

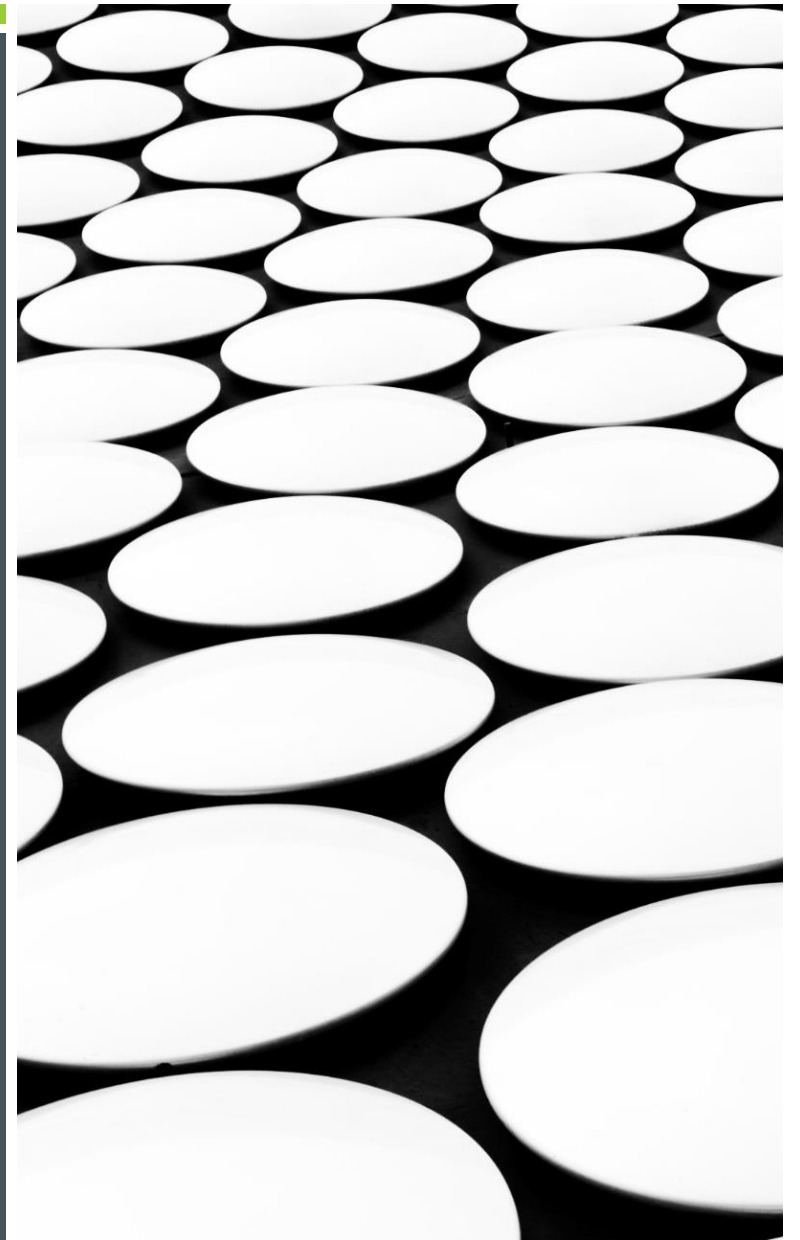
# **MONITORING AND EVALUATION**

## **MATERNAL AND CHILD HEALTH ROUTINE HOME VISITATION PROJECT IN KISII COUNTY, KENYA**

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UCLA Fielding School of Public Health

September 2020



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# GOAL AND OBJECTIVES

KIKOP PROJECT



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# **REDUCE MATERNAL AND CHILD MORTALITY AND MORBIDITY BY IMPROVING COMMUNITY HEALTH EDUCATION AND EMPLOYING A COMMUNITY-BASED IMPACT-ORIENTED METHODOLOGY**

1

Reduce maternal mortality during pregnancy and delivery

2

Reduce neonatal mortality

3

Reduce long-term, extreme malnutrition (i.e. stunting)

4

Increase access to quality maternal and newborn services

# PROCESS EVALUATION

NYAGOTO AND IRANDA

# LOGIC MODEL

## Inputs

### 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

## Activities

### 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

## Outputs

### 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

# EVALUATION FOCUS

- **Fidelity:** To what extent was the RHVs implemented as intended based on the underlying theory and project plan?
- **Dose delivered (completeness):** To what extent did CHVs complete program activities as intended?
- **Reach:** To what degree or extent did the RHV intervention reach the community members it intended to reach?
- **Recruitment:** Procedures used to maintain participant involvement in the intervention.
- **Context:** What aspects of the environment influence program implementation?
- **Dose received (satisfaction):** To what extent were CHVs satisfied with the intervention activities?

## RESEARCH QUESTIONS: QUANTITATIVE (1/2)

-  Are CHVs completing all components of RHVs as intended?
-  Are RHVs being completed in the timeframe that they are intended to be completed?
-  Are CHVs completing the most important components of prenatal, puerperal, and U2 RHVs?
-  Are CHVs evaluated as intended?
-  Are CHVs exhibiting interview skills at an appropriate standard of quality?

## RESEARCH QUESTIONS: QUANTITATIVE (2/2)

★★☆ Are CHVs completing RHVs with an acceptable standard of quality?

 Are CHVs reviewing birth plans during pregnancy visits?

 Are family members participating in RHVs with mothers?

 What is the average CHV workload?

 How many women participated in the program?



## RESEARCH QUESTIONS: QUALITATIVE

WHAT PLANNED AND ACTUAL PROCEDURES ARE USED TO ENCOURAGE CONTINUED INVOLVEMENT OF INDIVIDUALS?

WHICH CULTURAL, SOCIAL, PHYSICAL, OR ORGANIZATIONAL FACTORS INFLUENCE HOW RHVS ARE COMPLETED?

HOW DO CHV'S FEEL ABOUT THEIR ROLE AND RESPONSIBILITIES?

HOW DO CHVS FEEL ABOUT THEIR WORK MANAGEMENT AND WORKLOAD?

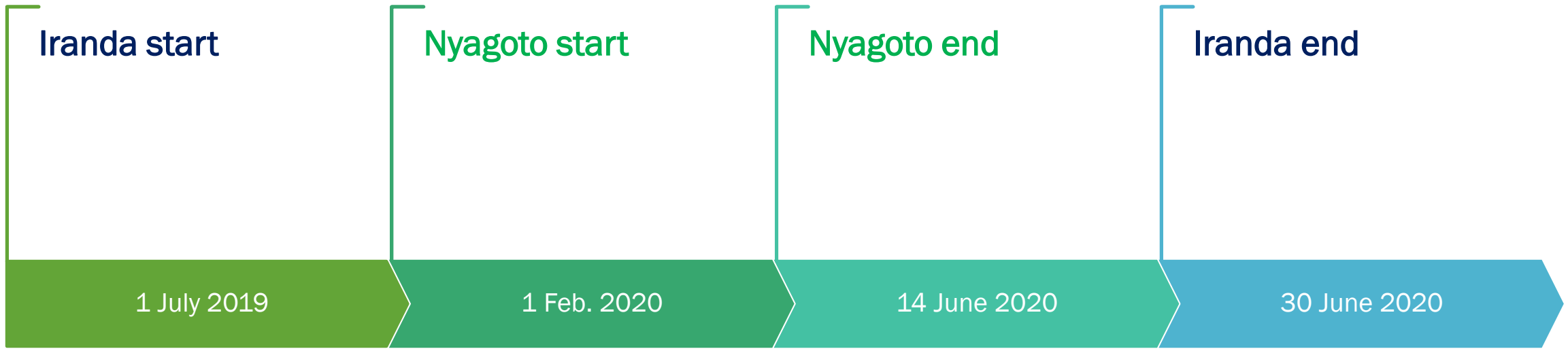
DO CHVS HAVE THE RESOURCES, TOOLS, AND TRAINING TO CARRY OUT THE RHVS AND COLLECT DATA AS INTENDED?

HOW SATISFIED ARE THE CHVS WITH THE DATA COLLECTION, TRAINING AND SUPPORT THEY RECEIVE FROM KIKOP STAFF?



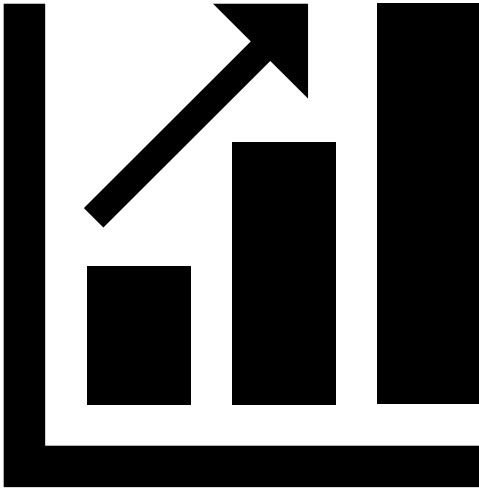
# METHODOLOGIES

NYAGOTO AND IRANDA



# PERIOD OF INTEREST

# QUANTITATIVE METHODS



- Data sources: Pregnancy, puerperal, and U2 registers; quality improvement and verification checklists
- Data entry, cleaning and analysis using Microsoft Excel
  - Pregnancy needed to be captured prior to the visit to be counted
  - Children included in puerperal and U2 visit according to the number of days since birth
  - Migration, unavailability, and resistance from mother did not count as missing for CHV analysis
- Iranda: 2 quarters; Nyagoto: 1 quarter
- QIVC for both were not based on quarters

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## QUALITATIVE METHODS

- Semi-structured, focus-group interviews
  - Per catchment: 2 CHV chairs (1 focus group), 14 CHVs (equally divided into 2 focus groups),
  - Nyagoto: 40% representation
  - Iranda: 50% representation
- Conducted in Swahili, translated/transcribed to English
- Thematic analysis using Dedoose
- Common and unique themes among catchments





# QUANTITATIVE RESULTS

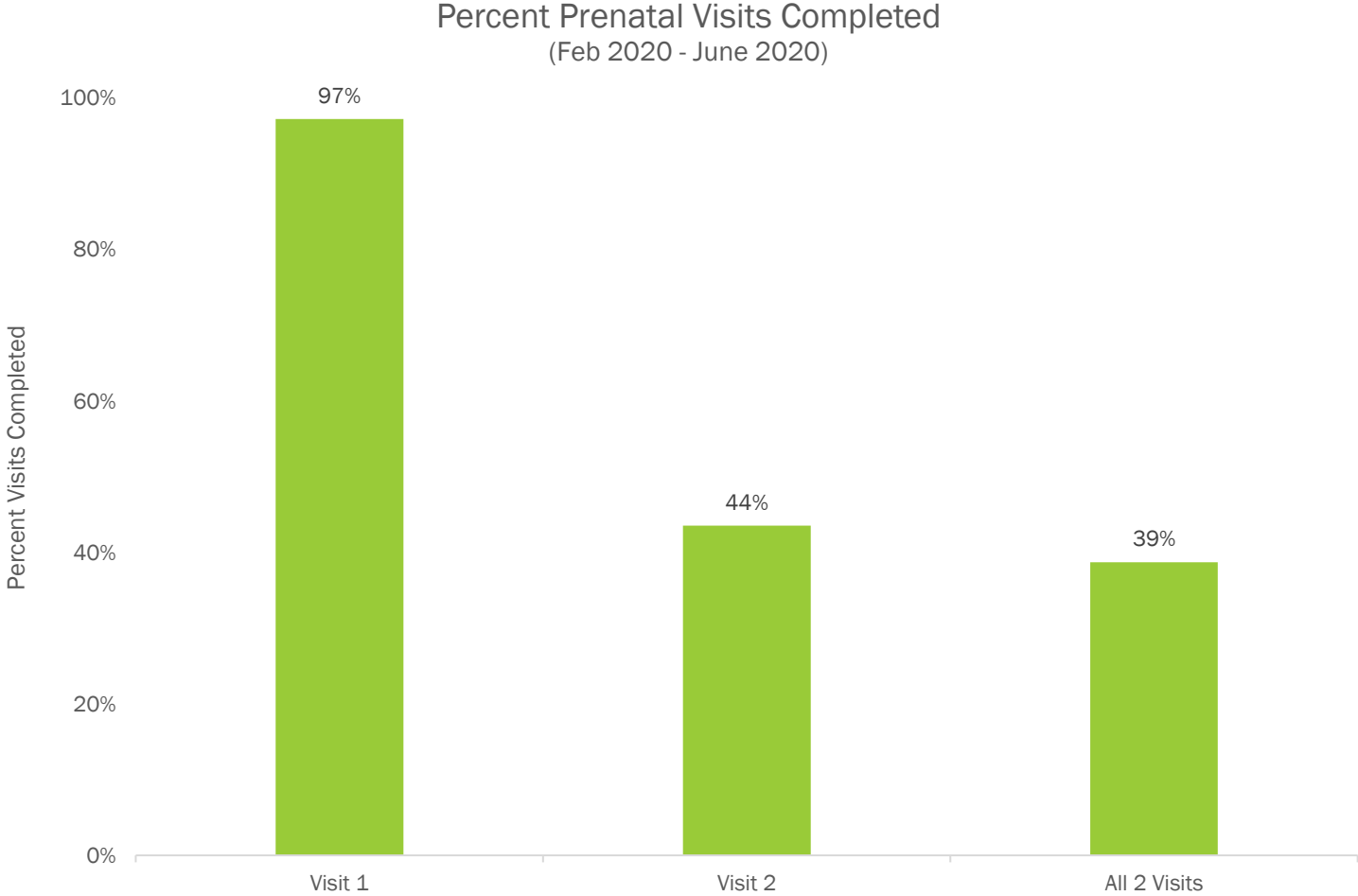
NYAGOTO



# ROUTINE HOME VISITATIONS

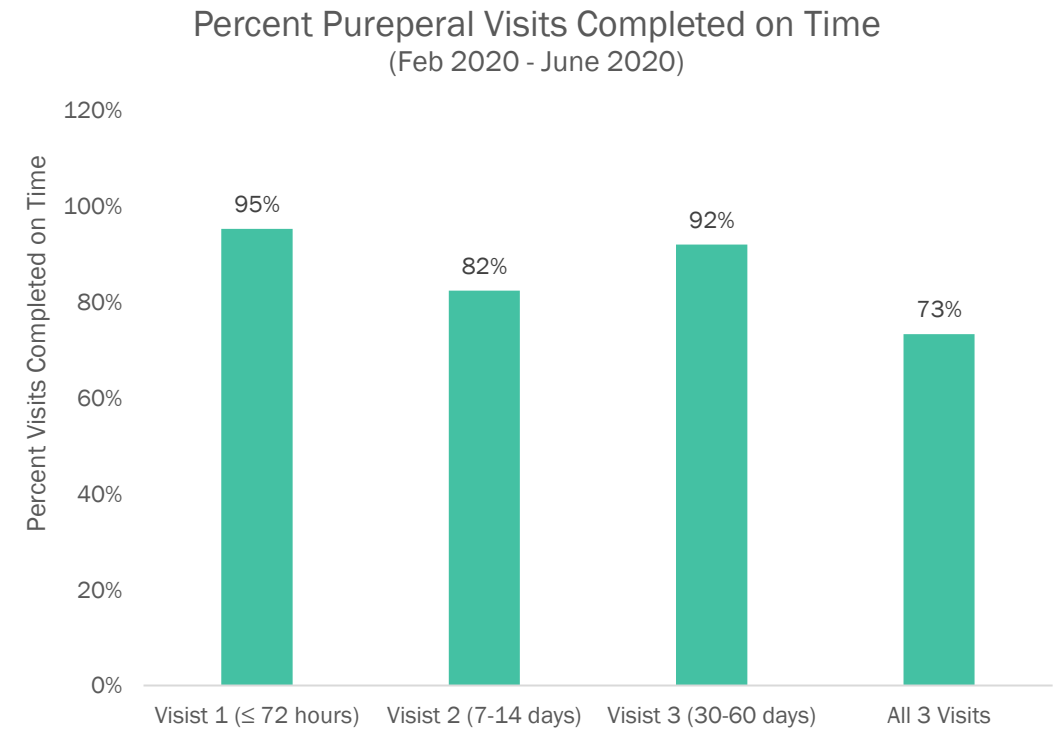
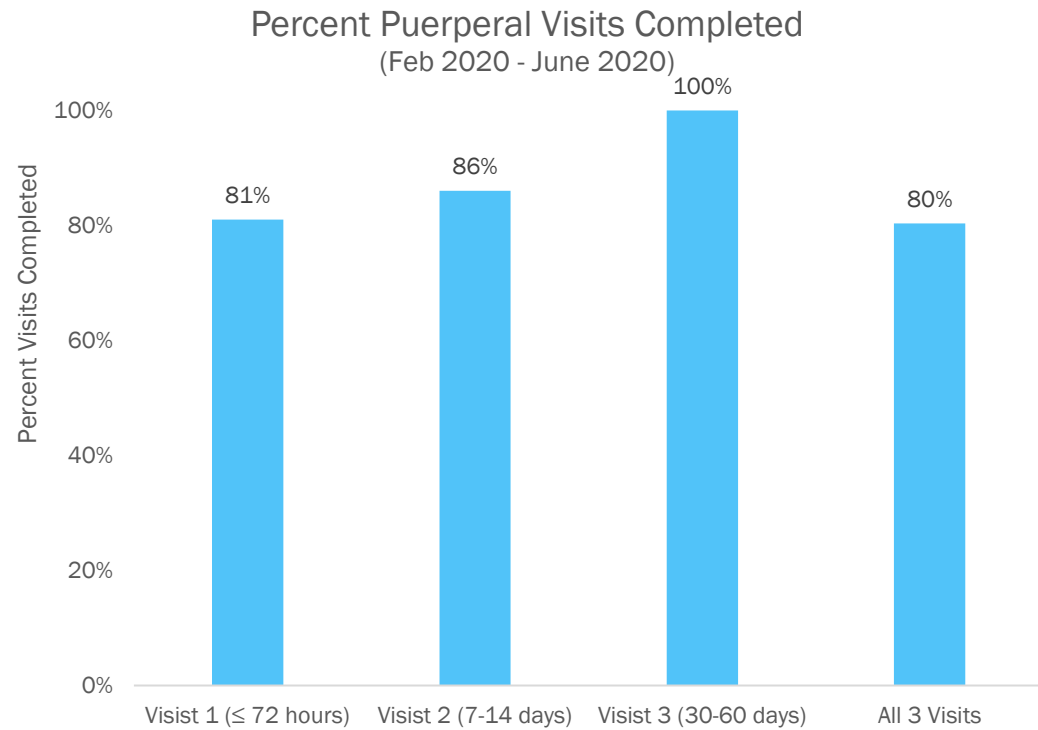
NYAGOTO

# PRENATAL VISITS

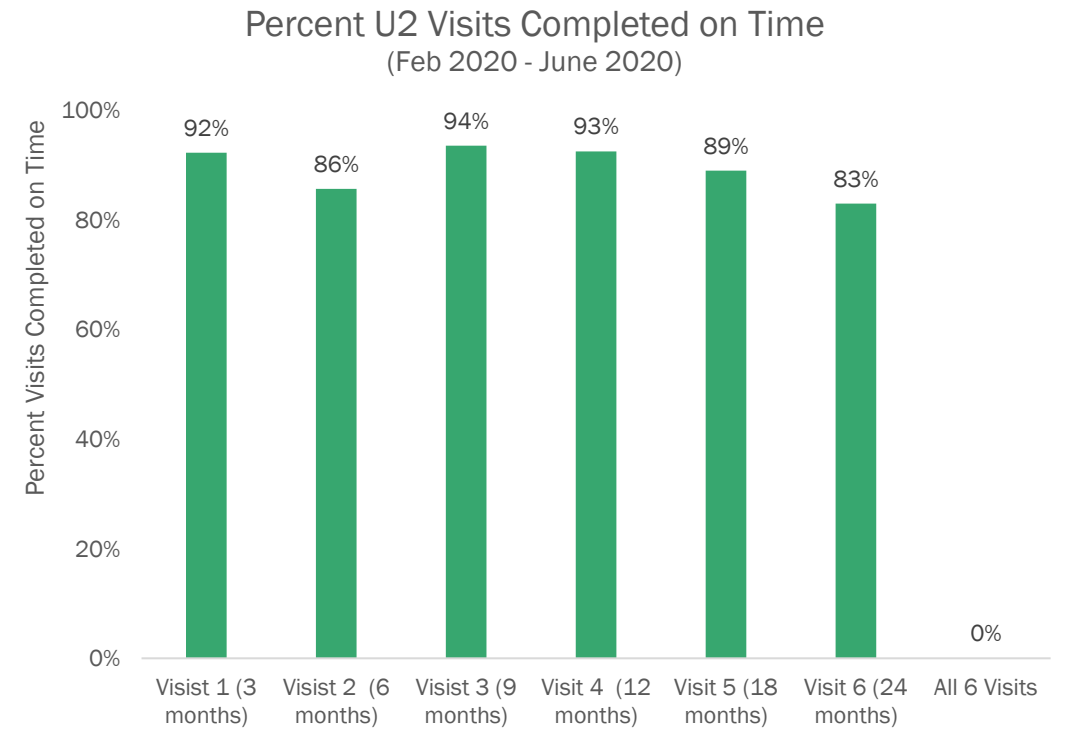
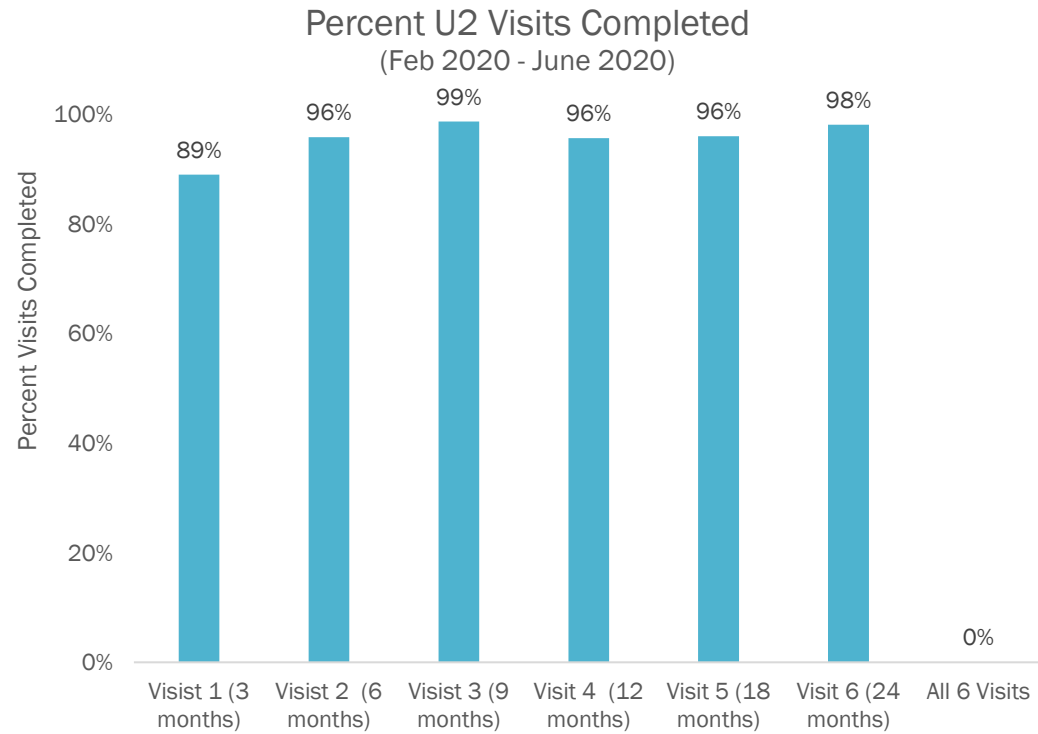




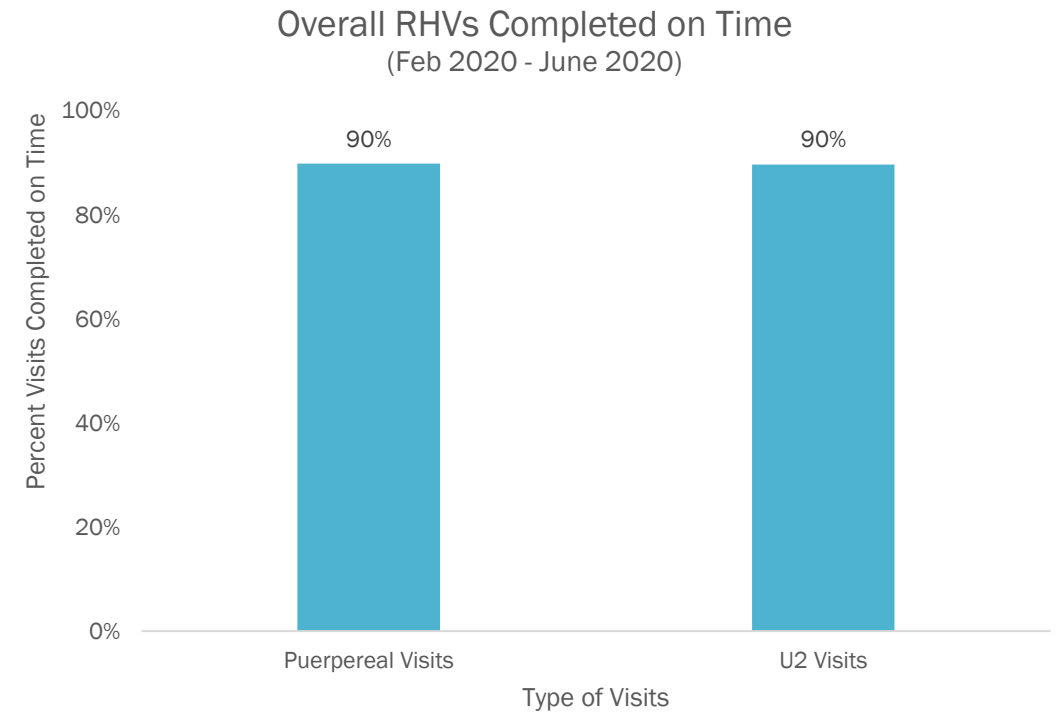
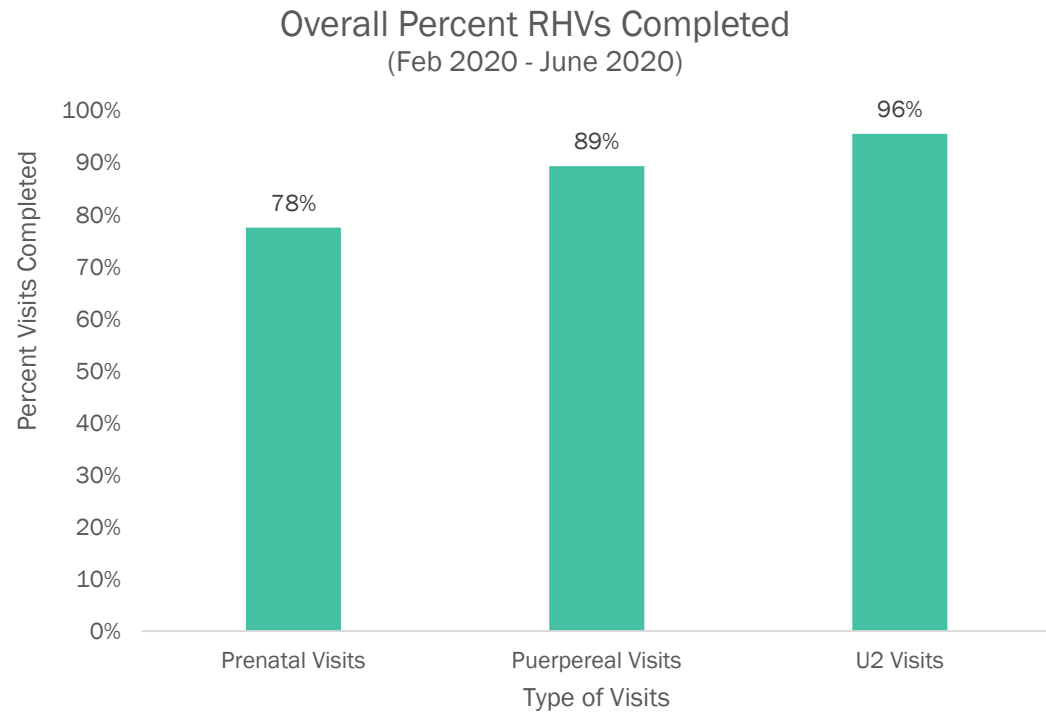
# PUERPERAL VISITS



# U2 VISITS

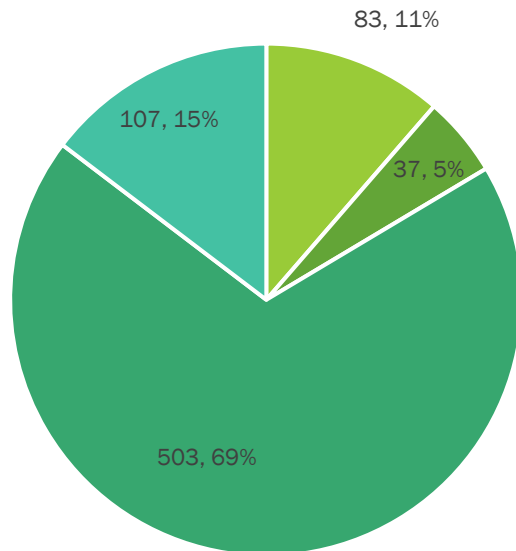


# RHV SUMMARY (1/2)



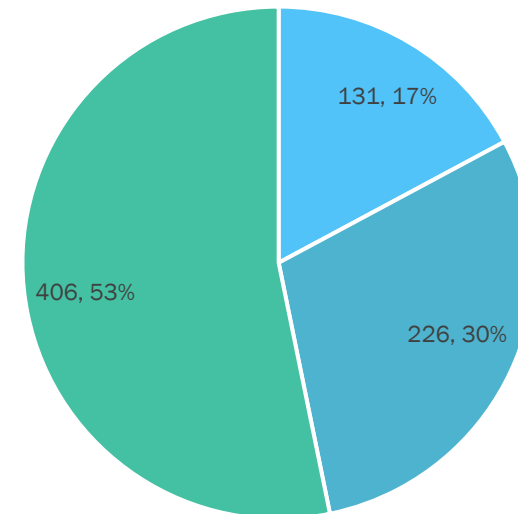
# RHV SUMMARY (2/2)

Participants per Category  
(June 14, 2020)  
Total participants = 730



■ Pregnant women ■ Puerperal Mothers ■ U2 Mothers ■ Mothers > U2

Types of Visits Completed  
(Feb 2020 - June 2020)  
Total visits = 763



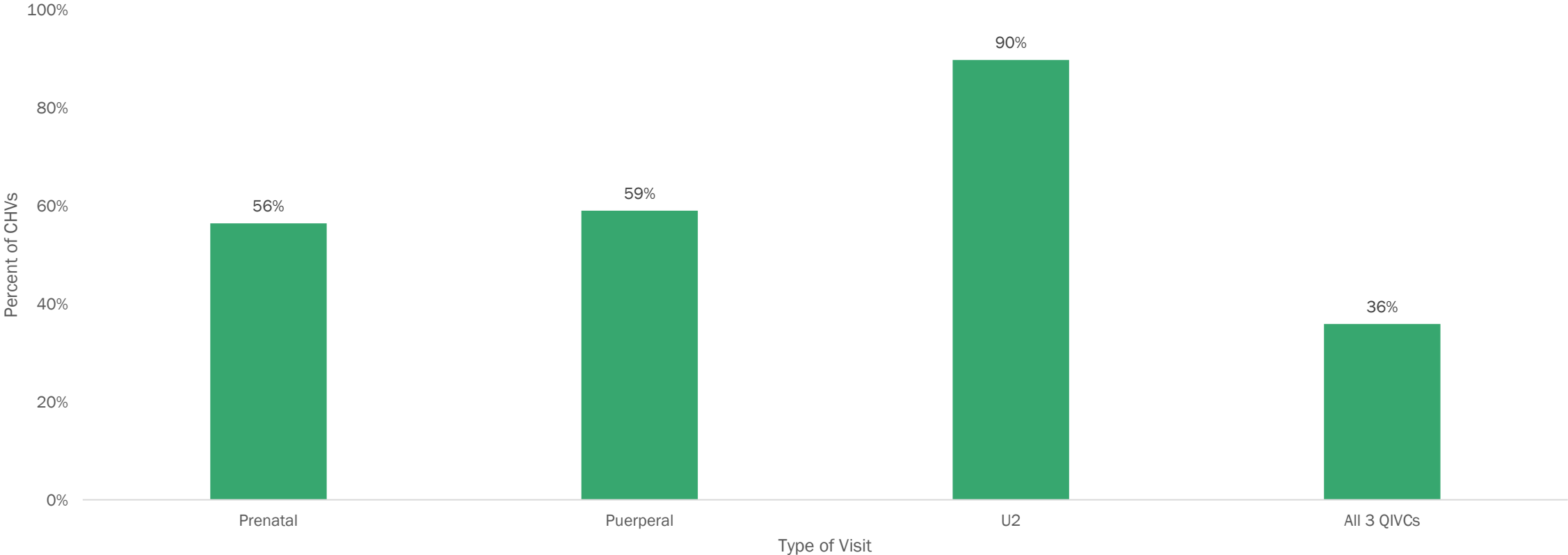
■ Prenatal Visits ■ Puerperal Visits ■ U2 Visits

# CHV EVALUATION AND PERFORMANCE

NYAGOTO

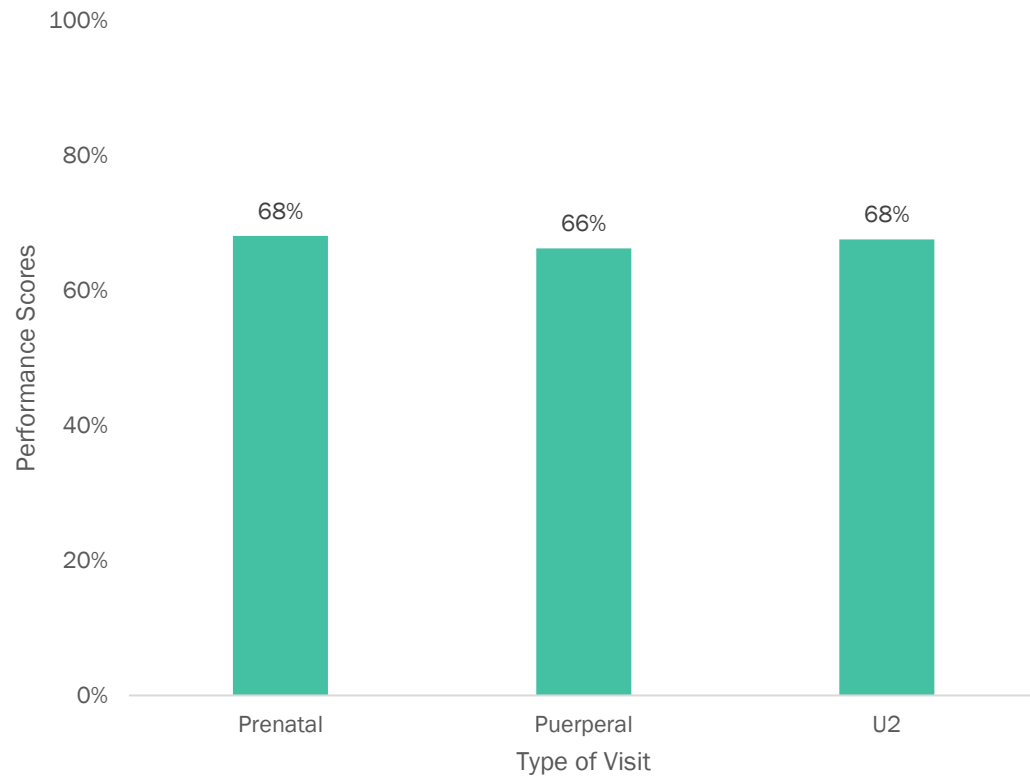
# CHV EVALUATION

Percent of CHVs Evaluated  
(April - June 2020)

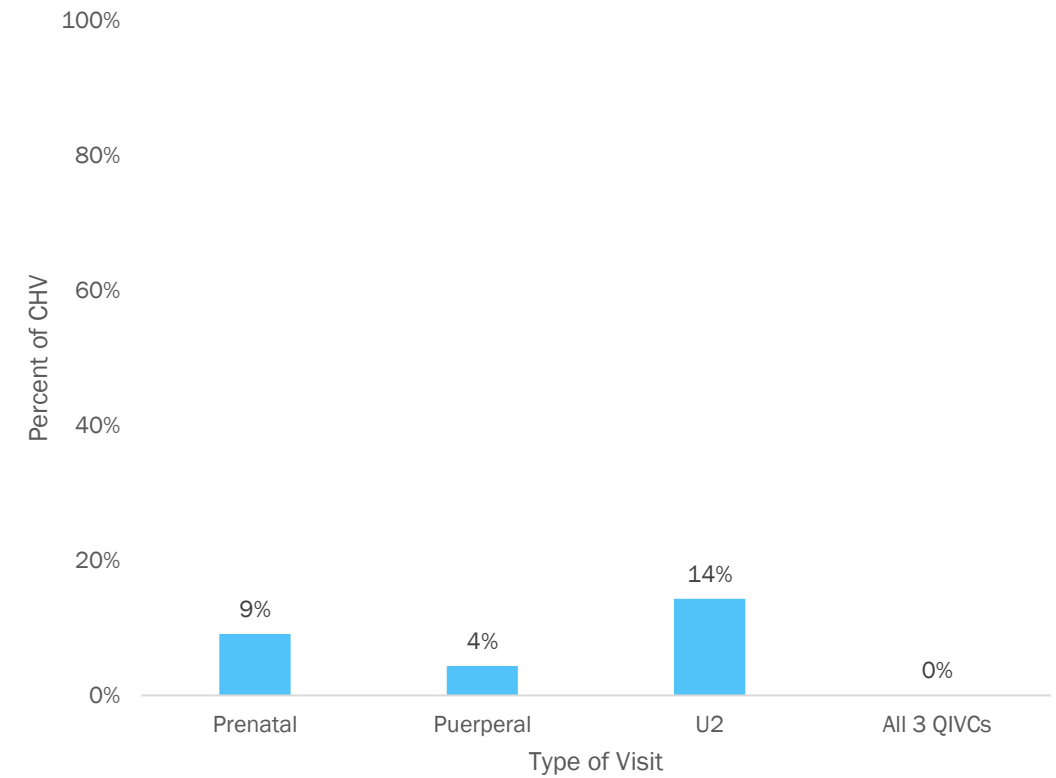


# QIVC PERFORMANCE

Average QIVC Performance Scores  
(April - June 2020)

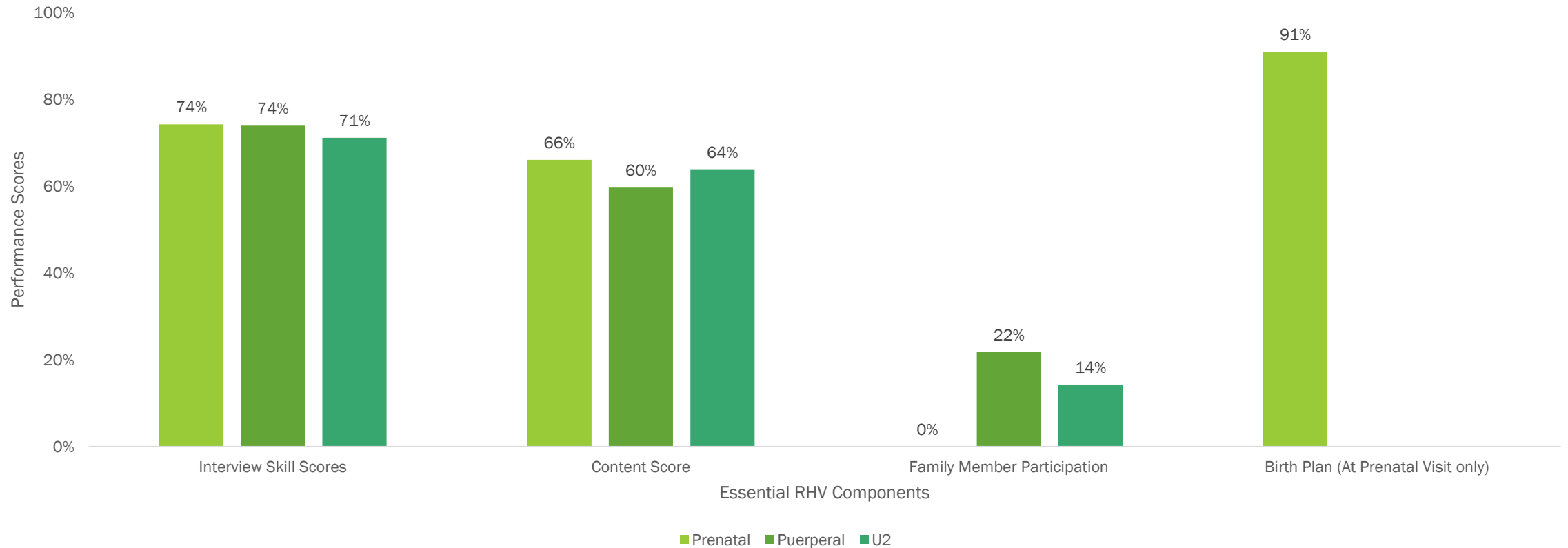


Percent of CHVs with Performance Score  $\geq$  80%  
(April - June 2020)



# ESSENTIAL COMPONENTS

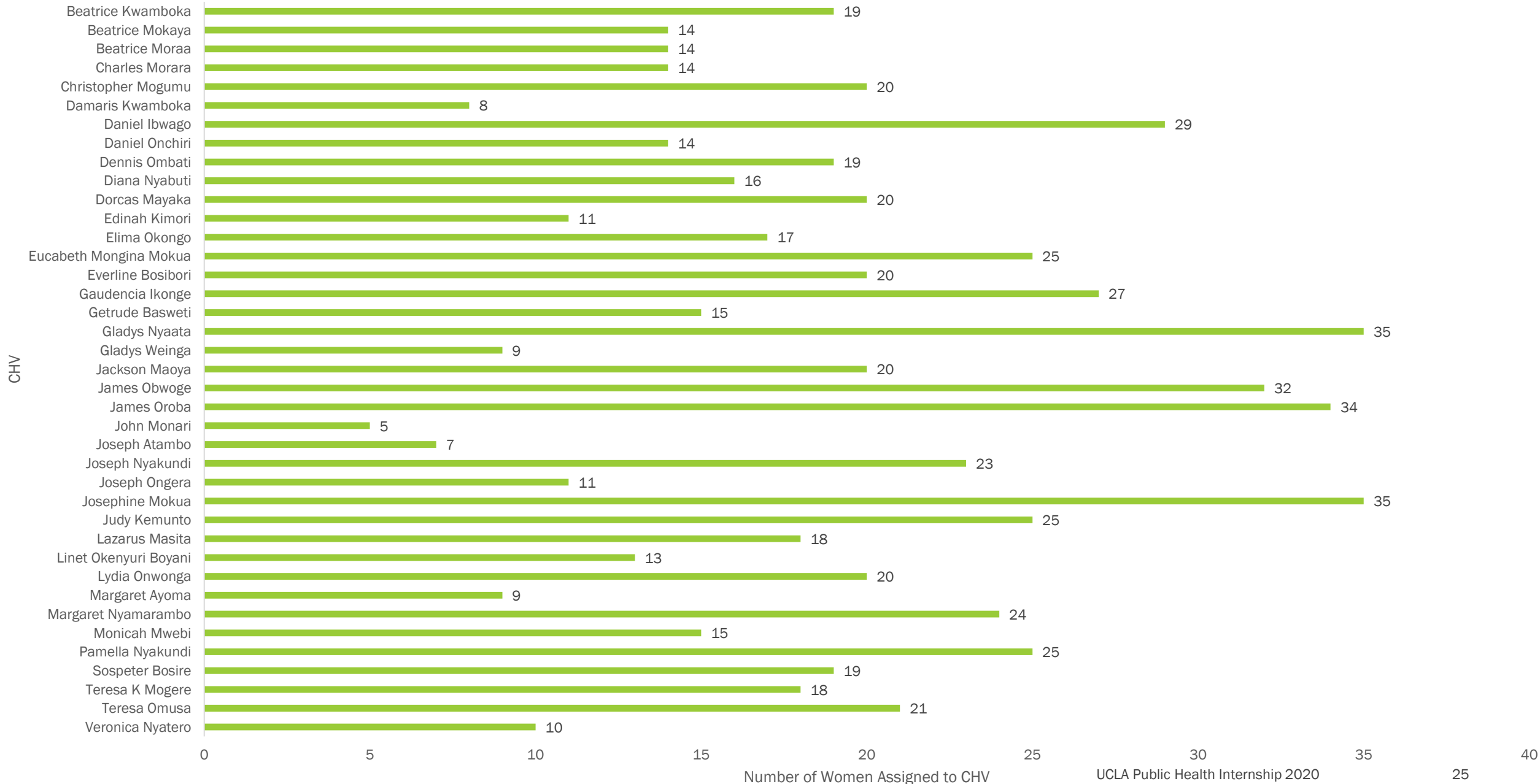
Average Performance on QIVC Components  
(April - June 2020)





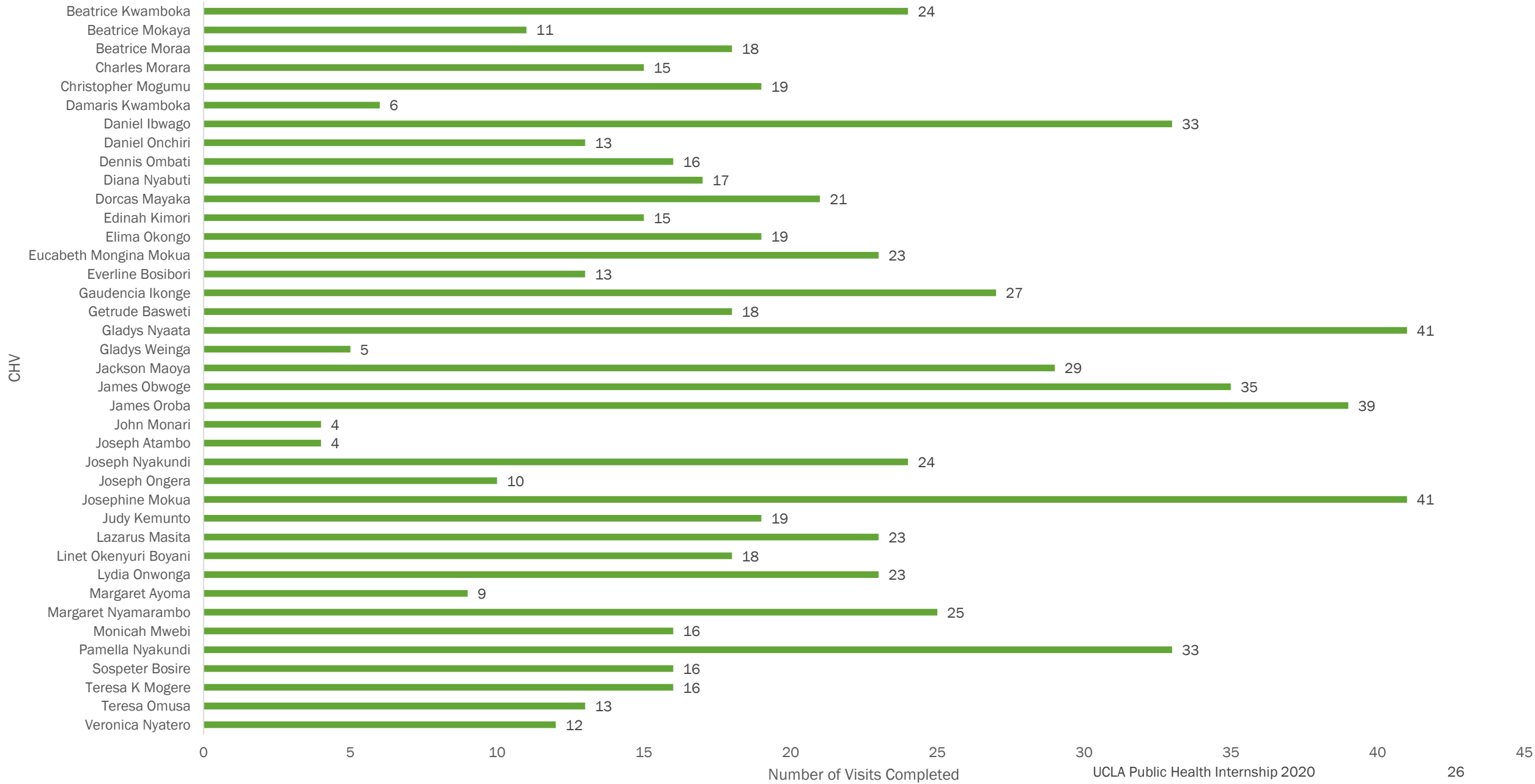
# Number of Women Assigned per CHV

(April - June 2020, Total women = 730, Number of CHVs = 39)



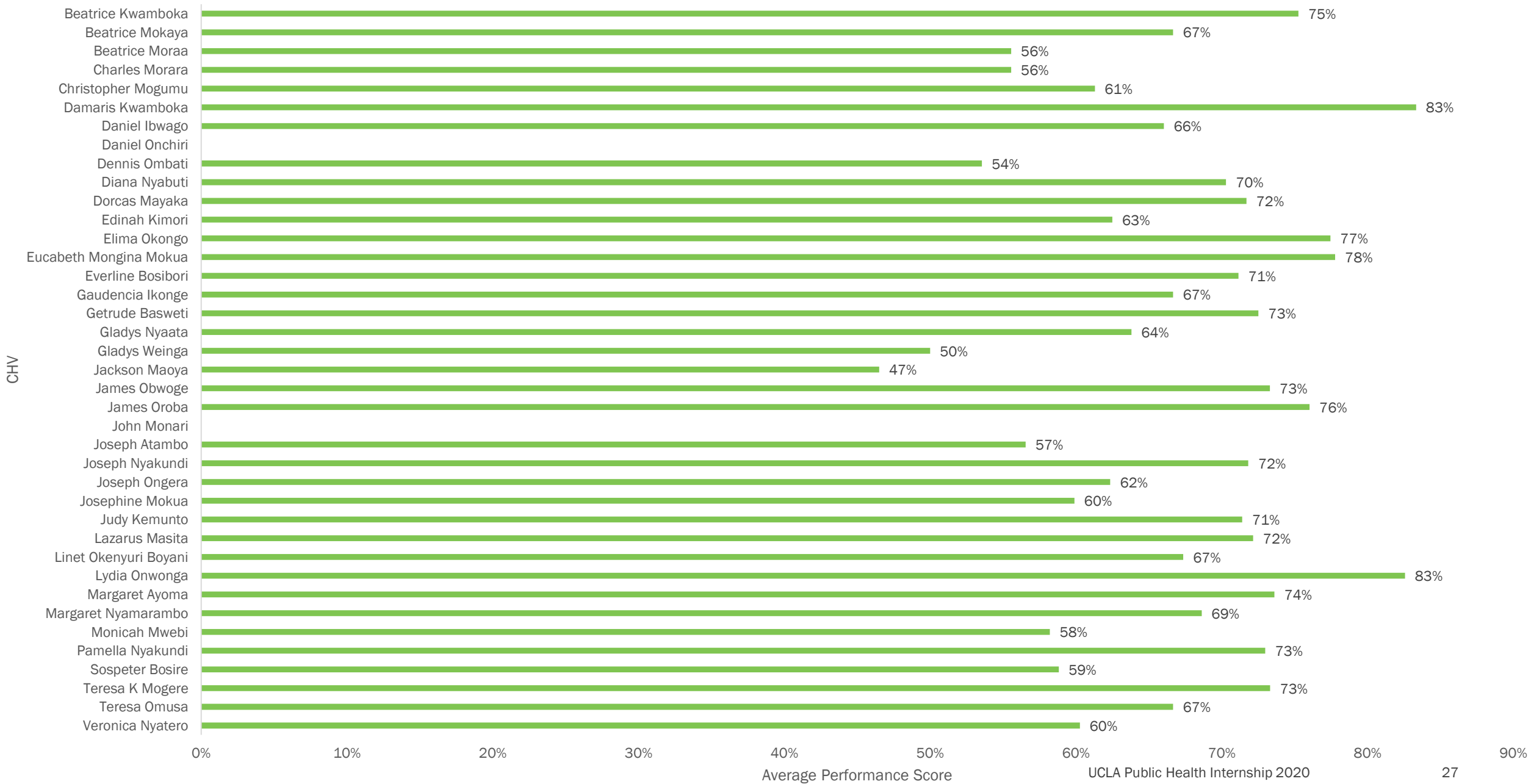
# Number of Visits Completed per CHV

(April - June 2020, Total visits = 763, Number of CHVs = 39)



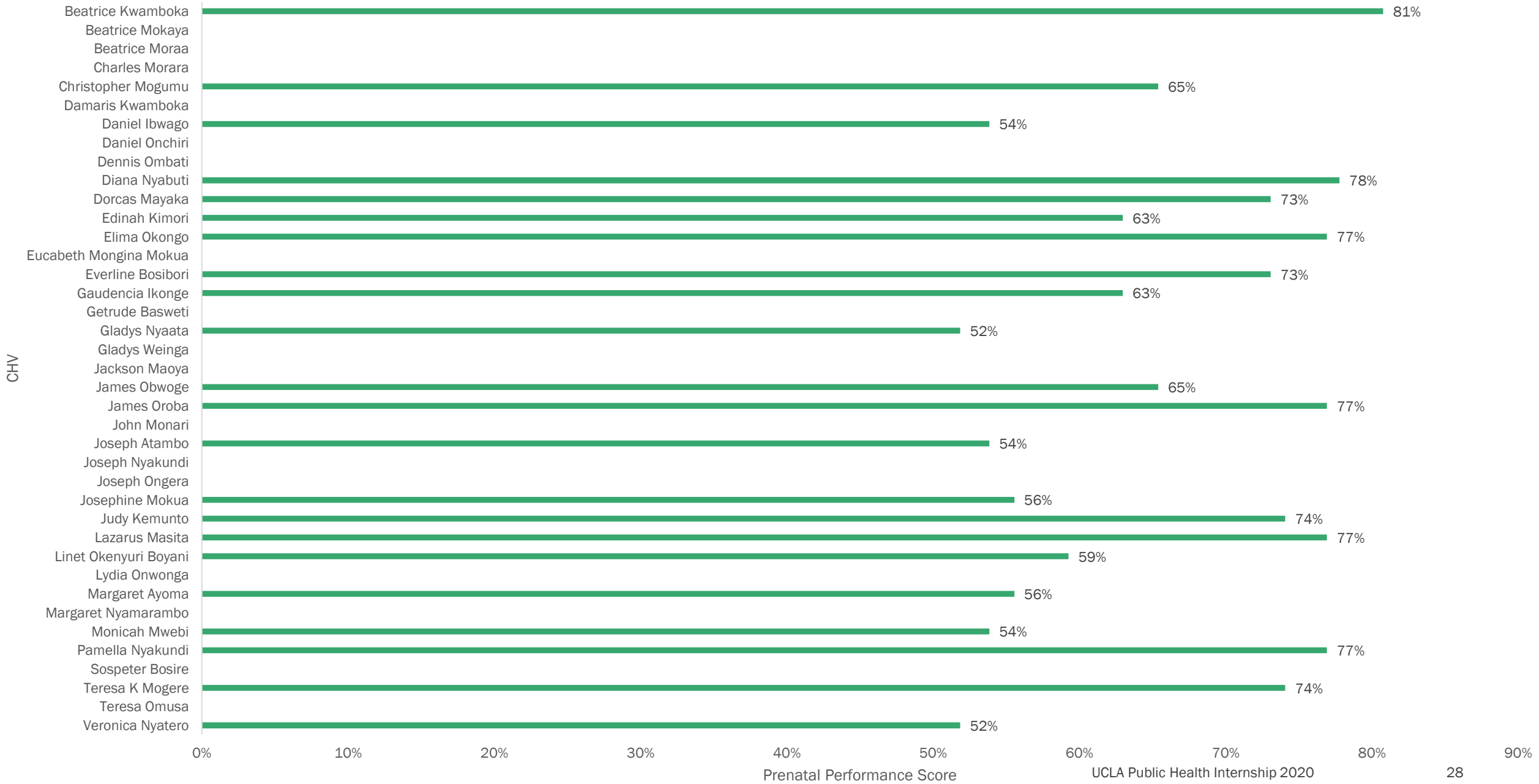
# Average Performance Scores per CHV

(April - June 2020, Number of CHVs = 39)



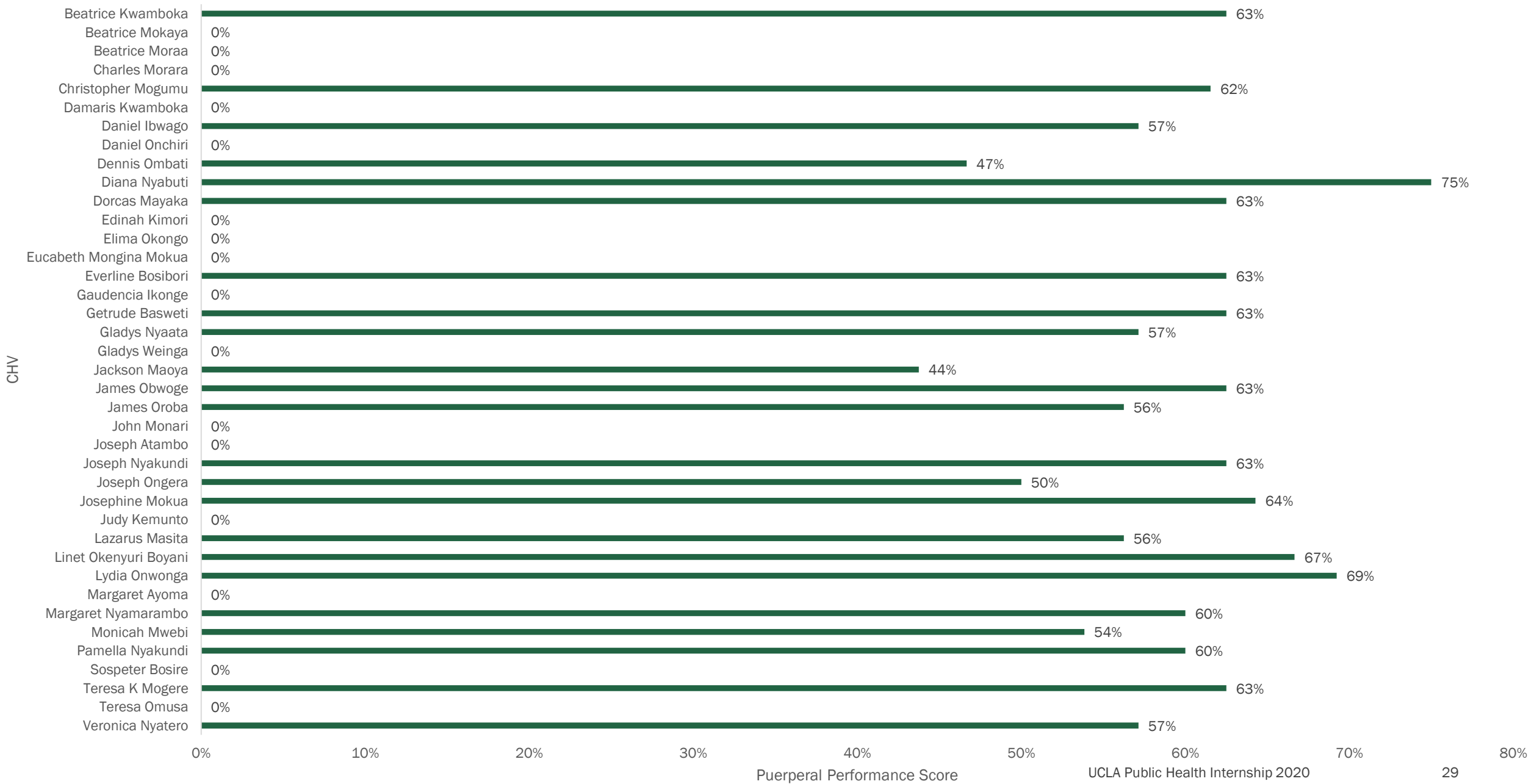
# Prenatal Content Performance on QIVC per CHV

(April - June 2020, Number of CHVs = 39)



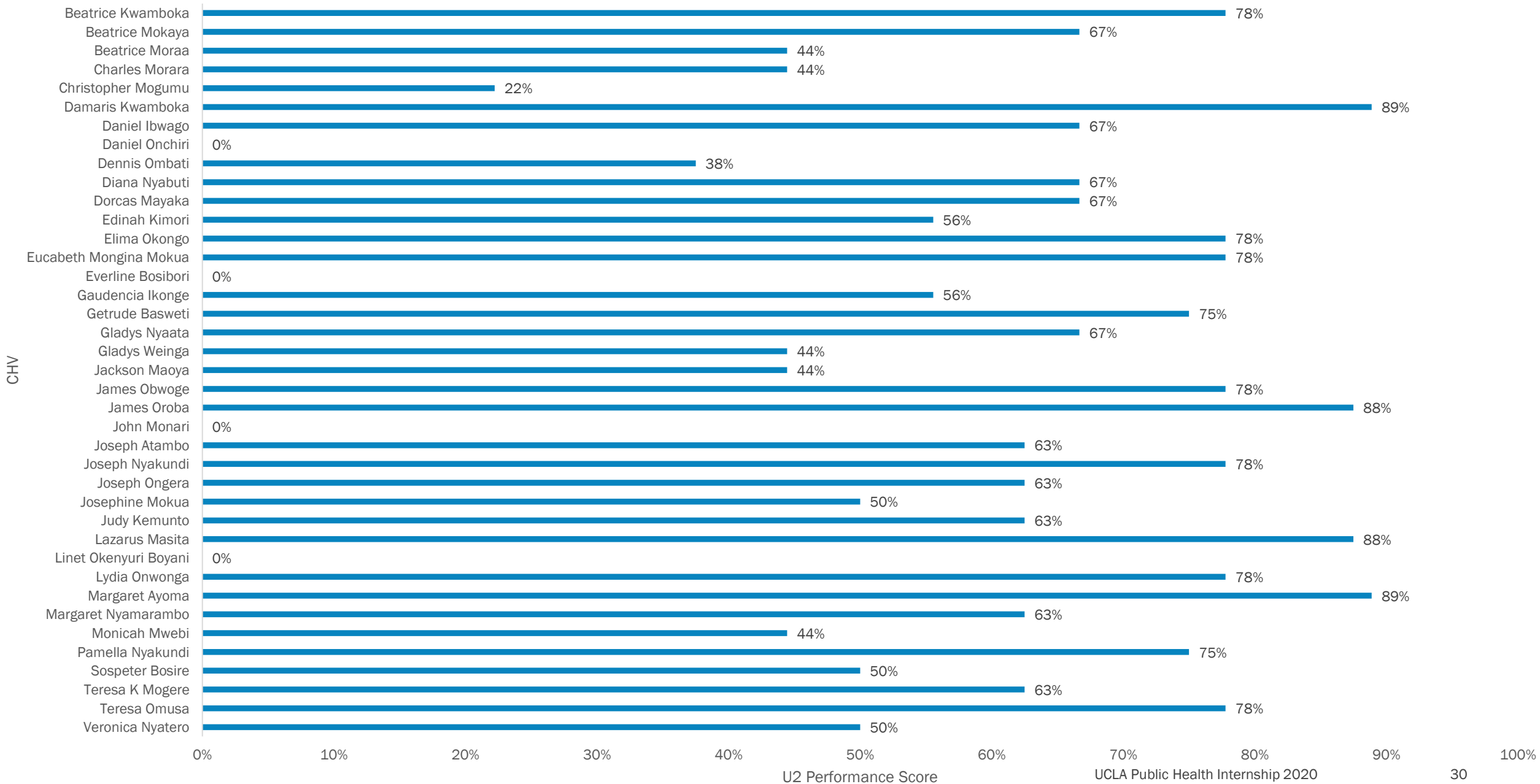
# Puerperal Content Performance on QIVC per CHV

(April - June 2020, Number of CHVs = 39)



# U2 Content Performance on QIVC per CHV

(April - June 2020, Number of CHVs = 39)

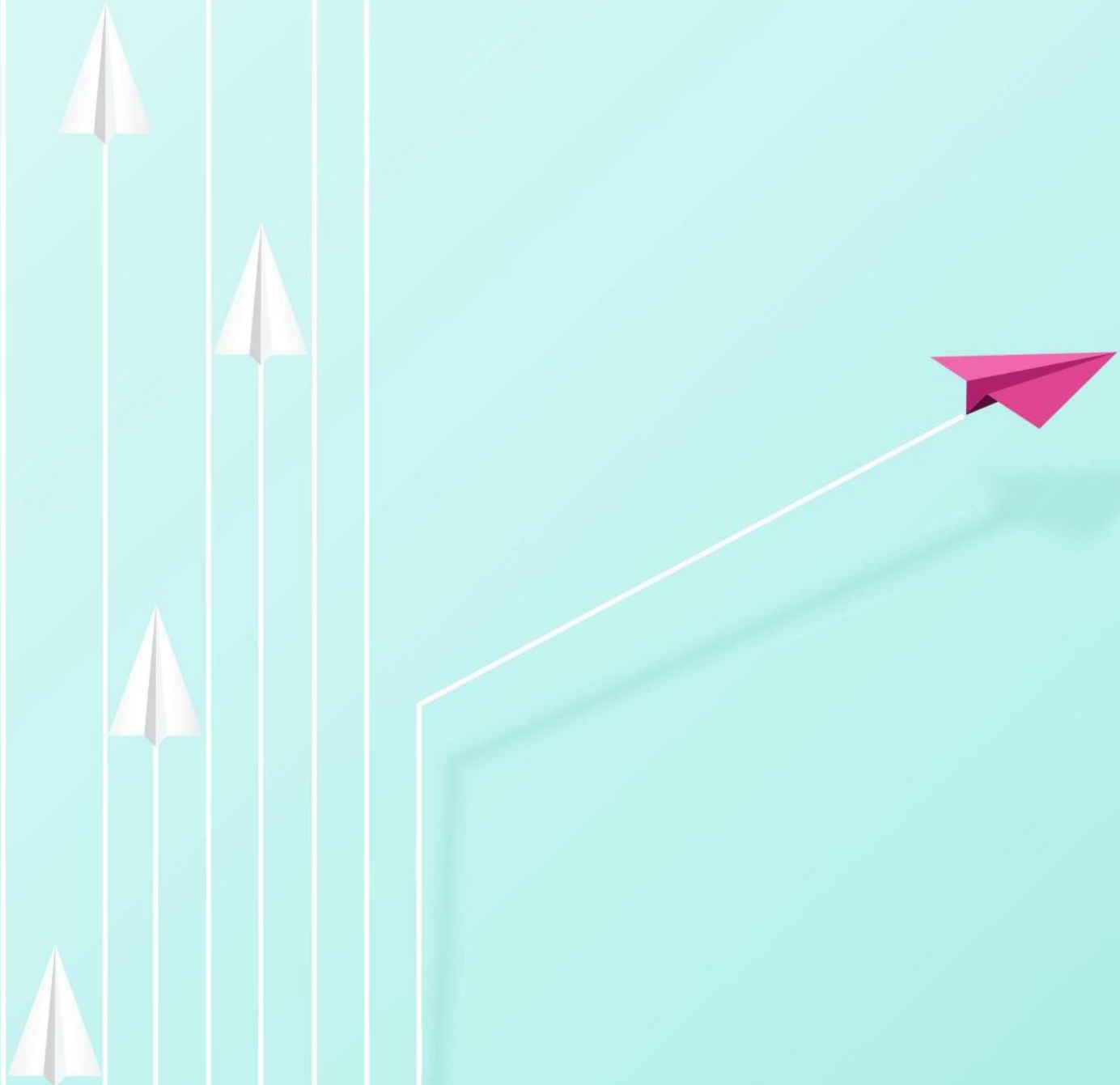


# QUANTITATIVE RESULTS

IRANDA

# ROUTINE HOME VISITS

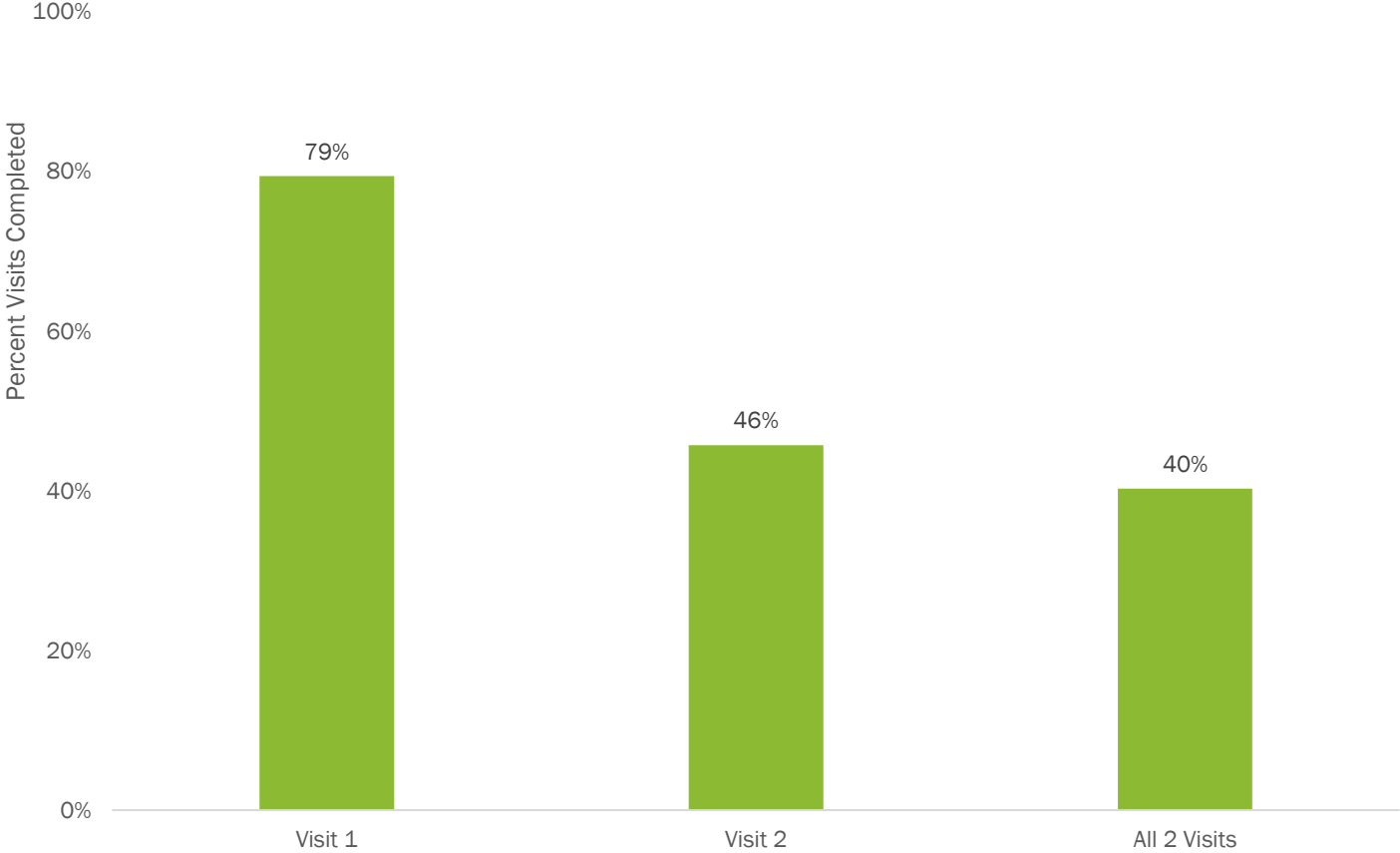
IRANDA





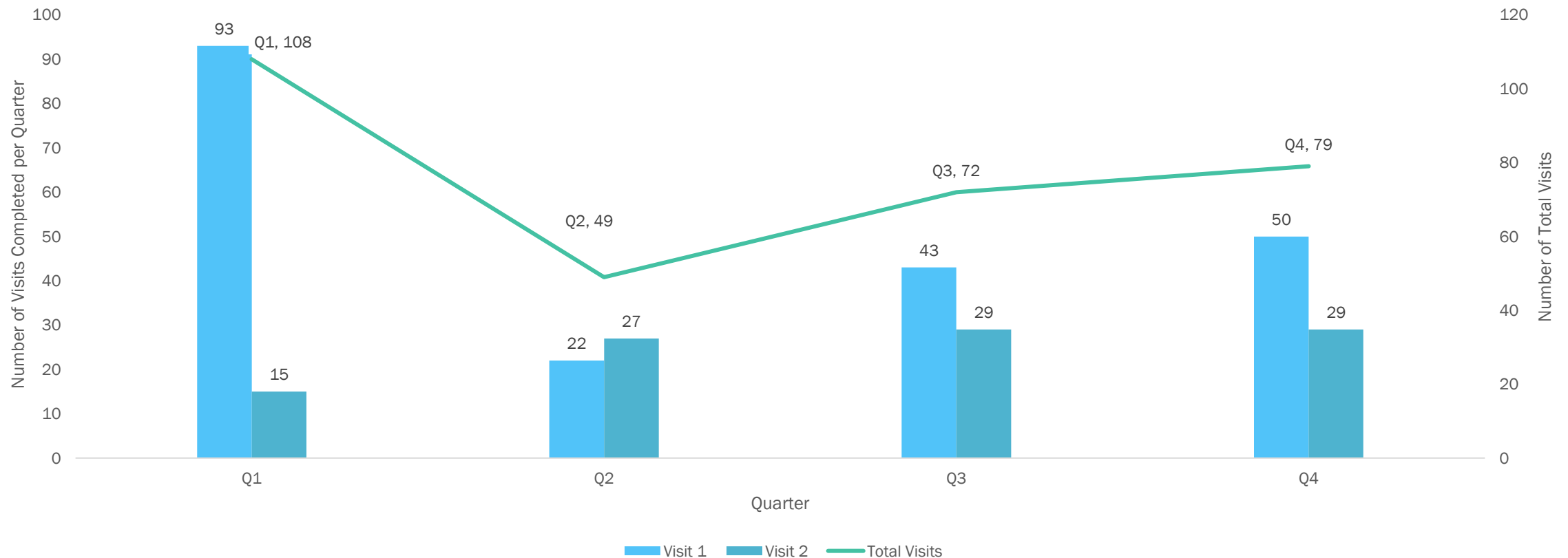
# PRENATAL VISITS

Percent Prenatal Visits Completed  
(July 2019 - July 2020)



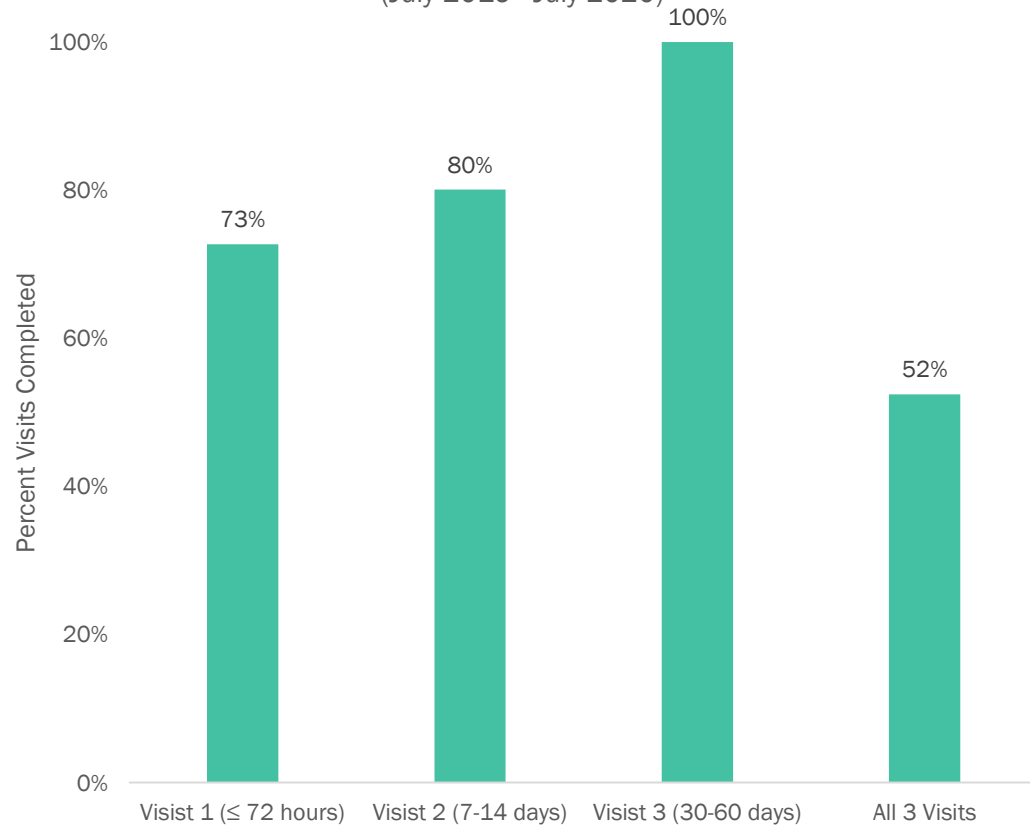
# PRENATAL VISITS: QUARTERLY

Number of Prenatal Visit Completed per Quarter  
(July 2019 - June 2020)

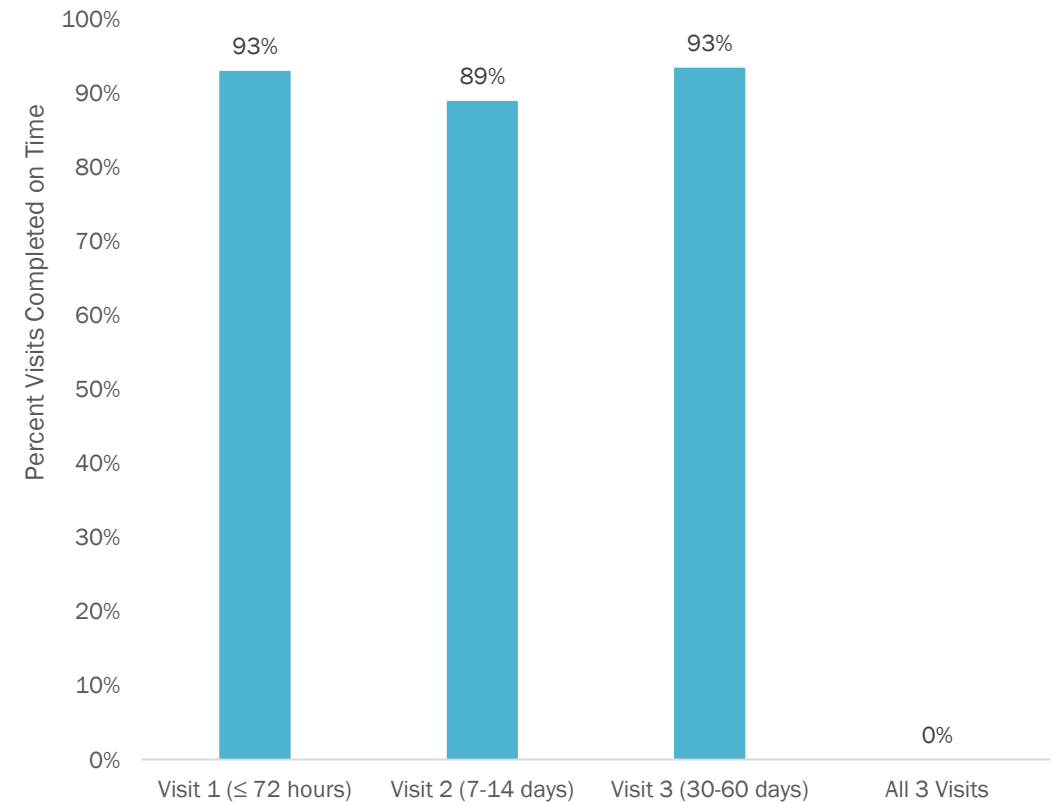


# PUERPERAL VISITS

Percent Puerperal Visits Completed  
(July 2019 - July 2020)

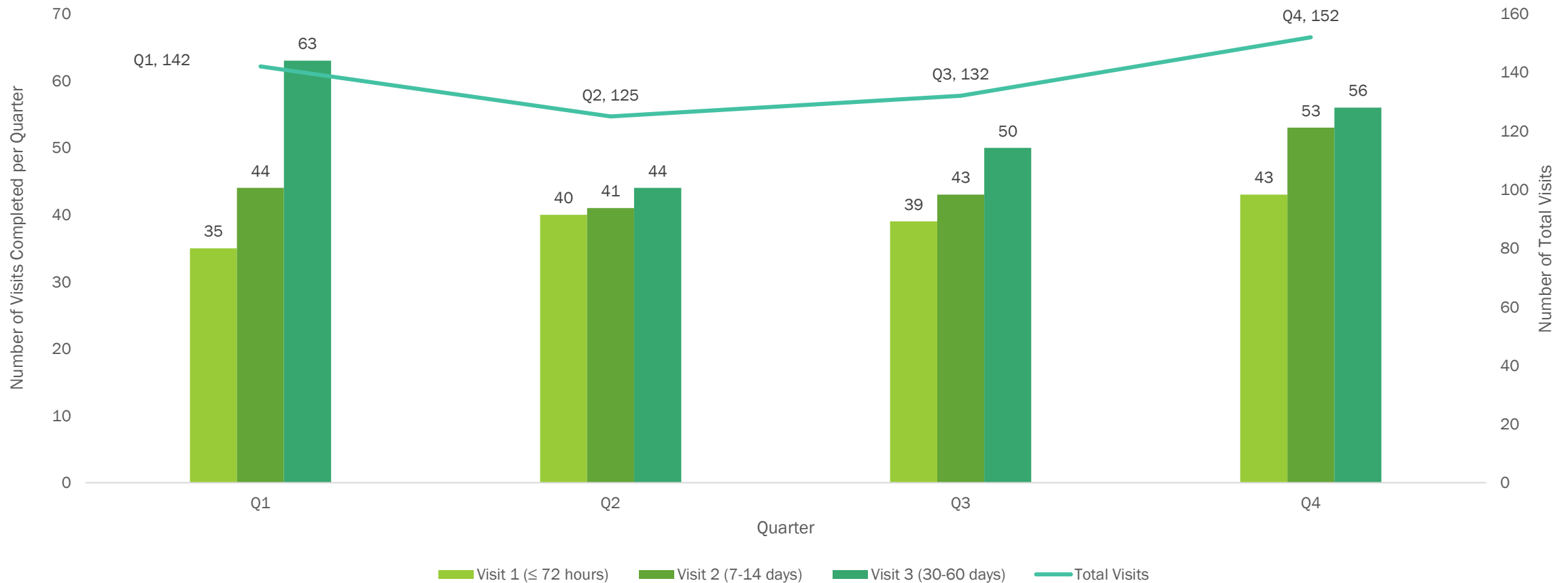


Percent Puerperal Visits Completed on Time  
(July 2019 - July 2020)

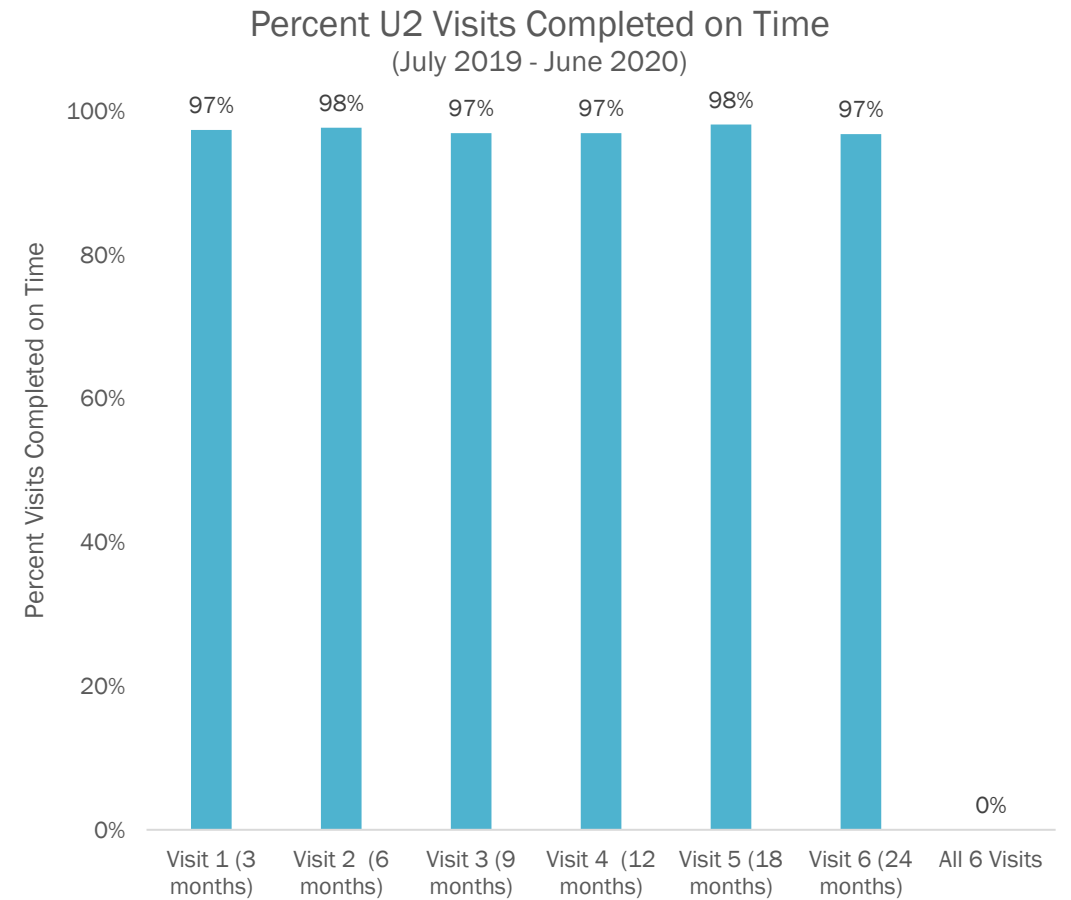
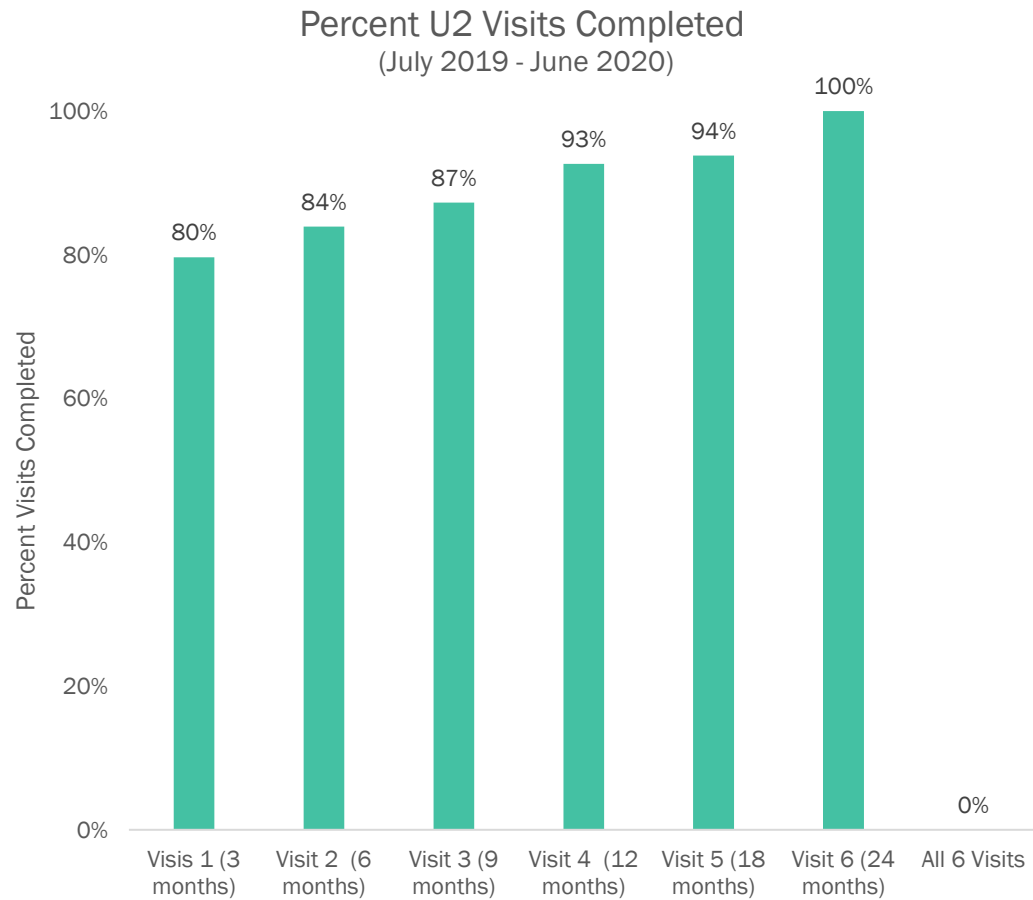


# PUERPERAL VISITS: QUARTERLY

Number of Puerperal Visits per Quarter  
(July 2019 - June 2020)

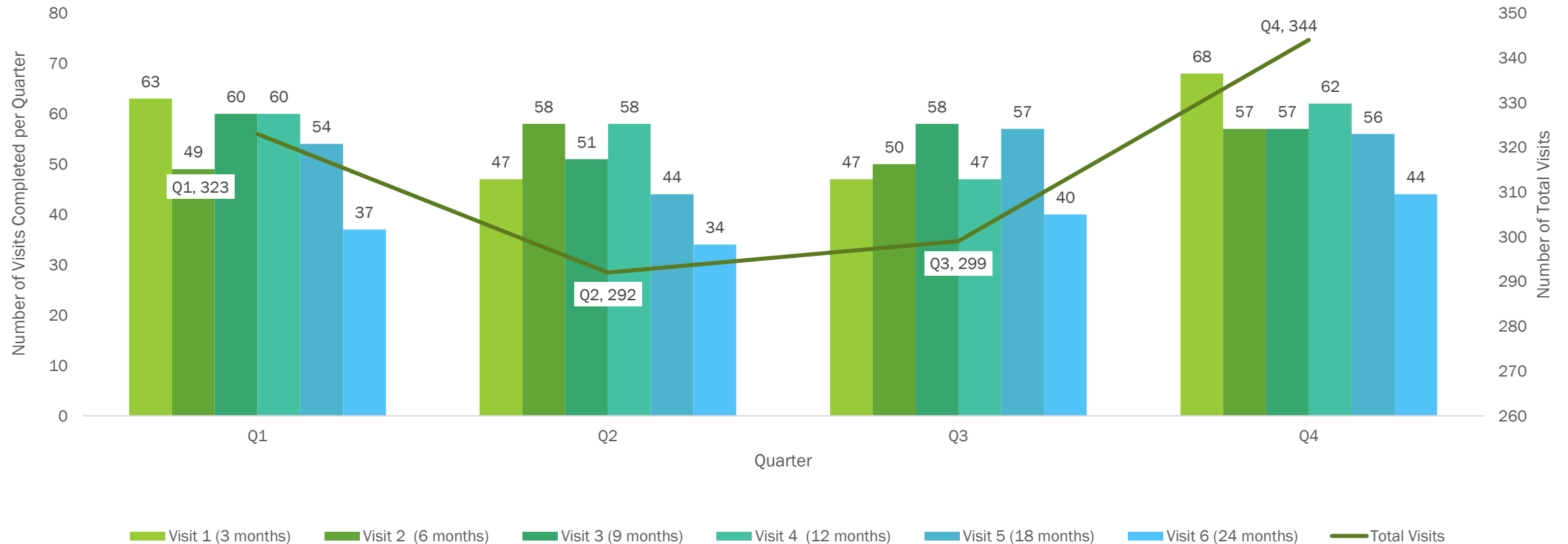


# U2 VISITS



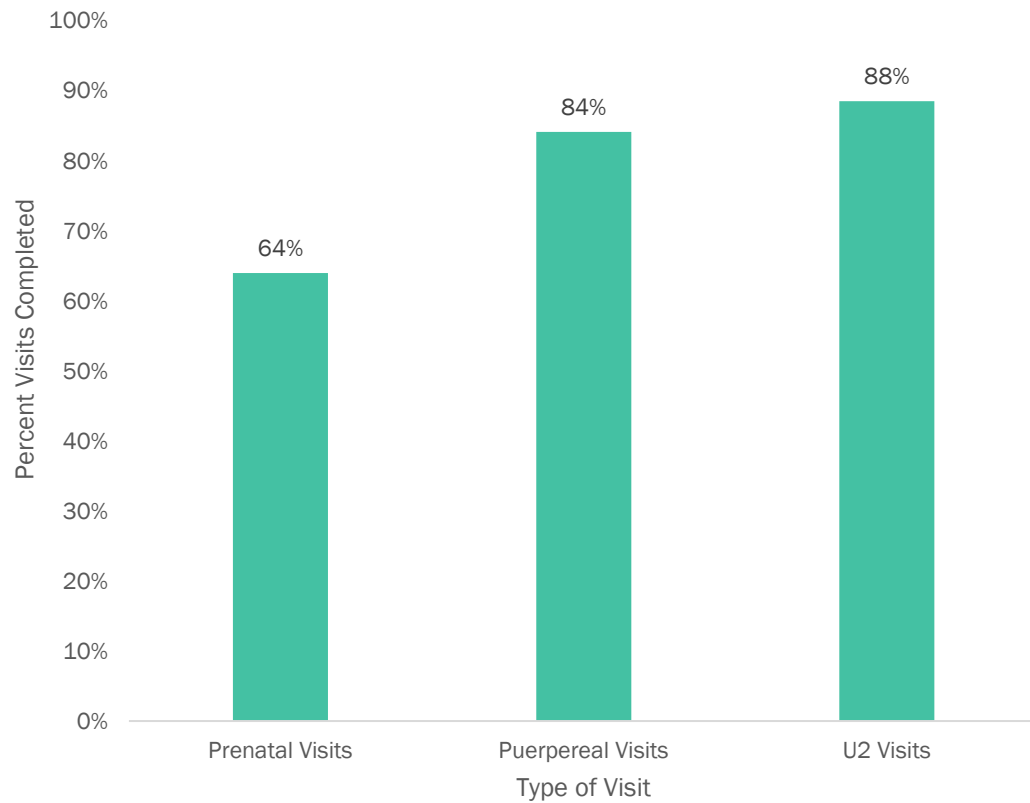
# U2 VISITS: QUARTERLY

Number of U2 Visits per Quarter  
(July 2019 - June 2020)

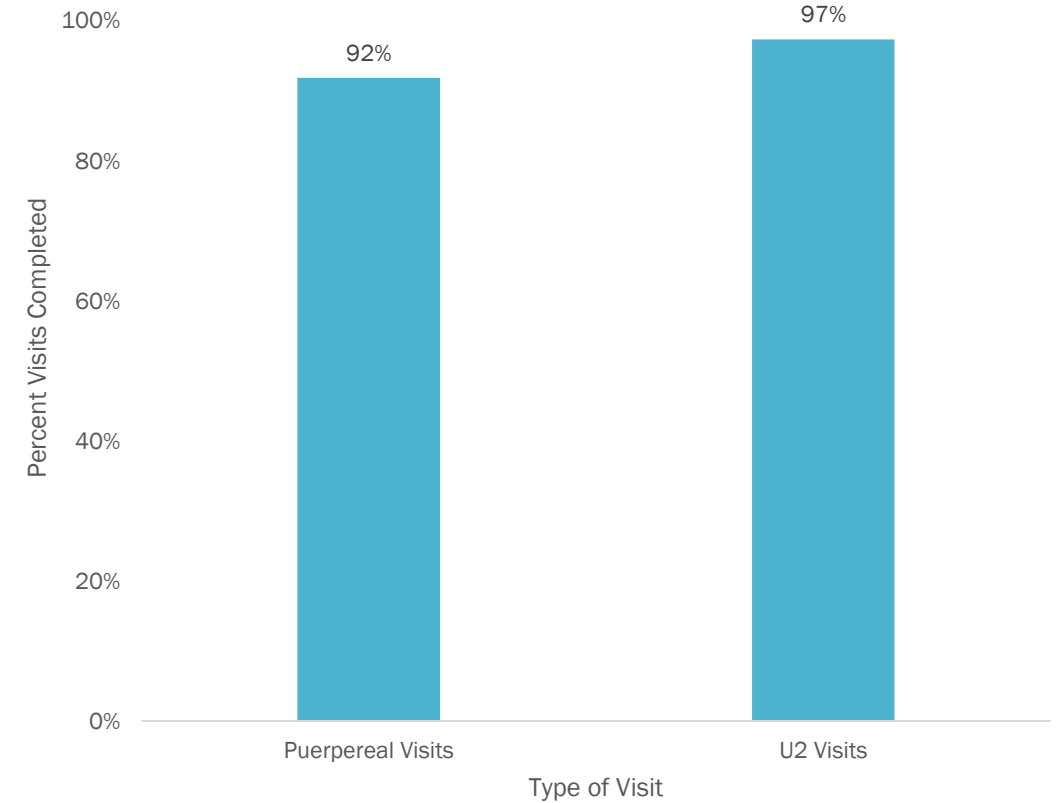


# RHV SUMMARY (1/2)

Overall Percent RHVs Completed  
(July 2019 - June 2020)

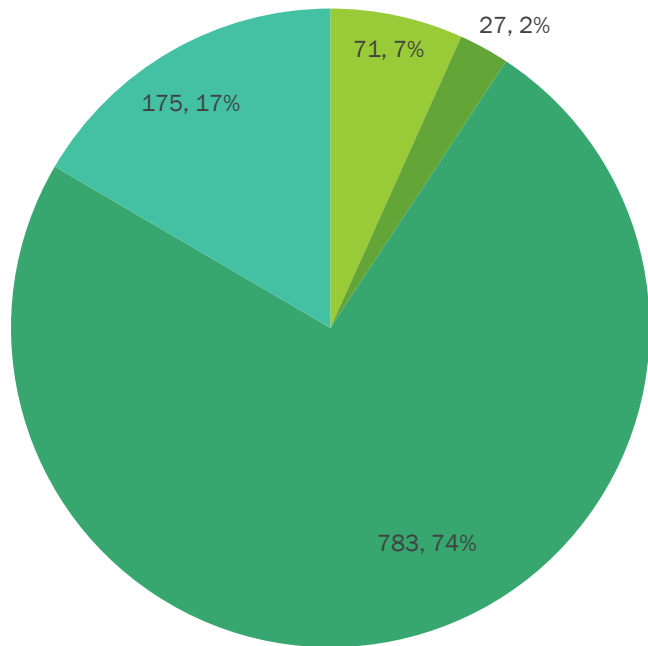


Overall RHVs Completed on Time  
(July 2019 - June 2020)



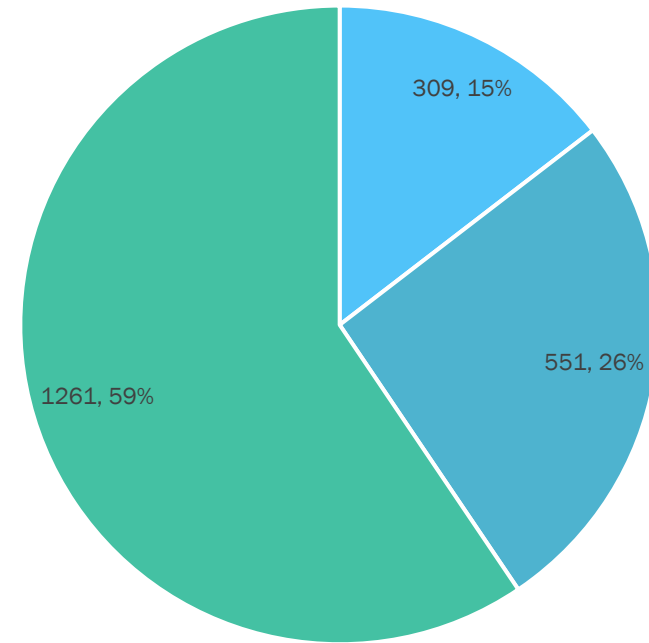
# RHV SUMMARY (2/2)

Participants per Category  
(On June 30, 2020)  
Total women = 1056



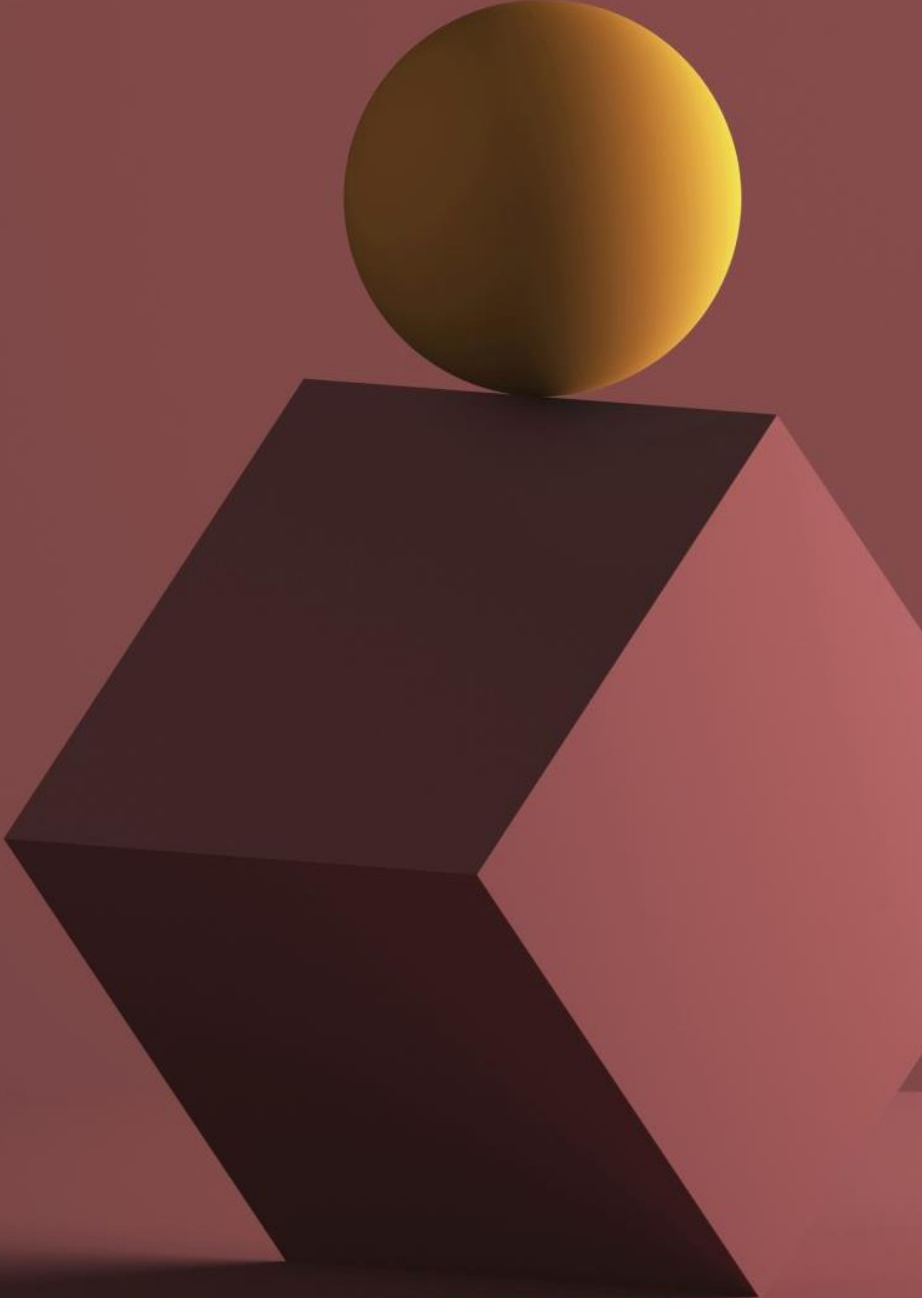
■ Pregnant women ■ Puerperal Mothers ■ U2 Mothers ■ Mothers > U2

Types of Visits Completed  
(July 2019 - June 2020)  
Total Visits = 2121



■ Prenatal Visits ■ Puerperal Visits ■ U2 Visits

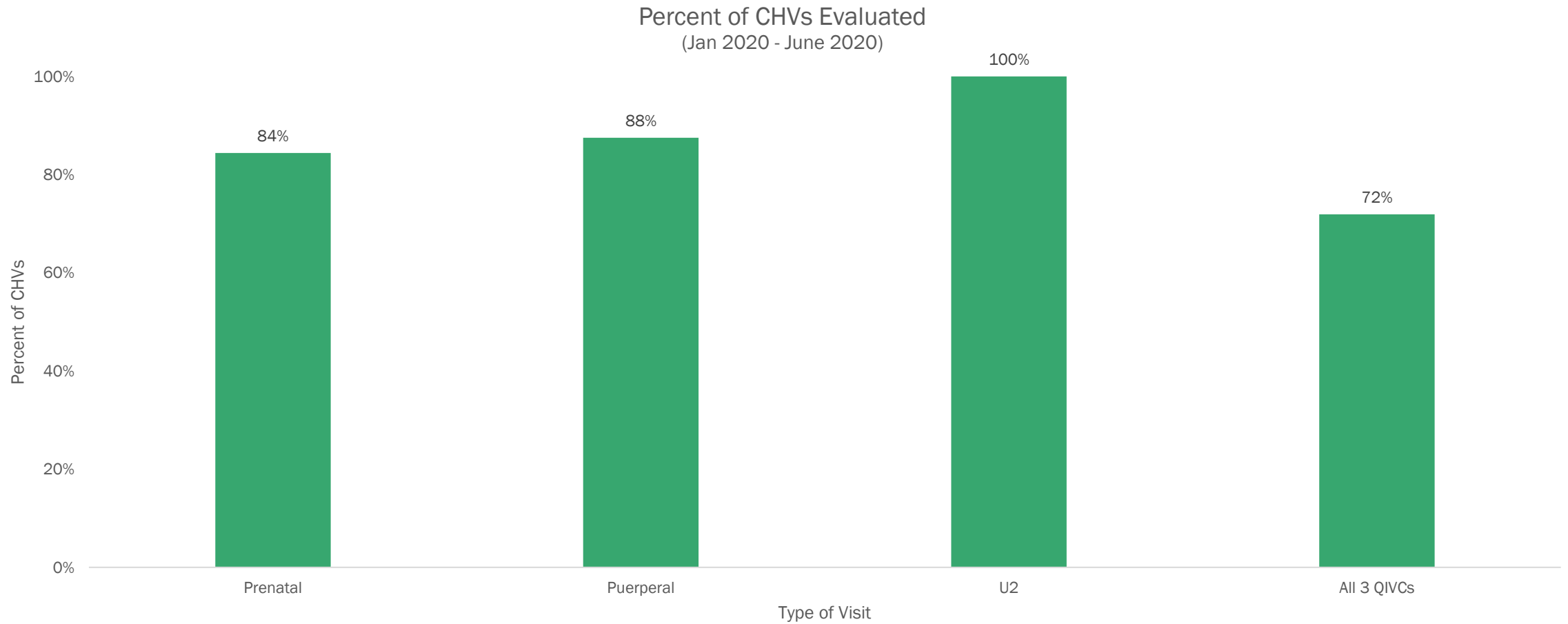




# **CHV EVALUATION AND PERFORMANCE**

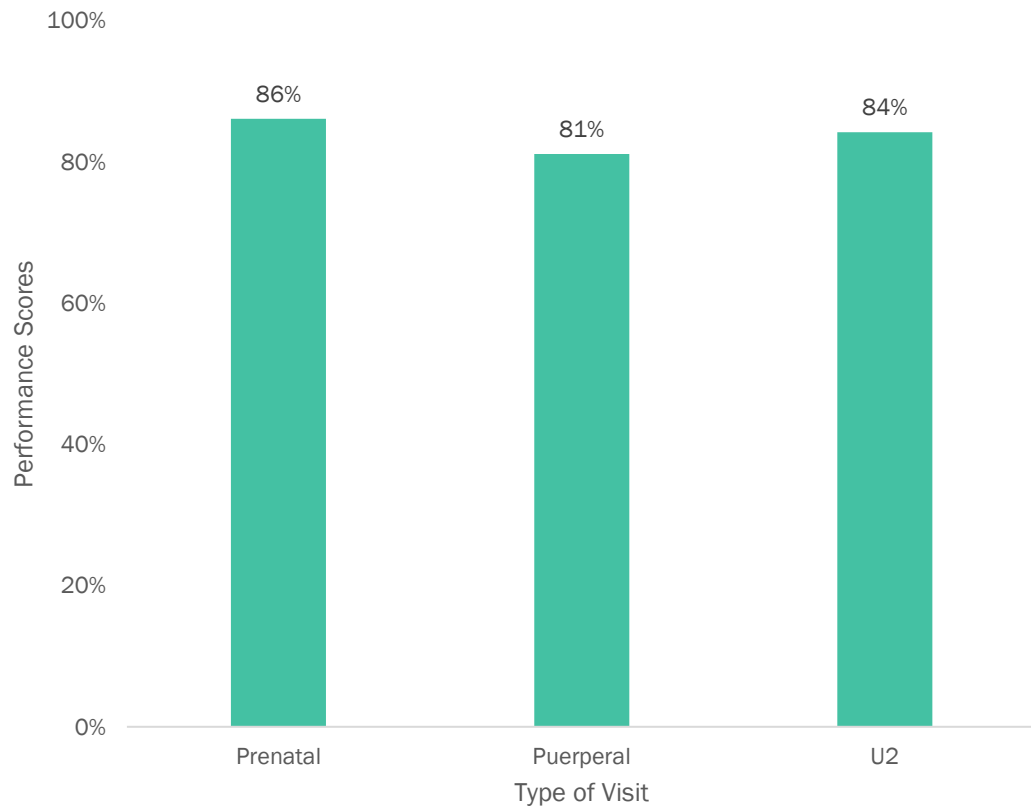
IRANDA

# CHV EVALUATION

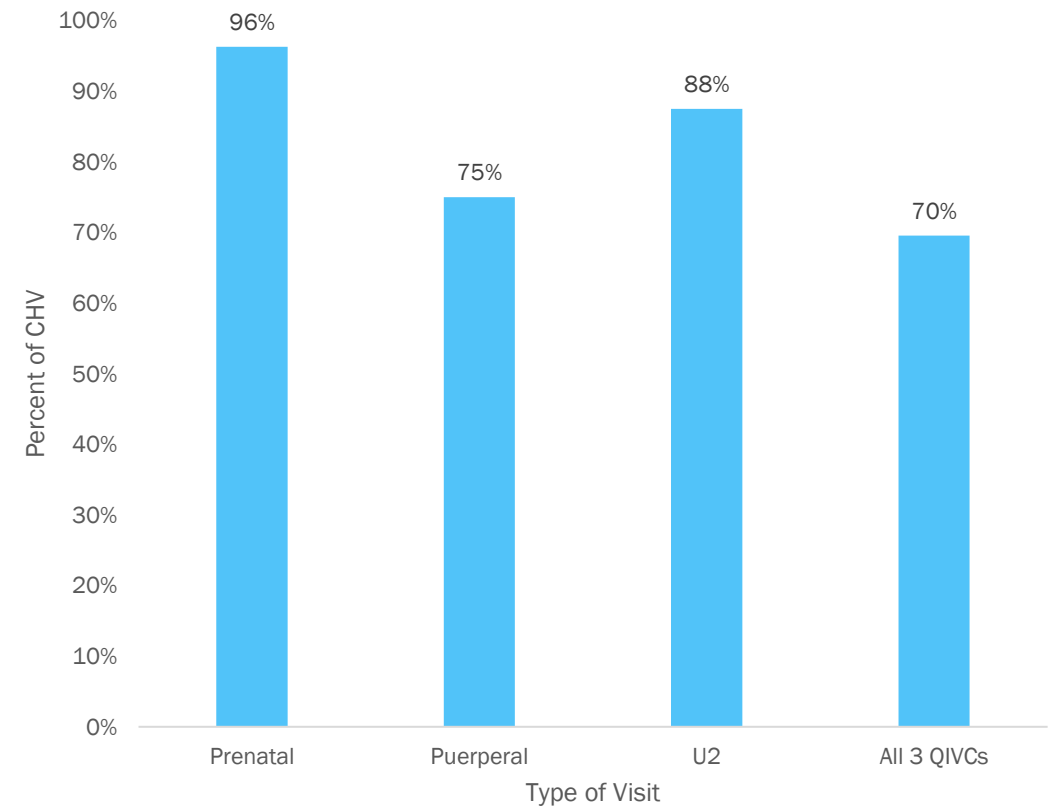


# QIVC PERFORMANCE

Average QIVC Performance Scores  
(Jan 2020 - June 2020)

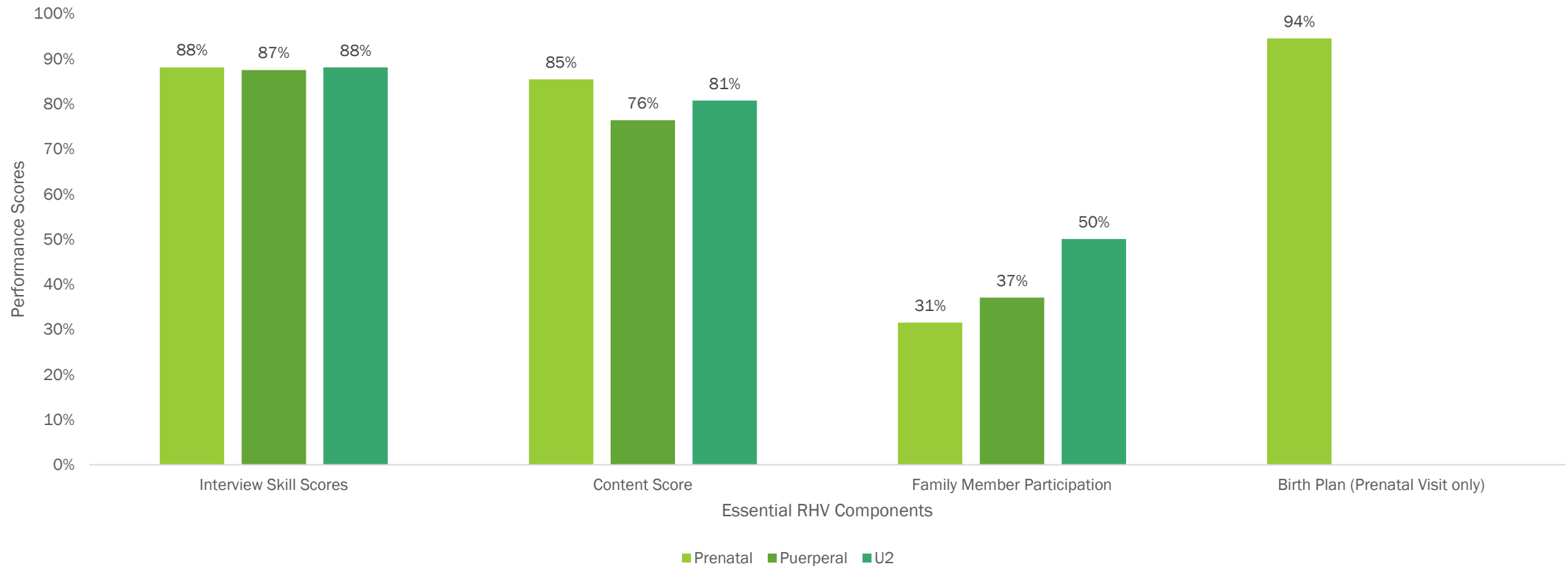


Percent CHVs with Performance Score  $\geq$  80%  
(Jan 2020 - June 2020)



# ESSENTIAL COMPONENTS

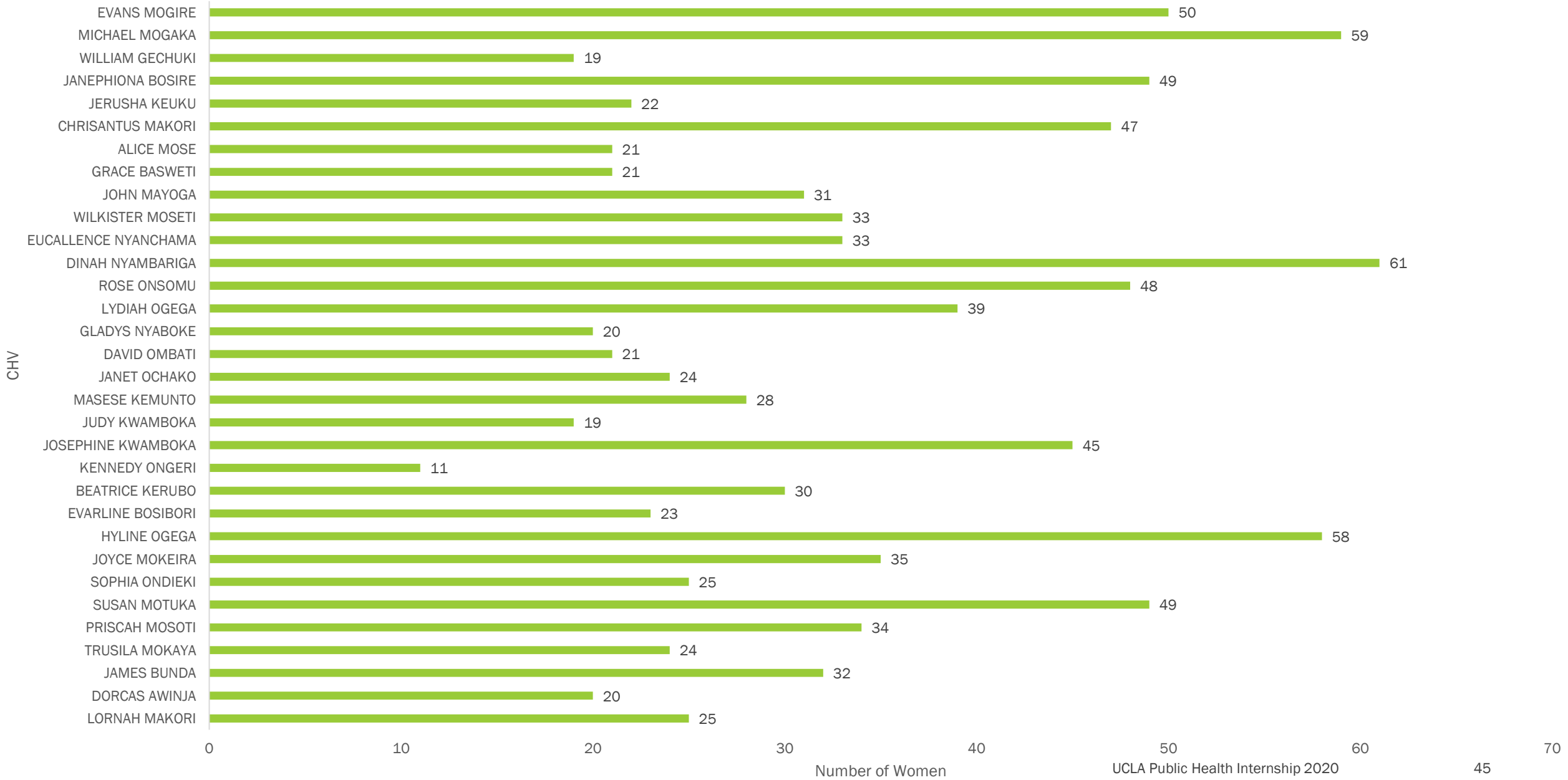
Average Performance on QIVC Components  
(Jan 2020 - June 2020)



# Number of Women Assigned per CHV

(Jan 2020 - June 2020)

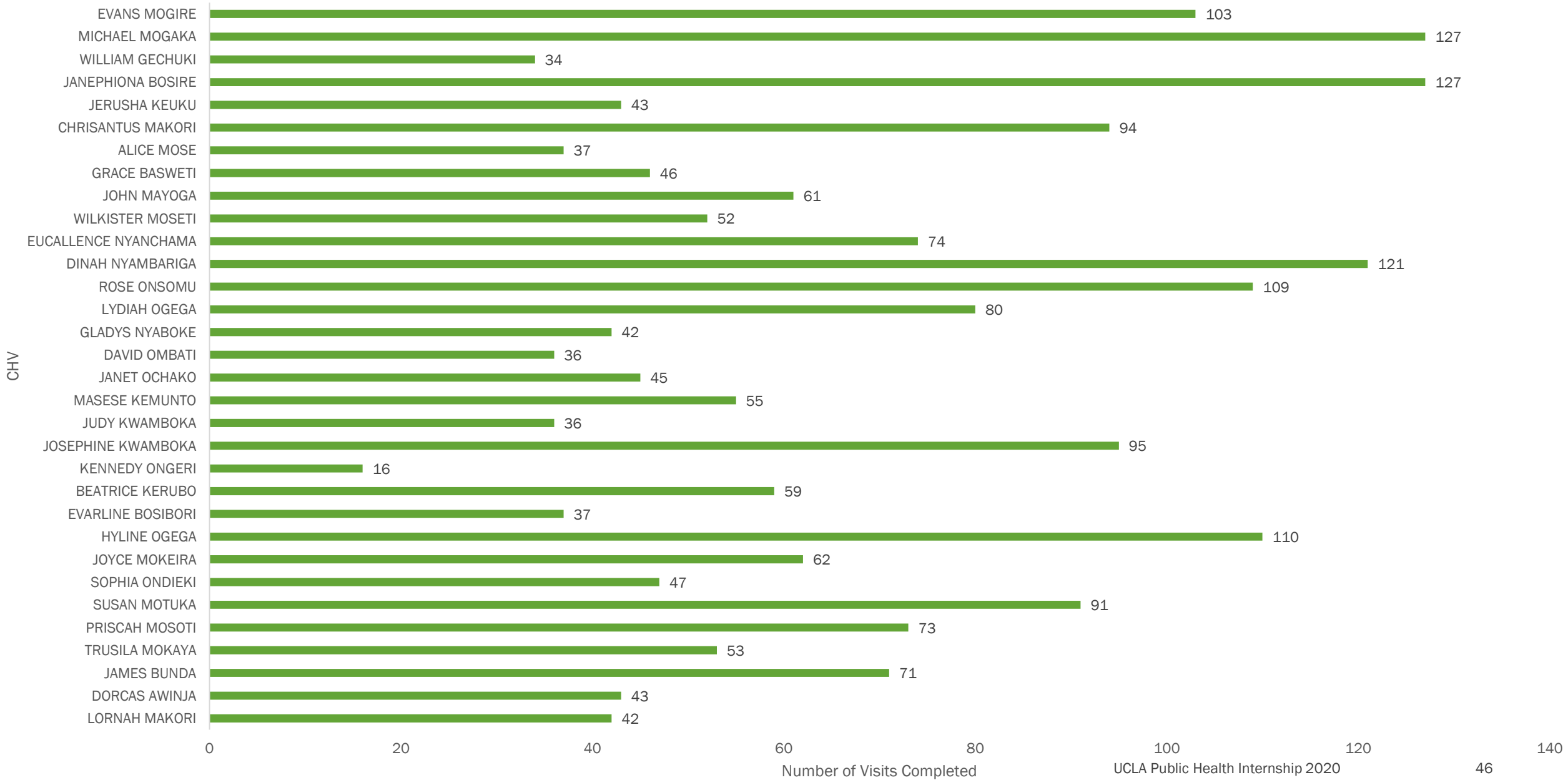
Total Women = 1056, Total CHVs = 32



# Number of Visits Completed per CHV

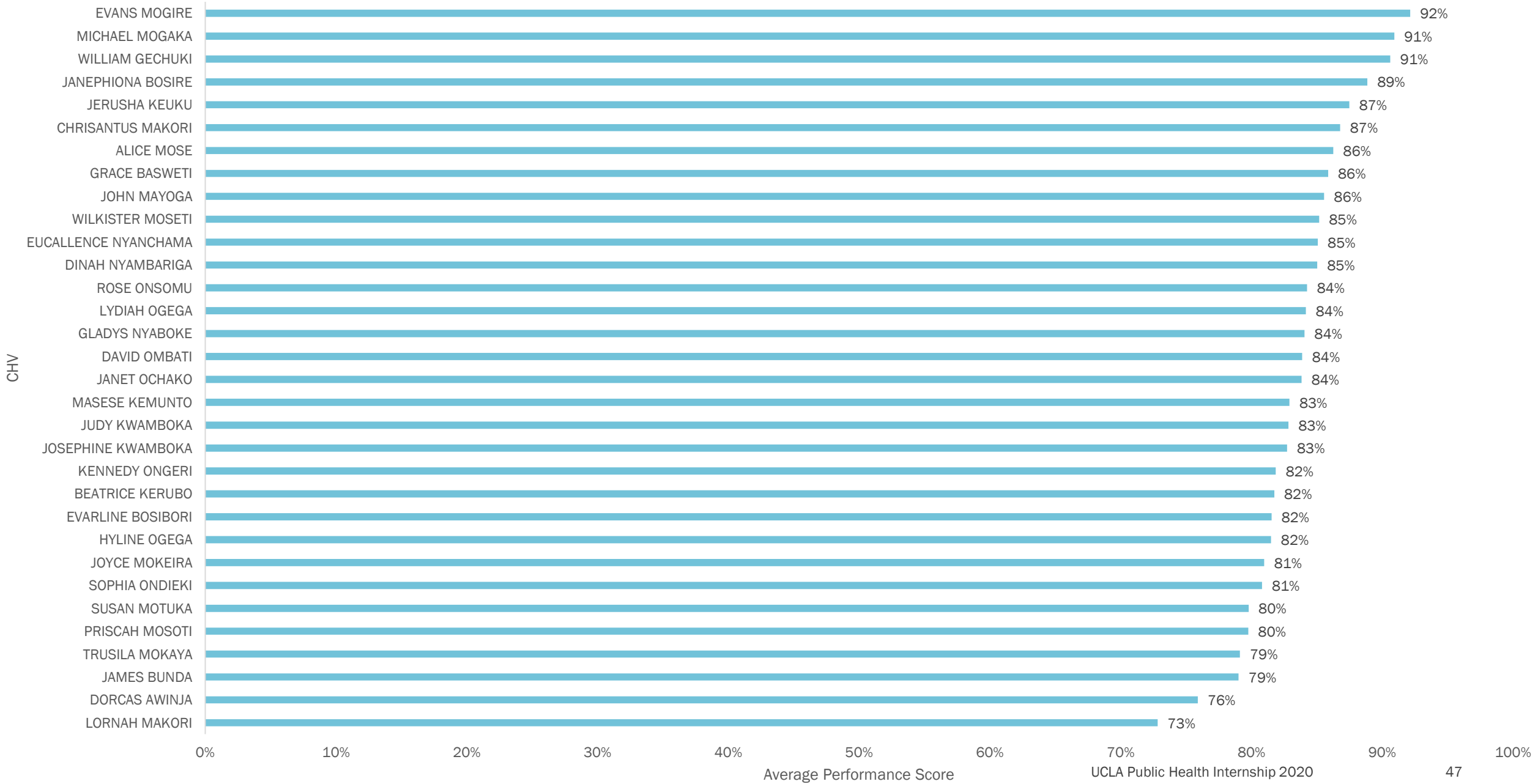
(Jan 2020 - June 2020)

Total Visits = 2121, Total CHVs = 32



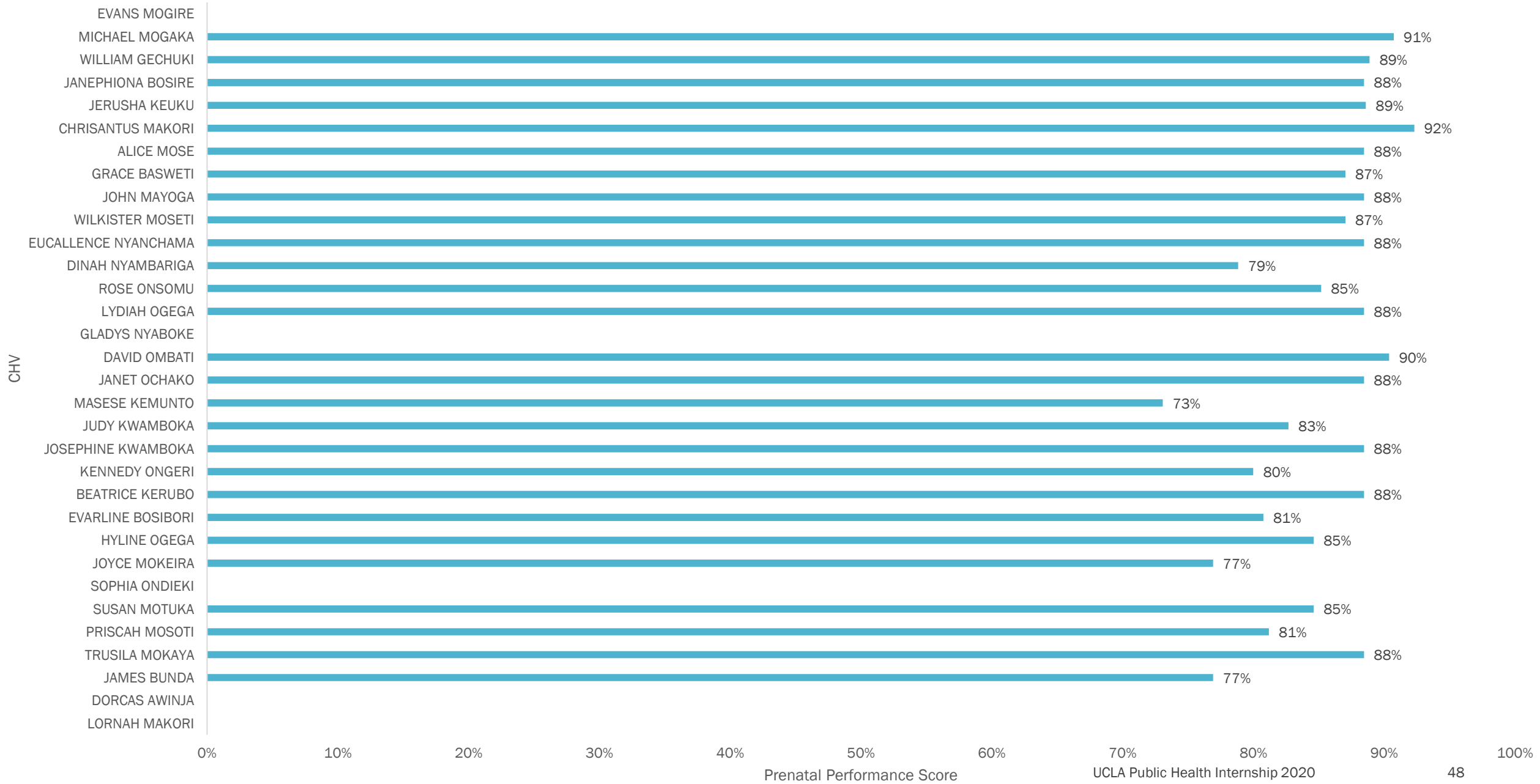
# Average Performance Scores per CHV

(Jan 2020 - June 2020, Total CHVs = 32)



# Prenatal Content Performance on QIVC per CHV

(Jan 2020 - June 2020, Total CHVs = 32)





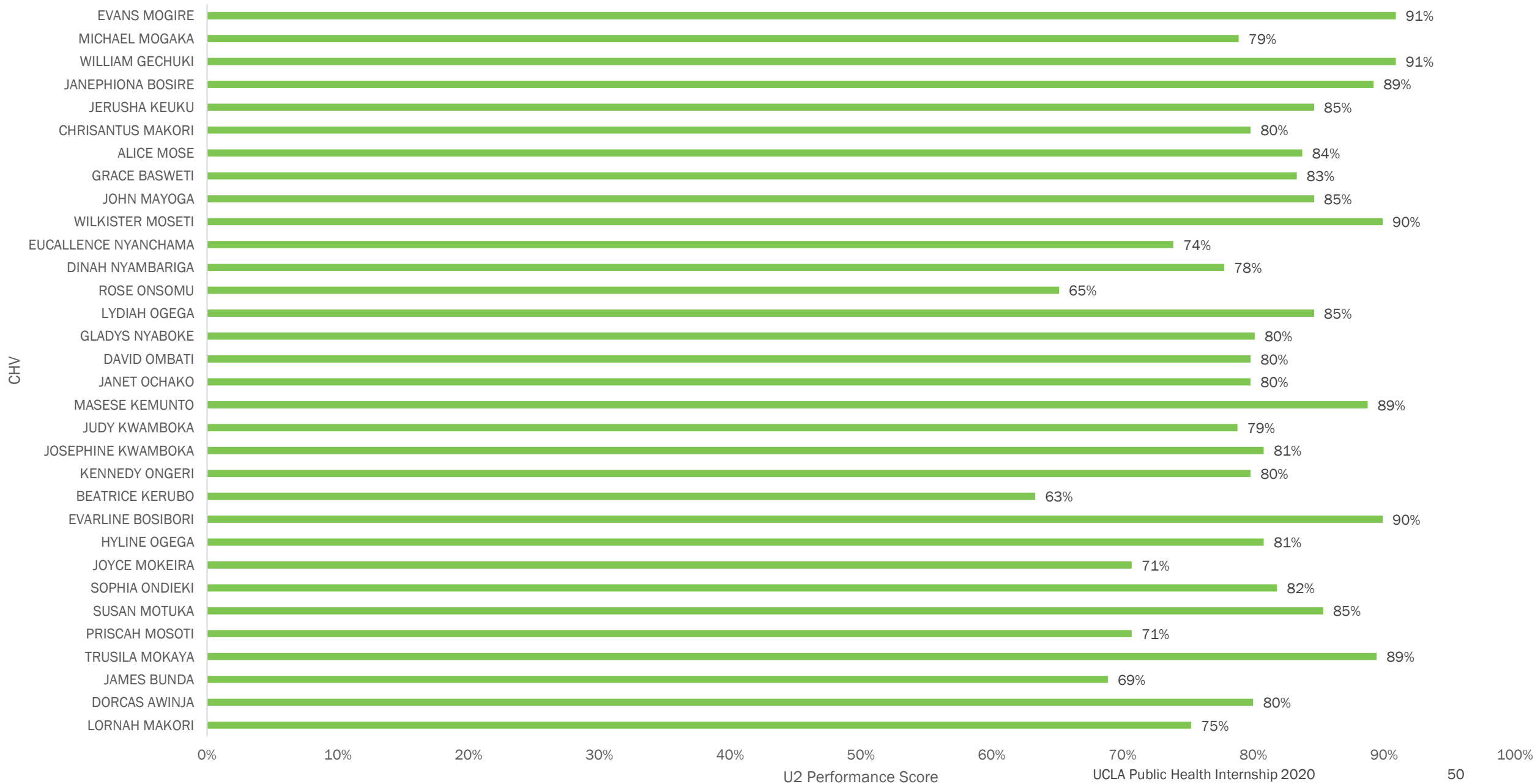
# Puerperal Content Performance on QIVC per CHV

(Jan 2020 - June 2020, Total CHVs = 32)



# U2 Content Performance on QIVC per CHV

(Jan 2020 - June 2020, Total CHVs = 32)





# QUICK COMPARISON

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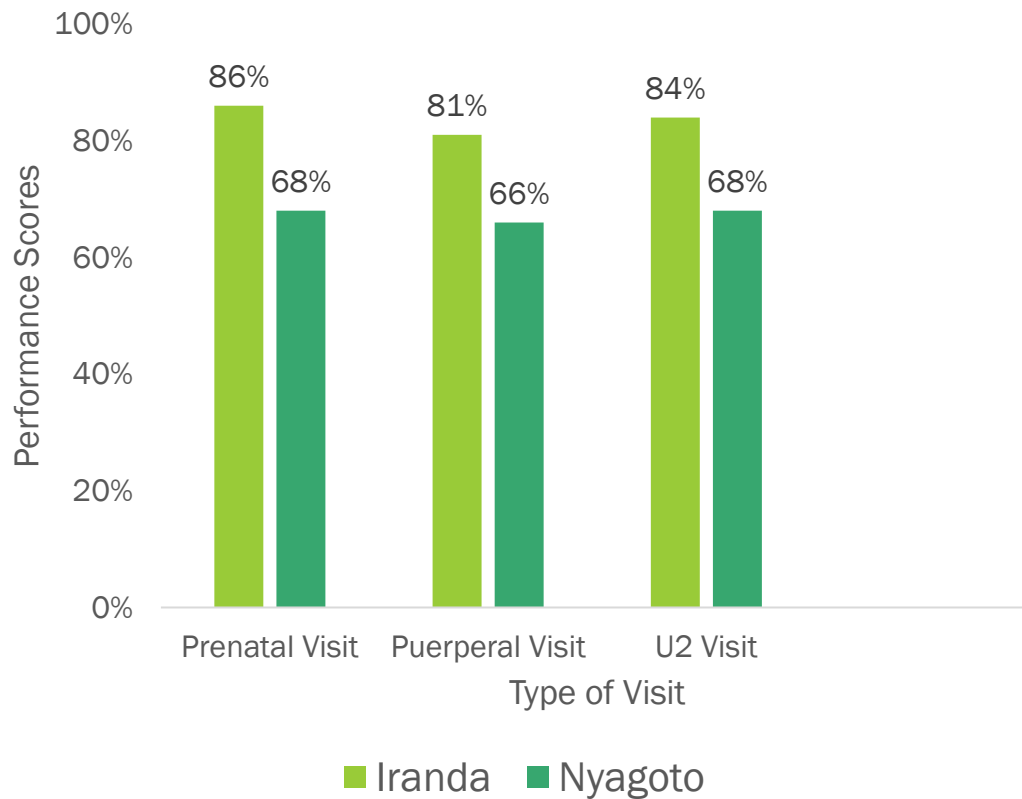
NYAGOTO AND IRANDA

# SUMMARY OF VISITS AND PERFORMANCE SCORES

## Average CHV Performance Scores

Iranda CHVs Evaluated = 29 of 32

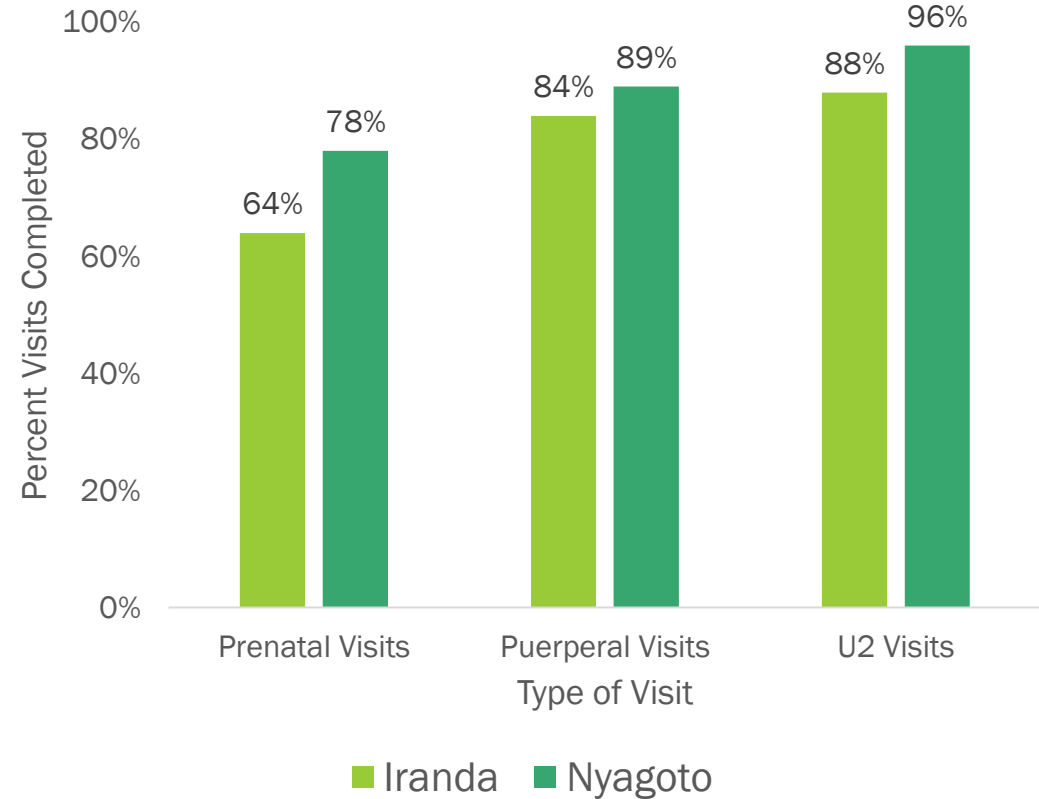
Nyagoto CHVs Evaluated = 27 of 39



## Overall Percent RHVs Completed

Iranda total visits = 2121

Nyagoto total visits = 763



# QUALITATIVE RESULTS

COMMON THEMES: NYAGOTO AND IRANDA



Satisfaction with  
Role and  
Responsibilities



Workload  
Management



CHV Preparedness  
and Competency



Barriers to RHV  
Completion



Engagement with  
KIKOP

## QUALITATIVE THEMES

## TOPIC 1

# SATISFACTION WITH CHV ROLE AND RESPONSIBILITIES

*“What makes me to enjoy this work the most is the fact that I am respected in the village.”  
(Participant 4, Iranda, Focus Group 3)*

*“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)*

- Theme 1: Helping and educating community get stronger
- Theme 2: Learning and receiving training
- Theme 3: Receiving recognition, respect, and trust
- Theme 4: Building connections
- Theme 5: Suggestions for increasing satisfaction

## TOPIC 2

# CHV WORKLOAD MANAGEMENT AND SATISFACTION

*“At times you might visit a home whose religious beliefs do not allow them to go to hospital.”  
(Participant 4, Nyagoto, Focus Group 3)*

*“The home visit is dependent on the state of the mother, if they are busy or if they are ready.”  
(Participant 2, Iranda, Focus Group 3)*

- Theme 1: CHV responsibilities
- Theme 2: Time Required
- Theme 3: Expansion of Role
- Theme 4: Workload management strategies
- Theme 5: Workload Satisfaction



## TOPIC 3

# CHV PREPAREDNESS AND COMPETENCY

*“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)

*“If possible, we should even have some biscuits to give [children] 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 1: Satisfaction with training
- Theme 2: Suggestions of materials for mothers and children
- Theme 3: Suggestions of resources that will help during conducting RHVs

## TOPIC 4

# BARRIERS TO COMPLETION OF RHVS

*“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)*

*“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)*

- Theme 1: Barriers to conducting RHVs
- Theme 2: Issues surrounding mothers
- Theme 3: Data Collection issues

## TOPIC 5

# CHV ENGAGEMENT WITH KIKOP

*“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 as people and they involve us in their activities. That is what impresses me because we get to share.”*  
(Participant 3, Iranda, Focus Group 3)

*“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)

*“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)

- Theme 1: Communication with KIKOP
- Theme 2: Suggestions for KIKOP

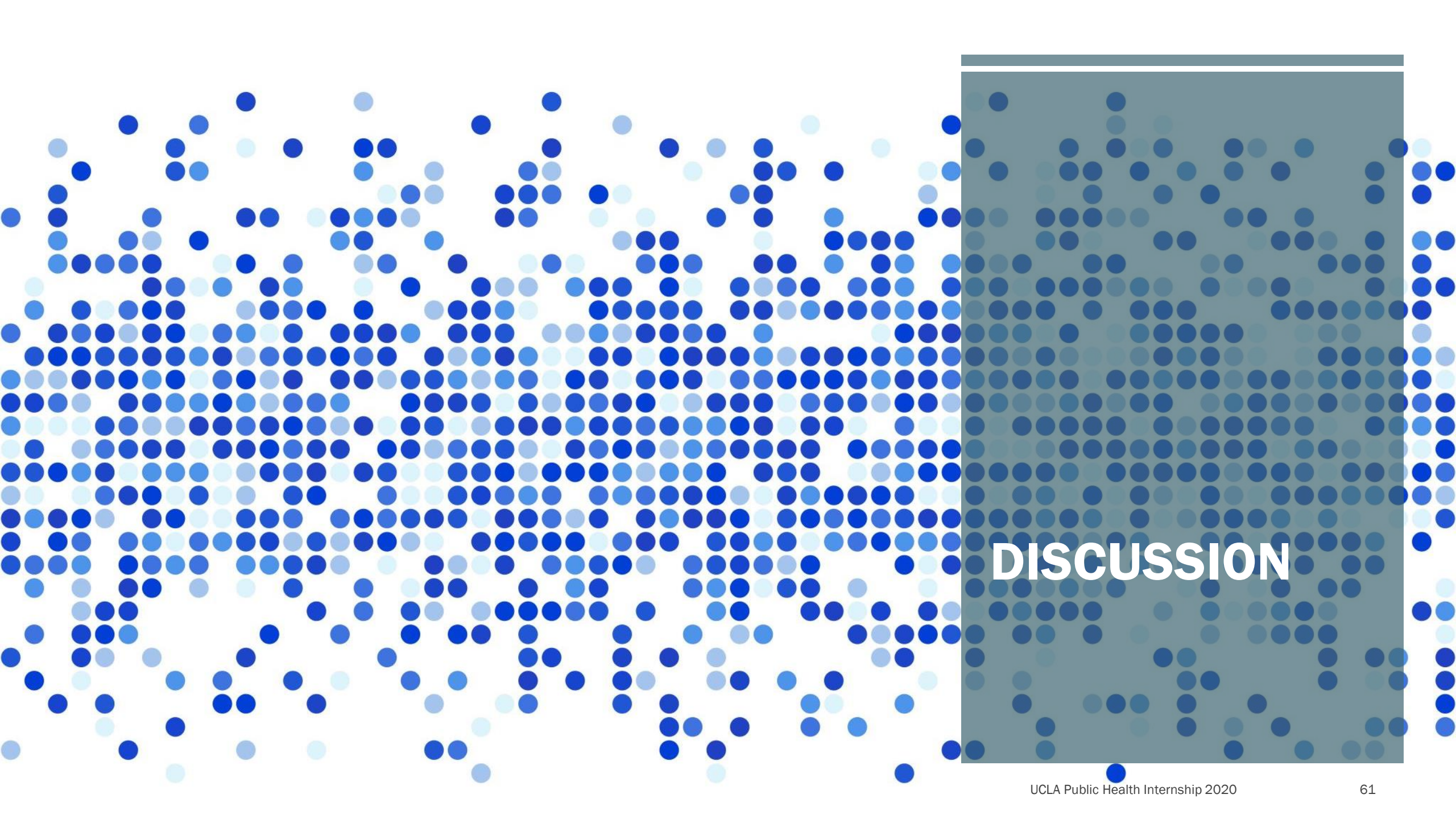
- Nyagoto

- Touching children due to COVID-19 pandemic, concern CHVs might not have sanitized hands

- Iranda

- Lack of privacy or lack of physical space to conduct the CHV or practice lessons
- Inability to find the data in health book, illegibility of nurse or doctor's handwriting, or clinical staff do not enter data
- CHVs in Iranda largely asked KIKOP staff to work with the health clinic staff to make this process more standardized.

## UNIQUE THEMES



# DISCUSSION

## QUANTITATIVE DISCUSSION

- Routine Home Visit (RHV) program is on track at a satisfactory level for both Nyagoto and Iranda catchments
  - Even for the limited time that the program is in place for, the percent of visits completed per category, is impressive and generally over 80%
- More focus on prenatal visits, especially completing the second prenatal visit for both catchments
  - Evaluation of prenatal visits and puerperal visits can be improved in both catchments
- None of the visit types (i.e. prenatal, puerperal, and U2) had all set of the visits completed on time altogether for either catchments
- Essential component skills for each CHVs in Nyagoto and Iranda can be improved, especially motivating family members to attend RHVs
- Significant variation in CHV workload in both catchments
  - CHV workload as Iranda CHV has a higher workload than Nyagoto

# QUALITATIVE DISCUSSION (1/2)

- CHVs feel motivated
  - Prestige, respect, education, training, teaching, positive connections
- Diverse responsibilities
  - Health education, collecting vital data, clinic referrals, and teaching life skills
- Expanded responsibilities
  - Health referrals or education to non-participants, escorting women to the health clinic, help with household chores
- Additional training in prenatal care, hygiene, maternal and child nutrition
  - New topics: HIV/AIDS, cancer, hypertension, and malaria
- Suggestions for training style
  - Dramatization, watching a training videos, team retreat, team building exercises

# QUALITATIVE DISCUSSION (2/2)

- RHV time varies depending on the situation in the household
- Strategies
  - Receive colleagues' support, scheduling and notifying mothers of upcoming visit, and organization of work
  - Recognizes importance of involvement of husbands, compassion, confidentiality
- Barriers
  - Religious beliefs, disbelief in science, marital or domestic issues, distrust, availability, scheduling, repeated questioning in RHVs, uncomfortable questions, child's mood
- Suggestion for resources for mothers
  - Pamphlets, flyers, referral cards, gift, stipend
- Suggestions for resources for CHVs
  - Uniforms, bags, raincoats, rainboots, umbrella, pens, notebooks, electronic forms, tape measurement, proof of visits, toll-free number to clinics



## SUMMARY OF RESULTS

- Satisfaction with the communication from KIKOP and feel supported by them
- Enjoy getting feedback and learning from their mistakes
- KIKOP should support them with data collection and training whenever possible and be closer geographically in case of any issues.
- Recommendations
  - KIKOP program should be expanded to the rest of the community
  - KIKOP should work with the government and gain buy-in



# RECOMMENDATIONS



Supporting  
CHVs with  
imbalanced  
workload



Reliable  
scheduling/  
notification  
system



Discuss  
appropriate  
flexibility



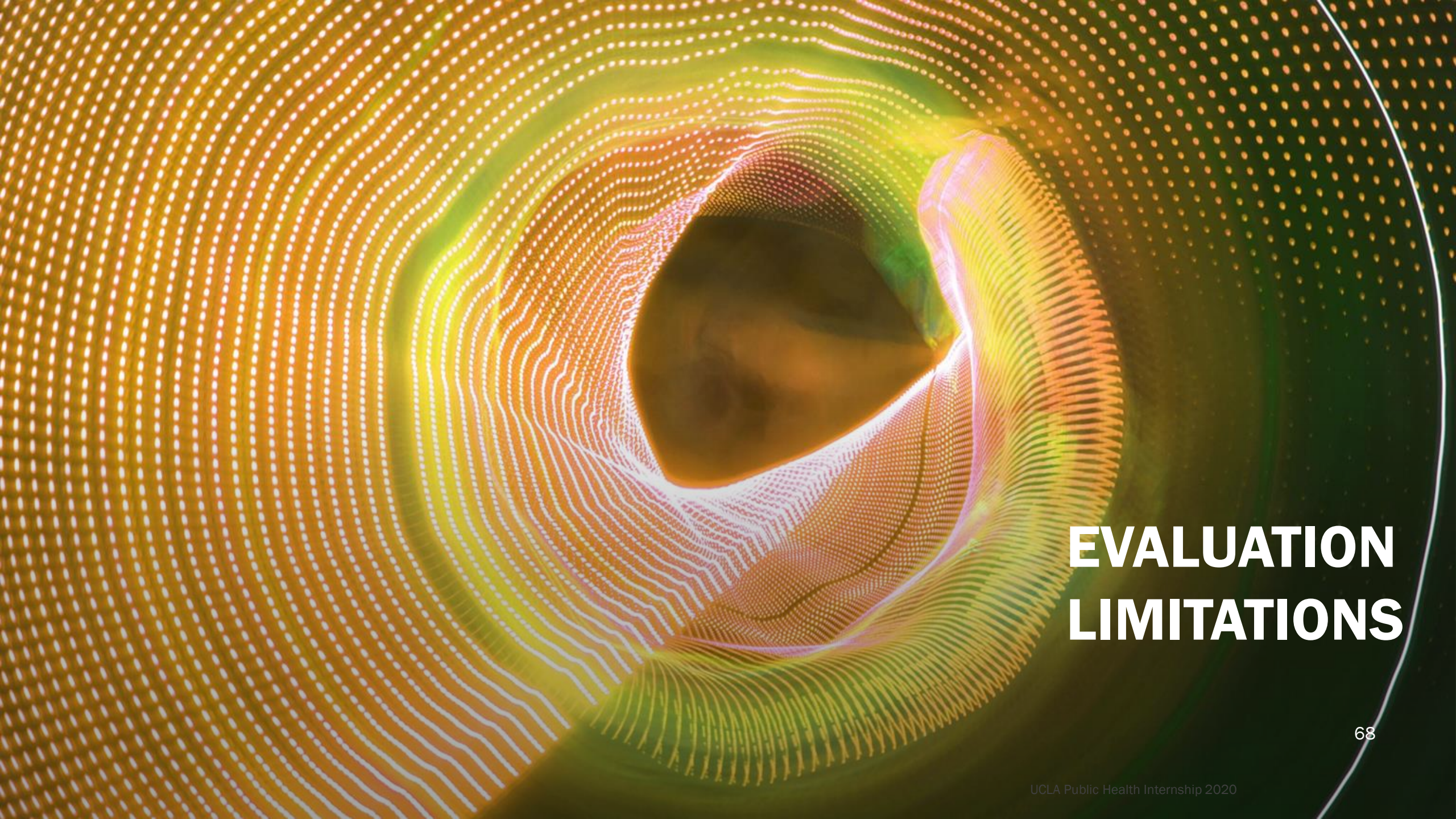
New layer of  
confidentiality



New training  
materials



Increase  
stipend



# EVALUATION LIMITATIONS



Facilitation of focus groups by staff



Translation of interviews and interview guide



Data sources



Researcher bias

A futuristic, curved tunnel with blue and white walls and a glowing light source at the end. The tunnel is composed of multiple curved layers, creating a sense of depth and movement. The lighting is soft and blue, with a bright yellow light source at the far end of the tunnel.

# **FUTURE EVALUATION DIRECTIONS**

## CORRELATIONS STUDIES

- CHV caseload, RHV completion rate, and performance scores for CHVs
- Caseload vs. performance scores
- RHV completion rate vs. performance scores
- Individual and aggregate analysis
- Comparison of Nyagoto, Iranda, and Matango catchments





# THANK YOU!

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