Miriam: Good afternoon, all. So, I’m going to walk you through the experience that I’ve had so far as an implementer for the HIV self-testing program in Zimbabwe, which was very uncharted water. All morning, we have been hearing a lot of studies and researches that were happening. Then there was time for real drama. The implementer had to come in and take somebody brave to take on this responsibility of something that was uncharted water. And we’re here to take the program head-on.

In Zimbabwe, this is the picture that we have from – recently, we had Zimbabwe population-based HIV impact assessment study, which gave a very excellent picture of the progress that has already happened in Zimbabwe with the other activities, self-test interesting that were happening already, where we got a good picture of 74 percent of the people living with HIV who already know their HIV status. And the picture that we also gained is quite encouraging, in that of those people in that 74 percent, we actually had a better return rate for people that already know their status who were getting into treatment and who had very high viral suppression of about 80 percent. So, the missing link still is 74 percent is not 90 percent. So, what else can we do to reach those populations that can take us to the 90?

It has been said all morning, Unfortunately, I also have to repeat it. Men continue to be the culprits. It turns out I do not blame the men, because it is the opportunities that are presented to men that may not make it very conducive or make the service accessible to them. We also have challenges with young populations. Again, maybe not necessarily of their own making, but are we presenting them with all the opportunities that can make them access services in a minute that would be more comfortable to them? So, 42 percent of women, 26 percent of men indicated that they’re interested in the passage of 12 months. And nearly half of young people in the ages 15 to 24 living with HIV know their HIV status. So, we have another half of the people in that same age group who do not know their HIV status. So, it’s quite a task, and we still have some way to go.

So, coupled with this, I’m happy – I’m sure you’ve heard from the passionate way our Ministry of Health was talking about HIV self-testing. That gave me a lot of confidence that we have a lot of support on our side. We also have our politicians on our side and supporting us throughout. So, our Ministry of Health took the lead
and established that what Gertrude said in the morning, HIV Self-Testing Technical Working Group was put in place very fast. And we went through with the Technical Working Group to look at things like the training manual and other issues that were related to self-testing. We were easily able to move fast because of that cooperation and enthusiasm from the Ministry of Health.

PSI, on the other hand, we realigned our community distribution, which is our biggest reach in terms of models of distribution, to realign it with the new stat operational areas in the cluster randomized control trial districts to support our community-based distribution model. And the Ministry of Health, in order for us to lay the ground for our cluster randomized control trial distribution, Ministry of Health, through the technical working group, again asked PSI and our research partner in country, Sesha, to a cluster randomization meeting to randomize the communities who we were going to be working with.

So, based on the formative researches, which Euphemia talked about in the morning, at least we knew HIV self-testing was highly acceptable, and the work that Sesha had done on female sex workers, and when offered an option and the provider delivered in other testing facilities, we are also seeing that 70 percent of the clients are actually preferring HIV self-testing compared to the HIV provider delivered testing. Accuracy was also shown to be very high. 93 to 100 percent sensitivity and 95 percent specificity when the self-testing kit was put in the hands of lay providers, or lay persons. To improve on our efficiency, we also introduced the demonstration kit. So, when a provider is distributing their kits, they demonstrate how the kit is used, and then in addition to that, they can share a demonstration video that was developed by our partner, Sesha. And in addition, we also have the IFU that was also developed that was talked about in the morning. All these are efforts to improve accuracy on the part of the provider.

So, at the end of it, the client will make a choice on how they would want to self-test. So, the models that we have had in country that we are using, we have the community-based distribution, which I said has got our biggest reach, and through a cluster randomization trial in 34 wards. Our overall target of kits to be distributed for Zimbabwe is 354,000. Facility-based HIV testing through our new stat centers is another model that we’re using. And in those facilities, we are also doing secondary distribution to HIV positive clients, which is through the facilities to take a kit.
home to give to their partner or contacts. We’re also distributing through VMMC mobilizers, and through VMMC fixed sites.

We also have key populations. There is a question on populations. Again, we also started with female sex workers, and we are moving on to MSM before the end of phase one. So, what is happening with our community-based distribution? This is how we decided we would do it. We identified community-based distributors from the community, and together with the community, and the leadership of Ministry of Health authorities in the area, they undergo a two-and-a-half day training. The actual distribution happens on a door-to-door basis. And only one kit is given to a client that we find at home. We don’t leave a second kit if the other person is not there.

Community distributors provide information at that point, and do a practical demonstration, like I said. They can also share an instruction video on WhatsApp or AppShare, because most people tend to have Android phones, even in the rural areas. Information on positive test referral is also given, including an actual outreach schedule which shows when new stat center mobile teams are actually going to be in that area of distribution supporting services, and also, that they can also link with Ministry of Health facilities that are also in their communities. We have also introduced electronic data collection, where we’ve given our distributors a tablet which they use to capture data. So, later, electronics is also a condition during recruitment, in addition to having knowledge or having worked in an HIV environment or health environment.

The data is linked directly to our DHIS2 server, HPSI, real time. Self-testers, we ask them to return used test kits. So, we give them an envelope. We also give them a self-completed questionnaire to complete after the testing, which they seal and anonymously drop off in drop-off boxes that are in various points in the community and even at facilities, depending on it’s a community decision where the dropboxes are going to be secured.

Female Speaker 1: Miriam, can you –

Miriam: The late read of test kits –

Female Speaker 1: Miriam, another two minutes. I think we have to wind up.

Miriam: Okay.
Female Speaker 1: Yeah.

Miriam: So, later on, we do a late read of the kits. 73,000 test kits have been distributed so far to end of December, up to end of February. 44 percent of the test kits are in. 44 percent from the age group 16 to 24. 73 percent of self-testers test on their own. Clients are given an option after the demonstration and everything whether they want to be assisted fully, they want some form of assistance, or they can just test on their own. And so, we are happy 73 percent are able to test on their own after the demonstrations. 23 percent of these recipients are new clients or first-time users, and 60 percent of the test kits have been returned to us for late read analysis.

So, generally, our yield has been peaking around 20 – from the late read, 20 to 24 and 40 to 45 age groups. And these are the facilities. The new stat center, [inaudible] [00:10:20]. We have got five that are distributing kits. And again, clients, choose between provider delivered testing or self-testing onsite. What you see there are the cubicles where those who choose to test onsite can just go into that cubicle and test onsite.

For facility-based distribution, we have reached 8,083 clients with our test kits, and 40 percent have opted to self-test. 47 percent in the 16 to 24 age group and 40 percent males and 41 percent females. 99 percent of the reactive results have been confirmed positive, and 100 percent of the confirmed positives have started already, which is already available at our facilities.

VMMC models. The community-based and the fixed site distribution. So, we’ve got 54 percent of self-testers taking up VMMC, eight facilities. We have distributed 2,194 kits in the community between November and December last year. And HIV increases conversion rates as high as 50 percent. And our lessons learned. Lay providers can be trained to demonstrate HIV kit use. Self-testing is managing to reach populations that would otherwise not test. And the high percentage of first-time testers. 52 percent of self-testers with reactive results at community level linked to a facility within a week. This, we got from the surveys that our research partner does. And facility-based HIV self-testing, 99 percent of self-testers with reactive results are confirmed positive and [inaudible] [00:12:14] providers.

Where we are going? Still need to work a bit more with health providers. Moving ahead, we’ve got other models that are going to be coming up. We are going to scale up our community-based
distribution. Round one of distribution is going to end now, and about to go on to the second round of the RSCT. We are going to scale up using the campaign style of distribution in the communities. We are also going into public health facilities, integrating PITC with self-testing, and also PITC clinics with secondary distribution to pregnant mothers. That’s the end of my presentation. Thank you. Acknowledgements. And thank you to my coworkers.

Female Speaker 1: Thank you very much, Miriam.

[51989 Optimising instructions for use for an Oral-fluid HIV self-testing through cognitive interviewing in Malawi]

Male Speaker 1: Who managed to read the instruction manual? Just a few. So, the same with self-testing. So, what I’m going to talk to you, it will be about optimizing instructions for use of an oral-fluid HIV . . . of an oral HIV self-testing using cognitive interviews. So, basically, if you give a test kit to an individual or a layperson, for that matter, there might be some perceptual issues that can arise basically because of how the instructions have been organized or designed. If you look at what we are doing right now, it’s an aided HIV self-testing, because there is somebody who helps people to go through the process of self-testing. The strategy is working very well.

But the question comes to mind to say, what about a person who is naive of HIV testing? You give the person with their test kit, but they don’t know how to go through the process. You’ve just given them instructions. So, what is important is, in the design of the instructions for use, we really need to make sure that they are contextually relevant. So, what we did was to basically explore the ability of layperson to follow the instructions for use with the aim of trying to actually refine these instructions for use and make them a little bit more contextually relevant.

So, basically, we use a method – it’s a qualitative method that was embedded within the STAR Project. We did cognitive interviewing just to understand how people process the instructions for use. And as you might be aware, the way the human mind works, usually it works well if you start from something that is concrete to something that is abstract. That’s how the human mind works. So, in this context, you’ve got something that is abstract within the instructions for use. You want to find out whether a person can do something concrete from that thing that is abstract. So, it might be somehow a complex thing. So, we did a bit of cognitive interviews,
and it was done in a more iterative process. So, we had the first iteration. Then we went into the second iteration after working on the instructions for use.

So, this is basically the schema of how we conducted the study. But as we went to do the study, we actually captured people who have just undergone through the process of HIV testing. Then we did all the informed consent, then also tried to actually ask them a few questions. So, we are asking them those questions while they were actually following the process of performing the HIV self-testing using the instructions for use that were available at that stage. So, I’m just going to present just a selected or a few instructions that are contained within the instructions for use for this test kit. And as you can see, there is iteration one on your right-hand, then iteration two on your left-hand.

So, this is one of the instructions that speak to – it’s a caution. I think it’s just the first instruction that you’ll get in that instruction. It talks about not eating or washing mouth. So, basically, when we asked people to look at the symbol, most of them, they didn’t actually understand the symbol in the first iteration. In the second one, because we used the same symbol, but people, we did a bit of the tweaks in terms of translation of the instruction, and I think it was somehow easier. But I think the symbol itself was not contextually relevant, so to speak. People couldn’t actually make sense of it.

So, if you look, that is another second symbol that is also within the instructions. So, it’s just a warning. It warns people who are on ART to say there is a possibility that you can get a negative or a false result if you self-test. So, again, that symbol, it seemed people had difficulties to actually comprehend the symbol in both the first and the second iteration. But because we actually worked hard on translation, so there was a bit of improvement into the second iteration.

So, these two pictures were not found in the instructions for use during the first iteration. But because we observed that people needed to be informed that they need to have a watch when they are performing a self-test kit, then this instruction was included in this second iteration. Again, people were also not informed about the need to take care of the fluid that is contained in the bottle. So, there was another instruction that was actually included, just indicating that they should take care with the bottle. So, as you can see, because they were newly introduced instructions, people still
had problems also in understanding these instructions. So, in terms of the translation, in terms of the pictures, like the second one, the symbol that crosses that bottle, people didn’t actually understand the symbol. So, there’s a need to actually, as we are going into another iteration, to actually work on those symbols.

So, this is another instruction that appeared in both the first iteration. And it was like the picture was revised in the second iteration. In the first iteration, there were actually some few problems that emerged, and we actually observed that there were a number of people who were finding difficulties to actually place the tube on the stand. So, I think much of the problems emerged because of the way the picture was actually designed, but also the way the translation was made in the first iteration. As you can see, there is that picture, picture four. It resembles this second picture. Let me just show you. This picture here. So, that actually resembles it. So, in that picture number four, it shows as if you are actually putting the tube at a right angle. But the way the stand is designed, you actually need to put it at a bit of an angle. So, people looked at the picture and felt that, no, you have to put it at a right angle.

So, the second picture, you can see that the stand is upside down. This was mainly a result of the way the translation was made. So in their local language, the translation was made to say you have to put the tube on – like literally, it’s a plate. We call it embali. So, people said, okay, if it is a plate, the plate will not be the other way around. It should be – this should be the way to put it. So, when the picture was redesigned, we didn’t have a lot of problems in the second iteration, so the instruction went well. So, this instruction, actually, people had quite a few difficulties in both the first and second iteration. And the main issue that people were actually concerned with was the clustering of information.

So, in one instruction, there are just too many things that are happening there. So, most of the people commented that at least if we kind of make the instruction a bit – divide the instruction into several pieces or several parts. So, during the first iteration, we noted that I think most of the people were actually touching the flat part. You can see there is – on the picture on the instruction, there is an instruction that is saying, “Don’t touch the flat part.” But some actually translated it as if you need to touch that flat part. So, that was another issue that we needed to work on. So, in the second iteration, we focused more on the translation of it. And I think it was somehow more better – the performance was better than
during the first iteration. But I think we will have to work on trying to work with the manufacturers on trying to break those pictures into small pieces.

So, again, this is the picture that tells you how to time the test. So, during the first iteration, that was the picture that we have, picture number eight. People were confused about the interpretation of that picture. So, during the second iteration, the picture was changed. What we noted was I think there was somehow improvement in how people understood this instruction during the second iteration. But still, they were a bit confused about the color codings. But also, I think the one who translated the picture, it was a bit of a problem, because you can see if I write it, the last image, the red in color, in **Tigor**, it says [speaking foreign language] **[00:10:34]**. But it’s just explaining the time that you don’t need to read the results. So, the time you can read the results between 20 and 40 minutes, and not beyond that. So, the translation was a bit inaccurate. So, we have to also work on that during the next iteration.

But interestingly, when it came to interpretation of results in both the first and the second iteration, all people interpreted the results very well. So, they accurately interpreted the results. When they were doing the interpretation, they made reference to the pictures that were seen on the instructions for use, but also the actual test kit that they used. So, this was good. But there was actually – in that instructions for use, there are follow-up instructions. So, what we noted was they were failing to link to that follow-up instruction to see what do I do next if I have, for instance, a positive result. What should I do next? They didn’t see the arrow within the instructions for use.

So, to conclude, we need to somehow pay attention to the instructions for use if we are actually planning to scale up HIV self-testing. Thank you.

**[51989_HIVST in Zambia, lessons learned from UNITAID-PSI STAR Project implementation]**

**Female Speaker 1:** I’ll be speaking to some of the lessons we have learned as we implement an HIV self-testing project in Zambia. Being the last one on board, a lot of similarities to some of the presentations that we’ve just actually listened to. But I assure you there are some differences, so please keep your eyes wide open and your ears open as well to hear what we have to say.
So, a little bit of a background. So, Zambia has a high HIV prevalence, but we’ve actually seen this prevalence dropping over the years. So, currently 11.2, according to the revised DHS. We’ve actually seen an improvement in the testing rates as well, according to the DHS. But it still needs some improvement, because according to the last DHS in 2013, only 46 percent of women and 37 percent of men had tested in the previous 12 months and had received their results. So, HIV self-testing is actually aimed to bridge this testing gap to reach the national goals for testing in line with the 1990 UNAIDS goal.

So, for the STAR project, the target was to distribute a little over 200,000 test kits over the two-year period, and our targets were largely the undiagnosed people living with HIV and populations that are at risk of acquiring HIV, and currently reaching those who are not reached with conventional HIV testing strategies, including the males – the males that we have heard about the whole morning.

So, the models that we implemented, we have three models. We have a facility-based model, a community-based model, and a VMMC model. So, in the facility-based model, we use trained community volunteers who are placed at the health facility in an area that is actually decided upon with the health facility. So, largely outpatient department, but sometimes we are actually assigned to a different area. And this community volunteer distributes test kits within the facility, but also acts as a liaison for other community volunteers who are outside the facility, as well as for self-tests for people who’ve actually undergone a self-test, and accessing services for post-testing.

Then the community-based model also uses trained volunteers who distribute self-test kits to the general population, 16 years and above, using largely door-to-door methods, but also targeting certain hotspots, as we call them, such as marketplaces; churches, where you actually find large groups of people; as well as some sporting events. We’ve actually had some groups that go to football matches to distribute self-test kits. And the VMMC model aims to actually increase the uptake of VMMC after testing. So, the model aims to distribute self-test kits to potential VMMC clients. So, we use demand creation agents for VMMC who have already been doing work creating demand for VMMC, and add on top of that HIV self-test kit distribution. So, all of this is done in the public sector. We have 16 health facilities across four districts currently in Zambia. And all the 16 health facilities have a facility-
based model and a community-based model, but only five of the facilities are implementing a VMMC model.

Okay. So, the famous linkage to care that we have looked at. So, this is a cascade for Zambia. Not too different from what we saw in Malawi. We have distributed a total of 96,000, a little over 96,000 test kits from the first of July up to the end of February. So, first of July 2016 up to the end of February 2017. And of these, a little over 30 percent have actually returned the self-test kits to the designated points. And of the 31,000 returning the test kits, about 1,414, which is about 4.6 percent, positive. So, very low yield. And then, of the ones who actually tested positive, only 192 actually were linked to care over the six-week period that we actually look at when it comes to linkage. So, when a test kit is actually distributed, we have a six-week window period where we accept test kits back, after which we actually close the acceptance of the test kits.

So, I know we’ve spoken a lot about the low linkage, but I think I was actually encouraged earlier on. I think it was from the keynote speaker, who actually noted that inasmuch as people are not linking to care at a time that we think they actually should, by the mere fact that they know their status, they’ve actually taken the first step towards linking to care. So, they may not link in the time that we actually think that they should be linking, and I think there’s actually evidence, quite a lot of evidence out there that kind of underscores that, that people actually sometimes take long from the time they test to the time they actually reach a health center. So, there are many behavioral issues that may go around that. But I think by the mere fact that they actually have tested and know their status, they are a step ahead from someone who actually hasn’t tested.

So, as we move forward, I think inasmuch as we need to come up with strategies for improving linkages to care, I think we mustn’t belabor the point a little bit too much in terms of being too worried that people are not actually linking to care. If they are testing, they’ve taken the first step. The yield also seems rather low, 4.6 percent, so questions are asked. What can actually be done to improve the yield? So, perhaps more targeted distribution for people that we know may be at higher risk is required. But I think even if the yield is actually quite low, as I said, people are testing, and if you know that you’re negative, you should be then taking steps to actually remain negative.
So, monitoring and evaluation. Without data, it’s very difficult to actually attribute how well the program is working. I know it’s not very clear on this particular screenshot here. But this is a schema that actually shows how our data flows. So, we have all of our distributors currently using tablets to collect data. We started off with a paper-based system and graduated to electronic data. By the end of December, all of our distributors were using tablets to collect data. And this is actually sent through to a server to the regional office, as well as to servers at the HQ. So, we actually have the regional office being able to see the data at the same time that the HQ sees this data as it flows up.

One of the lessons we have learned with this is when we started off with a paper-based system, there were a lot of missing data. So, the distributor could actually opt not to take one of the questions. And once the client is gone, it’s very difficult to actually go back to them. So, the electronic-based data collection actually improves the efficiency of data that is actually collected. And the other thing that we have learned in terms of monitoring and evaluation also is when we ask clients to actually report their experiences on their self – it’s called a return test kit form, we get very interesting notes from clients sometimes, unrelated to the questions that you ask.

We actually have had people say, “This is a wonderful program.” They put a little note on the card. And then they do not answer any of the questions that you actually have asked them. So, perhaps we do need to look into that. But I know literacy levels are one of the things that actually came up as to why people were not actually answering those questions, because the current form is actually all in English. So, we do need to look into perhaps translating into their local languages.

Some of the operational issues. So, a phased approach actually allows for adjustment in implementation. We learn lessons as we go along, so our training has improved as we went along. We started off with four days, ended up with six because we saw four days was not actually sufficient. And we have tweaked our data collecting form several times based on the information that was actually coming up from the ground. And a performance-based payment system for distributors is actually very important. At the very beginning of the program, there was a lot of concern that if we actually do a performance-based payment for the distributors that are giving out the kits. There may be indiscriminate distribution.
But what happened is we had very motivated distributors who went flat-out and did the work, and then the others knew that I’ll be paid at the end of the month anyway, even if I just distribute just a few kits. So, we actually saw some culprits where people were not doing their level best. So, we have actually now switched to a performance-based system where you actually are paid for a certain number of test kits that you distribute.

We have a continuous distribution model. So, we are in these facilities. We’ve been in the facilities from the time they were trained last year. And one of the things that we noted is you need to actually define what your saturation point is, because you will reach a point where most people have actually either obtained a test kit or were previously tested, and do not actually think they need a self-test kit. Our definition of saturation is if we reach 80 percent of the eligible population, which is 16 and above. And then, you need to develop an exact strategy – what to actually do with that site once you read saturation.

It is important to actually do an adequate pipeline and forecasting for stock management. And I think we’ve done fairly well with that. And one of the things we have learned is when you actually store test kits at the facility level, when it comes to the regional level, you actually manage to ensure that the distributors do not run out of test kits because they are closer to that.

Stakeholder engagement is very, very important, and I’m grateful the Ministry of Health in Zambia is also here. They have been one of our key partners. We are implementing this in the public sector; so definitely, they’re a very key partner. So, it’s important to be able to identify who your key stakeholders are and engage with them early. And it’s a continuous process. It’s a new program. Not everybody actually buys into HIV self-testing. There’s a lot of resistance from different sectors for different things. So, we need to identify who the key stakeholders are, engage with them early, and have a continuous engagement throughout the implementation period.

The formation of the HIV Self-testing Steering Committee also is very important. This committee that we have in Zambia is a subcommittee of the HTS Technical Working Group. It provides program direction. How does Zambia actually envision HIV self-testing going forward? It coordinates across different partners to make sure that the lessons that I learned by one partner can actually be used by another partner as they come on board. And
also, it provides a platform for the development of national HIV self-testing operational framework. The HTS guidelines currently do have HIV self-testing, but I think we need a more comprehensive framework. So, we have already started discussing that at the HIV self-testing steering committee. And different partners actually sit on this committee, implementing partners as well as other stakeholders.

We do need to broaden the stakeholder involvement in this committee. And I think in the next meetings that we’ll have, we’ll actually see a broader representation of partners.

From the high numbers of test kits that we have actually distributed over an eight-month period, 96,000, you could actually say there is a high acceptability. We’ve actually been inundated with requests to scale up self-testing to other areas. And also, we have people come through to our offices to actually ask for self-test kits. So, people are actually eager to have this program out there. It is possible to implement HIV self-testing within a public sector setting and actually take it to scale. And it reaches various populations. HIV self testing uptake is high amongst men. 50 percent of the population of the accepters of self-test kits in Zambia were men, and about 47 percent were young people. So, we are reaching the young people, but I think we need to have more targeted approaches to actually reach more young people, as well as more men.

We have not reported – or recorded, rather, any adverse events associated with HIV self-test kit distribution. At the beginning, during the stakeholder engagement, one of the things that always came up was, there is no counseling that is actually going on with HIV self-testing, and therefore, how sure are you that people will not actually be killing themselves? I think the evidence prior to the onset of STAR showed that that is not likely to happen. And I think we’ve actually seen in STAR where that no adverse events have actually been recorded.

As we move forward, in addition to the models that we actually have spoken about, we do need to think of complementary models of distribution. Inasmuch as we have a health facility model, I think there is some level we can actually improve on that. Currently, this model is parallel, in that we have someone stationed there that’s distributing test kits. I think as we move forward, we want to see a more integrated health facility model. We have community-based models, but we are not reaching key populations
specifically in this project, so that’s something to actually think about. And then also, distributing through our workplaces to reach more of the men or the people who don’t have the time to go to these health facilities because they’re working, and through pharmacies, because I think it’s important to actually reach everyone that is in need of a self-test kit using a channel that actually fits them best.

As I end, I’d like to acknowledge several people. Firstly, the Ministry of Health. I think they have been the key stakeholder in the implementation of this project. I would also like to acknowledge the funder as well, UNITAID, for making this possible. And the PSI family, as well as the STAR family as a whole. We would not have done this alone, so thank you to everyone that has actually made this possible. Thank you.

[51989_Scaling HIVST access to high need populations and locations]

Richard: I’ll be talking about a presentation titled Scaling HIV access to high need populations and locations, and I’ll specifically zero in on what we are learning from phase one with the implementation of the UNITAID PSI Project. First of all, let me talk about why HIV self-testing for Malawi? As a country, we have made tremendous progress in identifying people living with HIV and AIDS. Over 73 percent of these people have already been diagnosed. So, the question is, why are we still interested in HIV self-testing? We know as a country to move towards 90 percent with this progress. It will be still challenging, so we need multiple approaches. And HIV self-testing is also one of the potential approaches that will actually get us to 90 percent of the people living with HIV in Malawi.

And the second reason, there are pockets of the population, like key populations, men and young people in Malawi who still have multiple barriers to access HIV testing in the conventional services. For instance, the young people, 15 to 24 years, it’s only 53 percent of them who know their status. So, we still have some work to do to reach out to young people, and self-testing is really promising in that direction. And also, our strategic plan specifically mentions self-testing as one of the strategies to accelerate identification of people living with HIV in the country. The country wants to test, and the top models are actually working. So, this is in line with our strategic goal as a country to achieve the 90-90 targets.
Now, the models that we have implemented in phase one were specifically to answer the question, is that the best way we can distribute HIV self-testing in the country to reach the population that want it? So, we are testing a number of models, a total of five models in phase one. Of course, three of the models, we have just started this year, and what I’m going to present here and the lessons we’re learning is much of the CBD model. So, there are four populations that we’re targeting. In the general population, there are actually three populations that we’re trying to target. The rural population, using the community-based distribution model. And we also wanted to target the urban population. And that one, we’re using the private provider in a social franchise, which PSI is working in the country.

And recently, we wanted also to target the urban population within the workplace. This one, we are about to start, so I’ll not talk about that in this presentation. We’re also targeting the young men using VMMC mobilizers. And the specific reason why we’re trying to do is to link between testing for young men and also access to VMMC, like improving access to VMMC. And we are also targeting female sex workers using female sex worker PA educators. And we’re working with a local organization called Bakachuri that it has platforms to target female sex workers. The target that we wanted to achieve in phase one is to [inaudible] 174,054 kids. And 73 percent of those kids were to be delivered using the community-based distribution model.

Here, I’m just showing you the startup activities that the country took to start implementation and testing these models. We were supposed to really identify where these target populations are, so we did a mapping exercise. Identification of the people we were going to distribute to, trend them, community interactivities and demand creation activities. We also translated the IFUs, the IECs, and the [inaudible] so that the distributors and the target populations could be able to be engaged and use the kits correctly. We started offering self-test kits in June for a three-month pilot.

And from September, we scaled up to all the districts in the target populations that wanted to reach the community our best distribution. And then we developed also the [inaudible] system, the supervision that we would do to understand what is happening, and also the supply chain monitoring system that is around them. And we are doing ongoing evaluation and learning from the implementation to understand what is working
and what is not working, and what we should check in phase two, and also the scale up for the country.

Now, I’ll show you what we are learning from the implementation data. First of all, who are we reaching in terms of first-time testers? Overall in the country, 26 percent of those people have already used self-test kits, first-time testers. If you can see across the different models that are there, you can see that the majority of first-time testers are being seen through the VMMC. But that is early data. What I would want you to look at is more the community-based model, because that one, we have implemented for six months. And 26 percent of the people took up the self-test kits and used were first-time testers.

What about reaching men? In Malawi, 49 percent of the people who use the self-test so far are men. And what we are learning so far from implementing the CBD model – we are looking at the two approaches that we took, the door-to-door approach, where we did not find a lot of men. And the more targeted approach where we’re trying to reach men from their space. For instance, I’m just giving you an example from one community where CBD moving door-to-door could meet fewer men as compared when he targets them at their entertainment places.

The communities that we’re targeting in Malawi, most of the men are not working like in the urban settings, but they do their livelihood in different areas, like trading centers. So, we train the CBDs, and they’re doing more targeted distribution to show that we are reaching men. So, we are trying to take these lessons as we’re going to phase two, so that our community-based distribution will not just be a door-to-door approach, but it’s more targeted, reaching out to the population that we wanted to reach.

You remember I said one of the reasons why we are adopting self-testing in Malawi is also to reach young people. I’m just showing the gap in terms of testing, as I already indicated. Now, what are we learning from distribution of self-test? 50 percent of the people took up the self-test, like 16 to 24, were young people. So, this is telling us that if we adopt and scale up self-testing, we could reach a lot of the young people that we’re failing to reach with conventional testing. So, this looks more promising as we’re scaling up to phase two, considering this element and targeting the young people, as you can see from here.
In terms of **case finding**, this is what we are seeing from case find over all. Five percent positive cases across the model. That’s the use level that we have seen so far. But if you look to specific models to see looking at the social franchise, the VMMC, the female sex worker, the CBD model, of course, the other model are recently introduced. So, we’re excited with how things have started, but we’ll keep on monitoring. But now, this CBDA, which has been implemented for quite some time, is telling us the level of use we can still get from implementing these, like four percent. So, it was between four and five percent. When we are starting the level of eight percent, and as we are progressing, it has averaged five percent, four percent moving forward.

This is not the hard nut to crack. But what is more promising in here is that linkage is happening, only that is happening outside our monitoring system. And I was reflecting on the discussion that started this morning, our interest, our need to know what is happening. This is what the clients, the people using the self-test kits, want. The linkage data that we are capturing looks low, but when we’re trying to understand what is happening, it’s like the people using the self-test kit, they don’t want to be followed inside. So, they are linking outside our monitoring system, and they are still accessing ARIT. And we’re trying to reflect on that one to see what we can do in phase two as we’re moving with scale up. Thank you very much.

Female Speaker 1: Thank you very much, Richard.

**[51989_Decentralising and integrating HIV services in community based health systems in Kenya]**

Female Speaker 1: **[Inaudible]** [00:00:04] I’m from LVCT Health, a Kenyan NGO. We work here in Kenya in most of the counties, and we are one of the largest providers of HIV testing, testing over 1.3 million people a year. I’m making this presentation on behalf of my colleague, Dr. **Millian Ortizo** couldn’t be here, who is part of the Reach Out Consortium, a consortium of eight countries looking at the role of **closed** community providers. And it’s led by LSDM, the chair of this session, to whom I shall refer all the difficult questions that I cannot answer.

Now, Kenya has had a community health strategy since 2006. However, HIV services have been included, but they’re not really explicit as part of the community strategy. And the closed community providers in Kenya include community health
volunteers, or CHVs, community health extension workers, commonly known as CHEWs, and lay HIV counselors. And in our LVCT Health, we use all of these in delivering community HIV testing. This diagram that I’m not sure if you can see very well is a structure of the community health structure in Kenya. The straight lines refer to supervision lines, and the broken lines are referral of clients. As you can see here, community HIV programs, Elvatico, largely and a partner on NGO projects. About 38 percent of testing in this country is conducted by lay counselors in community settings. But you can see that all community programs also link to the health facilities, because that’s where they refer clients after testing within the community.

And but lay counselors are actually not recognized as a character in the Ministry of Health in Kenya. So, the rationale for this study was based on evidence showing that an integrated service delivery approach is feasible and is effective. One of the questions that the study sought to answer is can integrated HIV be implemented within a holistic community health platform? It looked at the perspectives of policymakers at the macro level, perspectives of health managers at the meso level, and community health workers and community members at the micro level. And I’ll show you some of the findings from each of these levels. The study was conducted in Nairobi. Nairobi is one of the high burden counties in this country. And Ktui, community health units.

Nairobi, obviously an urban area; Ktui, a rural area. But both sites were chosen because they had received home-based testing and counseling from lay counselors within the previous two years of the study. Design was qualitative, with focus group discussions and semi-structured interviews. And the participants, as I’ve mentioned, were from the macro, meso, and micro levels, including national level policymakers, country managers implementing HIV testing, and community health programs, and the CHVs and other community health workers who are delivering the services, as well as the clients.

If I tell you about the findings, I don’t know if you can see that photograph very well. That photograph is of a gentleman that works at LVTC Health. He’s commonly referred to as the King of Condoms. Lately, there’s a been a lot of discussion in the country and even in other forums regionally about the decline in focus on condom programming. Stanley works at LVTC Health. He is known all over this country because he wears condoms. He actually has various different suits made out of condoms that he
wears and such that he wears in huge – I don’t know what you call that – crown, like a king. So, he’s called the King of Condoms. And he’s one person who has individually taken on the challenge for increasing and promoting condom awareness in this country in all corners of the country. And we highly commend the work that he has done. Very well-recognized by the Ministry of Health. Maybe some of you have seen him on YouTube online. If you haven’t, have a look and see the kind of work that he does.

So, the results of the study. There was widespread support for integration across all levels, from all the people that were interviewed. And there were three main key themes that emerged. One, that HIV services is ongoing and integrated within the community strategy, but it is ad hoc. The first speaker talked about some of the community responses not being structured, not being systematic, and this is one of the things that emerged from this study. The second is that HIV services are driven by vertical programs, largely by NGOs. And some of the results or responses from the policymakers said what this does is it creates a concentration where there are many NGOs, and vacuums where there aren’t as many NGOs delivering community services. And therefore, there’s need for improved coordination of partners who are delivering services at the community level. The third theme was the support for integrating home-based testing into community health. Across all the respondents, they thought that there is need to support the integration of home-based testing into community health services.

So what are the opportunities and challenges of integration? Some of the opportunities are with the support that was reported at all levels by the community workers and the policymakers, the community workers also said that they would be willing to take on additional roles for HIV in a structured manner. However, they will be need for skills. One of the opportunities is that there will be skills added to the existing criterias, so we’re not creating anything new. They are already existing. They are already delivering some of these services. So, the opportunity is to add onto those skills. There would be improved community coordination of partners and services, as well as holistic services provision at the household level. And this can also reach men and youth, who are two of the priority populations identified for reach with HIV testing because of low level of testing reported within these populations. And they are also the two populations identified in various studies as target populations for self-testing.
Some of the challenges that emerged. One was confidentiality, and this was a concern from the community. As you know, the community health workers will be drawn from the community. HIV, even with all the awareness and after all these years, is stigmatized, and so people are concerned about the confidentiality of the community workers and the lay counselors. Miriam alluded to his earlier in this session about increasing the workload by introducing too many tasks for the community health workers, and expecting them to report on all of these in a vertical manner with different tools to different people. Challenges in the supply chain were raised. Potential for stock, out of commodities. Sometimes, we have stock out of test kits, and this was raised as a concern in the study.

So, for self-testing, what are the opportunities in community health? Zakongo as spoken about the opportunity for normalizing self-testing, and this can happen with integration. Utilizing existing platforms with minimal training. HIV self-testing can be added onto what the community health workers are already doing as an existing platform with minimal additional skills, which also can reach the hard to read men, adolescents, distant terrains where community health workers are operating. Their community platforms can support linkage to care, and there’s also opportunity for them to earn a stipend if beneficiaries would pay for HIV self-testing, as have been found by studies on willingness to pay. And this is something that’s been done in other countries and has been shown to be beneficial.

And in the context of this discussion and the previous meeting that was held here, I also wondered what could be the opportunities for expanding partner notification services with integration of self-testing in community settings? At LVTC Health, we’ve been conducting partner notification services for the last about five years. And one of our case studies actually featured in the WHO guidelines. And so, with self-testing integration into community level, what would partner notification also look like, and how would it be done? But there are some threats and challenges to community HIV self-testing, including additional burden to commit health workers the knowledge and skills that would be required and not part of the basic package and the moment. There needs to be considerations for equitable coverage, as was expressed by the policymakers, to ensure that their services are not concentrated in some areas and others are deficient, as well as the quality of services that need to be tracked and monitored. Confidentiality is an issue to be considered. And distortion of
There are some unanswered questions on integration of community health services that we need to think about. And some of these are listed here. What are the health system impacts of integration in Kenya? Could HIV self-testing divert community health volunteers from co-health promotion and maternal child health tasks, which are the primary tasks that they have been given? And what is the potential for incentivizing community health volunteers for linkage in Kenya, where they are incentivized for linking clients that have been tested using this integrated strategy? And what do we know about willingness to pay? Would people be willing to pay for these tests?

I’d like to acknowledge the study team, the Reach Out Consortium, as well as the participants, and of course, Millian Ortizo, whose work I have just presented. Thank you very much.

[51989_The Global Fund’s approach to strengthening the role of communities in responding to HIV and improving health]

Male Speaker 1: So, the backdrop, obviously, to the new strategy, the Global Fund has a mandate of fighting the three diseases, but we also need to do that while building stronger, more responsive health systems. And as we developed the new strategy over the past couple of years, we had to take into account some of the key new factors in the environment, such as the transition to the sustainable development goals, the commitment to universal healthcare, the Ebola crisis, and what that meant for working in complex operating environments, and how we work with health systems of different levels of robustness.

So, the strategy has four main pillars, as you can see. Four main objectives: maximizing impact against the three diseases; building resilience and sustainable systems for health, which is what I’ll focus on today; promoting and protecting human rights and gender equality, and mobilizing increased resources. And you can see that there are seven subcomponents to the building resilient and sustainable system for health objective. I’ll through them very quickly because I realize the text is small. Firstly, strengthening community responses and systems. Secondly, supportive reproductive, women’s children’s, and adolescent health, and platforms for integrated service deliveries. So, these are the two aspects I’ll focus on today.
But we also are committed to supporting or prioritizing support on procurement and supply chain systems, human resources for health, data systems, aligning with national strategies for both health and for the diseases, and strengthening financial management and oversight. And clearly, these seven priority areas are interrelated. We can’t succeed in one without succeeding in the others.

And this slide just demonstrates the shift in thinking from HSS, the six building blocks, to RSSH, resilience and sustainable systems for health, and how it translates into our own priority setting. And it gives explicit recognition to the roles communities play in improving health. They’re part of what we could call an overall ecosystem. And of several aspects, one of the key things about them is that they’re key to making systems responsive and adaptive, and respond to new challenges.

So, what do we mean by communities? I don’t think I need to go in depth on this. I think we’d all agree that communities are diverse and complex. They’re the people or the groups of people whose health we want to improve. But how they’re defined varies. Sometimes it’s to do with identity, sometimes it’s to do with geography. And it’s probably worth admitting to ourselves that sometimes they’re epidemiologically imagined. They may not reflect the communities we talk about, and policy forums may not reflect actual identities and communities that people experience in reality. The main point here, though, is that “community” is a word that’s used a lot, and it’s used in very different ways. And we’re very keen in turning the Global Fund to qualify what we mean when we use that term because we’ve found that sometimes we’ll be using that term, but we mean very different things. We think we’re talking about the same thing and we think we’re agreeing, but actually, we’re not.

So, it stands to reason that community responses and systems are also diverse and complicated. So, what do we mean by that? So, we know better health is the product of health services and interventions, but we also know it’s the product of positive community norms, of community ownership, and of accountability to communities. What we do know is that what happens – going back to the complexity of what we mean by community, we know that what happens in all those different versions of communities influences health some way or another. And community responses, community reactions to challenges and health problems, often
emerge in spite of rather than because of our efforts as policymakers or as health sectors. They fill gaps. They draw attentions to failings. So, we recognize that the Global Fund, that although many community contributions are not planned or systematized in the way that we would normally recognize from a health systems perspective. But we also know that there are some things that we could get better organized about supporting. We could bring them into a systems framework, as well as recognizing that there are some things that we have to enable rather than plan for.

This diagram just shows one way to think about the diverse types of community response or systems. So, some types of response, such as the ones on the left, are increasingly recognized by ministries of health and donors and built into their systems. So, we have formalized, organized community health worker programs – integrated community case management, for instance – and formalized local governance structures. And then if you move to the middle, there are ad hoc. And these often emerge through projects and vertical programs, and often may be related. I work a lot in HIV – may be related to specific key population groups where we have peer education programs or community antiretroviral treatment support, for instance.

There are things that we know are really valuable and that should be supported, but they don’t get systematized and always well acknowledged in strategies and in funds. And then on the right-hand side, the faintest bubble, if you like, is about what communities do that’s really outside of health interventions, but that’s still really important. So, work on human rights and on changing negative gender norms. Services that are provided under the radar, where they need to be delivered to communities that are criminalized or marginalized, and social accountability work. You will have heard the Global Fund talk about community systems strengthening. Our strategy is to provide the right support to each of these different types of intervention, which are separated here, but obviously, they’re on a continuum.

So, I wanted also to just say a couple of works about the second part of our resilience and sustainable systems for health priorities, which is integrated service delivery. So, the strategy emphasizes that, as I’ve already said. And there are four areas prioritized for support. Antenatal care, community case management, integrated sexual and reproductive health and HIV services, and adolescent health. We realize that integration is easy to say, but it also
requires countries and supporters of countries and donors to critically evaluate what packages of services and models of delivery are really feasible, and to build the capacity of systems and of ministries of health to align separate processes, separate interventions, and separate targets and focus areas and human resource planning to make sure this is done effectively. So, we can bash ourselves around the head about the lack of integration, but actually, we need to integrate the support and the services and the planning to make it happen. And obviously, communities have a big role to play in this integrated delivery. I would say if you think back to the previous slide and the three circles, these service integration priorities probably fit in the first and second more than in the third.

Tell you a bit about a couple of the key strategies we’re implementing in the community systems and responses work in the Global Fund. I’ll focus on the second or third on this slide. So, although countries design and implement the grants that the Global Fund supports, we do recognize that we could make it easier for countries to do the right thing. So, looking at the second bullet, one thing we’re looking at is our grant-making procedures. Often, our principal recipients, who are the lead implementers at country level, will just cut and paste the agreement we have with them into the agreements that they provide to sub-recipients or eventually community-based or civil society organization. That means it’s very hard for a small, unregistered group of a criminalized community to get organized and get support. So, we’re looking at finding smoother and less burdensome mechanisms for financing and for reporting on that money.

This is something that I’m really keen on because it’s something that as a donor is really under our control. We set these rules. We don’t set a lot of the priorities that countries set in Global Fund grants, but these are things we could make a lot easier. And then the third bullet here is reflects our efforts to provide greater support to community-led accountability. We’re quite good at extracting data and getting reports back from implementers, and we’ve been really good at insisting on community involvement in decision-making and country-coordinating mechanisms, CCMs, but we now want to do more to create feedback between people in programs at the local level and foster local ownership. So, we’re encouraging countries to include support in their grants for this as well over the next cycle.
So, I’ll end with just a couple of reflections on HIV self-testing. So, I don’t think, again, I need to say much about what a game-changer this is going to be. I think that’s been clearly set already. On this slide, if you look towards the end in 2016, the yield of tests, which is the small yellow circles, was very low. And part of this, we feel, is because 97 percent of the tests in this case were being delivered in a health facility. In another country example which I know, facilities were finding one percent HIV positives in their tests in a city where HIV prevalence exceeded two percent. So, the targeting and the yield was very poor. And yet, testing at community ART distribution facilities in that same city were yielding 25 percent positives. So, they were managing to reach far more people that needed to know their status and that needed to be oriented to treatment. So, we’ve got to support and engage with innovative ways of ensuring more people know their status. And as you know, the Global Fund established with UNITAID an expert review panel for diagnostics to evaluate new products.

HIV self-testing is a very good example of what I talked about earlier on, about the need to have an adaptive system for health, rather than something that’s planned and that knows exactly what’s going to happen over the next five years as an example of an intervention that happens while we’re making other plans. And it puts a lot more control into users’ hands, and in theory, could be procured by people directly, regardless of whatever program or system we design. So, we need to have strategies in place for making it work, even in cases where we can’t control it directly. And when we do control it, when we can introduce it into programs and fund it, we need to make sure we’re linking it probably with all the other interventions. And this harks back to Miriam’s opening comments.

So, where does it fit with those three types of community system or community response that I showed you in a diagram earlier? Well, it’s pretty clear that there are important things we can do in each case. So, there’s delivery of self-testing and provision of information and linkages to other services through the formal or institutionalized community system, such as community health worker programs. But we could also promote delivery through the less systematized, more disease-specific programs such as peer education for key populations and through less formal community systems, and make sure that people are aware of what the results mean and what services they need to go once they’ve got an HIV self-testing result.
And of course, the under radar delivery and the monitoring and accountability work to make sure we monitor potential abuses or misuses of self-testing. And these are all crucial things. So, in the Global Fund, we’ll continue to support community accountability groups to monitor HIV self-testing as any other intervention, and monitor that it’s working well for communities. You’ve probably seen the technical brief that we put out outlining the willingness of the Global Fund to support operations research on HIV self-testing, and it reflects on a lot of these issues on this slide.

So, just to summarize, apologies for the acronym, resilience and sustainable systems for health are dependent on a broad ecosystem. Community systems are often neglected, so we need to do something extra from the Global Fund to make sure they’re thought through and that they’re planned for as much as possible in the grants we support. Formal health sector and community systems are codependent. They’re not always coordinated and cooperative. We can do more to improve that. But also, sometimes there’s a necessary tension. So, go back to the accountability and advocacy work. And we’re very aware and very keen on supporting things, even when they might and may cause tensions. We know that community groups and civil society groups need to report on where things are going wrong, and we’re supportive of that.

Supporting community responses eases the burden on the health sector, so it’s not about a choice. I think in the past, especially in the civil society sector, we’ve perhaps implied that it’s a competition between the two sectors, and it’s a fight of resources. If we can plan in a more integrated way and work towards just a more optimal way of delivering services that’s more responsive, I think that’s gonna be a lot more positive. To do that, we need better tools and knowhow for systematizing those responses and for increasing their uptake. And then finally, new interventions like self-testing are user-led, so community engagement has never been more important. Thanks.

[51989_Incentivising Community Health Workers- lessons from Bangladesh and the largest NGO in the world]

Female Speaker 1: Now, coming to my presentation, I’m actually going to talk about our experience with community health workers. And as I do that, I will be talking a little bit about our history and the context of how we came about it. And then we’ll talk about on what have we
achieved on all this time, and especially with regards to incentivizing them?

So, in terms of historical, Brag was actually started working after the liberation of Bangladesh, when a lot of refugees were coming back from India. And what happened was, as Brag started to work with a rehabilitation support, very quickly, the founder realized that it’s sort of a Band-Aid solution. It’s not really necessarily doing any long-term development. So, it was a good realization immediately that it’s not a rehabilitation. We need to work on development. And that has been pretty much the motive or the philosophy of how we want to work. As you can see, Brag is a development organization. We dedicate our effort on elevating poverty. And the way we do it is that it’s the poor, organizing them and empowering them so that they can come out of poverty on their own, rather than us going. And we, as Brag, we go as a catalyst, rather.

So, our mission and goal is to empower people and communities in a situation of poverty, illiteracy, disease, and social injustice. So, as you can see, healthcare intervention have been a very integral part of our work on alleviating poverty. So, as we see, at the very beginning, the health program was integrated because poverty we know is multidimensional, and we needed a very comprehensive approach. And that’s where health came in. And he started in 1973. So, if we look at our comprehensive approach, as I was saying, that as we organize the village as a village organizer and organize the village in the microfinance group, what we realize is that as we help them with the financial support, we also need to help them with health, and also poultry, agriculture, livestock. So, improving their livelihood is a very big part of what we do together with health because we know that there could be catastrophic expenses of healthcare if they are not well. And the entire idea of alleviating poverty is not going to work.

So, we work within that comprehensive approach. In terms of Bangladesh health, nutrition, population program, the – I guess I already talked about the approach, so. The model has – the community health promoters, it’s providing preventive, promoting curative and rehabilitative care, and it’s driven by our overall holistic approach to development. And our aim is to improve reproductive, maternal, neonatal, and child health, nutrition status, and reduce vulnerability to communicable diseases, combat also noncommunicable disease, and enhance the quality of life overall.
And in terms of scaling Bangladesh currently, they’ve been working in 64 districts, and reaching about 120 million population.

Okay. So, the model has community health promoters. In Bangladesh, they call them [speaking foreign language] [00:03:52]. And they are basically community members, and the selection criteria is there, so it’s between 25 and 40, and at least are literate, has fluency in reading and writing. Willingness to work is of course very, very important, and social acceptability, and work has a volunteer. And in Bangladesh, the household that they used to look after is around 400 to 500, given the density of population. So, there. As you can see on this left, there’s the [speaking foreign language] [00:04:32], and what we also have on top of it is a [speaking foreign language] [00:04:40], who is a health worker who’s actually a caretaker under – it’s a salaried caretaker who will do supervision of the community health workers, as well as provide certain additional services, especially around ENC and PNC. And they also actually have a nominal honorarium.

Now, incentives in Bangladesh, coming to that, there’s two types of incentives. One was the social, because these ladies are in the community, and once you empower them, train them to be a community health worker, they do gain a lot of respect from the community, and they’re called the community doctors, which has always worked as a positive social incentive. But on top of it, the financial incentives, we have a layer of it. One was the revolving fund. It’s a loan, sort of an interest-free loan that we provided for each CHP. There is a certain amount of money that she can use to purchase health products. And coming to that is that the sales of those products into the community, the margin they receive from it becomes sort of their supplementary income. Because they’re volunteers, this is sort of a built-in entrepreneurial mechanism we have in place.

It achieves two things. One is that we have a supplementary income source for the community health workers. And secondly, we don’t run out of [inaudible] [00:06:11] supply, so we have a continuous flow of medicine and health products, basic ones, at least over the counter ones and health commodities like hygiene products, that is also available to the community. And also programmatically, because it’s a revolving fund, the CHPs purchase it, and then she sells it, and then she comes and repurchase it. And the money, we continue to use for sort of purchasing it for the CHPs to the programs. And also, with those
two, we also have performance-based incentives. That one has pregnancy identification. It's component specific. Referrals for complications. We have IYCF and MNP compliance, one under the nutrition program, and of course, TB treatment compliances on DOTS. So, those are the performance-based incentives we have tried with the community health workers in Bangladesh.

And the fourth one is the selling services. So, we train CHPs on noncommunicable disease screening, especially for diabetes and hypertension screening. So, once they do that, the person they are screening is the one, she can provide a service charge, a nominal one. And of course, then they’re tied to the referrals to the health centers for more tests and all. So, after trying and testing – and I just wanted to give you a few numbers on the results that have – Brag has contributed in terms of maternal and child health in Bangladesh. In Brag areas, we have 91 percent immunization coverage, as opposed to the national 85 percent coverage. So, and then in terms of MDG goal four, it’s neonatal mortality rate in Brag areas was only 18 out of 1,000 live births. And MDG goal five, the maternal health improvement, we see that the Brag areas of the maternal mortality ratio is 115 out of 100,000 live births, whereas the national MMR is actually 194 out of 100,000. So, it’s proven that through this model, they can significantly attribute to maternal and child health, and overall health.

In terms of even TB DOTS, we see that treatment success rate in Brag areas is 95 percent, as opposed to the national average of 85 percent. So, as we were becoming more successful, we also tried to realize that – can we translate this decades of community health work experience and have similar impacts in other countries, especially in the context of African countries? And the answer is actually very much yes. And as you can see, in Uganda, we have currently 4,075 trained community health promotions. South Sudan, we have 120 CHP and 200 community-based distributors. Liberia, we have around 600 CHP, and Sierra Leone, 460 HPs. The essence of the Brag CHP model was intact, and all the best practices that we have found to be fruitful in Bangladesh have been already incorporated into the models on each of these countries. And those primarily are, of course the CHPs are providing basic healthcare, and within the community, and then sales of the health product, built-in entrepreneurial model for sustainability, and strong government linkages, refreshers on a monthly basis, and supportive supervision, monitoring, and evaluation. And of course, reports. We have the key performance indicator laid out, and it’s
very easily measurable. And we have a target versus achievement performance review.

Now, I’m going to talk a little bit more about the Ugandan context, given also we have a large operation there, and as well as some impact achievements that I can share with you. So, we started in Uganda in 2008, and it was the essential healthcare, the [speaking foreign language] models, taking into the context of within Uganda. So, it have a heavy focus on maternal and child health. And the current coverage is 3.6 million. And we have, as I said, 4,075 community health promoters. In terms of impact/achievements, we’ve done out CTs, and it was conducted by the Stockholm University, together with IPAJ Powell, and it shows 21 percent mortality reduction among children under five within the Brag CHP treatment areas versus the control with no CHPs. We also had our CTs done, and where it shows a spillover effect on the market price of the malaria treatment. And also, we see that where CHPs are selling the ACT, not only the price have lowered, the counter fee drug has been lowered in those areas. So, it improves quality access of ACTs, as well as the price of ACT. The other studies also have shown the Brag CHPs areas, we have been able to improve demand, and also service uptake, especially around PNC, ENC, and also family planning.

So, moving forward, in terms of scale-out, we have expanded last year quite significantly with 45 percent growth. And in terms of scale-up, and I think that’s pretty relevant here because we are talking about adding components to the CHP’s work, is that we have been also enhancing their skills in terms of full ICCM, so they can treat diarrhea, pneumonia, and malaria. They can do MRDTs for malaria – family planning, nutrition, and also, we’re incorporating mobile technology, which I’m quite excited to actually share with you. So, in terms of innovations, a built-in entrepreneurial model, as I said. That is a big edge that we have in terms of sustaining CHPs and have them to have a supplementary income.

Technology incorporation. Every CHP are currently, as we speak, are being trained to use mobile applications to register households, provide pregnancy, and then also sick child assessment. So, it does two things. It has, of course, reporting real time. But most importantly, it also has screening tools built in. So, any CHP at any given point will be using the same screening tool with a similar diagnostic. So, it also has a way of sort of improving the quality of the care across. And incentive scheme testing. So, currently, we are
also testing additional incentives here within Uganda. Supportive supervision. Our CHPs are rigorously supervised and trained and certified, so that is a very important aspect of our innovation, we believe. And we have certification and recertification, and quarterly knowledge tests. And every CHP needs to kind of maintain their standard. It’s not just one time you train and that’s pretty much it.

And also, we are providing them enhanced nutrition and family planning training. And with regards to family planning, I just wanted to add that we are also going to be testing Cyanapress through CHPs. The government of Uganda has allowed CHP or community health workers to be able to provide this Cyanapress to the community. So, CHP’s platform will be one of them to see whether it is successful in terms of training, skill development, and seeing whether it has improved uptake of the Cyanapress.

So, incentives experience. Monetary experience, in terms of experience is sales of the products and the supplementary income. And then performance-based incentive, which is the component-specific. These are experiences in Uganda, and socially incentive-wise, as I say, community recognition and respect. When CHP people say that I actually didn’t even know barely how to take care of myself, but now, with the training and all the work that I’ve been doing, I can take care of myself. I can take care of my family and the community. Not to mention, I can stand up in front of a crowd and talk about a health component. Okay. So, together with the social incentive, we have CHP hours and recognition. So, every once a year, we have a CHP appreciation day, and we have a rigorous system where we choose and select CHPs whom we award as the best CHPs of the year. And then we have certification, as I mentioned earlier, and technological inclusion.

Challenges and successes. Well, like any other intervention, it has its pros and cons. So, in terms of monetary incentive, what we see is that the focus sometimes shifts to the component where we have put the incentive. And I think it’s only natural. And sometimes, we do see, operationally speaking, some reporting issues, and monitoring sometimes becomes quite cumbersome because if we had a monetary incentive, we do want to rigorously check and see whether it’s fine, and whether the CHPs are meeting the criteria. So, doing that sometimes costs, we realize, more than the incentive itself. And sometimes, we see that CHPs who have really relied on those incentives, they tend to get demotivated. And also, donor focus differences. Sometimes every donor has their different focus.
And they want to only incentivize those particular things. And as Brag, we know, and as a public health worker, that everything is connected. So, we do want to have a holistic sort of approach to even monitoring incentive.

And in terms of policy environment, in Uganda, there is a lot of mobilization of fund and advocacy on new Chew strategy. So, that’s in there, and Chew will be a paid community health worker. And also, there is talks about VHTs, discontinuation of the whole VHT model and the system. So, that’s sort of another environment where we are looking into how the CHP will – okay. Challenge on social incentives is that even though if it’s a social recognition, sometimes it still does require funding. For example, CHP appreciation day or even certification. Building entrepreneurial system is successful. I mean, it has been successful in Bangladesh, and even in Africa, we have been able to be successful. But once again, it does require a certain level of business skills, development of the CHPs, which needs to be put in place.

Success, improved performances on specific components with monetary incentives, especially regarding treatments and pregnancy. And even though the short-term, the CHWs, like if we have a monetary, let’s say, incentive for a particular treatment or pregnancy, even if it short time and donor sort of funding based on availability, what we see is that the CHPs still sort of appreciate that. And then it becomes a matter of expectation management.

Revolving fund. As I said, we had 100-person recovery of the input supply. So, we have CHPs who are purchasing from us, and then we purchase it for them. So, it continues and we don’t run out. And my final slide on lessons learned. Accountability and transparency with strong check and balances required, regardless of whether it’s a social or monitoring incentive. Advocacy is required as we [inaudible] our CHPs on to different components. Sometimes we see that government has policies which does not allow CHPs to do certain things. So, advocacy is a very important aspect of it to ensure that CHP’s scope of activities are broadened. Innovation and flexibility, learning by doing. I’m sure, I mean, many of us have already presented that lessons learning, and it’s similar here. Expectation management at all levels. CHW, community, staff, and government. It’s extremely important that that communication is there, that this is based on this funding and up till this.
Most importantly, more robust and primary healthcare coverage that we make for CHPs actually does sometimes, do make it sustainable and carry on the platform. And entrepreneurial model do require, as I said, the investment for outreach is business skills, together with the health skills. And I promise this is – I will spend 20 seconds. So, we are trying some new incentive schemes where we are scoring CHP’s overall performance so that she doesn’t weigh on one thing or the other. And we are going to check which one really enhances CHP’s performances, and then take from there.

[Inaudible] [00:20:44] loan. We are trying – okay. We have 45 CHP for person of our CHPs who are already microfinance borrowers, but then we have 55 percent who are not and who does have issues with input supply money. So, what we are planning to do is have a system or mechanism in place for them to have microfinance for the input supply for health products. And then sales of services. We are going to test this year the Cynapress and Dipaprovera training, as I was mentioning earlier, and see whether a service charge can be added, and see how it goes from there. So, thank you very much for listening.

[51989_Secondary distribution of HIV self-tests in Kenya- Opportunity for promoting male partner testing within health facilities]

Female Speaker 1: Secondary distribution of HIV self-testing in Kenya. Opportunity for health facilities and health systems to promote partner testing and couple testing. And I’m presenting on behalf of a group that I’ll show at the end. And upfront, I want to appreciate all the donors. In terms of outline, we want to look at these four things. One is just what are the questions that motivated the studies that we conducted? I’ll present very briefly results from two of those studies, talk about some of the ongoing and upcoming studies on secondary distribution strategy, and then other studies on HIV self-testing.

And so, what were the questions that motivated what we actually present – I mean, what we carried out? One, we were concerned about the distribution strategies in terms of what would be the most efficient ways to reach especially those that are difficult to reach, the men – men, we love you. We were talking about you yesterday. We’re talking about you today. So, you’re the stars of this meeting. And couple testing, testing of priority populations. We all know how difficult it’s been not just to get the priority populations themselves, but especially to get the partners of the priority
populations, especially partners of sex workers, some of whom may be in the room. And they don’t disclose.

Also, a new strategy on self-testing is where it can be used as a way to screen those would be eligible for PrEP. And also, yesterday we did hear really very intriguing results about how self-testing is actually improving VMMC, which is another subject close to my heart. The other question is cost effectiveness, because we want to put out there something that can be afforded by the government that does not value a lot of—do not put a lot of money in the health sector. And finally, another question that is really becoming very interesting is whether self-testing can actually affect sexual decision-making. We are talking about situations where HIV can introduce new infections. If people make safer sexual decisions are testing with their partner, whether this can lead to self-sorting, especially among sex workers who test with their partners prior to sex, where they can increase condom use, and whether it can reduce partners in any other way that it can actually affect HIV incidence.

So, those are some of the questions that really motivated the studies that we did. And the two studies that I’m going to talk about were giving out multiple self-tests to persons accessing routine healthcare, and seeing whether they can distribute those kits to their partners. One was—how was it called yesterday? Pilotitis. One was a pilotitis, where we actually explored just the concept to see whether it was feasible, whether it was acceptable. And the second was then move this forward, after getting relatively promising results, to a randomized control trial.

In both studies, we gave multiple test kits. In the first one, we gave three test kits to antenatal women and postpartum women. And we gave five test kits to sex workers. The test kits were not for themselves because these are people who already knew their HIV status. They were coming from facilities where they had been tested. But we wanted to be sure whether they could give the kits to their partners, and whether their partners could self-test. And then we educated them on how to use the test kits. We demonstrated and we asked them to demonstrate back. And we encourage them to test with their partners, although this was not mandatory. We gave them the opportunity to test with anybody else in their social networks. The follow-up was one, two, three months. The first study, we followed up in person. The second
study, we did a phone interview, and then we also had a few qualitative interviews to explore their experiences.

In both studies I’ve alluded to earlier, we wanted to determine whether providing multiple self-test kits to women who access routine healthcare services can promote couple and partner testing. And so, we were interested in the participants describing to whom they distributed the kits – their partners, primary partners, other partners; to their friends, male, female; how the kits were used, were they used as a partner; did the partner take the kit and use on his own, or did they test as a couple? Describing decisions that then ensued after testing, assessing the confirmatory testing for those who tested positive and linkage to care, and accessing the safety in times of intimate partner violence. And the second study was an RTC, and therefore, we are looking at the impact.

And so, really quick key findings, we enrolled 280, a true pilotitis. And WHO reported distributing 901 kits. 192 decided to test themselves. But remember, these are people that I had said earlier already knew their status, but maybe that was the most convenient thing to do, although they were just curious, they wanted to see whether their status would be confirmed by the self-test. And 709 were distributed to others. And of those, 97 percent were used, and three percent of those that were distributed were used. 21 percent of the kits that were offered were not accepted. And of the ones that were given out, distributed, some were not used. Oh, just a point to make, but in both the NPC and PPC and the female sex workers, testing, partner testing, or testing a primary partner was really, really important because as you can see, 93 percent of the PPANC and 74 percent and 86 percent of PPC actually gave the test to their partners who actually tested, which is really, really what we want. And then for the sex workers, also we find primary partner testing really high, at 75 percent. But I think even more interesting is testing, offering the test to a sex client who is not a primary partner, which actually even is higher than the primary partner.

And so, this was very exciting. But we were also interested in finding out, did they test as a couple? Did they just give them out? And if you look down at the bottom – I wish I had the – oh, sorry. Yeah, if you look at the bottom, in terms of participant-supported presence, all of them were present for the ANC, and almost all were present when their partners were testing, which was a really important finding. Remember, I said they already knew their status, and if they chose to test with their partners, their own status
was not the key thing they wanted to look at, but rather the partner testing. And 83 percent of the female sex workers reported being present when their partners were testing. And then we have these numbers testing together with their partners, therefore couple testing. Really, really interesting.

And also, this is a small figure. It’s only 17 percent. But also, sex workers also tested with their non-primary partners together as a couple or a couple at the moment, the momentum couple. And we only had four – oops. We only had four adverse events that were reported to be related to participation in the study and the issuance of the self-test. And in terms of sexual decision-making, we didn’t have a lot of positives, except among the sex workers. And what kind of a seed that we saw that we are exploring further is that sexual intercourse was less likely when the partner tested positive, and condom use was more likely. The numbers are few, and therefore may not quite tell a big story, but it’s something that actually plants a seed that is something that can be explored. And for that reason – I know before that, the study two design was the same. The only thing is that we had a control. Now it was a randomized control trial. And the control we gave a [inaudible] [00:08:24] the front was inviting them to HIV self-testing at her hair facility at the back, was telling them – listing the health facilities where they could get testing, and also where if they have questions in the three languages that were spoken in that area.

And the results of this, which is already published, is that 52 percent of those in the control group when partners went for testing, and compared to 91 percent. And so, we have a 39 percent difference. We also see a significant different in terms of couples testing, which is that [inaudible] [00:09:02] percent among the control group compared to 75 percent among the intervention group. And therefore, in these groups, both partner testing and couple testing, self-testing, works and works really well.

We looked at various characteristics of the women who reported their partner’s use. And what we found was very high – this is a community where there’s extremely high IPV, baseline IPV or background IPV, extremely high. And even with IPV, the use in the self-testing group was still higher. Partner testing in the self-testing group was still higher regardless of the background IPV. We also looked at in terms of the partners who tested in the last 12 months compared to the partners who did not test in the last 12 months, and again, HIV self-testing was more effective in terms of bringing partners to test. And so, in conclusion, we’re seeing that
secondary distribution of tests by women is a very promising strategy to bring in men, to get men tested, to get partners tested. And facilities can therefore use this because we know that women access health facilities, and therefore, we can see how to integrate HIV self-testing and working with the women at the point of distribution to their partners, because we’re having most of our strategies to get the partners tested has not been very effective.

And we are saying it has the potential to facilitate safer sexual decision-making. We are not quite sure because the numbers are few. And that’s something that we want to explore. In a study that we are setting up that is a cluster randomized control trial for sex workers and women in the fishing communities. If you look at, you may not be able to see, but the fishing community is another community that is really, really high infection, about 30 percent in Uganda, 25 percent in Kenya, and about 7.6 percent in Tanzania. And so, we are talking about a really, really high prevalence, and we wanted to see, if we use the same strategy, can we not just promote partner testing and couple testing, but we want to go a step further and try to see decision-making that is following self-testing when partners test together.

And we have two other studies that have been done before this one that was done with healthcare workers that really demonstrated the secondary distribution. There’s one that was a sister to the study we did, the randomized control trial with the ANC and PNC. I don’t know whether Jepaigo is in the room. And they also got exactly, almost identical results. Really, really interesting. Total different population and everything. But the one thing with these studies that they talked to the men. And so, we are going to get the aspect of the men because one of the questions that people keep asking, are you sure the women tested, or they told you what they wanted to tell you? But what we are finding in that study is that the men actually reported a little higher testing rate than what the women reported. Because if you give your partner and the partner does not tell you whether they tested or not, then you’re not able to know. And so, that means that the women are actually slightly underreporting the testing rate, that self-testing, the capacity of the self-testing to get partners tested.

We are also starting out a study – how many minutes? I’m over! Ooh, okay. Give me just one-and-a-half. So, we are going back. We are looking at now this same concept in adolescent girls 15 to 19. And so, the first thing we did was to do a pilot to try to find out whether the girls think that they can give self-tests and what they
think the issues are, the complications would be, and how they can recommend how to approach it in a way that will be less risky. And so, that phase is over. Now, we are planning on the randomized control trial, and we are looking for money. So, those of you who have change, where $100,000.00 is change, I can see you after this. And which is the other one? We are also looking at the dreams innovation challenge. Not us, but some of the partners were, as I said earlier, they’re trying to see whether self-testing can help to identify those who are eligible for PrEP. And this is being planned in Kenya and also in Uganda.

And finally, other studies. There’s a study that’s starting next month which following up on a study that Sue and Tim did, I think in Malawi, where different testing modalities are offered, and adolescent girls are asked to choose which of the three. We have self-testing, we have home-based testing, we have our community-based event testing, we have facility-based testing, and we want to see just what they like. And this is to start in April, funded by NIH. And then finally, we have what is called a KPIS study, which is a study of sex workers where we are trying to see whether self-testing will break the barrier that some of the sex workers have that stop them from accessing services in the drop-in centers. And the study’s being done in ten counties in Kenya by about seven partners. And I just want to appreciate everybody – it’s a longer list than this – who contributed to that, and to you all for listening.

[51989_HIVST research example- A pilot intervention integrating HIVST into the PopART trial]

Female Speaker 1: There is a STAR trial going on in Zambia. This is separate to that. So, this is a 3IE funded study. It’s a different model of distribution of self-tests, so I’ll describe that. And it’s also in different settings. And when I was asked to give this talk, I was asked to talk about how we’re evaluating impact in the study. So, I’m gonna be mostly talking about that after a bit of an introduction. So, just to give you an outline, first I’ll talk about the background. So, as was mentioned, this is nested with PopART, so I’ll talk a bit about that. I’ll talk about the rationale for nesting a pilot HIV self-testing study within PopART, talk about the distribution model, and then go on to talk about how we’re using routine data collected through the intervention to evaluate the impact of this study.

So, I think most of you have probably heard of PopART, or HPTN071. It’s a community-based randomized trial to evaluate the impact of a household-based approach to combination HIV
prevention on the impact of HIV incidence in both Zambia and South Africa. And in the intervention settings, community healthcare workers, which we refer to as CHCPs, community HIV care providers, go door-to-door offering HIV testing services, but also provide linkage to care services. So, for individuals who test HIV positive, they link them to the facility for ART. For men testing HIV negative, refer them to VMMC. And they also do a lot of condom promotion and condom distribution.

And the CHCPs, they go door-to-door, and they enumerate households. And the people that they meet are asked for their consent to have the proper intervention explained to them, and then are offered these various HIV-related services. And so, as the CHCPs go door-to-door, they have what I’m going to be referring to as an EDC. So, this is an electronic data capture device, and they use this as they’re going to each household. And as I alluded to, what they do is they enumerate the household. So, this EDC has information on the household members in each household in the community, whether that person was absent or present during the CHCPs visit, the age of that individual, whether they’re male or female, and so on. And for individuals that the CHCP actually sees, there’s also information about what interventions that individual accepted. So, for example, if they chose to take an HIV test, that’s logged in the EDC, and also the result of that test, and so on.

So, to date, and I’m gonna be talking here about only Zambia, though as I mentioned, PopART is being done in South Africa as well, but I’m only talking about Zambia here. So, this EDC data has been used already to date to measure coverage of intervention components, and also progress towards the 90-90-90 targets in the PopART communities. And I don’t want to dwell on this too much. This has been presented at Croy, so I encourage you to look up the references, if you can read them. So, in Zambia, for example, at the end of annual round one, 83 percent of the individual adults that were enumerated consented to participate. And of those, those who did not self-report that they were HIV positive, 71 percent accepted an offer of HIV testing from the chip.

After annual round two, thinking about the 90-90-90s, about 78 percent of women and 90 percent of women were aware of their HIV positive status. So, that is about 86 percent overall. So, the reason why I put this up here is to show that PopART has made great successes, obviously. But nonetheless, and as we’ve been hearing in these last two days, there’s definitely been some
challenges in reaching certain populations. And you’re probably not surprised to see men up there, because when the CHCPS go door-to-door, it’s often during the day, and they don’t find the men at home. In addition, adolescents and young people are less likely to accept HIV testing services, so that has also been a population that’s been trickier to reach through this door-to-door strategy.

So, that leads on to the rationale for HIV self-testing. So, not only in Zambia, but in other settings, the door-to-door offer of HIV testing services hasn’t reached all populations. So, the hypothesis was that providing individuals with a menu of options for how to test for HIV when someone comes to their door could encourage increased uptake of HIV testing services, and thereby increase knowledge of HIV status. And we also thought, thinking about men who aren’t at home, maybe leaving a test kit for their partner who is there could help reach those men who we aren’t finding at the moment.

So, we aw PopART really as an opportunity to test this hypothesis, and to use an existing structure, so an infrastructure of community healthcare workers, and a data collection structure to test this hypothesis. And so, that’s what we’re doing in this study. And I’m sure you can’t see this graphic, but it shows you basically in the zones where the pilot intervention’s being done, what the CHCPs can do. So, now, in these zones that have been randomized to the self-testing intervention, the CHCPs, as they go door-to-door, for people who are accepting an offer of HIV testing, they can now offer them a finger prick or an HIV self-test. And if the person chooses an HIV self-test, they have a number of other options around how they actually do that test. So, do they want to do it in the presence of the CHCP, but have the CHCP not observe the process, or do they want to do it once the CHCP has left and do it without any observation?

And just to say that the test kits are – if the CHCP sees the individual, the test kit is only being left for people who are age 16 years and above. But as I said, men have been an issue, and we’d like to reach men through this strategy. So, for an individual who’s 18 years or above, so primarily obviously the females, if they have a partner or spouse who’s absent at the time of the CHCP’s visit, they’re offered if they want to take an HIV self-test on behalf of their absent partner. So, this is just a schematic to show you how the impact evaluation is going to be done. So, I’ve described the intervention. Now I’m going to tell you how we’re actually evaluating whether this intervention worked.
So, this schematic just shows you that the intervention is being done in four PopART intervention communities. Within these four communities, there are 66 zones. And these have been randomized, either in blue, the pilot self-testing intervention, or in green, the standard PopART intervention. So, CHCPs going door-to-door, but not offering HIV self-testing. And what I wanted to draw your attention to is the arrow on your right. So, that just shows you the data that we have. So, before this intervention started, there was the CHCPs data as they were going door-to-door, and that’s the data that we’ll be using to evaluate the intervention. And that data’s collected on both sides for the CHCPs, because the CHCPs are operational in all these zones.

So, this is just a map of Zambia. You can see the triangles, hopefully. Those show you the PopART intervention sites – I mean, sorry, the PopART study sites. And then the triangles with the squares around it are the HIV self-testing intervention sites. And then the boxes around it, which I don’t think you can see on this slide, but in blue, those are the zones that have been randomized to the HIV self-testing intervention.

So, our primary outcome, what we hope to achieve through this intervention is that more people will be aware of their HIV status. And our definition of knowledge of HIV status is either that an individual has told a CHCP that they’re HIV positive, or they’ve accepted an offer of HIV testing. So, we hope obviously that we’ll see an increased knowledge of HIV status in our self-testing communities.

And as I’m sure you’ve realized, that the data we’re gonna use to evaluate this is the data routinely collected as part of the PopART intervention, so the EDC data, the data from the CHCP EDC. So, in the zones where the HIV self-testing is being done, those blue zones I showed you, the CHCPs EDC has been modified to allow them to collect data specifically through HIV self-testing. So, it allows them to collect data on whether the individual’s opted for self-testing, and then if they have opted for self-testing, what kind of testing they’ve opted for, whether it was supervised or unsupervised, and so on. And it also allows the CHCP to record whether someone took an HIV self-test for their absent partner, and also whether that self-test was ultimately used. Because the CHCP will go back to the households where they left a self-test to get to follow up on what happened with that test kit. So, it as quite,
as Melissa alluded to with STAR as well, it’s quite – there’s a lot of data that’s collected as part of this intervention.

And so, we’re going to be using this EDC data to estimate whether the intervention worked, so whether it actually increased knowledge of HIV status. And I just put here just briefly, but I won’t explain exactly how, but the data that we’ll be using is – I talked about that the data also has an enumeration of households. So, we’re gonna be using data on what population was actually seen – enumerated during that period of the HIV self-testing intervention. It’s actually a very short pilot, so on this title page, I don’t know if you saw it, it’s the pilot intervention. So, it’s actually quite a short intervention. So, who did they see? Who did the CHCP see during that period of the intervention? And then also using data on who self-reported HIV positive. As I mentioned, that’s part of our definition of our outcome. Who took an HIV self-test, and also, who the CHCP actually saw, so who the CHCP saw and consented to PopART and accepted an offer of HIV testing.

We have, of course, a number of secondary outcomes that we want to look at. The first one is to look at, well, we thought that maybe having self-testing in the community, people might be more likely to consent to the actual, the overall PopART study, so having that study explained to them. And of course, we thought that amongst the people that the CHCP actually sees, because remember, the primary outcome includes a population denominator, so all the study population that’s been enumerated. But amongst those people that the CHCP actually sees, is there an increase in uptake of HIV testing services? And there’s a number of other secondary outcomes, but I haven’t put them up here.

And then, of course, as I mentioned early on, the motivation for this really was to try and reach those who aren’t being reached. So, we’ll be looking at these outcomes amongst men, of course; amongst adolescents and young people, particularly age 16 to 29; but also individuals who recently moved into the community, but also individuals who the CHCP has seen or has never seen, and haven’t accepted an offer of HIV testing. And my colleague recently defined these as the persistent refusers. And Melissa nicely laid out how in STAR, they’re measuring inputs, outputs, and so on.

So, I also just wanted to highlight that we do, as part of this 3IE study, are looking at what is the process of this intervention? So, we’re of course interested in the impact, but how is the test used?
So, do most people want supervised or unsupervised testing? If someone takes a test kit for their partner, does the partner actually use the test kit, for example? So, how do people engage with the intervention? And then, you can’t see it on this schematic, unfortunately, but this is kind of our hypothesized pathway of how we think the intervention ultimately leads to our primary outcome. And it’s color coded to show you that the letters in black are what will be collected, is data that will also emerge from the CHCPs EDC. But then we also have a very strong social science team collecting qualitative data to look at acceptability of the strategy of HIV self-testing itself, any social harms that are emerging, and so on, and also whether there’s any burden on the CHCPs of delivering self-testing as part of their package of services that they offer door-to-door.

So, just in summary, I think we all know that there remains a need for alternate strategies to deliver HIV testing services. Even in the door-to-door strategy that we’ve seen in Zambia, it’s been very successful through PopART, but there remains some harder to reach populations. And so, we’ve hypothesized that when going door-to-door, if you offer people a menu of options for how to test, that might encourage them to test more and ultimately lead to more people knowing their HIV status. So, as I’ve mentioned, we’re doing a pilot of this in an existing study. We’re taking advantage of an existing structure of chips and data collection structure. And as I mentioned as well, the impact will be evaluated through data that’s routinely collected by the CHCPs as they deliver this intervention. It is quite data heavy, the amount of data they collect, but it’s a valuable resource for us to see, well, does the strategy work?

And as you’ll notice, I haven’t presented any results yet. And I also said that it’s quite a short study, so we hope to have results by the middle of the year, if not maybe sooner. So, do keep an eye out for our results. And as a last point, I just want to acknowledge the study team. So, Owen Winga and Helen Ailes are in the audience. They’re both PIs of the study. And particularly Chanla Malupa, who’s the study manager. And of course, the Zambian Ministry of Health and 3IE, and the whole PopART study team. Thank you.

[51989_Estimating the costs of scaling up HIVST]

Female Speaker 1: I’m going to talk a bit about estimating costs, and I am economist. I am an academic, so I’m going to lecture a little bit about what we expect on unit costs. So, I’m also the lead economist on the STAR
Project. So, we’ve been out there collecting a large number of observed costs, both in facilities as well as in the HIV self-testing. So, we’re collecting those to inform both the cost-effectiveness, but also to inform the cost of scaling up. But how best can we do that? I’d like to talk about in the literature, there are four methods that are commonly used – three methods that are commonly used. I’m gonna propose one variation to it. Someone has touched my slides and they’re not the right size anymore. I’m sorry about that. That is a shame.

Okay, so this is unit cost. Average costs are commonly used, are the most common input into cost effectiveness models, mathematical models. And so, Valentina, these are the kind of costs that you use when you’re doing your mathematical modeling. The assumption underlying that is that costs are constant. And so, when you scale up to get your total cost, you just multiply that cost by the quantity. And maybe with a mature program, it’s suitable. But it does ignore the fact that of economies and diseconomies of scale, if you all go back to your textbook economics, and many years ago for some of you, which come about where costs initially will decrease, and then they’ll increase over time due to fixed and variable costs, so the fixed cost being spread over more output. But also, program learning can reduce costs.

There are changes in input prices that happen as you scale up. You might be having different service delivery models, which you may be able to account for in your impact. But if we don’t have costs for them, we may not be able to account for that. And also, something very close to my heart, because not only do we do cost effectiveness, we do a lot around demand, is demand constraints. So, as we are initially introducing HIV self-testing, we might expect high levels of demand. But as you mentioned it, Bernie, those hard to reach populations towards the end, those very resistant people, would expect higher costs over those. So, a unit cost approach will not allow for that to be taken into account.

The next approach, which economists love, but it’s very data intensive, is to estimate cost functions. So, we estimate total costs or unit costs as a function of all the different things affecting them. Program maturity, type of model, the quantity of output. And so, we all love doing this as economists. But in a program like STAR, we’ll never have enough data to actually estimate cost functions very well. We might for a facility-based costing, where we have a baseline and a follow-up for routine testing. But with 56 sites distributing HIV self-tests, we won’t be able to do that.
So, a third approach that is proposed by Gazina, Myraf, and Medover is accounting identity. This approach is pretty simple. It takes into account that you have fixed costs and variable costs, and at a facility level, you take into account, for example, your building cost, your training cost, and possibly your salaries might also be fixed, depending on how you pay your staff, and that’s where – let’s see, where is my pointer? Which one is the pointer? Which one would be the pointer? Nope, not that one. Okay. Let’s see. No, I can’t get it. So, at the beginning where you see a total cost is started up a bit higher, those are your fixed costs, and your variable costs will lead to your upwards sloping total cost curve. This is good, but it doesn’t take into account above service level costs. And obviously, something like a program like what we’re doing has a lot of above service level costs. So, we want to have a bit more nuance.

So, we recognize that most costs are chunky, so they’re fixed at different levels. So, at an individual kit level cost, you need to multiply by the number of kits distributed, but each distributor will need another t-shirt, so that’s a fixed cost by level of distributor. Each outreach site, you need to get there, so it’s fixed by outreach site. And at a clinic level, you have your storage facility. So, already, that accounting identity has a number of layers of fixed costs. So, that’s what we want to expand a little in a little more detail. So, with the incremental costs multiplier approach that I want to propose here is we are going to identify the cost at different levels.

So, if you’re doing a standard unit cost, you would allocate all the central costs across the regions, and then you’ll allocate the regional cost to districts, and you’ll allocate it all the way down so you have a fully loaded cost per kit distributed. But for multiplying that out, that doesn’t quite work because each level, as you scale up from three districts to 20, you’ll have different multipliers for each of these level costs.

So, what we’re gonna do is we are going to estimate total costs, but identify each level, what are the fixed costs, and how much you need to multiply them by. Have I lost people? Are we all with me? Good. So, what we do is, we do a top down costing. So, we start with all the accounts, all 9,000 line items of them. We identify whether it was a startup cost, whether it’s a cost that’s incurred at central level. So, central level costs can be both the headquarters, human resources, but also the central teams that are there. And
then you’ll have your district level cost, distributor cost, and kit cost. And each of these will need to be multiplied by a different number to get to your scale-up cost.

And so, then you get a cost function, total cost function, that is not smooth anymore, but chunky. So, you have your first, your startup costs are high at the beginning. And then as you expand to an additional district, you’ll get another increment. And then if you expand to another region, you can expect another increment going straight up. It still doesn’t take into account diseconomies of scale, and we’ll talk a bit more about that in a moment.

Okay, so what are the steps to doing this? First, when you’re thinking about your own system, you’ll have different levels at which expenditures are incurred. So, in each of our different countries, Malawi, Zambia, and Zimbabwe, we have a different distribution system. So, some will go straight from the distributors to the sites. Some will have intermediaries at district level. And so, depending on what your system for distribution is, you need to identify at which level costs are being spent. Then you need to estimate an average cost at each of these levels, and then multiply to the scale that you’re aiming to get to. So, let’s have an example.

So, the example, as Miriam presented yesterday, the Zimbabwe model, where you have door-to-door distribution sequential. So, the field officer team goes to site one, and then they move to site two, then they move to site three. After they’ve spent a month distributing in one site or after two weeks, the New Start clinic will come and be close to these communities where people can go for confirmatory testing. And so, site by site, it moves on. And so, that’s the example I’m going to use. We haven’t costed all the five sites, five districts that they’ve been to yet, so I’m going to show an example based on the three sites that they’ve been in, but do recognize that they have made more progress since. So, three districts have been costed. They employ 382 distributors and almost 41,000 kits were distributed.

So, to think about scale-up, what are our intermediate outcomes that we’ll need? So, each district, they had about 14,000 kits distributed. And now I think actually it’s improved with their new sites, so I’ve updated it with the five-site average that Miriam presented yesterday. So, this is a live presentation. That’s why I keep changing things. But I didn’t have the number of distributors that were employed at those extra sites, so we have about 107 kits were distributed by each distributor. So, if our scale-up target for
phase two, the first year of phase two, is 320,000 kits, we can calculate backwards.

We need to reach about 21 sites and employ about 3,000 distributors. This is not yet going to recognize that efficiency is likely to improve, but we are gonna update these estimates. It’s a live model, so we’ll continue to estimate how numbers are changing. So, as I mentioned, we start with our project accounts. So, 9,000 line items, as I mentioned, for Zimbabwe. We have over 4,000 line items in Malawi, and many in Zambia.

So, this is how we start. We like this approach because it’s very transparent, and so when we go back and forth between the accountants, they can track exactly what we’ve done. And so, it’s really critical when you’re costing to have a very transparent approach. Everyone makes mistakes. But also, there will be line items that as an economist, you don’t quite know what they mean. So, you need to be able to go back and itemize everything. We’re doing a costing by input type. We’re doing a costing by model, so a distribution model. And now, we’ve added the column of level. So, at what level the cost is incurred. So, that’s our first step. And budgeting and scale-up costs are at the financial cost level, but we are also gonna do an economic costing, which takes into account the full cost. So, it includes donated goods and services. And then when you add user costs, you can actually get your societal cost.

And this is really critical in a technology like HIV self-testing, where actually; you’re transferring costs from users to providers by bringing it closer to home. And if you only look at the provider cost, you may think it’s more expensive, but actually, you may be alleviating cost from users. So, when you put together the societal cost, it’ll give you a lot of insight into the true cost of the intervention, and it may not be as expensive as you expect. That was a little side plug for societal cost. Nothing to do with budgets, but I had to tell you.

Okay. So, what we did, our actual practical example, we identified the startup costs. So, those are all the costs incurred before the first training. Program development, development of materials, you only have to do that once in the life of a program. So, we only need one in our multiplier, and we don’t need to repeat it as we expand. Central costs. We may need to expand a bit as your program expands, but you won’t need to expand it linearly for each district that you expand to, or linearly for each kit, so that’s why we’re separating out all these costs. We have the field officer team and
their equipment, because again, as Bernie mentioned, they have their tablets that they need to go from site to site. But if you have two field officer teams that are going in parallel, you need twice that equipment. Site level cost, distributor level cost, and kit level cost.

Okay. So, I’m gonna show you what we’ve done. Now, don’t look at these numbers. They’re not precise. I know that you all want those unit cost numbers. These are some approximate numbers that we have started with. They’re approximately correct, but they’re going to be adjusted, and they’re only for five months, right? So, we have some program costs, which are about – so, we have all of our observed costs in our first column at each level. We have the quantity that we’ve observed. So, we’ve only observed five months of a year’s costing. And normally, we would do costing over a year, and that would spread a lot of the fixed costs across. That’s why I don’t to emphasize our total costs or our unit costs. Then we get our average cost observed, right? So, for a full year, that would be – you need to multiply. You have your field team cost, your district cost, your cost per distributor – so, that’s their salary and all the things, their promotional materials, their t-shirts. And then our cost per kit distributed.

So, in our part of our intervention, the cost was $3.70 for our first invoice. For our second invoice, it was in between. In the most recent invoice, it was $3.50. So we’re using that for our first scale-up. But when we scale up nationally, we’ll use an even lower cost. So, that’s really lovely to see how prices are changing, and we can incorporate it. So, this is our first projection of our scale-up costs for phase two. And you see a dramatic reduction in cost per kit distributed. So, if you were to use our first unit cost in our projections, that would clearly not be correct at all. And now, we did a second projection where we looked at national scale-up. So, we have the same first four columns up to the observed costs, except for the price of $3.15, which is expected for 2018 and 2019, and hoping to get it lower. But as an economist, I like to use observed cost, so I’m not gonna use the $2.50 projection now.

So, we estimate that if we are gonna scale up nationally to about a million tests, assuming no efficiency gains, we would be able to reach a unit cost of about $9.23. And you see a large shift from the contribution of higher-level costs to actually the cost per kit distributed. And that’s quite common as you see programs mature. The actual product will take up a larger share of the cost. So, one thing that’s critical is to keep updating. So, as you get new data,
you want to be updating it to ensure that you’re using the most up-to-date model, [inaudible] [00:15:15] estimates.

So, this is an approach that I think is fairly feasible for a lot of programs. It’s not too complex, using cost functions. But it is more informative than just using unit costs and it’s more informative than just using health facility costs. But there are still remaining challenges. We need to really probe further into our observed costs, looking at how costs are changing over time. We know that your unit cost is just at one point of time at one quantity in one place, but we need to identify what are the drivers of those costs so we can think about transferring them to different settings.

And if we don’t present what the drivers are of our costs, it’s really difficult to say, oh, in Uganda, it’s gonna cost this much, right? You need to really be looking at what the drivers are. We expect changes by early demand, later demand. Trying to get to those resistant testers is gonna increase costs. We expect our unit cost of our test kits to be going down due to bulk procurement. But also, as you get staff shortages, your costs may go up. You may get more management complexities. But then again, you may be integrating more, so your costs may go down.

So, you need to take into account and think through the different dimensions that will be affecting your costs, and update your costs periodically to be able to take this into account. And ultimately, what we’d like to do is use these costs not only for budgeting, but also for cost effectiveness, so they can inform our cost effectiveness modeling, and by dividing it by level, it’s useful to feed into these types of cost effective model and get our cost [inaudible] [00:16:57] averted.

So, just to conclude – and lunch is almost there. I’ve shown you a few different approaches to modeling scale-up costs. Average cost, very simple. Likely on the high side for some things. Likely on the low side if they’re not fully loaded costs with above service level dimensions. Cost functions need a lot of input, so they’re complex, but so much fun. So, we’ve proposed an approach in between, using your incremental costs or your fixed costs at different levels, and using multipliers to use a programmatically and operationally feasible approach to scaling costs up. But you do need to make sure that you are incorporating above service level costs.

If we budget too low, projects just don’t happen. I remember presenting costs of syphilis diagnostics at WHO, and someone
said, “You don’t need all those management costs.” I said, “Yeah, you don’t. But if you go back to Zambia right now, you won’t see any syphilis screening going on.” At least, that was what we were looking at. And maybe that is due to having cut all those management costs. So, you need to take into account that, yes, you can cut some of the management costs. And some of those types will be spread across more units. But if you spread them too thinly, interventions do stop working. And changes in demand over time.

**Female Speaker 1:** This is geared toward people who might be a little bit newer to the STAR Project, just to show you guys what we have done in terms of using research tools to measure some of the impacts of self-testing in the population, as well as introducing you to some of the tools that are available for you to freely use in your future research. So, the goals of this presentation are to provide a quick overview of one of the STAR interventions that we’re evaluating using an impact evaluation. And this is the community-based distribution of HIV self-tests. And in doing so, I really want to highlight the data capture tools that we’ve used to measure the outputs, outcomes and impacts of this evaluation. So, I’m gonna be talking very much about data collection tools and less about some of the other research methods that we’ve used, although I’m happy to answer questions about those.

So, we’re all, I think, fairly familiar with the question of the different distribution methods. How should we best distribute HIV self-tests to get them to the people that we think should have them? One of the distribution methods that’s being used in all of the STAR countries at this point is a community-based distribution method. So, community health workers, community-based distributors, we call them, are distributing self-test kits within rural areas in Malawi, Zambia, and Zimbabwe. The examples that I’m going to be talking about today are from Malawi. In doing these impact evaluations, we’ve used a cluster facility randomized design. So, facility [inaudible] areas are randomly allotted in both Malawi and Zambia to receive community-based distribution of HIV self-tests, or no distribution of HIV self-tests.

And as you’ll see, the input – so, I’ve unpacked our – we usually talk about a specific impact that we’re interested in, but for those of you from the program evaluation world know that we usually have to unpack that a little bit. We can’t just say, this is what’s
going to happen. We want to know all of the different steps that are taking us from giving a self-test kit to a community-based distributor to actually having one of our important population members or a community member test and know their status, and possibly link to future care. So, I’ve segregated this into inputs, outputs, outcomes, and impacts. And in order to answer our research question, which is our impact, whether or not more people know their HIV status after introducing self-tests, and whether or not more people with HIV and AIDS are on treatment, we have to know inputs, outputs, and outcomes.

So, how many self-test kits are being procured? How many are being distributed? How many clients are using these kits? What sort of training materials are being provided? What sort of information is being provided to the community members about self-testing, and whether or not clients are linking to prevention or treatment. And additionally, we tend to think of the positive outcomes, but there are also adverse outcomes that we need to be very aware of and people are very worried about in terms of HIV self-testing. And this would include adverse outcomes as a result of forced disclosure or forced testing or other things.

So, in order to get – the thing I think that Frances Collin talked about at the very beginning is very relevant to all of the work about HIV self-test, which is that we let them go. And I think that researchers are in particular very excited about holding on to things and being able to measure things at every step, so we know exactly what’s happening. But we can’t do that with self-tests. Part of the joy, part of the power of the self-test is the fact that we are able to give someone the power to do the test themselves. So, in designing a data collection system for this, we have to balance that. We have to – on the one hand, we want to know what happens at each step of the community distribution process. So, what the distributor does, what the client does, and what the facility does. But at the same time, we can’t control that because we’re giving the self-test to a client and hoping that they will take the initiative themselves.

So, the strategy that we’ve used in STAR is to collect data at different steps in the distribution process and from different actors within the distribution process. So, I’ve created some nice graphics. So, you can sort of enjoy little pictures of houses and things as I talk about the different somewhat dry data collection tools we use. So, the CBDA, the community-based distributor, will bring the self-test kit, something called a self-completed questionnaire, which is completed by the client him or herself, and
a self-referral form. Again, this is for the client him or herself. And the CBDA will complete a registry entry with information on the number of test kits distributed in that household. And in Malawi, this register is actually paper-based, and it contains quite minimal information. But it will give us a sense of the number of test kits that are being distributed and who receives those test kits.

The next thing that has to happen, so that’s the community-based distributor taking and collecting some data. And then next, we rely on the client to also give us some data. So, we have boxes located in a variety of areas where people can drop their self-test kit once it’s been used, and the self-completed questionnaire. So, the self-completed questionnaire, again, is completed by the client him or herself. And we’ve designed it to – the one in Malawi is in Chichiwa and English, and it also includes pictograms. And the CBDA will explain what the self-completed questionnaire is for and what it’s asking as he or she provides it to the client. So, we hope that – we’re trying our best to get information from clients even in low literacy areas.

But these include information on some very general information about who the person is in terms of sex and age, what they thought their result was, and then positives and negatives about the self-testing process. So, we’re both getting satisfaction with self-testing, as well as one of the many ways that we try to get some of the adverse outcomes – whether anything harmful happened, whether or not they were forced to test.

The next thing that happens, we hope, is that clients who have a reactive self-test go in with their self-referral form to the facility. And the self-referral form is designed – it has, I think, two purposes, actually. On the one hand, it has the data purpose, which is the one that I tend to be most interested in. It helps us understand who is linking and where they’re linking to. But it also serves, I think, as something that’s helpful for people, that they have a client who might not be familiar with a facility or might not be comfortable with it, has a piece of paper that sort of says, I can go to the facility. This is who I am and what I need. So, the self-referral form is the thing – again, so this comes from the client and goes to the facility, so we have both of those actors working. And it includes information on the client, as well as things that will tie them into the electronic health records, or however health records are being collected. So, ART numbers, facility codes, and information about the diagnostics.
I should say, I focused – so, when I wrote this, it was before the beginning of the workshop. I was not procrastinating, which is good, but also bad, because there’s been a lot of questions here on linkage that I didn’t necessarily capture in my slides. So, this is one of the ways that we capture linkage. We also are attempting to capture linkage through routine data collected from ART facilities. So, we’re extracting data from clinics to use that data to see whether or not there’s linkage. I would caution, I think, and we can talk about this a bit more. One of the things that I’ve been hearing a lot of, people don’t link, do people link? And I think there’s a challenge even before understanding why people don’t link, I think that we have a real challenge in understanding whether or not people link. Because in the self-referral form, we’re relying on both a client and a facility to feed information back to the researcher. And then in the facility records, we’re relying on the facility records to have a field available that captures information about HIV self-testing. So, one of the challenges, I think, moving forward, particularly to scale, and particularly if linkage is such a concern that we really want to measure it, is that this has to be really taken into the programs who are providing ongoing HIV care. It can’t just be a research initiative.

And then the final thing, and this is the thing that I as an epidemiologist am most familiar with, is that we do a population survey. And a population survey is very much something that is research-focused and very intensive, but it turns out when we do that, we get a lot more information than you can get from routine data. We get information on all of the different parts, all of the inputs, outputs, outcomes, and impacts that we’re interested in, as well as some more detailed sociographic data and data on a variety of harms.

So, just to summarize how we’re collecting our data. We’re collecting data on inputs, outputs, outcomes, and impacts. And we’re collecting them all using a variety of different tools, and collecting data from a variety of individuals. This, I think, provides us with some significant benefits, in that we’re getting information from the people who can provide it to us the best. We’re getting information from the client on what he or she thought of the self-testing process, for example. But we’re also getting information from the CBD and from the facility. The problems with this are unfortunately quite – I wouldn’t say that they’re problems. It just makes it a lot of work. So, it’s a lot of work to make sure that you can track a single individual across all of these data elements. And even if you are able to track them, even if your data are perfectly
clean, which those of us who work with data know doesn’t usually happen; you still have to analyze it all. You still have to bring it all together, and that requires a lot of personal time. And it’s also a heavy burden on clients, community-based distributors, and facility test staff, all of whom we have heard are overburdened with additional work or just going about their daily lives.

So, on the one hand, this is very much a research-intensive way of collecting data. I think that the lessons and some of the tools can be adapted for more routine data collection. But at the same time, I think that part of this is to open us up to thinking about, well, if we really want to know some of these very detailed questions about linkage, for example, we really have to put in a lot of effort into measuring these things and to start thinking about the costs and benefits of that. So, that’s all I have to say. All of these tools are available on the hivstar.lshtm.ac.uk website, along with a lot of other information about the project that might be useful for you if you’re interested in how STAR’s been working with self-testing, or looking at resources for developing your own research or your own MNE. And my information is available in the program if you want to email me directly. Thank you.

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Duration: 162 minutes