Delivering High-Quality Differentiated HIV Services at Scale

A CQUIN Learning Network Workshop

June 23–26, 2019
Nairobi, Kenya

ICAP Columbia University Mailman School of Public Health

HIV LEARNING NETWORK
The CQUIN Project for Differentiated Service Delivery

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Executive Summary

Background

In March 2017, ICAP at Columbia University (ICAP) launched the HIV Coverage, Quality and Impact Network (CQUIN), a learning network designed to improve the coverage, quality, and impact of HIV services by accelerating the scale-up of differentiated service delivery (DSD). With the support of the Bill & Melinda Gates Foundation, ICAP supports CQUIN member countries to adopt, implement, and expand effective DSD models by enabling experience sharing, south-to-south exchange, and collaborative problem-solving, and by providing targeted, demand-driven technical assistance and support.

In order to achieve the ambitious goals of DSD scale-up, high-quality differentiated services must be delivered at scale. CQUIN's June 2018 workshop on the Science and Practice of Scale-up explored the challenge of increasing coverage while maintaining quality and fidelity, an ongoing theme of CQUIN network activities. CQUIN member countries have demonstrated remarkable progress in scaling up DSD services, but most note that they lack information on DSD quality. Early programmatic experience also highlights the need for close attention to quality challenges, including imperfect use of DSD eligibility criteria; suboptimal utilization of viral load (VL) data; changes to program design that discourage enrollment; and lack of fidelity to DSD guidelines. In response, CQUIN launched a community of practice focused on DSD quality and quality improvement (QI) to engage network participants in a series of in-person meetings and an ongoing virtual collaboration.

From June 23–26, 2019, ICAP convened the CQUIN learning network to further explore the issue of DSD quality. The meeting, *Delivering High-Quality Differentiated HIV Services at Scale*, was held in Nairobi, Kenya, and was attended by multidisciplinary teams from 11 CQUIN member countries. The meeting explored the three elements of the classic "Juran Triad" as they relate to DSD: quality planning (what is the quality standard?); quality assurance (QA) (are we meeting the standard?); and QI (how can we continuously improve performance?).

Meeting Goal and Objectives

The goal of the meeting was to enable CQUIN country teams to develop plans to define DSD quality standards, monitor and evaluate DSD quality, and implement contextually appropriate, DSD-specific QI projects. Each country team was asked to meet in advance of the CQUIN meeting and identify priority quality challenges related to DSD. Key participants in country-level discussions included representatives of ministries of health (MOH), national networks of people living with HIV, the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund for AIDS, TB, and Malaria (GF), implementing partners, and other stakeholders. Country teams were asked to bring these challenges—and supporting data—to the meeting, and explore relevant lessons learned and best practices with countries facing similar quality challenges.

The agenda for the meeting was designed to foster intensive, south-to-south consultation on DSD quality and QI, and to catalyze progress within each country toward DSD-specific quality planning, QA, and QI. Specific objectives included:

- Review frameworks and best practices related to quality and QI
- Describe current DSD quality standards, QA strategies, and QI projects
- Collaboratively explore barriers and facilitators to DSD quality

- Facilitate south-to-south consultation regarding DSD quality initiatives, including pairing countries to give one another feedback and suggestions
- Share QA and QI tools, resources, and job aids
- Develop and refine country-specific roadmaps toward national DSD quality strategies
- Identify common gaps, challenges, and opportunities for future joint-learning, co-creation of tools and resources, and future south-to-south exchange visits

Meeting Participants

Approximately 160 participants attended the meeting, including global experts and teams from each of the 11 countries in the CQUIN Network. Country teams included MOH, national networks of people living with HIV, PEPFAR agencies, implementing partners, civil society, and educational institutions. Additional participants included representatives of ICAP, WHO, UNAIDS, the GF, the Bill & Melinda Gates Foundation, the International AIDS Society (IAS), the International Treatment Preparedness Coalition (ITPC), the U.S. Centers for Disease Control and Prevention (CDC), the United States Agency for International Development (USAID), and other experts.

Meeting Content

The CQUIN meeting opened on the evening of Sunday, June 23rd with a panel of speakers moderated by Dr. Mark Hawken, ICAP country director in Kenya, followed by an opening reception. Framing remarks were given by the Kenya MOH, PEPFAR, and the national association of people living with HIV, as well as technical presentations by the ICAP team. During the subsequent three days, the meeting showcased three plenary presentations, three panel discussions, four breakout sessions, and a hands-on "tools lab" demonstration session.

Day One:

On Monday, June 24th, Dr. Miriam Rabkin, CQUIN principal investigator, opened the meeting with framing remarks. She emphasized the role and importance of quality in health and its direct and indirect outcomes on health; discussed the knowledge gaps related to DSD quality within the CQUIN network; and described the most frequent challenges that emerged in the pre-meeting survey and how these challenges informed the meeting design.

Dr. Charles Holmes then delivered a keynote address on quality HIV services, noting that efforts to meet 2020 targets for HIV-related mortality are not on track and the clear relationship between HIV-related mortality and quality. Dr. Holmes discussed the relationship between quality, access, and impact; outlined enablers of quality HIV services; emphasized the importance of patient-centered care; discussed how HIV quality services improve other health services; briefly discussed the link between quality care and HIV drug resistance, and closed his presentation asking the audience to reflect on their "quality blind spots."

The next session was a panel presentation focused on defining DSD quality standards and what is meant by "high quality" DSD. Panelists discussed the CQUIN QI-for-DSD community of practice (Mr. Martin Msukwa, from ICAP in South Africa); recipient of care preferences for DSD models in urban Zimbabwe (Dr. Clorata Gwanzura from the Ministry of Health and Child Care (MoHCC) in Zimbabwe); and the recipient of care perspective (Mr. Nelson Otwoma from National Network of PLHAs (NEPHAK) in Kenya).

In a breakout session, country teams paired up to discuss DSD quality standards and challenges. Each country described national DSD scale-up, focusing on coverage and model mix; priorities related to coverage and model mix for the next 12 months; and new models to prioritize moving forward. Next, countries worked in pairs to report back to the broader group on the extent to which each country has defined quality standards specific to differentiated antiretroviral treatment (DART) and DART models; the data each country uses to assess the quality of their DART programs; the top three DART-related quality challenges for each country; and what the countries learned from one another.

Following the breakout session, a panel of speakers presented perspectives on measuring DSD quality and how to determine the delivery of high-quality DSD. Dr. Hervé Kambale from the Eswatini National AIDS Program presented Eswatini's DSD QA tool. Dr. Josen Kiggundu from the Uganda MOH described a supportive supervision approach. Ms. Stella Kentutsi, from National Forum of People Living with HIV AIDS in Uganda (NAPHOFANU) discussed measuring and addressing stigma. Mr. Valentin Keipo from ITPC in Côte d'Ivoire gave an overview of ITPC community treatment monitoring in Côte d'Ivoire. Finally, Mr. Tonderai Mwareka from the Zimbabwe National Network of People Living with HIV (ZNNP+) in Zimbabwe provided the recipient of care perspective.

Key Takeaways from Day One

- CQUIN countries (and the larger public health community) continue to lack data on the quality and fidelity of DSD services.
- The continuing high rates of HIV-related mortality suggest a quality challenge with HIV treatment programs generally (not DSD programs specifically).
- There is an important interplay between quality, access to care, and uptake of services. Recipients of care cannot access services that are physically or financially unavailable—and they may not wish to utilize services they perceive as low quality, culturally inappropriate, or not sufficiently person-centered.
- The recipient of care perspective is crucial, as recipients of care may have different quality standards than health care providers. We all have quality "blind spots" to consider.
- DSD-specific quality challenges mentioned by CQUIN country teams include: low coverage of VL testing; variable community education and demand creation; imperfect use of DSD eligibility criteria; occasional challenges with documentation; and the need to increase meaningful engagement of recipients of care in program design, implementation, and evaluation.
- Many CQUIN member countries lack detailed and specific quality standards for differentiated ART programs.

Day Two:

Mr. Ivan Teri from the Elizabeth Glaser Pediatric AIDS Foundation opened the second full day of the meeting with a keynote address on using QI to enhance HIV services. He provided a definition of QI; discussed the growing field and appreciation of QI; described QI principles, QI fidelity, and common QI tools; and provided evidence-based examples of how QI has been used to improve the quality of DSD. He closed with a discussion on how to harness QI for DSD.

Next, speakers in a panel discussion provided different perspectives on QI, including improving the fidelity of DSD models in Kenya (Ms. Maureen Inimah from the Kenya National AIDS and STIs

Control Programme (NASCOP)); using an electronic information system to improve the Central Chronic Medicine Dispensing & Distribution (CCMDD) model in South Africa (Dr. Marissa Courey from CDC South Africa); improving the quality of adherence clubs in Cape Town (the club audit and club champions group) (Ms. Aysha Ismail from the City of Cape Town City Health); building a QI-for-DSD learning network in Zambia (Dr. Nancy Zyongwe from the Zambia MOH); using QI methods to maximize DSD impact and efficiencies in Uganda (Dr. John Bosco Ddamulira from the Department of Disease Control and Environmental Health at Makerere University School of Public Health in Uganda); optimizing VL utilization in Malawi (Dr. Michael Odo from the Malawi MOH); and improving VL coverage in Ethiopia (Dr. Berhanu Tekle from ICAP in Ethiopia).

In a hands-on and dynamic Tools Lab, participants viewed demonstrations of tools used in different contexts to help improve and accelerate delivery of high-quality DSD at scale.

Following the Tools Lab, Dr. Peter Ehrenkranz from the Bill & Melinda Gates Foundation led a lunchtime discussion on defining DSD and how to measure coverage. He emphasized the importance of using standardized definitions within the CQUIN network, using three-month, multi-month prescribing as an example.

Participants then joined one of five groups in a breakout session to discuss common, DSD-related quality challenges, explore their root causes, and consider possible interventions. The challenges explored include: 1) lack of categorization of clients on DSD models; 2) lack of adequate updated information and education for DART models provided to recipients of care; 3) the experience of recipients of care in DART models with unmet family planning needs and poor management of non-communicable diseases; 4) inconsistent and incorrect use of specific DSD monitoring and evaluation (M&E) tools; and 5) lack of routine VL testing offered to recipients of care enrolled in DART.

Key Takeaways from Day Two
• Quality improvement (QI) holds great promise as a way to systematically enhance the quality and fidelity of DSD services. • It is important not to conflate quality assurance (QA) and QI—these are two complementary activities. • The CQUIN *Quality and QI* Community of Practice has catalyzed the sharing of QI-for-DSD experiences and tools. • The DSD standards developed by the CQUIN *Quality and QI* Community of Practice are a great starting point for countries looking to develop quality standards for DSD programs. • Using standardized definitions and approaches to describe the mix of DSD models in each country is extremely important for the CQUIN network. • Three-month Multi-month Scripting (MMS) is a DSD model!

Day Three:

The third day of the meeting commenced with a keynote address on the recipient of care perspective by Mr. Lawrence Khonyongwa from the Malawi Network of People Living with HIV. He described the critical role of recipients of care in the overall delivery of HIV services in terms of assuring both demand from recipients of care and supply of high-quality, contextually appropriate services. Next, Mr. Khonyongwa provided an overview of the CQUIN *Recipient of Care Engagement* Community of

Practice and its expected results. Mr. Khonyongwa concluded by sharing a vision of quality service delivery and highlighted the role of recipients of care in this vision.

Participants then joined one of four groups in a parallel breakout session to discuss achieving quality for specific DART models (facility-based individual models; facility-based group models; community-based individual models, and community-based group models). Groups discussed different aspects of their assigned model, including whether there are quality standards for each model; the quality challenges most relevant to each model; what should be done to address these quality challenges; and what should be the next steps to optimize the quality and fidelity of each model at scale. Each group reported back to the group in plenary.

Next, countries divided into teams in a breakout session to reflect on the meeting and to develop individual country action plans to strengthen the quality of DSD implementation in their respective countries. Each country had five minutes to report back on: important lessons learned in this meeting; any planned (or tentative) changes in DSD nomenclature and/or calculation of DSD coverage; action steps with regards to quality standards for the next 12 months; action steps with regards to QA in the next 12 months; and action steps with regards to QI. The session was co-moderated by Dr. Peter Preko from ICAP and Ms. Siphiwe Shongwe from ICAP in Eswatini.

Ms. Fatima Tsouris from ICAP and Ms. Siobhan Malone from the Bill & Melinda Gates Foundation then led a lunch discussion to describe the Evidence for Contraceptive Options and HIV Outcomes (ECHO) Trial primary results.

The meeting closed with remarks from Dr. Miriam Rabkin from ICAP; Mr. Mathew Kawogo from the National Council of People Living with HIV/AIDS in Tanzania; Dr. Bactrin Killingo from ITPC in Kenya; Dr. Kenneth Masamaro from CDC Kenya; Dr. Peter Ehrenkranz from the Bill & Melinda Gates Foundation; and Dr. Barbara Mambo from NASCOP in Kenya.

Key Outputs

- Individual country team strategies were submitted by the eleven CQUIN countries in attendance to document next steps related to meeting outputs
- Meeting report

Introduction

Background

In March 2017, ICAP at Columbia University (ICAP) launched the HIV Coverage, Quality and Impact Network (CQUIN), a learning network designed to improve the coverage, quality, and impact of HIV services by accelerating the scale-up of differentiated service delivery (DSD). With the support of the Bill & Melinda Gates Foundation, ICAP supports CQUIN member countries to adopt, implement, and expand effective DSD models by enabling experience sharing, south-to-south exchange, and collaborative problem-solving, and by providing targeted, demand-driven technical assistance and support.

Each year, CQUIN convenes several all-network meetings in addition to topic-specific meetings for smaller groups of countries. In June 2019, ICAP convened multidisciplinary teams from the 11 CQUIN member countries to address the issue of quality and DSD for a practical, hands-on meeting, *Delivering High-Quality Differentiated HIV Services at Scale*. The meeting explored the three elements of the classic "Juran Triad" as they relate to DSD—quality planning, QA, and QI. Participants included teams from Côte d'Ivoire, Eswatini, Ethiopia, Kenya, Malawi, Mozambique, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe, along with diverse regional and global experts from PEPFAR agencies, national networks of people living with HIV, implementing partners, civil society, and educational institutions. Additional participants included representatives of ICAP, WHO, UNAIDS, the GF, the Bill & Melinda Gates Foundation, IAS, ITPC, CDC, USAID, and other experts.

In order to achieve the ambitious goals of DSD scale-up, high-quality differentiated services must be delivered at scale. CQUIN's June 2018 workshop on the Science and Practice of Scale-up explored the challenge of increasing coverage while maintaining quality and fidelity, an ongoing theme of CQUIN network activities. CQUIN member countries have demonstrated remarkable progress in scaling up DSD services, but most note that they lack information on DSD quality. Early programmatic experience also highlights the need for close attention to quality challenges, including imperfect use of DSD eligibility criteria; suboptimal utilization of VL data; changes to program design that discourage enrollment; and lack of fidelity to DSD guidelines. In response, CQUIN launched a community of practice focused on DSD quality and QI to engage network participants in a series of in-person meetings and an ongoing, virtual collaboration.

From June 23–26, 2019, ICAP convened the CQUIN network to further explore the issue of DSD quality. The meeting, *Delivering High-Quality Differentiated HIV Services at Scale*, was held in Nairobi, Kenya, and was attended by multidisciplinary teams from 11 CQUIN member countries. The meeting explored the three elements of the classic "Juran Triad" as they relate to DSD: quality planning (what is the quality standard?); QA (are we meeting the standard?); and QI (how can we continuously improve performance?).

As a demand-driven network, CQUIN convened the meeting, "*Delivering High-Quality Differentiated HIV Services at Scale*" in response to the priorities of CQUIN member countries. The goal of the meeting was to enable CQUIN country teams to develop plans to define DSD quality standards, monitor and evaluate DSD quality, and implement contextually appropriate DSD-specific QI projects. Each country team was asked to meet in advance of the CQUIN meeting with key participants to identify priority quality challenges related to DSD. Key participants in these country-level discussions included MOH representatives, national networks of people living with HIV,

donors such as PEPFAR and the GF, implementing partners, and other stakeholders. Country teams then brought these challenges—and supporting data—to the meeting, and explored relevant lessons learned and best practices with countries facing similar quality challenges.

The agenda for the meeting was designed to foster intensive, south-to-south consultation on DSD quality and QI, and to catalyze progress within each country toward DSD-specific quality planning, QA, and QI.

Objectives:

- Review frameworks and best practices related to quality and QI
- Describe current DSD quality standards, QA strategies, and QI projects
- Collaboratively explore barriers and facilitators to DSD quality
- Facilitate south-to-south consultation regarding DSD quality initiatives, including pairing countries to give one another feedback and suggestions
- Share QA and QI tools, resources, and job aids
- Develop and refine country-specific roadmaps toward national DSD quality strategies
- Identify common gaps, challenges, and opportunities for future joint-learning, co-creation of tools and resources, and future south-to-south exchange visits

Opening Reception

Dr. Mark Hawken
Country Director, ICAP in Kenya

Dr. Mark Hawken welcomed participants to the meeting and thanked those traveling from other countries, representatives from the Kenya MOH, and the CQUIN leadership and team that organized the meeting. He noted that the meeting is CQUIN's eighth multi-country meeting since the project commenced in 2017. Acknowledging that CQUIN has expanded from six to eleven member countries, he introduced each of the country teams present at the meeting. He encouraged participants to participate in the wide-ranging program covering different aspects of DSD and to learn, enjoy, and discuss progress and plans related to DSD in its broadest sense within respective countries. Dr. Hawken concluded by introducing the opening speeches from the CQUIN team, NASCOP, and the Kenya MOH.

Dr. Peter Preko
Project Director, CQUIN, ICAP at Columbia University

Dr. Peter Preko opened his presentation with an overview of the CQUIN Learning Network, a south-to-south learning network designed to advance DSD to improve HIV epidemic control. He described CQUIN activities, explained how the network works, and gave an overview of CQUIN member countries as of June 2019.

Dr. Preko discussed the importance of convening a meeting about DSD quality and emphasized how quality is at the heart of service delivery. He highlighted that CQUIN members have identified this as a priority since the 2017 launch meeting, and that CQUIN countries have consistently rated themselves as needing improvement in determining the quality of DSD services. He showed the CQUIN Dashboard Quality Domain and presented pre-meeting survey results, which indicated that while progress is underway, there is a lot of room for improvement in this area. Dr. Preko discussed the ways in which the CQUIN network has been working on sharing lessons and resources from its community of practice. He emphasized the opportunity presented by this meeting for participants to share with the larger CQUIN community.

Dr. Preko concluded by discussing the meeting agenda (its emphasis on quality standards, quality measurement, and QI) and the meeting objectives. He emphasized the importance of active engagement, the voices of recipients of care, and the action-oriented nature of the meeting (each country will leave the meeting with an action plan and will report back at the annual meeting in November).

Dr. Miriam Rabkin

Director for Health System Strategies, ICAP at Columbia University

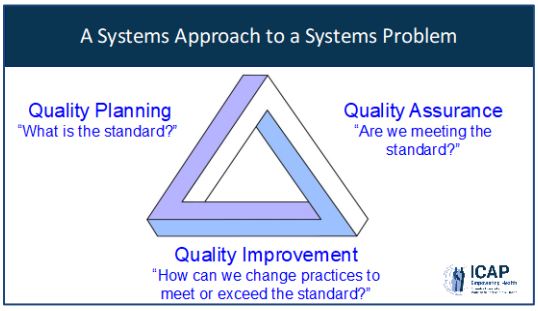
Dr. Miriam Rabkin opened her presentation with a reflection on quality health services and what they look like at the individual, facility, and population levels. She explored how quality health services are defined and discussed the role and impact of quality in health systems, highlighting a quote from the 2018 Lancet Global Health Commission on High Quality Health Systems: "*The right to health is meaningless without good quality care, because health systems cannot improve health without it.*"

Dr. Rabkin presented key findings of the Commission, including:

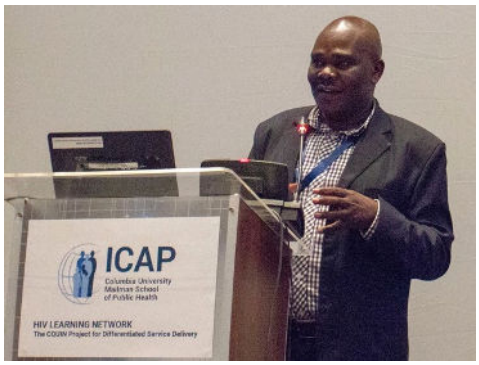
- Poor quality health services are common across countries and conditions, and the most vulnerable populations fare the worst.
- Poor-quality care is lethal; more than eight million people in low- and middle-income countries die from conditions that are treatable, and there are more deaths due to poor quality than to non-utilization of services.
- Improving the quality of health services could save millions of lives each year in low- and middle-income countries.
- Providing health services without guaranteeing a minimum level of quality is ineffective, wasteful, and unethical.
- Quality is insufficiently monitored and, when it is assessed, there is often a focus on measuring inputs, which do not correlate with quality of care.

Dr. Rabkin noted that quality challenges affect the health systems of both high-income and low-income countries, discussing how quality is embedded in the Sustainable Development Goals and WHO's push for countries to develop national quality policies and strategies. She emphasized that it is important to consider that we are working within complex health systems and that addressing one component has ripple effects on other aspects of the system as many quality challenges are multi-factorial. She highlighted the importance of a systems approach to systems problems.

Next, Dr. Rabkin reviewed the results of the pre-meeting survey, which confirmed that there is a paucity of data collected on DSD and quality. She emphasized that CQUIN member countries can ensure that quality is incorporated at all levels as they bring DSD to scale and previewed the meeting focus on defining quality standards, discussing how to assess quality, and sharing examples of QI approaches and tools.



Mr. Nelson Otwoma
Executive Director, National Empowerment Network of People Living with HIV/AIDS, Kenya



Mr. Nelson Otwoma opened his presentation with a discussion about the importance of the engagement of recipients of care and communities in the HIV response. He explained that it is critical for recipients of care to be enlisted in DSD scale-up efforts, from the point of policy development to implementation and evaluation. Mr. Otwoma stressed that MOH must embrace, invest in, and build capacity for this approach to achieve epidemic control, noting that while recipients of care are often engaged to some extent in policy formulation, they are often excluded from program implementation and evaluation.

Mr. Otwoma emphasized the importance of sensitizing and imparting knowledge to communities and people living with HIV to know how to take charge at facilities and in communities so they can screen for specific conditions, communicate potential health concerns, advocate for themselves, and, ultimately, reduce deaths. He also reiterated the importance of resourcing networks of people living with HIV. He relayed a call from recipients of care to support and capacitate networks of people living with HIV so they can engage in dialogues and deliver on their goals of ensuring that people are both enrolled and retained in care.

Dr. Evelyn Ngugi
Deputy Branch Chief, Centers for Disease Control and Prevention, Kenya

Speaking on behalf of PEPFAR in Kenya, Dr. Ngugi opened her speech with the suggestion that, while the 20th century emphasized the doctor, the 21st century should focus on the patient. Dr. Ngugi discussed how DSD models have remained a PEPFAR priority since 2016, when PEPFAR collaborated with MOH and NASCOP to integrate DSD into Kenya's national guidelines. Dr. Ngugi relayed how—with support from PEPFAR, ICAP, the GF, and other partners—NASCOP developed operational guidelines and performance indicators for DSD models, which are critical for M&E. Examples of DSD models for specific populations in Kenya include viremia clinics, male adherence clubs, differentiated care for adolescents and young people, and family-centered DSD care models.

Dr. Ngugi stated that, according to programmatic data, Kenyans enrolled in DART models had non-inferior outcomes compared to those in the more-intensive standard care models. While great gains have been realized, she acknowledged that more needs to be done. Priorities include:

- Ensuring that all sites provide recipients of care with choices of DART models
- Ensuring that all patients are categorized appropriately
- Supporting documentation of both process and impact outcomes
- Expanding DART models for different populations, including adolescents and children

Dr. Ngugi urged participants to learn from each other, share best practices, identify challenges and areas of improvement, and find "African solutions for African problems."

Dr. Kigen Bartilol
Head of NASCOP, Ministry of Health, Kenya

Dr. Bartilol thanked the prior speakers and summarized their key points. He highlighted how, in 2016 and 2018, Kenya integrated DSD into its National Guidelines for HIV Care and Treatment and put in place standard operating procedures (SOPs) and M&E tools to prepare the health system. Dr. Bartilol emphasized the need to accelerate and make sure this is done everywhere to implement DSD. He welcomed everyone to Kenya and thanked the 11 country teams for coming to the meeting, and the CQUIN team for organizing. In closing, Dr. Bartilol welcomed and introduced Dr. Simon Kibias, the evening's guest of honor.

Dr. Simon Kibias, Guest of Honor
Head Directorate of Health Standards, Quality Assurance and Regulation, Ministry of Health, Kenya

Dr. Kibias opened his speech by thanking the previous speakers and welcoming everyone to the meeting on behalf of the MOH Director General and Cabinet Secretary. Dr. Kibias, whose directorate is in charge of QA, emphasized the importance of quality to health outcomes and the achievement of universal health coverage in Kenya, which will improve access to health care and include access to quality HIV care and treatment.

Dr. Kibias relayed how Kenya first adopted DSD in its 2016 National HIV Guidelines, which were further revised in 2018. He described how these guidelines are aligned with the MOH's mission of providing the highest standard of health for all Kenyans and highlighted the importance of DSD at this stage of Kenya's response to the HIV epidemic. Dr. Kibias noted that, since the introduction of DSD in 2016, Kenya has conducted a countrywide mapping of DSD scale-up; developed DSD SOPs and scale-up plan; updated national M&E tools to better capture reporting on DSD implementation; and began scale-up and implementation of DSD models.

Dr. Kibias described Kenya's participation in CQUIN learning activities, such as meetings and communities of practice. He also reflected on how Kenya's participation in these activities has aided the MOH to continue to refine its guidance and implementation of DSD in Kenya while taking DSD to scale. He noted that the Kenyan government appreciates CQUIN's collaboration and support for DSD scale-up, which aligns with national policies and strategies to combat HIV, and expressed the government's excitement to be part of this important network.

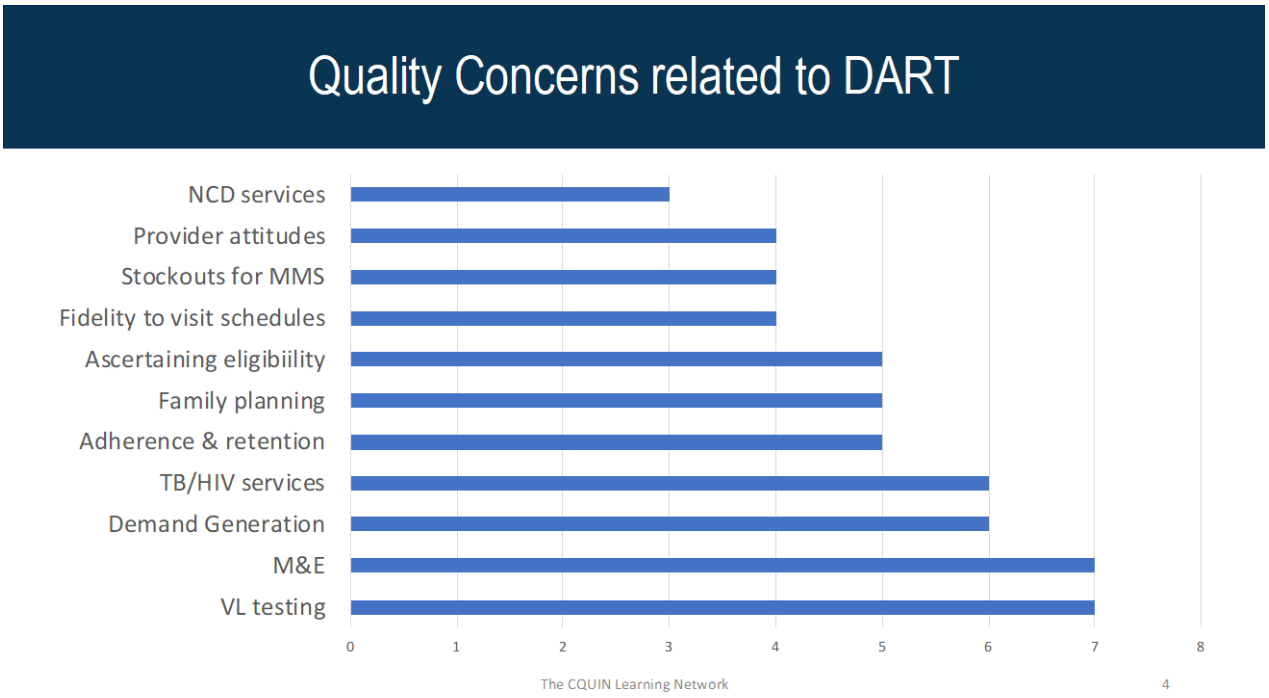
Monday, 24 June

View the Presentations

Session 1: Framing Remarks - Quality HIV Services
Dr. Miriam Rabkin
Director for Health System Strategies, ICAP at Columbia University

Dr. Miriam Rabkin provided framing remarks for the keynote address, recapping key points from the opening reception for participants that were not able to be there. She emphasized the role and importance of quality in health and the fact that quality has both direct and indirect outcomes on health. Dr. Rabkin noted that the self-staging that CQUIN member countries perform each year highlights the lack of data about DSD quality and fidelity. Most countries staged themselves in the red, orange, or yellow domains, reflecting that the quality of DSD is unknown—which presents an obvious challenge.

Dr. Rabkin also discussed the results of the pre-meeting survey, in which respondents were asked which DSD-related quality challenges they faced. The quality concerns raised most frequently included VL testing coverage; accurate documentation (M&E) when patients are in multiple locations; the importance of empowering recipients of care to increase demand; and integration of TB/HIV services. She closed by reviewing the meeting agenda and introducing the keynote speaker, Dr. Charles Holmes.



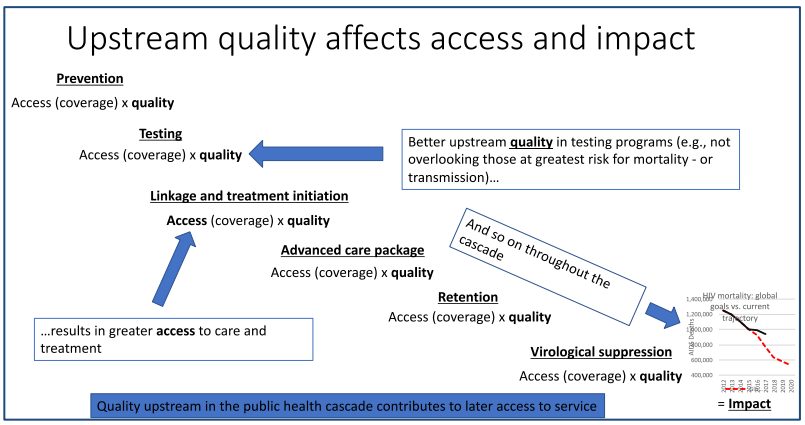
Session 1: Keynote Address - Quality HIV Services

Dr. Charles Holmes

Faculty Co-Director of the Center for Global Health & Quality, Georgetown University Medical Center

Dr. Charles Holmes opened his presentation by noting that, although HIV-related mortality has decreased from its peak in 2005, the global community is still not on track to meet its 2020 targets. Research shows a clear relationship between quality indicators and mortality, suggesting that at least part of the challenge is delivery of low-quality HIV treatment services. He described the U.S. Violence Against Children Surveys (VACS) data on quality of care, which found that people who received more than 80 percent of interventions had a 25 percent decrease in mortality over a period of six years. He also described data from the Centre for Infectious Disease Research in Zambia (CIDRZ), which found highly variable mortality rates amongst sites, likely due site-level factors and quality drivers. Dr. Holmes pointed out that it is important to consider the role of failure to provide the advanced care package to people who need it.

Dr. Holmes highlighted the importance of looking at disaggregated, quality data across the cascade. Poor outcomes can be related to "upstream" quality issues like poor quality testing services, as well as "downstream" issues like programs that are insufficiently person-centered and do not retain people in care.



Next, Dr. Holmes discussed elements of quality HIV services. He highlighted the WHO: Enablers of Quality HIV Services diagram, which depicts four key enablers: inclusion of HIV quality into national policy and program frameworks; integration of QA and QI into management and delivery of HIV care at health facility and community levels; community engagement, literacy, advocacy, and demand creation; and the availability of a defined package of HIV care and treatment services.

Dr. Holmes alluded to the 2016 WHO consolidated HIV treatment guidelines, which provided guidance on high-quality HIV clinical services, including concepts such as person-centered care; safe, acceptable, and appropriate care; efficient and effective use of resources; and measuring the "demand-side" to ensure person-centered quality health services. He emphasized the importance of understanding recipient of care preferences and described a discrete choice experiment in Zambia that explored the preferences of those who had disengaged from care and found that recipients of care preferred less frequent visits and—importantly—respectful providers. Clients were willing to wait 19 hours or travel an extra 45 km to see a "nice" *vs.* "rude" provider. The study found that

improving the patient experience requires systematic measurement of patient experience, provider morale, and satisfaction, and likely requires ongoing training and support for providers that enables them to enhance their practice of person-centered care, along with feedback of actionable data to site- and higher-level decision-makers.

Dr. Holmes highlighted the link between quality care and HIV drug resistance (HIVDR) and noted that we often forget (or don't make explicit) the connection between low quality HIV treatment programs and HIVDR. However, he reminded the audience, the HIVDR agenda is a quality agenda.

Dr. Holmes closed his presentation by asking the audience to reflect on their quality blind spots, asking them to consider four key questions:

- Are there above site-level factors that are leading to suboptimal quality at the site level?
- Are patients and communities providing systematic feedback about the quality of services provided?
- Is your care person-centered?
- Does our quality focus need to be refocused?

Session 2: Panel Presentations
Defining DSD Quality Standards: What do we mean when we say "high quality" DSD?

Dr. Ade Fakoya from the GF and Mr. Nicolas Sewe from NASCOP Kenya co-moderated the first panel. Panelists provided perspectives on defining DSD quality standards, giving presentations on the CQUIN *Quality and QI* Community of Practice; recipient of care preferences for DSD models in urban Zimbabwe; and a recipient of care perspective from Kenya.

Panelists:

- **Mr. Martin Msukwa,** Project Director and Regional Advisor, ICAP in South Africa
- **Dr. Clorata Gwanzura**, Differentiated Care Medical Officer, MOHCC, Zimbabwe
- **Mr. Nelson Otwoma**, Executive Director for the National Empowerment Network of People Living with HIV/AIDS, Kenya

Key Takeaways:

The CQUIN Community of Practice for Quality and QI

- A community of practice is a group of people with a shared passion or concern related to DSD. They pool their resources and knowledge, interacting regularly and producing new tools to improve their work.
- CQUIN has multiple, opt-in communities of practice focused on key issues prioritized by member countries. One of these is the *Quality and QI* Community of Practice.
- To date, activities have included several QI-for-DSD workshops, the exchange of QA tools, and the co-creation of DSD quality standards.
- The group focused on developing quality standards because these are largely lacking for differentiated ART models (national guidelines rarely make quality standards explicit).

- Next steps include further feedback on draft standards; finalization of the "generic" tool; adaptation at country level (and/or program level); and use of quality standards to develop QA tools and inform QI projects.

Recipient of Care Preferences for DART Models in Harare, Zimbabwe: A Discrete Choice Experiment

- Zimbabwe has five DSD models for stable adults on ART.
- Review of patient coverage in October 2018 revealed slower uptake of DART in urban than rural Zimbabwe.
- Evaluation explored:
    - Which characteristics or attributes of ART service delivery do people on ART in Harare prefer?
    - How does that relate to their interest in the available DART models?
    - What does that imply for DART scale-up in urban Zimbabwe?
- 500 DART-eligible clients (stable adults on ART but not in DART model) were shown "choice cards" illustrating two different scenarios of health care/HIV services.
- Preferences were consistent, with little variation based on age or sex. The study found statistically significant and relatively strong preferences for:
    - Respectful *vs.* not respectful providers
    - Individual *vs.* group models
    - Health facility-based *vs.* community- or home-based services
    - Cost less than $3 per visit
- The preferred attributes were consistent with two of the five current DART models—Fast Track and Family ART—which suggests that these two models should be taken to scale in urban settings and are consistent with emphasis on scaling up six-month MMS in COP19.

Recipient of Care Perspective

- Appointment spacing can involve miscommunication between health workers and recipients of care. Health workers see appointment spacing as a great service to patients and know the benefits, but this needs to be communicated to recipients of care
- Some recipients of care may be concerned about not going to the health facility as often and may feel neglected by the health worker, who must explain to patients why they do not need to come to the health facility as often. Clear communication will improve quality.
- Quality challenges perceived by recipients of care include:
    - Rushed service delivery and lack of eye contact/interaction with health workers
    - Slow delivery of VL test results
    - Drug stockouts
    - Lack of consistency between what is offered at different health facilities/by different implementing partners
- The way recipients of care view quality is not always the same as the perspective of implementing partners, health workers, and policy makers. Actively seeking out recipients of care perspectives can increase uptake, adherence, retention, and outcomes.

Top left: Dr. Clorata Gwanzura presents recent data from a study conducted with recipients of care in urban Zimbabwe. Top right: Dr. Ade Fakoya moderates the panel.

Session 3: Breakout Session
Country Teams Paired to Discuss DSD Quality Standards and Challenges

In this session, country teams were paired to discuss DSD quality standards and challenges. The discussion focused on national DSD scale-up; priorities related to coverage and model mix for the next 12 months; and which models would be prioritized moving forward. After discussing, countries summarized their work in a plenary session, using the following questions as a guide:

- To what extent has each country specified quality standards specific to DART models?
- What data do each country use to assess the quality of their DART programs?
- What are the top three, DART-related quality challenges in each country?
- What did the countries learn from one another?

Dr. Tendai Nyagura from USAID Zimbabwe and Ms. Thembie Dlamini from the Eswatini MOH co-moderated the report-back session, which is summarized in Tables 1 and 2 below.

Feedback from countries revealed that the 11 countries are at different stages with respect to implementing DSD quality-specific standards. Six countries have minimal/very general/low fidelity, DSD quality-specific standards in place, three countries have standards for both models and programs in place, and two countries have no standards in place. Countries articulated numerous challenges related to DSD quality standards. Challenges that emerged across multiple countries included VL coverage, integration of HIV with other services, correct categorization of DSD eligibility, education and demand creation, correct use of M&E tools, and meaningful engagement of recipients of care (see Table 2).

Table 1: Description of National DSD Scale-up, Focusing on Coverage and Model Mix

Country	Status Update
Côte d'Ivoire	• 25-49% of health facilities providing ART have enrolled ≥10% of eligible patients in a DSDM. • Over 75% of eligible patients have enrolled in a DSDM. • Quality standards for DSDM have not been defined and are not currently in development. • As of March 2019, the majority of recipients of care were enrolled in the fast-track model (73%) and a conventional model (22%).
Eswatini	• More than 75% of health facilities providing ART have enrolled ≥10% of eligible patients in a DSDM • 25-49% of eligible patients have enrolled in a DSDM • At least one evaluation of DSD program quality has been conducted using the national quality standards, but the results do not indicate that standards have been met • As of December 2018, the majority of recipients of care were enrolled in the conventional model (76%) and the fast-track model (17%)
Ethiopia	• Over 75% of health facilities providing ART have enrolled ≥10% of eligible patients in a DSDM • 50-75% of eligible patients have enrolled in a DSDM • National quality standards for DSD programs are in development or have been defined, but no evaluations of quality using national standards have been completed • As of October 2018, the majority of recipients of care were enrolled in a conventional model (68%) and appointment spacing (32%)
Kenya	• National DSD implementation is planned but has not yet begun or insufficient information is available to estimate the proportion of facilities with ≥10% of eligible patients in a DSDM. • National DSD implementation is planned but has not yet begun or insufficient information is available to estimate the proportion of eligible patients enrolled in a DSDM. • National quality standards for DSD programs are in development or have been defined, but no evaluations of quality using national standards have been completed. • As of October 2018, the majority of recipients of care were enrolled in the conventional model (50%) and the fast-track model (30%).
Malawi	• More than 75% of health facilities providing ART have enrolled ≥10% of eligible patients in a DSDM. • Over 75% of eligible patients have enrolled in a DSDM. • Quality standards for DSDM have not been defined and are not currently in development. • As of October 2018, the majority of recipients of care were enrolled in three-month refills (85%) and a conventional model (9%).
Mozambique	• More than 75% of health facilities providing ART have enrolled ≥10% of eligible patients in a DSDM. • 25-49% of eligible patients have enrolled in a DSDM. • National quality standards for DSD programs are in development or have been defined, but no evaluations of quality using national standards have been completed. • As of April 2019, the majority of recipients of care were enrolled in the conventional model (34%) and three-month drug distribution (29%).
South Africa	• More than 75% of health facilities providing ART have enrolled ≥10% of eligible patients in a DSDM. • 50-75% of eligible patients have enrolled in a DSDM.

	• National quality standards for DSD programs are in development or have been defined, but no evaluations of quality using national standards have been completed. • As of October 2018, the majority of recipients of care were enrolled in community drug distribution (60%) and fast lane appointments (20%).
Tanzania	• National DSD implementation is planned but has not yet begun or insufficient information is available to estimate the proportion of facilities with ≥10% of eligible patients in a DSDM. • National DSD implementation is planned but has not yet begun or insufficient information is available to estimate the proportion of eligible patients enrolled in a DSDM. • National quality standards for DSD programs are in development or have been defined, but no evaluations of quality using national standards have been completed. • There are eight different models of DSD in Tanzania.
Uganda	• 50-75% of health facilities providing ART have enrolled ≥10% of eligible recipients of care in a DSDM. • 50-75% of eligible patients have enrolled in a DSDM. • At least one evaluation of DSD program quality has been conducted using the national quality standards, but the results do not indicate that standards have been met. • As of March 2019, the majority of recipients of care were enrolled in the fast-track model (40%) or the conventional model (38%).
Zambia	• 25-49% of health facilities providing ART have enrolled ≥10% of eligible patients in a DSDM. • 25-49% of eligible patients have enrolled in a DSDM. • Quality standards for DSDM have not been defined and are not currently in development. • As of October 2018, the majority of recipients of care were enrolled in the health post model (61%) and community adherence groups (18%).
Zimbabwe	• More than 75% of health facilities providing ART have enrolled ≥10% of eligible patients in a DSD model (DSDM) • 25-49% of eligible patients have enrolled in a DSDM • National quality standards for DSD programs are in development or have been defined, but no evaluations of quality using national standards have been completed • As of October 2018, the majority of recipients of care were enrolled in the conventional model (65%) and fast-track ART refills (20%)

Table 2: Description of Country Quality Standards, Challenges, and Lessons Learned

Country	Quality standards developed for DART?	Used to assess the quality of DART programs?	Top three challenges	Lessons learned from one another
Côte d'Ivoire	-No quality standards	-Program routine data	-Ensuring assessment of and support for adherence and retention is routinely provided to everyone in DART models -Providing information and education to recipients of care/ communities to improve demand for DART models -Ensuring that visits to health facility and/or meetings in community occur at the correct frequency and intervals (e.g., fidelity to visit schedules)	-We all do not have quality standards for DART -Fast-track model scale-up in Côte d'Ivoire -Community-based and facility-based DSDM have similar good treatment outcomes -Low coverage of recipients of care in community-based DSD models -Standard of care package for teen clubs -Community engagement is present at national level (e.g. technical working groups)
Eswatini	General, not model-specific, but working to develop model-specific standards	-DSD quality standards -Assessment tool for the DSD standard was developed - 4 assessments done in 3 facilities -Clients and health workers' satisfaction survey protocol finalized	-Access, coverage, and utilization of VL testing -Inconsistent and incorrect use of M&E tools -Integration of other services like family planning, non-communicable diseases, and TB screening	-Similar M&E challenges, where systems need improvement to respond to evolving DART needs -Need to ensure VL coverage, access, and utilization is right at the start -Need to have good standards for process, implementation, patient, and health care workers, and taking it by model and by subpopulation, which should translate to good clinical outcomes based on quality -Role of MOH is key to defining DART standards -Importance of standardizing definition of stable patient -Clinical quality *vs.* program quality standards needed to ensure good clinical outcomes -Quality package should meet or exceed standards, not meet minimum standards -Redefine DART eligibility criteria to develop/ improve standards to and monitor standardization and adherence of quality standards -Quality of services still dependent on who the provider is and the time the patient has to be in the facility tracking performance along these parameters
Zimbabwe	Standards for both the models and program	-Standards developed and yet to start the assessment using the standard -Standards Assessment tool		

Ethiopia	-Quality standards not defined in detail; -Implementing six-month multi-month prescription model only	-Patient satisfaction -Viral suppression -Retention	-Correct categorization -Education and demand creation -Consistent and correct use of DSD tools	Rapid scale up (75% between 2018-2019) enabled by: -Regular supportive supervision -Revision of guidelines to incorporate DSD training -Support from high-level government leadership with DSD Technical Working Group setup -Case managers giving health education to clients -Only patients newly initiating ART are receiving DTG -Good community engagement in changes (e.g., DTG)
Kenya	-Quality standards laid out in the DSD Guidelines and Operational manual, but fidelity needs to be strengthened -Doing well when it comes to stable *vs.* unstable but challenges with other models (e.g., new patients, key populations)	-Routine MOH reporting to capture viral suppression, retention in care (need a framework for different elements of care) -Retention/viral suppression; not using patient feedback; uptake data	-M&E tools and reporting: no national coverage data -Education and demand creation -Correct categorization -Implementation with fidelity-variations on operationalization, disconnect between "theoretical" DART models and "actual, operational" DART models -Integration of other (non-HIV) services to into community ART groups -Meeting the preferences of specific populations preferences (e.g., adolescents and key populations)	-Multiple models implemented driven by client preference -Community ART groups; nomadic communities: pastoralists, fisher folk -Need for structured and meaningful community engagement
Malawi	-No quality standards	-Program routine data and PHIA data	-Meaningfully engaging recipients of care/people living with HIV in DSD policy, planning, implementation, and/or evaluation -Providing adequate and updated information and education to recipients of care/communities to improve demand for differentiated ART models -Delivering high-quality HIV testing and linkage services	

Mozambique	-Quality standard indicators established, but need to include involvement of recipients of care -Need to assess process indicators for DSD models	-Viral load suppression -Retention in care -Uptake of services -Availability or diversity of DART -Prevention indicators (demand creation) -Eligibility for DART -TB screening in community (still lacking) -Client perspectives (special surveys)	-Demand for human resources (e.g., pharmacy personnel in fast-track models) -Non one-stop models may lack in quality (e.g., CAG vs SOC) -Standards not defined	-Involvement of recipients of care
South Africa	-Has identified list of priority quality standards to be implemented	-CARGS: Adherence to SOPs	-Meaningful engagement of recipients of care in policy and planning -Systematically providing TB screening -Keeping fast-track visit fast -Providing sufficient medication/ avoiding drug stockouts -Integration of services, including TB screening	-The automated drug deliveries -CCMDD (chronic condition, medicines, distribution and dispensing) is based on where drugs are packed

Tanzania	-Minimum quality standards for DSD	-Indicators have recently been revised -Developing supportive supervision tool	-Categorization of DSD eligibility -VL testing -Lack of model-specific standards -Knowledge of quality standards at the facility level	-Tanzania is interested in seeing Uganda's supportive supervision tool -Neither country routinely measures recipient of care satisfaction; Uganda has some *ad hoc* data collection at a few sites -The countries have different approaches to involving the recipient of care umbrella organizations
Uganda	-Minimum quality standards for DSD	-Routinely-collected data -*Ad hoc* data collection like data calls or supportive supervision (comprehensive DSD supportive supervision tool has two DSD indicators and DSD-specific tool has 25 indicators)	-Categorization of DSD eligibility -Demand creation (recipient of care information and evaluation) -Ensuring that M&E tools are used correctly and consistently -VL testing -Lack of model-specific standards	
Zambia	-Framework exists, but quality standards are in development -Need to assess process indicators for DSD models	-VL suppression -Retention in care -Uptake of services -Availability or diversity of DART -TB screening in community (still lacking) -Client perspectives (special surveys)	-Standards not defined hence hard to assess quality -Supply chain variations may affect implementation (e.g., MMS) -Data quality variable as of now to clearly assess quality.	-Monthly assessments of facility data in 127 priority health facilities -ePlatform in health facilities implementing DSD

Left: Dr. Michael Odo from the Malawi MOH shares experiences with Côte d'Ivoire. Right: Dr. Maureen Syowai from ICAP in Kenya facilitates knowledge-sharing between Kenya and Ethiopia.

Session 4: Panel Presentations
Measuring DSD Quality: How Do We Know If We're Delivering High-Quality DSD?

Dr. Vindi Singh from WHO and Dr. Annie Mwila from CDC Zambia moderated this panel focused on measuring DSD quality and how to know if we are delivering high-quality DSD. Panelists discussed country DSD QA tools, supportive supervision approaches, measuring and addressing stigma, ITPC community treatment monitoring, and the recipient of care perspective.

Panelists:

- **Dr. Hervé Kambale**, Differentiated Care Advisor, National AIDS Program, Eswatini
- **Dr. Josen Kiggundu**, National Technical Advisor for DSD, AIDS Control Program, MOH, Uganda
- **Ms. Stella Kentutsi**, Executive Director, National Forum of People Living with HIV/AIDS Networks, Uganda
- **Mr. Valentin Keipo**, Monitoring & Evaluation and Research Assistant, ITPC West Africa, Côte d'Ivoire
- **Mr. Tonderai Mwareka**, Program Officer, Zimbabwe National Network of People Living with HIV, Zimbabwe

Key Takeaways:

Eswatini's DSD QA Tool

- The most common DSD models in Eswatini are fast-track (71%); teen clubs (17%); and community adherence groups (6%).
- DSD quality standards were developed in 2019 because of poor enrollment in DSD and the absence of any standards in provision of DSD.
- It was a challenge to observe if quality was maintained both at facility and community levels; there was lack of uniformity of existing tools used to measure quality.
- Standards and tools were developed through a process that included appointing a Task Team to lead the process; presenting a draft to the DSD Care & Treatment sub-Technical Working Groups; piloting the draft tools at three health facilities; presenting the standards to the Swaziland Standards Authority (SWASA); and incorporating them into National HIV Service Standards.
- The QA tool is adapted from the PEPFAR Site Improvement Through Monitoring System tool and contains three core essential elements and six standards used to assess the availability of facility-specific DSD SOPs and systems.
- Next steps include rolling out to 23 health facilities, including all hospitals, health centers, and high-volume clinics.

Uganda: Supportive Supervision Approach

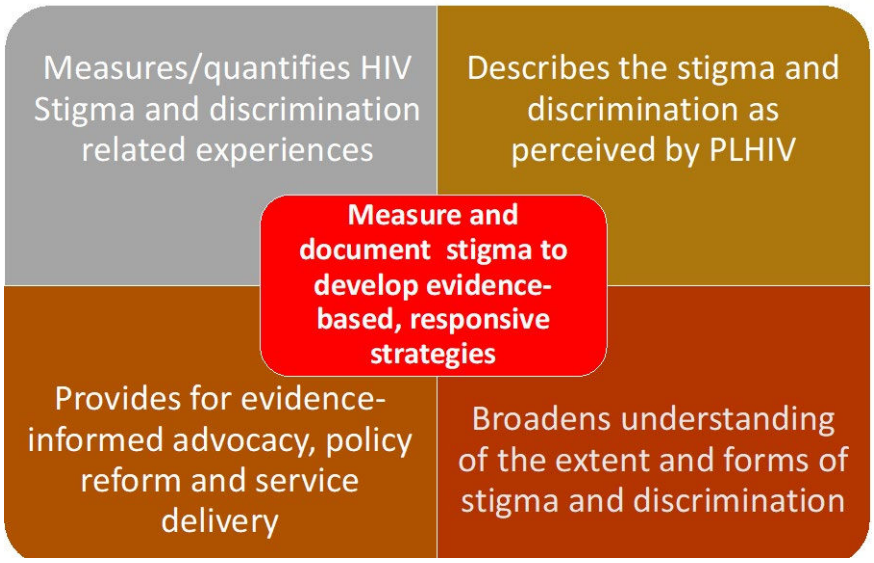
- Objectives included: 1) To assess level of adherence to the DSD implementation standards at the implementing partner, district, and health facilities levels; 2) To determine the extent to which TB services have been integrated into ART services in the context of DSD; 3) To explore client experiences and perspectives about DSDM; and 4) To document promising practices in DSD implementation.

- Methodology involved two preparatory meetings; implementation; visiting regions, implementing partners, districts, and health facilities; supervision; assessing implementing partner DSD standards; assessing district DSD standards; and assessing health facility DSD standards.
- Positive and negative feedback and recommendations were provided by recipients of care.
- Conclusions include:
    - Supportive supervision visits are critical in monitoring adherence to standards
    - Great progress has been made in the implementation of DSD in Uganda, but quality gaps exist at all levels (implementing partner, district, and health facility).
    - TB/HIV integration in the context of DSD needs to be strengthened.
    - Recipient of care engagement is critical for successful implementation of DSD.

Uganda: Measuring and Addressing Stigma

- Stigma is a social process that occurs in the context of power. It distinguishes and labels differences; associates negative attributes; separates "us" from "them"; and results in status loss and discrimination.
- It can be experienced, perceived, anticipated, and internalized and results in multiple negative impacts, including failure to seek medical attention/honor appointments.
- It can be measured with the people living with HIV Stigma Index/ Stigma Index 2.0

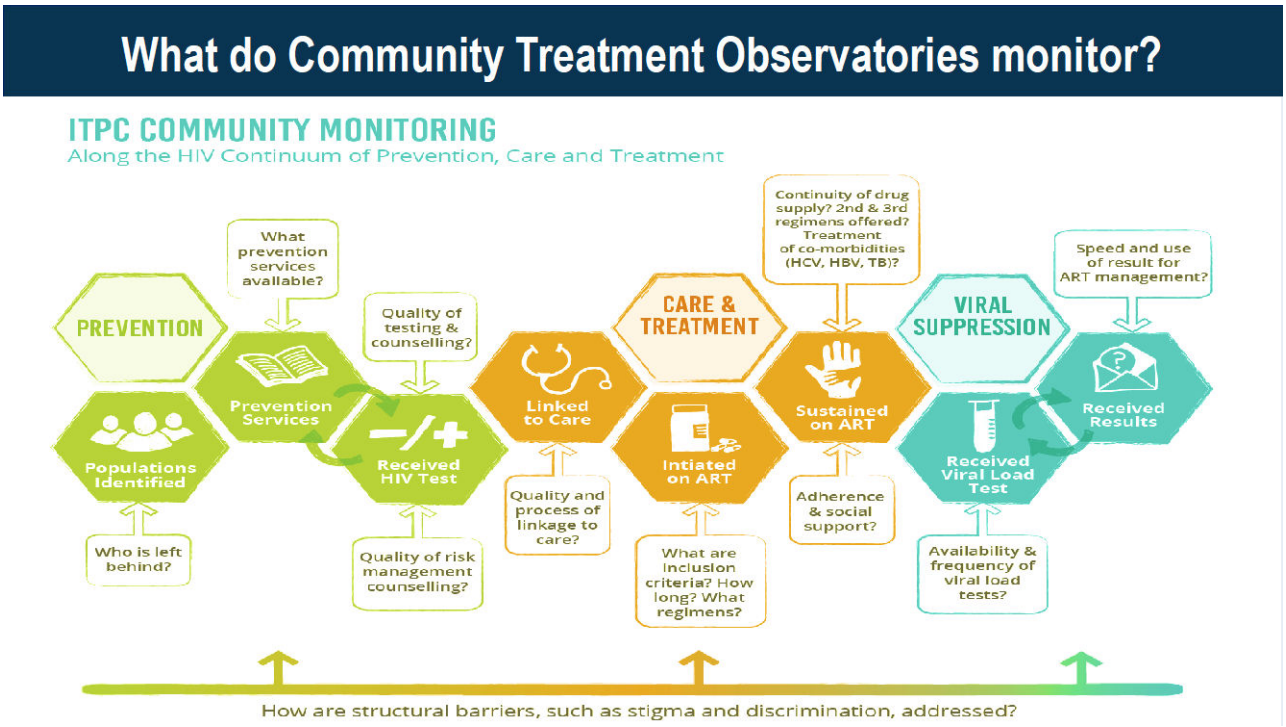
People Living with HIV Stigma Index



- Internalized stigma across CQUIN countries is different. For example, in Uganda, stigma is high; fear is associated with accessing services.
- Key populations often face double stigma from HIV and belonging to a key populations group.
- It is important to address stigma to achieve quality care.
- Can use the "protect, include, empower, and educate" framework.

ITPC Community Treatment Monitoring in West Africa

- A Community Treatment Observatory (CTO) is a community-led approach to systematically and routinely collecting and analyzing qualitative and quantitative data about HIV service quality that can operate at different levels.
- In HIV, CTOs monitor community-defined issues along the HIV cascade and have four key components: education, evidence, engagement, and advocacy.
- The ITPC CTO operates in 11 countries in West Africa.
- Key findings:
    - Interviews yielded qualitative data on acceptability and affordability
    - Revealed service quality challenges, such as side effects, distance to ART facility, expenses, ART stockouts, and unfriendly health workers
    - Revealed lack of information to recipients of care about VL (a major concern), long turnaround times for VL results, lack of VL availability, and expense



Zimbabwe: Recipient of Care Perspective

- How do you know you are delivering high-quality DSD?
- Who defines quality?
- How to bring in the recipient of care point of view when approaching QI strategies/ determining goals; community engagement?
- Service providers should be evaluated/provided feedback by recipient of care; client satisfaction surveys.
- Stigma is a major barrier because it impacts uptake of services and outcomes: The stigma index is an important tool because stigma needs to be assessed and tracked.

- Community development model happens in different countries (South Africa, Malawi, Zimbabwe) in addition to West Africa.
- Quality services comes from teamwork, including recipients of care.

Top: Mr. Valentin Keipo answers a question from the audience on ITPC's experience in treatment monitoring in West Africa.
Bottom: Dr. Vindi Singh from WHO moderates the Q&A session.

Tuesday, 25 June

View the Presentations

Session 5: Keynote Address – Using QI to Enhance HIV Services
Mr. Ivan Teri
Global Quality Lead, Elizabeth Glaser Pediatric AIDS Foundation

Mr. Ivan Teri opened his presentation by arguing that only a quality-focused approach using QI methods will enable effective DSD implementation. He cited his preferred definition of QI:

QI is a specific methodology designed to enhance performance to meet or exceed agreed-upon standards. QI also is part of a routine process, generally applied by health facility teams within a national QI program, designed to test data-driven changes in program services and measure the effects of those changes to improve clinical performance and health outcomes over time. (WHO Quality Brief 2019)

Mr. Teri noted that, over the past 15 years, QI has increasingly been used in sub-Saharan HIV programs. He described key QI principles, including patient-centered care; fostering teamwork and collaboration; managing and using data; improving a system, and institutionalizing processes. Mr. Teri defined fidelity as "the degree of exactness with which something is copied or reproduced," and emphasized its importance to the successful scale-up of DSD programs.

Mr. Teri discussed common QI tools and asked the audience to consider how well are they used and adapted to improve performance. He provided evidence-based examples of how QI has been used to improve the quality of DSD. Mr. Teri closed with key points on how QI can be harnessed for DSD in terms of leadership, culture, governance, analytics, evidence and best practices, adoption, resources, and fidelity.

Session 6: Panel Discussion
Quality Improvement Case Studies

Dr. Anne Marie Dem Niacadie from the Côte d'Ivoire MOH and Dr. Bactrin Killingo from ITPC in Kenya moderated a panel discussion that explored different case studies in QI.

Panelists:

- **Ms. Maureen Inimah**, Focal Person for Program Quality and Efficiency for Differentiated Care, NASCOP, MOH Kenya
- **Dr. Marissa Courey**, Chief of the Health Systems Strengthening, CDC-South Africa
- **Ms. Aysha Ismail**, Subdistrict Pharmacist Tygerberg Subdistrict, Cape Town, South Africa
- **Dr. Nancy Zyongwe**, Senior Advisor for QI, MOH, Zambia

- **Dr. Ddamulira John Bosco Mayanja,** Lecturer with the Department of Disease Control and Environmental Health, Makerere University School of Public Health, Uganda
- **Dr. Michael Odo**, Technical Advisor for HIV Care and Treatment in the Department of HIV/AIDS, MOH, Malawi
- **Dr. Berhanu Tekle**, Senior QI Advisor for ICAP in Ethiopia

Key Takeaways:

Improving the Fidelity of DSD models in Kenya

- DSD was first introduced into Kenyan guidelines in 2016 and a toolkit was introduced in 2017 to facilitate implementation.
- There were persistent gaps in indicators and measurement, and structured continuous improvement within DART was limited.
- A program quality and efficiency initiative in DART implementation was introduced in 2017, with support from a technical support unit established within NASCOP to produce evidence that DART can lead to efficiencies when implemented in a QI environment.
- The initiative compared outcomes in counties with DSD delivered in the usual way *vs.* counties in which DSD was delivered with support from QI methods.
- The national program is currently collating findings from 70 sites to be presented at a later date.
- Key lessons include: DSD implementation + QI has strengthened the entire health system in the facilities; continuous mentorship of service providers and treatment literacy for people living with HIV of different DSD models is critical; and reluctance by some people living with HIV to join DSD models is due to stigma (especially in group models) and/or fear of detachment from the health system (especially in visit-spacing models).

Using an Electronic Information System to Improve the Central Chronic Medicine Dispensing & Distribution (CCMDD) Model in South Africa: Synchronized National Communication in Health (SyNCH)

- In South Africa, approximately 1.3 million people receive medicines through CCMDD, a program that was implemented to improve access to essential chronic medicines in the public health sector.
- Through CCMDD, publicly funded and procured chronic medicines are packaged by external service providers and delivered/dispensed to recipients of care (typically on a six-month cycle) at either an external community-based pick up point (e.g., pharmacy, library, etc.) or an internal pick up point (e.g., fast lane appointment at a health facility).
- CCMDD is paper-based and therefore subject to process inefficiencies. SyNCH automates the CCMDD process from prescription transmission to CCMDD pharmacy service providers (dispensing and distribution), to collection of patient medicine parcels at external pick-up points.
- SyNCH is a web-based system designed to improve process flows and transparency, monitor medicine collection status, and promote rational prescribing of essential medicines.

Improving the Quality of Adherence Clubs in Cape Town – the Club Audit and Club Champions Group

- Facility-based adherence clubs meet every second month; open to adults that meet stability criteria; and involve 25–30 people coming to clinic for a group appointment in which they are weighed and screened for TB and receive pre-packaged medications.
- In December 2018, there were 64 ART facilities in Cape Town with 38 clubs.
- An audit tool was used to evaluate performance and plan for the future. It includes four sections: clinic systems, paper register, data-capturing, and folder review.
- It resulted in auditors who were not familiar with the club program becoming aware of its requirements and having a tool to assess it; results from audits have provided measurable outcomes of gaps in club care systems.
- Club champions (steering committee) were established to close gaps in club-care identified through audits.
- From the first club champion meeting, "joy" in the workplace and leadership principles were included on the agenda; the concept of joy assisted with team-building.

Building a QI-for-DSD Learning Network in Zambia

- Approved DSD models in Zambia include various facility and community-managed models with different combinations being implemented in different partner-supported regions.
- The MOH has shown political will and strong leadership for DSD. With the support of PEFPAR and ICAP, they formed a DSD learning network with the MOH and all DSD implementing partners to drive the DSD agenda.
- The learning network was established based on the need for a platform for partners to network, learn from each other, and share lessons; the drive by all implementers to improve quality of DSD services; and the need to incorporate quality perspectives of recipients of care.
- ICAP supported the MOH to identify and engage 14 DSD implementing partners to share and discuss the various DSD models that were being employed in the Zambian health system and how QI methods could be used to improve the services provided.
- Meeting outcomes included creation of a DSD Taskforce; consensus on strategies to improve quality in DSD; identifying challenges in DSD implementation; and consensus on how MOH and implementing partners can work together.
- The learning network is a good innovation that will foster more collaboration among partners and provide a platform for learning and recipients of care input and feedback on services.

Using QI Methods to Maximize DSD Impact and Efficiencies in Uganda

- The Uganda MOH recommended DSD implementation in the 2017 national guidelines.
- A study was conducted to assess the current state of DSD implementation; apply QI to address quality gaps; and document best practices, treatment outcomes, and cost.
- Study involved two phases: 1) Phase 1: Understand DSDM implementation process and quality gaps; and 2) Phase 2: QI application, best practices, and cost.
- Phase 1 key preliminary results: high level of mis-categorization of recipients of care; unstable recipients of care receiving multi-month drug refill; sub-optimal VL testing coverage; sub-optimal VL suppression; and sub-optimal efficiency – waiting time and recipient of care satisfaction

- Next steps include: enhanced QI activities, with a focus on eight facilities; follow-up for 12 months; measure effect, quality of services, treatment outcomes, and cost; and document best practices

Optimizing VL Utilization in Malawi: Lessons from the Balaka VL Quality Improvement Initiative

- Malawi's HIV treatment guidelines specify routine VL testing (RVLT) to assess clients on ART and intensive adherence counselling (IAC) followed by retesting for those with unsuppressed VL results.
- In four high-volume sites, **61 percent** of ART clients had their RVLT done and **78 percent** of those with unsuppressed VL were being routinely enrolled in IAC.
- A QI project was launched to improve RVLT for eligible ART clients (from 61%–90%) and increase IAC enrollment for clients with unsuppressed VL (from 78%–95%) in four high-volume ART sites in Balaka district.
- Multi-faceted QI process implemented
- Effective change ideas for increasing VL testing demand: 1) flagging the patient cards to signal a pending VL test; 2) patient empowerment—develop specific VL messages for routine patient education at ART clinic; and 3) improving turnaround time.
- Effective change ideas for improving results utilization: 1) enforce appointment of VL focal persons at every ART site; 2) facility-level data reviews; 3) flagging high VL results on patient cards; 4) clear division of labor at site (especially documentation in VL registers); 5) use of expert client to track clients with high VL result; 6) Prompt patient tracking system for clients with unsuppressed VL.

Scaling up VL Coverage in Ethiopia: A Quality Improvement Collaborative

- Despite the availability of a national strategic plan, coverage of RVLT in Ethiopia was suboptimal, with fewer than 50 percent of eligible patients receiving RVLT at many health facilities.
- A QI collaborative was launched, with the following aim statement: each site will aim to increase the proportion of clients on ART for more than six months who receive routine VL testing from baseline to 90 percent over the next 12 months. The QI collaborative also aimed to decrease sample turnaround time and decrease sample rejection.
- Major achievements included an increase in RVLT coverage from a baseline median of 25 percent to 84 percent at the end of 19 months; improvement in specimen turnaround time; sample rejection negligible; service interruption negligible; client demand for RVLT improved; staff capability and motivation improved; and communication improved.
- Lessons learned include: 1) it is possible to implement a QI collaborative in a busy health service environment; a QIC requires proper planning, close follow-up, and timely interventions; the QIC is an effective learning forum; simplification is the way to success; QIC work, when effective, motivates staff to engage in other QI work; and documentation and holding meetings are challenges

Left: Dr. Nancy Zyongwe from ICAP/MOH Zambia presents on QI for DSD in Zambia.
Right: Dr. Irenio Gaspar from MoH Mozambique addresses the panel with a question.

Session 7: Tools Lab

In the Tools Lab, participants viewed demonstrations of tools used in different contexts to help improve and accelerate delivery of high-quality DSD at scale (see Table 3). Through this session, participants had a hands-on opportunity to explore new technologies, services, innovative products, and progress in technology.

Above: Ivan Teri demonstrates the EGPAF QI and DSD monitoring tool to team Kenya.

Table 3: Description of Tools Presented in Tools Lab

Title of Tool Presented	Organization that Developed Tool	Presenters
1. Service Quality Assessment Tool	ICAP/Zambia MOH	Dr. Nancy Zyongwe
2. Electronic Medical Records for DSD	Monitoring and Evaluation Technical assistance (METS) program, School of public Health, Makerere University	Dr. Edgar Kansiime
3. Quality Improvement Club Tools	City of Cape Town, Department of Health	Dr. Aysha Ismail
4. Appointment and Tracking Registers	Tanzania National AIDS Control Program	Mr. Dennis Mzaga
5. Eswatini's DSD Quality Assessment Tool	DSD Sub-Technical Working Group, MOH, Eswatini	Dr. Herve Kambale
6. QI and DSD monitoring using Microsoft PowerBi	Elizabeth Glaser Pediatric AIDS Foundation Quality and Informatics Unit	Mr. Ivan Teri
7. Pediatric HIV DSD Assessment Tool	Clinton Health Access Initiative, Zambia	Ms. Memory Samboko & Mr. Felton Mpasela
8. Electronic Checklist (QA Tool for DSD) Installed on Tablet Using ODK Platform	MOH, through the National Committee for QI with the support of the National Technical Groups for QI and Care and Treatment, Mozambique	Dr. Hélder Macul
9. DSD Quality Standards	CQUIN member countries	Mr. Martin Msukwa & Ms. Redempta Mutei

Lunch Session: Redefining DSD and How to Measure Coverage - Root Cause Analysis of Priority Quality Challenges

Dr. Peter Ehrenkranz

Senior Program Officer for HIV Treatment at the Bill & Melinda Gates Foundation

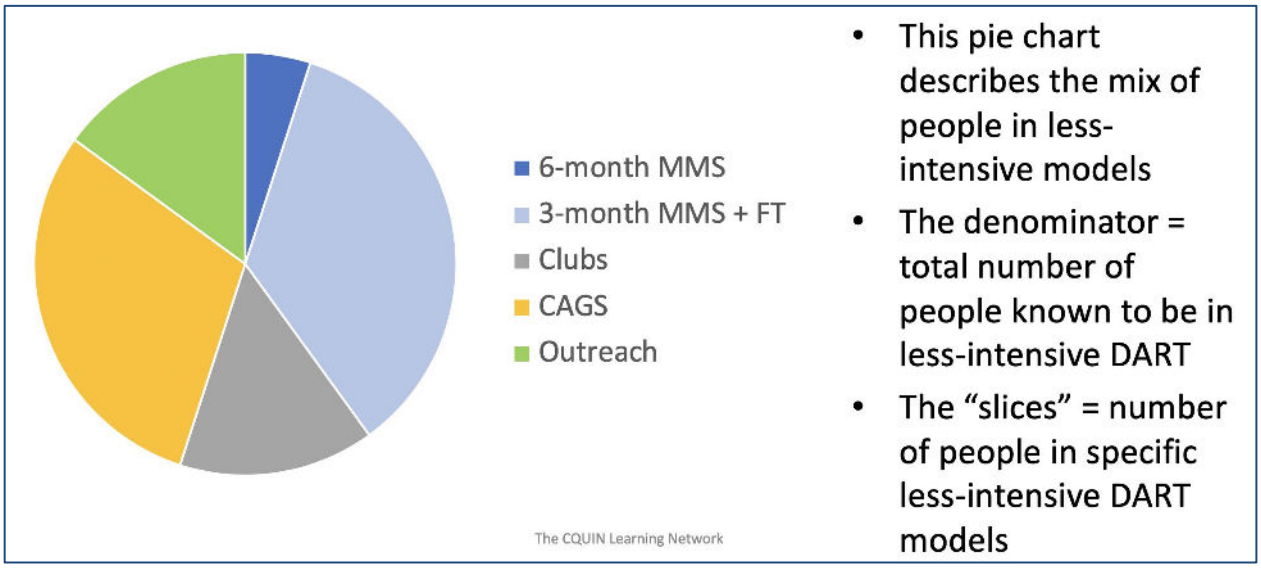
Dr. Peter Ehrenkranz from the Bill & Melinda Gates Foundation led a lunch discussion on defining DSD and DSD coverage (see his presentation here).

In the discussion, he noted several critical points.

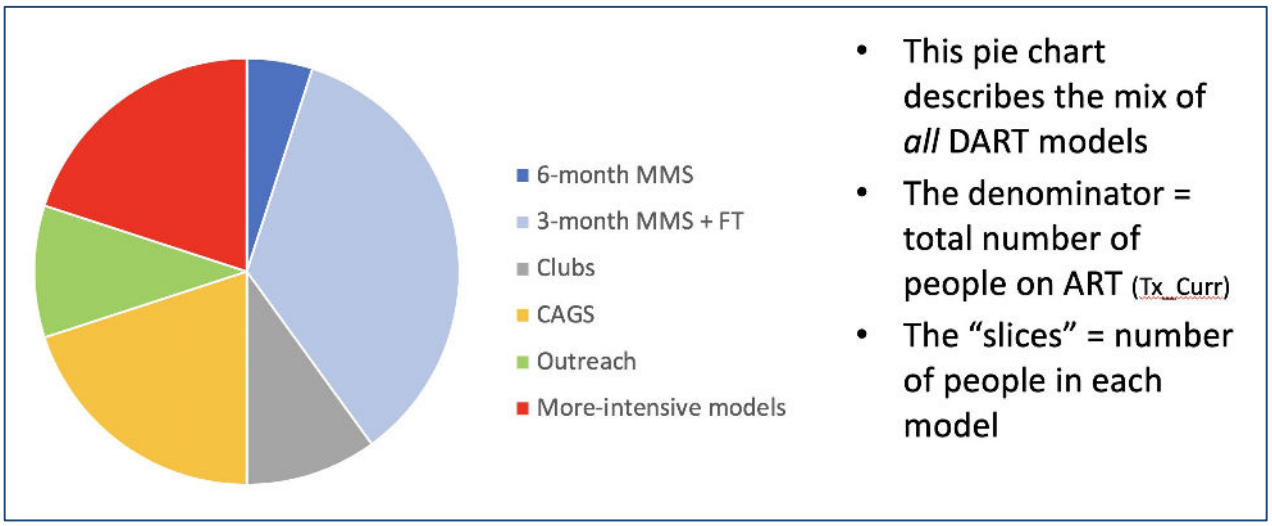
1. For the purposes of cross-country comparisons, it is critical that CQUIN member countries use the same definitions of "DSD" and "DSD models."
2. Remembering that DART includes models for people who are just initiating ART, people who are stable and doing well on ART, and people who are ill or not virally suppressed, it is helpful to think about *more-intensive* and *less-intensive* DART models.
3. People in more-intensive models include:
    - Those newly initiating ART
    - Those who have indications for close monitoring (illness, comorbidities, active opportunistic infections, unsuppressed VL, psychosocial challenges, non-adherence, etc.)
    - Those who are eligible for less-intensive models but have not yet been screened/ evaluated/transitioned

4. People in less-intensive models include:
    - Those who are eligible for and have transitioned to less-intensive models
    - Those who are *not* eligible but have mistakenly been transitioned to less-intensive models

In past years, CQUIN member countries have used a pie chart to describe their less-intensive "model mix." The denominator used for these pie charts is all recipients of care known to be in less-intensive models:



However, by including all patients on ART in the pie chart, we can see how many people are in more-intensive DART models. This may be a more useful way to describe DSD scale-up.



Dr. Ehrenkranz also highlighted a model that different countries are describing differently: three-month MMS. Following discussion and debate, meeting participants agreed that three-month MMS *is* a less-intensive differentiated ART model.

Session 8: Breakout Session
Root Cause Analysis of Priority Quality Challenges

Participants joined one of five groups to think about and discuss common DSD-related quality challenges, explore their root causes, and consider possible interventions. Larger groups were divided into smaller groups of six to eight people and developed fishbone diagrams with assistance from facilitators.

The broader group then discussed the fishbone diagrams, areas of agreement and disagreement, and possible interventions using the following questions as a guide:

- What were the leading root causes that you identified?
- Did everyone agree on the root causes?
- What were the priority interventions (change ideas) that you identified?
- What are barriers to implementing these change ideas? (Why haven't we already piloted/implemented these interventions?)

Dr. Cordelia Katureebe from the Uganda MOH and Dr. Miriam Rabkin from ICAP co-moderated the session.

Results of report-back:

Challenge 1: Misclassification of clients as eligible/ineligible for DART

Leading Root Causes	Priority Site-level Interventions
Knowledge gaps among health care workers	Reinforcement of facility-level continuing medication education (CME), on-job training and continuous mentorship, provision and reinforcement of job aids
Limited financial and human resources	Close attention to scheduling, shifts and workflow; most other interventions will be at above-site level
Tools that are unavailable and/or don't contain DSD elements	Joint review of HMIS tools between M&E and other MOH departments
Low VL coverage/long turnaround time for results	QI projects that include laboratory staff
Inadequate clinical review/assessment	Reinforce facility-level CME, on-job training and continuous mentorship; provision and reinforcement of job aids; improve lab/pharmacy systems to deliver and document data at right time
Suboptimal health literacy among recipients of care	Structured health education, psychosocial support groups, local media platforms

Challenge #2: Lack of adequate and updated information and education (IEC) for recipients of care

Leading Root Causes	Priority Interventions
• Lack of a standard system/procedure for provision of IEC and behavior change communication • High stigma levels • Lack of standard communication strategy	• Development of formal human resources system with SOPS for task-shifting and performance management systems • Simplify and standardize messages • Enhance community-based testing

Challenge #3: Recipients of care in DART models experience unmet family planning needs and poor management of non-communicable disease

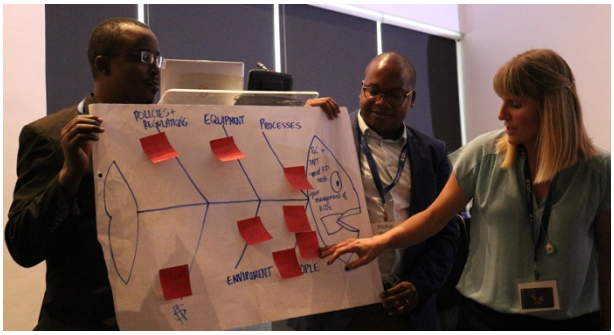
Leading Root Causes	Priority Interventions
Religion	Engage religious leaders in family planning discussions; offer a range of providers so patients can go elsewhere; referring patients to a network of facilities that provide the services; provide information to patients
Donor priorities do not agree with local priorities	Convene relevant stakeholders in country to determine if there is potential to find areas to negotiate with donors; conduct national-level advocacy with the donors and local government to support family planning/non-communicable diseases
Lack of curriculum	Develop a curriculum
Lack of family planning because of myths and traditions	Lack of family planning because of myths and traditions: Target traditional leaders with health education to demystify myths
Perceived potential barriers to implementing "change ideas"	• Loss to follow-up can occur when referring patients to a network of facilities that provide the services and this approach is not client-centered • There is a risk that in-country stakeholders may not reach consensus when convened • Lack of resources for curriculum development processes • Failure to win buy-in from the traditional leaders.

Challenge #4: Inconsistent and incorrect use of specific DSD M&E tools

Leading Root Causes	Priority Interventions
Leading Root Causes	• Too many indicators on DSD and models • Misinterpretation of indicators • Lack of skills and training • Patient overload • Multiple roles for staff • Inadequate M&E tools specific for DSD • Lack of planned supervision • Inadequate SOPs on DSD data collection • Priority not given DSD • Lack of utilization of DSD data at the facility level
Too many indicators on DSD and models	• Integrating DSD indicators into the Electronic Medical Record (EMR) system
Lack of skills and training	• Training, mentorship, and coaching
Multiple roles for staff	• Orientation prior to rotation
Inadequate M&E tools specific for DSD	• Use of EMR
Lack of utilization of DSD data at the facility level	• Regular data review and feedback to the health facility staff

Challenge #5: Lack of routine VL testing offered to recipients of care enrolled in DART

Leading Root Causes	Priority Interventions
Equipment-related: downtime, stockout of re-agents, electricity supply issues, centralized testing, specialized operation	• Back-up power supply • Service contract for equipment
Process-related: lack of SOPs for identifying eligible clients, poor documentation, and suboptimal appointment systems	• Develop SOPs • Update electronic tracking systems • Synchronize patient visit • Simplify supply chain procedures
Provider-related: limited staff compliments, inadequate skills, absenteeism, and work overload	• Training • Task shifting • Mentorship
Recipients of care-related: treatment illiteracy, missed appointments, financial challenges, migratory groups/cultural issues	• Develop literacy Material • Outreach Models • Develop peer-based models
Environment-related: difficult geography/poor road network, armed conflict, and lack of political will or sensitization of policy makers	• Introduce outreach services



Participants from Côte d'Ivoire and Malawi working through the Fishbone Diagram for QI.

Session 9: Keynote Address- Recipient of Care Perspective
Lawrence Khonyongwa
Executive Director, Malawi Network of People Living with HIV

Mr. Lawrence Khonyongwa opened by emphasizing that his presentation was on behalf of recipients of care, and highlighted their critical role in the overall delivery of HIV services through assurance of supply and demand of high-quality contextually appropriate services. Next, he described the CQUIN *Recipient of Care Engagement* Community of Practice, which aims to contribute to the scale-up of high-quality DSD programs through exchanging best practices; identifying opportunities to co-create resources; fostering demand for DSD services at the community-level; and working to strengthen networks of peers to promote ongoing cross-country learning.

Mr. Khonyongwa described the expected results of the community of practice, of which all CQUIN countries are members, and defined the principles of community engagement. He described four different categories of roles for recipients of care, including in policy, program design, program delivery, and M&E. Mr. Khonyongwa described key bottlenecks to achieving full participation by recipients of care, including dwindling resources to national networks of recipients of care and community level structures, and donors and international NGOs that bypass national networks and work directly with the communities without involving recipients of care. He also discussed opportunities to engage recipients of care, such as engaging them in community-level interventions to ease the burden on health workers, and how investment in recipients of care can support implementation of universal health care initiatives.

Mr. Khonyongwa shared a vision of quality service delivery that includes recipient of care participation at all stages (policy, design, and M&E); one-stop service centers; less time spent accessing and receiving care; appropriate, timely, and standardized feedback mechanisms; reduced pill burden (e.g,. DTG and 3HP); health care worker professional practice; recipient of care satisfaction as measured by recipients of care and service provider-prescribed parameters; attributes of quality integration with HIV/TB/non-communicable diseases/family planning; quality of health facilities, including sanitation; human rights-based approaches to address quality of DSD (ethics, privacy, confidentiality, non-discrimination); and respect for the views of recipients of care.

Mr. Khonyongwa also discussed that recipients of care need innovative DSD models for specific key populations and sub-groups such as prisoners, children, and refugees. He provided recommendations that included the need to invest in recipients of care that are delivering services to communities; provide support in collaboration with national networks of recipients of care; provide funding for training programs; increase the range of innovative DSD models in which recipients of care are fully involved in model development; standardize payment of incentives; and set up appropriate, timely,

and standardized feedback mechanism managed by recipients of care networks in collaboration with service providers (e.g., toll-free lines or platforms).

Mr. Khonyongwa closed his presentation by emphasizing that achieving quality standards in DSD requires the meaningful participation of recipients of care at all stages.

Session 10: Breakout Session
Achieving Quality for Specific DART Models

Dr. Mastidia Rutaihwa from the Tanzania MOH and Dr. Mohamud Mohamed from NASCOP in Kenya co-moderated this session in which participants joined one of four groups to discuss achieving quality for specific DART models. The models explored included: facility-based individual models (co-facilitated by Dr. Samson Haumba from University Research Co. LLC Eswatini and Peter Ehrenkranz from the Bill & Melinda Gates Foundation); facility-based group models (clubs) (co-facilitated by Dr. Anna Grimsrud from IAS and Dr. Maureen Syowai from ICAP); community-based individual models (co-facilitated by Dr. Baker Bakashaba from The AIDS Support Organisation (TASO) in Uganda and Ms. Fatima Tsiouris from ICAP), and community-based group models (co-facilitated by Dr. Marcelo Freitas from ICAP in Mozambique and Dr. Greet Vandebriel from ICAP in Côte d'Ivoire).

Each group discussed the following questions:

- Is everyone familiar with this DSD model? If not, could someone volunteer to explain it and give an example?
- Are there quality standards for this model? If so, what are they?
- Thinking about the earlier discussions during the meeting, what are the quality challenges most relevant to this model?
- What should be done to address these quality challenges? What are best practices? New ideas?
- Are we missing information? Do we need better QA and/or M&E? Implementation research?
- What should the next steps be to optimize the quality and fidelity of this model at scale?

Each group reported back on the following questions to the broader group:
Thinking about "your" differentiated ART model:

- What are the priority quality challenges?
- What are the priority interventions to address these challenges?
- Is there a priority research agenda related to this issue? If yes, what are the key questions?

Results of report-back:

Facility-based individual models (focused on less intensive models: fast track, refill visit, and multi-month prescribing)

Priority quality challenges	• Ensuring efficiency and keeping "fast-track" fast • Ensuring a balance between efficiency and comprehensiveness • Ensuring adequate information and education for recipients of care • Ensuring that people who come to the health facility less frequently receive "wrap-around" counseling and support services in the community (and that providers have information from both health facilities and communities)
Priority interventions	• Need to systematically re-assess people and "re-differentiate" them into a different model if needed (including attentiveness to incident pregnancy) • Improving facility environment and supplies—infrastructure, cleanliness, infection prevention and control, etc. • MMS models may have more challenges with drug stockouts. Need to ensure consistent supply, adequate storage, appropriate dispensing, etc. • Ensuring equity: are we "discriminating" against people who are not in DSDM by prioritizing people in fast-track in queues, etc.?
Priority Research agenda	None discussed

Facility-based group models (clubs)

Priority quality challenges	• It is time-consuming • Recipients of care arriving at different times • Reduced confidentiality ~ stigmatizing • Some individuals are not social and can't be part of the group • Some don't adhere to their routine clinical visits but appear in group sessions • Group operating procedures (how do you join the group) • Meeting space for the group • M&E for group activities • South Africa uses a club register to monitor group activities. • Missed health events due to limited screening during group visits
Priority interventions	• Clear SOPs on how to set up/manage a group include choice • Routine recipients of care engagement to generate feedback about the intervention • Continued treatment literacy for both patient and health care workers • Continued engagement of staff on quality of group care • Preparatory checklist (what is the topic, how many are expected, what were the previous challenges)
Priority Research agenda	• Does the facility-based group reduce patient waiting time? • Are recipients of care satisfied with the services provide through this model? • Evidence based frequency of non-communicable disease screening within the model • Cost effectiveness of the facility-based groups to the recipients of care

Community-based individual models (e.g., PODI, outreach, CCMDD)

Priority quality challenges	• Tools for registration and reporting (M&E) • Information giving (psychosocial support) • Stigma • Expensive (mobile brigades monthly/quarterly) • Sustainability • Quality standards (not set) • Proper categorization • Flexibility of refills • VL monitoring • Definition of threshold distance from facility • Ensure drugs are received by the client • Inclusion of adolescents
Priority interventions	• Development of SOPs • Minimum requirements • Minimum package • Criteria of inclusion in the model • Quality standards • Mechanisms • Adapting M&E tools • Supervision and mentorship • Stigma intervention: peer-to-peer support, integrating other services (savings and loans groups) • Integration of family approach
Priority Research agenda	• Feasibility of clinical assessment once a year • Cost-benefit analysis • Possibility of inclusion of adolescent and children

Community-based group models (e.g., CAGs)

Priority quality challenges	• Integration of services like non-communicable diseases, TB screening, family planning, TB prophylaxis • Scheduling for VL testing • Stigma and discrimination at community level (confidentiality issues) • Transitioning to TLD can be delayed • Support and care provided by a peer at community • TB screening • Educating other clients • How to measure adherence in community settings • Limited M&E system to collect data at community level
Priority interventions	• Standardize educational materials • Minimum services package for integration • Supervision and mentoring for group leaders and recipients of care • Modify, implement, and expand M&E systems to collect community-level data • Utilization of existing groups for community ART group models
Priority Research agenda	• Client satisfaction • Integration of other health services • Outcomes comparing those in community groups *vs.* individual facility models or other models, including conventional care (i.e., opportunistic infections, retention, adherence, and viral suppression) • Health care experiences in implementation of community-based groups

Community-based adherence groups

Priority quality challenges	• Lack of policy support for CAG implementation • No quality standards have been identified (Côte d'Ivoire, Tanzania, Malawi, Eswatini, Uganda) • Insufficient training and capacity strengthening of group members • Weak consent to participate in groups and sharing HIV status among group members, groups dissolve quickly • Disclosure to non-group members through meeting in public places • Sometimes delay in clinical follow-up in case of high VL, positive TB screen, etc.
Priority interventions	• Continue dialogue at national level for policy approval for CAGs • Identify detailed quality standards for the CAG model • Develop training support tools for CAG members • Use the existing support group model to initiate the CAG • Strengthen information on disclosure and privacy protection/ confidentiality for group members • Enhance supervision to the groups from the facility (ensure strong link between facility and groups)
Priority Research agenda	• Retention rate and VL suppression rate among CAG members • Factors contributing to quality of group support beyond ART distribution (psycho-social support, income generating activities, etc.)

Bottom Right: Dr. Baker Bakashaba, Manager, Medical Services at the AIDS Support Organization (TASO) facilitates a group discussing facility based individual models.

Session 11: Breakout Session
Individual Country Team Strategies

Participants divided into country teams to reflect on the meeting and to develop individual country action plans to strengthen the quality of DSD implementation in their respective countries.

In teams, countries were asked to discuss the following questions about their context:

1. What is your current thinking about DSD-specific quality standards? Are there any gaps or needs in this domain?
2. What is your current thinking about DSD-specific QA (measurement)? Do you have all the tools you need?
3. What are your current plans with regards to QI for DSD? Will you be launching any new QI projects in the coming year?
4. Reflecting on our discussions about defining DSD and which denominators to use when discussing model mix, will this have any impact on your country's DSD nomenclature?
5. Is your country interested in continuing the "DSD definitions" discussion, for example, via virtual discussions?

Next, country teams were asked to complete five slides to present in five minutes addressing the following points:

- Slide 1: List three important lessons learned in this meeting
- Slide 2: Describe any planned (or tentative) changes in DSD nomenclature and/or calculation of DSD coverage
- Slide 3: In the next 12 months, what are your action steps with regards to quality standards?
- Slide 4: In the next 12 months, what are your action steps with regards to QA?
- Slide 5: In the next 12 months, what are your action steps with regards to QI?

Dr. Peter Preko and Ms. Siphiwe Shongwe, both from ICAP in Eswatini co-moderated the report-back session.

Participants at the June 2018 CQUIN Workshop in Nairobi, Kenya.

Lunch Session: The Evidence for Contraceptive Options and HIV Outcomes (ECHO) Trial Primary Results
Ms. Fatima Tsouris
Deputy Director of the Clinical and Training Unit at ICAP
Ms. Siobhan Malone
Senior Program Officer on the HIV Team at the Bill & Melinda Gates Foundation

Ms. Fatima Tsiouris from ICAP and Ms. Siobhan Malone from the Bill & Melinda Gates Foundation led a lunch discussion to describe the ECHO Trial primary results. They described prior evidence, the most recent WHO guidance, the rationale for the trial and its objectives, the methodology, and results. Slides from their presentation can be found here.

Session 12: Closing Remarks and Way Forward

Dr. Miriam Rabkin
Director for Health System Strategies, ICAP

Dr. Miriam Rabkin began her closing remarks by reiterating that the right to health is meaningless without quality because without quality, health systems cannot improve health. Next, she reflected on words from the week that had been echoing, connecting, and coming back each day. Dr. Rabkin mentioned "standards," understanding collectively what the community—including recipients of care—mean by "good quality care" and good "quality DSD." She noted the phrase that Dr. Charles Holmes used: "quality blind spots" and highlighted recurrent themes such as "person-centered care" and "meaningful engagement of recipients of care."

Dr. Rabkin reflected on the impact of stigma and discrimination and how similar challenges come up as we change where, when, who, and how we deliver health services. She noted that when thinking about QI, there is agreement that it serves as one potential solution to a systems challenge. Dr. Rabkin emphasized the importance of acknowledging the tension between person-centered care and a public health approach and considering how to practically deliver services at scale. She asked the audience to reflect on the question, "how can we be aspirational and practical at the same time?"

In closing, Dr. Rabkin reflected on all of the meetings that CQUIN has convened since its inception. She highlighted that CQUIN is a deep network that touches people in so many ways (through webinars, south-to-south learning, etc.). She also described next steps, including:

- Sessions at upcoming international conferences:
  - IAS 2019 Satellite session on DSD for people with advanced HIV
  - IAS 2019 Satellite on DSD and HIV and TB
  - ICASA 2019 Satellite on DSD for people with advanced HIV
- CQUIN's 3rd Annual Meeting, which will be in November 2019 in Johannesburg, South Africa
- Workshop report
- Further work on tools (generic standards tool for country adaptation and sub-national version of CQIUN dashboard)
- Revisit of nomenclature table to more feasibly compare across countries

Closing remarks were also provided by Mr. Mathew Kawogo from the National Council of People Living with HIV/AIDS in Tanzania; Dr. Bactrin Killingo from ITPC in Kenya; Dr. Kenneth Masamaro from CDC Kenya; Dr. Peter Ehrenkranz from the Bill & Melinda Gates Foundation; and Dr. Barbara Mambo from NASCOP in Kenya.

Participants

Alemtsehay Abebe Wolde Micheal is a Senior HIV Program Officer at Ethiopia Federal Ministry of Health (FMoH). She is a nurse with an MPH and has over fourteen years of experience in HIV/AIDS programs. She is currently the HIV Care & Treatment Focal for differentiated service delivery (DSD) and provides technical and managerial oversight to program activities at the national, regional, and site-levels. Mrs. Abebe is an active member of the Ethiopia Public Health Association. Contact: abalem71@gmail.com

Steve Akoth is a Quality Improvement Data Officer at ICAP in Kenya. He develops indicators and collects and analyses data on adolescents and young people QI (QI) collaborative in Lower Eastern Kenya. Mr. Akoth also provides mentorship to health facility (HF) staff on QI. Previously, in the same capacity he participated in a successful collaborative on adult viral load test result utilization. Mr. Akoth is a mathematics graduate of the University of Nairobi. Contact: sakoth@icapkenya.org

Rukia Aksam is a medical doctor in-charge of JOOTRH Comprehensive Center in Kisumu, Kenya. She has been working as a Medical Officer for 5 years and is currently spearheading sub-county implementation of differentiated care models using a quality improvement approach. Contact: ayikur2001@yahoo.com

Amos Kibisu Amadiva is a Medical officer at Kakamega County General Referral Hospital and Deputy of Kakamega County for CASCO. Contact: amadivakibisu@gmail.com

Patricia Asero is the Chair of International Community of Women Living with HIV for NEPHAK ICW-Kenya.
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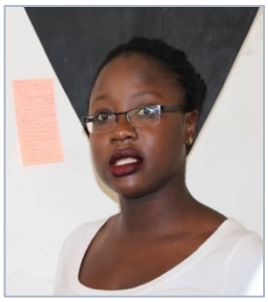
Demissew Assefa is a Public Health Specialist in the Care and Treatment Branch at CDC in Ethiopia. He has worked with CDC in Ethiopia since 2008 and in public health and HIV/AIDS programming since 2002. Mr. Assefa focuses on HIV/AIDS care and treatment, QI, health systems strengthening, and human resources information systems. He has an MA in Sociology. Contact: ipl1@cdc.gov

Tamrat Assefa is the Director for Regional Programs at ICAP in Ethiopia. He has over 20 years of experience in public health, specializing in health systems strengthening, HIV, and QI. Mr. Assefa is 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. 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.
Contact: ta2302@cumc.columbia.edu



Robinah Babirye is a Programs Assistant at the African Young Positives Network and volunteers with several networks of young people living with HIV. As a young woman living with HIV and former Miss Y+ (2015/2016), she is an advocate and role model for young people, especially adolescent girls and young women, living with HIV. She supports them to realize their potential. Ms. Babirye harnesses platforms, such as radio, television talk shows, social media, print media, and community and school outreaches, which provide the opportunity to articulate the issues that affect young people living with HIV, especially adolescent girls and young women, both locally and internationally. Contact: brobinah13@gmail.com

Baker Bakashaba is the Regional Project Manager for the Soroti Region for the AIDS Support Organization (TASO) in Uganda. Dr. Bakashaba has managed HIV/AIDS programs at TASO for seven years, focusing on the design and implementation of facility- and community-based, client-centered projects, and health systems strengthening. He has contributed to the design of community ART models, client-led ART delivery, as well as other national-level DSD models. He is currently the Regional Project Manager for the Accelerating HIV Epidemic Control in Soroti Region Project – a regional project funded by PEPFAR through CDC. Dr. Bakashaba received his Bachelor of Medicine & Surgery Degree from Makerere University in Uganda, and is currently pursuing an MSc in Project Management at the University of SalD in the UK. He is a member of the CQUIN Advisory Group.
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Hudson Balidawa is a Public Health and M&E expert with vast experience in design, monitoring, and research for public health programs in resource-limited settings. He is a pediatrician who has worked on the design and implementation of public health interventions for maternal and child health for the last 15 years. Dr. Balidawa has supported scale up of the public health approach to ART management in Uganda, Namibia, Zimbabwe, and Nigeria, using the adapted WHO IMAI, IMPAC and IMCI guidelines. He is an Honorary Senior QI Advisor for URC and has supported HIV care quality initiatives that have spread to other health services programs. Dr. Balidawa currently monitors Global Fund-funded interventions for HIV and TB and heads the National Technical Working Group for DSD Models in Uganda.
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Franck Euloge Boraud is an HIV Clinical Team Leader at ICAP in Côte d'Ivoire. Prior to joining ICAP, Dr. Boraud was a physician in the District Hospital of Agnibilekrou and the Health District Focal Point for malaria, pediatric HIV, QI, and nutrition. During this period, he supervised district health providers implementing health services, including HIV, malaria, and nutrition activities. He has over 12 years of experience in medicine and public health and holds MD and MPH degrees. Contact: bfe2102@cumc.columbia.edu

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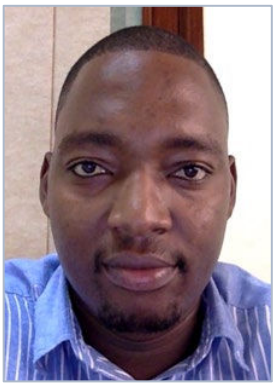

Horácio F. Caliche is Provincial QI Advisor and Manager for ICAP in Mozambique. In this role he liaises between the MOH Provincial Health Directorate and ICAP for QI activities; coordinates with the MOH and Provincial Health Directorate to implement a QI strategy; trains staff of the Provincial Health Directorate and HF Providers in QIHIV strategy; and monitors the implementation of strategy in 60 HF in Nampula Province. Dr. Caliche's previous experience includes M&E Provincial Manager in Zambézia working for the Mozambique MOH (2014 – 2015) and District Medical Chief leading several public health programs including pilot study of QI implementation in Mocuba-Zambézia (2010 – 2014). He is a general practitioner and studied at the Medicine Faculty in Eduardo Mondlane University (2009) and has an MPH from Atlantic International University (2016). Contact: hfc2190@cumc.columbia.edu

Not Pictured

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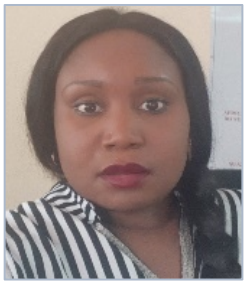

Açucena Chauca, MD, is Technical Director of the Community HIV Project, Hlayisa, for N'weti in Mozambique. She is a physician with over 11 years of experience at all levels of the health system. Dr. Chauca has worked directly with HIV for more than 10 years, held technical leadership roles in several projects and organizations, and worked at a senior policy level. In her previous role as Director of the Elimination 8 project, Dr. Chauca monitored project performance and liaised with senior officials at the MOHs in the eight project countries to ensure project success. Her previous experience includes six years of clinical practice; Pediatric HIV/AIDS Care and Treatment Technical Officer in Tete for the CHASS-SMT project; and Provincial Technical Coordinator for Tete. Dr. Chauca also developed a ground-breaking public-private partnership, achieving policy change at the national and provincial levels through her advocacy efforts. Contact: lchauca@pathfinder.org

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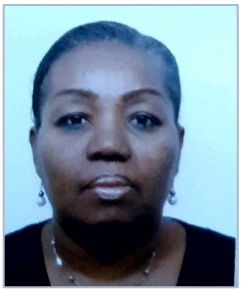

Anne Marie Dem Niacadie is the Deputy Director of the Organization and Care and Promotion of Quality, a body under the supervision of the MOH of the Côte d'Ivoire . As part of her duties, she participates in the development of the National Strategic Plan for QI in hospitals. Dr. Dem Niacadie and her team regularly organize quality audit missions, as well as training seminars, for senior managers. In addition to her position as Deputy Director, she is the national coordinator of medical care for the victims of political crises. Dr. Dem Niacadie has worked as a physician since 1990 and holds a DESS in Public Health.
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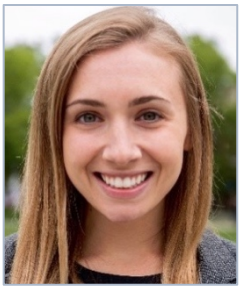

Stephanie Dowling is an Associate for the eMTCT and Pediatric HIV Programs at the Clinton Health Access Initiative, Inc. In this role she supports programmatic and strategic work in pediatric HIV case finding, initiation, and retention in Zambia and Malawi. Ms. Dowling has a BA in Global Affairs from Yale University and an MPH in Health Policy and Global Health from Yale University.
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Sylvain Ehouman is Technical Advisor for QI at ICAP in Côte d'Ivoire. In this role, he strengthens the capacity of the regional and district teams, including focal points and ICAP support teams on coordination and supervision of QA approaches, data analysis, planning, and reporting. Dr. Sylvain also provides direct support to sites to develop strategies for implementing QI activities related to HIV care. His previous experience includes: Technical Advisor for Care and Community Support at SEVCI on the NESSEMON project; Technical Advisor HIV Care and Services at URC on the USAID/ASSIST Project; Technical Manager of Key Populations for ESPACE CONFIDENCE; and participating with the MOH on the development and revision of the PEC/HIV policy documents, notably on the national policy document for improving the quality of health care and services in Côte d'Ivoire and on the National Strategic Plan for Improving Hygiene and Safety Quality. Dr. Sylvain is a doctor with an MPH and an International University Diploma on HIV infection and other STIs in countries with limited resources. Contact: se2470@cumc.columbia.edu

Peter Ehrenkranz is Senior Program Officer for HIV Treatment at the Bill & Melinda Gates Foundation. From 2010 to 2015, Dr. Ehrenkranz worked in Eswatini 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 a Senior Advisor to the National AIDS Control Program and Medical Director for the Clinton Health Access Initiative-Liberia. Dr. Ehrenkranz earned an undergraduate degree in history from Yale, medical and public health degrees from Emory, and trained in internal medicine at the University of Pennsylvania, where he completed the Robert Wood Johnson Clinical Scholars Program. Contact: peter.ehrenkranz@gatesfoundation.org

Ade Fakoya is the Senior Disease Coordinator, HIV at the Global Fund to Fight AIDS, Tuberculosis and Malaria based in Geneva. In the past three years his team has provided technical support and coordinated partner technical cooperation which has seen the approval of over five billion USD in Global Fund HIV grant approvals. Dr. Fakoya is a clinician and specialist in HIV and international health with over 20 years national and international experience in HIV, STI clinical care, service management, and programme delivery. He has provided technical support to national HIV programmes in Africa, Asia, Eastern Europe, and Latin America and sits on several national and international advisory committees, including those for ARV treatment guidelines, prevention of mother to child transmission guidelines, and sexual and reproductive health. Dr Fakoya previously held technical, senior management, and research posts working in the UK and internationally.
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Irénio Gaspar is the STD and HIV/AIDS Programme Supervisor at the Maputo City Branch/Directorate of the MOH, where he has worked since 2015. Due to the nature of his work, as well as the country's high HIV prevalence, Dr. Gaspear works mostly with the general population, with special focus on high-risk groups: the LGBT community, prisoners, and sex- workers. He is a medical doctor and qualified at Eduardo Mondlane University. Contact: ireniogaspar@gmail.com

Mirtie Getachew holds an MPH degree and is currently the HIV Team Lead at the FMOH of Ethiopia. She has more than ten years of clinical and programmatic experience in HIV and currently works in the Disease Prevention and Control Directorate as the HIV/AIDS Program Coordinator. She was previously a Global Fund M&E officer and IGAD Regional HIV/AIDS Prevention Partnership Program Coordinator for five years at Amhara Regional State HAPCO.
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Clorata Gwanzura, is the Differentiated Care Medical Officer: HIV Care and Treatment at the MOHCC in Zimbabwe. With support from the CQUIN project, she supports differentiated care projects in the AIDS and TB Units and focuses on the scale-up of DSD models nationwide. Dr. Gwanzura has five years of experience working at various levels in the Zimbabwe MOHCC and implementing and managing health programs, including HIV programming. Dr. Gwanzura is a medical doctor and has an MPH degree.
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Samson M Haumba is the Country Director for Eswatini for the University Research Co., LLC's where he leads the development, coordination, and execution of the URC's country strategy in support of URC projects funded by CDC and the US Department of Defense HIV/AID Prevention Program. Dr. Haumba is also URC's Centre for Innovation and Technology Africa/Asia Regional Director for HIV, TB, health systems, and NCDs. Dr. Haumna has 23 years of experience in clinical medicine, public health, research, health care management, and health development assistance. Dr. Haumna graduated as a Medical Doctor in 1996 from Makerere University in Uganda and obtained a Masters of Medicine degree in Internal Medicine in 2001 and an MPH in 2008 from the same University. Dr. Haumna holds a Doctoral degree in Health Studies from University of South Africa.
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Mark Hawken is the Country Director for ICAP in Kenya where he provides technical oversight on the design, implementation, and evaluation of all HIV/AIDS, reproductive health, and TB service delivery projects. He has been involved in HIV operational research and HIV programming for over 15 years. Prior to joining ICAP, Dr. Hawken was the Director of the International Centre for Reproductive Health, where he was responsible for the overall management of ICRH's research program, serving as principal investigator on four research projects and contributing to several others. He was also responsible for leadership and supervision of 50 program, research, and support staff.
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Charles B. Holmes is the Faculty Co-Director of the Center for Global Health & Quality and a Visiting Associate Professor in the Department of Medicine at Georgetown University Medical Center. He recently served a four-year tenure as CEO of CIDRZ and was previously Chief Medical Officer and Deputy U.S. Global AIDS Coordinator for PEPFAR, where he was also founding Director of the Office of Research and Science. Dr. Holmes is currently on leave from Johns Hopkins University, where he is Associate Professor of Medicine and International Health. He trained in internal medicine and infectious diseases at Massachusetts General Hospital, Brigham and Women's Hospital, and Harvard Medical School, and served on the faculty at Harvard Medical School as part of a health policy group. Dr. Holmes obtained a BA from Kalamazoo College, an MD from Wayne State University and an MPH degree from the University of Michigan.
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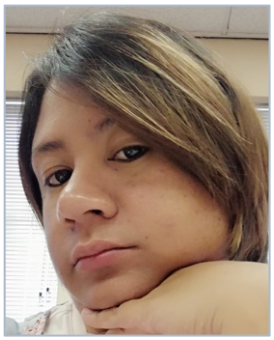

Aysha Ismail Smith is a subdistrict pharmacist in Tygerberg subdistrict in the city of Cape Town in South Africa. She is extensively involved in the planning, implementation, and ensuring the availability of ART at Cape Town HFs. Ms. Ismail has worked for the City of Cape Town in different communities for ten years.
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Grace Kamau is the Regional Coordinator for the African Sex Workers Alliance. She identifies as a female sex worker and has worked in the field of HIV and key populations for eight years. Ms. Kamau previously worked at Bar Hostess Empowerment Programme as a Program Officer and later joined KESWA a consultant to offer support on organizational development. She has also worked as a consultant with the Global Network of Sex Work Projects. Ms. Kamau's passion has been working key populations on issues of HIV prevention, human rights, and movement building. She holds a Bachelor Degree in Sociology and Political science from the Catholic University of Eastern Africa.
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Hervé Nzereka Kambale is a Differentiated Care Advisor, seconded to the Eswatini National AIDS Programme (SNAP) with support from CQUIN. He is dedicated to scaling up DSD in Eswatini, with a special interest in DSD for patients at high risk of disease progression. Dr. Kambale has 8 years of experience in HIV clinical and program management, as well as five years of clinical experience in general medicine. His major contributions include health education and capacity building, mentoring and supervision, and effective collaboration with the MOH and other non-governments agencies in the following fields: palliative care, cancer management, PMTCT, HIV/AIDS, and maternal and child care. Dr. Kambale graduated with an MPhil in HIV/AIDS Management from Stellenbosch University in 2013 and an MBChB from the Catholic University of Bukavu in 2005. He has previously worked in Rwanda, DR Congo, Botswana, and Eswatini.
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Harrison Kamiru is the Director of M&E at ICAP in Eswatini. He leads the M&E Department in providing monitoring, evaluation, and informatics technical assistance to ICAP in Eswatini for multiple funding streams including TB, HIV care and treatment in Manzini region, national-level laboratory quality management improvement, and research grants. Dr. Kamiru also provides direct technical assistance to the MOH in strategic information and health system strengthening. He has extensive experience working in public health, especially in monitoring and evaluation of HIV/AIDS care and treatment, maternal neonatal and child health, and TB control programs. Dr. Kamiru holds a doctorate in public health (DrPH) from the University of Texas School of Public Health, where he completed a Fogarty Fellowship through the Fogarty International Center of the U.S. National Institutes of Health's AIDS International Training and Research Program. He previously earned a dental degree from the University of Nairobi and an MSc in dental public health from the University of Western Cape, South Africa.
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Edgar Kansiime is the HIV epidemiologist/Project Coordinator, HIV Case-Based Surveillance at the School of Public Health, Monitoring, and Evaluation (METS) Program, Makerere University in Uganda. He leads a project implemented in partnership with the Uganda Ministry of Health. Dr. Kansiime holds an MPH from the School of Public Health, Makerere University and a Bachelors of Medicine and Surgery from Mbarara University. He also holds a Post Graduate Diploma in Monitoring and Evaluation from Uganda Management Institute.
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Prisca Kasonde is the Country Director for ICAP in Zambia. She is an experienced medical doctor and public health specialist with a career spanning over 25 years in the public and private health sectors, as well as in international NGOs. Dr. Kasonde's experience includes both clinical as well as program management in the area of HIV/AIDS, STIs, reproductive health, obstetrics and gynaecology, and health systems strengthening. She has successfully provided technical leadership and programmatic guidance on the design, development, introduction, implementation, and M&E of HIV/AIDS prevention, care, and treatment programs. Prior to ICAP, Dr. Kasonde worked on large PEPFAR/USAID funded HIV/AIDS projects in Zambia (ZPCT/ZPCTIIB) and implementing DSD models. She has co-authored over 20 different publications in peer-reviewed journals. Dr. Kasonde has an MPH with a focus on HIV/AIDS epidemiology as well as a Master's degree in Medicine specializing in Obstetrics and Gynecology. Contact: pk2587@cumc.columbia.edu

Elizabeth Katiku is an Adult Treatment Technical Advisor for the western Kenya branch of CDC, which she joined in April 2018. Dr. Katiku has 13 years of experience in both clinical and public health practice with a focus on HIV/AIDS and TB programs implementation in the last eight years. She has broad experience both in direct service provision and donor program implementation and has worked with county and sub-county health management teams offering technical leadership. Dr. Katiki's prior experience includes work with the Maryland Global Initiatives Cooperative as a Senior Technical Advisor for the PACT Timiza Program in Kisii county and work with CARE Kenya as the Technical Lead for Care and Treatment TB/HIV in the same county. She has served as a co-chair of the Kisii county HIV/TB Technical Working Group and is a master trainer of trainers (TOT) in many HIV training courses, including the NHITC. Dr. Katiku received her M.B.Ch.B in 2006 from the University of Nairobi in Kenya and her MPH in 2016 from Moi University-Kenya where she specialized in Epidemiology. Contact: onn9@cdc.gov

Cordelia Katureebe is a pediatrician and child health specialist, currently working as a National Coordinator for HIV Care and Treatment for the AIDS Control Program at the Uganda MOH. She has over 15 years of experience in clinical care, strategic planning, and implementation of programs related to HIV care and treatment for HIV-positive pregnant women. Recently, over the last three years, Dr. Katureebe was assigned as the Coordinator for Adolescent HIV Services. Her recent work has focused on the roll out of the standards of care for adolescent HIV across the country to improve care and treatment outcomes of retention and viral load suppression among adolescents living with HIV. Contact: katureebecordelia@gmail.com

Mathew Kawogo is the Manager of Community Mobilization and Engagement for the National Council of People Living with HIV/AIDS in Tanzania, a role he has assumed since 2017. Mr. Kawogo has abundant experience with communities, PLHIV groups, CSOs, government ministries, departments, and parliamentarians in HIV/AIDS, children, ageing, and disability. Prior to serving in his current role, he was the Program Manager for HIV/AIDS for more than four years with HelpAge International in Tanzania where he also served as the Coordinator of Capacity Building to strengthen CSOs and Councils' capacity on ageing and managed HIV/AIDS programs in more than 15 district councils and 100 villages. Mr. Kawogo was appointed as the Country Director of Action on Disability International in Tanzania for a year and a half and then moved to UNAIDS to serve as a Program Officer for the Alliance of the Mayor's Initiative for HIV/AIDS at Local Level. Contact: mathewk@nacopha.or.tz

Valentin Keipo is a Monitoring & Evaluation and Research Assistant at ITPC-West Africa where he previously worked as the Regional Community Treatment Observatory Project Officer in Côte d'Ivoire at the Ivorian Network of People Living with HIV (RIP+) (May 2017 to April 2019) and as an M&E assistant also involved in the issue of DSD and PLHIV healthcare quality (since 2016). Mr. Keipo has been a member of several technical groups in the national HIV response, including the National Strategic Plan Review, initiation of DTG in Côte d'Ivoire , PrEP Technical Guide Development, and self-testing guide development. He has a Master's degree in Human Rights and Humanitarian Action. Contact: vkeipo@itpcwa.org

Stella Kentutsi is the Executive Director of the National Forum of People Living with HIV/AIDS Networks in Uganda, an umbrella organization that coordinates 13 national and 116 district networks of people living with HIV. Ms. Kentutsi is an expert in HIV/AIDS programming with over 15 years of experience in HIV work at different levels ranging from coordinating schools' HIV/AIDS activities to currently coordinating networks of people living with HIV across the country. She holds a Master of Arts Degree in Development Studies and a Bachelor of Arts in Education.Contact: stella.kentutsi@nafophanu.org

Bekezela Khabo leads the QI portfolio for TB/HIV for the Zimbabwe MOHCC since 2013. He serves on several technical working groups, including one focused on DSD. Dr. Khabo, in collaboration with a DSD Medical Officer, has developed draft National Quality Management Standards for DSD, and is currently piloting a QI for DSD Project in Murehwa. He is a medical doctor by training and has also studied public health. Contact: drkhabo.b@gmail.com

Judy N. Khanyola is a Kenyan Registered Community Health Nurse/Midwife and the Africa Regional Nursing Advisor for ICAP at Columbia University. She is a member of the National Nurses Association of Kenya and the East, Central, and Southern College of Nurses, where she serves on the Education and Scientific Committee. She has previously taught at the University of Manchester, Mildmay Uganda and the Kenya Medical Training College. Ms. Khanyola previously worked as a staff nurse at the Aga Khan University Teaching Hospital in Nairobi; as a Senior Training Manager for Mildmay in Kampala, Uganda; as a consultant curriculum specialist for paediatric HIV in Kigali, Rwanda; and as a palliative care consultant in Gaborone, Botswana. She holds an MSc. In advancing healthcare practice from the University of Manchester, UK. Contact: jkhanyola@icapkenya.org

Lawrence Khonyongwa is the Executive Director of the Malawi Network of People Living with HIV. He has worked to improve the lives of communities living with HIV/AIDS for more than 20 years with resilient and sustainable systems for health. Skilled in program design and management, coordination and networking, Mr. Khonyongwa is also a trainer of trainers in participatory methodologies with a good understanding of gender and development. He is currently managing the Global Fund project on Sustainable and Resilient Systems for Health that aims to achieve the UNAIDS 90:90:90 targets towards ending AIDS by 2030. Contact: lawrencekhonyongwa@yahoo.co.uk

Gavin Khumalo is a Coordinator for the National Network of People Living with HIV and AIDS in Eswatini. He is the founding member of the People Living with HIV Network and served as a board treasurer in the first board. Mr. Khumalo is the National Coordinator for the Centre for Socio-Economic Rights and Development in Eswatini and the Focal Person for the Recipients of Care. He is a human rights activist and has a diploma in Business Management. Contact: khumalogavin@gmail.com

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Altaye Kidane is Technical Director for TB/HIV Care and Treatment Project in Eswatini, in which he supports ICAP's technical assistance to Strengthen Local Capacity to Deliver Sustainable Quality Assured Universal Coverage of Clinical HIV/TB Services in Manzini Region, and provides technical assistance to the National Tuberculosis Control Program in the Kingdom of Eswatini under PEPFAR. Dr. Kidane has over 25 years of experience in HIV/TB programs and has worked in the implementation of TB/HIV programs in Zambia, Tanzania, Ethiopia, Lesotho, and Eswatini. He holds a medical degree and certificate of specialty in internal medicine from Addis Ababa University Ethiopia; an MSc in Infectious Diseases Immunology from University of London; and a Diploma in Tropical Medicine and Hygiene from the Royal College of Physicians of London. Contact: ak3463@cumc.columbia.edu

Josen Kiggundu is the National Technical Advisor for DSD at the AIDS Control Program in the MOH in Uganda. Dr. Kiggundu is a public health professional with experience in managing health programs within the public sector. Prior to his current role, Dr. Kiggundu worked with Baylor College of Medicine Children's Foundation in Uganda as an acting Program Manager, Care and Treatment Coordinator, and Regional Coordinator; a Program Officer with Protecting Families Against HIV/AIDS; and a District Health Officer and Medical Officer with Manafwa District Local Government (2007-2012). He holds a Masters degree in Public Health (Uganda Christian University), a post graduate diploma in Project Planning and Management (Uganda Management Institute), and a Bachelor of Medicine and Bachelor of Surgery (Makerere University). Contact: jhkiggundu@yahoo.com

Bactrin Killingo is an independent consultant. 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, he has worked in 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, Dr. Killingo has been instrumental in empowering communities with the knowledge and skills necessary to mobilize resources and take charge of their own health and the small projects they run. Contact: bkillingo@itpcglobal.org

Rachael Kiuna is the Deputy for CASCO in Nakuru County in Kenya. She is a community health epidemiologist with 12 years of experience in HIV care and treatment and her previous experience includes work as a County DC Coach for Nakuru County; a County Master TOT for ART guidelines; and County ART/ HTS Program officer. Ms. Kiuna holds a BSC in Community Health and an MPH in Disease Prevention and Epidemiology from Kenyatta University in Kenya.
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Emily Koech is the Country Director for the University of Maryland, Baltimore Programs in Kenya where she provides strategic leadership in the design, implementation, and evaluation of high-quality projects in Kenya and ensures that they are implemented toward desired goals and in alignment with national and international best practices. She has 14 years of experience implementing public health programs, particularly HIV programs from clinical patient care, implementation, monitoring of donor-funded large-scale HIV programs, and developing policies and guidelines on HIV management at the national level. Dr. Koech was previously the Deputy Country Director and Program Director for PACT Endeleza, a CDC-funded program supporting 48 facilities providing HIV services in a complex urban population in Nairobi County. She also worked as the Director of Programs for ICAP, where she successfully oversaw the planning, design, implementation, and monitoring of HIV programs. Dr. Koech has a Masters in Medicine from the University of Nairobi, School of Medicine, Kenya and Masters in Public Health (Epidemiology) from Columbia University, Mailman School of Public Health in New York. Contact: EKoech@mgic.umaryland.edu

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Maureen Amagove Inimah, MPH, is currently serving as coordinator for Quality Improvement in the National AIDS/STI Control Program (NASCOP) within the Ministry of Health in Kenya. Maureen has over 10 years of extensive, hands on experience as a health service provider and in providing capacity building coaching and mentoring to Ministry of Health staff in different communities in Kenya. She has facilitated numerous trainings and mentorship opportunities for health workers on Quality Improvement and Monitoring and Evaluation (M/E) ART data tools. Maureen has worked closely with other branches of government in the development of key policy documents for Quality Improvement, including: The Kenya HIV Quality Improvement Framework (KHQIF), The Kenya Quality Model of Health (KQMH) Training Curriculum for in-service Training, and The Differentiated Care Toolkit. Contact: maureen.amagove@gmail.com

Edward M. Machage is the Deputy Branch Chief of HIV Care and Treatment for CDC-Tanzania in which he oversees the pediatric and adolescent portfolios across CDC-supported implementing partners. He is a pediatric physician and public health specialist and has over ten year of pediatric clinical and public health experience. Dr. Machage obtained a global health fellowship in project/program management before he joined CDC in 2015. He is a public speaker in child health and parenting. Contact: ofy4@cdc.gov

Hélder Macul is the QI Focal Person for the National STI, HIV/AIDS Control Program at the Mozambican MOH. He was previously the focal point for the HIV Control Program in Inhambane Province (March 2015-May 2017) and a physician and focal point for the TB and HIV Programs at the Cumbana Health Center in Jangamo District in Inhambane Province (June 2013 to March 2015). Dr. Macul is currently pursuing a Master`s Degree in Public Health at Eduardo Mondlane University in Maputo, Mozambique).
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Violet Makokha is the QI Advisor for CIHEB Kenya Western Region –PACT TIMIZA programme. She is a clinician and a public health specialist with over 8 years experience in HIV programming. Dr. Makokha previously worked with University of Maryland where she has served as a QI Officer and QI Lead and Clinical Improvement Specialist. During this period, she played a critical role in working with the MOH to establish a county-led QI program. Dr. Mokokha is currently pursuing her MPH with a specialty in epidemiology and disease control and is a Member and Fellow and ISQUA.
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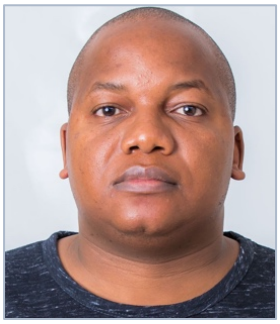
Christopher Makwindi is a Technical Director for the Elizabeth Glaser Pediatric AIDS Foundation in Eswatini. He is a medical doctor and public health specialist with more than 10 years of experience in the management of HIV/AIDS and TB. He has worked in various countries in Southern Africa. Contact: cmakwindi@pedaids.org



Rickie Malaba is a Senior Program Manager at the International Training and Education Centre for Health (ITECH) in Zimbabwe where he leads the QI, DSD, viral load monitoring, defaulter tracking and retention in care for people living with HIV under the Zimbabwe Partnership to Accelerate AIDS Control (ZimPAAC). He is a public health specialist with over a decade of experience within the Zimbabwe Health Delivery System. Dr. Malaba's experience spans across the public and private health systems including the management of extensive and complex high impact intervention programs within the government and non-governmental sectors. At the core of his skills-set is the ability to steer the prevention and control of public health epidemics and navigating complex health systems. Additionally, Dr. Malaba is a proven leader in the design and startup of innovative and efficient approaches to the provision of quality health services to the most vulnerable communities under resource limited settings. He has a keen interest in public health research as well as scaling up of evidence-based models to sustainable outcomes for better quality services.
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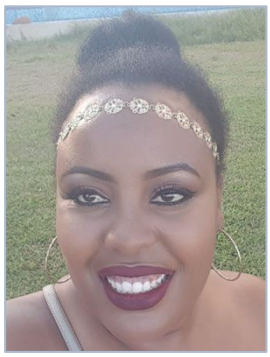
Siobhan Malone is a Senior Program Officer on the HIV team at the Bill & Melinda Gates Foundation. Since joining the foundation in January 2005, Ms. Malone has focused on a breadth of areas in the foundation's HIV portfolio—spanning upstream HIV product research and development to downstream HIV service delivery efforts. She has worked to bridge the foundation's HIV and Family Planning program strategy work, especially as it relates to adolescent girls and young women, and was recently based in Tanzania for two years coordinating and planning investment strategies from a country-level perspective. Prior to joining the foundation, Ms. Malone worked at the HIV Vaccine Trials Network. In 1998 she received a Fulbright grant to work in Côte d'Ivoire with the National AIDS Program and a non-governmental organization focused on AIDS prevention activities among women's empowerment groups throughout the country. Ms. Malone received her Bachelor of Science at Georgetown University in 1997 and her Masters of Public Health in Epidemiology at the University of Washington in 2003. Contact: Siobhan.Malone@gatesfoundation.org



Barbara Wanjiku Mambo is a Clinical Care Consultant for NASCOP in Kenya. Her major role is clinical case management of complex treatment failure cases, giving patient and clinician support for decision making using a toll free line, capacity building of health care workers, and guideline review, dissemination and implementation. Dr. Mambo holds MD (RUS), MSc TID (UON), DTMH (LSTMH) degrees.
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Kenneth Masamaro is a Treatment Advisor for CDC's Division of Global HIV-AIDS and TB Health Service Delivery Branch in Nairobi, Kenya. He focuses on ideation, implementation, and evaluation of HIV treatment programs for CDC's support to the MOH and implementing partners. One of Dr. Masamaro's focus areas is scaling up differentiated care in Kenya. He previously served as a Lead for case surveillance, implementation science, and treatment programs in Kenya. Dr. Masamaro has a Bachelor of Medicine and Bachelor of Surgery from the University of Nairobi and an MSc in Global Health Science from Oxford University. Contact: lun3@cdc.gov

Victoria Masuku is a Senior Advisor for Community Grants and Partnerships at URC. She is a public health specialist with 27 years of experience in clinical and community health care settings and currently oversees the implementation of DSD models in collaboration with community-based organizations to roll out patient-centered HIV care. Ms. Masuku participates in various technical working groups and has supported development of key national guiding documents. She recently participated in the development of the Swaziland National Differentiated Care Guidelines, Standard Operating Procedure Manual, and supports capacity-building for HFs and community partners to implement ART service delivery models.
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Allan Mayi is the Deputry Project Director and Technical Advisor for Care and Treatment at EGPAF Kenya. He oversees DSD implementation for EGPAF on the CDC funded Timiza90 Project.
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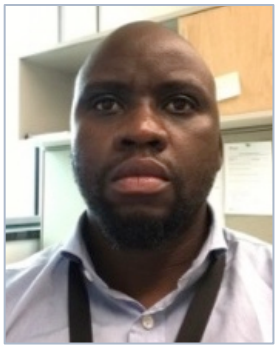

Sikhathele Mazibuko, MBChB, MSc. is the Care and Treatment Lead for PEPFAR Swaziland. Dr. Mazibuko has extensive HIV management experience that includes work as an HIV clinician at the facility level and a program officer at the provincial and national levels before joining CDC Swaziland in his current position. 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. Contact: mfu4@cdc.gov

Lawrence Mbae is the Technical Advisor for DSD at ICAP in Kenya. He has 12 years of experience in health care systems management and has worked across the public (MOH), private, and non-profit sectors. Mr. Mbae has robust experience in HIV programming, QI, and service integration. He previously worked for FHI (Goldstar), PSI, and consulted on QI for Aga Khan University and JHPIEGO.
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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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Luckyboy Edison Mkhondwane is the Prevention and Treatment Literacy Training Coordinator at Treatment Action Campaign (TAC) and represents South Africa on the Clinton Health Access Initiative Optimal ARV Project Community Advisory Board. Mr. Mkhondwane has openly lived with HIV since his diagnosis in 2002, which prompted him to become an Access to Treatment Advocate. He has a great passion for HIV and TB treatment literacy and community education. Mr. Mkhondwane has worked as a Prevention and Treatment Literacy Trainer, Capacity Building Officer, and Policy, Communications and Research Coordinator at TAC in Gauteng amongst other positions since joining in 2002. He has written articles on living with HIV and issues around treatment literacy for community newspapers and Equal Treatment, the TAC magazine on living with HIV. Mr. Mkhondwane used to co-present "Siyayinqoba Beat It," a South Africa television talk show on HIV, health, and human rights. He was formerly ambassador of a South African positive living campaign "Positive Heroes."
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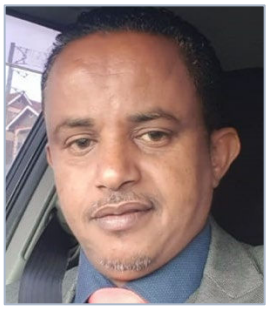

Mohamud Mohamed is the DC Coordinator, for NASCOP in Kenya.
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Sophia Msiska is a medical doctor that has worked for the Zambia MOH for over 14 years and is currently the Clinical Care Specialist at the Lusaka Provincial Health office. Her work focuses on management of clinical and diagnostic health services in HFs in Lusaka Province. Dr. Msiska is also a consultant paediatrician and has worked in service delivery both at the University Teaching Hospital and Levy Mwanawasa University Teaching Hospital. Dr. Msiska also has a background in public health.
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Martin Msukwa is a Project Director and Regional Advisor for ICAP. He has more than 15 years of experience in the design, development, and implementation of large-scale international development programs in sub-Saharan Africa. Mr. Msukwa supported the establishment of a Quality Management Department within the MOH in Malawi, supported the recent revision of MOH QI Guidelines in Lesotho, and has provided direct TA for the creation of quality management policy, strategy, guidance, and support across numerous projects, organizations, and countries. Mr. Msukwa has worked extensively with large international donors such as CDC to provide overarching technical and quality assurance (QA)/QI leadership to MOHs in the fight against HIV.
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Simangele Mthethwa-Hleza is the National ART Coordinator for the Eswatini MOH and oversees the ART unit within the Eswatini National Aids Program. Among her responsibilities in this role, she oversees and coordinates HIV prevention, care, and treatment services in line with national guiding documents; organizes quarterly meetings for the review of ART program data and presents this to the TWG for Treatment, Care, Support and policy formulation guidance; and conducts research within the National ART Programme. Dr. Mthethwa-Hleza holds an MSc in Epidemiology from the University of Pretoria; a MBChB from the University of Kwa-Zulu Natal; a post graduate diploma in occupational and environmental health; and a BSc degree.
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Orlando Munguambe is a Senior QI Manager for the National STI-HIV/AIDS Program in Mozambique, where he provides technical support to develop QI SOPs, training packages, and data collection and reporting tools. In 2008, he started working for I-TECH Mozambique as an M&E Manager, using his expertise as a frontline health worker to adapt the clinical mentoring tools that were subsequently approved and rolled-out by the MOH in all country sites. The MOH selected him to join a multidisciplinary team to finalize the National QI Guidelines. Mr. Munguambe developed the current QI data platform, which is used in more than 500 HFs, covering more than 85% of ART patients in the country. He is a psychologist with a post graduate degree in public health and has vast experience in monitoring and evaluation in a low resource settings. Contact: orlandom@itech-mozambique.org

Chiedza Mupanguri is the Deputy ART Coordinator in the HIV Department in MOHCS in Zimbawe.
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Musonda Musonda is a Community ART Advisor at USAID Zambia, where her role is to support USAID-supported implementing partners to increase retention to care and treatment and improve clinical outcomes for patients on HIV treatment through facility and community-based interventions. Ms. Musonda is a member of the National DSD Task Force under the MOH, which has developed national guidelines and other key documents to scale-up the implementation of DSD interventions in the country. Prior to joining USAID, Musonda worked for the Centre for CIDRZ, where she was the Head of the Community Department. She holds a Bachelor's Degree in Social Sciences in Development Studies from the University of KwaZulu-Natal and an MA from London Metropolitan University.
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Godfrey Musuka is ICAP's Country Director in Zimbabwe. He is an HIV/AIDS, M&E, and public health expert with 20 years of experience in implementing health interventions in Zimbabwe, Botswana, and Nigeria. He has worked for UNICEF and 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. Dr. Musaka's key areas of interest include strategic information and program management. He is a Doctor of Veterinary Medicine and holds MPhil and MSc degrees.
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Blessing Mutede is the Technical Director for Population Services Zimbabwe-HIV in the Last Mile Program. He has more than 10 years of experience in HIV program development and implementation in Zimbabwe. Dr. Mutede's prior roles in the public and private sectors include serving as a physician, a medical officer with the MOHCC, and Senior Technical Advisor for EGPAF. His work across multiple geographic districts has given him a deep understanding of the local landscape and challenges to epidemic control. Dr. Mutede also has extensive experience supporting the development and adoption of new approaches in HIV and TB programming in accordance with national guidelines and contributing to supportive policy. Dr. Mutede earned an MPH and a BS Medicine and Surgery from the University of Zimbabwe.
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Redempta Mutei is a QI Coordinator at ICAP in Kenya. She has eleven years of experience in HIV prevention, care, and treatment. Ms. Mutei holds a BSc. in Clinical Medicine and Surgery and an MPH in Health Systems Management. Contact: rmutei@icapkenya.org

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Mukuka Mwamba is a Senior QI Advisor at ICAP in Zambia. He has worked in various capacities for organizations that include FHI360, MSH, and REPSSI. In his free time, Mr. Mwamba enjoys watching rugby union and listening to audiobooks. He holds a MSc degree in M&E and is currently studying for a degree in public health.
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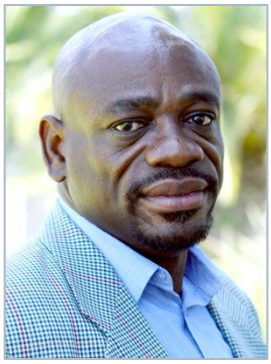

Felix Mwanza is the National Director of the Treatment Advocacy and Literacy Campaign, a leading social mobilization civil society organization in Zambia that promotes equitable access to HIV medication for people living with HIV. Mr. Mwanza is an international HIV/AIDS activist and has vast experience in mobilizing resources for program implementation at national and international levels. He holds a Diploma in Computer Science and a BA in Social Work. Mr. Mwanza previously worked as an Information Technology Specialist.
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Tonderai Mwareka is a Program Officer for the Zimbabwe National Network of People Living with HIV (ZNNP+) and responsible for coordinating and representing the interests of PLHIV throughout Zimbabwe. He is a social scientist who has supported HIV/AIDS programming since 2003. Mr. Mwareka's DSD work includes working with people living with HIV and ZNNP+ Provincial Coordinators to roll out models of care such as family-centered care, diary spacing, fast-track, and facility adherence clubs. In 2018, he started leading research on community monitoring/surveillance on enablers and barriers to differentiation of services. Mr. Mwareka has a BSc. in Psychology from the University of Zimbabwe and is currently pursuing a Masters Degree in Child Rights and Childhood Studies at Africa University.
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Annie Mwila is the Branch Chief for Prevention, Care, and Treatment at CDC in Zambia.
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Denis Mzaga is a Monitoring and Evaluation and QI Officer and Global Fund M&E Focal Person for the National AIDS Control Program in Tanzania where he has worked for more than six years providing both programmatic and in clinical direction in implementation of monitoring and evaluation activities. A medical doctor and public health specialist, Dr. Mzaga develops and reviews QI guidelines, assessment tools, training material; coordinates QI reports writing; coordinates supervisions and mentorships; writes QI concept notes; and orients QI TOT national teams. Dr. Mzaga is part of Task Force that prepared the whole process of writing the new TB/HIV Global Fund Concept note and member of the writing team of the new Global Fund concept note. Contact: drmzaga@gmail.com

Juliana Nabwire is a Senior QI Advisor with URC-CHS Uganda. She has over 10 years of experience implementing QI both in a clinical and programing setting to build capacity of frontline health workers and communities to apply QI. In her current role, Ms. Nabwire collaborates with the MOH in Uganda to implement the National QI initiative and works with over 1000 ART-providing HFs to address gaps and scale-up best practices to improve early retention in HIV care and viral load suppression for HIV patients. She has lead implementation of QI initiatives for several focus areas, including HIV prevention, care, and treatment, orphans and vulnerable children, palliative care, and chronic care. Ms. Nabwire is passionate about empowering communities to advance social and health improvement.
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Doris Naitore is a public health professional with over 22 years of experience in the field of Health Systems Management and HIV/AIDS focusing on improving demand, access, and quality of prevention, care and treatment services for underserved populations. As a previous Director of various high impact public health initiatives; having led the design, implementation, and evaluation of the first comprehensive HIV care and treatment program in sub-Saharan Africa; and having worked with the MOH National AIDS and STI Control Program in Kenya, she has vast knowledge of health in Africa. Ms. Naitore's work focuses on ways to leverage the successes and lessons of HIV scale-up to strengthen health systems and to enhance the capacity of the MOH and local implementing partners. She is recognized as an international expert in health systems strengthening; HIV care and treatment; and has published numerous peer-reviewed articles. Ms. Naitore holds a Diploma in Clinical Medicine, BSc in Health Sciences, and a Master's Degree in Public Health. Contact: dodera@icapkenya.org

Jonas N'gbanan is a Treatment Senior Technical Advisor at Health Alliance International in Côte d'Ivoire where he has worked since 2009 in positions that include Regional HIV Project Manager; Pediatric and Adult Care and Treatment Technical Advisor, and Senior Technical Advisor. He is a public health specialist with 16 years of experience in public health and HIV service management and provides broad managerial support to the development, implementation, and monitoring and evaluation of care and treatment activities, TB/HIV coinfection activities, and DSD. Dr. Jonas participates in the National HIV Technical Working Group and he provides HIV technical support to the MOH in Côte d'Ivoire. Mr. N'gbanan has a Master's Degree in Health Economics. Contact: jonas.ngbanan@hai-ci.org

Stanley Ngoma is a Program Officer for HIV Treatment, Care, and Support and Focal Point Person for Differentiated Service Delivery Models for the Department of HIV for the MOH of Malawi. He has eight years of experience in HIV program management. Mr. Stanley is a member of the National HIV Technical Working Group and has participated in the development of National HIV guidelines, policies, tools and job aids/SOPs to promote and standardize good clinical practice within the National HIV Treatment and Care Program. He studied at the Warwick Medical School.
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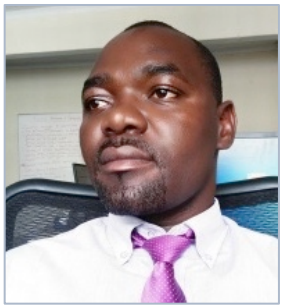
Evelyn W. Ngugi is the Deputy Branch Chief- Adult Treatment Lead for the HIV Service Delivery Branch, Division of Global HIV & TB for CDC Kenya. In this role Dr. Ngugi provides technical leadership to the Adult HIV Care and Treatment Team to participate in the design and implementation of impactful structural care and treatment programs with other partners in Kenya and in accordance with CDC-DGHT, MOH, and PEPFAR priorities. She directly manages the MOH and care and treatment implementing partner cooperative agreements. Dr. Ngugi is currently leading the clinical VL scale up team in CDC is also a member of the national VL TWG and the Clinical Interagency Technical Team. Contact: uys7@cdc.gov

Frehiwot Nigatu is a medical doctor and the Community Service Delivery Director at Project Hope in Ethiopia. Prior to joining Project Hope, Dr. Nigatu worked for the Ethiopian FMOH as the National HIV/AIDS Focal Person. Dr. Nigatu attended medical school at Jimma University. Contact: FNigatu@projecthope.org

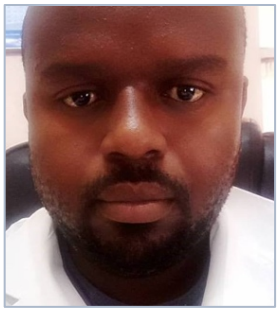
Tendai Nyagura has worked with USAID/ Zimbabwe since 2015 as a Public Health Specialist (HIV Care and Treatment). Previously, she worked in various roles for the MOH, including: District Medical Officer, Provincial Epidemiology and Disease Control Officer, and Medical Officer for ART within the AIDS & TB Unit. Dr. Nyagura is a qualified medical doctor with a MPH from the University of Zimbabwe. She is an active member of the Zimbabwe Public Health Physicians Association and has interests in epidemiology and enjoys teaching public health topics. Contact: tnyagura@usaid.gov



Ponesai Nyika 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 MOHCC in Zimbabwe. Dr. Nyika has 12 years of experience in the health sector and has 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 coordinated implementing partners at national level, spearheading the identification, adoption, and adaption, and implementation of innovative technologies in HMIS. He also led the successful introduction and roll out of DHIS, mobile Health (mHealth), Electronic Patient Management Systems (ePMS), and Laboratory Information Management Systems (LIMS) among others in Zimbabwe. Dr. Nyika supervises the ZimHISP (Zimbabwe Health Information Support Project). Contact: mpq0@cdc.gov

Justine Jelagat Odionyi joined the Elizabeth Glazer Pediatric Aids Foundation (EGPAF) as a Senior Pediatric and Adolescent Technical Advisor in 2016. She coordinates and provides technical, leadership and management support to implementation of high quality PMTCT, paediatrics, and adolescent HIV care and treatment services across EGPAF Kenya projects. Dr. Odionyi is a Consultant Paediatrician with a vast experience in provision of quality HIV care with special interest in pediatric and adolescent health. Before joining EGPAF, Justine worked with Partnership in Advanced Care and Treatment –Centre of Excellence (PACT-COE), University of Nairobi as the Project Paediatrician where she had varied responsibilities including provision of technical support for the PMTCT program at Kenyatta National Hospital (KNH) and Pumwani Maternity Hospital. Dr. Odionyi is a graduate of the University of Nairobi -Bachelors in Medicine and Bachelors in Surgery (M.B.Ch.B) and Masters in Paediatrics and Child Health (M.MED). Contact: jodionyi@pedaids.org

Michael Odey Odo is a Technical Advisor for HIV Care and Treatment in the Department of HIV/AIDS for the MOH of Malawi. He is an experienced HIV physician with 23 years of impactful practice in health systems strengthening and service delivery, and over 14 years of core progressive management experience in needs assessment, program development, implementation, and evaluation of HIV/AIDS services. Dr. Odo is the former Technical Team Lead in HIV/AIDS and TB care, treatment, and support under the $450 million USAID country-wide Global HIV/AIDS Initiative Nigeria Project and the $350 million follow-on Strengthening Integrated Delivery of HIV/AIDS Services Project in Nigeria. He is a medical graduate of the University of Calabar-Nigeria, and Public Health from the University of Liverpool, UK. Contact: modo@itech-malawi.org



Momanyi Ogeto is an HIV Care and Treatment Technical Advisor based in JOOTRH, Kisumu. He has worked at various levels of HIV and TB management for the last seven years. Dr. Ogeto has a medical degree (MBChB) from the University of Nairobi and is currently pursuing an MPH. Contact: mogeto@icapkenya.org

Tondoh Olivier N'guetta-kan is a Health System Strengthening Advisor at USAID Côte d'Ivoire. He is the Agreement Officer Representative for the Private Sector Health Project, implemented by Abt Associates, which provides HIV services in the private, for-profit sector in Côte d'Ivoire. Prior to his current position, Dr. Olivier was a physician in the Regional Hospital of Abengourou for 8 years and Health District Director of Daloa for 4 years in the MOH. He holds Medical Doctor and MPH degrees. Contact: onguetta@usaid.gov

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Gladys Omboi is a Program Officer for ICAP in Kenya since 2017 where much of her work focuses on DSD. She was formerly a Clinical Officer for Medecins Sans Frontiers in Belgium (2005 -2016); a Clinical Officer for Nazareth Mission Hospital (2002-2005); and a Clinical Officer for Zam - Zam Medical Services (2001-2002). Dr. Omboi holds a Diploma in Clinical Medicine and Surgery from Kenya Medical Training College; a BA in Sociology and Psychology from the University of Nairobi; and a Masters' in Community Health and Development – Monitoring and Evaluation (M&E), and International Health from Great Lakes University of Kisumu. Contact: gomboi@icapkenya.org

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Nelson Juma Otwoma is the Executive Director for the National Empowerment Network of People Living with HIV/AIDS in Kenya where his main role is to provide strategic, accountable, and committed leadership to ensure the visibility and voice of people living with HIV and affected communities in the response to HIV. He is a long time AIDS and TB advocate with keen interest in TB and HIV prevention and treatment. Mr. Otwoma has over 15 years of experience working with networks of people living with HIV and the affected communities in Kenya. He belongs to a number of national, regional, and global bodies and structures that work to reduce the spread of HIV and TB. Mr. Otwoma is member of the Kenya country coordinating mechanism for the Global Fund as well as member of the Kenya HIV Tribunal. Contact: nelsonotwoma@gmail.com

Christopher Ouma is a Regional Director in Nyanza for ICAP where he supports the management of a mature HIV program with over 6,800 patients at Jaramogi Oginga Odinga Referral and Teaching Hospital since 2017. He also oversees the implementation of the QI Collaborative that was run jointly with CDC, CHS, and Siaya County. Dr. Ouma is a Public Health physician with over 20 years of experience working in the public and private health sectors. His past experience includes working closely with and supporting NGOs and civil society in HIV-related advocacy and policy; more than two years in clinical and surgical practice in the public health sector; more than two years providing care and treatment for HIV and TB patients with MSF; over ten years working in PMTCT; and two years working to promote maternal and neonatal health. Dr. Ouma has Bachelor's Degrees in Medicine and Surgery; a Post-Graduate Diploma in HIV and STIs from the University of Nairobi; advanced training in management of tropical diseases at the Macerata General Hospital in Italy; and a certificate in Health Financing from LSHTM. He is currently pursuing an MPH from Moi University. Contact: couma@icapkenya.org

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Winnie Shena, a Continuous Quality Improvement (CQI) expert for since 2015, an in Country Laboratory African Regional Collaborative (LARC) Faculty since 2018 to date. A deputy national project coordinator for FIGO-KOGS in implementing Family planning initiative in Kenya since 2014. Immediate past president of the Nurses Association of Kenya and former director advocacy Kenya health care federation. An alumni of Global Nursing Leadership Institute Geneva, she holds a Masters' Degree in community health and health systems from Great Lakes University of Kisumu (GLUK) Graduate degree in Nursing and Midwifery from the Agakhan University. A LARC mentor and trainer in the CQI methodology and the implementation of the DMAIC framework with a focus on cross cadre collaboration. She has supported over 13 PEPFAR sites to successfully implement CQI initiatives that produced: scalable, cost effective and replicable results not only for the site of implementation but also for other hospital departments. Contact: winnieshena@gmail.com

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Not Pictured

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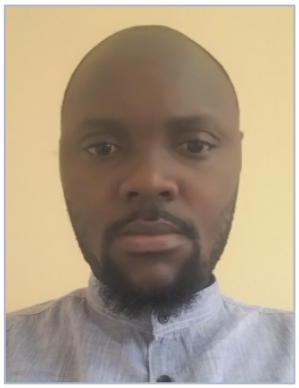

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Greet Vandebriel the Technical Program Director for ICAP in Côte d'Ivoire since 2014. She is a medical doctor specialized in tropical medicine and public health with advanced training in TB and TB/HIV management and QI. Dr. Vandebriel has 20 years of experience providing clinical health care in Africa. She served for five years as a Medical Officer at the General Reference Hospital in Walungu in the Democratic Republic of the Congo and five years as a Resident Technical Advisor to the MOH in Rwanda, responsible for integration of TB and HIV programs and services for both ICAP and the Damien Foundation. She previously served as the Technical Director for ICAP in Rwanda for five years.
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