The CQUIN Learning Network Launch Summary



March 26-28 Umhlanga, South Africa

BILL& MELINDA GATES foundation



HIV LEARNING NETWORK The CQUIN Project for Differentiated Care

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Executive Summary

Background

The HIV Coverage, Quality, and Impact Network (CQUIN) was launched in 2016 by ICAP at Columbia University, with support from the Bill & Melinda Gates Foundation. CQUIN is an HIV learning network designed to foster south-to-south learning exchange to advance differentiated care in support of the UNAIDS 90-90-90 goals. By December 2016, six countries – Kenya, Malawi, Mozambique, Swaziland, Zambia and Zimbabwe – had joined the network.

Meeting Date and Objectives

The CQUIN launch meeting was held in Durban, South Africa, from 26th to 28th March, 2017. The goal of the meeting was to initiate learning network activities and south-to-south exchange by:

- Convening initial network members to discuss DSD progress, barriers and facilitators in their countries;
- Introducing initial projects and initiating joint country work for interested network members;
- Discussing best practices, lessons learned, and gaps/needs related to DSD enabling systems, including monitoring and evaluation (M&E) of DSD;
- Fostering collaborative learning network planning and priority-setting

Meeting Participants

Fifty-four participants attended the launch meeting, including participants from ministries of health, civil society, CDC, USAID, and implementing partners consisting of both local and international NGOs. Other participants include the Bill & Melinda Gates Foundation, Médecins Sans Frontières (MSF), the International AIDS Society (IAS), and Extending Quality Improvement for HIV/AIDS (EQUIP). The International Treatment Preparedness Coalition (ITPC) and Zimbabwe National Network of PLHIV (ZNNP+) represented civil society.

Key Issues Presented/Discussed

The meeting began on the evening of March 26th, with framing remarks from Dr. Peter Ehrenkranz (Gates Foundation), Dr. Wafaa El-Sadr (ICAP) and Ms. Rumbidzai Matewe (ZNNP+), setting the stage for the country and partner presentations as well as thematic breakout sessions on days two and three. The framing remarks highlighted the progress to date in achieving epidemic control; current gaps and challenges; the need to take DSD to scale to achieve treatment coverage, quality and impact; the role of learning networks as a tool for knowledge exchange to rapidly diffuse evidence-based best practices; the need to co-create new knowledge and tools to improve differentiated care for sub-populations such as adolescents, men, and patients with advance disease; and the role of civil society in creating demand and providing patient education.

The presentations on days two and three took the form of plenary presentations, panel discussions, and breakout sessions. Ministry of health representatives from the six countries shared the current status of DSD in their respective countries, including barriers, enablers, and research priorities. Implementing partners shared brief overviews on specific differentiated care innovations. The topics

included: protocols for advance, late and unstable patients (ALUP) from the Lighthouse Clinic in Malawi; community ART refill groups from FHI360 in Zimbabwe; urban adherence groups from the Centre for Infectious Disease Research in Zambia (CIDRZ); and medication adherence groups for HIV and NCD patients from MSF in Kenya.

During the breakout sessions, participants had in-depth discussions on eight key topics, selected because of their potential to impact coverage, quality, and impact of differentiated care. These included: patients at high risk of disease progression ("unstable" or "high-risk" patients); adolescents and young people; men; patients with HIV and NCD; monitoring and evaluation; ART forecasting and distribution; research priorities; and key and priority populations. Discussions on these topics centered on what is currently known, implementation gaps, priorities, and action points, among others. By the end of the meeting, six topics (differentiated M&E, men, adolescents and young people, "unstable" patients, patients with HIV & NCD, and key and priority populations) were prioritized as the first communities of practice.

Country teams also used a "differentiated care dashboard" to assess the status of their national DSD scale-up efforts. This enabled them to set specific priorities and to identify areas in which CQUIN network engagement would be valuable.

Common/Cross-Cutting Issues and Challenges

- All countries are committed to expanding DSD services and are in various stages of planning and implementing scale-up
- Most countries have national policies that include DSD or actively promote DSD services.
- M&E of differentiated care was identified as a major challenge by all countries
- Lack of differentiated care for patients with advanced HIV disease
- Most countries only have some pilot projects that have been evaluated and meet quality standards. Otherwise, no country has quality protocols or continuous quality improvement in place.
- Most countries do not have National DSD in-service training curricula available and in use

Key Outputs

- Baseline DSD situational analysis for the six CQUIN countries as documented on their DSD dashboards
- Key priority activities for each country to improve DSD implementation/scale up
- Country preferences for communities of practice
- Evaluation report on meeting and recommendations from participants

Next Steps:

- CQUIN will support selected communities of practice to facilitate joint learning and cocreation of resources, starting with a workshop in July in Zimbabwe on differentiated care for patients at high risk of disease progression
- CQUIN will assist countries to address the DSD priorities they identified, including;
 - o Supporting best-practice exchange visits
 - o Hiring and seconding differentiated care coordinators to selected MOH
 - Supporting the initiation of differentiated care review meetings in some countries
 - Providing technical assistance with M&E of differentiated care as requested

- Assisting with operationalization of DSD treatment guidelines
- CQUIN staff will conduct follow-up visits to member countries to consolidate plans and discussions on CQUIN support
- The CQUIN network will expand to include new countries, enriching the resource and knowledge base of the network

Introduction

In order to accelerate the implementation of high quality differentiated service delivery at scale, ICAP at Columbia University has launched a multi-country learning network. The goal of the **HIV Coverage, Quality, and Impact Network (CQUIN)** is to increase the number of people living with HIV initiating and sustaining highly effective HIV treatment with sustained viral suppression. ICAP aims to enable the adoption, implementation and scale-up of high quality differentiated care by supporting a network of countries at various stages of implementing differentiated care services, enabling experience sharing, cross-learning, and collaborative problem solving.

Extraordinary progress has been achieved in confronting the global HIV epidemic. The number of people living with HIV accessing antiretroviral treatment (ART) in low- and middle-income countries rose from 400,000 in 2003 to 18.2 million in 2016, and an estimated 7.8 million deaths have been prevented by the scale-up of ART services. Increased access to prevention and treatment has also led to a 35 percent drop in new HIV infections since 2000, including a 58 percent decrease among children.

Despite these successes, much more needs to be done. In order to achieve the ambitious 90-90-90 targets by 2020, affected countries face several critical challenges:

- The number of people on ART will need to double, a serious problem for overcrowded health facilities staffed by overworked health care workers.
- The quality and acceptability of HIV treatment services will need to improve, in order to better retain patients in treatment.
- HIV programs will need to become more efficient, in order to treat more patients with the same (or fewer) resources.

In response to these imperatives, a growing number of experts recommend DSD as a way to enable health systems to manage the growing numbers of patients receiving HIV treatment, while at the same time improving access to HIV services, the quality of HIV programs, and enhancing patient satisfaction with improved outcomes. With support from the Bill & Melinda Gates Foundation, CQUIN will foster a learning network of countries interested in partnering to enhance and accelerate the implementation of DSD services.

Sunday, 26 March

Dr. Wafaa El-Sadr Global Director, ICAP Columbia

"Thank you very much for the kind introduction. It's really an honour to be here, and I thank you all for coming to join us for this launch of the CQUIN learning network. I am going to briefly set the stage for our discussions, describing the state of the HIV epidemic and the promise of differentiated care. Tomorrow, we will learn more about the CQUIN network, which is designed to foster joint learning in this area.

The state of the HIV epidemic:

As you know, an estimated 37 million people are now living with HIV. About 26 million live in sub-Saharan Africa, but HIV touches every continent in the world. The response to this challenge has been remarkable, and it's because of the efforts of the people in this room and many other people, that we've been able to achieve so much with the scale-up of ART. This miracle has been achieved because of your work, and people like yourselves, who worked so hard to make this happen. The scale-up of HIV treatment and the lives it has saved is one of the greatest public health victories of this century.

Although about 18 million people are now on ART – a remarkable achievement – new global guidelines mean that we need to almost double that number in the next three years. As we move to "treat all" and to achieve the 90:90:90 targets by 2020, we will need to move from 18 million to 30 million people on ART– a daunting challenge for programs and health systems globally. The 90-90-90 targets that we are hoping to reach by 2020 are to ensure that 90 percent of all the people living with HIV know their status; to have 90 percent of them on ART; and for 90 percent of those on ART to achieve and sustain viral suppression. So this is the goal and this is what's driving the global community in terms of HIV programming and HIV resources. It's also what's driving many of the MOH here and elsewhere.

What's equally important as reaching these targets is the need for high quality programming. All of you are familiar with the HIV care continuum, which starts with identifying everyone who has HIV within a population – whether in the general population or in key and priority populations – and then offering them testing, and for those who are positive, initiating ART and maintaining all the supportive services needed to remain on treatment and sustain viral suppression.



The HIV care continuum depends on both coverage and quality, enabling people to stay on treatment and maintain viral suppression in order to get individual benefit, as well as the larger population-level benefit of treatment as prevention. So how is the global community doing when it comes to the HIV care continuum? There are an estimated 36 million people living with HIV in the world and currently about 60 percent of those individuals are aware of their HIV positive status. So testing, and obviously testing the right people in the right places, is critical to reaching the 90 percent goal.

There are also gaps in the rest of the cascade, as you see, with only 46 percent of PLHIV who know their status on ART and only 38 percent achieving viral suppression. So globally, we have a long way to go in achieving the 90-90-90 targets! To put this in context, sub-Saharan Africa, in many aspects, is doing much better than the U.S. overall in reaching the 90-90-90 targets.

In addition to reaching all the people who should be on treatment, there are also some disparities that have been identified and one of them is the male-female disparity. As you can see from these 2015 data, approximately 52 percent of adult women living with HIV are on ART but only 40 percent of adult men are on ART. This is the case from almost all countries in sub-Saharan Africa, and around the world, the predominance of women on ART. This is good, we want women to be on ART, but there's also a great need to reach men.

Key populations are also critically important to reaching the 90-90-90 targets. In the U.S. and in Europe, there are regions where a large majority of new infections are occurring among key populations. This is also true in African regions: new infections are growing amongst key populations and their partners. If you look at Eastern and Southern Africa, 21 percent of new infections occur among key populations; it's 27 percent for Western and Central Africa. Without reaching these populations, and engaging them in care and treatment, I think it will be impossible to reach the 90-90-90 goals.

Next, I would like to share with you some of the findings from the first three <u>Population HIV</u> <u>Impact Assessment (PHIA)</u> surveys. PHIA is a large project, funded by PEPFAR, and led by ICAP in collaboration with CDC and a consortium of great partners. Three of the surveys have been completed, in Zambia, Zimbabwe, and Malawi. We have representation here from all three of those countries here at this meeting, and I just want to say, great job! A

There are also on-going PHIA surveys in Lesotho, Swaziland, Tanzania, and Uganda. Cameroon is launching next month in April, to be followed by Cote d'Ivoire, Ethiopia, Kenya, Namibia, and Haiti. These are true population based surveys – nationally representative household surveys – so they tell us how we are doing in terms of the population, if we're close to the 90-90-90 targets. The goal of this survey is to examine how the HIV response has worked, as well as point to a blueprint of action for the future.

So just to give you a sense of the findings from Zambia, Zimbabwe, and Malawi: There were 34,000 randomly selected households in these three countries from the MOH and other partners on the ground and a total of 76,000 more individuals. Adults and children were surveyed, and gave blood for some of the surveys, so it's a huge effort and major achievement. The data show that 70 percent of people now living with HIV already knew that they were HIV positive, they were aware of their HIV status, which is remarkable. Of those who were aware, 87 percent reported being on ART and of those, 88 percent were virally supressed.

This is amazing, a remarkable achievement by these countries. You can see the differences across countries, but they are doing amazingly well in terms of reaching their 90-90-90 targets. The surveys also point to some of the gaps and areas where we need to focus on, and where we need to differentiate care. So, if you look at the prevalence of viral suppression of adults with HIV, in these three countries, 56 percent of men on treatment are virally suppressed compared to 65 percent among women, almost a 10 percent difference that also applies to other countries.

Another important aspect of the data from this survey, if you look at the different age groups, 15-24 year olds, you can see the difference between them. Only about 46 percent of young people with HIV were aware of their infection. But once they were aware of their HIV infection, they did quite well. 82 percent of those who were aware were on HIV treatment and 79 percent were virally suppressed. But obviously, you can see that the older age group, the 35-59 year olds are doing the best. And therefore there is a need to focus on, in particular, the younger individuals, to try to achieve the 90's.



So in summary, in order to achieve epidemic control, there needs to be first of all, *coverage*. Coverage is very important; we need to reach all the people who need to be reached, whether they are the general population, younger people, men, or key populations. We must engage them first to be tested, then to start treatment, and to stay on treatment. But another very important thing to achieve is *quality*. The quality of the programs themselves to be able to adapt to these populations, to enable them to start treatment, stay on treatment, and be supported, in order to achieve the desired impact.

Differentiated Service Delivery

So, can differentiated care enable us to provide coverage to the millions of people we need to reach in the next three years, while maintaining or improving program quality? We hope so! DSD has the potential to impact coverage, to reach the people who need to be reached and also quality, to enable engagement, to make it successfully through that continuum. Differentiated care is a pathway, a tool, for us to achieve the desired impact.

So, we have a room full of believers who will adopt the differentiated service approach. One way to think about taking DSD to scale is that it will require: adoption, implementation, scale-up and evaluation. When we think about evaluation, we think about what evidence is needed; evidence to convince the world and all of us that we've been able to have the desired impact. Are we reaching true coverage – with equity amongst different populations? Are we providing quality? What are the effects on patient satisfaction?

A very important piece of evidence that's critical, is have efficiencies been gained? Can we show that differentiated care leads to more efficient utilization of health resources, and improved cost

effectiveness of these services? It's important to have effective services but it's also important to have cost-effective services in order for scale-up to succeed.

Participant Goals for the Meeting

Now let's talk about your ideas and why we are here. As you know, we shared an online survey prior to the meeting, and most of you responded, so I thought I would share some of the results. We have 57 participants, coming from nine countries. One of the questions we asked was: what do you want to learn from this meeting? Here are some of the answers:

What are various DSD models? What approaches and implementation strategies are being used? What do we know about health care worker buy-in? How are countries adapting their M&E systems to respond to DSD? What does it cost to introduce DSD models, and is this sustainable? These are really very important questions that will inform the way forward. There's a lot of interesting work that we will have a chance to hear about, which will support cross-learning and sharing at this meeting and beyond with the CQUIN network.

Remarkable advances in treatment have been achieved, but new goals and strategies are going to require us to innovate and scale. DSD offers a promise for enhancing both coverage and quality. Differentiated M&E systems are needed to assess progress in achieving health system, program and individual outcomes. Lastly, sharing experiences will take this to scale.

Thank you for your interest and partnership as we launch the CQUIN network."

Ms. Rumbidzai Matewe

Acting Director, Zimbabwe National Network for People Living with HIV/AIDS (ZNNP+)

"It's an honour that I can bring the voices of the communities to this meeting. I've been requested to share with you the experiences of ZNNP+, the Zimbabwe National Network for People Living with HIV/AIDS, as it relates to the implementation of DSD. ZNNP+ has focused on the implementation of community ART groups for the past three to four years. We agreed to bring some of the voices of people in the community to this meeting, and we'll be showing a short video later.

My opening statement is this quote from Michel Sidibé: "Treatment is not only about pills, it is about life, rights, dignity, investment, and the democratization of access for the community through innovation, simplification, and centralizing the role of the community" – the purpose of this meeting. We're going to look at a community-centered approach and DSD from the perspectives of people living with HIV, as well as our experiences at ZNNP+ in implementation of community ART groups, and the voice of the beneficiaries.

Here's what our community ART refill group addressed. There were burdened health centers in 20 districts, targeted specifically for their challenges. Then there were issues of poor adherence due to the systems available at the community level. Because of distance, people living with HIV (PLHIV) cannot get to a facility each and every day when they need advice, or when they need support. So the community system, through this group, presented an opportunity for people to share experiences,

and also to link with the health facility. The time spent at health centers has also been significantly reduced.

We also noted that, in areas where we implemented community ART refill groups, there were human resource shortages. What that means is, patients would go to a health facility even when they weren't sick, and would spend the entire day there at the expense of doing other productive work. Then there's the issue of treatment literacy, tracking of barriers, follow-up constraints, and transport to health facilities.

In line with Zimbabwe's Operational Service Delivery Manual, there are different models of care for PLHIV at our disposal, however we have mainly been implementing community ART refill groups (CARGs) and community adolescent treatment supporters (CATS). There is a potential to implement ART adherence clubs, individual refill, drug pickups, group club refills, and family ART group refills. In some instances, this is already being implemented, but it's not yet standardized. Most of the operating procedures for implementing this are facility-led or community-led, where a group of people can get to a facility and organize own refill.

Then there's an outcry, whenever you popularize an approach at the community level, there are people that are left out. So you go into a community and start talking about ART-refill groups, then you leave out people with high viral loads. So people start to question if they should spend a lot of time at the health facility. So we need to start looking into the available approaches, and how we can modify them to help unstable clients. The discussions going on at the MOH are about how to address gaps to ensure everyone living with HIV can access services in a more comfortable way that is community-led. In our experiences implementing community ART refill groups, we also did not know what was ahead of us. We learned from other countries, we read about it, about new approaches from conferences, but we're also not so sure. The question that we had were – is it suitable for the community?

These are questions the ministry was also asking. Like, when you give someone medications for ten people, you're trusting one person with the health of ten people. Will communities know, if they have side effects, to come to the facility to report those side effects immediately? Will the health system cope in dealing with groups, rather than individuals? These are all questions we're not sure of. Will policies be in line with PLHIV? There are clearly policies on how refills should be done, and this is a community intervention that we're bringing in. All of these questions need to be answered.

Communities need the required capacity to implement DSD initiatives. Do communities understand and appreciate why they're part of a group? We believe these groups met not only for a refill, but there should be psychosocial support. It was also not clear, as there were a lot of opportunities and challenges, whether some of the sites for the community ART refill groups were hard-to-reach communities. At the point when we started, the entry level for someone to get into CARGS was viral load test results – and these are not universally available.

In some communities, people are just not comfortable with trying new initiatives. They're used to going to the health facility and being supported by health care workers. Then there was capacity of health providers. In some instances, health providers aren't always comfortable with trying new initiatives, or trusting one person in the community. We are very happy though that within the 20 districts we implemented this, everything is fitting together, and there's been lots of success. People are excited and they want to make it work. We also use a sustainable, community-driven approach.

We have resources from Global Fund to implement in the 20 districts, but we've also noted the ripple effect – health facilities we didn't necessarily start with in the 20 districts have already adopted the model, and are implementing it on their own. For the PLHIV in the ART-refill groups, we have recorded a 99 percent adherence level.

What we've observed is that the group members are supporting each other with the mobiletechnology reminders they put on their phones. This is also an economical approach for people living with HIV. Instead of going to the health facility every month, they are just contributing a tenth of the transport costs for one person to go to the health facility. It's also economical in terms of time, since only one person visits the facility and the other nine can continue with their work.

Then there's also the issue of social support at the community level, a new lifeline for support groups - an old model. When support groups were formed in the early 1990s, it was to address stigma and to support each other as they waited to die. In 2017, the support group model, with new CARG groups being more like support groups, has been strengthened. I also wanted to note the percent increase in people living with HIV in support groups.

We have also seen something interesting not intended with this model. There are now incomegenerating activities happening at the community level. They've realized transport is needed, and people need to contribute, so they've started a form of income-generating activities amongst themselves supporting drug pick-ups. We will continue to question why someone living with HIV should go to the clinic, even when they are not sick.

I hope this short video can amplify some of my points; thank you for your attention."



"Thank you all for coming. On behalf of the Bill & Melinda Gates Foundation, I'm excited to welcome you to the launch of this network. This has been more than two years in the making. Before coming to the Gates Foundation, I was the CDC country director in Swaziland. While there, I was really struck by how few regular forums there were for resource sharing.

Before my time at CDC, while many of you were becoming active in the HIV response, there were the PEPFAR implementing partners meetings. These meetings were a great opportunity to share experience, and to learn from one another, but at that time there was less experience to share, and less knowledge about what data was most relevant. Now we have all this data, and I know most of us have seen it many times, yet there's always a new spin on it. We see the PHIA data coming to life and how we can continue to dive deeper into it.

Here we have this opportunity to share operational challenges, concerns, and successes with our peers in neighboring countries, which maybe hasn't existed in quite some time. I think we've all experienced academic meetings where something has been highly vetted. Data is often pinpointed down to very specific questions, but you don't always have access to standard operating procedures (SOPs) someone wrote to put that into practice, or the job aids and tools created. You don't have them to adapt them in your own way.

So there wasn't a dedicated place to ask questions and learn best practices; to identify those gaps in knowledge, prioritize them, and co-create the solutions, and that's why we're here today. Some of you might already be familiar with the International Aids Society (IAS) project that Gates is funding and the <u>IAS website</u> that features tools that are already out there, from Médecins Sans Frontières (MSF), and MOH, and there's a decision framework that you can use to develop national guidelines.

You may have also noticed that much of the information there is about stable adults, but there are big gaps there, because lots of people are affected that aren't part of this response. That's part of why we're here today, and why we've asked ICAP to convene this network. We've asked you, the leaders, to start thinking about and adopting at scale, models of DSD. This is the room of decision makers and innovators. We're hoping you'll find a way to work together, to think more about the gaps you want to prioritize. There's a long list of gaps but maybe some of them are gaps that are shared across countries, and we want you to think about what they are, to co-create the solutions, and work with your peers to implement the findings.

I've gathered that one of the things people are excited about with this network is the opportunity to have teams coming to the CQUIN meeting from the individual countries, with MOH, communities, implementing partners, donors, and maybe you can leave here all excited about the same thing. What often happens is there are one or two representatives that go to a PEPFAR meeting, or a WHO meeting, and when they come back they are supposed to implement their plan, but sometimes it's hard to get everyone to agree on what that plan is.

So that's one very important output of this meeting. A second one is to discuss amongst yourselves the barriers, and facilitators that you're facing, which might be common across countries. You might

pick out some priorities you want to work on together and think about advancing the solution together.

One of the things that will make this group unique is that this is a learning network, not a once-off meeting. There's going to be a <u>website</u>, through which you can connect, as well as webinars. It will be up to you to decide if you want teleconferences, in-person meetings, or site visits from one country to another. The idea is for the network to be very self-driven. The last note is that it's on purpose we named this network "CQUIN".

In Swaziland last June, we were at a meeting focused on viral load scale up – asking how we get labs and programs and other stakeholders to recognize they're facing the same challenges, and that some of the same solutions can be used across countries. There were ten countries, some of the same representation that's here today, and we saw this amazing communication, recognizing what they're doing well and trying to learn from one another, and seeing that little bit of peer pressure, which is very valuable.

As we're pushing toward coverage, quality, and impact, we're picking this idea out of DSD, about treatment, but we don't need to stop with treatment, what we're talking about is achieving impact. Two ways to achieve that are by increasing coverage and quality, and it's going to be up to you to use this platform the way you want it to be used. If we decide supply chain is the biggest thing slowing us down, at the next meeting let's bring our supply chain people. If it's lab services, or information services, if it's TB-HIV issues everyone's prioritizing, then let's bring our TB colleagues.

I'm excited to see you all here. I take it as a sign that the concept of this meeting that's been so long in the making has piqued your interest, and I'm thrilled to see people have things they want to learn and share. That's the purpose of this meeting and of the network going forward. Thank you."

Welcome and Opening Remarks

Dr. Yogan Pillay Deputy Director General, National DOH, South Africa

"On behalf of the Department of Health, I would like to welcome everyone to South Africa. It's a great pleasure for me to be here.

With differentiated care, I've been worried about the effect of moving people out of services with limited contact with health workers, and its impact on quality of care, and ultimately the impact on viral suppression. So it's very heartening to know that Wafaa and others are thinking about not only coverage, but also quality. I would like to thank ICAP for hosting us, and I am certain that Sandile and his team will make us proud South Africans, and keep everybody both happy and safe while they are here.

In South Africa, we are currently busy finalizing our strategic plan for HIV, TB, and STIs for 2017-2022. It's quite a pivotal moment for us, because we need to think ahead about what it is we need to do in the next five years, and clearly, quality and impact are two critical things we need to think about. We are hoping that on Wednesday, our cabinet will approve the national strategic plan we put in front of them, and that it will launch this Friday. We are hopeful that we will put forward critical interventions that will get us as close as possible to the end game for HIV, TB, and STIs.

We are almost at the mid-term of the 90-90-90 targets that we adopted in Melbourne in 2014, so it's critical for us to start reflecting on the benchmarks we had as countries in 2014. I am told that UNAIDS will be leading a process of reviewing where countries are in 2017 relative to the 2014 benchmarks. In South Africa we have an estimated 7 million people living with HIV/AIDS. That is a very large number of the 55 million South Africans living here. We have just about half of these individuals on treatment, about 3.75 million, so in terms of reaching the 90's, we have some way to go.

One of our big challenges is, notwithstanding the large numbers of people on treatment, that we still have an estimated 270,000 new HIV infections annually in South Africa. Of those, we have about 2,000 young people aged 15-24, contracting HIV per week. We know that treatment is prevention, but with the other forms of prevention, we will still not be able to close the gap. So, we need to figure out the best methods for prevention.

In southern Africa, and South Africa in particular, we cannot talk about HIV without talking about TB. We have about a 60 percent co-infection rate, and for most HIV-positive people who have died, the cause of death is usually TB. In South Africa, we have an estimated 450,000 new cases of TB annually, and we only have about 300,000 on treatment, so many people living with TB are unknown to the health system.

We need to figure out, once we're doing the differentiated care cascade, what happens when people contract TB and are not in touch with health services, even though they might be on antiretrovirals. There is a good chance that, if they are the right age, we can prevent TB transmission, and we are

hoping that we can move quickly, if it works, on combination treatment for prevention of TB in HIV positive patients, especially children, and HIV-positive patients with diabetes.

In South Arica, of the 3.7 million people on treatment, we are able to identify about 1.3 million who are stable and virally suppressed at 12 months, and they are now receiving their medication either outside of the facility through a courier system, or a fast-track process within our facilities. Unfortunately, we are still struggling to identify lots of places and communities as drop-off points for medication, so many of our patients are still receiving them through fast-track processes within our facilities. We are hopeful that differentiated care can help.

We have about 40,000 community health workers who are paid by our HIV-conditional grant to support people on treatment outside our facilities, but we haven't been able to systematically organize these individuals, or provide care in the most efficient way outside of our facilities. We are contributing just over 1 billion rand; we pay stipends to 40,000 community workers to provide adherence support to patients outside our facilities, but the system isn't working for us, so I am keen to hear how colleagues have done it differently, and the impact. Part of what we want to see is impact on adherence, and how far South African public's investment has gone.

We have a fairly large challenge with adolescents. We have a cohort of 1,000 adolescents in the Eastern Cape of which only a third are adherent, so there is a big challenge with transitioning from pediatrics to adult care, and providing the kind of support adolescents can appreciate and need. We launched a mobile site called *Be Wise* in 2015 to support young people who are not just HIV-positive, but who have lifestyle-challenges – from bullying at school to relationship issues.

Social media may be one way to support adolescents. The other challenge we have, which was raised when we drafted the national strategic plan, was the issue around mobile populations, from sailors to airline workers, and through to migrant workers. Countries like South Africa have a significant migrant worker population, and these workers cross very porous borders, so we need to figure out what we can do with differentiated care with respect to mobile populations.

We have tried to do something about TB, related to miners, with three specific objectives. One is to harmonize treatment protocols for TB; the second is to have a common database so we know who in the southern African region has TB; and the third is a referral system that works for all of us. We have been trying to do this in various systems, with partners such as the World Bank, since 2014, but haven't been significantly successful, so we need to figure out how we use differentiated care for mobile patients in the region.

One key issue is to have a unique identifier, or use biometrics to help us have some kind of interconnectedness in the region for mobile populations. I am looking forward to learning from other colleagues on what needs to be done, both to achieve the 90-90-90 targets that we collectively set, and of course to move to the 95-95-95 targets which will have a bigger impact in this region, than just focusing on the 90's. And how to ensure by 2030 we either eliminate or reduce these diseases as public health threats in our region."

Differentiated Service Delivery: Where are we now?

Dr. Miriam Rabkin

Director for Health Systems Strategies, ICAP Columbia

Dr. Miriam Rabkin, principal investigator for the CQUIN project, began her presentation by defining DSD and providing an overview of its objectives, including improved quality, efficiency, and coverage. Differentiation is not a goal in and of itself, she noted, but a means with which to improve the impact of HIV services and reach the 90:90:90 targets.

In order for differentiated services to fully achieve these aims, innovations need to be taken to scale, moving from pilot initiatives to national programs.

Dr. Rabkin noted some key questions:

- What is needed for maximum impact?
- What is the best way to measure success?
- How should we measure DSD coverage?



Thinking about coverage, Dr. Rabkin challenged the audience to consider how it should be measured. Should countries track the number of people receiving DSD services? The proportion of eligible people receiving DSD services? The proportion of health facilities providing DSD services? The proportion of districts providing DSD services? Or is the inclusion of specific DSD services in national guidelines sufficient?

Dr. Rabkin followed with a snapshot of the current DSD landscape, with an overview of CQUIN member country survey results, assessing support for DSD and implementation. While nearly 60 percent of respondents said that DSD was included in national technical working groups and guidelines, fewer than 30 percent said that their countries had a national DSD scale-up plan or national strategy for M&E of DSD. Respondents also noted the need for implementation guidelines, detailed standard operating protocols and standardized M&E tools.

Policies	National HIV treatment policies prohibit differentiated service delivery (DSD)	National policies are neutral on issue of DSD services	National policies include DSD services	National policies actively promote DSD services
Guidelines	National HIV treatment guidelines do not include differentiated care (DC)	National HIV treatment guidelines include DC treatment models	National HIV treatment guidelines provide detailed and specific guidance on implementation of DC for stable patients	National HIV treatment guidelines provide detailed and specific implementation guidance for DC models for diverse patient populations
National DSD Scale-up Plan	None	DSD scale-up plan discussions and meetings orgoing	DSD scale-up plan draft available	DSD scale-up plan developed and approved by Ministry of Health
Coordination	None	DSD progress update presented in other standing meetings (e.g., care and treatment technical working group)	Provincial/regional review meetings in place	Progress reported in annual program reports OF annual national review meetings in place
Community Engagement	None	Representatives of people living with HIV/AIDS (PLHIV) and/or civil society are engaged in DSD implementation	PLHIV and/or civil society representatives are engaged in both DSD implementation and design of DSD programs	PLHIV and civil society representatives are systematically engaged in DSD policy development, design of DSD programs, and DSD implementation
Fraining Materials	DSD training materials are not available	Some DSD training materials have been developed by organizations piloting DSD / implementing partners	National DSD in-service curricula available and in use	National DSD pre-service and in-service curricula available and in use
SOPs and Job Aides	None	Implementing organizations have piloted SOPs and job aides for stand-alone	Some national SOPs available	Step-by-step national algorithms and SOPs available for multiple DSD models (e.g., visit spacing, multi-month prescribing, clubs, community ART groups, and other models)
M&E System	No M&E system elements for DSD are in place or in development	Some new or adapted tools (e.g., registers, patient cards, monthly reports) and/or M&E guidelines are in development or have been mplemented	A majority of M&E system elements are in place, but they are not comprehensive or fully integrated into routine M&E for HIV/IART	All elements of an M&E system for DSD are in place and integrated into one national M&E system for HIV care/ART
Coverage	None	Pilot programs only	District-level coverage	Nationwide DSD coverage
Depth/ Diversity of DSD services	None	Limited DSD models for stable patients only	Diverse DSD models for stable patients (e.g., visit spacing, fast-tracking, multi- month prescribing, community ART groupsicommunity ART refill groups}	DSD for both stable and unstable patients, adolescents and young people, pregnant and breast deeding women, key populations, men, migrants and mobile populations, and more
Quality of DSD Services	Unknown	Some pilot projects have been evaluated and meet quality standards	DSD programs have quality management protocols in place and ongoing quality improvement (QI) activities	Demonstrated, consistent, high-quality DSD services across sites
mpact of DSD Services	Unknown	Some pilot programs have been evaluated and show impact on process indicators (e.g., patient and/or provider satisfaction, wait times, referition in care)	Larger DSD programs have been evaluated and show impact on process and/or outcome indicators	Evaluation data show DSD impact on acceptability to clients and health workers, quality of care, patient outcomes, and efficiency

Dr. Rabkin also highlighted what would become a major theme of the gathering: the need for DSD related data and its role in high-level decision-making. Using survey data, she touched on key points made by country teams, including the need for effective locally-driven data to drive policies, evaluation of current models, and the importance of allocating resources for M&E to link community activities with larger targets.

Finally, Dr. Rabkin introduced the CQUIN DSD dashboard tool, designed to assist countries to assess progress towards DSD scale-up. She

concluded by emphasizing the importance of joint learning and south-to-south exchange to optimize DSD implementation.

Introduction to the CQUIN Learning Network

Dr. Peter Preko *CQUIN Project Director, ICAP Columbia*

Dr. Preko began his presentation by outlining three key components of successful learning networks:

- A structure that facilitates joint learning, not simply the exchange of information
- An approach to co-creation of resources, in which participants collaborate to develop new tools
- A way to catalyze scale-up and spread, in which insight from peers can help participants to avoid barriers and reinforce facilitators

He followed by describing two key components of learning network methodology: "just-in-time" access to practical information and best practices, and protected time and resources for co-creation of policies, guidelines, SOPs and other tools. Dr. Preko outlined the traits of successful learning networks, reinforcing the need for clear goals, experienced leadership, participant-driven priorities, external partnerships, a backbone organization, and a solid support structure.

Building on these observations, Dr. Preko turned to the CQUIN network, noting that CQUIN stands for the HIV <u>C</u>overage, <u>Quality and Impact Network</u>. CQUIN is funded by the Bill and Melinda Gates Foundation, and designed to advance DSD in order to achieve the 90-90-90 goals. CQUIN will focus on the "how" of DSD with an emphasis on catalyzing scale-up and spread of DSD services.

The key activities of the CQUIN network were described: technical assistance, and south-to-south learning and experience sharing. Dr. Preko summarized the CQUIN approach of identifying cross-country barriers standing in the way of DSD adoption, implementation and scaleup; pursuing single and multi-country projects; and focusing on knowledge sharing, problem solving, and cocreation of resources.



A summary of country priorities and initial activities followed, including support for national programs and knowledge generation. Initial focus areas include DSD for patients at high risk of HIV disease progression ("unstable" patients), adolescents, men, patients with HIV and non-communicable diseases (NCDs), key and priority populations, monitoring and evaluation of differentiated care, and quality improvement for DSD services.

Finally, plans for the network advisory group were discussed, along with the network's knowledge exchange architecture and <u>website</u>. Dr. Preko concluded by describing the expected outcomes of CQUIN, and challenging the audience to consider what success will look like.

Panel 1: Differentiated Care Country Updates: Kenya, Mozambique, and Zimbabwe

The panel was chaired by Dr. Melissa Briggs-Hagen, Branch Chief, Care and Treatment, CDC-Mozambique; and Mrs. Rose Nyirenda, Director, Department of HIV/AIDS, Ministry of Health, Malawi. MOH representatives from Kenya, Mozambique and Zimbabwe presented short updates on differentiated service delivery in their countries, focusing on critical enablers, DSD activities, DSD facilitators, barriers and next steps towards DSD scale up.

Kenya

Dr. Maureen Syowai from ICAP Kenya led off the panel discussions, presenting on behalf of Dr. Martin Sirengo, the Director of Kenya's National AIDS and STI Control Program (NASCOP), Ministry of Health. She explained that Kenya policies and guidelines strongly support DSD. The National ART Guidelines (2016) include the integration of a differentiated care package that includes training materials, and an approach for rolling out DSD at the country, health facility, and community levels.

Kenya has recently updated its M&E tools to define the categorization of patients in DSD. Further, the country has recently released a handbook on improving quality and efficiency of health services in Kenya and a Differentiated Care Operational Guide (2017). The DSD Operational Guide highlights best practices, and re-organizes the guidance on how to implement services along the HIV care and treatment cascade depending on the patient category (ART for stable patients, those with advanced disease, those on ART for <12 months, and unstable patients).

The DSD guideline includes guidance for county, facility and community-level planning, implementation, and M&E strategies. The guidelines also includes M&E tools, such as identifying danger signs for ART at community level for either the lay health worker (who lead ART distribution in communities) or the health facility. M&E indicators observe 12-month retention based on treatment cascade; define patient categories and viral suppression. The next step is the scale-up of this system.

The enablers of Kenya's DSD plans include support and leadership from the national government, as well as civil society, PLHIV communities, and donors. Detailed guidelines on DSD are also an asset. Barriers include a high health facility staff turnover rate, including staff trained on DSD, limited community structures to support ART uptake, and limited use of viral load monitoring for patients on differentiated care. The next steps and priorities for scale-up include monitoring treatment outcomes, developing a differentiated care dashboard to see what's happening in-country, and providing technical assistance to 47 counties and prioritized facilities to scale-up differentiated care. Further research priorities include tracking patient outcomes on DSD, quality improvement initiatives for adolescents and young people, and cost-effectiveness analysis of the current DSD programs.

Mozambique

Dr. Aleny M. Couto, Head of the HIV/STI Program for the Mozambique MOH, highlighted that DSD policies have not yet been integrated into national guidelines, but there is a technical working group in place with a plan to write guidelines by the end of 2017. Dr. Couto mentioned that the national acceleration plan emphasizes the need to enroll more patients on treatment, and includes three models in the implementation phase including, Community Adherence Support Groups (CASG), three-month drug distribution, and six-month clinical visit spacing.

There are currently two pilot models being implemented including the family approach (92.1% retention over 24 months) and adolescent adherence clubs (99.1% retention) being piloted by partners in two provinces. At the national level, the results of these pilot projects will inform national guidelines. At a community level, there is a strong influence from civil society and PLHIV to scale-up DSD through community models.

The community is included in the national technical working groups and are seen by the MOH as a key stakeholder in rolling out DSD. Barriers of scaling up DSD include the infrastructure, health resources, and the national policies. Quality improvement is a large barrier. Dr. Couto highlighted that Mozambique's main research priorities are effective data collection systems for DSD and cost-effectiveness. She noted she was interested to see if client choice will guide options of DSD scale-up for stable patients.

Zimbabwe

Dr. Tsitsi Apollo, the Deputy Director for HIV/AIDS and STIs in Zimbabwe, noted that DSD policies in Zimbabwe are strongly supported by the national HIV and ART guidelines. Zimbabwe was an early adopter of decentralization of care and task shifting. Dr. Apollo noted that DSD scaleup was further facilitated by the presence of PLHIV community groups, donors, implementing partners, and MOH leadership.

Dr. Apollo highlighted that Zimbabwe has seen early successes in retention in implementing the Zvandiri ("As I am") Model, a peer-led DSD model for adolescents. The revised guidelines include operational and service delivery procedures for stable patients, supply chain management and community, nurses, and PLHIV systems. National coordination mechanisms include a technical working group, and a newly hired DSD Coordinator supported by the CQUIN project. Plans are underway to update M&E systems and training curricula for mentors, nurses, and the community to incorporate DSD.

Dr. Apollo noted that challenges to scale up include limited access to routine viral load testing, funding, and acceptance of community models in urban and peri-urban areas. Priorities moving forward include establishing demonstration sites and undertaking learning exchange visits, sensitization of all provinces on DSD SOPs and the operational and service delivery manual, agreeing on core DSD indicators, and the rollout of comprehensive models to districts.

Research priorities include assessing DSD cost-effectiveness, client satisfaction, male participation, and DSD in urban and peri-urban areas. The optimal approach to M&E of DSD is also under discussion. Dr. Apollo explained that Zimbabwe will prioritize tracking outcomes of the 600,000 patients currently captured in EMPMS electronic systems, but that there are 950,000 individuals on

ART nationwide.

Panel 2: Implementing Differentiated Care: Innovations and Challenges

Ms. Rejoice Nkambule, Deputy Director, Public Health Services, MOH Swaziland and Dr. Wafaa El-Sadr, the Global Director of ICAP at Columbia University, chaired the panel. Panelists presented very brief descriptions of their projects, to set the stage for the thematic breakout session that followed.

Dr. Tom Heller, Clinical Advisor at the Lighthouse Clinic in Lilongwe, Malawi, presented the Lighthouse protocol for Advanced-Late-Unstable-Patients (ALUP), outlining an enhanced support package for patients with fewer than 100 CD4 cells/mm3, including intensive prophylaxis for opportunistic infection, TB screening using TB LAM Ag test, and nutritional support if needed. Protocols for stable patients include multi-month ART dispensing at three-month intervals, although this is limited by the supply of Bactrim.

Plans are also in place for a fast track pharmacy refill system. Other ongoing differentiated care models being implemented by Lighthouse include a nurse-led community ART refills integrated with reproductive health and non-communicable disease services.

Dr. Alexandra Vandenbulcke, Medical Coordinator of Kenya's MSF Mission, highlighted three types of models for differentiated care - Six Month Appointment spacing (SMA), Medication Adherence Clubs, and Community ART groups. She emphasized that the purpose of differentiated care within these models was to provide "quality patient-centered care reflecting preferences and expectations of patients, while reducing the unnecessary burden on the health system" and presented a diagram displaying the different types of DSD (below).

Dr. Vandenbulke mentioned that the SMA approach was implemented as a pilot initiative, following a site visit to Zimbabwe prior to Kenya's uptake of DSD as a national strategy. The Medication Adherence Club model is a community-based CHW-led approach to providing services to patients with HIV, diabetes and/or hypertension. MACs are groups of 20-30 patients monitored by a community health workers; loss to follow-up in these projects was around seven percent.

Health Se	ervice Driven	Patier	nt Driven	
Appointment	Adherence Clubs		Community ART	Community ART
spacing and fast-track drug refill	Facility-based clubs	Community- based clubs	Points (PODI)	Groups (CAGS)

Dr. Izukanji Sikazwe is the CEO of the Center for Infectious Disease Research in Zambia (CIDRZ), which supports 212 health facilities across Zambia. Starting in 2015, CIDRZ worked with MOH Zambia to introduce CAGs in pilot sites in Lusaka District (urban and peri-urban), noting a

slower uptake of the model in urban areas. To date, 369 CARGs are active (including 8 adolescent groups set-up by facilities) and scale-up has enabled the organization to adapt the core elements of CAGs to meet individual patient needs.

She mentioned that the high retention rate (90 percent) could potentially be influenced by community distribution points where patients only pick up drugs, but do not receive clinical support. CIDRZ has recently introduced electronic tablets to track indicators; these are synced with electronic medical records at health facilities.

Dr. Sikazwe also discussed an implementation research initiative, funded by the Bill & Melinda Gates Foundation, evaluating local preferences for different DSD models (streamlined ART initiation model, fast-track model, urban adherence groups, and traditional community adherence groups). Early qualitative findings show patient interest in urban adherence groups and fast-track ART models. A second planned study will evaluate patient centered care from both the provider and patient perspectives, to assess quality of care and improve uptake of DSD models.

Dr. Rachel Thomas is the Chief of Party for Partners in Hope in Malawi, part of the EQUIP consortium. She explained that EQUIP is funded by USAID to provide technical assistance to PEPFAR partners in 23 countries to support the 90-90-90 targets. The TA support focuses on service delivery, cost analyses, demonstration projects and policy. Examples of EQUIP service delivery projects include rollout of test and start projects, multi-month dispensing, community drug distribution, engagement of men, services for key populations, and scale-up of routine viral load monitoring. Cost analyses include costing and cost modeling along the HIV care and treatment cascade. Demonstration projects include a self-testing project in Malawi and a PrEP demonstration project in Namibia, among others. The consortium also provides technical assistance for guideline development and, where needed, secondment of staff to MOH.

Dr. Nyikadizno Mahachi is the Deputy Chief of Party at FHI-360 for the Zimbabwe HIV Care and Treatment (ZHCT) Project. The project is funded by USAID through 2020 with the goal of strengthening community-facility linkages for HIV care and treatment in 13 districts in 3 provinces. Dr. Mahachi noted that policies on decentralization have enabled FHI-360 to implement homebased index case testing for patients newly diagnosed with HIV at health facilities, explaining that this model has been successful in reaching men and has an overall higher yield of patients.

In the coming year, the project is looking to integrate self-testing to target younger men and women based on ZIMPHIA data, which shows that these populations are far from reaching the first 90. FHI-360 is also supporting ART refill groups and has so far established 660 CARGs. Challenges include relatively high defaulter rates, insufficient viral load monitoring and management of patients with high viral loads. One innovation is that FHI-360 has integrated symptom screening into CARGs using structured checklists, enabling up-referrals to health facilities when needed.

Dr. Marianne Calnan, Deputy Chief of Party at University Research Co. (URC) in Swaziland, noted that URC is a technical support partner for the Swaziland National AIDS Program (SNAP) and a clinical implementing partner in the rural Lumbobo region. URC supported the development of national Community ART (CommART) policies and guidelines, released in July 2016.

URC is also working with MOH to plan a scale-up of DSD mentorship for healthcare workers, and is in discussion with the national university to include DSD training in the curriculum. URC also

supports health facilities to implement differentiated care models, and to integrate services for NCDs into HIV programs. Dr. Calnan agreed with previous speakers that the limited data on DSD creates a challenge for scale-up, and noted that the use of quality improvement methods can enhance service delivery.

Breakout Sessions

Adolescents and young people: A breakout group of 12 participants discussed current CARG models that enroll adolescents within network countries, agreeing that CARGs should be adapted to better incorporate adolescents. Methods that were highlighted as potentially effective for targeting adolescents included mobile technology, peer-led CARG groups, and recruitment via youth-friendly clinics (with after hour services, family planning, and judgement-free spaces).

The group highlighted that adherence and retention are of particular concern for adolescents, and emphasized the need to consider adolescents as a distinct group when developing DSD policies. Suggested action points included defining a "minimum package" of adolescent services and surveys with adolescents to explore their preferences to service delivery models – the "how" of differentiated care.

Men: Eleven participants from diverse countries and organizations discussed the challenges of engaging men in testing and treatment services, noting that men are less likely to be engaged in health services overall, less likely to be enrolled in HIV treatment, and less likely to participate in community-based HIV services, such as CARGs. The group explored the cultural and social reasons that hinder male uptake of health services. Some participants suggested that the history of antenatal clinics and healthcare targeted at women in sub-Saharan Africa is a historic reason that men struggle to engage in the health system in general. However, the group looked at the "who," "what," "when," and "where" DSD could be delivered to men as a way forward.

The group suggested men could be targeted through a holistic approach, including multiple health issues rather than HIV-specific services. Male providers and linkages to income generating activities were also suggested. It was suggested that service delivery should include workplace settings, private facilities, and recreational facilities. The group agreed that more evidence is needed to inform how to better incorporate men into ART interventions.

High Risk Patients: Twelve participants focused on patients at high risk of HIV progression, also called "unstable patients." This category of patients is diverse, and includes those who present with severe immunosuppression, those failing treatment, and patients with co-morbidities. In addition, patients transitioning from adolescent to adulthood, pregnant patients, and patients in the first six months of ART are sometimes considered to be high-risk.

Interventions for patients with advanced disease may include more frequent visits, addition of enhanced opportunistic infection (OI) screening (with CrAg and/or urine LAM) and prophylaxis, and/or enhanced adherence and social support. The group noted challenges in terms of human resources, and the need for innovative approaches to supervision and support for non-specialized clinicians managing high-risk patients. They also emphasized that there are many unknowns, including whether increased frequency of visits improves outcomes and which approaches are most effective at different levels of the health system. **NCDs**: Ten participants discussed the issues surrounding the integration of NCD services into HIV programs. The need is stark, as the high prevalence of NCDs amongst PLHIV is rising. The group was clear on the need for integration, as cardiovascular disease risk factors, cervical cancer, mental health challenges, and other illnesses threaten the success of ART scale-up. In addition, the prevalence of NCDs amongst PLHIV may threaten differentiated care and decentralization of services, as patients may be stable in terms of their HIV disease, but unable to access visit spacing or community-based services because of their NCDs. Developing a public health model for NCD services and innovating to differentiate both HIV *and* NCD care is a priority.

Monitoring & Evaluation of Differentiated Care

Dr. Bill Reidy

Strategic Information Advisor, ICAP Columbia

Dr. Reidy gave a presentation on monitoring and evaluation of differentiated care, describing it as the "the elephant in the room" because of the complex challenges it poses to DSD scale-up. He noted that the advent of differentiated care services posed several challenges for M&E systems, including the fact that: (a) information may be collected in both community and facility settings, rather than just at the health facility level; (b) new data elements may be needed to describe differentiated care services; and (c) existing indicators and definitions may need to be adjusted, such as routine clinical indicators, MER indicators, and SIMS indicators. The flexibility of DSD models – so important for patient centered care – contrasts with the need for standardized M&E indicators and systems. Revisiting the DSD dashboard discussed in earlier presentations, he noted that M&E systems could be either an enabler or a barrier to effective scale-up of differentiated care.

Dr. Reidy then described an approach to "differentiated M&E" which he urged should be both parsimonious and pragmatic. He started by discussing the rationale and general approach, focusing on the question: who needs what information and why?

- At the **patient** level, health care workers need a structured way to review individual patient information and to track it over time. For example, clinicians will need to know whether or not a patient is eligible for differentiated care, whether or not s/he is receiving it, which model s/he is receiving (e.g., visit spacing, fast-track, community-based services, other), and whether s/he is retained in care adherent to medication and virally suppressed.
- At the **program** level, managers need data to understand program performance, and need to obtain this in ways that are not overly labor-intensive for program staff. For example, managers will need to know what proportion of patients are receiving differentiated care services, whether the right patients are receiving them, and what the implication is for staffing levels and staffing mix. Dr. Reidy shared an example of a DSD cascade, noting illustrative cohort indicators (figure).



• At the **national** level, health ministries need data to understand the coverage, quality and impact of DSD programs. Describing coverage may mean quantifying the uptake of DSD services at the facility, district and regional/provincial levels – understanding which sites are offering which services at what scale. Describing the quality of differentiated care may include review of the cascade described above, or information regarding patient outcomes, patient and health care worker satisfaction, and costs. Dr. Reidy challenged meeting participants to think about which data should be routinely collected, aggregated, and

reported to the national level and whether some questions should be answered at a sub-set of facilities (sentinel sites) or via special studies.

The next point in Dr. Reidy's presentation focused on the challenges of multiple parallel data systems, in which some data are recorded and maintained within traditional facility ART tools and others in special tools for DSD. He noted the proliferation of data systems and strongly urged

Rationale for integrated M&E

As DSD models diversify and patients move to an increasing number of different models of care, we need to ensure all information is accessible to HCW



countries to consider unifying patient information under "one roof" – whether via a paper-based or electronic system. Making the case that this should be the ART medical record, he cited the need for ensuring accessible information to health workers as ART models diversify and additional patients move to DSD models.

Dr. Reidy then described illustrative patient-level tools, including those that document whether or not patients are eligible for models of care designed for stable patients, and tools to document services received such as fast-track

appointments and/or community-based ART services. Additional tools illustrated ways in which community-based services can be documented in the ART medical record, including key information, such as the date of ART pickup, the supply of ART given, the results of adherence assessments, and symptom screening provided at the community level. Examples included a fast-track documentation tool from Kenya's MOH, a clinic register of patients in CAGs from MSF, and the Kenya MOH's community ART distribution form used to collect ART pick-ups and other patient services over time. Program-level tools for aggregating data were also discussed, including the possibility that new systems for aggregation of relevant data may be necessary for the future.

A thorough description of impact measurement highlighted key approaches to the evaluation of DSD models, including: periodic assessments of facility adoption of DSD; evaluations of impact of DSD model on patient outcomes; surveys of patient and provider satisfaction; studies of provider-patient load and productivity; and costing and cost-effectiveness studies.

Dr. Reidy highlighted the importance of data confidentiality and security as well as data quality assurance in the context of data collected at multiple locations, both at health facilities and community levels, and concluded by noting that planning ahead for "parsimonious and pragmatic differentiated M&E" will be essential for national programs. Differentiated M&E is a focus of the CQUIN network, and one of the planned network communities of practice.

Panel 3: Differentiated Care Country Updates: Malawi, Swaziland, and Zambia

Dr. Bridget Mugisa, Branch Chief, Prevention, Care & Treatment, CDC-Zambia and Dr. Tsitsi Apollo, Deputy Director for HIV/AIDS and STIs, MOHCC Zimbabwe, chaired panel 3. MOH representatives from Malawi, Swaziland and Zambia presented brief updates on differentiated service delivery in their countries, focusing on critical enablers, DSD activities, DSD facilitators and barriers and next steps towards scale-up.

Malawi

Mrs. Rose Nyirenda, Director of the HIV Treatment Unit at MOH Malawi began with a summary of Malawi's critical enablers for DSD, noting the availability of national policies and guidelines supportive of ART decentralization and selected DSD models, such as multi-month scripting and teen clubs for adolescents. More than 9,300 adolescents living with HIV have been enrolled in 135 Teen Clubs, which are located in 26 of Malawi's 28 districts. The model has shown excellent results to date.

Other models in early stages of piloting and evaluation include CAGs, drop-in centers linked to health facilities designed for key populations, evening clinic hours, and weekend clinics for adolescents. A national technical working group and a national DSD focal person at MOH assist with DSD coordination. Next steps include development of SOPs, job aides, and training materials to support multi-month scripting. Fast track models are also being piloted at selected health facilities.

While routine M&E indicators for DSD services are limited, registers are used to track the number and type of visits in selected categories (e.g., teen club visits, fast track visits). A recent evaluation of DSD models explored implementation fidelity, patient satisfaction, provider satisfaction, and program cost. Mrs. Nyierenda noted robust involvement by PLHIV and community members in DSD activities, including participation in the national technical working group and program evaluations, as well as support for implementing selected DSD models, such as teen clubs. Community leaders have also been briefed on DSD models.

Mrs. Nyirenda described key facilitators to scale-up in Malawi, including scientific evidence informing policies, governance for evidence-based revisions of national policies and guidelines, financial resources, M&E, and community engagement. Barriers to DSD include human resources and infrastructure constraints; a regulatory framework prohibiting unlicensed healthcare workers from delivering care; and concerns regarding the sustainability of DSD initiatives.

Swaziland

Dr. Nomthandazo Lukhele, ART Coordinator at the Swaziland National ART Program (SNAP), MOH, presented on behalf of Swaziland. According to Dr. Lukhele, critical enablers of DSD in Swaziland, include the inclusion of DSD in national policies and guidelines. The recently published SOP for Community-Centered Models of ART Delivery (CommART) in Swaziland document offers CAGs, facility-based treatment clubs (FTCs) including teen clubs, fast-track models, and an ART outreach model using mobile clinical teams as DSD options in the country. CommART services are available at 52 of 166 facilities. The national care and treatment technical working group coordinates DSD activities, with plans to include DSD reviews at the national and regional semi-annual review meetings for all partners. SOPs are available, and job aides are being developed. The Swaziland Network of PLHIV (SWANNEPHA) participated in policy development.



Facilitators of DSD in Swaziland include policies and SOPs developed with stakeholder involvement. "Treat all" guidance for test and start has created a demand to decongest health systems. Regional mentors provide support. Another key facilitator is that clients welcome DSD. Barriers to scale-up include limited M&E systems, some competing programmatic priorities, and limited coverage of routine viral load testing. Next steps include continued scale-up using a phased approach, the development of DSD guidelines for patients with advanced disease, and introduction of NCD screening in treatment clubs and community groups.

Zambia

Dr. Daniel Makawa, the Deputy Director of Clinical Care and Diagnostic Services at MOH Zambia presented on behalf of Zambia, describing the current state of differentiated care in Zambia. He started by reviewing ZIMPHIA data showing marked progress towards the 90-90-90 goals, and noting that Zambian policy has encouraged decentralization of ART services for many years. The revised 2016 national guidelines, soon to be released, allow for implementation of DSD, and diverse implementing partners are piloting and evaluating a variety of DSD models for stable patients. Current models include CAGs in both rural and urban areas, community ART distribution, streamlined ART with multi-month scripting, and fast-track ART initiation; all are currently in pilot phase.

Dr. Makawa noted that DSD builds on neighborhood health committees to enable community engagement. Community sensitization is also targeted at local chiefs, and community health workers have been involved in DSD design, demand creation, patient enrollment, counseling, and ART distribution.

The Zambia MOH is particularly interested in understanding the incremental costs associated with DSD, and Dr. Makawa shared preliminary data showing modest costs saving with DSD models (which ranged from \$211-\$227 per patient per year) vs. standard ART care (\$235 per patient per year). Key next steps include appointing a national DSD coordinator (with support from the CQUIN network) and developing a national operational/scale-up plan. He concluded by emphasizing that standardization of M&E tools is a priority for the country.

Breakout Sessions

ART Forecasting and Distribution

The ART Forecasting and Distribution group was represented by participants from Mozambique, Zambia, Zimbabwe, and Malawi. The group discussed DSD-related challenges within CQUIN network countries, including ARV stock management, logistics, such as transportation, and space/storage issues at health facilities, community dispensing points, and homes. Multi-month scripting and community ART distribution, in particular, create new challenges for forecasting. Legal frameworks can also create barriers related to which cadres can dispense and distribute ARTs outside health facilities; in some countries, only pharmacy workers or trained clinicians are permitted to dispense medications. Potential solutions and innovative approaches include: sharing best practices with other CQUIN network countries; investigating alternative storage or ART distribution points; door to door ART distribution via lay health workers; and integrating electronic data management systems at the facility, warehouse, and patient levels. The participants also discussed the expansion of prescribing and dispensing licenses for health cadres, and the need to revise SOPs and M&E tools for DSD models.

Key and Priority Populations

The Key Populations breakout session included twelve individuals from the six CQUIN network countries. Initially summarizing what is known about DSD for key and priority populations, the group noted the diversity of groups within the umbrella term of "key populations". One common element is stigma, which may decrease willingness to participate in DSD models, such as groups and clubs, especially when behaviors are criminalized. In many contexts, another challenge is discrimination against key populations by health workers. Effective models include those sensitive to time and place – those with evening and weekend hours, and those in venues easily accessed by key populations. Peer-led programming is another successful model.

Next moving to what is unknown, the group highlighted challenges with size estimates and mapping – understanding where and who should be reached with DSD services. Many questions remain about which are the most successful models, an area ripe for further study. Key next steps include: ongoing sensitization of health workers to reduce discrimination; mainstreaming services within existing DSD models where the policy environment is not permissive of specialized support for key populations; and providing comprehensive services in drop-in centers and special clinics where possible.

Research Priorities

The DSD Research Priorities group included representatives from Zambia, Zimbabwe, Malawi, Kenya, and Swaziland. Recognizing the challenges of obtaining research funding, the group prioritized five general areas for research related to DSD (see table).

Priority research questions	Optimal study design/methods
What is the relative effectiveness and cost of the various DSD models for different population groups?	Cohort studies Use of routine data Quasi-experimental design Cost modeling
Do varying DSD models affect quality of care?	 Cohort studies Before/after cross-sectional studies using routine data
What are effective DSD models for unstable patients?	 Cluster-randomized studies Quasi-experimental studies
What impact does taking DSD models to scale have on supply chain management, M&E systems, and other health programs?	 Qualitative studies (key informant interviews, focus group discussions) Cross-sectional studies using routine program data

Differentiated Monitoring and Evaluation

The M&E breakout group was the largest, with 16 participants. The countries represented in the discussion were at different stages of DSD scale-up as well as different approaches to "differentiated" M&E. In addition, some countries had access to both electronic and paper-based M&E systems, while others rely solely on paper-based systems. Some key observations included:

- In Swaziland, a new electronic medical record is being rolled out, but it does not yet collect DSD-related information. Client forms are being revised to capture relevant DSD information.
- In Mozambique, a paper-based system is used to collect information about CAGs, with some linked electronic data.
- Kenya has both electronic and paper-based systems and is using both to capture information about patients enrolled in DSD, including their eligibility for DSD models and their receipt of DSD services. At health facilities with EMR, collection and analysis of longitudinal information about patients in DSD will be feasible.
- In Zimbabwe, both electronic and paper-based systems are in place. The only data being routinely captured at present is visit type (e.g., routine, fast-track, CARG, other).

Many countries are tackling the key question of how much DSD-related data to collect, recognizing that the more data required, the more challenges there will be with data quality, and the less data collected, the less able they will be to answer key questions about DSD. The group decided to divide indicators into two categories: essential data to have for all patients, and interesting data that might be collected at sentinel sites only, or in the context of special studies.

Critical data included: enrollment, retention, timeliness of ART pickups, and viral suppression. Interesting data included: information about eligibility and coverage (e.g., what percentage of patients eligible for DSD are receiving it); movement of patients between various models of care over time; the incremental cost and impact of various DSD models; patient satisfaction; provider satisfaction; and impact on the health workforce needs in terms of numbers and distribution. Finally, the group discussed the need for HMIS (medical charting) tools to support patient management at the site level, contrasting this to the tools needed to report aggregate data "up the chain" to program, district, and national models.

Country Team Breakout Sessions

In the final breakout session, country teams met to review their current status with regards to DSD, utilizing the DSD staging dashboard developed by CQUIN as a tool to review DSD in several key domains. Teams also provided feedback on the functionality of the dashboard itself. A summary table of country team self-rating is followed by country-specific summaries and dashboards.

	Kenya	Malawi	Mozambique	Swaziland	Zambia	ZImbabwe
Policies						
Guidelines						
Scale-up plan						
Coordination						
Community						
Training						
SOPs/job aides						
M&E system						
Coverage						
Diversity						
Quality						
Impact						

Kenya

Kenya led off the country report back session, noting the exercise had been illuminating – and that the team realized they were doing well with regards to DSD scale-up. Kenya identified that the DSD national policies, guidelines, plans, SOPs, and community engagement were all at the advanced stages of the Dashboard. Some gaps identified included coordination and M&E systems. Kenya felt that there should be more diversity and depth within their current DSD structure, especially for key populations.

The next steps identified included the need to undertake evaluations of quality and impact for current DSD services. Key priorities for Kenya within the CQUIN network include organizing an exchange visit with Zambia on the C-BART DSD model and planning implementation of DSD for adolescents, young people, pregnant and breastfeeding women, and key populations.

KENYA				
Policies	National HIV treatment policies prohibit differentiated service delivery (DSD)	National policies are neutral on issue of DSD services	National policies include DSD services	National policies actively promote DSD services
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National DSD Scale-up Plan	None	DSD scale-up plan discussions and meetings ongoing	DSD scale-up plan draft available	DSD scale-up plan developed and approved by Ministry of Health
Coordination	None	DSD progress update presented in other standing meetings (e.g., care and treatment technical working group)	Provincial/regional review meetings in place	Progress reported in annual program reports OR annual national review meetings in place
Community Engagement	None	Representatives of people living with HIV/AIDS (PLHIV) and/or civil society are engaged in DSD implementation	PLHIV and/or civil society representatives are engaged in both DSD implementation and design of DSD programs	PLHIV and civil society representatives are systematically engaged in DSD policy development, design of DSD programs, and DSD implementation
Training Materials	DSD training materials are not available	Some DSD training materials developed by organizations piloting DSD / implementing partners	National DSD in-service curricula available and in use	National DSD pre-service and in-service curricula available and in use
SOPs and Job Aides	None	Implementing organizations have piloted SOPs and job aides for stand-alone	Some national SOPs available	Step-by-step national algorithms and SOPs available for multiple DSD models (e.g., visit spacing, multi-month prescribing, clubs, community ART groups, and other models)

M&E System	No M&E system elements for DSD are in place or in development	Some new or adapted tools (e.g., registers, patient cards, monthly reports) and/or M&E guidelines are in development or have been implemented	A majority of M&E system elements are in place, but they are not comprehensive or fully integrated into routine M&E for HIV/ART	All elements of an M&E system for DSD are in place and integrated into one national M&E system for HIV care/ART
Coverage	None	Pilot programs only	District-level coverage	Nationwide DSD coverage
Depth/ Diversity of DSD services	None	Limited DSD models for stable patients only	Diverse DSD models for stable patients (e.g., visit spacing, fast-tracking, multi-month prescribing, community ART groups/community ART refill groups)	DSD for both stable and unstable patients, adolescents and young people, pregnant and breast-feeding women, key populations, men, migrants and mobile populations, and more
Quality of DSD Services	Unknown	Some pilot projects have been evaluated and meet quality standards	DSD programs have quality management protocols in place and ongoing quality improvement (QI) activities	Demonstrated, consistent, high-quality DSD services across sites
Impact of DSD Services	Unknown	Some pilot programs have been evaluated and show impact on process indicators (e.g., patient and/or provider satisfaction, wait times, retention in care)	Larger DSD programs have been evaluated and show impact on process and/or outcome indicators	Evaluation data show DSD impact on acceptability to clients and health workers, quality of care, patient outcomes, and efficiency

Malawi

The Malawi team observed that infrastructure was a barrier to scaling up DSD in Malawi, but that it was not a specific element on the Dashboard. The team prioritized the decongestion of clinics as a critical step towards optimizing fast-track refills. Other priorities include rolling out coverage and diversity of DSD services, including expanding the existing teen clubs and improving clinical management of unstable patients at the district level. Further, Malawi suggested that M&E was a key gap. Opportunities for Malawi to benefit from the CQUIN network include participating in the "unstable patients" community of practice.

MALAWI				
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M&E System	No M&E system elements for DSD are in place or in development	Some new or adapted tools (e.g., registers, patient cards, monthly reports) and/or M&E guidelines are in	A majority of M&E system elements are in place, but they are not comprehensive or fully integrated into routine	All elements of an M&E system for DSD are in place and integrated into one national M&E system for HIV care/ART

		development or have been implemented	M&E for HIV/ART	
Coverage	None	Pilot programs only	District-level coverage	Nationwide DSD coverage
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Mozambique

The Mozambique team felt that major strides have been made in terms of developing DSD strategies, but gaps remain. They suggested that a key way forward for DSD in Mozambique includes the development of comprehensive guidelines and national scale-up plans. Another priority is to enhance the engagement of communities and PLHIV in the planning and implementation of DSD strategies. Another challenge of scaling up DSD in Mozambique is adapting the paper-based M&E system to include DSD.

Dr. Couto suggested that the next steps for national DSD scale-up plans include evaluating the impact of pilot CAGs and family approaches, and incorporating findings into SOPs, manuals, and tools for providers and communities. The team agreed that Mozambique is keen to exchange lessons learned and best practices for impact (especially community ART models) with other CQUIN network countries, including unstable patients, mobile populations, and cost effectiveness models.

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Swaziland

The Swaziland team noted many achievements with regards to DSD scale-up. Future priorities include improving DSD for key populations and unstable patients, as well as continuing to strengthen community engagement. Swaziland will be carrying out review meetings at the regional level where in-country best practices of DSD will be shared. Opportunities for CQUIN network support include collaborations to standardize measures of quality service, investigate the use of mobile health to monitor DSD, integrate DSD with NCDs and support initiatives to improve the first 90.

SWAZILAND				
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M&E System	No M&E system elements for DSD are in	Some new or adapted tools (e.g., registers,	A majority of M&E system elements are in	All elements of an M&E system for DSD are in

	place or in development	patient cards, monthly reports) and/or M&E guidelines are in development or have been implemented	place, but they are not comprehensive or fully integrated into routine M&E for HIV/ART	place and integrated into one national M&E system for HIV care/ART
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Zambia

The Zambia team noted its success in piloting multiple models of DSD for stable patients, agreeing that next steps were to standardize and harmonize approaches at the national level prior to countrywide scale-up. The Zambia delegation felt CQUIN could support its DSD scale-up by seconding a DSD Coordinator to support and advance national DSD policies, developing plans, improving training materials, and contributing to quality and impact evaluations.

Additional priorities include integrating DSD indicators into the national M&E strategy and including NCD management as part of DSD scale-up. The team also felt that by accessing other countries' experiences and tools, the CQUIN learning network could help Zambia address models for unstable patients and priority populations, and improve training materials, job aids, and training materials.

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Zimbabwe

The Zimbabwe team made the final presentation, giving an overview of national priorities, activities and timelines for scaling-up DSD. A national road map will guide scale-up activities, and the new National DSD Coordinator, supported by CQUIN, will assist MOHCC to support provincial DSD sensitization meetings, to share treatment guidelines, manuals, and job aides.

Another priority is to incorporate DSD with TB programs and within the national HIV/TB partnership forum. Zimbabwe also hopes to establish demonstration sites/centers of excellence to use as training resources. A final priority is to identify core DSD indicators for use at national level.

ZIMBABWE				
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M&E System	No M&E system	Some new or adapted	A majority of M&E	All elements of an M&E

	elements for DSD are in place or in development	tools (e.g., registers, patient cards, monthly reports) and/or M&E guidelines are in development or have been implemented	system elements are in place, but they are not comprehensive or fully integrated into routine M&E for HIV/ART	system for DSD are in place and integrated into one national M&E system for HIV care/ART
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Closing Remarks: Building a Learning Network

Dr. Miriam Rabkin

Director for Health Systems Strategies, ICAP Columbia

"As we move into this closing session, I would like to bring us back to our earlier discussion about learning networks. In addition to exchanging information about best practices and resources, our goal is to bring network partner countries together to co-create new resources and tools. These might be standard operating protocols, training materials, guidelines, M&E tools, QI tools, generic research protocols or other resources to help teams implement differentiated care faster, better, and at scale. The goal of the CQUIN learning network is to catalyze the scale-up and spread of differentiated service delivery, in the context of an environment where we're all thinking about "test and treat" and the 90-90-90 goals.

I want to remind everyone of the ways we plan to keep these conversations going. It's been a pleasure hearing the formal presentations, and the work going on in the breakout groups, as well as the talk over tea and meals. The best part of these past two and a half days has been bringing you all together and giving you time and space to talk. CQUIN will continue to foster these conversations through a growing website and webinars, the first of which will happen in May. This will be part of a series in which we will ask network members to come and share their own perspectives and resources.

We'll also have an online journal club, highlighting an article about differentiated service delivery with an analysis, and a set of slides in case you want to present this article to your peers. We plan to have multi-country workshops as components of some of these communities of practice, and many people have said they are looking forward to learning exchange visits. There will be a satellite meeting at the IAS conference in July, and our larger annual meeting will likely be in September so we can continue the momentum.

I want to remind you of Dr. Preko's vision of the network, and leave you with an image of the connections he showed. Those connections are you, and we hope this continues and grows over time. Thank you."

Dr. Bactrin Killingo

Treatment Knowledge & Research Lead, International Treatment Preparedness Coalition

"Good evening. Let me begin by thanking ICAP for inviting me on behalf of most of the civil society organizations that are interested in looking at issues around DSD and how to improve service delivery in communities that need quality services. Thank you to Gates for the resources to bring us here, and thanks to colleagues for sharing information. I have learned a lot over the last two days. Life is about learning, isn't it? You never stop learning. That brings me to my reflections.

I have three key things that I would like to share, to ensure that our perspectives, from the civil societies and communities, contribute to the success of the network. If we are to succeed, we need to look at the taxonomy and nomenclature in how we classify folks that we want to reach. We need to think about the use of words like "stable," and "high-risk." A term like "high-risk" will not fly with communities and key populations. So how do we reorient some of the language we use when we roll out DSD? Here are some suggestions: For patients enrolled in treatment for more than one

year, we could use the term "treatment experienced." Someone might feel they have been doing well. Within those groups, those who are treatment experienced could branch off and talk about those who are well, and those who are unwell, as opposed to "stable" and "unstable." Those are just suggestions to consider for the people who you expect to respond to your interventions.

The second thing is this: We must, as a network, and as implementers, remember that we must consult and engage the communities involved – at all levels. That means with policy, implementation, monitoring, and research. We may feel we have experience enough to come up with some solutions, but until you test what you think and actually expose yourself to some of the people you are serving, you may never get to the solutions.

As a matter of fact, with the funding from Gates and IAS, ITPC is going to get involved in putting together a project that explores what the service delivery models are that key populations would like to have. We will then put together a toolkit for them to use, as they go into their countries and advise governments on how they see DSD working for them. So this is a model we would like to share with the network and with others once we're done piloting this. If you actually consult and engage communities at different levels, your results are more likely to be successful.

The last thing I want to reflect on is models – some that have been measured, and others in the marketplace being talked about. It's important for this network to get a hold of some of these things that haven't been talked about and dig deeper. For example, we know some of these models exist in the facility, and we're talking about communities. What about looking at home-based models? What can we do in a home that can contribute to ensure the continuum of care is seamless?

I will conclude by saying that there is so much research that needs to be done on DSD. I encourage this network to borrow from the PopART family that has engaged communities in its research. They have community advisory groups that have helped them go step-by-step every day, making sure that the data they collected involves the communities. Because of that, there will likely be greater acceptance of those results. And when it comes to the implementation of what those results mean, chances are the communities will say "we are involved in this research and know the hard work it took, and it's not going to be difficult to implement."

So we need to make sure that the research questions we come up with are not just an academic venture, but it pays attention to how we get involved with various communities to understand and answer these questions. Closely tied with research is a comment I made earlier, that in this cascade of indicators, it's important we pay attention to the quality of life for the recipient of care. And make sure that when we do satisfaction surveys we are borrowing from two examples. The first is from palliative care, where we used to use to gauge physical, psychological, and social parameters to measure the quality of life for individuals. The second example is the happiness index. We can borrow tools to look at patient satisfaction, and superimpose them beyond a viral load suppression rate. All of these cascades are very clinical driven, so it would be very useful to include that.

Remember that one or two individuals cannot carry the experience that community members and individuals from civil society have had. Making sure there are younger folks from key populations at the table in September would be valuable. Thank you very much and I hope to see you all again soon."

Dr. Peter Ehrenkranz

Senior Program Officer, HIV Treatment, Bill & Melinda Gates Foundation

"I want to thank ICAP for putting together this wonderful meeting and the launch of CQUIN. I want to thank everyone who came from near and far. I had the opportunity to talk to people to find out what they learned, what they didn't learn, and what our successes and gaps were for this meeting, and to reflect on where we've come.

I think we've accomplished quite a few of the goals and objectives I laid out for our meeting on our first night here. I've added one here, the goal was to create this community of policymakers, practitioners, and stakeholders who are all thinking about HIV care and treatment, which at this point includes a whole cascade of care. What we've done at this moment is provide a space for country teams to focus on planning regarding differentiated service delivery, and how to monitor it. And then, to get outside the space of their country teams, to learn from, challenge, and ask questions of people from other places who have different expertise.

We've had the opportunity to access some hard copies of materials, and soft copies are available on the <u>IAS website</u>. The Ethiopia tools and guidelines we discussed quite a bit are already on that site, but there will be more things in draft form to be co-created for the <u>CQUIN website</u>. The last thing we've done is identify gaps and knowledge and we're beginning to prioritize them as we can see who voted for what community practice, and from there we're going to be able to co-create solutions.

What did we learn? We realize that differentiated service delivery is an opportunity to improve care for populations of patients, yet keep us in the spirit of a public health approach. No one is suggesting we need to give individualized care to every single patient, that wouldn't be practical, unfortunately. But we do see an opportunity to recognize that people in a rural setting might benefit from a community adherence group, and people in an urban setting might benefit from something like a club. We see an opportunity to reduce the burden on our overworked and underpaid health care workers.

We see this opportunity to decongest a health system, particularly as a number of people have said, in this spirit, most countries now have moved to test and start. As we explain things to our health care workers, who unfortunately have to implement everything, and they say "why do we now need to implement this differentiated service delivery?" You can say "this is your answer to the pressure of test and start. We can try to get some of these patients who are well to be seen less often, and some of the unwell patients to be seen more often."

I think we heard an important caution that differentiated service delivery shouldn't be a fad. We need to think about it as something that's not a vertical program, and we need to think about how it will be sustained going forward. We need to integrate new things from the beginning

I didn't hear one person mention family planning; I heard TB mentioned a couple of times. These are things often seen as vertical programs and we have an opportunity to bring them in now if we think carefully about it. Another thing I heard from a number of people is that we're not only talking about community adherence groups. Differentiated service delivery can include the entire cascade. Our whole discussion on men moved way up the cascade. We're not talking about treatment of men; we're talking about how to get them even near a healthcare provider, to test their blood pressure, let alone for HIV.

We talked a lot about how all patients can benefit from differentiated service delivery. Using our old words of "stable" and "unstable" with the recognition that unstable was never a good word. It could mean a migrant; it could mean someone with high blood pressure, or someone who is an alcoholic. It could also mean someone who has a high viral load, which is how I think it was originally meant. These are other populations that can benefit from differentiated service delivery. And this is not to say that you haven't been doing it already, but let's think about how to do it more broadly, more consistently, and learn if there are lessons that can be transferred between countries.

CQUIN is not here to direct anybody to do anything. Each country has identified its own priorities. You also have to identify the scope, and together we can identify the gaps, and that's where the cocreation comes in. Each country is at its different stage, but I also think it's been very clear over the past few days that everyone has something to learn and something to share. For each country we have things like operational plans and M&E tools, we have guidelines, and experience with unstable patients in some of these models. Some of you have started thinking about what to do with unwell patients, and interesting ways of collecting patient integration and integrating it into your national M&E systems. Others have produced really detailed implementation manuals. Certain gaps have come up as well. With M&E, we had a lively discussion – how to make it pragmatic and not a barrier.

The interesting thing about adolescents is that, unlike men, where there were no clear best practices, adolescent teen clubs are everywhere. Maybe we can find some of the best practices among teen clubs. Someone was asking the Malawi group, what is really working, have you really evaluated these models as you've been scaling up? The other piece that's interesting is how we will define our progress, of baseline, of uptake of differentiated service delivery, when we haven't really defined what we mean by differentiated service delivery. What do we plan to co-create? As the early adopter countries, you really have an opportunity to lead countries that aren't part of this group.

This is the opportunity to develop feasible, generalizable solutions to the challenges you prioritized. What are the issues you want to prioritize for funders? If I can say to my directors at the foundation that the CQUIN network has prioritized three issues, that carries a lot of weight. This is only going to work if its participant led, and that's why the voting we had in the communities of practice is so important. We're going to pick out a few of the priorities, and then figure out within those groups how they want to meet. Will you get together in one of the workshops? Are you going to have phone calls? Are you going to make time for video conferences? Are you going to participate in a more in-depth journal club? Or will you do an evaluation to create the thing you want to promote? It's up to you to make it happen. Thank you very much."

Dr. Wafaa El-Sadr

Global Director, ICAP Columbia

"I was reflecting on the trajectory of the HIV epidemic, and thinking back on all the progress that's happened over the past decade and a half in sub-Saharan Africa. This has been largely due to the people in this room, and people in the countries who worked for all these years to achieve the advances that have happened thus far. I also think there's a lot of learning that happened over the years. Care and treatment has evolved. Initially it was conceptualized at the beginning as being conducted by a physician, and we learned over the years that nurses can also provide very high-quality care and treatment. We learned that nurses could do HIV testing, that community workers can also do HIV testing. There's been an enormous response over the years that has shaped this

remarkable scale-up that's happened. We've learned that you can't start with 254 indicators, as was the case, that we need to be parsimonious and pragmatic, and really focus on what matters. This has been part of the progress, part of the learning.

You need to have one regimen, an algorithmic approach, a simple way to consistently monitor patients and programs. It's been the public health approach that has enabled this remarkable scaleup to happen over the past decade and a half. Now we are talking about differentiated service delivery. I think of DSD as part of this trajectory of change, of learning, and adapting to an evolving epidemic. This concept comes at an opportune time when there's tremendous interest in reaching the 90-90-90 targets, and being able to control epidemics. Differentiated service delivery is a tool, a method that will hopefully allow us to achieve our ultimate goal. The ultimate goal is what everyone in this room cares about: programmatic excellence and the ability to achieve high coverage, high quality, and to demonstrate the impact. If done right, and done together – engaging communities and stakeholders, DSD will be a tool to reach excellence, and the health and well-being of the populations we all care about.

I want to end by saying that everyone in this room is committed to excellence. The conversations, sharing, and engagement demonstrate a deep commitment to excellence, to the work, and to the communities we're serving. That will be the success: Having members of the network truly committed to excellence, to engaging communities, and truly committed to controlling the epidemic, and the wellness of people living with HIV. We are heartened by your commitment to spend two and a half days with us here; making time in your busy schedule, and your pledge to continuous sharing and learning. That is the very exciting path ahead of us. No one really knows how a network will form. We co-create this together, and we guide it in the direction that we want it to go. I know that we'll succeed because we all have the same goals in mind.

I want to end by thanking Laura and Mike for the support to make this happen; I want to thank Sandile and the ICAP South Africa team; and I also have to thank Miriam and Peter Preko – they spent an enormous amount of time thinking thoughtfully and carefully about this meeting. Last but not least I want to thank the Bill & Melinda Gates Foundation and Peter Ehrenkranz for the support and your vision and commitment for making this happen."

Agenda

Welcome

Dr. Sandile Buthelezi, Country Director, ICAP South Africa

Keynote Addresses

Dr. Wafaa El-Sadr, Global Director, ICAP Columbia

Ms. Rumbidzai Matewe, Acting Director, Zimbabwe National Network for People Living with HIV (ZNPP+)

Meeting Goals and Objectives

Dr. Peter Ehrenkranz, Senior Program Officer, HIV Treatment, Bill & Melinda Gates Foundation

Monday, 27 March

8:30 - 8:45	Welcome and Opening Remarks
	Dr. Yogan Pillay, Deputy Director General, National DOH, South Africa
8:45 - 9:00	Differentiated Service Delivery: Where are we now?
	Dr. Miriam Rabkin, Director for Health Systems Strategies, ICAP Columbia
9:00 - 9:15	Introduction to the CQUIN Learning Network
	Dr. Peter Preko, CQUIN Project Director, ICAP Columbia
9:15 - 10:30	Panel 1: Differentiated Care Country Updates: Kenya, Mozambique,
	Zimbabwe
	Moderators:
	• Dr. Melissa Briggs-Hagen, Chief, Care and Treatment Branch, CDC Mozambique
	Mrs. Rose Nyirenda, Director, HIV Treatment Unit, MOH Malawi
	Panelists:
	• Dr. Maureen Syowai, Clinical Advisor, ICAP Kenya on behalf of Martin Sirengo Director, National AIDS and STI Control Program, MOH Kenya
	Dr. Aleny Couto, STI & HIV/AIDS Chief, MOH Mozambique
	 Dr. Tsitsi Apollo, Deputy Director for HIV/AIDS and STIs, MOHCC Zimbabwe
11:00 – 12:30	Panel 2: Implementing Differentiated Care: Innovations and Challenges

Moderators:

- Dr. Rejoice Nkambule, Deputy Director of Health Services, MOH Swaziland
- Dr. Wafaa El-Sadr, Director, ICAP Columbia

Panelists:

- Dr. Tom Heller, Clinical Advisor, Lighthouse Malawi
- Dr. Alexandra Vandenbulcke, Medical Coordinator, Kenya Mission, MSF
- Dr. Izukanji Sikazwe, CEO, Center for Infectious Disease Research in Zambia (CIDRZ)
- Dr. Rachel Thomas, Chief of Party, Partners in Hope, EQUIP, Malawi
- Dr. Nyikadizno Mahachi, Deputy Chief of Party Technical, FHI360, Zimbabwe
- Dr. Marianne Calnan, University Research Co. (URC), Swaziland

2:00 – 3:30 Parallel Breakout Sessions

- 1. High risk patients
- 2. Adolescents and young people
- 3. Men
- 4. Patients with HIV & NCDs

4:00 – 4:45 **Report Back from Breakout Sessions** *Moderators:*

- Dr. Ruben Sahabo, Country Director, ICAP Swaziland
- Dr. George Sinyangwe, Senior Health Advisor, USAID Zambia
- 4:45 5:00 Wrap-up and Plans for Day Two Dr. Miriam Rabkin, ICAP Columbia

Tuesday, 28 March

- 8:30 8:40 Welcome & Recap of Day One Dr. Peter Preko, CQUIN Project Director, ICAP Columbia
- 8:40 9:15 Monitoring & Evaluation of Differentiated Care Dr. Bill Reidy, Strategic Information Advisor, ICAP Columbia
- 9:15 10:30 Panel 3: Differentiated Care Country Updates: Malawi, Swaziland, Zambia *Moderators:*
 - Dr. Bridget Mugisa, Chief, Prevention, Care & Treatment Branch, CDC Zambia
 - Dr. Tsitsi Apollo, Deputy Director for HIV/AIDS and STIs, MOHCC Zimbabwe

Panelists:

- Mrs. Rose Nyirenda, Director, HIV Treatment Unit, MOH Malawi
- Dr. Nomthandazo Lukhele, ART Coordinator, MOH Swaziland
- Dr. Daniel Makawa, Deputy Director for Clinical Services, MOH Zambia

11:00 – 12:30 Parallel Breakout Sessions

- 1. Monitoring and evaluation
- 2. ART forecasting and distribution
- 3. Research priorities
- 4. Key populations

12:30 - 1:00 Report Back from Breakout Sessions Moderators: Dr. Mauroon Suovai, Tachnical Advisor, Test & Start and Different

- Dr. Maureen Syowai, Technical Advisor, Test & Start and Differentiated Care, ICAP Kenya
- Dr. Jose Tique, QI Technical Advisor, MOH Mozambique

2:00 – 3:00 Country Team Breakout Sessions Differentiated Care: Barriers, Facilitators and Next Steps at the Country Level

- 3:00 4:15 **Report Back from Breakout Sessions and Discussion**
- 4:15 5:00 **Building a Learning Network: Facilitated Discussion** *Moderator: Dr. Miriam Rabkin, ICAP Columbia*

5:00 – 5:30 Closing remarks / Next steps

- Dr. Bactrin Killingo, Treatment Knowledge & Research Lead, International Treatment Preparedness Coalition
- Dr. Peter Ehrenkranz, Senior Program Officer, HIV Treatment, Bill & Melinda Gates Foundation
- Dr. Wafaa El-Sadr, Global Director, ICAP Columbia

Participants



Dr. Tsitsi Apollo is Deputy Director for HIV/AIDS and STIs at the Zimbabwe Ministry of Health and Child Care (MOHCC). Dr. Apollo is a medical doctor and a public health specialist who has been practicing in Zimbabwe's public health system for over 18 years. She previously worked as the National Tuberculosis Control Programme Manager, and for John Snow Incorporated as an HIV/AIDS Advisor. She is an active member of the National Medicines Therapeutics Advisory and Policy Committee in Zimbabwe. She participated in the 2013 and 2015 World Health Organization Guidelines Development Group for Consolidated ARV Guidelines. She plays an Advisory role to the WHO Director General as a member of the Strategic and Technical Advisory Committee for HIV/AIDS and Hepatitis.

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Mr. Tamrat Assefa is the Director for Regional Programs at ICAP Ethiopia. He has over 20 years of experience in public health, specializing in health systems strengthening, HIV, and Quality Improvement. Mr. Assefa received his MPH in health system management and policy from Prince Leopold Institute of Tropical Medicine in Belgium, an MPH from Addis Ababa University and a BSc in Nursing from Jimma University. He is also a fellow of the visionary leadership program funded by the Packard Foundation, a fellow of the Management Development Institute at UCLA and a member of the Ethiopia reproductive health leadership network.

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Dr. Melissa Briggs-Hagen is currently the Care and Treatment Branch Chief at CDC Mozambique. She received her MD from the University of Pennsylvania and her MPH from Johns Hopkins Bloomberg School of Public Health before working as an Epidemic Intelligence Service (EIS) Officer and TB/HIV specialist for the U.S. Centers for Disease Control and Prevention in Atlanta.



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Dr. Sandile Buthelezi is the Country Director at ICAP South Africa. He is a medical doctor with postgraduate training in health services management and general management. He has more than 16 years' experience in health governance and policy environment in both the public and international nonprofit sector environment. Before joining ICAP at Columbia University, Dr. Buthelezi served as a clinician as well as the Medical Superintendent in a number of hospitals in KwaZulu-Natal and was later appointed the KwaZulu-Natal Provincial Head of the HIV, TB and Maternal and Child Health programmes, the position he held for 10 years. He is also a Board Member of the Southern African HIV Clinicians society.

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Dr. Marianne Calnan, MBChB, MPH is the Deputy Chief of Party at URC Swaziland. She is passionate about ensuring that the quality of health care service delivery exceeds customer expectations. Working from a public health perspective, she finds ways to integrate improvements in chronic disease care service delivery so that both health care workers and patients experience quality services and feedback to increase their satisfaction. Dr. Calnan has an MBChB with Internal Medicine specialization, a Masters' in Public Health, a fellowship in quality improvement in Health Care and currently studying towards a DrPH.

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Ms. Gertrude Chipungu, RNM, MA is the Country Director at ICAP Malawi. She has more than 20 years of experience coordinating and directing major health development projects in the areas of HIV management, sexual and reproductive health, and gender analysis and mainstreaming. Ms. Chipungu's areas of expertise include program development and management, organizational development and partnership management. Before joining ICAP, she worked with the Global AIDS Interfaith Alliance as programs manager and a reproductive health expert. Ms. Chipungu is a registered nurse/midwife and holds a master's degree in gender analysis and development studies from University of East Anglia (United Kingdom).

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Dr. Caspian Chouraya is the Technical Director at EGPAF in Swaziland. He has a Bachelor's Degree in Medicine and Surgery from the University of Zimbabwe and a Master's degree in Epidemiology from the University of Pretoria, as well as a postgraduate diploma in HIV Management.

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Dr. Aleny Mahomed Couto, MD is a Mozambican physician with over six years of experience in public health. She is the head of the HIV program at MoH, with experience in management and implementation of national and provincial level health programs with specific focus on HIV/AIDS, as well designing policies, country guidelines and strategic plans following WHO guidelines. She has also worked at District level (mainly primary care) and implemented a wide range of public health programs. Prior to 2011, Dr. Couto was a clinician in the local hospital, treating HIV patients in the HIV Day Hospital.

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Dr. Pietro Di Mattei, MD, DTM&H is a medical doctor and public health professional with over 15 years' experience in communicable diseases control programmes, from direct field implementation to management of large programmes in developing countries, with focus on HIV, Malaria and TB. Dr. Di Mattei has led the design and implementation of programs in several countries in Sub Saharan Africa and South East Asia. He has worked for Médecins Sans Frontières (MSF), the World Health Organization (WHO) and academic institutions. His areas of expertise include program design and management, service delivery, clinical services and operational research. Dr. Di Mattei is currently the Clinical Systems Manager for ICAP's program in Mozambique.

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Dr. Peter Ehrenkranz, MD, MPH is Senior Program Officer for HIV Treatment at the Bill & Melinda Gates Foundation. From 2010 to 2015, he worked in Swaziland with CDC, first as the PEPFAR Care and Treatment Lead, and later as the Country Director. Prior to that, he spent two years in Liberia with a joint appointment as the senior advisor to the National AIDS Control Program and the medical director for CHAI-Liberia. He earned an undergraduate degree in history from Yale, medical and public health degrees from Emory, and trained in internal medicine and completed the Robert Wood Johnson Clinical Scholars Program at the University of Pennsylvania.

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Dr. Wafaa El-Sadr, MD, MPH, MPA is the Director of ICAP at Columbia University, University Professor of Epidemiology and Medicine at Columbia University's Mailman School of Public Health and College of Physicians and Surgeons. She is also Mathilde Krim-amfAR Professor of Global Health at Columbia University and leads the Global Health Initiative at the Mailman School of Public Health.

Dr. El-Sadr's interests include: HIV/AIDS, tuberculosis maternal/child health, capacity building and health systems strengthening. Her work bridges interest and commitment to local and global public health challenges and an appreciation of the breadth of issues needed to transform the health of populations. She has led research studies that have focused on HIV prevention and management and currently co-leads the NIH-funded HIV Prevention Trials Network (HPTN).

She received her medical degree from Cairo University in Egypt, a master's in public health from Columbia School of Public Health and a master's in public administration from Harvard University's Kennedy School of Government. Her scholarly work has appeared in leading scientific journals. She was named a MacArthur Fellow in 2008 and is a member of the National Academy of Medicine.

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Dr. Ruby N Fayorsey, MD, MPH is a Clinical Officer, Pediatric Care and Treatment/PMTCT for ICAP at Columbia University. She is a pediatric infectious disease specialist and provides both clinical and programmatic support to ICAP programs in sub- Saharan Africa including Ethiopia, Kenya, Tanzania, Democratic Republic of Congo, and South Sudan. She has over 18 years of experience working with women, infants, children, and adolescents with HIV and families in impoverished environments in the US and sub-Saharan Africa. She is an attending physician at Harlem Hospital, NYC where she provides care and treatment to HIV- infected children and adolescents at the Family Care Center. Dr. Fayorsey has served as a consultant to the WHO on several topics including IMCI, pediatric HIV disclosure, HIV diagnosis in infants and children and adolescent HIV. She is a member of the IATT Child Survival working group, and is also involved in implementation science research to improve retention of HIV-infected pregnant women in care.

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Dr. Ignace Gashongore, BScHB; MBChB; MScHM; MPH is the Chief of Party, at UMD Zambia. Dr. Gashongore began his career in 2004 with the basic day-to-day care of patients and he has worked at the district, provincial and National levels and now as a member of the Zambian Ministry of Health PMTCT and ART Technical Working Groups. Currently, Dr. Gashongore is Chief of Party and Senior Technical Advisor for SMACHT-*Plus* and Z-CHECK projects of the University of Maryland under PEPFAR (CDC) support. In his position as the Chief of party for the two grants, he is responsible for managing all aspects of the projects including providing strategic technical direction and overall guidance on the implementation of the projects. In both projects, the University of Maryland implements the Community HIV Epidemic Control (CHEC) model, an innovative community-based approach to the continuum of HIV care.

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Dr. Anna Grimsrud, PhD is a Programme Specialist with the International AIDS Society (IAS). Dr. Grimsrud's project focuses on supporting the implementation of differentiated models of antiretroviral therapy delivery in sub-Saharan Africa. She holds a Master of Public Health and PhD from the University of Cape Town, and has been involved in research with IeDEA-Southern Africa Collaboration, the Desmond Tutu HIV Foundation and *Médecins Sans Frontières*.

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Dr. Clorata Gwanzura, is the Differentiated Care Medical Officer: HIV Care and Treatment at MoHCC Zimbabwe. With support from the CQUIN project, she will support differentiated care projects in the AIDS and TB Unit. She recently joined ICAP in Zimbabwe and has 5 years' experience working at various levels in the Zimbabwe Ministry of Health, implementing and managing health programs including HIV programming. Key areas of interest include health systems strengthening and program management. Clorata is an MD and holds an MPH.

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Dr. Tom Heller, MD, is a Specialist in Internal Medicin and Infectious Disease, and is the Clinical Advisor at Lighthouse in Malawi. As the Clinical Advisor, Dr. Heller strives to improve the quality of the integrated care at Lighthouse, develop capacity within the clinic staff and also to use the clinic's experiences of innovative practices to assist the Ministry of Health to inform national policy with regards to all aspects HIV management. He graduated from the Medical School of the Technical University Munich, Germany in 1995 and has worked for more than 20 years in various international settings. Dr. Heller joined the Lighthouse team in January 2016 through the GIZ Integrated Experts program, and is employed by the Malawian Ministry of Health.

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Dr. Bactrin Killingo, MD is the Treatment Education Lead, ITPC. Dr. Killingo is a medical doctor by training, and has been involved in community HIV treatment education and advocacy for the past 10 years. As a palliative care practitioner, Dr. Killingo has been involved with resource poor communities facing insurmountable challenges regarding access to essential HIV medicines and has mobilized communities to advocate for increased access to HIV related services. In addition, he has been instrumental in empowering communities with the knowledge and skills needed to mobilize resources and take charge not only of the small projects they run but also of their own health. Dr. Killingo is currently based in Nairobi, Kenya and is the lead on the Treatment and Knowledge Program that serves the needs of PLHIV communities and key affected populations.

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Dr. Rudo Kuwengwa, MBChB is the Medical Officer for HIV Care and Treatment at MoHCC in Zimbabwe. Dr. Kuwengwa has five years of Public Health experience, having worked at sub-national level for three years as a District Medical Officer and briefly working for World Education for a little over a year as Health Specialist to accelerate paediatric ART access through supply side and demand side interventions in collaboration with the Ministry of Health in 17 under-served districts. Her current work at MoHCC involves Paediatric ART, community linkages including differentiated service delivery



and Hepatitis. She is also currently pursuing a master's in Public Health with University of Western Cape in South Africa.

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Dr. Nomthandazo G. Lukhele, MBCB is the National ART Coordinator at the Swaziland Ministry of Health. Dr. Lukehele coordinates HIV care and treatment services in Swaziland, and has extensive hands-on experience in the delivery of HIV care and treatment services at both clinical and programme level. She holds a Bachelor of Medicine and Surgery Degree (MBCB) from Witwatersrand University, South Africa (2006) and a Bachelor of Science Degree from the University of Swaziland (2000). She is currently studying for a Master of Public Health degree at Witwatersrand University, majoring in Health systems strengthening.

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Mr. Onesimo Maguwu, MPH is a Public Health Specialist with USAID in Zimbabwe, working as the mission technical lead for HIV Testing Services, and managing cooperative agreements with partners focusing on a wide range of HIV services, including differentiated care. He has 14 years' experience working with donor, UN and international organizations in the field of public health and HIV prevention and mitigation. He has also worked with UNICEF managing its Knowledge Management portfolio, UNFPA supporting the VMMC and Female Condom Promotion programs, Pact ZimAIDS managing a USAID funded comprehensive HIV/AIDS prevention and mitigation mission hospital based program and PSI/Zimbabwe as the Post HIV Test Support Services Manager (New Life Network).

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Dr. Nyikadzino Mahachi, MD, MSc. is the deputy Chief of Party (Technical) for FHI360 in Zimbabwe. He completed his medical degree in Zimbabwe and his MSc at the London School of Hygiene and Tropical Medicine. He has worked within the public, private and not-for-profit sectors. Nyika has been involved in the development of HIV treatment guidelines and operationalisation in Zimbabwe, with a particular emphasis on PMTCT & pediatric HIV. In 2013, he spearheaded the transition to Lifelong ART under the country's PMTCT program. He joined FHI360 in 2015 as Deputy Chief of Party/technical lead with the overall responsibility of designing and implementation of the Zimbabwe HIV Care and Treatment Project (ZHCT), a community focused project aiming to scale up differentiated care services in Zimbabwe. Under this project, FHI360 has implemented high yield home based index testing and community ART refill groups in 13 priority districts in Zimbabwe. He is currently Vice President of the Zimbabwe College of Public Health Physicians.

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Dr. Alice Maida, MD, MPH has been a Medical Program Specialist at CDC Malawi since 2011. Alice has a Masters in International Public Health from Leeds University, United Kingdom, and a Bachelor of Medicine, Bachelor of Surgery, from the College of Medicine, University of Malawi. As a Medical Program Specialist, Alice provides technical assistance to CDC implementing partners supporting the attainment of the 90-90-90 strategy. Alice is also the CDC co-chair for the PEPFAR Malawi Treatment and Care Technical Working Group. Previously Alice was the Country Director for the International Training & Education Centre for Health (I-TECH), Malawi and supported the development of clinical guidelines for Option B+ and early treatment initiation in line with WHO guidelines as well as pre-service education technical assistance for nursing cadres. Prior to that, Alice was the District Health Officer, Lilongwe District, responsible for overseeing health service delivery and managing programs in the district, including the scale up of HIV services.

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Dr. Daniel Makawa, is currently the Coordinator for the Directorate of Clinical Care, Zambia.

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Dr. Kenneth Masamaro, MBChB, MSc. is a Public Health Specialist and Treatment Advisor for CDC's Division of Global HIV-AIDS and TB Health Service Delivery Branch in Nairobi, Kenya. Dr. Masamaro's brief concerns the ideation, implementation and evaluation of HIV Treatment programs for CDC's support to Ministry of Health and implementing partners; one of his focus areas is scaling up Differentiated Care in Kenya. He has previously served as a lead for case surveillance, implementation science and treatment programs in Kenya. Kenneth is a graduate of Global Health Science from Oxford University, Thesis with Distinction and a Bachelor of Medicine and Bachelor of Surgery from the University of Nairobi.

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Mr. Thabang Masangane currently works at the Swaziland Ministry of Health under the Quality Management Program. He studied General Nursing and Midwifery and received a postgraduate certificate in Nursing Management in Japan. Mr. Masangane holds a BA in Government Administration and Development Studies from UNISA.

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Ms. Rumbidzai "Rumbi" Praise Matewe holds a Master's Degree in Development Studies and is currently working towards her PhD on Community Development with a focus on Resilient Health Systems. Rumbi has more than 10 years working experience in community development.



Not Pictured





Currently employed by the Zimbabwe National Network of People Living with HIV (ZNNP+), she has been instrumental in the rolling out of differentiated service delivery for a constituency she represents which id PLHIV. Over the past 3 years she has worked in improving the programme design and monitoring for community ART refill groups.

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Dr. Sikathele Mazibuko, MBChB, MSc. is the Care and Treatment lead for PEPFAR Swaziland. A medical doctor by training, he graduated with an MBChB from the University of Zimbabwe in 2000 and later received training as a Clinical Epidemiologist at the University of Pretoria, South Africa. Dr. Mazibuko has extensive HIV management experience and has worked as an HIV clinician at the facility level and a program officer at provincial and national level before joining CDC Swaziland in his current position.

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Dr. Munamato Mirira, MBBS, MBA, MSc. is a Senior Clinical Advisor at USAID Swaziland. He received Bachelor of Medicine & Bachelor of Surgery degrees from the University of Zimbabwe, a MSc. in Biostatistics and Epidemiology from the University of the Witwatersrand, and an MBA from Heriot-Watt University.

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Dr. Bridget Mugisa, MBChB, MPH, MSc, is the Branch Chief, Prevention, Care and Treatment at CDC Zambia. Dr. Mugisa is an Infectious Diseases Epidemiologist with over a decade of national and international public health experience in Uganda, Zambia and Sierra Leone. She is an HIV program strategic leader, highly skilled in adoption of complex and evolving policy, translating this into programmatic and operational guidance at country level. Dr. Mugisa received her MBChB from Makerere University and an MPH from the University of Manchester.

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Dr. Godfrey Musuka, MSc (Med), DVM, MPhil is the Country Director at ICAP Zimbabwe. He is an HIV/AIDS M&E and public health expert with 20 years of experience implementing health interventions in Zimbabwe, Botswana, and Nigeria. He has worked for UNICEF, ACHAP (the partnership between the Government of Botswana, the Gates Foundation, Merck & the Merck Company Foundation) in the areas of HIV/AIDS, TB, and immunization. His key areas of interest include strategic information and program management. Godfrey is a Doctor of Veterinary Medicine and holds MPhil and MSc degrees.

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Dr. Peter Mwangi is the QIC Advisor/ECHO Director at ICAP Kenya.

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Dr. Stanley Ng'oma, is a Care and Treatment Officer at MoH Malawi. Stanley Ngoma holds a Bachelor's Degree in International Obstetrics and leadership from University of Warwick. Dr. Ng'oma also has a Diploma in Clinical Medicine from the Malawi College of Health Sciences. He has attended international trainings and workshops and is registered with Medical Council of Malawi.

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Dr. Evelyn Ngugi, is the Deputy Branch Chief, for HIV Service Delivery at CDC Kenya. She is a public health specialist, working with both implementing partners and Ministry of Health on treatment, HIV drug resistance and supporting development of policy guidance on the same. Dr. Ngugi is currently working with the MOH, PEPFAR team and CDC Implementing partners to implement the Test and start and differentiated Care Model guidelines in Kenya.

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Dr. Rejoice Nkambule, is currently the Deputy Director of Health Services at MoH Swaziland.

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Dr. Ponesai Nyika, MD, MPH is a Public Health Specialist (Care, Support and Treatment) at CDC Zimbabwe, focusing on ART and PMTCT. He previously worked as the Director, Performance Monitoring and Evaluation and as Deputy Director of National Health Information and Surveillance, both in the Ministry of Health and Child Care, Zimbabwe at national level. He has 12 years' experience in the health sector. During this period, he worked at various levels of health services delivery, i.e. facility level, district level, provincial level and national level. Dr. Nyika managed PEPFAR and Global Fund budgets as well as coordinating implementing partners at national level, spearheading the identification, adoption and adaption, and implementation of innovative technologies in HMIS. He also spearheaded the successful introduction and roll out of DHIS, mobile Health (mHealth), Electronic Patient Management Systems (ePMS), Laboratory Information Management Systems (LIMS) among others in Zimbabwe. He has been supervising the ZimHISP (Zimbabwe Health Information Support Project).

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Ms. Rose Nyirenda, MSc. is the Director of the HIV Treatment Unit in the Ministry of Health in Malawi. She is a Community Health and Interprofessional Health Care Leadership Specialist. Currently a PhD candidate at the University of Malawi, her previous assignments include working as a Director of Mzuzu Referral Hospital in the northern region of Malawi, heading the Ministry of Health's Community Health Nursing program, and acting as Nurse Educator and Principal of a Nursing College. She is a researcher and was a Principal Investigator of the EARNEST ART clinical trial; she is currently a member of the National Health Research Ethical Review Board in Malawi. Her achievements have been the accreditation of the Mzuzu Central Hospital laboratory (SLIMTA) with 3 star status, and accreditation of the hospital in Standards Based Infection Prevention and Reproductive Health Standards. She received a special award of recognition on Leadership in Quality improvement from JHPIEGO in 2013.

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Dr. Yogan Pillay, MD is the Deputy Director-General: HIV/AIDS, TB and Maternal, Child and Women's Health in the National Department of Health, South Africa. He is also the convener of Workstream 2: Clarification of the NHI benefits and services including the PHC 'Lab'5 of the National Health Insurance. He has recently co-authored the 'Textbook of International Health: global health in a dynamic world.'

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Dr. Peter Preko, MBChB, MPH, is the Project Director for ICAP's CQUIN HIV Learning Network. Dr. Preko started his career in HIV work as the CEO and co-founder of AIDS ALLY, a local NGO that provided care and treatment in Ghana before national HIV treatment programs started in Africa. Prior to his current role, he was with ITECH – University of Washington, seconded to the Malawi Ministry of Health as the Senior Care and Treatment Advisor. Dr. Preko worked with CDC Swaziland from 2011 to 2016 as the PEPFAR Swaziland Care and Treatment Lead. Before joining CDC, he was the Senior. Care and Treatment Specialist at ICAP in Swaziland. In Ghana, before moving to Swaziland, Dr. Preko was the Senior Program Manager (HIV/AIDS) at AED-SHARP and Engender Health respectively. Dr. Preko obtained his BSc Human Biology and medical degrees from the Kwame Nkrumah University of Science and Trechnology and an MPH from the University of London School of Hygiene and Tropical Medicine.

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Dr. Miriam Rabkin, MD, MPH, is the principle investigator for the CQUIN project at ICAP. She has worked in the field of HIV/AIDS for 20 years, focusing on strengthening health systems to improve the delivery of prevention, care and treatment services for underserved populations. Dr. Rabkin is an associate professor in epidemiology and medicine at the Mailman School of Public Health, and director for health systems strengthening at ICAP. At ICAP, she focuses on strengthening health systems, improving access to HIV services in resource-limited settings, and the design, delivery, and evaluation of chronic care programs for HIV and non-communicable diseases. Dr. Rabkin's current research focuses on implementation science, and on ways to leverage the successes and lessons of HIV scale-up to strengthen broader health systems, to enhance the quality of programs for HIV, maternal/child health, non-communicable diseases, and infection prevention and control (IPC) in sub-Saharan Africa, and to improve refugee health services in Turkey, Jordan, and Lebanon. She also leads several training and education projects, including ICAP's multi-country course in quality and quality improvement for US government field staff and their Ministry of Health counterparts.

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Dr. Bill Reidy, PhD, is a Strategic Information Specialist at ICAP New York. He has more than 15 years of experience in HIV/AIDS program implementation, research, and evaluation. Dr. Reidy's work has taken place in diverse settings, including within the United States and internationally—primarily in sub-Saharan Africa—with a wide range of populations. In his current role at ICAP, he is an investigator or collaborator on numerous studies and projects with aims to optimize HIV/AIDS programs, and has provided key support for implementation of large-scale or targeted government-led HIV/AIDS programs in countries including Swaziland, Myanmar, South Africa, Tanzania, and Kenya. As an investigator or research scientist on several US government-funded grants, he worked extensively on designing and implementing efforts to use routinely-collected data from health records to assess the performance.

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Not Pictured **Dr. Januario Reis**, MD is a USAID Foreign Service National currently serving USAID Mozambique as an Adult Clinical Support Advisor. Dr. Reis has over 10 years of experience in international development and public health, focusing on HIV & AIDS, TB and Reproductive Health. Dr. Reis is responsible for planning, designing, managing and overseeing HIV/AIDS and other health activities specifically related to the quality of the continuum of integrated HIV prevention, care and treatment. Dr. Reis provides technical assistance on medical care aspects in the continuum of HIV prevention, care and treatment with an emphasis on facility based care and treatment and ensuring effective links and bi-directional referral from the community through primary, secondary and Quaternary levels of care. Prior to joining USAID, Dr. Reis worked for ICAP Mozambique, in Maputo City



as Provincial supervisor and Inhambane Province as Clinical office. Dr. Reis received his Medical Doctor degree from Eduardo Mondlane University in Maputo, Mozambique.

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Dr. Ruben Sahabo has been the country director for ICAP in Swaziland since 2011. Previously, he was the ICAP country director in Rwanda, where he led the rapid expansion of care and treatment activities, overseeing technical and financial assistance to over 50 urban and rural clinics that enrolled over 50,000 patients enrolled in HIV care and treatment. He also supported the start-up of ICAP's programs in Cote d'Ivoire in 2008 and the Democratic Republic of Congo in 2010. Dr. Sahabo has managed numerous program evaluations and research studies in Rwanda and Swaziland.

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Ms. Theresa Sikateyo, MPH, GN is the Country Director for ICAP Zambia. She has over 25 years of experience in nursing education and training, nursing and midwifery regulation and management of health programs. Ms. Sikateyo served at the senior management level at the General Nursing Council of Zambia and at St. Francis Schools of Nursing and Midwifery. Her areas of expertise include program development and implementation, curriculum development, policy development, strategic planning, and regulation. Ms. Sikateyo holds a Master of Public Health degree from the University of Zambia.

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Dr. Izukanji Sikazwe, MD, MPH is an infectious disease physician, HIV programme expert, and clinical researcher. She has served as Deputy CEO since joining CIDRZ in 2013 and in January 2017, was recruited by the CIDRZ Board of Directors as CIDRZ CEO. Prior to that she served as an HIV Technical and Policy expert within the University of Maryland programme in Zambia, and was seconded for two years to provide technical assistance within the National Antiretroviral Treatment (ART) Programme of Zambia. She is an active member of multiple government Technical Working Groups, a valued mentor and educator of medical trainees and Master-level students at the UNZA School of Medicine, and practices clinical medicine at the Adult Infectious Disease Centre of Excellence at the University Teaching Hospital. She graduated with a MBChB degree from the UNZA School of Medicine and completed Internal Medicine residency and Infectious Disease fellowship at the Good Samaritan Hospital in Baltimore and the University of Maryland respectively, and holds a Master of Public Health degree from Michigan State University.

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George Sinyangwe is the Senior Health Advisor at USAID Zambia.

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Dr. Maureen Syowai is a Clinical Advisor at ICAP Kenya, where she works to support the MOH/NASCOP to design, implement, and monitor Differentiated Service Delivery for HIV in Kenya.

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Ms. Angela Chisembele-Taylor, B.Sc. PharmS, MBA is currently acting as the Country Director for Right to Care Zambia – EQUIP Program. She is a UK trained Zambian Pharmacist with over 20 years' experience in both private and public pharmaceutical services, HIV program management, ART commodities procurement and supply chain management and donor-funded clinical and operational research project implementation. She worked for a leading private UK pharmaceutical chain, before moving to Zambia, where she worked for CIDRZ in various leadership and management capacities including Head of Pharmaceutical Services that provided strategic support the National ART Scale Up Program. She then briefly headed the Strategic Development office before joining EQUIP.

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Dr. Rachel Thomas, MBBCh, DRCOG, MRCGP, MPH is a UK trained General Practitioner with a Master's degree in Public Health who has been working overseas in both humanitarian and development health sector support since 1999. Dr. Thomas' work experience includes health service delivery, need assessments, strategic planning, proposal writing and programme management with non-governmental organisations in developing countries contexts. She has been involved with HIV service provision in Sub-Saharan Africa since 2003, having directly managed a comprehensive HIV programme and managed related programmes supporting Human Resources for Health, Paediatric HIV, HIV Diagnostics and Health Systems Strengthening. She is now working for EQUIP Innovations for Health, a USAID consortium working across 16 countries to provide technical assistance in move to universal Test and Treat, and push for 90 90 90 targets achievement. The introduction of differentiated service delivery models is a critical component of this work.

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Dr. José Tique is a Medical Doctor and Public Health practitioner with more than 8 years of experience on the implementation of HIV related quality improvement (QI) initiatives in Mozambique. Dr. Tique currently serves as the Senior Quality Improvement Advisor at the National HIV Program in Mozambique where he leads the implementation of a novel





standardized HIV QI strategy, currently implemented in more than 400 health facilities.

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Dr. Alexandra Vandenbulcke, is the Medical Coordinator for the MSF France Kenya Mission. She holds a post-graduate diploma in Tropical Medicine from the Institute of Tropical Medicine Antwerp. Dr Vandenbulcke has over 12 years' experience in HIV programs and has worked in Angola, Sierra Leone, DRC, Burkina Faso, Guinée and Kenya. She has been involved in implementation of differentiated care for HIV in Burkina Faso, Guinée and currently in Kenya.

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Dr. Anteneh Worku, MD, MSc. is currently the Sr. HIV Treatment Advisor within the HIV Team at USAID Malawi. Before joining USAID Malawi, Dr. Worku worked in various capacities at the Botswana Ministry of Health, USAID Ethiopia, and the University of Gondar. He is a Medical Doctor and has an MSc in Information Science.

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Dr. Khozya D. Care Specialist a ensure that quali population of sli paediatric clinics involved in resea shortening thera dosages in Africa Teaching Hospit

Dr. Khozya D. Zyambo, BScHB, MBChB, MMed is a Pediatrician/Clinical Care Specialist at the Lusaka District Health Office. His main role is to ensure that quality clinical services are provided in 51 health facilities for a population of slightly above 2,400,000 while conducting ward rounds and paediatric clinics at one of the five 1st Level hospitals in Lusaka. He is also involved in research as a research physician in a study, "A randomized trial of shortening therapy for minimal tuberculosis using new WHO-recommended dosages in African and Indian HIV+ and HIV- children" at the University Teaching Hospital in Lusaka Zambia. Dr. Zyambo is a trainer in Paediatric ART, TB, Malaria, clinical mentorship and an advocate for survivors of Gender Based Violence/Violence Against Children.

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HIV LEARNING NETWORK The CQUIN Project for Differentiated Care



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