OPTIMIZING COVID-19 VACCINATION DATA INVESTMENTS FOR THE FUTURE: THE COVID-19 TO ROUTINE IMMUNIZATION INFORMATION SYSTEM TRANSFERABILITY ASSESSMENT (CRIISTA)

Webinar Transcript

00:00:06.46 >> Good morning and good afternoon, everyone. We're just waiting for people to join. So thank you so much for joining today. Good morning. Good afternoon. Welcome to those who are just joining. As you're joining, feel free to write your name and where you are joining us from in the chat. Welcome, Telunga. Welcome, Asifas. Thank you so much, everyone, for joining. We'll get started in a meeting, but as you're joining, feel free to introduce yourself in the chat. Welcome, Leah. Great to see you. You folks from DRC, Bangladesh, great to see everyone here today. Welcome, Berna. Great to see you. Wonderful to see our friends from CHISU. All right. So thank you, everyone, for joining. I might start with some housekeeping to get us started as we wait for others to join us today. So first of all, we're so glad you could join us today. My name is Jessica Shearer, and I lead monitoring, evaluation and learning for the MOMENTUM Routine Immunization And Transformation and Equity Project, and I'm very pleased to introduce today's webinar: "Optimizing COVID-19 Vaccination Data Investments for the Future: the COVID-19 to Routine Immunization Information System Transferability Assessment," also known as CRIISTA. So before we begin, we'll do some quick housekeeping and review the Zoom environment for today's webinar. So first of all, on language, we will be offering simultaneous translation services in French for this webinar. You can access the French channel by clicking on interpretation at the bottom of your Zoom screen. So you should see an icon that says interpretation. So [foreign]. And if you're just joining, do feel free to introduce yourself in the chat. It's great to see people from so many countries, from so many parts of the world, from so many organizations today, so welcome. So speaking of introducing yourself and using the chat function, please feel free to use the chat throughout today's webinar to ask questions, but you can also use the Q&A function to ask questions. The Q&A are only seen by us, the panelists and the hosts of this webinar. You can also use the Q&A if you have any technical difficulties or you need help troubleshooting anything. In the meantime, please also use that to ask technical questions, which we will answer throughout the webinar and at the end of this discussion and also, again, use the chat feature however you want. We want this to be interactive, so you will see that throughout the webinar, we will ask you to put things in the chat. Right now it's introducing yourself. It will be something else later, and we will also have a live Zoom poll, so do be ready to answer that poll. The webinar is being recorded, and after today's event, we will send out the recording in an e-mail with a link to this recording. So next, let's introduce our wonderful presenters. So as I said, my name is Jessica Shearer, and I'm very proud to be on today's webinar with my esteemed colleagues, Jimi Michel, our project's digital health advisor; Agus Rachmanto, who is the Deputy Chief of the Digital Transformation Office at the Indonesian Ministry of Health; and Grace Njenga, a design and innovation specialist at PATH Kenya. I'll be facilitating the first half of today's webinar, and then I'll hand it over to Jimi to take us home. All right. So moving on, a little bit about our

project. If you are not familiar with MOMENTUM Routine Immunization Transformation and Equity, we are a USAID-funded project that works toward a world in which all people eligible for immunization are reached by vaccines, high-quality vaccination services. We work on routine immunizations for childhood immunization but also COVID-19 vaccination. And of course this presentation today really builds on our work in COVID-19 data and digital-related investments for tracking and recording and managing COVID-19 vaccination data. So today's focus, as I mentioned, is on the framework that we call CRIISTA, the COVID-19 to Routine Immunization Information System Transferability Assessment. CRIISTA is an assessment framework to help national decision-makers and their partners assess whether the immunization information system that they are using for COVID vaccination could be useful for routine immunization. So today, we will discuss why this framework is needed and how our project developed it, and then Jimi will walk us through the framework and the suggested assessment or implementation process. As I noted earlier, throughout today's presentation, we will be hearing from our colleagues in Indonesia and Kenya for some of their expenses, and of course, we will also save time to hear from you also about your experiences on this topic. So moving to why this framework is even needed. So in the context of COVID vaccine rollout, many countries introduced new or adapted immunization information systems. So as a reminder, immunization information systems help us to monitor, record, track and report vaccination data, but they can also be many other things. It could be a digital microplanning system. It could be other types of other information systems. The most common example that we saw in many countries, of course, was DHIS2 Tracker, which was an individual client registry or an electronic immunization registry. So for the first time for many countries, they now had an immunization information system that could record individual client-level vaccination doses, and this could be potentially quite helpful for routine immunization. And we'll hear from our colleagues in Indonesia and Kenya about the systems they introduced. So with these investments, there's now interest in understanding the effectiveness or usefulness of transferring and scaling these system for routine immunization. For example, now that we can track individual clients for COVID vaccination, we know that that could be very helpful for routine immunization. Another example could be sending reminder messages to individual clients. That could be very helpful for routine immunization or for countries who introduced digital microplanning tools to help them plan vaccine stock, forecasting and service delivery, that those innovations could be helpful for routine immunization. But the question is, are these tools and investments that were made, are they suitable for routine immunization? And so this CRIISTA framework helps us to understand that. I think one other point here for background is that we learned from the Ebola epidemic or pandemic that there were many digital tool introduced then that did not have a plan for sustainability or for transfer to other use cases and health areas, and so many of those investments became lost, I suppose, in that they were not sustained. So this tool could also be helpful ... this framework could also be helpful for understanding the sustainability or institutionalization of some of these COVID digital investments. So before we go to our panelists, we would love to hear from you. What types of COVID-19 immunization information systems or data systems is your country using? It might be DHIS2 Tracker. It might be other systems. We'd love to hear from you, so please type it in the chat, and I'm going to read out some of the responses that we are getting. I know I see some colleagues from DRC. Welcome, Dr. Remi. I know in DRC you are using DHIS2 Tracker. Talunga from Zambia says DHIS2 Tracker, same for Bangladesh. Welcome, Dr. Defrosa. Great to see you, so DHIS2. Wonderful. So Iqbal, thank you, from South Sudan, they are using ODK, really interesting. And so we tend to see a mix of global goods like ODK and DHIS2 Tracker. And then we also ... you'll hear from Kenya and Indonesia today that they have ... they developed their own systems, the Chanjo Kenya system and PeduliLindungi, which Jimi and I have been trying to pronounce all morning. We also have ZEIR in Zambia, so that's great to see in Zambia that the Zambia EIR system was also used for was also used for COVID vaccination. Wonderful. So as you type these into the chat, I'm going to turn over to our two panelists, Agus and Grace. So Agus is from Indonesia, and Grace is from Kenya, as I mentioned, and we'd love for them to briefly share their countries' experiences with their COVID-19 immunization information systems. We'll continue to kind of talk about their systems and their experiences as we go

through today's presentation, but you can see them on video, and I'm going to ask Agus to start. So, Agus, can you tell us a little bit about the application that Indonesia introduced for COVID-19 vaccination? Over to you.

00:11:27.50 >> Okay. Thank you, Jessica. Hello, everyone. My name is Agus, and surely in Indonesia, we introduced the mobile application that we call as PeduliLindungi, which some of you is hard to pronounce this. But we use this as ... to do the tracking of COVID cases, actually, as well as for solving the vaccination status and also vaccine certificate. This app has also calculated for precondition when entering public spaces. So after the scanning at the airport, in the application, the app will display the red, yellow and green indicator, which was calculated by the combination of algorithm of COVID-19 test result and also individual vaccination status. So we realized that it could be a good push for a citizen to complete their vaccination step, and it can be useful for routine immunization but specifically for monitoring the complete immunization status and also for each individual. In a year after we released this application, the government of Indonesia has to started to see a connection to consider transfer it to the routine immunization and combine this individual data as a basis for vaccination targets. The current status, we already integrated the PeduliLindungi app with Indonesia health information exchange platform that we call [Indistinct] Hub, and we have expanded the use case of this app beyond COVID-19 vaccination such as for routine immunization, digital record and serve as the mobile health data for individual. So this is for Indonesia. Over to you, Jessica.
00:13:00.52 >> Thank you so much, Agus. That's so interesting. So not only was PeduliLindungi helpful for tracking individual vaccination status and producing vaccine certificates, which is another functionality that we see ... we've heard has been very important, I really like the idea that the application can be used by the client themselves and sends them ... It sounds like they send them some type of a color code that sounds like a behavioral nudge. Is that right? And that encourages them to complete their vaccination schedule?

00:13:36.90 >> Yeah, that's right.

00:13:39.20 >> Okay. Very interesting. Okay. And so as you heard from Agus, Indonesia had realized, as many countries had, that, "Wow, this new system could have potential for routine immunization," and they actually started to institute a process where they began to consider, and he'll tell us more later about how they have institutionalized or transferred PeduliLindungi for routine immunization. So we'll hear a little bit more about that later, but that's an overview of Indonesia's background and some ... So now, Grace, we know that in Kenya, Kenya developed the Chanjo Kenya system for COVID vaccination. Grace, can you tell us a bit more about that system?

00:14:21.55 >> Sure. So in 2021, the Kenya Ministry of Health introduced the Chanjo KE system. Mainly they introduced this manage COVID-19 vaccinations. This included tracking and monitoring vaccine distribution, the administration of these vaccinations as well as the individual vaccination record management and also issuing the vaccination certificates. During that time, when we were ruling out the Ministry of Health had implemented this as an offline mode application to allow the health care workers data offline. But then they faced numerous challenges. These challenges included difficulties in transferring data between health care facilities, which was needed for tracking, as well as tracking vaccination stocks, and also, they had an issue with record duplications, and as a result, the Ministry now transitioned to a fully online system currently, and this has significantly increased the adoption. This is because mostly patients have to receive messages when they get their vaccinations, and so if a patient didn't receive a message that they were getting vaccinated, then they would even go back to the facilities for the health care workers to enter their data for them to receive the messages which were used as evidence for vaccination. So over the time, the Ministry of Health has continued to gather user feedback from the different users using the Chanjo system and have continued to develop and enhance the system. They also added new features and as well as

improving the existing ones, just enhance the user experience, and this iterative methodology has allowed the Ministry to incorporate different suggestions and address any issues and challenges that have been raised. Currently the Ministry of Health is reviewing the potential adoption of Chanjo KE for routine immunizations. These discussions are underway to evaluate the feasibility and effectiveness of implementing this system for routine immunization. Yeah. Back to you, Jessica.

00:16:59.26 >> Grace, thank you so much. You have made such a great point that for many of these systems, the initial adoption and use by health care workers has not been simple and straightforward either because of the functionality of the system of the technology itself, so you made this great point about offline versus online functionality in Kenya, but we've also seen from many countries that the need for such a quick rollout and adoption of these new systems was challenging because we know that that type of digital transformation takes time and takes a lot of change management effort. And it's really interesting to hear in Kenya that they ... that Kenya is continuing to constantly iterate and adapt both the system and how they roll it out, but this is a really important point and really relevant for when we think about how transferable these systems are to routine immunization. Agus, if it's okay, I'd love to ask you, Indonesia is a more mature digital health environment in your health system in Indonesia. Did you have any problems initially introducing the PeduliLindungi system in terms of its use, its uptake by health care workers and other users, Agus?

00:18:22.79 >> Yeah. Actually for the ... At the first pass, it's very difficult to make them to use the PeduliLindungi, but when they know the benefit of this application, especially that they cannot enter the public space or they cannot go to the mall or maybe they cannot go to the theater, so they need to input the data and also to show the adequate [Indistinct] PeduliLindungi. And this is for benefit of them, and they who do not have complete vaccination, they go to the health facility to get vaccinated. And this is very interesting because we don't know that the effect of the complete vaccine is going to benefit them to do the activity in the life. So I think this is the first thing that we want to occur in the first phase of COVID, but later then we understand that they have facility and also the citizen can use this as a benefit for their activity, so this is very interesting. Yeah.

00:19:26.69 >> Thanks so much. Yeah, that is very interesting. Yeah, these are really important points about the systems themselves, and so this, I think, leads us really nicely into Jimi's segment, but before we go there, before Jimi introduces the CRIISTA framework, actually I just want to encourage people to use the chat again to share the experiences with your system in your country. Has it been easy? Has it been challenging? Have you been adapting and iterating on your system? Maybe if you want to share any of the challenges you're facing in the chat, please go ahead and do so as we shift over to Jimi. So, Jimi, over to you. I think this set us up really nicely for you to describe the framework that we developed in order to assess whether some of these systems can be or should be transferred over to routine immunization. Thanks. Over to you, Jimi.

00:20:22.52 >> Great. Thanks so much, Jessica. So I thought it would be helpful to begin by just revisiting at a high level a summary of the CRIISTA framework. So CRIISTA's aim is to guide support conversations around whether or not to scale COVID-19 IISes to routine immunization, and it was originally developed by ... based on existing frameworks and then revised based on feedback from an initial deployment in Kenya that you've heard a little bit about already as well as user feedback and coinciding activities that we've done over the last few months. Its intended users are MOH, EPI and HMIS decision-makers and program managers, although we really do hope that the tool can be adapted and used by NGOs, researchers and really anyone with an interest in ensuring that these really important decisions and discussions are carried out in a thoughtful and systematic way. The framework covers five domains: context,

functionality, technology, users and resources. And it's important to note that each of these domains, we look at ... We evaluate information from both the perspective of the existing COVID-19 IIS as well as the proposed routine immunization IIS, and we'll go into a little bit more depth in a moment on each of these domains. And then finally, the process includes an information gathering activity and then a consensus building activity, and we'll go into detail on that as well. So what exactly is CRIISTA? What is the framework? We wanted to package the framework into something that was super easy to use without being overwhelming, and so we developed a toolkit that includes the four resources that are shown here. The two resources on the top are PDFs, the user guide and an overview of the questions and prompts, really the content within the CRIISTA framework. And then the resources ... the bottom two resources are resources that are used to support the actual deployment of the framework, and it's important to note that these resources are able to be edited and adapted for a given use case or context. So the first one at left, we have an Excel sheet that facilitates data collection, and then separately but also kind of included in that worksheet we have a tool collect and then tally feedback from decision-makers during that final consensus building activity. We also include a PowerPoint template that provides guidance on summarizing the initial round of information collection so that that information can be formatted in a way to guide the decision-making activities. So we just talked about what CRIISTA is. So now I'd like to speak a little bit to who is involved in deploying the CRIISTA framework. So we begin with the core implementation team that is responsible for administering the assessment, collecting information and facilitating the final suitability assessment workshop. And we really ... We ask a lot of them. We ask them to have competencies in subject matter expertise for both digital health and immunization as well as capacity and project management research and conversation facilitation. Next, we have an advisory panel that is convened of EPI directors, senior MOH officials and others with decision-making authorities who have an interest in understanding whether or not it's appropriate to scale the COVID-19 IIS to routine immunization, and it's chaired by a senior official who really champions this work and not only leads discussions but also ensures engagement and participation from key informants and other advisory panel members. And then finally, we have subject matter experts and key informants, and that would be IT managers, national or regional EPI leaders and others whose practical subject matter expertise contributes to both the information collection and synthesis. So I'd like to now take you through kind of a high level overview of what implementing CRIISTA looks like. So we begin with a setup and planning activity where the entire team meets to identify key decision-makers and key informants and other stakeholders, identify national guidance documents and really kind of work plan for this process. Following that, there's an information collection and synthesis activity. So information is collected on both existing COVID-19 and the proposed routine immunization IISes via a desk review as well as key informant interviews, and that information is then synthesized into the slide deck that I had showed you earlier in the presentation to illustrate potential strengths, weaknesses, challenges and opportunities related to scaling the IIS to routine immunization. And then finally there's a suitability assessment workshop, and that gathers all of the CRIISTA participants, convenes them to review the synthesized findings and complete that suitability assessment to build consensus on whether or not it is appropriate to scale from COVID-19 to routine immunization. And I would note here that we've in parentheses included a timeline, and this is what we think a typical deployment of the CRIISTA framework might take. But we also allow for the fact that in certain scenarios where key informants and key stakeholders are easily gathered, this could actually be much quicker, and we hope that many, many of our users do find that it's a quicker process. Next slide, please. So I'd like to take you through just a brief overview of each of the five domains that we evaluate within this process, beginning with the first: context. And the aim of this domain is to really understand the extent to which the existing COVID-19 IIS is aligned with immunization and digital health strategies as well as to identify whether this work is a priority for the decision-makers. So some of the questions we ask are about political support and ownership as well as identifying and summarizing relevant national strategy guidance for both immunization and digital report eHealth. The next domain is around functionality, and so we look at whether the existing IIS would meet the needs of routine

immunization. We look at whether scaling the existing system would be an improvement over the current standard of care delivery for routine immunization, and then finally, we want to understand whether the new system could be easily integrated into existing RI systems and processes. So we're asking detailed questions about how the existing system works and then looking to understand what routine immunization challenges exist so that we can map the two together to see if they align. Next slide. And of course we're going to look at technology to understand whether the current HIS infrastructure is adamant to support the proposed IIS and then also how that aligns within the current HIS ecosystem. And to do that, we're asking questions around hardware, interoperability, reliance on electricity and connectivity and of course reliance on external data sources. Next slide. I'm going to go just a little bit off script and say that I was really happy to hear the discussion already around users and change management within the context of human resources. I'm a digital health technical advisor, but I certainly recognize that we have to prioritize users, and so our fourth domain looks at users to understand both the usability of the current IIS as well as the human resource requirements involved in supporting the current ... both the current and proposed systems. So we're really looking closely to see who the users are, what their technical capabilities are, whether those requirements change with the scale up or the transition to routine immunization and then finally what resources and processes are in place to support users from a human resource perspective. Next slide, please. And then finally, of course, we want to understand whether resources exist and are available to support the scale up, so we're asking questions around both financial resources as well as the availability of technical expertise, and specifically we're asking questions around recurring costs and recurring required resources so that we not ... understand not only what it takes to kind of catalyze this transition but also the resources required to sustain the new scaled routine immunization IIS. Next slide, please. So I hope that that overview, albeit brief, was helpful in understanding the types of questions we're asking within this process. I'd like to kind of come back now to the protocol or the process. So within the second and third steps that I shared earlier, the information collection and then suitability assessment workshop, we're looking now at the two tools involved or the two resources involved for the information collection. So on the left, you see the Excel document. One of the key pieces of feedback that we got from our colleagues in Kenya that hopefully you'll hear a little bit about later is that we needed to kind of streamline the data collection process, so we created an Excel document or Excel worksheet that has drop-downs for multiple choice questions. We've turned many of the open-ended questions into multiple choice questions to streamline the information collection process and made a number of other usability improvements to both help our colleagues who would be deploying this tool and then also improved the kind of quality and fidelity of the data collected. Once the information collection, and that's key informant interviews and desk review, is complete, we ask the team to then summarize those findings in a PowerPoint presentation for ... to be used in the final suitability assessment workshop. And so you can see just a screen grab there of some of the guidance that we provide around summarizing that information. Next slide, please. So CRIISTA concludes with a suitability assessment workshop where participants convene to review information collected in the previous step and build consensus by responding to a number of ... or a series of Likert scale prompts that summarize the suitability within each domain, and these responses are recorded in the Excel document, and then a dashboard, which you see here, is automatically generated to then facilitate the final part of that suitability assessment conversation. And we also hope by recording all of the both information collected as well as the outputs of the suitability assessment workshop in this Excel document, that the document itself provides a record of this process so that it can be reviewed ... both ... reviewed to evaluate the process. So I'll stop there in our overview of the CRIISTA framework. Hopefully this has been helpful. I would encourage you again to use the Q&A functionality to both ask questions in general about this work, and then if you have any questions on the content or the CRIISTA implementation protocol, we would love to hear those questions or feedback, and I'll preview a slide later in the presentation to say that we would be more than happy to follow up with individual conversations on this work. It's a really exciting time in the development of this work, and we'd love to hear your feedback and questions. But I'd like to

now turn back to our colleagues from Kenya and Indonesia, and I'd actually like to begin with Agus. If you could, Indonesia has taken the initiative to transfer PeduliLindungi to routine immunization, and you've talked a little bit about the functionality, but I'm just curious. Can you tell us a little bit about the decision-making process that led to this decision to invest in scaling it from COVID-19 to routine immunization?

00:35:44.38 >> Okay. Thank you, Jimi. Yeah, actually we have a good learning process for digitization during the COVID-19 pandemic. If now in our digital [Indistinct] grouping was built from this quick learning also. So but at the beginning, we experienced a lot of obstacles, actually. Almost 6 months after the app's launch, in the mid of 2020, it was not so popular and just become a bloated [Indistinct] app which drained their battery, so they just would switch it off because no benefit for them. Then by mid of 2021, we integrated the COVID testing and vaccine certificate into this app. So we also integrated an algorithm to set the precondition for entering the public space and traveling, so that's another [Indistinct]. So this was followed by the government [Indistinct] incentive at that time. And this effectively boost the number of the citizen to get the complete vaccination faster and increased the number of the user of this app from only 5 million to more than 100 million users completing their vaccination data. So at this point, actually, we realize that COVID-19 vaccine is already standard record of [Indistinct] vaccination individual data. So we also complete the ... our national information platform that we called [Indistinct]. So we were about to leverage this massive data to set for the routine immunization. We are now using the individual data, around 200 million data, from the COVID actually as real vaccination target and starting to [Indistinct] the routine immunization individually. So actually using the data from the COVID apps are with [Indistinct] PeduliLindungi, we have mastered individual data for each age group that will be useful for immunization target, and we can track their complete immunization through the mobile apps. So this is very interesting, and this is currently the rollout for the routine immunization for children. So last but not least, we keep trying to use the lesson learned from the PeduliLindungi app so complementing [Indistinct] to set the different incentive scheme, actually, so we have to make them feeling it is beneficial for them to complete their routine vaccination or routine immunization. We actually implement the precondition for school registration to have the complete immunization. So this is the things that we already doing in Indonesia, and we realized that the individual data is very important for the routine immunization, and we continue from the COVID data to the next routine immunization is very great [Indistinct] PeduliLindungi. Thank you, Jimi.

00:38:41.71 >> Thank you so much for that. Zooming out even further, and I'm going to put you on the spot a little bit here, but one of the things that has impressed me about the work that you and your colleagues have done is your ability to convene stakeholders, and you do that through the Digital Transformation Office. When I spoke earlier about the timeline and how we prescribe a several-week process, but I allowed that in many cases, that process could be streamlined if all of the stakeholders are really in the same room and able to convene quickly, and I think in many ways, it seems that Indonesia has been able to do that and actually institutionalize it within this office. Can you ... And I'm putting you on the spot because I didn't tell you that I was going to ask this, but could you talk just generally a little bit about the Digital Transformation Office and kind of how you bring folks together there?

00:39:44.77 >> Okay. Thank you, Jimi. So actually, the Ministry of Health [Indistinct] building the Digital Transformation Office, so this is a team that usually speed up the digitalizing process for Indonesia, and maybe we have right momentum in Indonesia because we began at the COVID, and we began at the Internet era already ready for the transformation, so this is a great momentum that let for us the transformation process in Indonesia. But mostly, we learned a lot from COVID actually because we understand that first of all ... first off that we ... that gift from the Minister is to build collaboration for the COVID apps that we already used before. So we think that if we can do the success for the COVID, so we can do it better for the ... on the health services in Indonesia, so we tried to get

the buy-in for the leader in the government, especially in the government also, but we tried to understand ... to make them understand that this is very important for Indonesia to get the transformation as a blueprint for 2021 and 2024. So we agree to set this as a digital blueprint. So when the blueprint is launched, the communications is possible to do with the other stakeholder and easier for us to make sure that all of the step that we choose for the digital transformation is already stated on the blueprint. So when it happened, the stakeholder understand what we do, what we going to do or what we want to make sure at the end of this transformation so they support this transformation, but we know this is not as smooth as I told you, but we understand that we have an important role actually right now as a [Indistinct] so we make regulation for all of these transformation to make sure that all stakeholder will convince and will obey this transformation process but not just a regulation actually. We also need to make sure that this transformation will be beneficial for the citizen and for the doctors and also for the health facility. So this is still our work, but I think we have a good lead actually for Indonesia, and we hope this routine immunization could be the first steps of our transition from COVID-19 into the more broader health services in Indonesia.

00:42:24.11 >> Great. Thank you so much for sharing that work. I see a question in the chat around the availability of the CRIISTA framework. It is not currently available to download from the MOMENTUM website. We're ... We do have a version that we are able to share, so we'll provide our contact information at the end. Please reach out to us, and we can share this work with you directly. I'd like to turn now ... return to Grace. And first of all, I will say just very publicly I thank you for all of your work in pushing this work forward. Grace was part of a team of colleagues in Kenya who led the initial kind of pilot and validation testing of this framework, and their feedback has been central and critical to revising the tool and making it more user friendly. So thinking about the questions posed in the CRIISTA framework, Grace, I'd love to just hear your insights on that content, how it was helpful and also kind of what you were able to get from the expert panelists that you worked with? A pretty ...

00:43:45.31 >> Thank you so much, Jimi. As you mentioned, we were able to test the beta version of the CRIISTA framework in Kenya. We found this a very useful process to guide discussions on what would be required to transfer the Chanjo Kenya system to routine immunization. Well, the stakeholders knew that some of the technical requirements or the resources to scale up Chanjo KE might not exist in different contexts, that is especially in remote places where there's a bit of challenges, especially on the network coverage, etc. So this framework was really helpful in bringing out some of the challenges that would come in different contexts. It was also helpful to think through what changes would need to be made in terms of functionalities because some of the things that would need to be changed, for example, a child might not need a vaccine certificate, but then [Indistinct] needs to know who is due for the next vaccine, and this information would be helpful for them for the tracing. So this framework was really helpful in thinking through the kind of changes that would be needed to adopt the system for routine immunization. It also helped us think through the current resources and how these resources would be used for routine immunization as well as the human resource, the devices for data entry [Indistinct]. Back to you, Jimi.

00:45:39.33 >> Great. Thank you so much, and again, I'm just so glad that you kind of concluded your comments there by highlighting human resources again. We can build the best technology in the world, but if it's not great for our users, then it will be challenging. I'd like to just quickly pivot a little bit and, again, thank you for some really amazing feedback on usability. We ... My kind of personal thoughts on the work that we did last fall was that we felt really validated in that we were asking so many of the right questions, but I think there was a lot of room for improvement around usability, and feedback from you and your colleagues was just so helpful in guiding the further development. Can you just share some of that feedback and kind of your thoughts on the direction that the framework ... the CRIISTA framework has taken? Over to you.

00:46:43.79 >> Yes. So when we first got the CRIISTA framework, we didn't really have a user guide, which would be helpful to help us understand how to use the CRIISTA framework for the different assessments, and so one of the additions that I've seen in the CRIISTA framework currently is the inclusion of a user guide, and this would really come in handy in ensuring that the different teams that will be using the CRIISTA framework will understand how to go through the different assessments, yeah.

00:47:25.30 >> Great. Thanks so much, Grace. Jessica, turning it over to you with a live poll here.

00:47:33.56 >> Sure, Jimi, and then we do have some questions that came in through the chat, so once we do the live poll, let's ... We can start with the chat questions, and then we can open it up for more Q&A. So everyone will see this poll on their screen. The question is: Is the CRIISTA framework relevant to your context and useful for your work? So could you see your country where you work using this framework to assess the transferability of your COVID-19 IIS to routine immunization? So please select one of the responses that you see there. Katie, I might need some help with the polls. I'm not seeing ... Oh, I'm seeing it come up! I'm seeing the responses come up. Thank you. So really ... Wow, this is exciting. Seven percent of you said it's not really relevant to my context, and that's completely understandable. Seven percent of you, another seven percent, said it is relevant to the context, but we don't need this type of framework because maybe we've already made our decision without it, and so that's an example. Indonesia is one of these examples, which with their digital maturity had moved quite quickly in terms of this decision. And then we have 86 percent of the votes saying it is relevant to my context, and I'm interested in exploring it further, which is great, and that takes us really nicely ... We actually just want to say out loud, and I think we have this on a slide somewhere ... Perfect. This is the slide. So our project MOMENTUM Routine Immunization Transformation and Equity, we do have a small amount of resources that if you are interested in using the CRIISTA framework in your country as part of a national assessment or transferability process, we have resources that we're happy to support you with that, provide some assistance or support or overview of the framework and how to apply it. So do let us know. You see our e-mail addresses there. Similarly, if you would just like to see the framework, please e-mail us, and we're happy to share it with you. I noted this in the Q&A, and Jimi noted this as well, the reason that we haven't posted it externally just yet is that we would like to have the second deployment. So you heard we had a first pilot deployment in Kenya. We learned a lot from that. We made some really important revisions. We'd love to deploy it again and learn from that experience and learn from you, and then at that point, we think we could make this a very publicly available global good. So but do let us know if you're interested in seeing the framework, even parts of it might be relevant for your work or for your context, so we're very happy to share that. So maybe with that, Jimi, I might start with some of the questions that came in through the chat if that's okay. So I'm going to start with a set of questions from Donald and Carolina. So Donald asked early on what was the CRIISTA framework based on or which other frameworks and assessment tools did we review when we developed CRIISTA? And so I noted in the chat, Donald, that we reviewed 15 different assessment frameworks. Some were specific to digital health, and some were not, and one of those, and, Carolina, this gets to your question, how similar is this to the EIR readiness assessment? That was a very important framework that we reviewed, and we wondered a lot at that time could we just use the EIR readiness assessment? Could we use an existing tool? But the main difference in CRIISTA compared to these other assessment tools, is that we really wanted to reflect ... we wanted questions and probes that could reflect on how different the COVID context is to the routine immunization context, similarly the functionalities, the use cases, the resources, et cetera. So for example, we know that many, many more resources, financial and human resources, have been made available for COVID vaccination than are typically available for routine immunization. We wanted to make sure that that came up very clearly in the tool. Similarly for the functionalities and the use cases, some of the functionalities of these COVID

IISes, I think digital vaccination certificate is a great example. Does that match up with the functionalities needed for routine immunization? So that's why ultimately we did decide to make a new framework but heavily informed by these existing ones. So I hope that answers that question. Okay, Jimi, maybe this is a question for you. Christina asked, does the CRIISTA framework help think through use cases, functionalities and standards? Jimi, do you want to take that question?

00:52:44.09 >> Yeah. So use cases, functionality and standards, you said?

00:52:50.44 >> Yeah.

00:52:51.13 >> Yeah. So I think ... Use cases, I think is really a broad term. I think one of the benefits of the way that we've envisioned CRIISTA framework is that we hope that it is adaptable and flexible to a number of different types of use cases, and that's both kind of operational and a number of different technologies as well. It's not just an EIR assessment, although we suspect, as we saw from questions earlier, that many of the technologies we would look at would be EIRs. As far as functionality, yeah, there's ... We didn't have okay space on the slide to go through, but we've really provided space in the information collection portion of the tool to really kind of dial in exactly what functionalities are included in the existing COVID-19 IIS and then compare to that to the needs and gaps in routine immunization service delivery. So there are a number of functionalities for you to look at, everything from vaccine past works to surveillance to adverse events ... tracking adverse ... Post-vaccination adverse events. And then sorry, the final one, I'm ... the final ... the third component that she was asking about, Jessica, I'm not seeing the question here. Oh, sorry, standards. Yeah, within the third domain, the technical questions, we do ask about data standardization and interoperability, so that's from the back-end a very important and central consideration to ... that we hope would inform the final decision on whether or not to scale from COVID-19 to routine immunization. Hopefully that answers your question, but if not, please feel free to e-mail, and we can continue that discussion. Over.

00:55:13.05 >> Thanks, Jimi. And then we had one more question from Gracie, which I think we've answered now, but Gracie asked, how many countries have we ... or, places have we deployed CRIISTA? So, Gracie, as Jimi and Grace discussed, we have so far deployed it only in Kenya in kind of that initial beta testing or validation pilot, but as we also noted, we would love to work with folks to deploy it elsewhere if this issue is a priority on national decision-maker agendas. And so Gracie has asked, do you have concrete plans to deploy in more places? Gracie, we are exploring different opportunities, but very happy to support anyone. I think this is ... maybe I should ... We can reiterate here, and, Jimi, feel free to add, we know how important an assessment like this is as part of a national decision-making process. We don't want it to be kind of a parallel project-driven assessment, so if a national Ministry of Health is thinking about this currently, is thinking about whether to transfer their COVID-19 IIS to RI, then we would be happy to support that effort, but we certainly don't want to push it or artificially suggest using this framework if it's not helpful to that country.

00:56:36.18 >> And, Jessica, I would ... Great point. I would just add that one of the things that we want to prioritize is that this is ... that this framework really is helpful to those making the decisions, and so one of the things that we learned and integrated into the CRIISTA toolkit was a section that we have labeled "Is CRIISTA Right For You?" And so we really want to make sure that this is a helpful resource and that it's reaching the right folks, and so we're happy to share the resources that we have that include that "Is CRIISTA Right For You?" guidance in hopes of finding where this work can be useful. Over.

00:57:29.80 >> Wonderful. So we are coming up to the end of the hour. It has been so great to have all of you here today and sharing your experiences, sharing what's happening in each of your countries. As we noted, we will ... we've recorded this webinar, and we will share it, the recording, to everyone who has registered for this, which is all of you plus others. Please feel free to stay in touch. You should have my e-mail and Jimi's e-mail, so please feel free to reach out if you're interested in learning more or working with us, and yeah, really great to have all of you here today, and good luck. We know that this is very challenging work, and so it's been wonderful to see all of the learning and all of the excellent progress that's been made over the past couple of years on this, so thank you. Have a wonderful afternoon. Oh, sorry, forgot the evaluation. Please take a screenshot of this QR code so that you can share any feedback, and thank you so much again. And you can also find a link in the chat. Thank you, everyone.
00:58:48.82 >> Thank you.

00:58:54.58 >> Thank you.