

# High Risk Pregnancy Referral Cards

## Siaya County Dissemination



December 2021



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# What and where



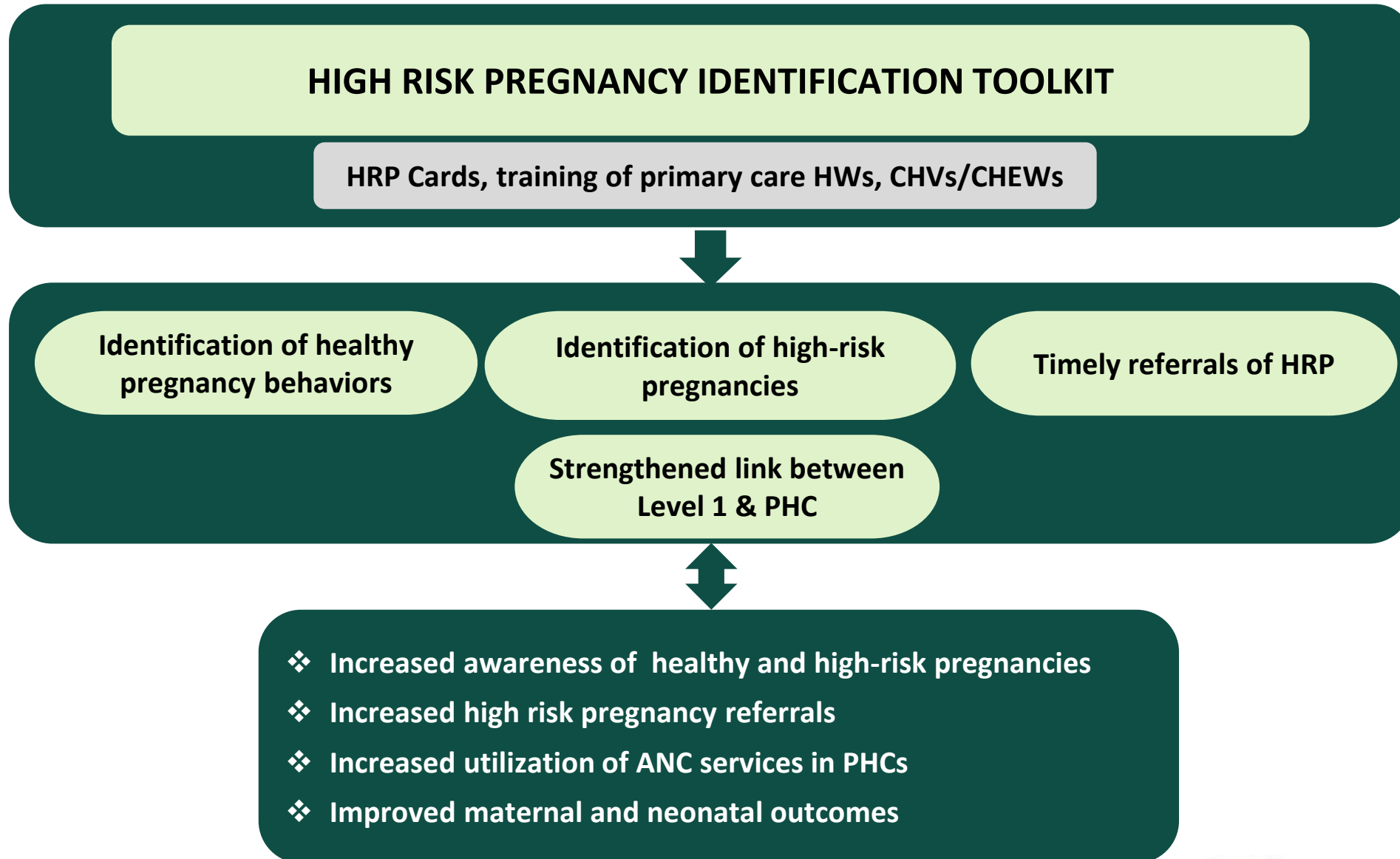
- The ambition is to **reach 250,000 lives** in **4 counties** in Kenya with relatively high maternal mortality.
- The project aimed to assess the potential impact through the use of high risk pregnancy referral cards by **midwives, community health extension workers (CHEWs), volunteers (CHVs) and birth companions** to identify at-risk pregnancies and make timely referrals from the community to the health system
- The project duration will be 12 months.

## Background information on counties of choice:

Low resource settings still experience unacceptably high numbers of death from pregnancy and/or childbirth-related complications. The main causes of maternal morbidity and mortality in these settings are the interplay of social, cultural, economic, access to skilled health care, knowledge and health seeking behaviour, coupled with a high fertility rate and inadequate and under-funded health services.

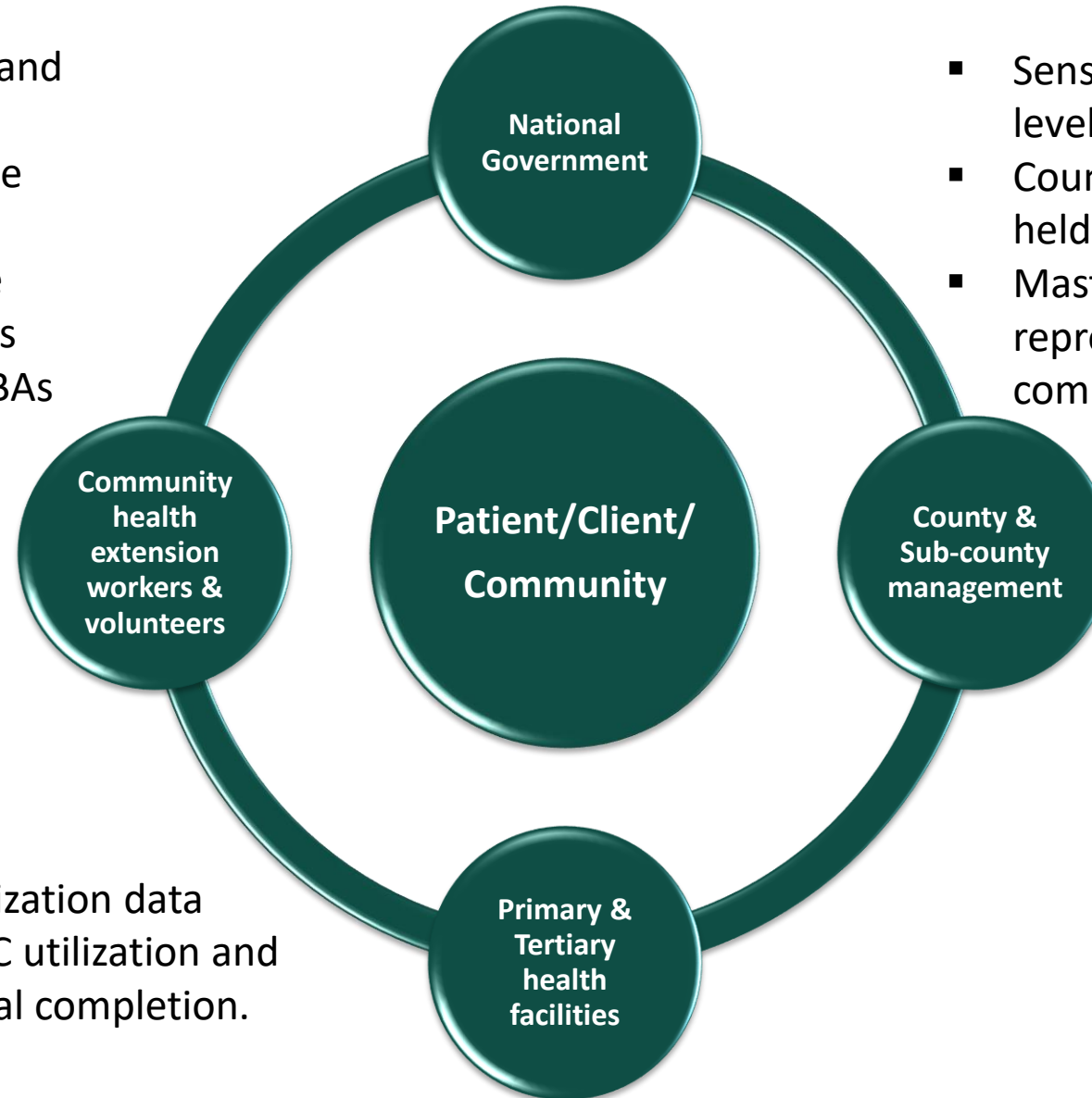


# Conceptual framework



# Project stakeholders

- Community health volunteers and Traditional Birth Attendants (TBAs) trained on the use of the HRP cards.
- Trainings of CHVs and TBAs are planned in each of the counties
- Reorientation sessions with TBAs conducted.



- Sensitization fora held at national level.
- County level engagement meetings held in all 4 counties
- Master TOT conducted with county reproductive health focal persons and community health strategists.

- Health facility utilization data abstracted on ANC utilization and community referral completion.

# Project county selection

## Siaya County

Main economic activity



Total population

989,793

Women of reproductive age (WRA)

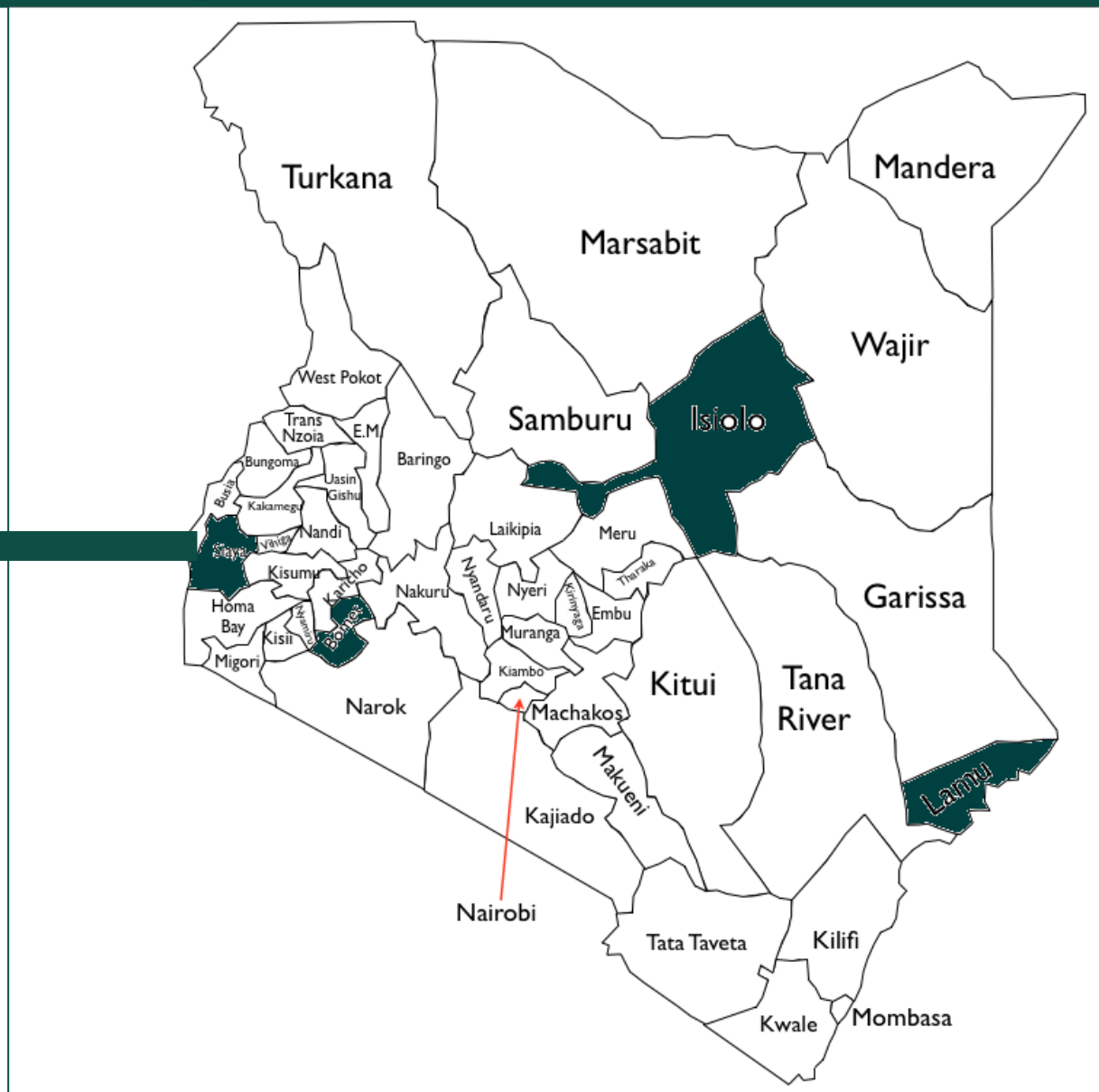
223,543

Estimated N° of pregnant women (2018)

38,993

N° of PHCs (level 2 & 3)

132



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# Project objectives and milestones

## Project Objectives

- To increase awareness on healthy pregnancy amongst pregnant and women of reproductive age.
- To increase identification of at-risk pregnancies both at the community and primary health care level.
- To increase the number of at-risk pregnant women seeking appropriate medical support in time (during pregnancy and/or delivery).

## Research objective

To assess the effectiveness of the use of HRP cards in identifying and referring at-risk pregnancies at community and primary health care level

### *Specifically:*

- To determine the effect of use of HRP cards on awareness of healthy and at-risk pregnancy in the community
- To determine the association between use of HRP cards and high-risk pregnancy referrals to primary health care facilities
- To determine the association between the use of high-risk pregnancy referral cards and utilization of ante natal care services at primary health care level
- To determine the proportion of at-risk pregnancies correctly identified using the high-risk pregnancy referral cards at facility and community level

# Project timelines

Pre-Covid period; unrestricted movement				Detection of Covid cases in country and dawn to dusk curfew and restriction in movement				Reduced curfew hours and relatively eased movement restrictions in county						
Oct 2019	Nov	Dec	Jan 2020	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec 2020
Baseline survey	Initial implementation			Minimal implementation, no regular household visits				Resumed implementation and household visits				End line survey		

# Project Implementation

- A master training-of-trainers (TOT) was conducted with county reproductive health focal persons, county community health strategists and some community health assistants.





# Project Implementation

- National and county inception meetings
- Baseline and end line surveys: about 30 Kenya Red Cross volunteers trained to conduct surveys in the two sub counties (Ugenya and Rarieda).
- CHVs assisted in mapping out households.





# Baseline Survey

- Baseline and end line surveys: about 30 Kenya Red Cross volunteers trained to conduct surveys in the two sub counties (Ugenya and Rarieda).
- CHVs assisted in mapping out households.
- More than 3000 women from each of the sub counties interviewed at baseline and end line.





# Training of Community Health Volunteers

- A total of 210 Community Health Volunteers (CHVs) and 20 Traditional Birth Attendants (TBAs) from Rarieda sub county were trained on the use of the HRP cards.



- Re-orientation sessions were held with Traditional birth Attendants to re-train them to be Birth Companions.



# HRP Cards Content and quality

- Health workers felt that HRP cards were well summarised.
- CHVs confirmed durability of the HRP cards material – waterproof and tearproof.
- HRP cards colour code was self explanatory- green for good habits and red for danger signs and risks

*"...you know we really learn a lot from hearing, but we learn much more when we are able to hear and also see. Because whatever we are able to see really is imparted in our mind. And of course it is difficult for it to be erased from the mind it really stays in the mind longer, after longer period, that is the case of this HRP cards" CHV Rarieda, Siaya*

*"...You see this page, this is just me. I thought that these people had taken a photo of me. [Laughing] I have given birth to 14 children. By myself. 14 children, ...I could not go to functions at home. I had one on my back, I was carrying another one, and one in my stomach ... So, I thought this book was just about me." TBA Rarieda , Siaya*

*"...so initially we were like oh, this is like duplication of information because we already have this thing in the ANC booklet you know. Even when you were telling the CHVs to use the card we were like no... that information is in this book that we normally counsel the mothers. Then as they started using it, we all saw the essence of the card, way more content on risks in the HRP card" Nurse Rarieda, Siaya*





## Roles in HRP project

- Educating the community on healthy habits in pregnancy
- Educating the community on risks and danger signs in pregnancy
- Identifying and referring women with risks in pregnancy
- Accompanying women with danger signs to the health facility instead of conducting deliveries

“...“when a pregnant woman comes to me, this is the book I use to teach her. I use this bible that we were given to teach her. I open and we talk about it... that is the teaching I can give her and this “bible”, **my HRP card**, is what helps me talk to her about how she should behave during pregnancy.” CHV **Rarieda, Siaya**



# Mother to mother support groups (MTM)

CHVs organized 33 MTM support groups.

A total of 781 women enrolled to MTM groups

MTM provided a platform to:

- Discuss health problems & important health information.
- Sensitize pregnant women on healthy habits.
- Sensitize on risks and danger signs in pregnancy using the HRP cards.
- Organize saving scheme for birth preparedness

*"...the teaching in this book has helped me because I know that if I get pregnant, I should attend clinic early and before I saw that book I would wait for long, up to six months before going for clinic. That book has taught me that there could be risks and dangers and I know that I should go start going to the clinic immediately"* **Mother-MTM forum**  
**Rarieda, Siaya**



# Survey of knowledge among women or reproductive age

## Demographic Characteristics

- Total of 6,285 women of reproductive age interviewed (baseline and end line)
- Majority of participants aged between 25-35 years. Less than 7% were above 45 years.
- Overall, about 97% of the women had attended primary school education.
- Differences detected in education profile

	Baseline	End line
Rarieda (Intervention )	1554 (49)	1619 (52)
Ugenya (control)	1588 (51)	1524 (48)

## Demographic Characteristics

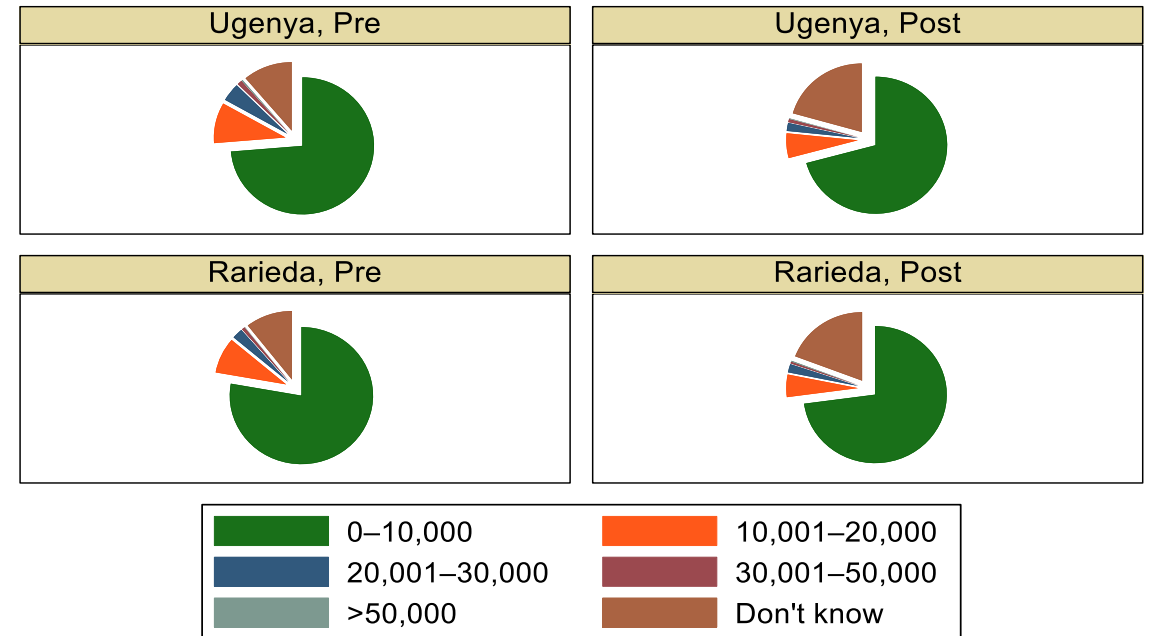
Characteristic	Baseline	End line
<b>Age:</b> range Median	18 – 49 yrs 29 yrs	18 – 49 yrs 30 yrs
<b>Highest Education level:</b> Attended primary Completed secondary	62% 29%	47% 40%
<b>Family size range</b>	1-18	1-18
<b>Average income</b>	76% below 10,000	71% below 10,000
<b>No. of children range</b>	1 - 15	
<b>Marital status</b>	70% married	
<b>Living near primary health facility (HF)</b>	91%	93%
<2km from HF	52%	58%

# Survey Results

## Demographic Characteristics Cont...

- Increase in proportion of employed and self employed women at end line. Three in every five women were unemployed in both sites.
- Overall, more than two thirds of the women were married and living with their husbands.
- The mean family/household size was 5 members with a maximum of 18 household members.
- One percent of the participants had more than ten children.

Participant monthly income  
by sub county and study period



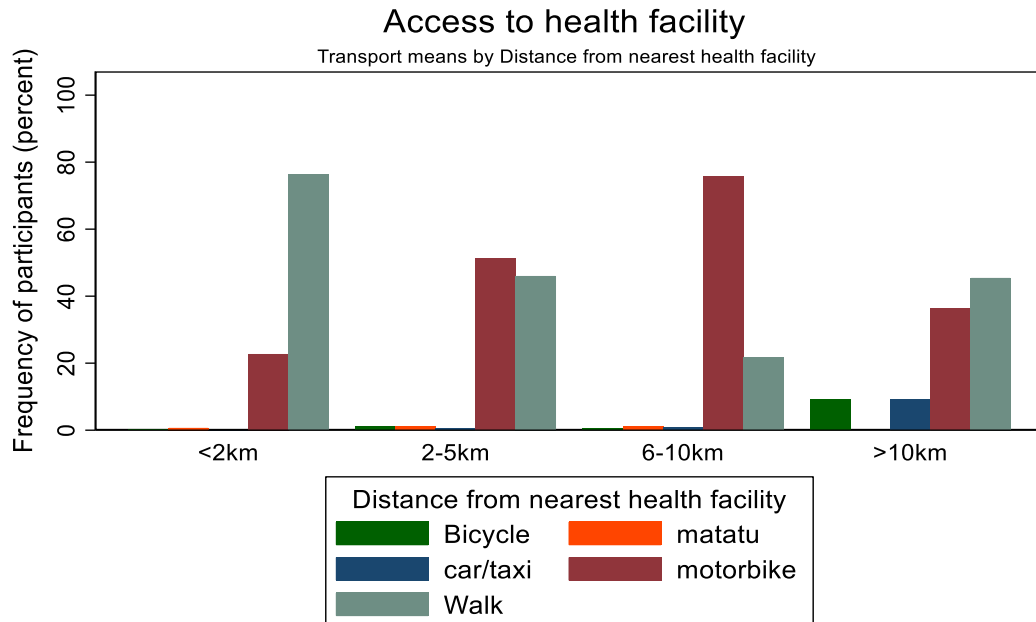
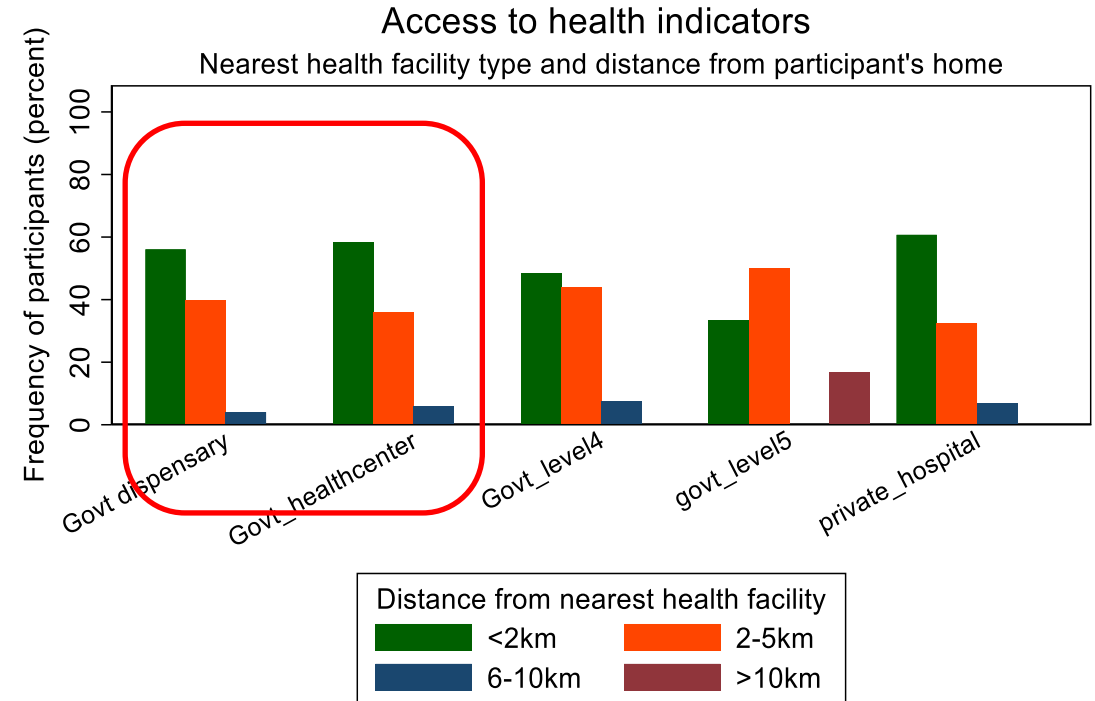
Characteristic	Number of children			
	Intervention (Rarieda)		Control (Ugenya)	
	Baseline	End line	Baseline	End line
No children	154 (10)	252 (16)	205 (13)	265 (17)
1-3 children	837 (52)	800 (49)	778 (50)	751 (49)
4-9 children	585 (37)	557 (34)	559 (36)	497 (33)
>10 children	12 (1)	10 (1)	12 (1)	11 (1)



# Survey results

## Access to health facilities

- 5,799 (92%) participants from Rarieda and Ugenya, could easily access a public dispensary or health centre.
- Majority of the women lived less than 5kms from the public health facilities (96%)



Women in Ugenya, the control site had to cover more distances to access health facilities in comparison to those in the intervention site



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# Survey Results

- Significant increase in proportion of women who attended at least 4 ANC clinic visits during their previous pregnancy.
- About 10% significant reduction in home deliveries between baseline and end line in intervention site. No reduction in home deliveries in control site

Knowledge of CHVs and maternal healthcare utilization				
Characteristic	Intervention (Rarieda)		Control (Ugenya)	
	Pre	Post	Pre	Post
<b>Heard of CHVs</b>				
No	156 (10)	111 (7)	233 (15)	206 (14)
Yes	1432 (90)	1508 (93)	1321 (85)	1318 (87)
<b>Know area CHV</b>				
No	104 (7)	107 (7)	216 (17)	162 (12)
Yes	1328 (93)	1401 (92)	1105 (83)	1156 (88)
<b>Attended ANC (current pregnancy)</b>				
No	25 (21)	18 (14)	36 (29)	29 (24)
Yes	94 (79)	113 (86)	87 (71)	94 (77)
<b>Received advice complications in pregnancy</b>				
No	836 (53)	689 (43)	726 (47)	687 (45)
Yes	753 (47)	930 (57)	828 (53)	837 (55)
<b>Advice on pregnancy complications</b>				
By Nurse	606 (81)	746 (80)	699 (84)	722 (86)
By CHV	177 (24)	386 (42)	186 (22)	181 (22)

# Survey Results

## Effect of High-Risk Pregnancy Cards on knowledge

- Use of the HRP cards enhanced CHV's , the TBAs' and women's ability to identify multiple risks and danger signs in pregnancy
- Two out of every five women interviewed from intervention site saw and interacted with the HRP cards.
- More than two thirds (74%) received information on the HRP card from a CHV.

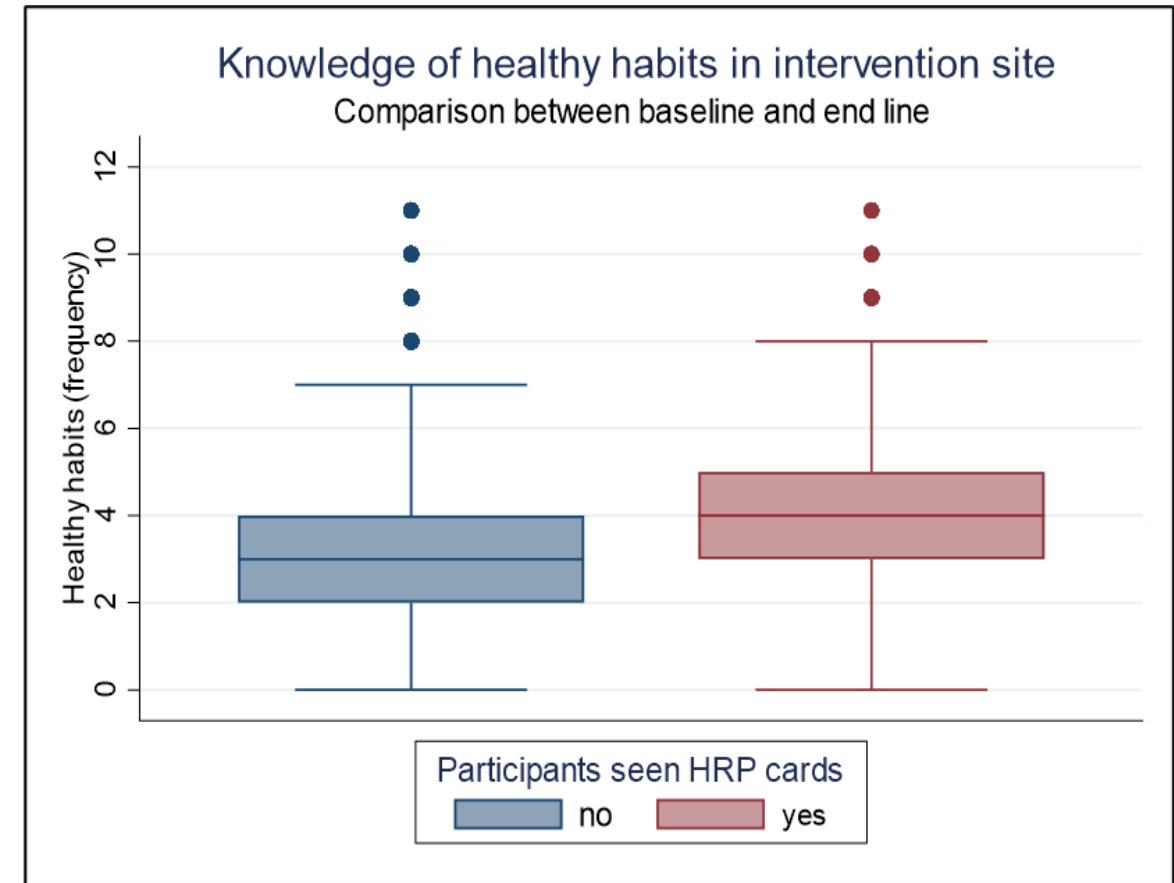
*"...now with HRP it become a clear classification that for example if this is a teenager who is pregnant for the first time. Then that is a high risk pregnancy. If she is too short, that is a risk and so on... If this is a mother of 45 years of age who has become pregnant, then that one is also still classified as a risk pregnancy. we did not know these things." CHV Rarieda, Siaya*



# Objective 1: increase awareness on healthy pregnancy amongst women of reproductive age

## Knowledge on healthy habits in Pregnancy

- The four most mentioned healthy habits in both sites were healthy eating, sleeping under a mosquito net, drinking clean water, avoiding carrying heavy weights and attending ANC.
- There was 14% significant increase in knowledge of healthy habits in pregnancy from little to average and adequate knowledge in intervention site.
- We observed higher median number of healthy habits mentioned among those who has seen the HRP cards



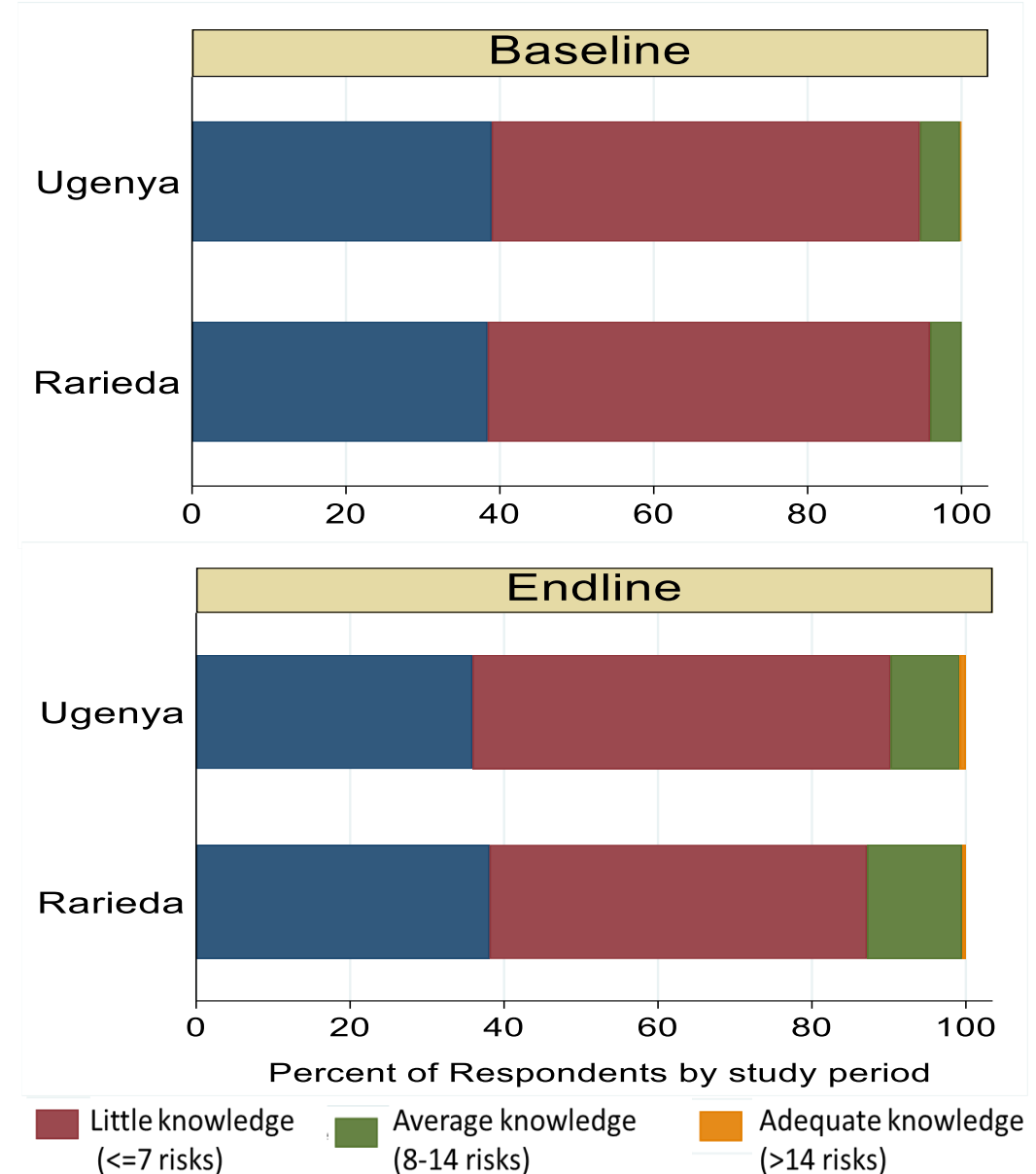
Graph B: showing a higher median number of healthy habits mentioned by study participants who had seen the HRP cards compared to those who had not seen the HRP cards in the intervention site



# Objective 1: increase awareness on risks and danger signs in pregnancy amongst women of reproductive age

## Knowledge on Risks /danger signs in Pregnancy

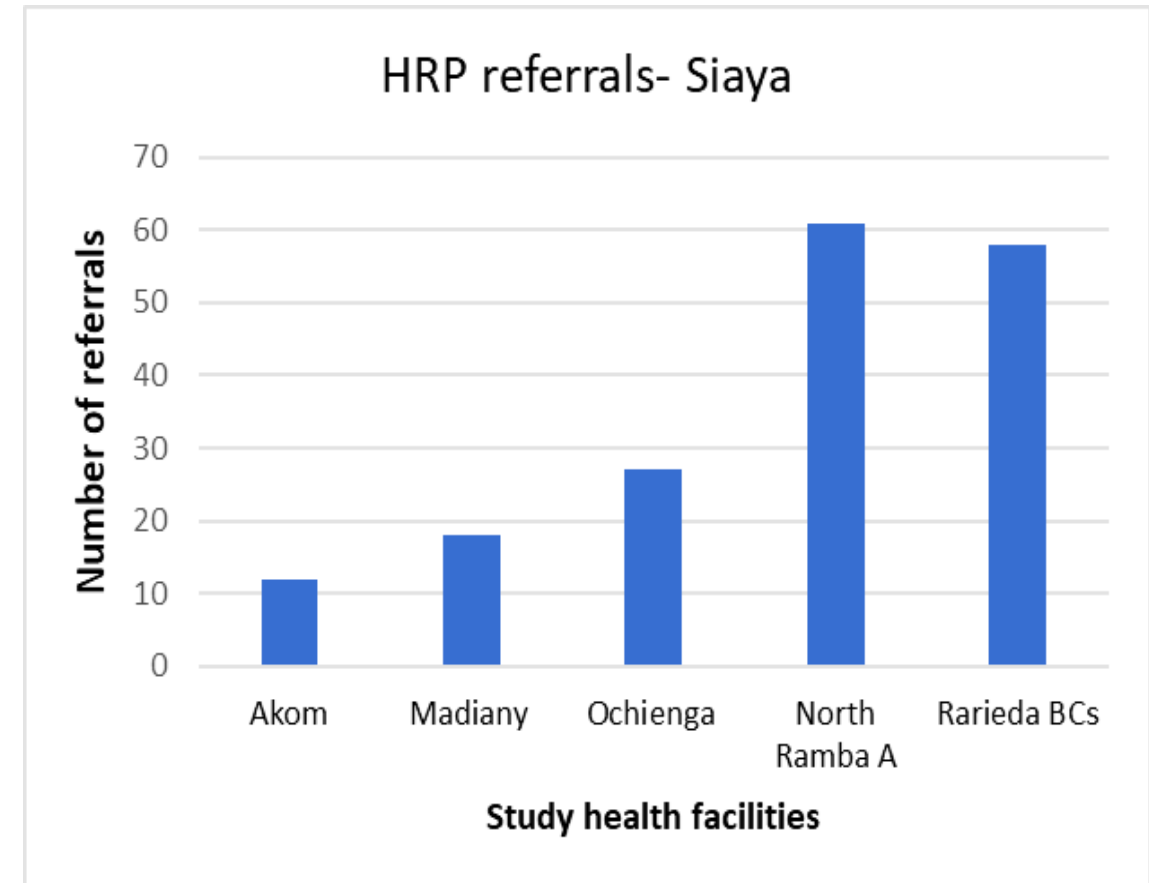
- Of the twenty-three risks/danger signs, excessive vomiting, fever, vaginal bleeding in pregnancy, anemia and absence of fetal movement were the most mentioned risks.
- Overall, 8% significant increase in knowledge of risk and risky habits in pregnancy from no or little knowledge to average and adequate knowledge.
- 75% of women reported gaining new knowledge from the HRP card.



# Objective 2: Increase identification of at-risk pregnancies both at the community and primary health care level

## Knowledge on Risks /danger signs in Pregnancy

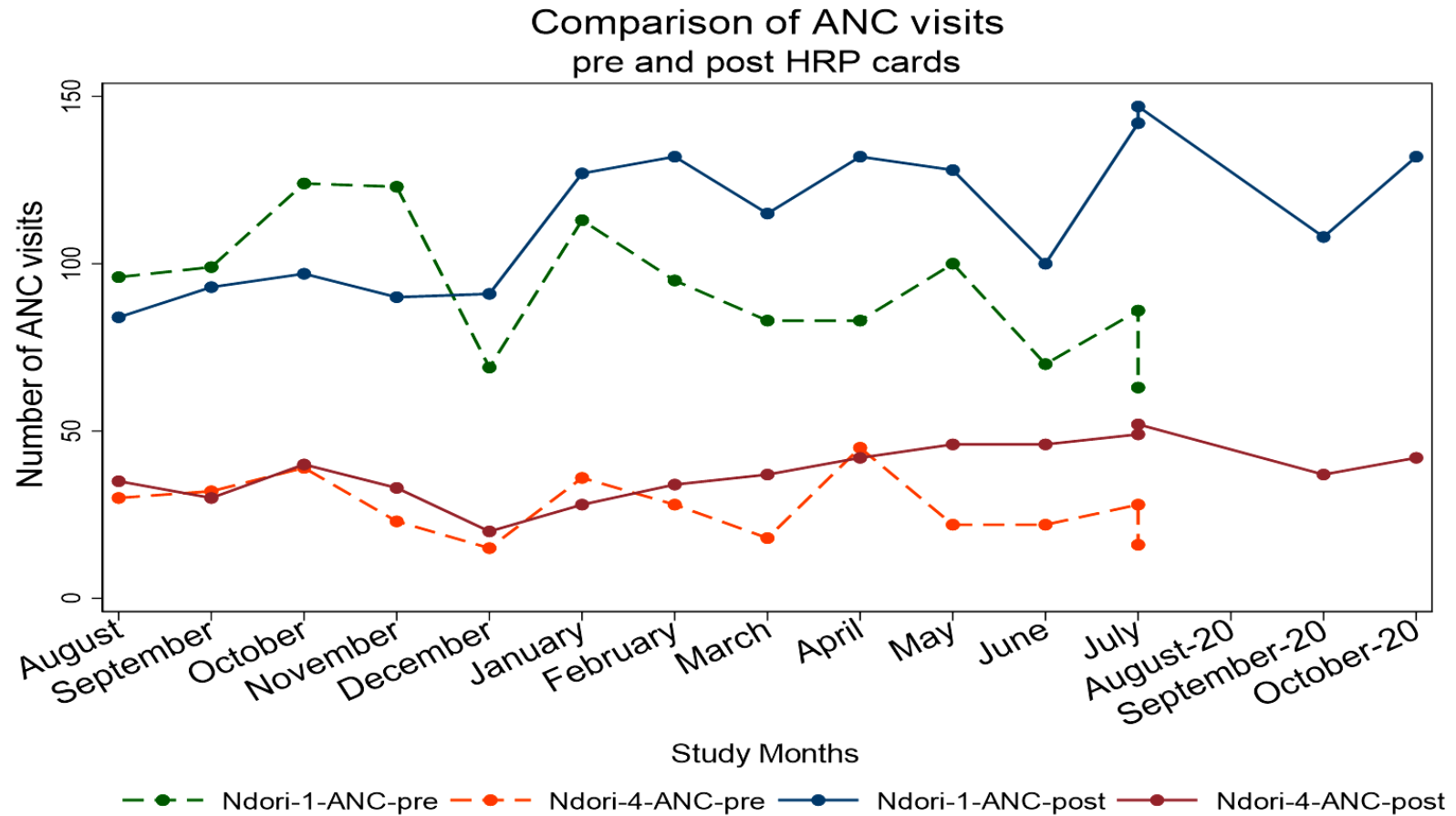
- CHVs identified and referred women with risks and danger signs to the health facilities.
- A total of 197 women with risks in pregnancy were managed and followed up by CHVs.
- A notable increase in number of referrals of at-risk pregnancies to the health facilities.
- Health workers reported a reduction in the number of high-risk complications in pregnancy which they attributed to the timely referrals precipitated by use of the HRP cards.



# Objective 3: To increase the number of at-risk pregnant women seeking appropriate medical support in time

## Utilization of ANC services

- An overall increase in number of 1<sup>st</sup> and 4<sup>th</sup> ANC visits in study link facilities.
- Enhanced communication and link between CHVs and primary health facilities
- CHVs reported more completed referrals which facilitated proper follow up of women with risks in pregnancy to adhere to ANC visits.





*“We would like this HRP project to spread to the whole of Kenya because here it has helped very many mothers” - CHV*



“I will talk to her slowly. Because this book is like my bible I will open where the high risk is, I show her and also she sees the pictures. Because you know they want you to show them the pictures and they say aha so this thing is true...” - CHV





*"...because of this information, now our CHVs are informed, they have the knowledge. When they see something, they'll call you and ask you... Anytime of the day, 24 hours...even at night. They say, 'this mother is bleeding. An expectant mother is not supposed to bleed....I am bringing her to the hospital'" – Health worker*





# Qualitative interview insights



*“this HRP book is like the bible that we carry to church. It has earned me respect in my village, and you are told if you are pregnant, go to sister Rose to give you advise on what you are suffering from even if it’s a stomachache. You have given me a big name and a good name that only God knows”- TBA*

*“this book has made me know a lot because in the past we were just doing deliveries even when the mother is going to die in your hands you continue. And this book has changed all that and earned us respect. It has earned us respect in the community. This book is good.”- TBA*

# Key Learnings

## Behaviour change

- Reorientation and equipping of TBAs with HRP cards
- Change of roles and adoption of new practices.
- Reduction of home deliveries assisted by traditional birth attendants

## Knowledge transfer

- Marked increase in knowledge among CHVs, Birth ambassadors, pregnant women and community members in general.
- Significant change in knowledge of healthy habits in pregnancy among WRA from between baseline and end line.
- Significant change in knowledge of risks and risk factors in pregnancy among WRA from between baseline and end line.

## Increased ANC utilization

- Notable increase in the number of referrals of at-risk pregnancies to the health facilities.
- A reduction in the number of high-risk complications in pregnancy which they attributed to the timely referrals precipitated by use of the HRP cards

## Enhanced link between CHVs and primary health facilities

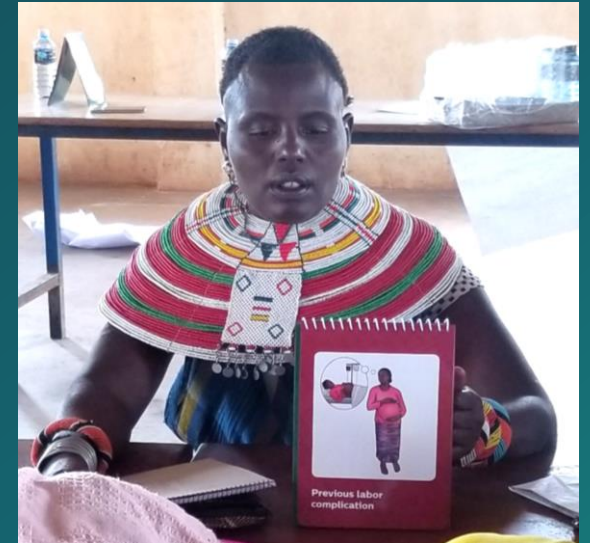
- CHVs reporting more completed referrals which facilitated proper follow up of women with risks in pregnancy



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