SCALE: Supply Chain Alternatives for Last Mile Equity

Redesigning cStock to reach the last mile/Reducing Barriers to uptake of FP at the last mile

JSI

inSupplyHealth

Context

What is SCALE?

SCALE (Supply Chain Alternatives for Last Mile Equity) is a multi-partner project that seeks to address inequity in access to health commodities through developing sustainable and scalable community based distribution models that reach underserved and remote communities specifically in Samburu, Turkana, Wajir and Mandera. Our partners are Save the Children in Wajir and Mandera, and AMREF in Samburu and Turkana.

inSupply, with help from our partners, are responsible for the strengthening of health supply chains to these communities using our cStock approach, which includes IMPACT teams, the cStock app and visualisation and utilisation of data through dashboards.

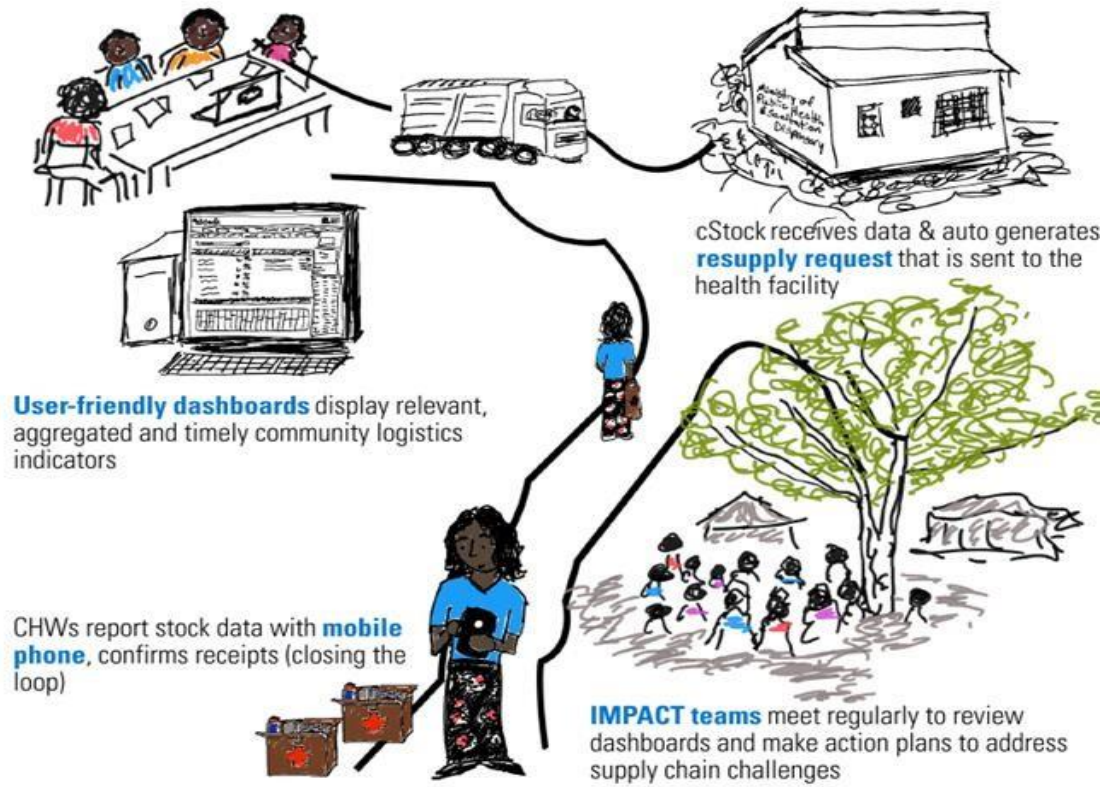
Throughout this process, we have been using a methodology called Human-Centred Design. Human-Centred Design is an innovative methodology, that puts the creation of solutions for users challenges, back into the users hands. It allows stakeholders to participate in a constructive, creative process where different perspectives are encouraged and navigated through structured facilitation. Starting in January 2019, we have established our intent, gotten to know our users through exploratory and observation research, generated insights and have come together to co-design solutions.

Over a 2 day workshop, we brought together government, industry experts, partners, inSupply staff and most importantly *the users*, to redesign cStock and to start to address barriers for reducing uptake of FP in last mile communities . We shared our insights gathered in the field, brought the voices of the user into the room using personas and created ideas and prototypes to address what we had learnt.

This document captures our results from our journey so far, our results from the workshops and our way forward.

What is cStock?

The cStock approach is a supply chain strengthening approach for community health programs. This approach uses a combination of Mobile technology that support demand-based resupply procedures and connect CHWs to their resupply facility, User-friendly dashboards to allow better visibility, accountability and transparency and IMPACT teams to strengthen data use and local problem solving to supply chain challenges (figure 1).



What is Human-Centred Design?

Human Centred Design is not an new methodology. It was born in traditional disciplines such as architecture and Industrial design, moving into the fields of customer experience, UX and service design before making the important move into the development sector. HCD is an approach that seeks to give a voice to the voiceless by allowing users to actively participate within a design process, from the beginning to the end. Traditionally, in development, solutions were created in a silo, developed, invested in and then piloted. Through a human-centred design approach, we seek to involve the voice of the user, from project inception, to understanding their problems and needs, to prototyping solutions early and testing them with users, and finally forming solutions, that are both wanted and needed. inSupply Health have always been a champion of this approach, using it to further their already established innovation ethos in their projects. You can see the key stages of the approach below.

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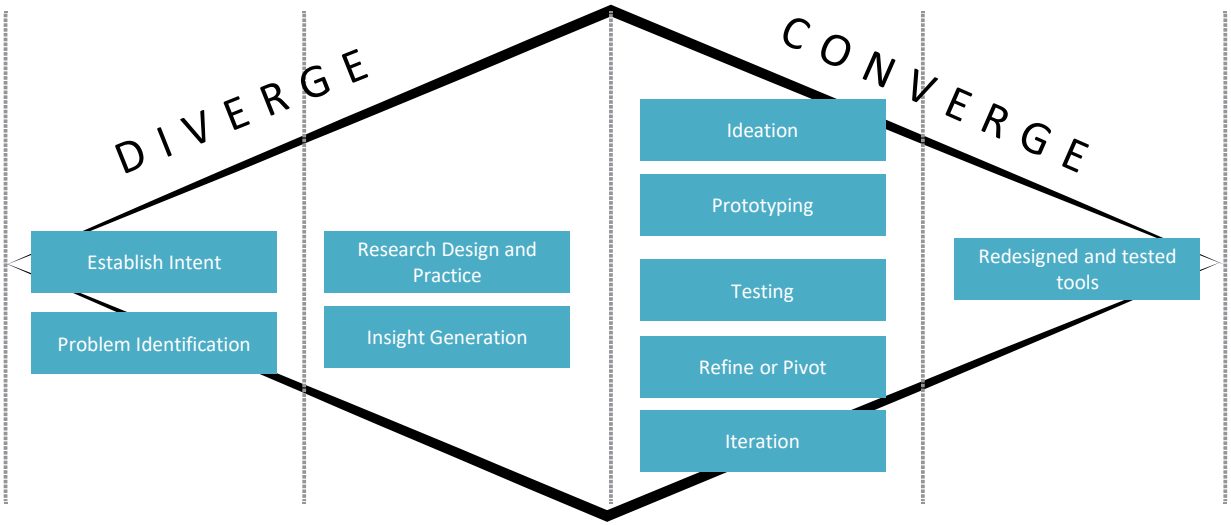


Understand intent

This phase is about jumping in the deep end of a complex problem, trying to understand its parameters and opportunities and establishing the intent of the project. It is important to focus on the right bit of the problem and to recognise what is possible including time constraints.

Research and surface insights

Phase two is about immersing yourself in the real problem to understand it from different perspectives. This is the time to get your research kit together and get out of the studio and into the field to observe and understand your users. Then, we bring our research together and make sense of it.

Ideas and prototypes

Phase three is about converging and bringing life to possible solutions to our problems. The challenge is to give coherence to your research, make some very rough prototypes of possible solutions and seek the users feedback and input early.

Formulate and evaluate

Phase four is about making some decisions and pulling a solution together so it can be communicated and evaluated. It requires making a commitment to an idea and developing it into a presentable solution in the available time.

Research Design

What were we trying to find out?

The specific focus of our research was to better understand how we can better strengthen health supply chains to migratory communities through the adaptation of our innovative approach cStock. We sought to understand how to reach, these hard to reach communities through a community health model that incorporates our approach.

We also sough to understand how women of a reproductive age (our end beneficiaries) will perceive themselves, perceive health, perceive their own influences and motivations around health and health seeking behaviours, and what their health services needs are.

We also sought to understand their trust circles and spheres of influence. Specifically, how they are influenced by family groups, their community as well as broader cultural and societal beliefs, norms and rituals in their community and region.

- Infrastructure, access, capabilities and current state health system
- Decision making pathways
- Knowledge and sources of influence
- Gender dynamics and norms

Who did we talk to and where did we go?

Samburu Central and East (35 participants)

- County and Sub-County HMT (7)
- National (1)
- Health workers including CHVs, CHAs, HF-in charges, Nurses and FP Coordinators (8)
- Partners (2)
- Community members including Women of a reproductive age, matriarchs, husbands of a WRA, community leaders and religious leaders (17)

Wajir Central and West (27)

- County and Sub-County HMT (12)
- Health workers including CHVs, CHAs, HF-in charges, Nurses and FP Coordinators (10)
- Partners (2)
- Community members including Women of a reproductive age, matriarchs, husbands of a WRA, community leaders and religious leaders (5)

What methods and tools did we use?

Methods

One-on-One Semi Structured Interviewing

Observation of CHVs: having a day in their shoes and walking with CHVs

Usability Testing of the current cStock app and dashboards to identify UX, visual and language issues

Tools

One-on-One Interview Guides

Day in the life Mapping and Relationships Maps Tools

Usability Testing Scenario and Facilitation Guide

Meet Our Personas

What is a persona?

Personas are fictitious characters who bring to life the needs, goals, values, drivers and behaviours of larger groups of people. Composite images of real user groups or actor groups, personas are tools that help guide teams when asking questions and, ultimately, making empathic decisions about the functionality of a solution.

Personas have two primary uses in every design process: (a) they help us build deep empathy and understanding of the painpoints and needs of our user segments and (b) they are useful design tools because they help us define the design considerations or criteria which best allow us to design a solution that delivers on all users' needs.

In the following pages, you will meet our personas, representatives of group's of user that we met in the field and who have and will continue to guide our design journey.

"I mostly stay at home taking care of my children and rarely go to town. Our religion and community allows us to only practice exclusive breastfeeding as an FP method. If I use other methods, my husband will divorce me."

Halima:
WRA,
Wajir County

About me

I am 32 years old and have 4 children who are attending duksi (madrasa). I would have had five children but I had a mischarge on my 3rd pregnancy. I am the second wife and spend most of the days looking after my children and taking care of the young goats. My husband looks after the other livestock and leaves every morning to go look for pasture. I got married early and I don't have any formal education. I would have loved to go to school but my parents didn't have the resources to educate me and my sisters. They educated my brothers. I only go to the hospital if I am really sick. My husband has to okay me to go to the hospital. We believe in fate here. If my husband wants more kids- I have no choice, I will give him.

My motivation

I want my kids to get education and go to the city and get good jobs. This way they will take care of us. The livestock we have is not enough to sustain us. I want to give my children the best I can. I don't want them to go through what I went through when I was young. I don't want them to be married early, I want them to get a job first then settle down. I also want everything they do, to be grounded in religion.

We have religious reading days, where other nomadic communities come for 3 days and we read Quran and socialise. Its nice to talk to other women sometimes.

My challenges

I was once very sick. I was in a lot of pain. I told my husband to take me to hospital but he refused. He insisted that as Muslims we believe in god and what he has planned for us. After consulting with the TBA and the community leader, I was taken to hospital where I stayed for two weeks. I don't discuss health issues with anyone, especially about family planning. After the miscarriage, I didn't want more children but it is not me to make that decision. I wish my husband could be more supportive. The health facility is far but when my children fall really sick it is difficult for me to take them to the hospital, but I find a way to take them.

My thoughts on FP

In my community, we believe in exclusive breastfeeding. Children come from God and if God gives you children he will also give you the required resources to take care of them. I don't trust anyone including my own husband. If he finds out that I am using F,P he will divorce me. Other women also discourage us from using FP, they say the side effects are very bad and you will never get kids again. Sometime you may be allowed to use FP if you have health conditions, allowing you not to give birth or if you are at risk. I don't trust even the health providers, they may tell my husband or the community if I had gone to the health facility to seek FP services. I heard that happen to another woman, from a nearby community.

My thoughts on health

I wish the health facility was close by, the nearest one is 15km away and sometimes it lacks medicine and this forces me to buy at the local chemists in the nearby town which is expensive. I like that we have health providers who come to immunize the kids at our homes.

I always go to the traditional birth attendant first with any of my illnesses. Its just what is done here, no one goes anywhere, without her say so. She is like our doctor out here.

When designing for me, remember that:

1. **I can't talk to anyone around me about FP, because I don't trust they won't tell my husband**
2. **I have sporadic touchpoints with the town and facility, but it is not often**
3. **I listen to the traditional birth attendant, but only because we have to as our first point of call for health**

"I am always tired because I have so much to do, I don't want any more children so I take FP secretly so that my husband does not find out."

Leiyan:
WRA,
Samburu County

About me

I am only 23 years old and I have 6 kids, 3 of which are girls and 3 of which are boys. I got married at 16 years. I am the 3rd wife of Mr Hodsa, who is a livestock owner. My husband is not supportive and I take care of the kids alone most of the times. He wakes up and gives orders on what need to be done. I dropped of school in class 1 because my father wanted me to get married so that he could get more goats. I wish I could have continued with school, I will make sure that my kids don't go through the same. I cannot read and write. I don't understand or speak English but I can get by in Swahili. My days are very busy with household duties. I don't want more kids but my husband wants more so I went to the facility to get FP injectable so that he does not find out.

My motivation

One of my daughters is brilliant in her class and I want her to attain the highest level of education. I just know as a woman how important it is to have a chance of a different future where you are not married at an early age and can provide for your own needs. I like talking with other women in the community, we are able to share experiences and advice each other. I love my children and I want the best for them always. I would like them to grow up healthy with good morals and a life that is guided by God.

My challenges

I have had 2 miscarriages, I think this happened because I used to do a lot of work and could not take care of myself well. I didn't eat well and my health was not good. The facility was really far and I could not take myself, my husband did not want to take me. I am not always able to provide food and basic needs for my kids, life is really hard. I am worried that my daughters will get married too early since we are not able to provide for their needs. I don't want that for them. I take my kids to the hospital when they get sick. My husband is not supportive, he does not work or help out in the family, he only gives orders and is very strict. I use family planning secretly because I am scared of my husband finding out.

My thoughts on FP

I think FP is really good since you are able to plan for the number of children you want and when you want to have them. I don't want to have any more kids so I go to the facility to get an injection. I do this secretly so that my husband does not find out. I was advised by the CHV because she saw that I was struggling to provide the basic needs for my family. Other women also do the same, take FP secretly. At first I was skeptical about the side effects, but the health facility in charge explained and I am comfortable. I wish men embraced FP.

My thoughts on health

I wish the health facility was close by, the nearest one is 15km away and sometimes it lacks medicine and this forces me to buy at the local chemists in the nearby town which is expensive. I wish the CHVs would give us some of the medicines and treat my kids at home so that I don't have to travel long distances to the health facility. I don't like going to traditional healers, I don't trust them.

When designing for me, remember that:

1. I don't' discuss FP with my husband and I take FP in secret
2. I trust other women in my community, we talk about FP and they even cover for me when I go to take it
3. I travel long distance to the health facility to take my kids when they fall sick. My husband is ok for my children to go to the facility when sick and he doesn't come with us.

"Religion is core to our community. If God provides you with children, he will provide you with the resources to take care of them. It is the role of a woman to give birth, and I want children."

Duad: Husband of a WRA, Samburu and Wajir County

About me

I have 2 wives. One is in town and the other one is here (nomadic community) with me. I have 8 children. They are being taught Quran at the "Duksi". I take care of the animals. I leave early in the morning and come back in the evening. We live as a community here. I go to the town once in a while to buy supplies. Sometimes I send the motorcycle guy who comes here to buy milk. Instead of him paying me in cash, I send him to bring me cereals from town. I cannot afford to take all my kids to formal school. I will decide who to take to school. The rest will join me in looking after the animals. My wife looks after the young goats and cooks for us. She also joins other women during their community activities. If she is breastfeeding exclusively that's all she needs for family planning.

My motivation

I would want all my children to get formal education and get good jobs. I want them to go and work in the town and even in Nairobi. I will therefore have a chance to visit them and they will support us. I would want to be able to buy enough supplies for my family. This means I need to have more cattle. I can therefore sell some and get money, go to town and buy all the items I need. I want a good life for my kids.

My challenges

We live here in the forest (community). We settled here one year ago. Once we exhaust the pasture here we will move to another location. Pasture is scarce. We light a fire at night that acts a source of light for the children during the evening duksi classes. Solar lamps would really help us. The town is very far. I cannot afford to be going there frequently. I cannot afford enough sugar and other commodities for my family. Things are very expensive in town. I sometimes visit my relatives in town for support.

My thoughts on FP

We don't believe in modern FP methods. Why would you want to introduce foreign things into the body? Gods plan is for us to multiply and when you use FP you are going against Gods plan. Unless it is a medical situation then we can allow use of FP. I am told that if my wife starts taking FP she will not have kids anymore. I want more kids so I cannot allow her to take FP. What I know is that if she is breasting feeding exclusively, then she cannot have kids. That is also what our religious leaders teaches us.

My thoughts on health

The health facility is very far. We don't have transport here. If my wife falls sick, I consult the TBA who assess her and recommends what she needs to take. If she needs to go to the hospital we carry her on a donkey cart or on a boda if we have money. Sometimes the hospital does not have the medicines that the doctor prescribes. I have to buy these medicine in town and they are very expensive. Once in a while the healthcare workers come here to vaccinate the kids and educate the women on nutrition. They also follow up on pregnant mothers encouraging them to deliver in the health facility. I don't think women should go to the health facility unless she is really sick. She should be with her community, and with her husband.

When designing for me, remember that:

1. **Religion and culture guides all my important decisions. I am and always will be the decision maker and it will be hard for me to**
2. **Gender roles are very ingrained in my community, and FP goes against a women's prescribed role in my community**
3. **While we are nomadic, I have touchpoints with the town, for supplies, visits with relatives and if necessary, a doctor**

"It is not up to us, it is up to god. We want a lot of children here, Family Planning is not for us."

Kudio: Community leader, Samburu and Wajir

About me

I am a community leader, a husband to three wives, and a father to many children. I am 67 years old, my youngest wife is 23 years old. She has 3 children. Our community values children and livestock as this is seen as a source of wealth. I must get consulted on issues concerning the society as I better understand my people. I participate in many gatherings including dialogue days where we have talks on heath education. When there is a conflict, I get called to deliberate on the issue. If I am unable to, I consult with my peers in the community, all men so that we can decide on what to do. There has been a lot of change in the society, women have been going against their husbands and getting family planning without consent, this is eroding our culture.

My motivation

I am a respected person in the community and the community comes to me with their problems. I advise them on what needs to be done and this increases my status. I am also one of the custodians of our culture and practices. I get invited for ceremonies like weddings, funerals and initiation. Some of my children are educated and they are now helping in taking care of our needs and those of the younger children. I know almost all our community members and they trust and respect my authority.

My challenges

This year the drought has really affected us and our livestock have died. We are also not able to get sufficient water for drinking, our women have to travel far to get a source of water. The economy is also bad and things in the market are expensive. We at times have clashes with the other tribes when they come to invade our territories and steal our livestock. But we also travel to find pastures, and that is my job- to tell everyone where to move to.

My thoughts on FP

I do not advocate for family planning, I personally I am against my wives using FP methods. They do not seem to understand that our wealth is based on the number of children and livestock we have we have. It is up to god on how many children we have. That is the role of the woman. The role of the man is to make decisions, for his wife and his family.

My thoughts on health

Samburu: I think the health facility has a lot of value, many people in the community get well after going to the facility so I trust the doctors. I also go the facility when I'm sick and ensure that my children have been vaccinated.

Wajir: Health matters are decided at the household level by the man and we as a community have to also agree with that decision. We will always try traditional health methods first and will only go to the facility if we are really sick and the next time we need supplies.

When designing for me, remember that:

1. I believe in trying all traditional health methods first if I am from Wajir
2. I meet with my peers regularly to discuss community issues and I must be consulted
3. I value children and family planning is not part of our culture or religion

Khadija:
Female CHV,
Wajir County

" I do community mobilization and participate in polio and measles campaigns most of the times. There are many cultural norms to adhere to in this community, it's not easy to change things."

About me

I have been a CHV for awhile now. I am married and I have 3 children. I had. Avery basic education, and stopped when I was young. I know, basic Kswahili and Somali. I have learnt a lot this time that I have been a CHV. I have attended a number of trainings by SAVE. I educate the community of health matters and participate in vaccination campaigns. I am also tasked to trace defaulters. It is not easy being a CHV. The community here doesn't seek health services a lot. They believe if you fall sick that is fate. I also have to walk for long distances from one homestead to the other. When I was recruited as a CHV, I was promised monthly stipend but I have never received anything. Despite being a CHV I have to fulfill my duties as a mother and a wife. I want my kids to excel in school and at least get a better job than mine. Every month I have to travel to the health facility to give the CHA my reports and I report to her verbally.

My motivation

Despite the many challenges, I love my job. I find fulfillment in helping sick people. I also love teaching and educating people. I like that I bring services closer to the people hence they don't have to travel for long distances to the health facility to seek these services. I work closely with the TBA to help pregnant women in the community to go through pregnancies smoothly and to give birth. I try to encourage them to go deliver in the health facility as they will receive better care there.

My challenges

When I got recruited, we were given a Kit by SAVE that had some medicines that we would give sick people in the community but once the medicines were finished we didn't get a replenishment. Sometimes I just need simple medicine like Pilton but I don't have this. I refer people to the health facility but sometimes they don't go and their conditions deteriorate and they are taken to the hospital when it is too late. It is not easy to follow up on immunization defaulters particularly during migration since you may go to a household and find they have migrated. Culture norms and religion does not allow me to advocate for modern FP methods.

My thoughts on FP

I personally believe God is the one who gives children and FP would be going against this. I give talks about FP since it is part of my job description. Our husbands and religious leaders are also not for FP unless you have a medical condition or at risk. Due to this the uptake of FP is very low in the community. WRA would prefer to go the health facilities to get FP services than to come to me. Even at the health facility they go secretly due to the fear of their husbands and their peers., but I hear it second hand, they don't really talk to me about it because I am from the community,

My thoughts on health

I would want the community to seek services more often. I believe my services are vital as the community don't have to travel long distance to get services however I don't have medicines to give them when they need them. The health facility misses medicines and it is disappointing that I refer community members there only for them not to get the medicines they would require

When designing for me, remember that:

1. **I have very basic education and report verbally**
2. **I mostly do immunization campaigns**
3. **Even though I am a woman, I am not an advocate of FP**

LOLOPUL:
Female CHV,
Samburu County

"My husband barely supports me. I also don't get a lot of support to do my work at the community, I have never gotten a stipend."

About me

I am a wife and mother to 5 children. I dropped out in class 1 because I had to get married. I can't read and write very well and I don't understand English that well. I can speak comfortably in Kiswahili, so I report to my CHA verbally. I have worked as a CHV for 11 years and I love my job because it helps me improve my community. Most people here do not live in favorable conditions, we practice pastoralism but we have been affected by the poor weather conditions that make us lose our livestock. This then means we lose our source of livelihood and are unable to meet our daily needs. Being CHV is hard but also rewarding, so if they could make it easier for me to do my job- imagine what I could achieve.

My motivation

The only thing that motivates me is when I see the impact I have in the community. I like seeing people looking healthy and happy, following the advice I give them when conducting household visits. But its hard to stay motivated as a volunteer. This is what will improve my community. I like that I make more people access health services in the facilities as compared to visiting the traditional healers. I also get to learn a lot when I attend trainings or forums concerning health education.

My challenges

I have to walk long distances to get to the facility and the households that I am assigned to and this makes me very tired. In addition to this, I am a wife and a mother so I have so many responsibilities to my family. I wake up at 4 am everyday and do all my household duties. My husband barely supports me. I also don't get a lot of support to do my work at the community, I have never gotten any stipend. I sometimes face hostility from the community because they know I advocate for women to embrace family planning.

My thoughts on FP

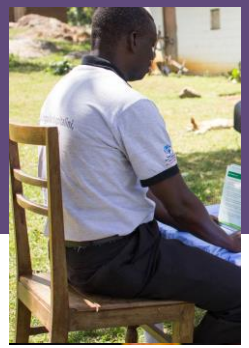
I personally practice FP and encourage women to do the same even without the consent of their husbands. Men don't appreciate it, not even my own husband so this makes it really difficult for me. There is a lot of misconception about FP but I often use myself as an example and this makes many women believe me. They initially thought you cannot give birth after using FP but after they saw I gave birth 1 year ago this changed.
Injecting DMPA will increase my status in the community, but I am worried as I feel it is not in my skills- maybe if I get lots of training this will change?

My thoughts on health

Heath services are important, most people come to the health center when they are sick. They also ensure that their children are immunized and this has improved health of young children. Health centers are not always accessible to everyone because people are sparsely populated, most people have to travel far to get to the facility. There are times that the health facility doesn't have enough commodities forcing people to go to nearby towns to buy medication. We are also not able to reach everyone during outreaches and especially those that migrate. Our outreaches are always tied to things like immunisations, we don't do it for anything else.

When designing for me, remember that:

1. **I am already overburdened by the responsibilities of being a woman in my community,**
2. **That I have a feature phone as it keeps charge for long, I am not very tech and language literate, I can only do the basics**
3. **There is almost no network in the area where I live, we have to travel to get reception**



"Balancing between my personal work and CHV work is not easy. We were promised a monthly stipend but we have never received it. This is demoralising."

Leikaisang: Male CHV, Samburu County

About me

I have been a CHV for several years now. I am married with 6 kids. I feel good when the community seek advice from me. I visit households to educate them on handwashing, nutrition and family planning. I also mobilize the community during outreaches. Sometimes my personal and family activities are affected by community work. I don't get paid and therefore I am unable to take care of my family they way I would want. I sometimes help the CHA when he is busy by collecting reports from the other CHVs. I love my job because it increases my status in the society, people listen to me.

My motivation

I am motivated by the people I serve looking healthy and happy. I generally have to refer to the facility besides my role as educator. I have tried to educate the community, but there is only so much change that can happen if we don't have any drugs. When the CHA is not around I help to collect the reports from my colleagues, I can say that I am the lead CHV.

My challenges

Balancing my personal work and community work is hard as I don't get enough support. I have not received any stipend and I therefore not able to care for my family. I have contemplated quitting this job but the CHA keeps on encouraging me to stay put. I walk for long distances to reach to the community and sometimes the household members are not available for the talks. Despite my community work I have to take care of my livestock and look for someone to migrate with them as I am left to offer services at the community. I meet some household members who need first aid but I don't have the kit to offer assistance.

My thoughts on FP

I think it is a personal choice to embrace FP, I would not strongly advocate, I would talk to the community about it because it's my job but I wouldn't follow up to see if they went to the facility. Children are seen as a source of wealth and that is our culture. Injecting DMPA will increase my status in the community, since this will increase the perception that I am a real doctor but I would have to be trained and explained all the side effects so that the community does not blame me. I would require consent from the husbands and sometimes I help the husbands to draft the consent note before I would give FP to a woman. That is just how it is done here.

My thoughts on health

Heath services are important and should be accessible to everyone when needed. Currently the health facility doesn't have enough commodities and enough HCWs. I volunteer a lot and this takes a lot of my time. Also, patients often travel long distances to access health services if I cant get to them. We try our best to go out to them, but you can't get to everyone. I walk for about 1 hour, sometimes in the blazing heat to reach my first house. I have to climb up rocks to get there. Then I can probably reach another 3 households that day. But usually I get them to meet in one spot once a week at a certain time, and that way I don't have to struggle.

When designing for me, remember that:

1. **I feel demotivated since the promised stipend has never come. I worry about how I am to take care of my family**
2. **I feel good when the community seeks health services from me, I only handle condoms**
3. **I don't recommend women get FP without a husband's consent and I help husbands to draft consent notes for their wives to get FP at the**

"My days are usually very busy. Not only do I attend to patients but I also perform administrative duties as I double up as the health facility in charge"

Naisei: Nurse (non-local), Wajir County

About me

I have now worked in this place for 8 years. I am not from this region. When I was first posted here I didn't believe I would stay this long. I felt lost. I couldn't understand the community language and I had to start dressing like them however, I now feel like I am part of the community. My health facility is usually very busy, particularly in the mornings. In the afternoon, I compile reports and perform other administrative duties. Sometime I go to meetings in the sub county. I don't leave very far from the health facility, sometimes I am called at night to respond to emergencies. I have kept a few goats and cows. My family is not with me here so I usually visit them when I have a chance. Women come to me to seek FP services, I am a bit hesitant to give them since their husbands can confront me but I give them anyway.

My motivation

I love my job. This is what I wanted to do since I was young. Despite the high workload, I try my level best to attend to all patients. Sometimes I meet my clients in town and they greet me and say thank you for the services I provide them. I get to attend a number of training and this has helped improve my capacity to offer services. The community appreciates the services I give them. This keeps me going, although I miss my family. During the sub county meetings my supervisors appreciate my work and I am happy for that.

My challenges

Despite having stayed here for 8 years, language is still a barrier. Some people who come here cannot speak Kiswahili or English and I therefore have to look for a translator. Stocks mostly of essential medicine have been a problem for a while. We have stock out even of gauze and gloves and this endangers my work. Although I would like to offer and educate women on FP, I fear because I have had cases of husbands confronting me for offering these services which are against their beliefs. If the community is against me then my life can be at risk. The workload is also high since we are very few in this facility.

My thoughts on FP

FP is very important and I believe DMPA-SC will be acceptable here since it can easily be administered and women can take it secretly. A lot need to be done for the community to accept modern FP methods. Most women come to me secretly since they don't trust locals and they therefore feel safe coming to me since I am a non local. There is a strong belief that exclusive breastfeeding for 2 years is effective FP method and it is hard to change this belief in this community. Most women who use modern FP use it mostly due to medical conditions. Most husbands here are against FP. I find that even the CHA's or CHVs that help translate for me, feed the information back to the community about the woman taking FP. It's hard to keep confidentiality.

My thoughts on Health

Despite the many challenges in this region I try my best to offer the best level of care. I treat people from this community just as I would treat people from my community. If we had enough health commodities we would be in a position to offer better care. I wish the community would come to the hospital early enough. Most people come when their condition have worsened. It is mostly women who come to the hospital, rarely do men come to the health facility. Someone should talk to the men and tell them is okay to come to the hospital when they are sick. The beliefs here have made uptake of FP very low and therefore we have a lot of FP commodities in the facility that if not used they will expire.

When designing for me, remember that:

1. Most women come to me for FP services since they trust non locals more than the locals because I keep their confidentiality
2. I am afraid to provide FP services as there has been threats and harassment of me in the past
3. I do not always have the essential medicines or equipment I need to do my job well

Our insights

What is an insight?

"An insight is a clear, deep, and sometimes sudden understanding of a complicated problem or situation."

An insight is a set of data that clusters to an observation that **gives a new (or validated) perspective on the system**. To cluster, is the process of bringing together like things: in this case insights. It's about finding the patterns within the insights by grouping similar insights together. A cluster of insights then creates themes. This new perspective, directs us to ask questions about our design and to provoke innovation.

After a process of rapid in the field synthesis, and extended office based synthesis, the team "made sense" of the data from both Samburu and Wajir and asked themselves, what patterns were similar across both counties and what was starkly different. These differences, as well as similarities led to the iteration and creation of new personas, into the extension or creation of new insights and into the understanding that the behaviours and intricacies that make us human, are what being truly human-centred is all about. In the following pages, you will delve into some of these insights with real supporting quotes from the field.

Supervision not generally supported

There is a general lack of support and motivation for supervisors to make visits to CHVs areas of responsibility

Counties feel they can supervise themselves but supervision is dependent on a partners financial support. There is no logistical support such as provision of fuel or maintenance for motorcycles for CHA's to conduct CHVs supervision. CHAs supervision to CHVs includes mentorship on data reporting. Due to limited funding CHAs usually call CHVs to cover for physical supervision visits. Supervision is not structured, and is weak along the whole system including the National, County, Sub-County, Health Facility to the community level.

However, Wajir county has designed quarterly supervision checklists. The county has identified key performance indicators (KPIs) as per the county annual work plan, and also assigned at least 2 county health management team to follow-up and assist Sub County health management teams achieve their targets. While, this is framework has been designed, supervision is usually ad hoc and mostly program specific.

" We no longer do support supervision. We now go for quality only. Counties feel they can support themselves."- RH Unit representative, National MOH

"The sub county CHS focal person supervises me. We meet to discuss performance of the CUs. We ride on the partners (for supervision). But it's not always supported." CHA, Samburu

"The in charges raise complaints……. Some facilities are inaccessible, there is no reimbursement. Nobody wants to come to the facility." SCRHC, Samburu.

"Supervision for CHVs is a challenge. You have to supervise the CHVs, CHAs and CHC. I can't even remember when last we did supervision." health management team member, Wajir

"I do supervision based on priority or challenges like availability of motorcycle or fuel. Its only my own initiative. I just support myself." CHA, Samburu

' We can't access them (CHVs) What are our options? The network has improved to about 70-80% that might be an option.' Partner, Wajir

"We attach at least 2 CHMTs to follow-up, and assist SCHMTs achieve targets." health management team member, Wajir

Logistics data not being used efficiently to determine order quantities

Stock imbalances at the health facilities linked to lack of logistics and services data usage to place orders with KEMSA

Although, health facilities compile their orders which are subsequently collated by the County Pharmacist and submitted to KEMSA, the orders are not wholly informed by logistics and services data collected and reported by the health facilities. This has resulted in stock imbalances (stock outs and overstocks). This is compounded further by the failure of some of the health facilities to submit their orders on time to the County Pharmacist who has no choice but to place a standard order for these late reporting facilities.

Sometimes they make a blind order when they are in town" -Sub County Pharmacist, Samburu

"Some facilities are understocked, others are overstocked"- National, MOH

"We need real time status of commodities in a facility. Even in times of ordering its not based on data. Their reports are not accurate. (We) want the report to report on all commodities in the health facility. There is no accountability." –Sub County Health Team, Samburu

"There are a lot of gaps in the facility. I am not sure what the problem is. They enter data like robots." Health Team, Wajir

"The CHV comes to visit me four times in a month…….I am aware of FP. The CHV told me. I think it is good. I know pills, injectables, the ones for 3 months and 3 years. There is pills" (the CHV is female) WRA, Samburu

"The problem with us is we are not able to access data. I will be given access to DHIS2 by evening it is blocked" -National MOH

With some commodities, there is an extreme shortage of health commodities but with those related to FP, there is often an oversupply

Inadequate funding and low order fill rate from KEMSA has resulted to shortage of health commodities in the health facilities, whereas low uptake of FP has resulted in overstock of FP commodities

In Wajir and Samburu, allocation of adequate funds to purchase health commodities is not prioritised by the county governments despite the budget submitted to them. This has resulted in the inability of the counties to pay KEMSA for previous debts and inability to purchase adequate commodities. As a result the facilities are stocked out and also the healthcare workers are demoralised. Although the counties get support from donors eg HSSF funds through the World Bank and the collections from the health facilities, these funds are not enough to ensure purchase of adequate commodities. There is also a dependency on partners to support provision of health commodities. The low order fill rate from KEMSA has also resulted in stock out in the health facilities.

Although the counties face stock out of essential commodities, this is not the case for FP commodities. There is an overstock of FP commodities in the facilities due to low uptake as a result of a myriad of barriers. This may result in expiries and also reduces storage space for other commodities (when available).

"The uptake of FP is not high. We do not have supply chain issues for FP. We are generally overstocked rather than understocked" Sub County Health Management Team, Wajir

"We have debts to KEMSA due to delay of releasing funds"- Sub County Health Team, Samburu

"The biggest issue we have is the budget, this year we did quantification and our subcounty needed 154M yet annually we get less than a quarter of that" Sub County Health Team, Samburu

"Utilisation of FP is low….we do not need more stocks really we sometimes have expiries" County Health Management Team, Wajir

"What we call rationalization is not based on anything, but what you feel is right for the facility but not based on data" Sub County Health Team, Wajir

"In most cases the only medicine we get from the health facility is piriton and Panadol" Husband, Samburu

"There is too little allocation of funds to commodities and this demoralising to health care workers" SC Reproductive Health Coordinator, Samburu

"Funding is available but lack of budget inclusivity and transparency, coordination from the finance office and treasury office has resulted in no funds to purchase commodities" County Health Team, Wajir

"It takes up to 8-9months without drugs. The CHVs get demotivated and report no referrals. When we asked they say they cannot refer because there are no drugs in the facility" Sub County Health Team , Wajir

Commodities linked to programs have their own unique supply chain challenges

Stock out of program commodities experienced due to programmatic challenges at the national level

In Samburu, program commodities like TB drugs are not dependent on the ability of the county to pay since they are “free”, however stock out of TB drugs was being experienced by some of the facilities. The county has consistently submitted TB reports but they have not received TB drugs for the last 3 months. This is due to failure of the county to submit the reports on time for the scheduled distribution of the TB drugs therefore the county is omitted in the distribution of the TB drugs for that cycle, which means the TB patients have to either buy TB drugs from the local chemists or travel to neighbouring counties to get these drugs.

So while, the stockout of other commodities are generally more affected by budget constraints, theft, lack of reporting or late reporting, program commodities face their own unique challenges.

The common challenge with program commodities in both counties is late reporting and utilization of some of the commodities (FP) resulting into overstocks and sometimes expiries. KEMSA also sometimes pushes these commodities to the county in addition to sending short expiry commodities.

“The TB program always has had issues..we have the highest rate of TB in the country. The commodity management program has never ironed it out”- Sub County Health Team, Samburu

“We have to order BCG syringes from MEDs and they are expensive” County Health Management Team, Samburu

“The government will always plan to procure and we always keep the system functioning” Partner

“Currently we don’t have commodities in facilities for TB, we have been reporting for the last two months and we have not been receiving the drugs” Sub County Health Team, Samburu

“They don't usually want to get into the program commodities because they don't have kickbacks” Sub County Health Team, Samburu

“We don't get stocked out for all drugs some drugs can disappear from the facility especially anti-malarials, painkillers and sometimes antibiotics like amoxicillin” Health facility In charge, Wajir

Lack of tools and capability

Illiteracy, lack of reporting tools, capability to complete reports and avenues to submit monthly reports affect the timely availability of data for decision making

While CHVs offer services to the community as required, they lacked adequate knowledge and skills to complete the monthly reporting tools eg MOH 513, MOH 514. The CHVs found the tools to be complex and they did not understand some of the terminology. Their low literacy levels also affect their ability to complete the tools. This has resulted in incomplete data, poor quality data and delays in reporting. In both counties , some CHVs have resulted in using their children to help them complete the monthly reports. Commonly, verbal monthly reports were given to the CHA as a way of alternate reporting in Wajir.

On occasion, some CHVs are given health commodities to distribute with the communities. These health commodities include male condoms, de-wormers and vitamins. When the CHVs are given commodities, there were accounts of CHVs write the amount of the commodities they have given the community in their personal notebooks to enable them to report back to the health facilities.

In Wajir, Health facility in charges uses different avenues to send reports to the sub-county such as using local taxis, using visiting staff as transport and even public buses using the same route which is tiresome, personally costly to the user and inefficient.

In both counties, the CHAs have the skills and knowledge not only to compile the reports but also to review them and support the CHVs. The CHAs also are able to interpret simple supply chain visuals.

"I record commodities like condoms in a notebook, but others report I do are MOH 513,514 and MOH 100"- CHV, Samburu

"Some (CHVs) were reporting yellow fever and we don't have these vaccines" -Subcounty RH Coordinator, Samburu

"Some of the reports from the facility are sent by bus and may delay getting to me"- SCHRIO, Wajir

"I currently do not have any reporting book for referral" -CHV, Wajir

"Sometimes I have to validate the data reported by the CHVs, I sample 2-3 households"- CHA Samburu

"I do it (the reports) in hard copy and I take it physically to Griftu. I report to the nurse in charge" CHA, Wajir

"Some of the CHVs know how to read and write. The ones that don't know how come to me and I do it for them (reporting) like their end of month report" CHA, Wajir

"Children help the CHVs in reporting because of illiteracy" - SCPHO, Wajir

Data analysis and visualisation capability not present at all levels, but are represented at some sub-county and county level by the Health Records Officers

Selected management at the County and Sub-County level including the HRIO and SCHRIO have increased capability to visualise and analyse data, while the program managers and facility level staff tend to have limited skills in DHIS 2 data analysis and visualisation

In Samburu, data analysis and visualization skills was minimal as compared to Wajir. This included even the health records officer who ideally are tasks with the entry, analysis and presentation of data.

While in Wajir, the HRIO and the SCHRIO have strong data analysis and visualisation capability using the DHIS 2 visualiser to analyse and visualise data reported in DHIS 2. In addition, they have developed their own excel based dashboard to help track the performance of health indicators of interest to the county. The HRIO has a template that he shares with the SCHRIO to get additional data in readiness for analysis and visualization. The report is presented during the quarterly review meeting and the program officer respond to any queries or questions during the meeting. Most of the analysis and KPIs are on service delivery and with no supply chain indicators included in the analysis.

"The HRIO puts the data in the system. If they have any issue like of late we had low immunization coverage, they call" HFI, Wajir

"I report on monthly basis but I do not know what they use this information for".- Health facility in charge, Samburu

"Most of the programs rely on the records officer to analyse the data and visualise performance of set indicators" SCHRIO, Wajir

"Most CHMT members do not have DHIS 2 accounts. Only HRIO and surveillance guys use DHIS 2" SCMOH, Wajir

"To get the performance of the sub-county/county, you have to liaise with the CHRIO to get this information" – Sub County Health Team, Samburu

" We are monitoring a number of indicators as a county. Occasionally we get data from DHIS 2 to monitor the performance. The HRIO supplies us with this information" SC RH Coordinator, Samburu

Lack of connectivity, power and tech literacy

Connectivity and lack of power to charge phones hinders CHVs communication among themselves and with their supervisor (CHA), especially on smart-phones

In Samburu, nearly all the CHVs own a mobile phone that they use to communicate with their family members and their colleagues however lack of connectivity, particularly in Samburu East, hinders regular and timely communication. While, Safaricom connectivity is strong in some areas, it is weak the further out you go from a main centre. Telkom was mentioned to have filled this gap, with some connectivity in more remote areas . There is completely no connectivity at Swari the health facility. This means that the CHA has to send the CHVs SMS 2 to 3 days prior to plan and ad hoc activity in anticipation that they will receive the SMS when they go to a place with connectivity.

In both Samburu and Wajir, CHVs have to take their phones to town or the health facility to charge them as most of them lack electricity in their homesteads. Although some partners had provided CHVs with smartphones and trained them, some of the CHVs were still struggling with how to use smart phones. This could also be attributed to their literacy levels and age.
In Wajir , Male CHVs are more likely than women to own a mobile phone. This is also attributed to lower literacy rates amongst women. While the network is strong in Wajir, 3G is not always strong.

"Basic computing (CHVS) I would say 50%... most of the CHVs have phones, you can connect them" SC Pharmacist, Samburu

"It took 6 months to train on smart phones for CHVs"- Partner, Samburu

"Illiteracy of the CHVs is one of the major challenges I have" CHA, Wajir

We have challenges with airtime and charging because of electricity"- CHV, Wajir

" The is no connectivity here in the hospital not even Safaricom or Telkom. If you want Telkom you go for about 500 meters to access it, for Safaricom you have to go to that hill (about 1 KM)" Health facility in charge, Samburu

"Although CHVs have smartphones we usually (and they prefer too) sending SMSs"- HFI, Samburu

"Most have feature phones because of the battery life. Some use solar powered charges. They send 1 rep to town to charge all the phones." - Partner, Wajir

"Most facilities have network…. The challenge is connectivity.3G is in a few locations and it's very weak."- County Health Management Team, Wajir

HR issues throughout the system

There are severe staffing challenges at facility and community level

In Samburu and Wajir, there is a general shortage and inadequate distribution of the health workforce across the two counties and there is an inconsistent application of the HRH standards and norms, especially in hiring ,policies and recruitment process.

In Samburu and Wajir, health facility workers have complained that they are overwhelmed particularly during the rainy season when the communities migrate back in search of food and pastures. Sometimes clients take the whole day queuing for services because there are just too many people. At this time, when the facility is busy, they are required to work extra hours and sometimes forgo their leave days. This leads to the staff experiencing burnout affecting their ability to deliver quality services and delay in executing activities that need specific timelines such as reporting in DHIS2.

Because of this staffing problem, lower skilled staff and sometimes unqualified CHVs have to step up and do roles that are supposed to be done by nurses and clinical officers to alleviate tasks. Such tasks include assisting in deliveries/childbirth and dispensing medication. This also happens during nurse's and clinical officer's strikes.

There is also a very high CHV attrition rate which affects provision of community health services/education. The attrition is attributed to various factors including the lack of motivation, which is a common factor in both Samburu and Wajir , but more prevalent in Wajir. In both counties, training of CHVs is often reliant on partner activities and recognition and award systems are in place but are not always functional, even for health facility staff.

"Sometimes it takes all day (at the clinic) ….. There are too many people."- WRA, Samburu

"Most healthcare workers have not gone for leave for 5 years."- Sub County Health Management Team, Samburu

"At that time, we share the duties and it's hard, the workload is more. The staff have complained of fatigue, sometimes you can even be here alone."- Health facility In charge, Samburu

"One of the challenges we are facing with community health service is attrition of CHVs."- Sub County Health Management Team, Samburu

'We only have one nurse, when she goes on leave the facility is closed ."- Sub County Health Team, Wajir

".....health workers complain that they are overwhelmed."- Sub County Health Team, Samburu

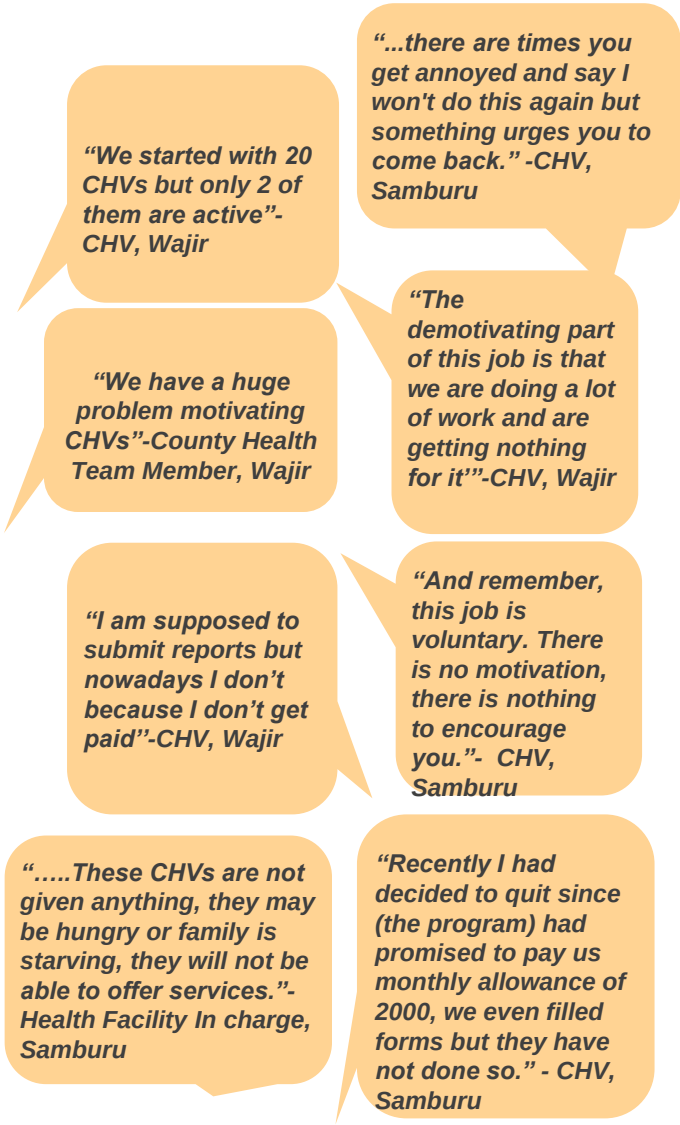
'"We have high staff attrition ,some facility have one staff and with new facilities coming up we are not meeting the WHO HRH standards"- County Health Management Team, Wajir

"A facility may have just one staff. So if that staff has a personal issue or is on training the facility remains closed." – Sub County Health Team, Samburu

Demotivated CHVs

There is a lack of support throughout the system that demotivates CHVs

The CHVs are not given stipends in a context where they are already time and financially poor and this is a huge factor for their demotivation. They are expected to carry out their roles and responsibilities in everyday life that take most of their time and energy yet there is no compensation. This leads to some of them not being proactive in attending to the needs of the community since they first have to ensure that they can feed and take care of their families.



Limited Confidence in CHVs

CHVs trusted for information, not medical services or handling of commodities

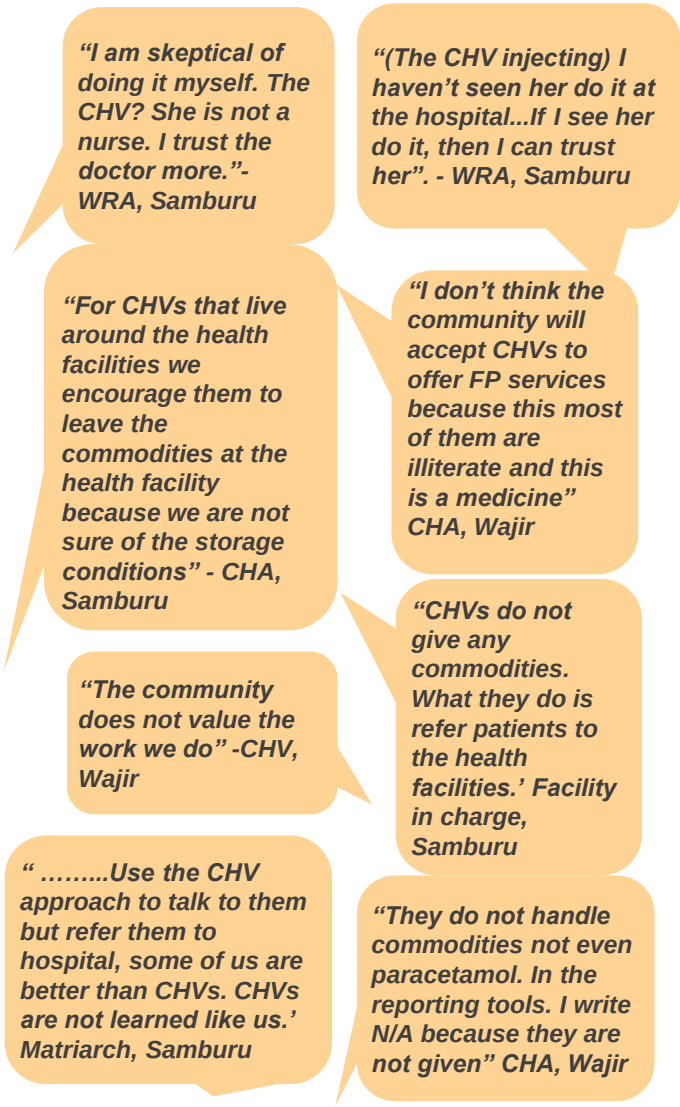
CHVs are not trusted by either the community or health facility service providers to perform community health services. This is because their primary role is perceived to be health education, referrals and tracing of defaulters. The CHVs themselves also don't trust their own ability to offer health services as they have not been trained.

The community also does not see the CHVs as an extension of the health facility or to be part of the health structure but identify them as one of their own. There is no apparent difference between them since some of the CHVs are illiterate.

Healthcare facility staff are also reluctant to give commodities to CHVs since they distrust their competency in dispensing and ability to store health commodities following proper guidelines. They would occasionally give CHVs commodities such as condoms, Panadol, de-wormers and ORS and even then they would encourage them to live them at the facility as they are unsure of the storage conditions.

Currently, those who would take injectables, would want them to be administered by trusted medical professionals at the facility and not by CHVs.

There are some extreme examples at the facility level, where CHVs fill in the gaps of health professionals due to inadequate staffing.



Meetings as a necessary communication tool

Meetings are held regularly and with high turnout throughout the system in Samburu, but this is reduced in Wajir

Many meetings are held at different levels throughout the system with high attendance. This is due to the ability to communicate efficiently face-to-face and create actions, in a context where communication is limited due to distance, connectivity or other inhibiting factors. Meetings tend to happen with or without external partner support (funding or otherwise). Ad hoc meetings however at the community level, take time to organise due to lack of connectivity and distance needed to travel by CHVs. Meetings are sometimes used to reward or recognised high performing sub-counties or facilities, particularly in Wajir.

Meetings are held at the sub-county and health facility level, tend to focus on lack of reporting and the reasons, community needs and the actions needed to address them and training or other capability building activities. Some include monthly CHV/CHA meetings, dialogue days where the CHVs meet with the community to discuss needs, and action days where CHVs/CHAs conduct activities in the community that are needed, together. At the sub county level, there are health facility in charge meetings as well as data review meetings, which are sometimes combined for expediency.

In Wajir, meetings are more likely to happen at the county level. Data usage and analysis is usually held with the HRIOs, who take the lead in preparing the reports which are consolidated and shared for critique during the review meetings. Support for the meetings are usually partner driven and is reliant on this support to take place. This has led to a significant reduction in the number of meetings held at the Sub County level, leaving the Quarterly meeting the only recourse to discuss issues.

The use of WhatsApp is prevalent, usually at the facility level with staff, with CHVs however being communicated to via phone calls.

"We usually have a meeting with the CHEW every month ..." CHV, Samburu

"We so quarterly data reviews...all levels are represented. It is usually facility in charge and up. The data could be gotten months after." CRCH, Wajir

"During the monthly CHV meeting we plan and schedule all activities of the month since it is a challenge to send SMSs in between" CHA, Samburu

"Our meetings start about 9.30am by 11am we end. We do meeting even on Saturday" CHA, Samburu

"The commodity technical working group used to meet monthly. Not any more we now meet quarterly. We look at all commodities, we discuss monthly activities and logistics" Sub county pharmacist, Samburu

"We used to have in charges meetings, last was February this year"- HF In Charge, Wajir

"When resources are available, sub-counties also hold health facility in charges meetings to review their data. This has not happened for a while now, almost 12 months now." CHRO, Wajir

"We have no regular meetings, we have internal meetings if we have emerging issues like outbreaks" Health Facility in Charge, Wajir

Disparities between community strategy and actual practice

The community strategy developed by MOH is not fully implemented in practice.

The community strategy implementation guideline by the MOH has outlined the steps required to set up a fully functional community unit. The standard criteria for selecting CHV, CHCs, CHAs is included in this document. According to this selection criteria, a CHV should possess a number of attributes including the ability to read and write. This is however not happening in practice as observed in both Wajir and Samburu Counties. A significant proportion of CHVs cannot read and write. In both counties, not all the CUs are operational. Even the ones that are considered operational are not "fully operational" because CHVs are demotivated and are not always putting in the required work.

Ideally, CUs and the health facilities they are attached to should have a strong relationship to enhance reporting and root cause analysis for community health challenges. In practice, health facility functions are not fully synergized with the community units. There is no meeting currently in place to discuss community data and indicators and health facility in-charges do not consistently attend CHV meetings.

Some "model CHVs", who have gained trust with the facility in both counties, sometimes perform duties such as immunization, assisting with deliveries, giving ARV and TB medication. This is beyond their scope defined in the community health strategy.

"Illiteracy for CHV is a big challenge. Only 10 CHVs (in my unit) know how to read and write. 5 CHVs have to be assisted." -CHA, Samburu

"Almost 60% of CHVs do not know how to read and write." -County Team, Wajir.

"We have just gotten the new CHEW, came about 3 months ago. we used to have 16 CHVs, 3 are not active. We want to reduce to 10, because they are hard to manage. I don't how they are chosen."-HF In charge, Samburu

"Nomads have an increased proportion of illiterate people.. Only one or two who have gone to school within each community. So we have to simply the training materials and data collection approaches." - Partner, Wajir

"At the hospital I majorly weigh the children, so during this we identify the children who are underweight and help with deliveries"-CHV, Samburu

"In Wajir we can say the CUs are partially functional. CHVs are not doing well. There are no incentives."- County Team, Wajir.

"For CUs that are not functional, it is because both the CHVs and the CHAs are not trained"- Sub County Health, Wajir

"When a nurse is absent, CHWs can stand in and can do immunizations. They are trained on the job." –Sub County Health Team, Wajir

Usability insights at a glance

The user experience in the app was not intuitive *In both Samburu and Wajir, the test participants often struggled using the app*

The participants struggled to locate the correct apps to enter the data they were given because there were many different apps that looked very similar in how they appeared that is the icons and their names too. Once they located the apps they did not know where to begin and often asked for guidance. The terms used eg data set, organisation unit and positive integer were unfamiliar to them so they kept on clicking away from the fields in the forms thinking there was data already.

Variations in literacy levels affected usage of the app *Limited literacy made it difficult for CHVs to understand, but others fared better*

There were variations in terms of literacy. Some of the CHVs are literate and conversant with phones and technology and these ones fared better as compared to those that were illiterate and hadn't interacted much with phones. The illiterate CHVs use their phones for calling and receiving calls so both SMS and apps would be a huge struggle for them. Low literacy levels would be a challenge when it comes to filling in the manual forms, this affects data quality despite the CHAs helping them monthly to complete their forms. The preferred language is Swahili and is used for all CHV Interviews. This is for those who were literate, they would struggle to understand English terminology. They also did not have supply chain knowledge.

CHAs and HF in charges tend to have more tech capability due to their constant interaction with mobile phones.

Usability insights at a glance

Poor network connectivity is a barrier to adoption of m-health technology *Lack of connectivity for both internet and sending messages affected the use of the app*

In Samburu, most of the areas did not have any network connectivity including the health facility and this made it difficult to use both apps. The people in the region often have to go looking for areas with fair network connectivity and for some they would walk long distances. The facility in charge and the CHA were completely unable to view the dashboards at the facility which would prove challenging in reviewing data during monthly CHV meetings.

While in Wajir, there was better network coverage, with the only exception being at the nomadic community level.

Limited knowledge in supply chain terminology and ability to read visualised data *All the participants had low supply chain knowledge*

The participants had very basic supply chain knowledge. The HF could interpret data from simple visuals and indicators like reporting rates but when it came to stock status he was unable to interpret without explanation. The CHVs could not explain SC terms such as stock on hand and stockout, this is the same for CHAs in most tests.

During dashboard testing, reporting rate indicators were easily understood. But the indicators that are linked to supply chain, they had a harder time interpreting.

Usability insights in detail

cStock app *General*

•The network is not always available or reliable
•The navigation is too many steps and too complicated for users
•Electricity means phones can't always be charged

cStock app *Login challenges*

•The network is not always available or reliable
•The navigation is too many steps and too complicated for users
•Electricity means phones can't always be charged

cStock app *Terminology and language*

- Language is too complex, needs to be simplified
- Terminology such as "data set", "positive integer", "organisational unit", "period", "commodities dispensed", "stock on hand" and "receipt" all confusing
- Not all users know English and Swahili as well as their local language, hard to identify which is the best language to use (if we just use one language)

cStock app *Enhance visual cues*

- Users need to be able to identify with icons that are being used, they need to be relatable. Save and refresh icon were not understood well
- Make it clear when one commodity ends and the next commodity begins
- Separate out commodities in some way
- Make it easier for the user to identify each commodity without words
- Make it clear where data should be entered in, users were clicking on the commodity name to enter data
- Users did not know when they had submitted the report, this needs to be clear and intuitive
- To save, it was confusing that users had to scroll back up to the top to find the save button and even then they didn't understand the icon

SMS *General*

- Caps lock is again difficult when entering in commodities
- The symbols are again difficult for them to find and enter
- The spaces required to submit report successfully, was not done correctly
- They don't know at the end whether or not the data was submitted successfully
- Users tried to save the contact number first, so they could send SMS easier
- SMS was hard for people to use in general, some found it easier than others

Health facility workers are gripped by fear concerning FP service delivery

While most healthcare workers understand that FP services are a right for women, they operate in fear of husband's and community backlash

In Wajir, there is palpable fear around the delivery of FP services. While some healthcare workers still give FP to women who ask, there are those that are unable to, due to the ever constant fear of husband or community reprisal. Stories of men coming to confront healthcare workers, or chiefs being involved in healthcare workers actions is common.

To mitigate this, most HCW do not give not FP without a husband's consent, even though this is against policy.

In Samburu, there were elements of this, but we found that workers at the facility level, would tend to still give FP services if asked- which was in contrast to the fear that those in Wajir faced.

"I sometimes fear that husbands can attack me- so I can't give FP without consent." Nurse in Charge, Wajir

"I once gave FP to a WRA. The husband learnt about it and confronted me. I stood my ground. The husband reported me to the chief, who also confronted me. I stood my ground. The WRA came for removal (of the implant) and has never come again." - Health Facility In Charge, Wajir

"I would take a woman to get a FP injectable buy first I have to ascertain that she has gotten consent from her husband". Midwife, Samburu

"I don't know what can be done for them to accept...The CHVs will leak the information, "Has your husband agreed?`` Maybe the husband will attack you, we do fear."- Nurse in Charge, Wajir

"The community does not like FP. When you encourage them, they say it is anti-religious. Some mothers also fear their husbands." CHA, Wajir

Mobile “nomadic” clinics not operational

There are clinics that are targeted to nomadic, semi-nomadic populations but they are not all operational or used to their full potential

There are mobile clinics targeted at semi-nomadic and nomadic communities in Wajir county, however at the community level we heard that the clinics may not all be operational or used consistently due to funding support.

These 4 mobile clinics cover 4-6 sub-counties but they are hardly operational. These clinics have a solid, movable structure and tent housing for the staff. We got conflicting information on who is actually in the clinics, but usually a nurse, CHA and/or CHV for support. The nomadic clinics are located at strategic points, namely watering points and should be with the reach of 4 nomadic communities. There is an opportunity to leverage these structures, to provide “Health Facility like” confidentiality, at the community level. These clinics are usually funded by Danida/USAID, but we are unsure if this is still the case.

Similarly, facility level outreach initiatives are sporadic and mostly focused on immunisation drives including polio and measles, with nomadic communities not seeing representatives for 3-4 months at a time.

In Samburu, the camel clinic is in place, which is a form of mobile outreach used for the nomadic community during migration. The camel is used to transport basic commodities to the community on the move. In the groups we talked to, no one had yet encountered a camel clinic at the community level and we are unsure if it is still operational.

“The nomadic clinics go to static settlements where there are no dispensaries. If they were designed differently, they would reach the nomads.” -Sub County Health Management Team, Wajir

“Mobile nomad clinics are supported..they are staffed by a CHA and CHV. They give service like immunisation. The mobile clinics are funded by DANIDA, at 80,000 quarterly and they report to their linked facility. ‘ County Management Team, Wajir

“The mobile clinics? They only happened once. But we do outreaches if we can get a car and usually only for campaigns, like polio or measles.” - CHA, Wajir

“We have 4 mobile clinics, they stay for 2-3 weeks...the location has to have reach into 4 settlements with reach and is usually stationed at a watering point.” - County Health Management Team, Wajir

“We have several nomadic clinics, we have given them MFL geocodes, so that they can receive supplies as well.”- County Health Management Team, Wajir

“The facilities are far apart. The facilities are not enough and they aren’t really helping in terms of nomadic populations.”- Sub County Health Management Team, Wajir

Health facilities is a last option for nomadic communities

In nomadic households, health responsibility is endorsed by community leaders

In nomadic households responsibility for health is usually centred at the family level, but any decisions usually have to have endorsement at the community level. The husband as the head of the household, makes the decisions around health in the first instance. The community endorsement on the household health is also extended to a role in financing households to seek health facility services. The permission to visit health facilities is given only after d traditional medicines and practices have been administered to the patient. They usually go to facilities to access prescription and drugs which are sourced from privately owned pharmacies in town.

Women's health facility visits are incumbent upon their husband's consent, the community leaders endorsement and the emergency of the woman's medical state. Women are likely to 'freely' use family planning after a major medical emergency or risk of complication during their past pregnancies such as miscarriages and bad obstetric history. This is of course, reliant on their husband's consent and community leaders approval.

" I have never been to a hospital. I don't visit hospitals when I have the flu. I drink the urine of a camel.`` Elder, Nomadic settlement, Wajir

"Action is what is required now. If its a modern contraceptive, the only way it is accepted is if she has a cesarean or if she has anemia." Health Management Team, Wajir

"Most of our women believe in TBAs. So they do not want to go to the hospital. Unless they are bleeding or have nutrition deficiencies" Nomadic settlement, Community leader, Wajir

"The women with the general weaknesses we slaughter a goat, and have fresh soup then we pray for her. If she doesn't get better we take her to the hospital"` Nomadic settlement, midwife, Wajir

"At the hospital I majorly weigh the children, so during this we identify the children who are underweight and help with deliveries"-CHV, Samburu

To make her healthier and stronger I will give her cows meat, soup and cows blood. I will slaughter another goat. If she stops giving birth completely, I will try and get another one (a wife).

"Health decisions are based on the household. The household lead is responsible for the health of that family. We help financially, small if we can.` Nomadic settlement, community leader

"My wife started using FP after our sixth daughter because she got a miscarriage" CHV, Samburu

Their nomadic life, religion and culture are the major barriers to FP

The nomadic community do not embrace family planning due to cultural and religious reservations, but ultimately fear of community reprisals if used, especially by women independently

In Wajir, there is strong attachment and identification to the nomadic lifestyle and identity. The community members highly value their animals and have minimal contact with towns. This limits exposure to new developments and health programs.

The community's religious position coupled with their cultural values and misinformation constitute a major barrier to uptake of family planning.

The community strongly believes that the use of FP is against their faith and culture. The common belief is that it is a Muslim's duty to perpetuate the nation of Islam (Umma). A large Muslim population is ordained by religion, and that failure to achieve it deviates from the right path. It is believed that children are a blessing and a gift from God and , therefore, they do not want to interfere with God's plans.

There is a lot of misinformation and fears around the use of FP. Concerns were raised regarding infertility and side effects such as the spotting of blood with an injectable that may interrupt a women's prayer schedule (as she would be deemed unclean for prayer until there is no spotting). Uncertainty about confidentiality is a hindrance to FP service access. The introduction of family planning services is also perceived as a strategy used by other actors, including politicians, to reduce their population.

In effect, those who intend to do child spacing favoured traditional means, which included continuous breastfeeding for two years, withdrawal(though not common with male participants except the religious leader who mentioned it) and avoiding sexual encounters before marriage.

Most community members are illiterate and rely on their strong oral traditions to share information and communicate. Any advice or guidance given by the religious leader is generally accepted and is the source of information and knowledge to the community, however we have seen that women take advantage of their rare visits to towns, due to the FP uptake (however limited) in health facilities. Women tend to not even take FP within reach of their community, but may travel as far as Wajir Town to get FP to ensure confidentiality.

"I do not advocate for FP because children are a gift from God"- Religious leader, Wajir

" I tell women about FP but they do not want FP. They want to have children. Our faith tells us not to use FP. I want many kids- I still want more."- CHV, Wajir

"We don't want women to have more than two years(between births). We are pastoralists and we want women to give birth, we don't believe in FP. God chooses if you make children" - Community Leader, Wajir

"There are people who use injectables from the facility but I never use. We only believe in God that is why I resolve to him"-WRA, Wajir

" We sell our animals, we buy from the market. We use a donkey to ferry from the market. There is a chief who brings us small things. He has a wife here. He visits us and we may use his car."- Community Leader, Wajir

"People perceive FP to be something that is used by Christians to control the number of children they have. They perceive children to be God's plan"- CHV, Wajir

"One of my CHVs speaks Swahili . she is para % and refuses FP, says children are a gift from God"- HFI, Wajir

"Cultural and religious barriers such as fear of divorce is a major concern for the women" –Count Team, Wajir

Migration Behaviors

Nomadic migration has dramatically declined due to the need for education, health and demarcation of land

Migration behaviors for Samburu and Wajir are similar, however there are notable differences. In both contexts, people migrate in search of water and pastures. In Samburu, it is the men that move with their animals leaving their women and children behind. As for Wajir, there are groups that live in isolation from the general population. Once a decision to migrate is made, the whole community moves and establishes a settlement in the new location. They are however not completely secluded, on occasion, members from the community visit nearby centers to trade and get basic supplies back to the settlement.

In both contexts sometimes the communities decide to invade other territories in search of pastures leading to clashes. This happens in severe drought conditions.

The rate of migration has however declined. Members from the communities have children in school and some of them are doing casual jobs to earn a living. In Samburu, CHVs may check-in on nomads especially if they have TB, HIV or are pregnant. However, the isolated nomadic communities in Wajir are only reached by the CHVs and health workers during outreach campaigns. But more often than not if people are extremely sick they go to the nearest health facility for treatment, with traditional health remedies and attendants being the first point of call. During the rainy season, services are affected at the healthcare facilities due to overwhelming numbers leading to stock outs.

Mobile phones are the main mode of communication between the people that move and the ones that are left behind.

"Communities here no longer migrate, land is being partitioned and allocated to the community." CHV, Samburu

"As community leader, I coordinate the 22 households. Where do we go, where do we look for pastures, for water?"- Community Leader, (nomads) Wajir.

"I usually migrate and leave my wives in this home. When I migrate I take one wife, ….. , I usually take the wife that doesn't have any young children. I haven't migrated for 5 years" Husband, Samburu

"People move in search of pastures and water. They move within the sub county and rarely outside." County Team, Wajir.

"During the drought season, a few men risk and move to different territories in search of pastures and water" Partner, Wajir.

"Not all the communities move at once, as of now only 50% of men in two villages have currently migrated." CHA, Samburu

"In terms of migration, it depends if we receive heavy rains. We can stay for some months at a time." Community leader, (Nomads) Wajir.

The Secret Life of Women

In Samburu, women have been defying cultural norms, to take family planning in secret while in Wajir this practice happens less

In Samburu, contrary to cultural norms, women are removing men from their traditional roles of decision makers, by bypassing them to take family planning, without their knowledge or approval. This is facilitated by women's ability and behaviour of meeting in groups or individually at culturally appropriate places such as markets, women's groups and at health facilities where health information including FP is shared, advocated for and acted upon.

Women feel safer amongst other women as their confidentiality is usually secured. Women protect other women through a veil of secrecy.

This behaviour seems to be in defiance of their partners perceived role, in the societal structure in which women are overburdened with work and are unsupported by their partners- who don't always have respect from the women. This is also evidenced by a FP preference for injectables because the method is undetectable by their husbands and non-advocates.

This secret womanhood, is in stark contrast to women in Wajir. Women are more distrustful of other women in this context. In this context, the secrecy extends to the husband, as well as the community. Family Planning is so taboo in these communities, that women wouldn't dare talk to anyone in their communities about it. While, we did hear examples of secret FP taking from health staff, its rates are definitely less than what we saw in Samburu. Women in these communities, also find it hard to find their way back to facilities as they are more remote and busy with everyday activities. Women also sometimes would come for FP advice from facilities, but leave if too many of the community were there to observe them.

The consequences of taking FP without husband or your community, is harsher in Wajir and can even lead to divorce. In Samburu, the husband would request she stop, but it wasn't as drastic as Wajir. In Wajir, women are more afraid of the repercussions and of their husbands.

"We meet at the market, and we set the date for the meeting (women's group)...Women come, and secretly some women go the facility"- Matriarch, Samburu

"Injectables would be easier to give them because of secrecy...if it's pills, its routine and I can get caught. Most men don't know when the women do get it." -County team member, Wajir

"Mostly they make independent decisions. They do it in secret. Even when coming for FP, if they see 2 people in the place, they just go back (home). They want it in secret."- HFI, Wajir

"I used to hide and when he is not at home, I would go to the health facility and be given FP (injectable)."- WRA, Samburu

"The community does not use FP. There are only 5 people in my community that are on FP…..and three of those went into Wajir town to get it." -CHA, Wajir

"Muslim communities don't (generally) uptake modern contraceptives. Men are the decision makers of the family. The mother wants to utilise the commodity, but if I tell him, he won't consent to this." -CRCH, Wajir

Lack of trust

Women in Samburu tend to trust other women regarding family planning and with health information, while in Wajir there is a general distrust of anyone who is part of their community in relation to FP, with most trust being held by non-locals

There is limited trust in mothers and traditional healers by women in Samburu. Women's trust is earned or given by either providing resource support or having an understanding of their personal struggles and issues. For resource support, women are more likely to trust uncles and brothers. While for 'women's' issues that include FP, they trust their older female relatives, best friends and female community health volunteers. They also seek advice from other women through women groups and health facilities. Women have been cultured to see men as decision- makers and as resource managers. Elder women are seen as advisors for issues that affect women. While, women appreciate a female CHVs advice they are less likely to accept health services from them, with women closer to facilities opting to go straight to a facility for advice as well as services.

Whilst in Wajir, women have limited trust in those around them in general. They do not admit to using family planning to almost everyone, even the women in their community, the community at large and the health staff from their community. Women have been taught that discussions around and use of family planning insinuate disrespect for Islamic beliefs on child-bearing, and that you may be at a high risk for divorce and community rebuke if you take it. The women also consider that it is their responsibility to give birth to many children. This is driven by the patriarchal structure of society, and perceptions are largely driven by Somali cultural practices and Islamic beliefs.

Interestingly, women in Wajir tend to trust non-local health staff at the facility level, as long as they can be assured of their confidentiality. Being a non-local, there is assumed confidentiality when a health worker is not from the community. This is also evidenced by women travelling out of their location to Wajir Town to take FP far from their communities.

"The problem is the neighbour not (just) the husband. They want the pills removed from the packaging and put in envelopes. When their neighbours see them making tablets, she will have to tell them she is sick."- FP Nurse, Wajir

"The community does not like FP. When you encourage them, they say it is anti-religious. Some mothers also fear their husbands." CHA, Wajir

"CHAs/CHWs often discourage clients on FP" Nurse in Charge, Wajir

"I have never gone to a traditional healer….." WRA, Samburu

"The community does not use FP. There are only 5 people in my community that are on FP…..and three of those went into Wajir town to get it." CHA, Wajir

' We can't access them (CHVs) What are our options? The network has improved to about 70-80% that might be an option.' Partner, Wajir

"They (Women) do not want family planning. I tell them to take family planning and they do not want."- CHV, Wajir

Lack of Trust: FP Champions and Antagonists in the community

Confidentiality is key in pushing for uptake of FP in the community

In Samburu, female CHVs are empathetic towards their fellow women because they can relate to their lives; their duties and responsibilities in the community and their culture, that does not allow women to make reproductive health decisions. The female CHVs embrace FP despite encountering resistance from the community including their husbands. There have been instances where female CHVs have been confronted by husbands about offering FP services to their wives without consent, but this has not stopped them from delivering this service.

Male CHVs on the other hand do their job out of the prestige and recognition they get from the community. They do and would require consent from the husbands before giving any FP services to the women in the community. Some male CHVs have even not allowed their wives to use FP, therefore male CHVs may not be strong advocates for FP.

The situation in Wajir is different. CHVs are generally not champions of FP regardless of their gender and this is because they are locals and have been known to betray the trust and confidentiality especially for those women seeking FP services without consent. This would not only create a challenge for the women with their husbands but also within the community whose culture is generally against FP. However, women tend to trust non-locals for FP services because they are certain that their confidentiality would be upheld due to their traditional ties with the local community.

"Our nurses are non-local but if you get it from a local they will spread the information"- Non local in charge, Wajir

"I cannot give FP to a woman until both the husband and the wife agree."-CHV, Samburu

"Women don't like it when Male CHVs come to translate in the facility because they come from the community, the clients don't feel protected and end up refusing" Non local in charge, Wajir

"...If a woman comes to the health facility and wants an implant, we ask her if she has discussed this with her husband. We sometimes call the husband to confirm this before the implant is given." CHV, Samburu

"CHAs/CHWs often discourage clients on FP" Nurse in Charge, Wajir

"The CHV comes to visit me four times in a month…….I am aware of FP. The CHV told me. I think it is good. I know pills, injectables, the ones for 3 months and 3 years. There is pills" (the CHV is female) WRA, Samburu

"...Even the CHV, the wife has never used family planning, he doesn't have funds but he has so many children (in reference to the male CHV)" CHV, Samburu

Our 2 Model Hypotheses

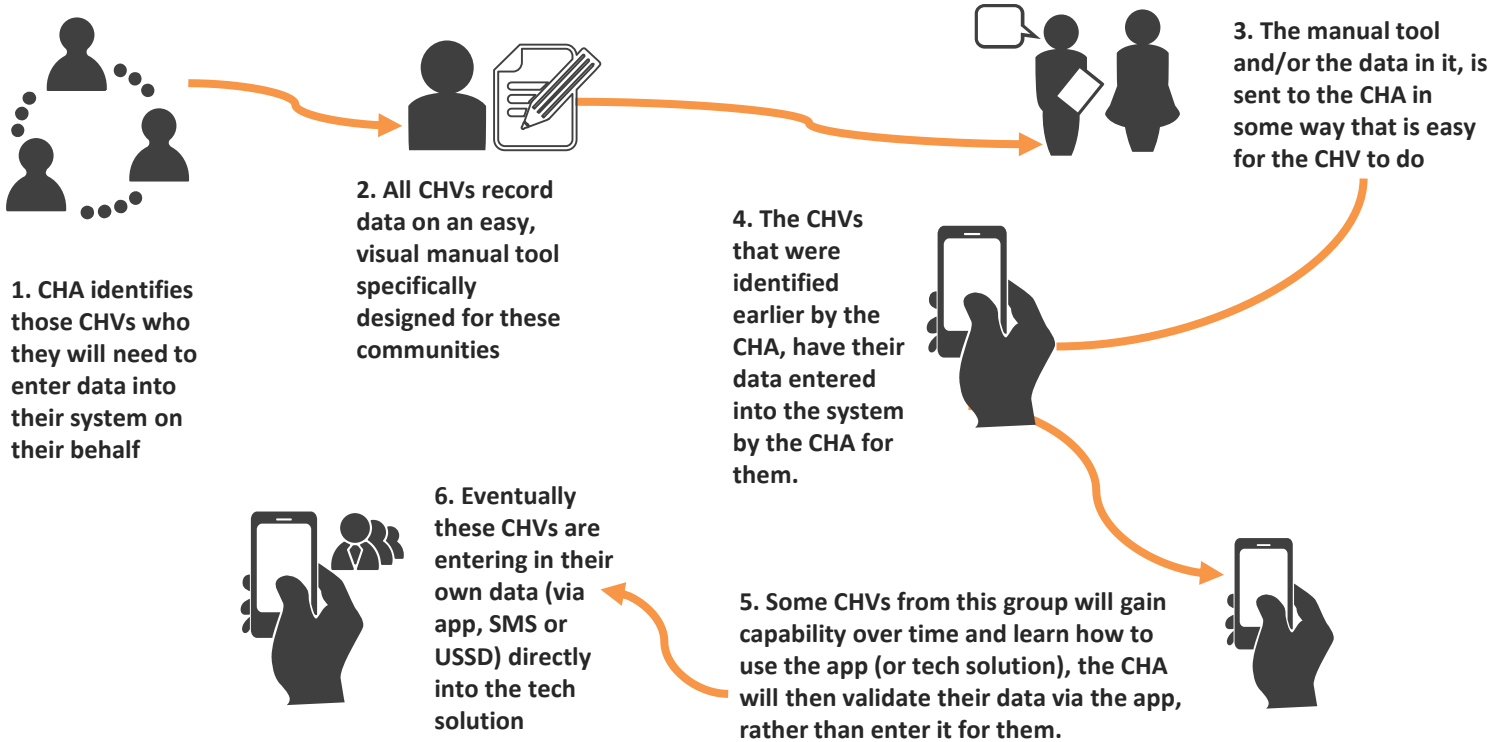
cStock: What informed our 2 models?

Based on our personas and our insights, we created two models that would ensure that we cater for differing levels of skills, motivations and contextual elements within the health system in Northern Kenya. The idea is that Model One would be a temporary state, with CHVs/CHAs graduating to Model Two over the years. There were a few guiding principles that our models were based on:

1. We needed models that could be applied to all counties, and have variations for different skill levels;
2. We understood that there has to be a manual recording element to each data flow, but that this can be redesigned to be more intuitive;
3. Illiteracy is high amongst a lot of CHVs, therefore we needed a way for CHA's to be more actively involved in the validation or entering of CHV data, but to only be a temporary solution, allowing for CHVs to graduate to the next model;
4. While training is a big element of understanding how to use an app, send an SMS or use a USSD, we also want to test what medium is most intuitive if we design with our insights and usability testing results in mind.

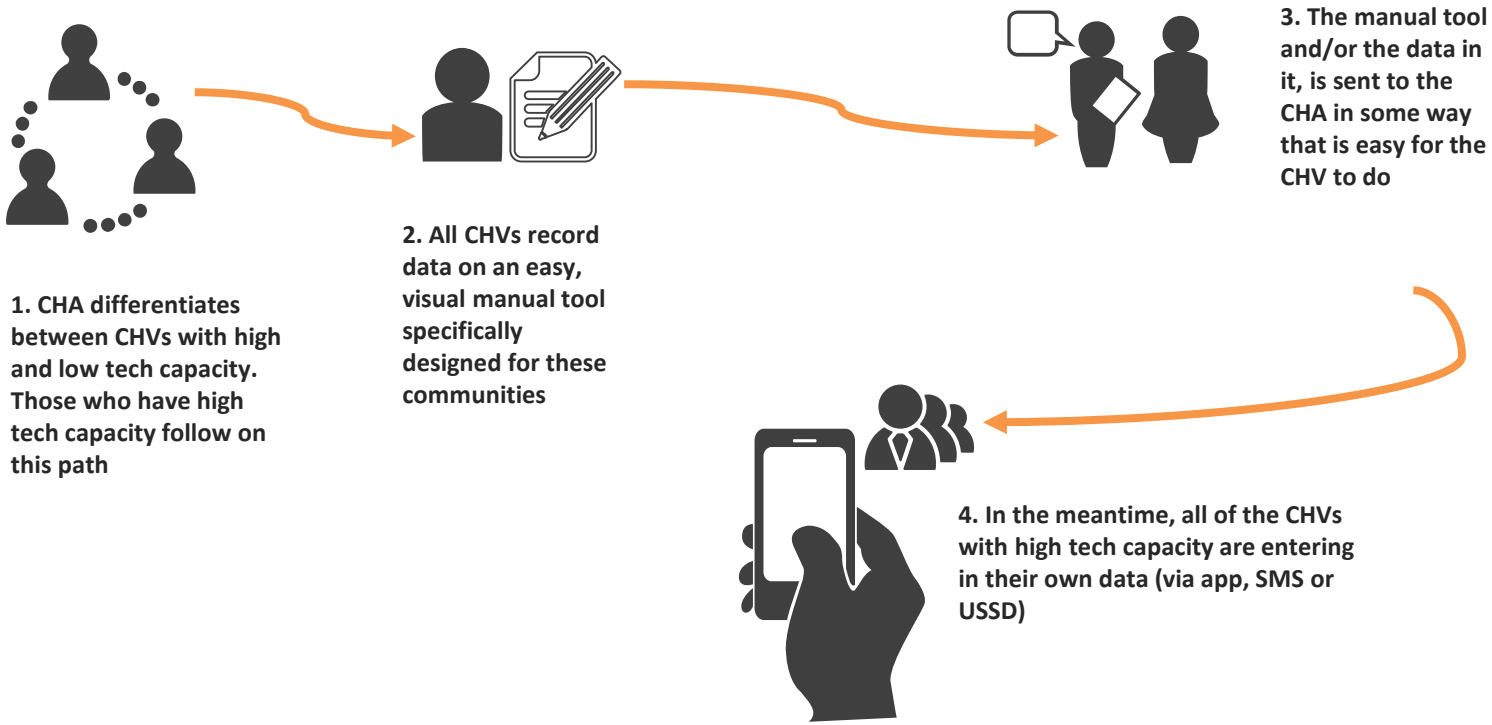
Model One: CHA enters or validates data for low tech capacity CHVs

In this model, the assumption is that the CHA is better at these things and will be only entering data on behalf of the CHVs who cannot do it until they learn how to, after which point the CHA just performs a data validation function. The other high tech capacity CHVs, will continue to enter the data directly into a tech solution.



Model Two: High tech capacity CHVs enter in their own data

In this model, the assumption is that the CHVs that have high tech capacity will enter in data into a manual tool, that will somehow be delivered to the CHA, however in the meantime, these CHVs will enter data directly via a tech solution straight from the community level. There will be no entering or validation of this data by the CHA on their behalf.



1. CHA differentiates between CHVs with high and low tech capacity. Those who have high tech capacity follow on this path

2. All CHVs record data on an easy, visual manual tool specifically designed for these communities

3. The manual tool and/or the data in it, is sent to the CHA in some way that is easy for the CHV to do

4. In the meantime, all of the CHVs with high tech capacity are entering in their own data (via app, SMS or USSD)

Redesigning cStock: Our prototypes

JSI

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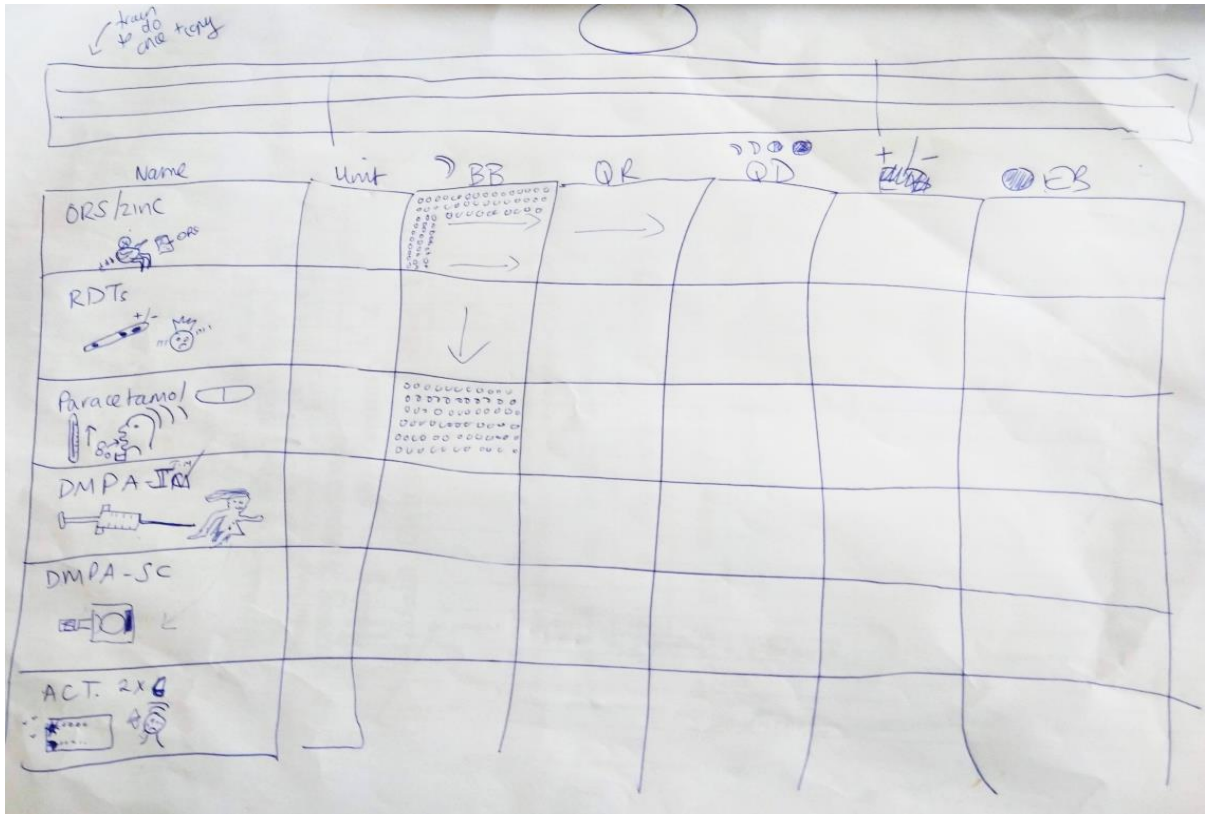
What is a prototype?

Prototypes are turning a hypotheses into an actual. Instead of us discussing what may or may not work, we create low-high fidelity actuals. This is a tangible example of our solution, that can be tested, proved or disproved and iterated upon and developed in the next stages of our approach.



What were our prototypes at a glance?

Manual Tool Redesign

Redesign of cStock app

Designing a CHA portal

Alternate Channels

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Redesigning a CHVs manual documentation tools

What is it ?

Redesigned and highly visual manual tools that could be used by all CHVs, no matter their literacy level, to report monthly

What problem is it solving?

- Low literacy and numeracy levels for CHVs
- Cross-cutting tool to be used by all communities to report on logistics data

What are the main elements of your prototype?

- Icons to represent each commodity
- Circles to represent quantities of commodities
- Icons eg moons to represent time and people to represent the number of clients

What assumptions are you hoping to validate with this prototype?

- They will be able to identify which commodity they are dispensing through pictures
- There will be ease of reporting using circles/dots
- The manual records will help them quantify commodities received, balances and dispensed etc

What processes or tech needs would need to be changed to implement this ideas?

- Customizing icons to the current registers
- Matching the manual design reports to cStock app.

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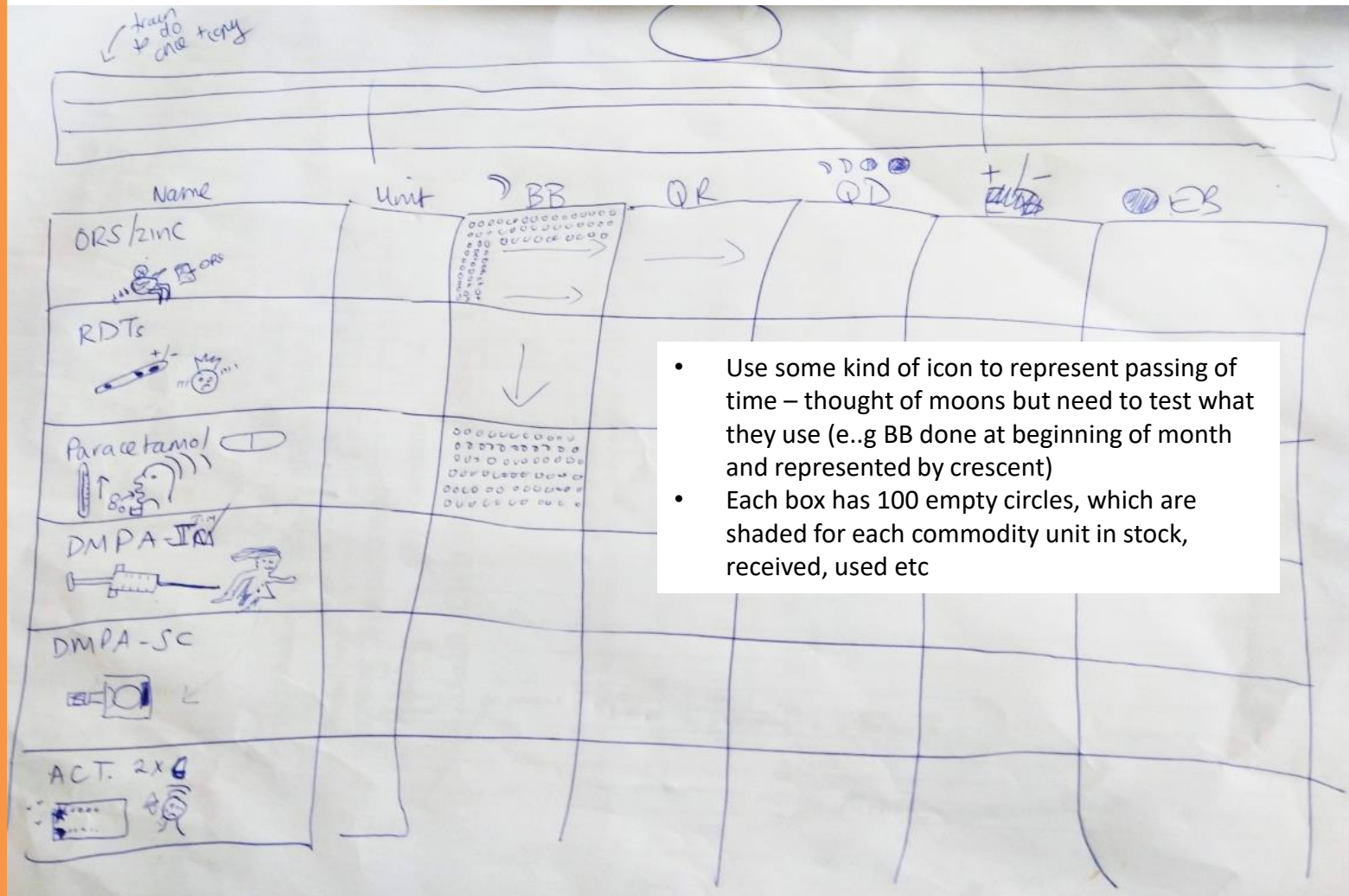
Redesigning a CHVs manual documentation tools

What does our first round low fidelity prototype look like?



- Use some kind of icon to represent passing of time – thought of moons but need to test what they use (e..g BB done at beginning of month and represented by crescent)
- Each box has 100 empty circles, which are shaded for each commodity unit in stock, received, used etc

Redesigning cStock for CHV use

What is it ?

It is a redesigned cStock app developed with CHVs usability constraints in mind and now includes such things as context appropriate language amongst others.

What problem is it solving?

- It addresses CHV limitation/interaction with the app to include: CHV illiteracy and language barriers
- Login challenges/user friendliness

What assumptions are you hoping to validate with this prototype?

1. The CHV will be able to access each or identify the commodity they are reporting.
2. Navigation process will be reduced
3. Change can be adopted for both feature and smart phones

What are the main elements of your prototype?

- Single app with different modules
- Reduce number of navigation steps: collapsing/locking organization data set
- Use simple terms such as:
  - Dispensed: hand /finder handling tablet/drug
  - Receipts: a hand with drugs
  - SOH: shelves with medicine
- For feature phone: coding SMS; USSD, provide functionality for IVR interaction
- Colour coding bar on drugs: pharmaceutical colour coding/match packaging/icons for commodities

What processes or tech needs would need to be changed to implement this ideas?

- Capacity building of the CHV (training)
- What drugs to be tracked (classification)
- User friendly language

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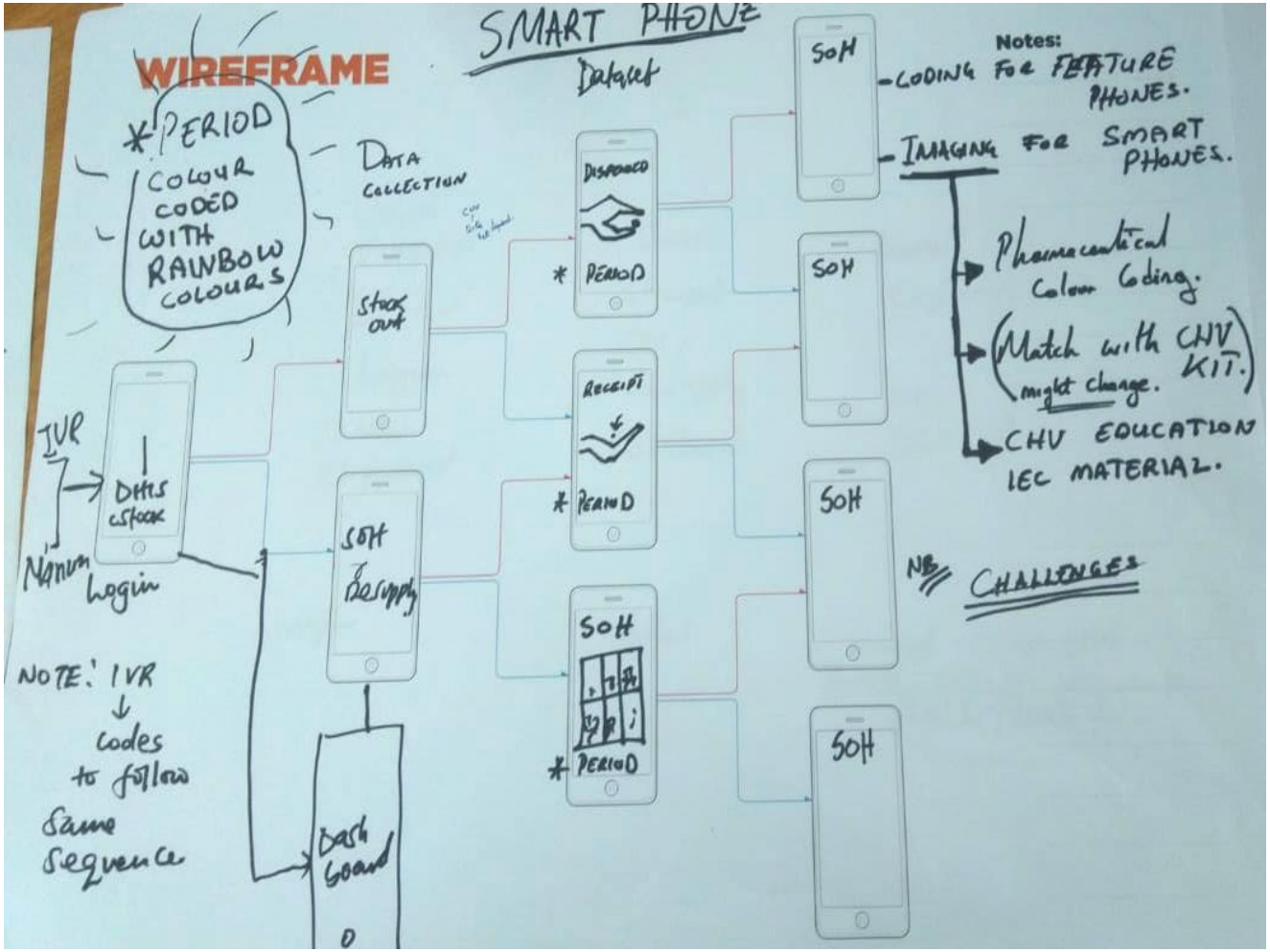
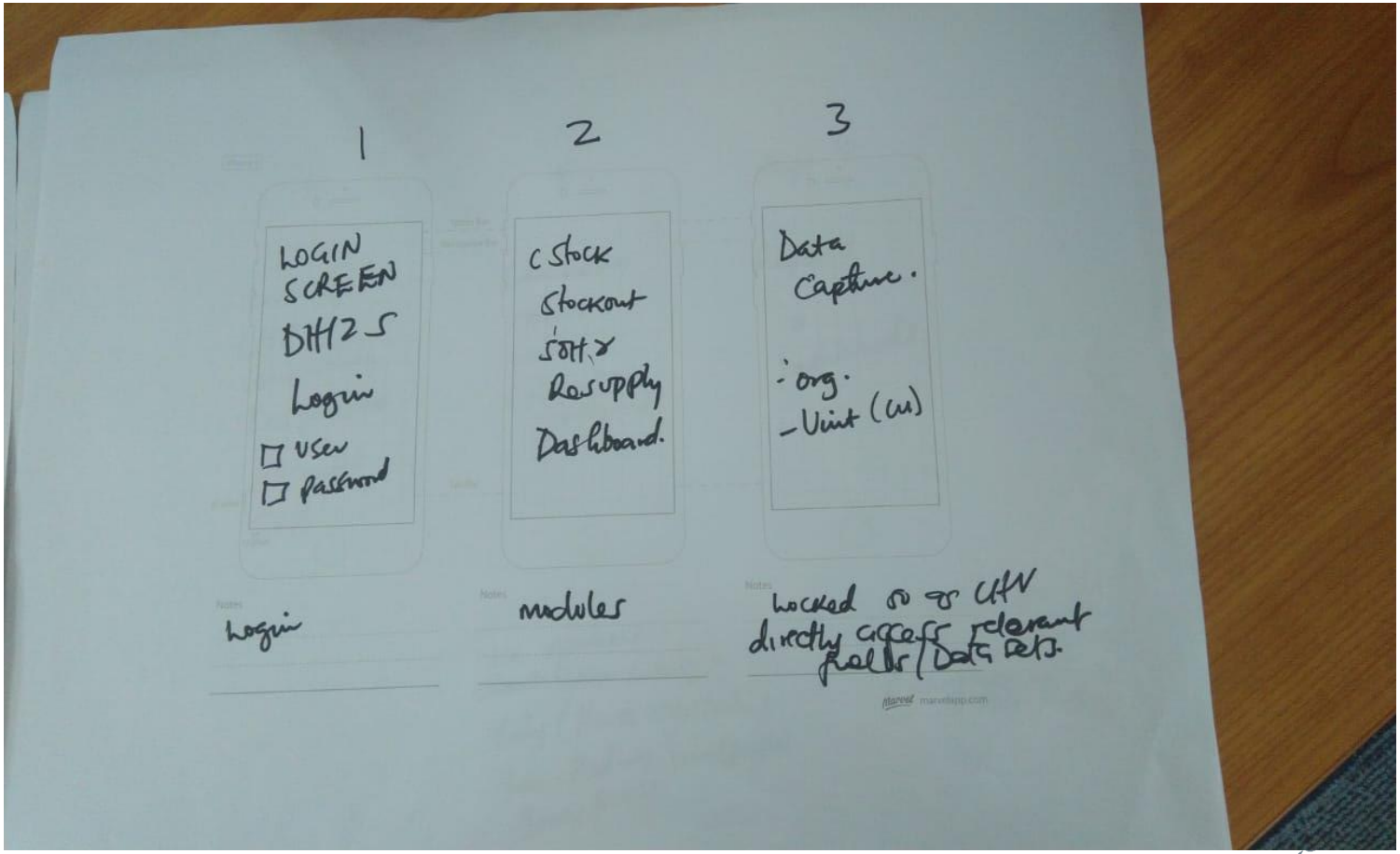
Redesigning cStock for CHV use

What does our first round low fidelity prototype look like?



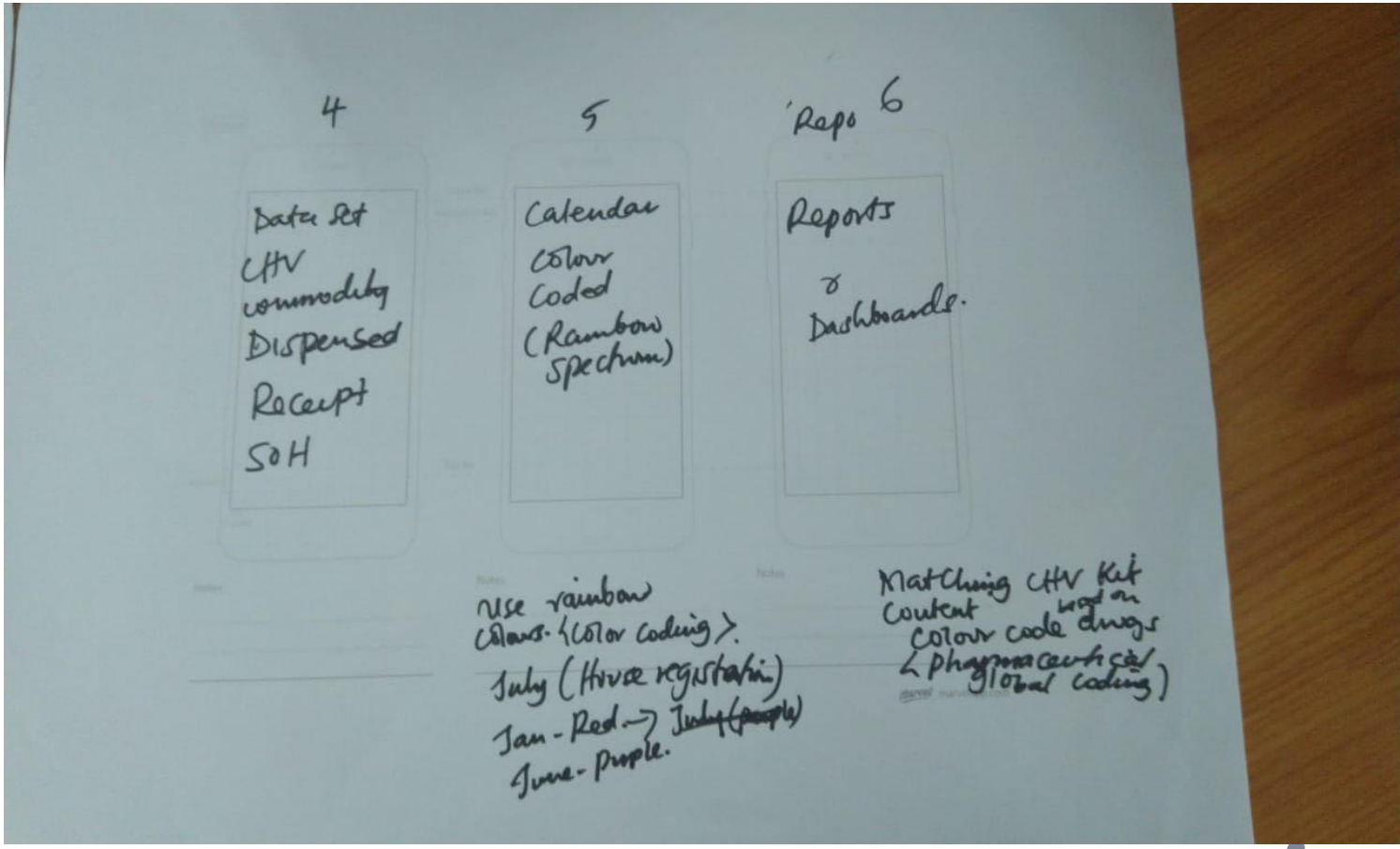
Redesigning cStock for CHV use

What does our first round low fidelity prototype look like? (Put a picture here of wireframes, you can do multiple slides etc)



Redesigning cStock for CHV use

What does our first round low fidelity prototype look like? (Put a picture here of wireframes, you can do multiple slides etc)



Designing a CHA portal

What is it ?

Explain the prototype in a few sentences, this can be like your insight taglines as an example of how you could structure it.

This is a prototype that will be used to test different workflows that could tackle variations in literacy and tech capacity among CHVs.

What problem is it solving?

What problem/s does this prototype seek to address?

This prototype will address the inability of CHVs with low tech capacity and low literacy levels to enter data through cStock and also ascertain that quality of data is maintained.

What are the main elements of your prototype?

This is where explain step by step how the prototype will work (and what is different about it)

There are 2 workflows that could be implemented after the CHVs enter data on the manual form:

1. The CHVs can enter data monthly to cStock, the CHA then validates this data. If correct then they approve and if not they reject. The CHA can then make necessary changes if possible, or the CHV can do it. (This is for the CHVs who are literate and can use their phones to enter data)
2. The CHA enters data for each CHV from the manual forms, then validates the data. (CHVs with low literacy or no phones)

A notification of the rejected submissions would be sent to the CHV and a dashboard displaying those CHVs whose submissions were rejected for the CHA.

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Designing a CHA portal

What assumptions are you hoping to validate with this prototype?

Eg the CHA will be able to more easily navigate tech, the CHA will have more control over data quality, CHV can use SMS easier than apps

- These workflows will reduce burden on the CHAs.
- CHA is able to easily navigate tech
- Data quality will be ensured.

What processes or tech needs would need to be changed to implement this ideas?

Let's say the test worked, what would be needed to drastically changed for this idea to be implemented

- We would need to figure out if DHIS2 is the right platform for this, and if so certain interfaces and workflows would change a bit.

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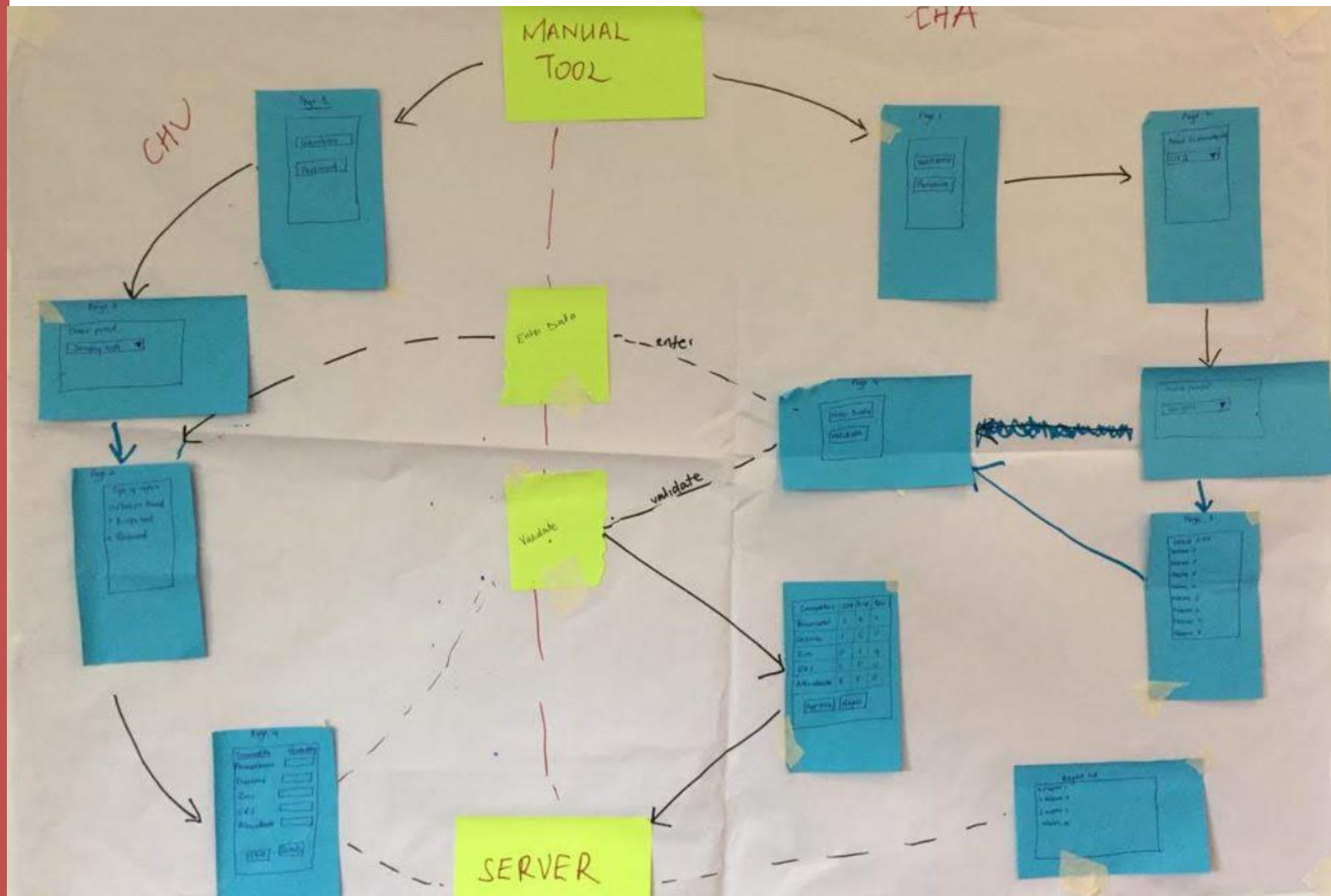
Designing a CHA portal

What does our first round low fidelity prototype look like? (Put a picture here of wireframes, you can do multiple slides etc)



Designing a CHA portal

Description of the workflow

CHV entering data

STEP 1*: CHVs fill in manual tool*

STEP 2*: CHVs logs in cStock*

STEP 3: *CHV picks the period for reporting.*

STEP 4: *CHV selects the report to enter data.*

STEP 5*: CHV enters data, saves then submit*

STEP 6*: CHA validates the data. (reject or Approve)*

STEP 7: *CHA/CHV corrects the data*

CHA entering data

STEP 1*: CHVs fill in manual tool*

STEP 2*: CHA logs in cStock*

STEP 3: *CHA selects CU*

STEP 4: *CHA selects the period.*

STEP 5: *CHA selects the name of CHV.*

EITHER

STEP 6: *CHA selects enter data.*

STEP 7: *CHA selects report to enter data.*

STEP 8: *CHA enters data, saves then submit*

OR/AND

STEP 6: *CHA validates data*

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Designing a hybrid SMS and USSD reporting system

What is it ?

A USSD hybrid system to be used by CHVs to report on supply chain data.

What problem is it solving?

- Not all CHVs have smart phones.
- CHVs had challenges entering symbols with the structured SMS option.
- Case sensitive SMS structure was difficult for CHVs.

What are the main elements of your prototype?

It is a new approach that was not being utilized by cStock.

***STEP 1**: CHVs type in USSD code (*800#) that allows them to select a language.*

***STEP 2**: CHVs pick a report out of the 4 options. (stock on hand, Commodities received, commodities dispensed, emergency order)*

***STEP 3:** CHV picks the month for reporting.*

***STEP 4:** CHV selection triggers an SMS that describes how the report should be submitted.*

***STEP 5**: CHV sends commodity quantities in the same order as they are listed in the previous SMS separated by a # symbol.*

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Designing a hybrid SMS and USSD reporting system

What is it ?

A USSD hybrid system to be used by CHVs to report on supply chain data

What assumptions are you hoping to validate with this prototype?

- Simple to use (not as complicated as the structured SMS options).
- Provides guidance to the users as they do the report.
- It is easier to remember the USSD short code as opposed to the longer structured SMS short code.
- It will eventually minimize errors (in data entry).

What processes or tech needs would need to be changed to implement this ideas?

- It might be more costly compared to the structured SMS option. (maintenance cost)
- Screen size is a limitation. (Amount of information to be displayed)
- Time-out is applicable on USSD

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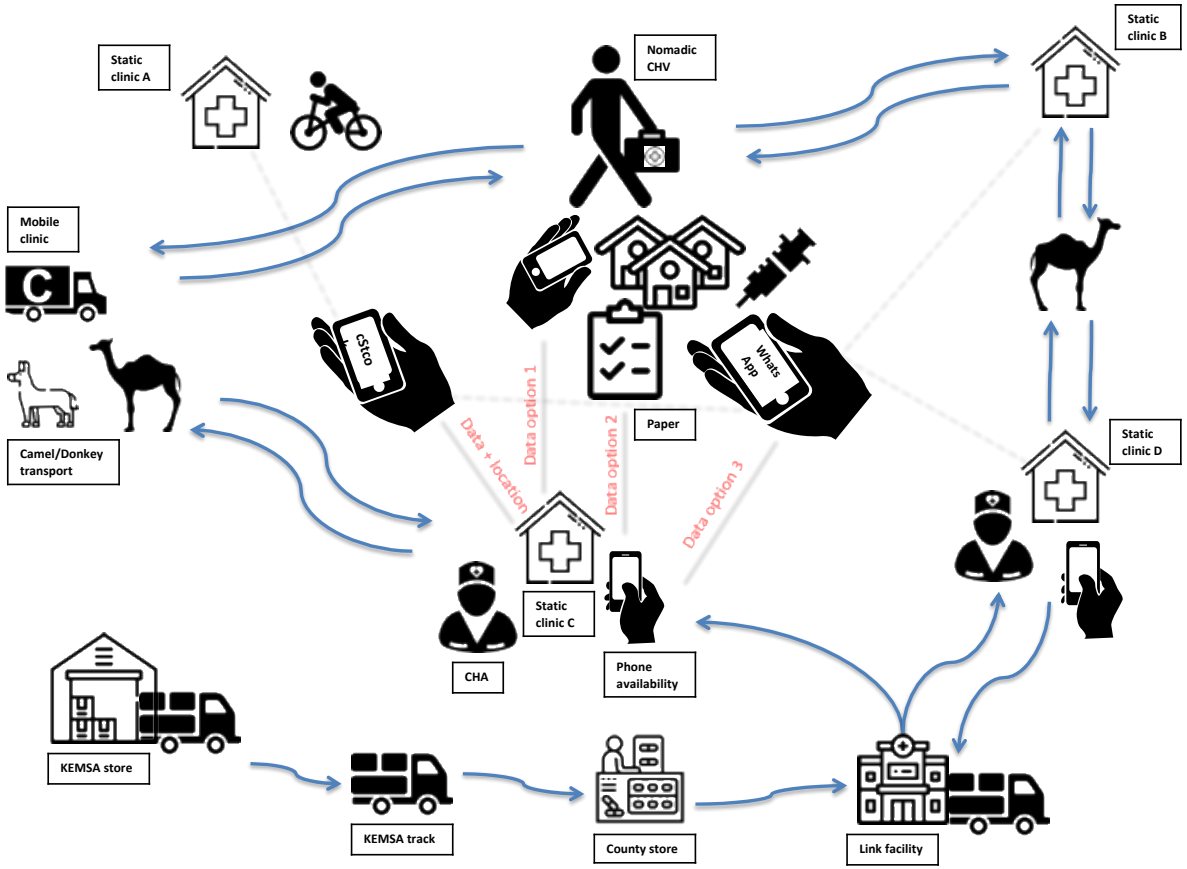
Designing a hybrid SMS and USSD reporting system

What does our first round low fidelity prototype look like? (Put a picture here of wireframes, you can do multiple slides etc)

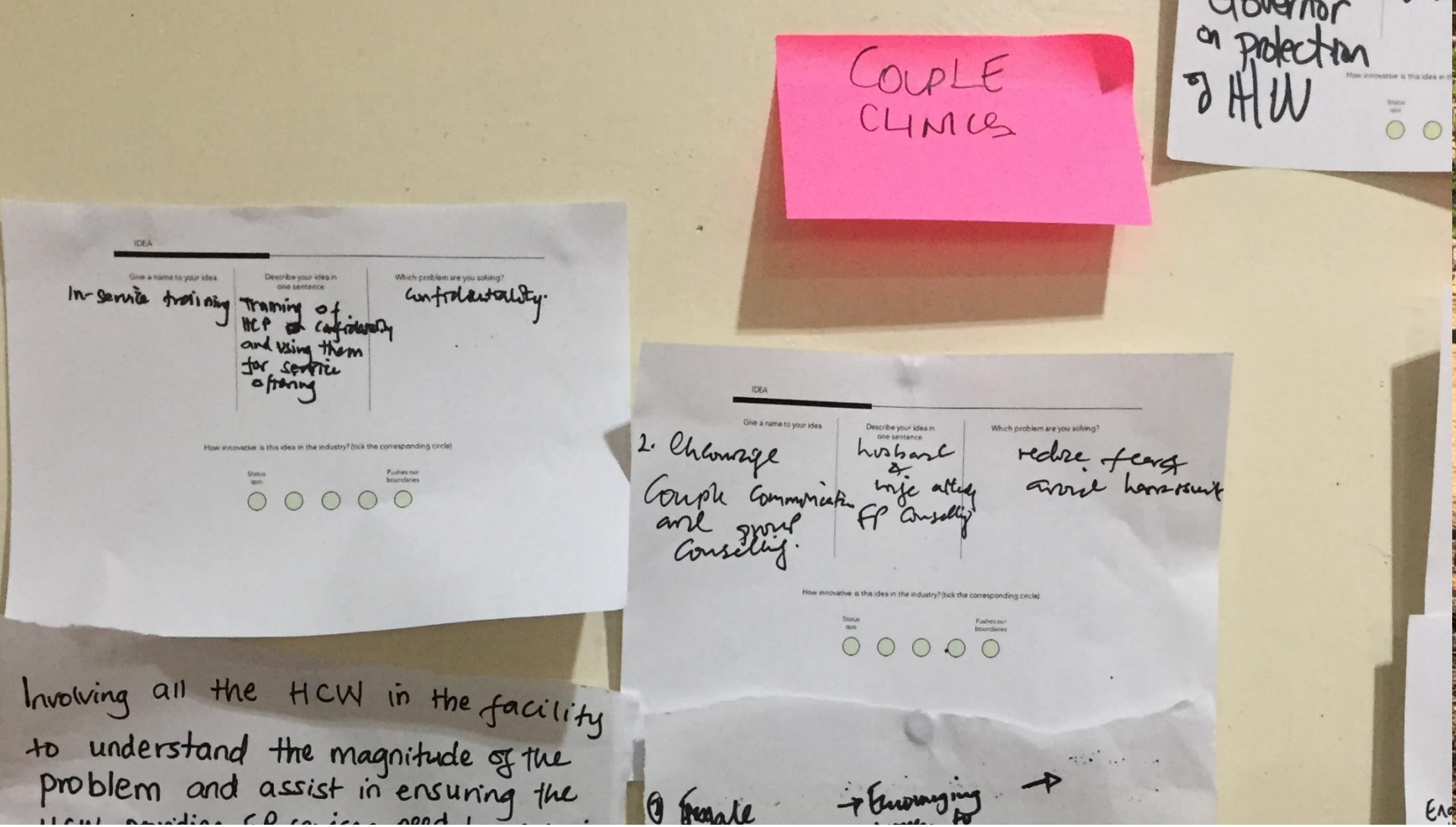
The Commodity Flow

The Commodity Flow



In collaboration with MOH representatives and partners during our workshops, we understood that based on our insights that the commodity flow for CHVs from migratory communities would have to change to incorporate the following :

1. CHV will send SOH and quantity dispensed via Whatsapp, SMS or the cStock app (or other means) and will tell their CHA/select their preferred facility via the app.
2. The CHV will send the SOH and quantity dispensed whenever they have touchpoints with town or gain internet access.
3. Once they send it through, cStock calculates and sends the required amount to the clinic selected.
4. The system will then tell the CHV that their order is ready.
5. Another alternative is that the CHV will know the facilities in the area, and will alert their CHA from their linked facility A, that they are going to be picking up supplies from linked facility B.
6. CHA will have to alert facility B that their CHV is coming for supplies. There may be an option to have the CHA instigate this alter through the app, or it may be via phone.
7. CHV will be alerted that order is ready either via the app or through their CHA, or the CHA in facility B.
8. This model would require facilities to order more stock, if they are in migratory routes for these travelling CHVS.



Ideas on reducing barriers to uptake of FP at the last mile

What is ideation?

When we ideate, we come up with half baked solutions based on what we have learnt. What ideas can we produce to address our insights? What patterns do we see in our ideas?

Our insights, provoke design (or challenge) questions which we use to stir creativity, and invoke innovative ideas.

In our workshops, we used these design questions to brainstorm lots of new ideas and identify clusters/patterns.

After this stage, you would add more detail to the concepts (or clusters) which can be taken further to create prototypes, taken to users for testing and used to continue to gather feedback from the end users in situ. We tried to answer the larger question:

"How may we reduce the barriers to uptake of FP in last mile communities?"

Ideas could be generated around (amongst others):

- Changes to the community health model
- Changes to who provides FP services
- Changes to what commodities actors within the system are responsible for
- How women receive FP
- Where women receive FP
- Leveraging trust circles
- Leveraging existing behvaiours of women

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What were our design questions?

1. *How can we leverage the sporadic touchpoints women may have with facilities or even towns, when they visit?*
2. *How can we leverage already existing structures that "try" to extend the reach of service delivery to last mile communities to facilitate FP uptake?*
3. *How may we still provide FP services when there is low staff coverage (or no staff coverage) during certain periods?*
4. How can we stem misinformation around FP to women in communities through networks or mediums that they trust?
5. *How can we make women feel like their confidentiality is secured at both the community and facility level when interacting with health staff?*
6. *How can we get communities to seek modern healthcare alternatives, sooner?*
7. *In Samburu, how can we leverage the trust women have in each other, including female CHVs, and their self designed routes (and spaces) to taking FP in secret?*
8. *In Wajir, how can we give women more access to non-local facility based staff in a way that ensures confidentiality and increase uptake of FP?*
9. *How can we reduce the fear that staff feel about giving FP advice and treatment?*
10. *How can we ensure the confidentiality of the role and practices of staff members who provide FP, to avoid harassment and intimidation?*
11. *How can we increase the motivation of CHVs by ensuring they feel more supported, or by other means?*
12. *How can we change the perception in the community of a CHVs ability, increasing trust in their ability to provide services?*

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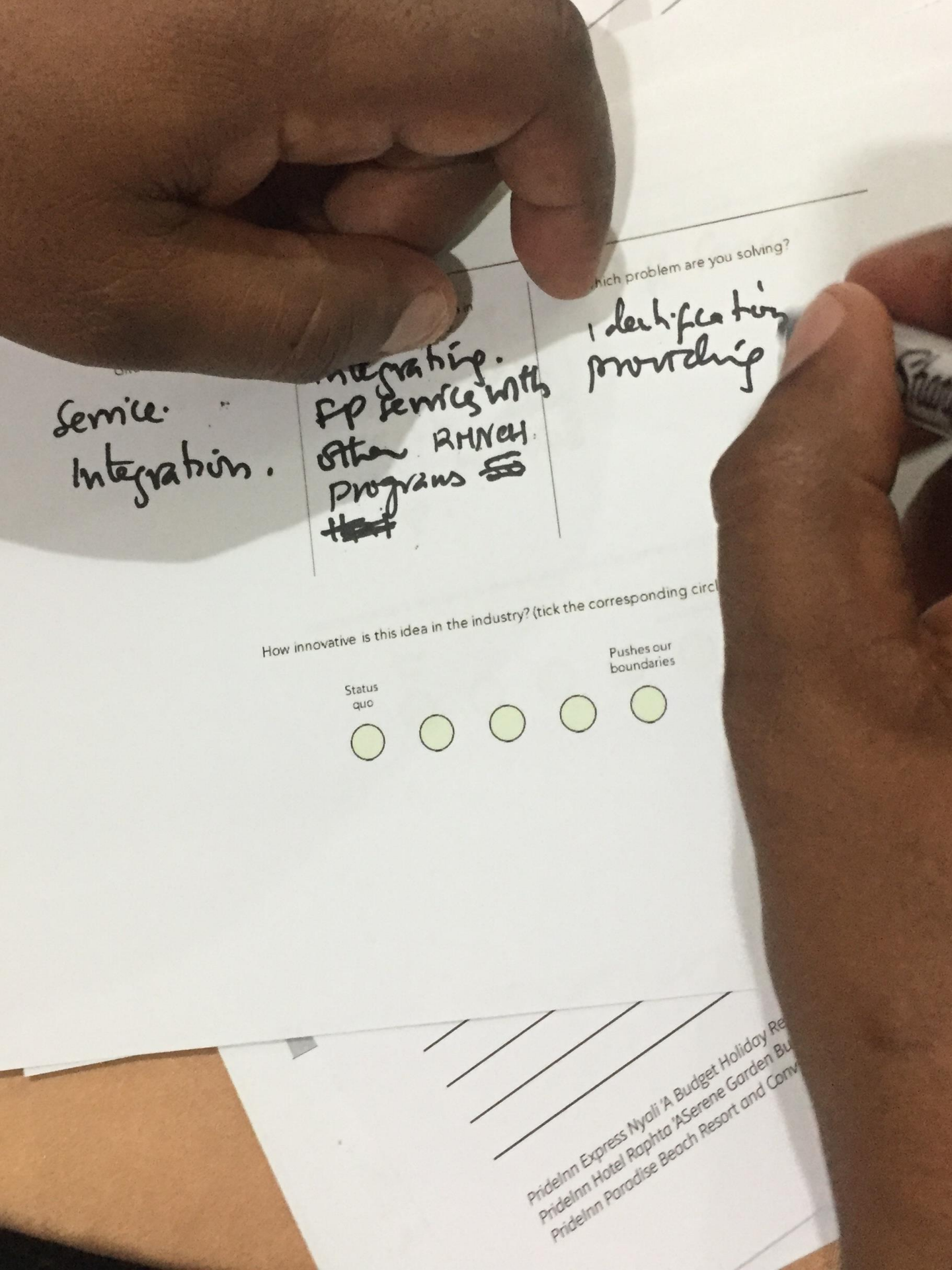
hich problem are you solving?
Identification
partnership
Service.
Integration.
integrating.
FP Services with
other RHNCH
Programs
How innovative is this idea in the industry? (tick the corresponding circl
Status quo
Pushes our boundaries
PrideInn Express Nyoli 'A Budget Holiday Re
PrideInn Hotel Raphta 'ASerene Garden Bu
PrideInn Paradise Beach Resort and Conv

What ideas did we come up with?

Local Language Training

- **Local language training:** Train non-locals to local languages, to minimize the use of translators and reduce breaches of confidentiality.

Couple Clinics

- **Involve men in counseling:** Have both wife and husband counseled together before offering a FP method, to reduce misunderstandings around birth spacing, empower women, and reduce fear/harassment of staff.

One-to-One services

- **One-on-one FP counseling sessions:** Build the capacity of HCW to provide FP knowledge in individual sessions, ensuring confidentiality for the patient and safety for the HCW.

Dedicated Women's health room and time

- **Separate discrete counseling room:** Have a separate room for women's health in general, which will also include FP. You do not come to wait, you can make an appointment later on in the day when the facility is not busy, or just come when you want. You have a private waiting room where no one can see you, and no men allowed unless they are non-local.

Alternate names of clients

- **Change client name:** Use other names for clients to ensure confidentiality.

Advocate for FP in communities

- **FP awareness in communities:** Organize Barazas and community meetings to sensitize the public about FP, to improve acceptability and awareness of FP services.
- **Ensure community accountability:** Educate communities on HF staff roles and rights, to protect HCWs safety.

What ideas did we come up with?

Health sensitization

- **Train CHVs and HCWs on confidentiality, FP, and GBV:** Ensure staff understanding of FP as a normal health service to be provided in a confidential manner, and the impact of IPV/GBV on FP decisions. Involve all HCWs in facilities to understand the magnitude of the problem and the importance of patient confidentiality.

Incentives for CHVs

- **Continuous support for CHVs:** Provide refresher trainings, support lunches for feedback, exchange visits, and certification ceremonies.
- **Enroll CHVs in NHIF:** Ensure CHVs have access to NHIF and other social premiums.

Re-brand CHVs

- **Identification of CHVs:** Ensure recognition of CHVs by the community and HCWs through the provision of branded materials such as t-shirts, caps, badges, umbrellas, and bicycles for those serving nomadic communities. This will change the perception of CHVs as experts in community health.

Income-generating activities for CHVs

- **Income-generating activities for CHVs:** Start viable livelihood projects for CHVs to ensure they earn a living, or have stipends become compulsory through a bill or law.

Give CHVs necessary commodities

- **Equip CHVs with necessary commodities and health education:** CHVs should be provided with IEC materials and kits of consistently supplied health commodities. These kits should be all inclusive and contain a variety of commodities, not just FP-related, to offer integrated services and make FP services more discrete.

Support CHVs

- **Provision of meals, transport and air time:** Improve communication between CHVs and clients and easy movement to daily activities

What ideas did we come up with?

Recognize CHV work

- **Performance-based recognition:** Hold quarterly CHV activity review meetings using c-stock manual and CHV dashboard, to aggregate data and analyze performance. Reward good performance with training on IGAs, presentation of their work in forums, certificates, and additional responsibilities (e.g. DMPA-SC) to motivate and improve targets.
- **CHV of the month:** Feature CHVs in HF and provide pens for clients to write thank you notes.

Selection criteria for CHVs

- **Selection criteria of CHVs:** Community selection of the CHVs so they have faith in their role and are accepted by the community.

Public acceptance of CHVs

- **Highlight CHV impact on community:** Link them with local leaders, admin chiefs, D.Os, and village elders so they can be recognized in public instances such as Barazas, to present CHVs as role models, showcase their positive impact on health indicators, and allow them to share their stories.

Make CHVs feel heard

- **Ensure connectivity:** Ensure CHVs are connected to the system by providing airtime also to CHAs to communicate with CHVs regularly
- **Community advocacy:** Advocate to community members the need to make non-local HCPs comfortable for their services and the role of HCWs in FP service provision
- **Priority for referred clients by CHVs**

Training and knowledge recognition

- **Have regular training opportunities:** Build capacity of CHVs around FP, basic health packages, and commodity management by providing regular on-job training opportunities, building staff confidence to address FP issues and carry their mission diligently. These trainings should address the roles of HCWs, CHVs, and the community
- **Provide product transparency to CHVs**: Review IEC FP materials on side effects and benefits of contraceptives.

Skills and capacity building

- **Mentorship program:** Provide CHVs with a well-structured mentorship program, and regular supervisions that are results-oriented
- **Evaluate the CHV CBD**

What ideas did we come up with?

Protect CHVs

- **Reassurance:** Get support from facility management
- **Use DMOH to insulate HCWs:** Use government structures to channel any issues from the community through the office of the DMOH/CD/CO/CEC to insulate CHVs from such issues.
- **Circular from H.E Governor on protection of HCW:** Ensure HCW safety
- **Expand HCW recruitment:** Recruit more HCW to offer FP, to avoid being "branded" as the only ones providing these services

I support you

- **Scope of CHV work:** Review the policy on drugs that can be dispensed by CHVs (expand ICCM
- **CHS Act**

Advocacy through leaders

- **Multi-sectorial approach:** Encourage women leaders to influence FP acceptance by men, and act as mediators to reduce CHWs risk of confrontation, and engage men, RLs, APs, and county commissioners through stakeholders forum meetings and Barazas, where FP and health rights are discussed. Create a council of Elders to educate men on FP.

Feedback mechanisms

- **Suggestion box:** Provide HF with suggestion boxes for community members to suggest skills they want CHVs to possess to provide better services, and address these concerns during FP meetings or ITs to provide community perspective

Exchange programs

- **Exposure learning trips:** Visit other communities with similar geographic background and challenges. Exchange with other structures on DMPA-SC and other services.
- **Care to share:** Provide avenues for peer-to-peer learning of CHVs, to encourage benchmarking of practices.

Health Stop Shop

- **Service integration:** Health stop shops for CHVs in the community, offering integrated RMNCH health services. This will reduce identification of staff providing specific services.

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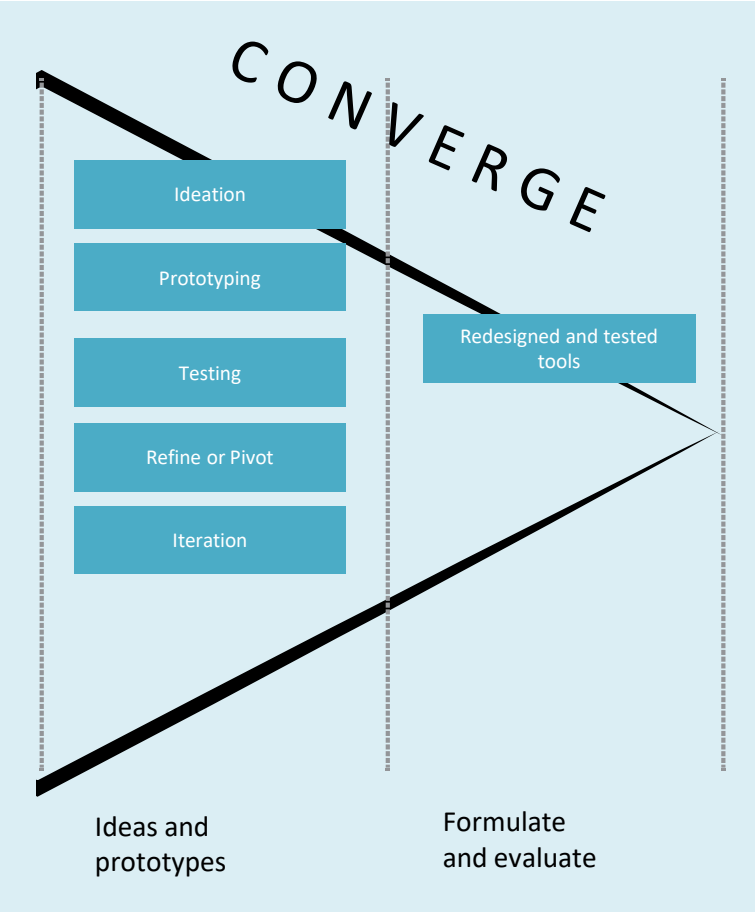
The Way Forward

What's next?



Save the Children/Amref

Based on the insights provided and ideas already generate, partners can continue to brainstorm ideas and identify patterns that have merit.

Create low fidelity prototypes, to test your assumptions early and rapidly. Eg if you want to create a safe space for women in facilities, find an unused space, put a label on it saying "Women's Health" for a week. See how many women ask about it, or knock on the door

We have added in a testing plan in the following page, that may help you with structured your testing of your ideas or prototypes.

From there, you can see what idea worked best, whether it makes sense

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We have already started to build out our prototypes for testing.

We will be testing in Samburu the week of the 21st of July with CHVs and CHA's in a variety of facilities and locales.

Based on our testing, we will iterate on our prototypes and hypotheses.

We will start to operationalise by starting system design on the week of 5th of August.

As we progress, we will run mini-tests, as we go in the other counties, as part of our HCD and developmental evaluation approach.

Testing Plan Template

Testing Plan

Name of Prototype:

Key Variables: What specific variables within this prototype are we testing?

Who are you going to talk to? (Test Populations)

How many people are you going to speak to?

How long will your test last?

Where and when will your test take place?

What needs to be created to test this prototype quickly and rapidly? And how will you evaluate its effectiveness?

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