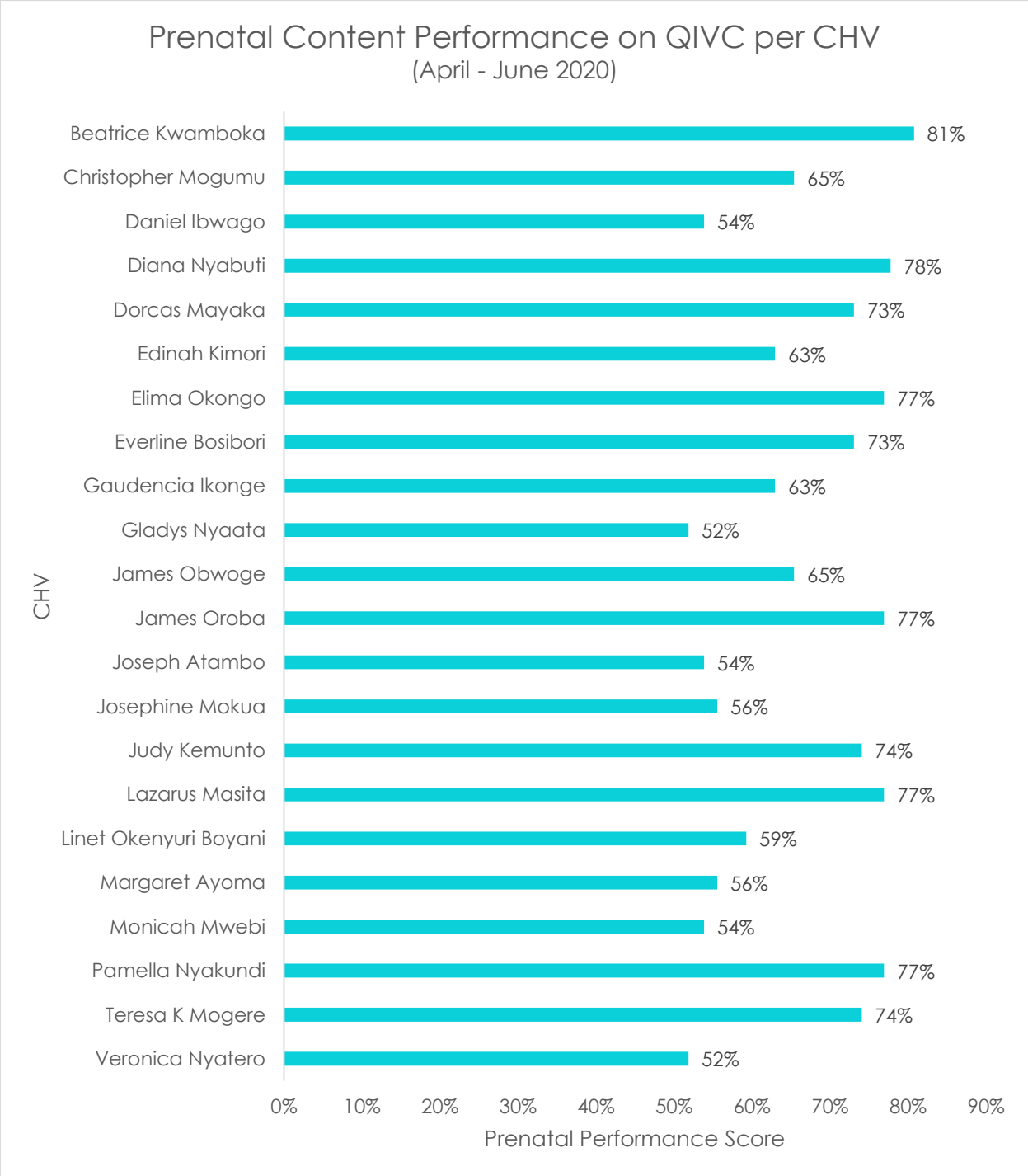
Preparedness and competency		Medicine and first aid	Apply code when participants want medicine and first aid for RHVs
		Money, uniforms, rain clothes	Apply code when participants talk about money and clothes
		Resources for mothers and child	Apply code when participants want resources to give to mothers
	Training	Examples of content of training	Apply code when participants ask for more training on specific content
		Feeling prepared	Apply code when participants mention that they are feeling prepared with the training they are receiving
		How should training be provided	Apply code when participants mention ways to make trainings more satisfying (ex. theater, games, meeting set-ups)
		More training needed	Apply code when participants ask for more training
		Things they like about training	Apply code when participants talk about what they like about in training
	What is important for mothers		Apply code when participants talk about RHV components that are important to mothers
Satisfaction to be CHV	Help and teach community		Apply code when participants like helping and teaching their community
	Learning new things/trained that was provided		Apply code when participants like learning new things
	Making friends		Apply code when participants like that they are making new connections through the KIKOP
	Monetary benefits or getting gifts		Apply code when participants like the monetary benefits of their role
	Recognition, respect, and trust		Apply code when participants like the recognition and respect they earn in their role
	Suggestions	MoH	Apply code when participants ask KIKOP to gain buy-in from MoH
		Monetary increase	Apply code when participants suggest an increase in their stipend
Workload management	Expanded role	Extra time	Apply code when participants mention that they spend more time on RHVs then prescribed to them
		Help with family conflicts	Apply code when participants mention they help with family conflicts
		Provide knowledge as a local doctor	Apply code when participants mention that they are often asked to be a local doctor

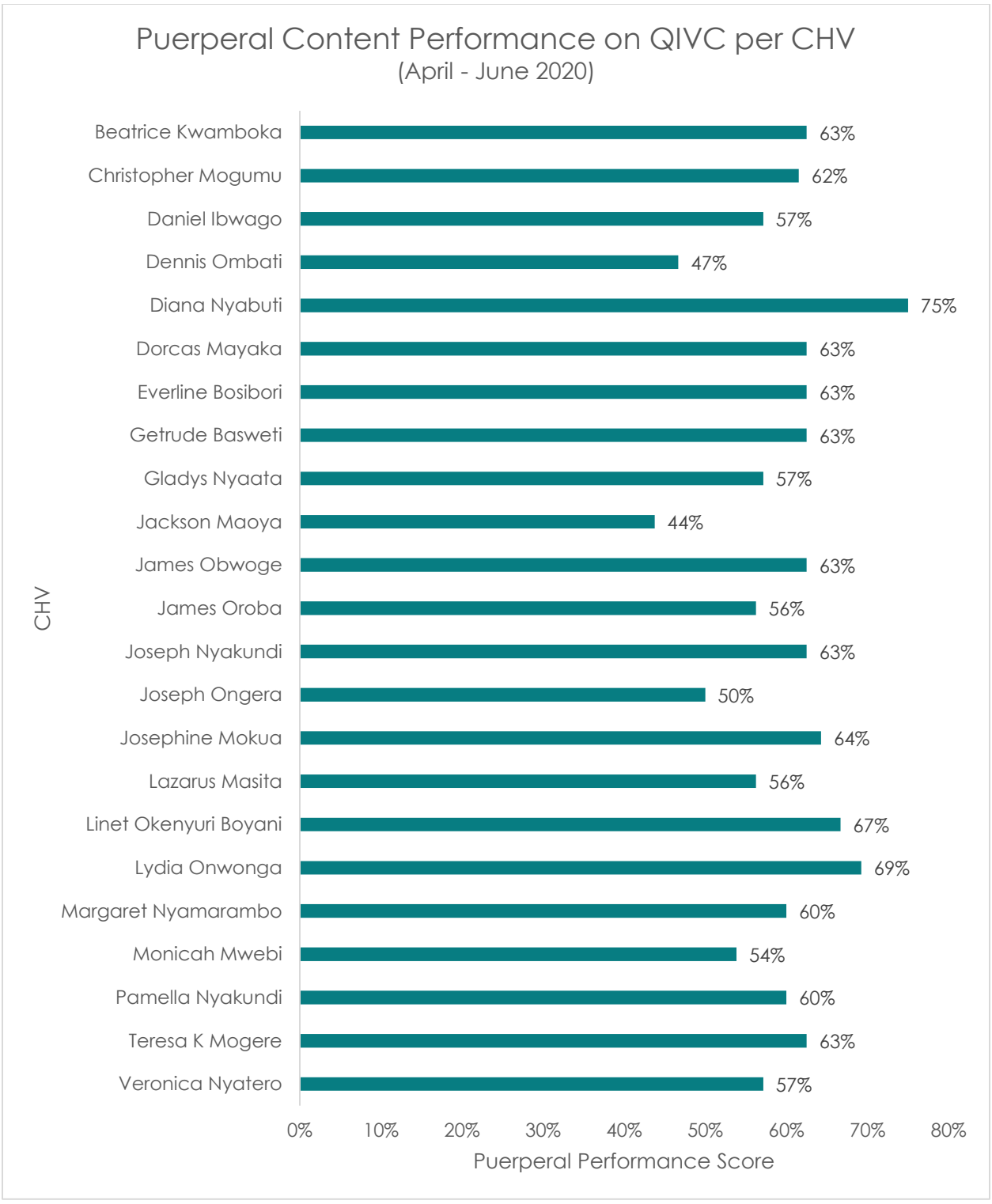
		Provide monetary resources or food	Apply code when participants find themselves providing money or food to the participants
	Listing Responsibilities	Data collection	Apply code when participants talk about their role in data collection
		Education	Apply code when participants talk about their role in providing health education
		Monitoring	Apply code when participants talk about their role in monitoring health condition in their community
		Referrals	Apply code when participants talk about their role in giving referrals to health clinic
		Skill building	Apply code when participants talk about their role in teaching life skills to the mothers
	Satisfaction with workload	Appreciation from women	Apply code when participants like that mothers appreciate their work
		Satisfaction with data reporting/collecting	Apply code when participants mention that they are satisfied with the data collection forms and processes
		See women implementing education	Apply code when participants mention that they like it when the mothers apply their health education
	Time for RHV	Problems	Apply code when participants mention issues with conducting RHV that increases their time
		Time needed to conduct RHV	Apply code when participants mention any specific time that they take to conduct RHVs
		Travel time	Apply code when participants mention time for their travel
	Workload strategies	Friendship with CHVs	Apply code when participants mention that they create friendship with other CHVs to help with their visitations
		How CHVs plan their day	Apply code when participants mention that they plan their day out
		How to create bonds with mothers	Apply code when participants mention that they should create a bond with the mothers
		Involve KIKOP	Apply code when participants mention that they should involve KIKOP when needed
		Respecting privacy	Apply code when participants mention the importance of confidentiality and privacy to work with the mothers
		Schedule visits	Apply code when participants mention they schedule visits and confirm with the mothers before making the visit

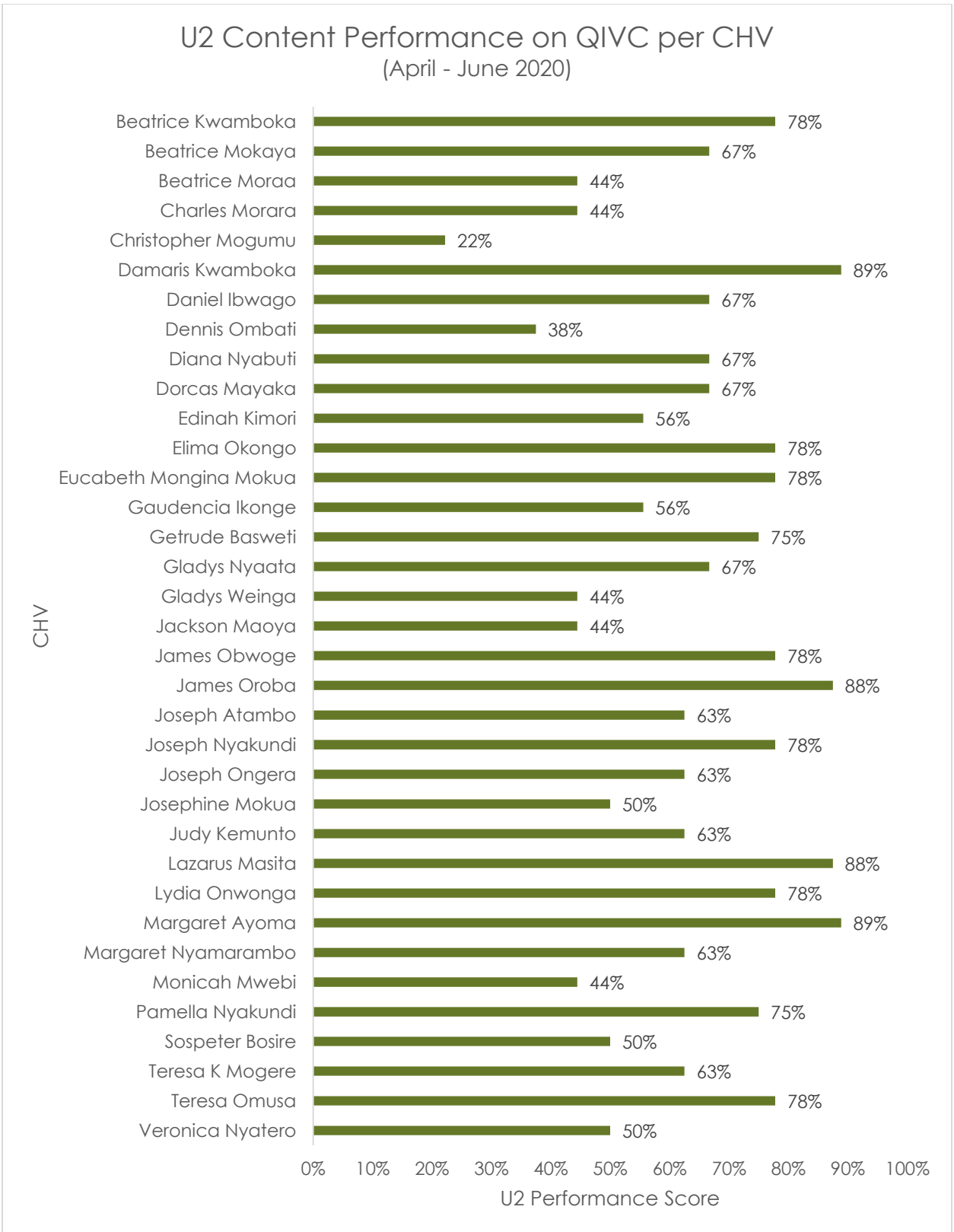
		Strategies around COVID	Apply code when participants mention any strategies to help them with issues that started due to COVID 19

H: CHV performance on RHV content

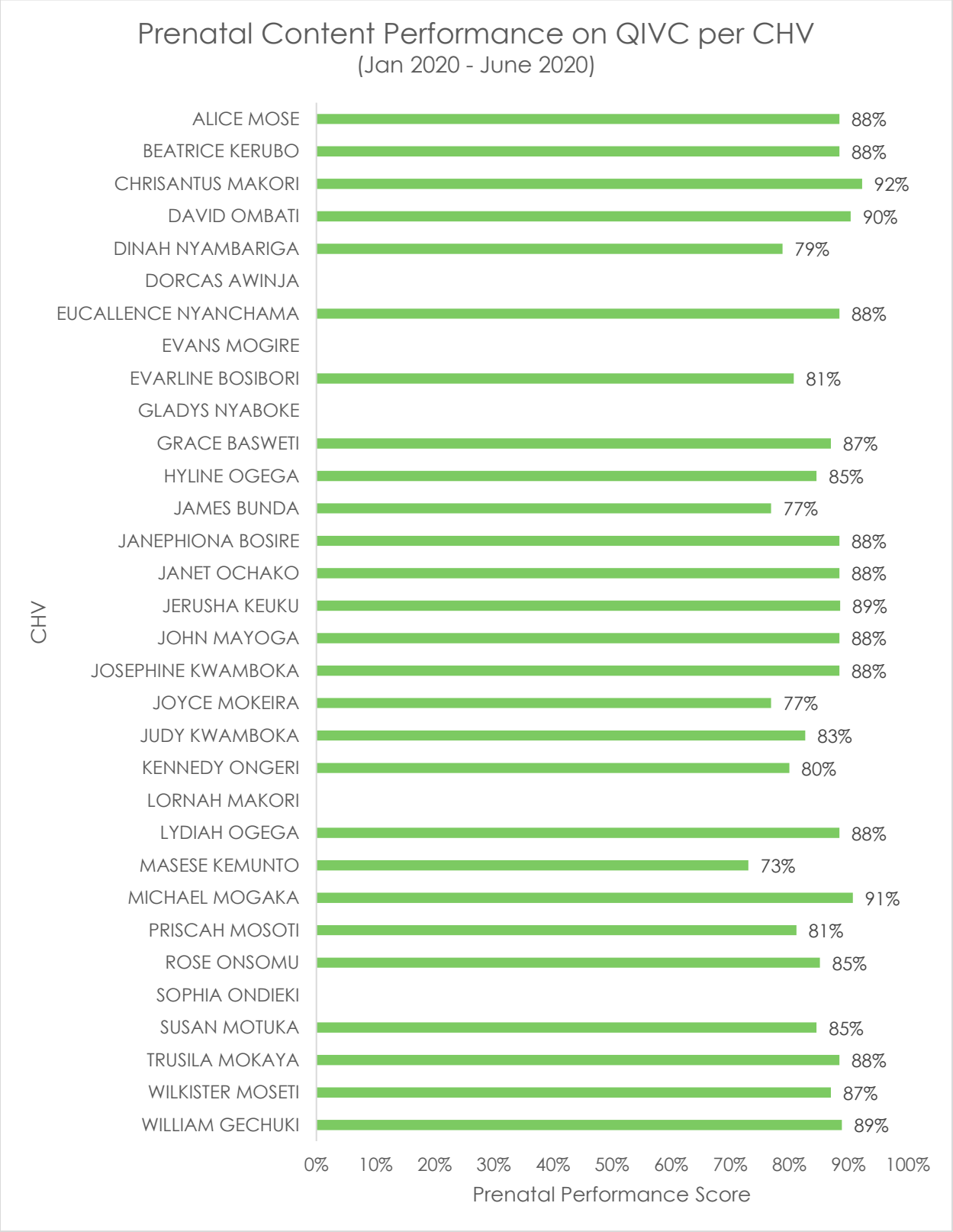
Nyagoto Catchment

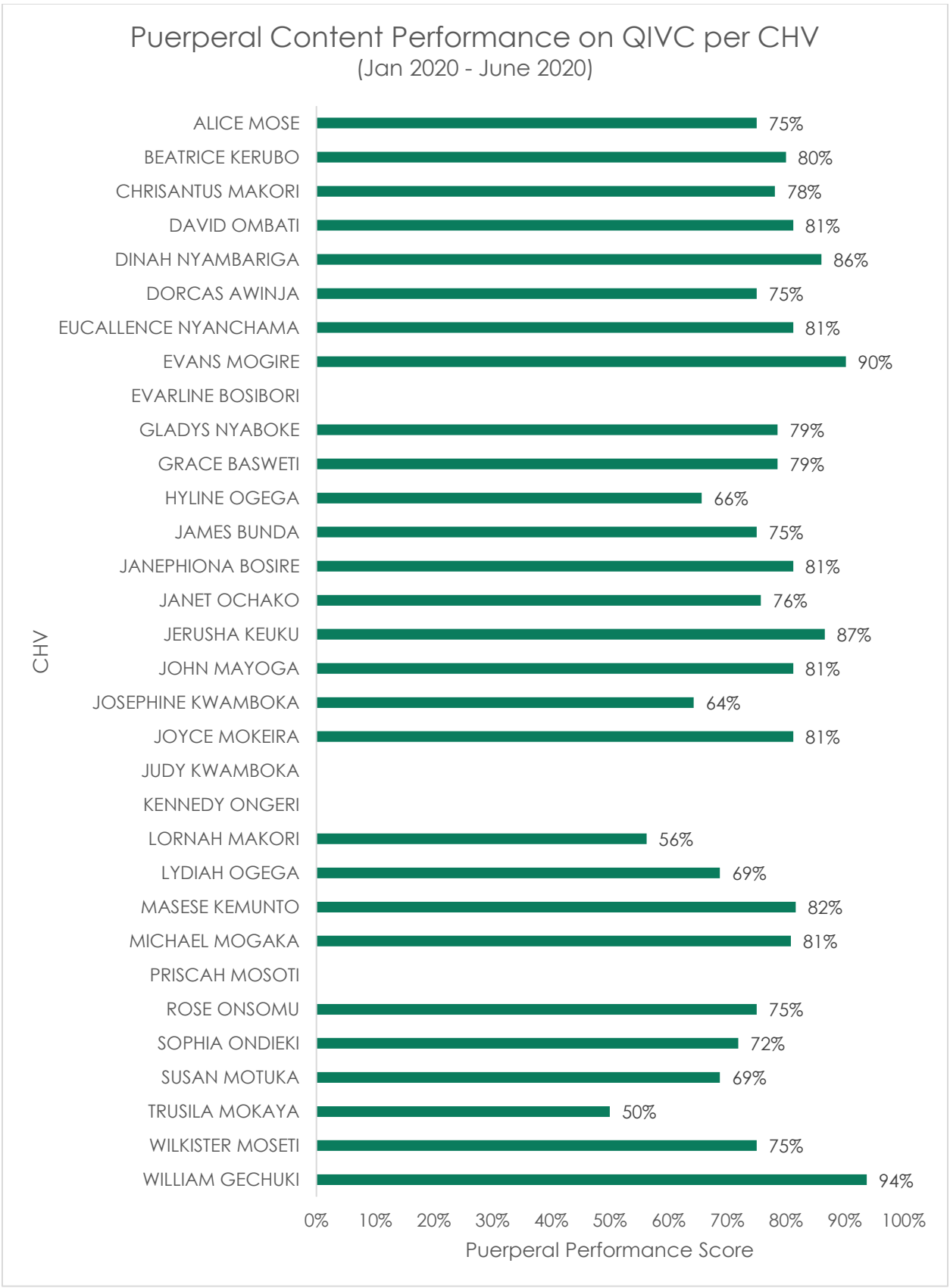


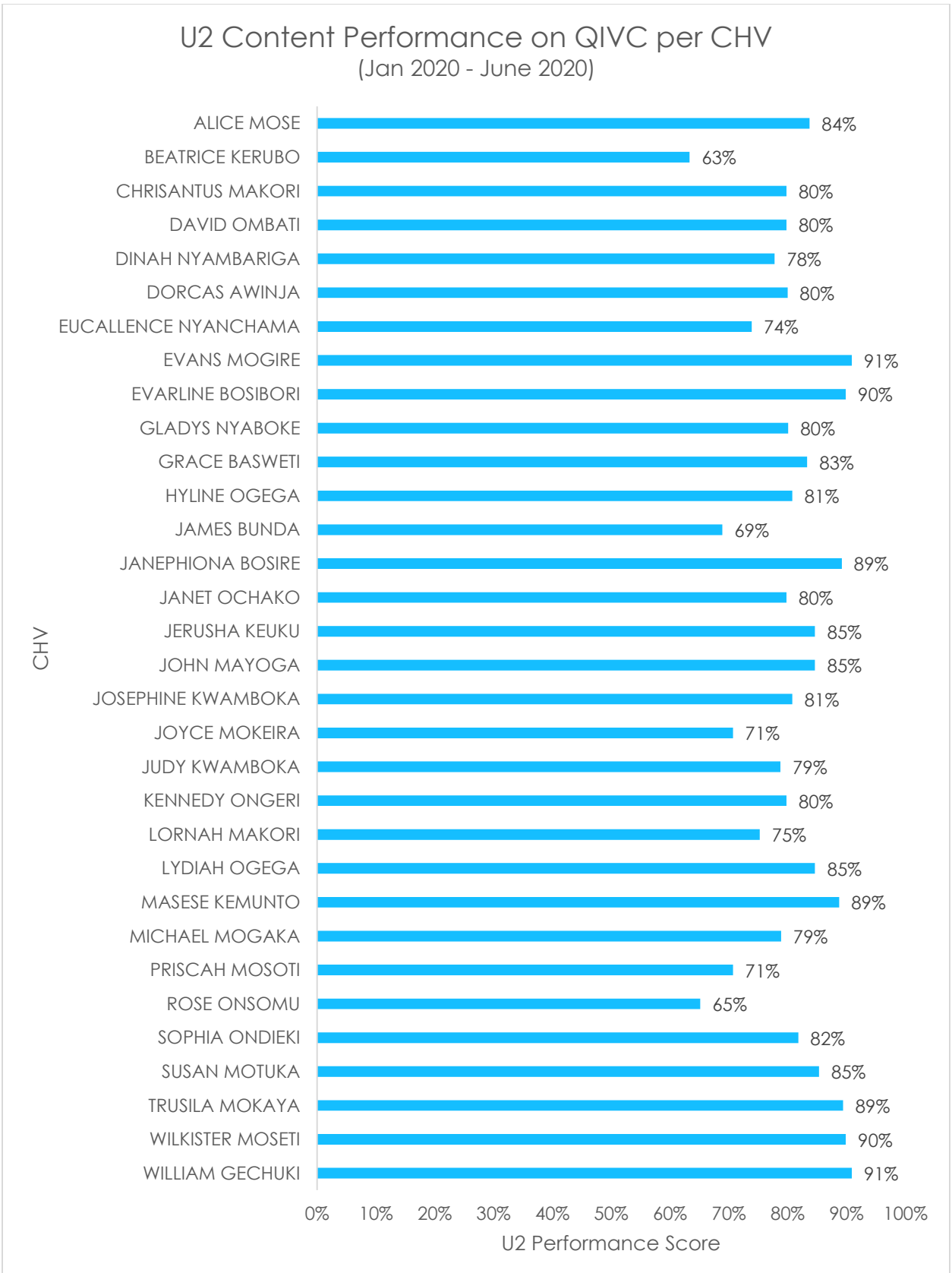

Puerperal Content Performance on QIVC per CHV
(April - June 2020)
CHV
Beatrice Kwamboka 63%
Christopher Mogumu 62%
Daniel Ibwago 57%
Dennis Ombati 47%
Diana Nyabuti 75%
Dorcas Mayaka 63%
Everline Bosibori 63%
Getrude Basweti 63%
Gladys Nyaata 57%
Jackson Maoya 44%
James Obwoge 63%
James Oroba 56%
Joseph Nyakundi 63%
Joseph Ongera 50%
Josephine Mokua 64%
Lazarus Masita 56%
Linet Okenyuri Boyani 67%
Lydia Onwonga 69%
Margaret Nyamarambo 60%
Monicah Mwebi 54%
Pamella Nyakundi 60%
Teresa K Mogere 63%
Veronica Nyatero 57%
0% 10% 20% 30% 40% 50% 60% 70% 80%
Puerperal Performance Score


U2 Content Performance on QIVC per CHV
(April - June 2020)
CHV
Beatrice Kwamboka 78%
Beatrice Mokaya 67%
Beatrice Moraa 44%
Charles Morara 44%
Christopher Mogumu 22%
Damaris Kwamboka 89%
Daniel Ibwago 67%
Dennis Ombati 38%
Diana Nyabuti 67%
Dorcas Mayaka 67%
Edinah Kimori 56%
Elima Okongo 78%
Eucabeth Mongina Mokua 78%
Gaudencia Ikonge 56%
Getrude Basweti 75%
Gladys Nyaata 67%
Gladys Weinga 44%
Jackson Maoya 44%
James Obwoge 78%
James Oroba 88%
Joseph Atambo 63%
Joseph Nyakundi 78%
Joseph Ongera 63%
Josephine Mokua 50%
Judy Kemunto 63%
Lazarus Masita 88%
Lydia Onwonga 78%
Margaret Ayoma 89%
Margaret Nyamarambo 63%
Monicah Mwebi 44%
Pamella Nyakundi 75%
Sospeter Bosire 50%
Teresa K Mogere 63%
Teresa Omusa 78%
Veronica Nyatero 50%
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
U2 Performance Score

Iranda Catchment




Puerperal Content Performance on QIVC per CHV
(Jan 2020 - June 2020)
CHV
ALICE MOSE 75%
BEATRICE KERUBO 80%
CHRISANTUS MAKORI 78%
DAVID OMBATI 81%
DINAH NYAMBARIGA 86%
DORCAS AWINJA 75%
EUCALLENCE NYANCHAMA 81%
EVANS MOGIRE 90%
EVARLINE BOSIBORI
GLADYS NYABOKE 79%
GRACE BASWETI 79%
HYLINE OGEGA 66%
JAMES BUNDA 75%
JANEPHIONA BOSIRE 81%
JANET OCHAKO 76%
JERUSHA KEUKU 87%
JOHN MAYOGA 81%
JOSEPHINE KWAMBOKA 64%
JOYCE MOKEIRA 81%
JUDY KWAMBOKA
KENNEDY ONGERI
LORNAH MAKORI 56%
LYDIAH OGEGA 69%
MASESE KEMUNTO 82%
MICHAEL MOGAKA 81%
PRISCAH MOSOTI
ROSE ONSOMU 75%
SOPHIA ONDIEKI 72%
SUSAN MOTUKA 69%
TRUSILA MOKAYA 50%
WILKISTER MOSETI 75%
WILLIAM GECHUKI 94%
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Puerperal Performance Score


U2 Content Performance on QIVC per CHV
(Jan 2020 - June 2020)
CHV
ALICE MOSE 84%
BEATRICE KERUBO 63%
CHRISANTUS MAKORI 80%
DAVID OMBATI 80%
DINAH NYAMBARIGA 78%
DORCAS AWINJA 80%
EUCALLENCE NYANCHAMA 74%
EVANS MOGIRE 91%
EVARLINE BOSIBORI 90%
GLADYS NYABOKE 80%
GRACE BASWETI 83%
HYLINE OGEGA 81%
JAMES BUNDA 69%
JANEPHIONA BOSIRE 89%
JANET OCHAKO 80%
JERUSHA KEUKU 85%
JOHN MAYOGA 85%
JOSEPHINE KWAMBOKA 81%
JOYCE MOKEIRA 71%
JUDY KWAMBOKA 79%
KENNEDY ONGERI 80%
LORNAH MAKORI 75%
LYDIAH OGEGA 85%
MASESE KEMUNTO 89%
MICHAEL MOGAKA 79%
PRISCAH MOSOTI 71%
ROSE ONSOMU 65%
SOPHIA ONDIEKI 82%
SUSAN MOTUKA 85%
TRUSILA MOKAYA 89%
WILKISTER MOSETI 90%
WILLIAM GECHUKI 91%
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
U2 Performance Score