>> Dave Clark: Greetings and welcome to today’s Dialogue4Health health forum on Innovations in Maternal Mortality Reduction. I’m Dave Clark, host for today’s event. Before we get started there are just a few things I would like you to know. First of all realtime captioning is available for web forum provided by Home Team Captions. The caption is on the right side of your screen. It can be toggled on and off by clicking the Media Viewer icon on the right of your screen. For Mac users, the lower left. If you would like to use captioning you’ll see a link that says “show/hide header” if you click that link you will be able to see the captioning more easily. If that window disappears click the Media Viewer icon I mentioned to bring it back again.

Now, concerning the audio, today’s web forum is listen only. That means that you can hear us, but we can't hear you. That doesn't mean that today's event won't be interactive. We will have a Q&A session at the end of the web forum. You can type your questions at any time into the Q&A panel. The Q&A panel is also located on the right side of your screen. It can be toggled on and off by clicking the Q&A icon you will see on the right of your screen. If you are on a mack you'll see that on the lower right of your screen. All panelists should be selected. Choose that option so the question gets sent to the right place. Use the Q&A panel to communicate with me and my colleague, Christina, if you have technical problems including audio issues. Let us know, we'll help you out. We are interested in your thoughts and questions on this topic. Be sure to get them into the queue. We'll try to answer as many of them as we can, I promise.

I think that's everything you need to know about for today. So let's get started with today's presentation on innovations on maternal mortality.

Our moderator today is Francine Coeytaux, the Principal Investigator at Public Health Institute. Francine has over three decades of experience in the development and evaluation of family planning and comprehensive reproductive health programs.
Throughout her career she has worked to empower women to manage their reproductive health and rights and has pioneered the use of acceptability research to give voice to women in the shaping of public health agendas. She has published extensively including on abortion, new contraceptive technologies, and access to reproductive health services, particularly in Sub-Saharan Africa.

Francine, over to you.

>> Francine Coeytaux: Thank you, Dave. Welcome to everyone (speaking French.) and welcome to Innovations in Maternal Mortality Reduction. It is amazing to be able to communicate with you with all of you from all corners of the world.

At last count, there were 154 people registered on this web forum, calling in from all six regions of Africa. In addition, we have participants from 15 countries outside of Africa. Thank you all very much for participating.

Our goal today is to share the findings of an evaluation that we were asked by the MacArthur Foundation to conduct in 2014 to evaluate the progress that had been made toward increasing community-based distribution of Misoprostol for the prevention of post-partum hemorrhage. In 2014, the MacArthur Foundation focused on this project, aimed at reducing maternal mortality in Sub-Saharan Africa. They were interested in documenting the methods used for distribution and the respective project models in each country.

In today’s webinar we will share the lessons learned regarding the use of Misoprostol to prevent post-partum hemorrhage, which is part of a larger study looking at preeclampsia, which we will talk about.

We conducted this evaluation in the second half of 2012. We produced a case study for each of the three countries: Nigeria, Ethiopia, and Ghana and synthesis report all of which are available on the Dialogue4Health website.

Today thanks to the support from the MacArthur Foundation we are able to share our findings with you. And thanks to funding from the International Development Research Center and the West African Health Organization we are able to simultaneously translate the webinar, making it available in French as well as English. So to those of you listening from Francophone countries (speaking French.)

Now, I am proud and excited and pleased to introduce to you several members of our team each of whom will present the highlights from the country case study. The first is Dr. Sada Danmusa. Dr. Danmusa has been implementing and evaluating large scale maternal and reproductive health programs for two decades. He currently coordinates efforts to strengthen the capacity of public health officials to achieve Nigeria's ambitious family planning goals. He joins us from Nigeria, where he lives. Sada?

>> Sada Danmusa: Thank you very much, Francine, for this introduction. And as Francine said, I'm very happy to be part of this panel and to give our experiences in scaling of access to Misoprostol at the community level in Nigeria. Now, just a little bit about of background. We know Nigeria has a very high maternal mortality. It contributes close to 10 percent of global maternal mortality. It is just 2 percent of the global population. And post-partum hemorrhage which Misoprostol is addressing is a significant part of that mortality. It forms about a quarter of all maternal deaths from the estimates in the country.

Now, looking at the setting, the setting where we did the work is really, it characterized the problem. The region has a very high maternal mortality. It has a lot of women, in fact most women are delivering at home, not at the hospital. For instance, the study
recently around the time we were doing our study in Zaria, in northern Nigeria, traced women who attended for the minimum number of times. When they are followed, only 3 percent of them came back to deliver at the hospital. Which means 97 percent had contact with the hospital but they prefer to deliver at home.

And this problem is really created by a lot of contexts. You know, the cultural context, socioeconomic, political and all. As you can see from the slide, there is some pride in home delivery, which is really inconsistent even with the knowledge of what is, what exists in the hospital setting.

So this is really a very intractable problem in northern Nigeria and in general all parts of Nigeria and most parts of Sub-Saharan Africa. This Misoprostol as a drug is a very important drug.

So what we are doing is to, as Francine said, is trying to give a report of an assessment. We did an evaluation, some evaluations that MacArthur funded, over ten years in Nigeria, to be able to scale up the use of Misoprostol at the community level. All of these partners work at a strategic level. Different aspects of the issue, what is needed to take Misoprostol to the community level. But I am going to concentrate on the first one, Population and Reproductive Health Initiative which was done by Ahmadu Bello University in Zaria, because that is really where delivery of Misoprostol was done to the woman in her setting.

All the other components, all the other projects also worked to ensure that access to Misoprostol is gotten, but really this is the only one that delivered it to the woman at home level.

So I'm going to concentrate on that.

Now, this is the model of the distribution that was used in the Zaria work. This is the pictorial presentation of how the distribution is. It is an advance distribution which means that the woman gets the supply of Misoprostol while she is at home, before her due date. So she doesn't have to go to the hospital and she doesn't have to do it when she is delivering before she gets the drug. That is what the advanced distribution is.

Like all community distribution methods that uses this kind of model, it is basically to overcome challenges that are related to cultural preferences, to finances, to distance, to hospital, and that is what the Zaria model used in ensuring that Misoprostol is provided to women at the community level.

So in summary, I am going to talk briefly about the key findings of what we are able to see from the result. Basically, the key findings of interest are divided into two. Those that try to answer the question of really the distribution model, how has it fared at the community level. How has that influenced the national system? That is what we are all trying to look for.

So at the community level from what you see on the slide, there has been high acceptance of Misoprostol in the community with over 83 percent of women using it, pregnant women using it and almost all of them saying that they will use it again or they will recommend it to be used by someone else.

And it was also seen to be very effective in preventing post-partum hemorrhage in the same way there is an estimated decrease in post-partum hemorrhage that is seen in the users of the drug. The key question of whether the community distribution by traditional birth attendants is seen as effective. Most women who got it got it from the TBAs. This could be distributed in the community by these, the tradition at birth attendants. In
terms of the key question whether it can be used correctly, it was demonstrated by the study that 97.5 percent use it correctly and slightly less than that use it at the right time too, in addition to using the correct dose.
The policy level also, the project, the work was able to make the government to develop new guidelines for the use of Misoprostol to prevent and to treat post-partum hemorrhage at the community level. And also I am happy to say that it also used the, the will project also was useful in getting Misoprostol on the essential drug list of the country. So they are very important key findings which demonstrated that the work was quite important.
In terms of the challenges because there are a lot of real challenges that are seen even though the grants and the projects really worked very well. One of the major issues we see is that the work in Zaria was difficult to replicate because it created its own structures. And there is poor clarity of who is a trained community agent.
Now, the policy, the guidelines that the country developed identified a trained community agent, but the health workers and policy health officials interpret that to mean somebody who has been formally trained. So that does not include the people that were using the Zaria model who are lay workers without any formal training.
So these are some of the challenges, significant concerns about misuse. Misoprostol has been, there is a perception that it can be used to induce abortion. Certainly it has been used, but this particular issue has been created limitations to people accepting Misoprostol for use at the community level.
The other challenge we also noted is the inconsistent product quality and cost, because a lot of interviewees say that clearly the quality differs from one brand to the other. Some you have to increase the dose and with what we have in terms of side effects, it is really a very key thing in terms of trusting Misoprostol at the community level.
So just rapidly I am going into the recommendations. We recommend that any work to take this into scale, to take Misoprostol to scale should work with the existing structure rather than create new ones. As the Zaria model did. We also recommend that that should be addressed in the policy of clarifying who is a trained community agent in the same way that you have the -- the project used community agent as a trained community agent while health workers and health officials are insisting that is not what a trained community agent is. That is now preventing these lay health worker from distributing Misoprostol.
And there is also the need to train properly more health workers because most of the side effects that are noticed really have to do with incorrect use of Misoprostol. And we also recommend that there should be more consistency in the quality, perhaps by picking, finding a good brand, a good drug from one company and branding it so that everybody will be using it and the issue of branding will not be at issue. Quality will not be a very big issue preventing Misoprostol from being taken to the community level at scale.
So basically this, in summary, what we are able to do. I will now hand you back over to Francine so that she introduces the next speaker.
>> Francine Coeytaux: Thank you very much, Dr. Danmusa. Now we are going to move to Ethiopia. But unfortunately, Dr. Geressu was not able to join us today. I'm very sorry because not only was Dr. Geressu the lead on the evaluation in Ethiopia, but he is
a vivacious and exciting presenter. I will do my best to present his slides. Let's see. I need to move this. Oh, good.

So Elisa Wells, who will be the one presenting the synthesis, and I were part of the team that did the program in Ethiopia. We can speak about it first hand. The other member of our team was Senait Tibebu.

The setting of this particular project was in the Amhara Region of Ethiopia. In 2008 the Population Council proposed to the MacArthur Foundation an innovative approach to providing Misoprostol at the community level in this part of Ethiopia. The project, as you can see, this is an area that, like Dr. Danmusa mentioned in Nigeria, has high levels of maternal mortality and faces limited transportation in rural, very vast region with poor roads and extreme terrain.

The project proposed to train lay youth workers from the ministry of youth and sports and provide Misoprostol to women living in the rural communities where many women were still adolescents. The youth mentors were part of the ministry of sports. They worked in collaboration with people from the regional health bureau. The project was, as I said, proposed and run by the population council.

So the plan, the model was to have lay mentors working community health workers with the Amhara area, expand out to the regional communities and serve all women, not just the adolescents, who might not have access to health facilities.

The model involved synthesizing the communities and also providing home outreach. The idea was to do so and make sure that someone would be there to provide Misoprostol at home during delivery.

So there was training to equip the mentors and the health extension workers with basic messages. Once trained the mentors were the youth mentors went house to house in the communities registering the pregnant women and noting their expected delivery dates, educating them and their families and the community leaders about post-partum hemorrhage and Misoprostol. As the women neared their due dates the mentors increased their visits to give advice and on birth preparedness and to share telephone numbers. The women were instructed to call the extension workers and mentors when labor began. They were the ones responsible for bringing the Misoprostol to the delivery where either they or health extension workers would administer it in the few minutes post delivery. In contrast to the model that Dr. Danmusa just described, this was not what would be called advanced distribution because it required the mentors or the health people to be there at the time of delivery.

So this and other pilot projects in Ethiopia, projects such as the man health project in the Oromia Region of Ethiopia provided evidence that post-partum hemorrhage, the method of giving Misoprostol for post-partum hemorrhage is valued and can work. Still, numerous barriers continued to exist, including numerous challenges.

So, for example, the biggest challenge in this case was that this model of requiring a mentor or a health delivery person to be there at the time of delivery proved very difficult for all the reasons that we knew because of access. Also this innovative idea of working across sectors with youth ministry and the health ministry proved very challenging. These parallel ministry structures did not work very effectively in collaboration. The advanced distribution, this giving it in advance to women before they actually -- so that they could take it themselves was not really accepted by many of the officials, especially in the health sector. And the same concern that Dr. Danmusa
mentioned about this possible use of the Misoprostol for abortion rather than for post-partum hemorrhage caused tremendous political concerns for the authorities. Finally, there was the concern that this community distribution would undermine the push that the government had for trying to increase institutional deliveries. So this project in a way ended, there were too many constraints and problems. But as I mentioned, a number of other pilot projects by other groups have been taking place in Ethiopia. And have been showing the same success that the Zaria model showed. So the recommendations that we made from our evaluation was that there needed to be a lot of education and work with the stakeholders and policymakers to accept and understand that advanced distribution could complement the efforts to increase facility delivery and not to see it as something that was going to hinder their efforts to increase the fact that women, to get more women to come to deliver at facilities. Then another recommendation was that there is a structure that exists already in Ethiopia that is quite exciting and different called the Health Development Army, which is in all of the communities and recommending that, looking at possibly positioning this advanced distribution of Misoprostol as a part of what this Health Development Army could do.

So I think we'll now leave Ethiopia and turn to Ghana. I am very pleased to introduce to you my colleague Esther Azasi. Let me see. I lost my notes here. Sorry. Esther, at the time of the evaluation was finishing her Master's of Public Health at NYU and just given birth to her daughter Annie, whom you see here in the picture. Undeterred she took the lead in Ghana and was so outstanding she was subsequently hired by the program as associate program manager for the One Million Community Health Workers in Ghana. She is about to commence a Ph.D. program in Edinburgh. And we will hear from her in the future. Stay tuned. And please welcome Esther, calling in from Accra, Ghana. Esther?

>> Esther Azasi: Thank you, Francine. Ladies and gentlemen, I'm extremely happy to you present to you findings of the community-based distribution of Misoprostol for post-partum hemorrhage prevention in rural Ghana. This was part of the Millennium Village Project in Ghana which emphasized improving goals and improve the economic conditions of these selected communities. Misoprostol was one of the MVP health projects achieving the health-related goals. This is specific to MDG5.

I wish to speak that a lot of achievements have been sought in an attempt to scale up this model in Ghana. Ghana has made a lot of tremendous strides in scaling up this model. So our report is very specific to the individuals contacted. So the project was funded by MacArthur Foundation. As I indicated earlier, it was implemented through the Millennium Village Project in collaboration with the University of Illinois. It was intended for the prevention of post-partum hemorrhage, called the Bonsaaso Millennium Village in Amansie West District of southern Ghana. The primary health centers served the population of 30,000.

Later on in 2014 the MVP secured more funding to scale up this amazing model for the entire Amansie West District as well as to some of the communities in northern Ghana as pictured on our graph.

Some quick facts about Amansie West. In relation to the national averages at the time the research was conducted, maternal mortalities were as high as 380 per 800 live births. That is unacceptable, you will agree with me. Home delivery was as high as 70
percent. There were challenging conditions for people to access quality healthcare, rural areas, poor roads and limited access for women to give birth ... in response to this, the MVP adopted this model, advanced distribution of Misoprostol to women. Ladies and gentlemen, this model was integrated into the existing Ghana Health Service system where Misoprostol was seen as part of a continuum of care model for PPH along with placing so much emphasis on delivery and identification of PPH, transport and other services. The district largely took advantage of high neonatal attendance. Many of our women visit health facilities at least once during their pregnancy. It was a good model to take advantage of. Again, it is leveraged on Ghana’s home visiting model where community health workers and volunteers visit the women at their home for health, education and promotional activities.

Let me just refer you back to the scene that you are seeing. The model started with the community sensitization where stakeholders of Misoprostol met with community members to advocate or educate women and community members about this essential drug. This was followed by home outreach by traditional attendants and community health workers who went into homes, identified pregnant women and educated them about the need for a healthy pregnancy as well as referring them to the nearest health clinic or healthcare provider. At the health service, the midwife or whoever was in charge had the opportunity of advocating for facility delivery and also describing how Misoprostol could be used for PPH prevention. And at the same time the woman was giving some tablets, this magic tablet, Misoprostol, to take home with her in case she is not able to make it for a facility delivery she can save her life if there was any PPH case.

Now, these were our key findings. We discovered there was increased uterotonic coverage at best. Ladies and gentlemen out of the 100 people who used the medicine or the drug, 99 of them used it correctly. So that was really amazing. There was also increased facility delivery. In terms of figures, facility deliveries soared as high as 70 percent. That was really a great achievement from when it first started with 30 percent of facility delivery.

Then again we had high Misoprostol acceptance in the community. Everyone hailed the drug, especially for beneficiaries who wouldn't have made it to facilities or would have lost their lives. They were very, very happy that this model was introduced. I remember from one of the discussions with the Queen Mother of Amansie, she was like: No, you have to scale this up nationally. Don't wait for the pilot to end. This focuses on how essential this medication was to people.

In Ghana, at the time of the research we also identified that the government and other stakeholders had increased so much efforts to scale up the model. And as I earlier on indicated, grants were sought to scale it up through northern Ghana. Now, this success went on and provided some challenges. Policymakers were concerned about the misuse of Misoprostol for abortion. And I think Dr. Sada also mentioned this the same in Nigeria. There again we have a challenge of resources for training and procuring the drug for scale-up. In addition, we realized that midwives were a little bit burdened, not because they couldn't distribute Misoprostol, but the project came with a lot of responsibility administrative responsibilities. It was difficult for the already burdened midwives in the communities.

We also found as a key challenge, areas in Ghana that did not have the MVP interventions might have a challenge in scaling up rapidly. The MVP had interventions
in a lot of areas, including health, Agribusiness, agriculture, and so for areas who didn’t have the MVP, we were worried that scale up would be slow.

These are our chief recommendations from the research. As part of the research of the model, of the Misoprostol model, is drug guarantor and retrieval requirements were attached. So before Misoprostol was distributed to a woman, she had to bring a guarantor and, you know, before the drug was dispensed to her. So we thought that she would be -- we thought that should be eliminated. As I indicated earlier in my presentation, midwives had to go through a lot of administrative work. We thought that streamlining this into data collection requirements of the existing Ghana health service model would also ease up some stress on the midwife to care for more pregnant women.

The financial constraints identified as a key challenge. We thought that incorporating Misoprostol training in our health schools would reduce the burden on the government and other implementing agencies. Then again, we thought lower level facilities and Ghana’s community based health planning and services compounds could be distributing Misoprostol. In Ghana, the Community-based Health Planning and Services compounds could distribute Misoprostol. These could conduct emergency deliveries. If they are able to conduct emergency deliveries, it should be possible to distribute these drugs if there are PPH cases. These of the recommendations that we made.

In addition, we thought that methods like DKT could be useful for packing Misoprostol as a single use. At the time of the pilot, these resources were cut up for women and we thought this could be well packaged for a woman and it would be more viable to use than cut out.

Ladies and gentlemen, we are happy to announce to you that Ghana is well poised now to expand community based Misoprostol services to women in other rural communities. I'm also happy to announce that the drug guarantor and retrieval requirements have been eliminated since the pilot. Again, very, very crucial to scale up is the addition of these drugs to the National Health Insurance essential drug. That is really a key, key achievement for our country.

Unfortunately, we still are battling with some few challenges. One of them is that recently our National Medical Stores was razed by fire. It is difficult for the health service in Ghana to adjust to the changes. Still we only need to get more resources to get all the training out of the way to scale it up.

Ladies and gentlemen, thank you so much. This is the end of my presentation. I hand it back to you, Francine. Thank you.

>> Francine Coeytaux: Thank you so much, Esther. You can see, everyone, why Ghana is lucky to have Esther working on this project, continuing to work on it and continuing to take on the challenges. Thank you.

Now I'm happy to pass the baton to Elisa Wells, my coinvestigator and research partner in all that I do these days. Elisa has brought to the project more than 25 years of experience in evaluation of reproductive health programs and in the introduction of emerging technologies. And no one can synthesize and describes complex findings better than she. I'm going to pass it on to you, Elisa.

>> Elisa Wells: Thank you, Francine. So I will be presenting, as Francine said, a synthesis of the lessons learned from the evaluation of the three different project approaches. Just to reiterate, because this was a process of evaluation and not an
impact evaluation our focus was really on how the programs were implemented and what some of the successes and challenges were in operationalizing the models. And I first would like to briefly review the three models. We heard a lot of information. So in Nigeria the project set up systems in the community for educating women with Misoprostol and then allowing them to get the drug in advance. These systems were things like community drug keepers and a revolving drug fund that helped provide the Misoprostol to the women.

And the will project also involved traditional birth attendances who could bring Misoprostol to the birth and had heavy involvement of community leaders. In Ethiopia it was the lay youth mentors and community health workers, extension worker who worked together to raise awareness about Misoprostol in the community and kept a registry of the women who were pregnant and then when women went into labor and couldn’t reach a facility they would call the mentors or the extension workers and they would bring the Misoprostol to them at their home.

And then in Ghana, it was a true advanced distribution model where there was a lot of home outreach by lay workers to encourage women to attend antenatal care and then midwives gave the Misoprostol to women in case they needed it. They did a lot of work to encourage women to present at facilities for delivery.

In all three the countries, we found that Misoprostol really provided a very practical approach to a real problem. It was a heat stable pill, inexpensive, easily transported and stored and used. It’s very practical.

And the different approaches very much recognized that many women give birth at home and there are multiple reasons for that. Some were cultural as Dr. Danmusa said. In Nigeria it is considered a pride for a woman to deliver on her own at home. In all three of the countries, as was reported, transportation and access to vehicles, to get to a delivery and road infrastructures are all very much real problems. One of the greatest quotes from a woman in Ghana was that she said the only means of transportation available in my community is motor bike. And you can bet that it is not an easy task for a pregnant woman to sit on a motor bike. That image gives you a sense of the very real challenges that women face.

Another thing that women reported to us as the reason for still giving birth at home was the quality of care in facilities is not good. They don’t want to go to those facilities. All of these projects also demonstrated that women were able to be very successful in using Misoprostol outside of the conventional medical paradigm which is a facility delivery with a trained provider. And then in all three models Misoprostol was seen as a very important safety net on the continuum of care for maternal health services.

So what were the challenges? One of the biggest challenges we found was an overall mistrust of women's ability to use Misoprostol safely. There was a reluctance by health workers to give Misoprostol to women in advance in some of the situations. There was doubt expressed that women could safely store and use the drug. And fear or a concern that women would use it for abortion.

But I would say that we saw no evidence that these fears were founded. In fact when we asked women if they felt they could use the Misoprostol effectively they were totally confident about it. As a woman in Ethiopia said: "I support giving women the tablets because things do not go as planned. They go God's way."
I think the best example of women’s competence tense to use Misoprostol effectively came from another project, the man help project also in Ethiopia. In that instance it was reported that a woman brought her Misoprostol pills which she received in advance, she brought them to the facility where she delivered the baby. She took the pills herself in front of the health workers after informing them what she was doing because she knew more about the pills than they did.

A secondary of challenge but also an opportunity in all three countries was involving lay workers. So the challenges we found included that there was a level of mistrust between levels of providers. For example, with mostly higher level providers mistrusting the abilities of lower level providers. Because lay workers were the lowest, they were the least trusted. And not thought that they could do as much as other people.

One specific area of concern was midwives felt that traditional birth attendants would use Misoprostol for labor induction. And indeed there was evidence that Misoprostol was being used to induce labor, especially in Nigeria. But interestingly, it was the higher level providers who were doing it, not the traditional birth attendants. But the success was that in all three of the countries, the lay workers proved very successful at expanding outreach and promoting safe delivery. This sort of door to door work that the lay workers were able to do was obviously very time-consuming and a task that midwives and other trained health workers did not have the time to do. So it was a great boon to have this outreach going on.

Product issues also proved very challenging. But because these were just pilot projects they didn’t really provide a good picture of the product issues, what those might be at scale. But all three countries did have supply issues. Because there was no dedicated Misoprostol product for post-partum hemorrhage in any of the countries, the projects cut up pill packs from larger pill packs and repackaged them. This picture shows how they were repackaged in Ghana.

There were reports of power outages and variable pricing in the market which made the concept of the revolving drug fund very difficult to maintain. And then we also witnessed supply issues in Ethiopia with lots of Misoprostol getting backlogged at the regional level where in fact it was expiring because there was so much of it in storage. But with none of it getting down to the district level and into the communities.

And then we also heard from key informants that the quality of the Misoprostol product was sometimes an issue.

So what seemed to work best? Well, we found that advanced distribution is key. This was very clearly demonstrated in both Ghana and in Nigeria. And what we heard over and over again was that the only person who is guaranteed to be at the delivery is the woman itself. So it makes sense that she be the one who has the drug in her hands. As Francine discussed in the model, the extension workers often could not make it in time to the delivery to provide the drug.

We also found that incorporating the service into existing systems helped with the success. That was most evident in Ghana where the design was very well integrated into the antenatal system and that was used in Ghana and it was a very great situation. We found that involving and educating the lay providers was successful. As described before, the lay workers were greatly able to extend the reach of the program and finally
champions were critical to the success of the programs. We saw that particularly in Nigeria and Ghana.

Based on the evaluation findings, we recommend three ways of framing community based distribution of Misoprostol to help gain acceptance of it. First it can be framed as a safety net in the continuum of care for maternal health services in case women can't make it to a facility which is a very real thing for many women.

Second, it can be framed as a right for women to have access to it. We did witness women starting to be demand access to the drug once they knew about it, and knew about its life saving properties.

Third it could be framed as a harm reduction strategy. It might not be the ideal, which would be facility delivery, but it is a good way to prevent deaths until the ideal can be achieved which in some countries is probably still a long ways off.

With respect to policy recommendations, there is definitely a need for the World Health Organization to complete its review of currently available data about advanced provision. WHO currently doesn't condemn advanced provision but it doesn't endorse it either. There is lack of clarity for countries moving forward. But WHO has added Misoprostol to its list of essential medicines for post-partum hemorrhage prevention. That is really good news.

We also recommend updating policies so that we can allow trained health and lay workers at lower levels, those that are really closest to the women, to handle Misoprostol. All of these projects demonstrated that the closer we can get the drug to women, the more likely it will be that women will have access to the drug when they need it.

And then access to product was an issue in all three countries. On this issue, we see a lot of potential for the private sector to help with expanding access, especially given the very successful reach of contraceptive social marketing programs like DKT and PSI, but policies may need to be changed to allow this to happen.

And then finally, as community based models moved towards scale-up, reliable access to the product will be important. The Misoprostol needs to be in the national supply chain including at the community level. Having mechanisms in place to do that. And having a single dose product would really greatly help with distribution. This picture here of Miso-Fem shows an example from Nigeria of a four-tab let product that is packaged and labeled specifically for this indication.

And also finally, continued efforts to address quality are needed. And I know that reproductive health supplies coalition has been working on many of these product-related issues. We have included a recent publication about this in the resources section of the webinar website that you'll learn about at the end of this webinar. So you can go there for more information.

So in closing I just want to leave you with these words from the Queen Mother of the Amansie West District of Ghana who was a great champion for the distribution. In her words: A drug as important as miso should be accessible by all and not just in specific communities. We want scale-up now because the drug saves lives.

Thank you and I'll turn it back to you, Francine.

>> Francine Coeytaux: Thank you very much, Elisa. Thank you, thank you. And thank you to Dr. Danmusa and to Esther as well. And thank you to Dr. Geressu who may be listening in, but we are sorry was not able to be here.
Before we open up to discussion, we wanted to acknowledge the fact that we know that there's a lot of other great projects happening in other countries. We conducted this in 2012 and lots has happened since. We wanted to cover a little bit of what is happening in some of these other countries. This is by no means a complete list. We've mentioned a number of projects even in our presentation that aren't listed here. But we wanted to just go through and tell you some of the key ones and just point out that on the webinar, on the website of Dialogue4Health you are going to have access to the entire transcript of both the French and the English presentation, as well as all the slides. And so if there's information on here that I am about to go through very quickly, please feel free to go back and look at the slides and follow up on the resources that we are recommending. There is also a tab specifically for resources that gives you access to a number of articles and specific resources that we thought would be very useful. So please take advantage of that when you have a chance.

So first I wanted to mention a study that was done -- I'm sorry, I said 2012, but we actually did our study in 2014. This is the study that happened in 2012 prior to that. This was in Kenya, Tanzania. The Public Health Institute and Ipas provided small grants to 28 community-based organizations in Kenya and Tanzania and to educate about gynecological uses for Misoprostol. That was to educate the communities about both uses, use for post-partum hemorrhage prevention and abortion.

So the partners of this study were the Center for Study of Adolescence and KMET in Kenya. And Ifakara Health Institute and Women's Promotion Center in Tanzania. The findings of that study which have been publish understand and can be found in the International Journal of Gynecology and Obstetrics, even where abortion is restricted and stigmatized, community-based organizations can publicly and openly share information about Misoprostol and can increase access to the pills without political backlash.

This was the importance of this study. The groups that were funded, the 28 community-based organizations were not all health organizations by any means. They were all types of community-based organizations. Some working with disability groups, some working on education. They were across the sector. And often times the unlikely groups that you would think would even be interested in this project. But when they learned there was information that could help their communities they got on board and were very creative and thinking of ways of getting information out.

So that's why we included the study. Again, it is available through the International Journal of Gynecology and Obstetrics and on the resource tab in our webinar. Next I want to move to Senegal and Niger. And really the work that Gynuity Health Projects is going in those two countries. In early 2016, Gynuity health projects began evaluating the feasibility of community-based models, the models that we have been describing. And also provider and women's knowledge of Misoprostol in these two countries, Senegal and Niger.

Both countries launched national programs to improve post-partum hemorrhage management and by launching a widespread introduction of Misoprostol particularly for community level births. And so Gynuity is evaluating and working with them. In Niger, efforts also included the introduction of Misoprostol along with the uterine balloon tamponade and the anti-shock garment. It was done as a part of a three-prong approach.
Gynuity has done some of the most important work in this area of evaluating and introduction of post-partum hemorrhage management. So I really recommend that if you are interested in getting any kinds of information or resources, go to their website, Gynuity Health Projects. In particular, I listed here a website that is about the self administration of Misoprostol for prevention of post-partum hemorrhage. This is a tool that is available on their website that was developed. It is using pictures and easy to understand instructions that give women to women on how to self administer Misoprostol for the prevention of post-partum hemorrhage. It is a really great tool. Again we made that available also on the resource tab on the webinar, this Dialogue4Health webinar.

Next let's go to Tanzania. There is quite a bit of work happening in Tanzania. And again, this is not by any means a full list. This is a few of the people that we can tell you what their work is, but lots is happening in Tanzania in part because of the work of Ifakara and their sort of taking the lead in really looking at the use of Misoprostol for post-partum hemorrhage.

So we have here two projects. Both of these projects are being run by Dr. Chirangi and Dr. Webber, their information is at the bottom. The first is the saving mothers project. It is in Bunda and Tarime Districts of the Mara Region of Tanzania. It involves the distribution of birth kits with Misoprostol to women for self administration. That that's advance distribution by community health workers and nurses. Also health education about facility delivery. Just as Elisa mentioned, doing both, really educating and urging people to increase use of health facilities while at the same time giving advanced provision of Misoprostol.

The second project is the each woman health project. It is in the Rorya District, also in the Mara Region. It is implementing multiple interventions to improve access for women to healthcare at the time of delivery. And this also includes distributing birth kits with Misoprostol to women.

Continuing in Tanzania, there is something called the mobile mama project. This one is being led by Dr. Mbaruku who again is one of the reasons we know so much and are doing so much with Misoprostol for post-partum hemorrhage because of his leadership. Community-based pilots to address post-partum hemorrhage, and this one is nested within a larger preeclampsia project implemented by Ifakara and Queens University. It involving a novel eVoucher program to distribute birth kits and Misoprostol using SMS vouchers issued by nurses via mobile phones. This is through the antenatal clinics. The Misoprostol is linked to purchase of other essential commodities. This is incorporating it into a larger program and the pilot also includes educational behavior change, messaging through SMS. This is a program that is really novel and taking advantage of a lot of the sort of mHealth technologies that are available.

Moses am being. There is a strategy for the prevention of post-partum hemorrhage at a community level. This is a national strategy because in 2015 the minister of health started to distribute Misoprostol to women via antenatal clinics. This is for self administration and also via traditional birth attendants. The strategy aims to distribute Misoprostol to women in 35 districts across the country. This is really going to scale. The number of partners, Minister of Health, USA, Jhpiego and the policy will review the policy and early implementation and it will commence at the end of this year in three provinces. If you want more information you can contact Karen Hobday.
So again I just want to say there are many other projects happening. There’s a lot happening that is very exciting. We just really wanted to highlight these just to make clear that we know that our project that evaluated three programs was not by any means the be all and end all. On the contrary. A lot of exciting things going on. That brings us to the interactive part of our webinar. We hope that you will send us some questions. Just a reminder from what Dave gave you at the beginning. We have a feature that allows you to type in a question. Make sure that you select "ask all panelists" then click send. We will look these over and try to answer as many of them as we can.

Many of you also sent us questions or comments when you registered. We thank you for that. Because we noticed that many of you had very similar questions. So we thought we would begin with those.

The first is a question in French.

(Speaking French.)
In English many governments have not yet put in place these treatment methods due to the resistance of health officials. How have countries overcome this obstacle? Many have not put in place the distribution of Misoprostol.

Dr. Danmusa, may I ask you to respond to that question?

>> Sada Danmusa: Thank you, Francine. In terms of how the countries overcome these, it varies from one country to the other. I will speak to the Nigerian case. I think it is clear that Nigeria has been at the forefront of trying to address the post-partum hemorrhage burden contributes significantly to the maternal mortality. So it is derived from the word -- it was the first country in 2006 that registered the Misoprostol for use in treating and preventing post-partum hemorrhage. It is really very forward in trying to address some of these issues and that is why the guideline of the Zaria study, the guideline was developed on how community distribution or community use of Misoprostol can be achieved.

Unfortunately, there is restriction of that to trained health workers, right? So as in other aspects of tax shifting, Nigeria is still kind of struggling in defining some of those instances and allowing key health workers a very low level to be able to provide these services. But I think as a country, Nigeria is moving forward. There are a lot of people doing a lot of work. What the people of Zaria did was really very innovative in the sense that after they have the project, they are able to do a lot of policy advocacy and get these changes. So I think a lot more needs to be done by many within the system and for many countries it was certainly very different how they will address this particular issue.

In Nigeria, we are confident that it is going to be addressed and people, health workers at the very low level of the healthcare system can continue to be providing this preventive primary health care services including distributing a lifesaver like Misoprostol with a primary healthcare. That might not require any significant skill to do that.

>> Francine Coeytaux: Thank you very much, Dr. Danmusa. Thank you.

A number of you have inquired about the role of traditional birth attendants and midwives. Here is one example of the question that came in.

When traditional midwives are trained to be able to use Misoprostol, what implication does this have in discouraging them from taking deliveries in communities?
I believe this question is referring to the concern that if given this tool, traditional birth attendants will no longer refer women to health services and go against the government push to increase use of health facilities. Esther, can you talk about what your findings are in Ghana?

>> Esther Azasi: Yes, thank you, Francine and thank you for the question, whoever asked it.

So in Ghana, the implementation of the advanced distribution model actually shot up facility deliveries to 69 percent from -- it resulted in a remarkable increase in the use of facilities. As I noted in my presentation, Misoprostol was part of the continuum of care model adopted in the Ghana health services. So with reference to our slide 27 -- I don't know if Dave can take us back. When a woman was referred to the antenatal care of the midwife, she -- I mean the midwife -- stressed on the need for a facility delivery, any identification of PPH referral, ambulance transport and then adopting. These were some of the key things that were adopted in Ghana's model which encouraging women to deliver at the health facilities. I think implements these also kind of trends the connection between pregnant woman and healthcare staff.

In addition, tradition at birth attendants and healthcare workers who did advocacy at home were trained on the essential or the need to have a facility delivery. So I remember in one of the group discussions with traditional birth attendants, one told me I don't have any incentive to keep a woman at home because I don't even have the equipment. They understand and appreciate that there is a lot, if you deliver the woman at home and there was huge complications, and you didn't have the right tools or the equipment to take care of the woman, that could cause a lot of damage.

So they were very supportive of referring the woman to the health facility to have their baby.

So this is the experience from Ghana. Thank you.

>> Francine Coeytaux: Thank you, Esther. Thank you very much. Sorry, I couldn't find my unmute button.

Yes, I think this is a very important finding for other countries including Ethiopia that has renewed its focus on increasing facility deliveries. I think improving the care at home deliveries does not necessarily mean that fewer women will use health facilities. On the contrary, our research finds that when programs aim at improving outcomes for women delivering at home, including those that give them advance understand distribution Misoprostol, it can often increase their health in the -- trust in the health system and result in an increase in facility deliveries. This is an important part of our findings.

I'm looking quickly at all the questions coming in. Thank you very, very much.

I notice there's a couple of them that are concerning the fact that Misoprostol is also effective for abortion. Elisa, you mentioned there's concern for what some call misuse of Misoprostol, which was a major barrier in all three of the countries we looked at. Can you say a little bit more about this? I'm trying to give you a couple of the specific questions. How do you engage stakeholders on bans on Misoprostol because of associations with abortion?

(Speaking French.)

Where does this bad publicity come from? Is this in fact a real problem? Is there any evidence that women actually do give Misoprostol to others? And then a comment that came in from Ethiopia or about Ethiopia that says it is interesting that it seems like the
greatest challenges to advanced distribution seems to have been in Ethiopia, the country with the least restrictions on facility based legal abortion. What is going on? So that is a lot of questions tossed at you, Elisa. I thought we have time for you to really elaborate more on this very important challenge.

>> Elisa Wells: Sure. I am going to throw back to you the one about engaging stakeholders because I know that the work you've done in Kenya and Tanzania will speak directly to that. But first where is this coming from? And I want to just reiterate that we found no direct evidence that the Misoprostol in any of the projects was being diverted or used for abortion. In fact, when we did focus groups and interviews with women, they reported that the Misoprostol pills were just seen as such life saving medicine for pregnant women, they couldn't imagine their use being diverted for other things. Most actually seemed unaware of the abortion indication for the pills. These are very rural areas. Women were not exposed to the information about the use of Misoprostol for abortion.

So we didn't see any evidence that this is actually happening. The concern that we did hear seemed to come primarily from individuals at the managerial or policy level. And like this one comment that came in, the question came in that is sort of surprising that this is the case in Ethiopia and Ghana because abortion pills are readily available through pharmacies. There is ready access to abortion services and legal abortion service. But when we probe deeper with the policymakers and individuals who presented this as a challenge, the issue was the appearance of a government program having any association with abortion. That seemed to be the problem.

And you know, it is certainly a very difficult issue to address. I think this is another area where trusted champions might have some influence in swaying opinion and I guess the other thing to mention would be to use the strategy of the harm reduction argument. Providing Misoprostol for post-partum hemorrhage prevention saves lives. That's a very positive thing that they are doing. If it somehow is used also for abortion, that also could be life saving in many of these situations.

So the harm reduction argument may hold weight. Again, it is a difficult situation. So Francine, do you want to talk more about the work in Kenya and Tanzania that addressed this issue?

>> Francine Coeytaux: Sure. And just to reiterate what you said, Elisa, again just these are political fears, not necessarily based on evidence as much as political reality. We really don't have any evidence that a woman could -- who knows that taking Misoprostol, uses a pill that might save her life upon delivery, that she is actually, has a little business selling these on the side? There is no evidence of that. None. I think as Elisa said, it really is about political perceptions and political issues. In Nigeria we know that a lot of the constraints and problems that are coming even for why some of the authorities are insisting on this issue of who is a trained agent, is coming from a political bent of certain people in government who are very anti-choice and very concerned about the abortion issue. Same thing in Ethiopia. In all three of these countries -- again I'm repeating what Elisa said. Not only is the knowledge known about the fact that this same pill can save
women who are trying to terminate unwanted pregnancies, but they are actually available over-the-counter in the pharmacies. And people know that.

So this constraint of not going to scale on a program that could save women's lives for post-partum hemorrhage out of fear that it is going to contribute to access to abortion is not grounded really on practical as much as politics.

So yes, in answer to the question that came out, what do we do about politics? How can we work at the community level to involve more stakeholders? I think the answer is the adjective "more".

More stakeholders, different stakeholders. What we found in Kenya and Tanzania when we did the study which was to put out an RFP that said there could be a small grants made to community-based organizations who are interested in getting the word out about this life saving technology and we made, as part of the requirement, the fact that if they were going to get the word out it had to be about all of its uses, both abortion and post-partum hemorrhage. We not only got interesting groups that you wouldn't have thought would be, working on health at all, they were more rights-based, coming at this from a rights-based framework. They came up with very creative ways. We even had a couple of faith-based organizations who in the past have had nothing to do with abortion but came up with very creative ways. One of them, I remember, in one of the slums of Nairobi, they basically had posters that never used the word abortion that said things like: Have you missed your period? We can help. There was never a mention of abortion. You know, it was a way of helping give information.

So again, I guess I would just summarize the answer is, you know, reaching out to groups that are more women's empowerment groups, different groups. And sharing as Elisa mentioned the fact that turning it into a positive, the fact that this same drug can help in many more ways than just with post-partum hemorrhage.

Moving on to another question. There was a question about the WHO position. Let me tell you what the question was, how it was phrased exactly. Let's see. Where is that question? So many questions have come in here. I think the question was what is happening -- it was in French. So it's in my French list. Just one second. It had to do with --

(Speaking French.)

What do we need to do now? Can you please explain the situation at the WHO? And what can we do to move that along? Elisa, may I give that to you?

>> Elisa Wells: Sure. So obviously WHO is evidence-based and takes its job very seriously in looking at all of the data that are available. I think that when it last commented on this, there was not sufficient data. This was five or six years ago. They are in the process of reviewing this issue again. There have been many studies and much data that has come in in the meantime. And our sense is that if this were reviewed and looked at, that the recommendation would come out more favorably. So it is really a question of putting the heat on WHO to really look at this and make a decision and move, but they are a big organization. It may take time.

I think that is the update.

But in the meantime, many, many programs are moving forward with this approach. You'll find information in the resources section on this website. The Dialogue4Health website that will show you some summaries of the various countries that are moving forward with these various approaches.
>> Francine Coeytaux: Thank you, Elisa. I have here a question or comment maybe more, and then a question. There are so many useful recommendations and lessons learned here. I wonder how this information can be shared with a much larger number of policymakers, professional associations and others. Minister of Health, private sector donors, to save more lives. Well, thank you for the question. I'll just first take it and maybe turn it over to Esther and Dr. Danmusa who can talk specifically about what more can be done in their particular countries.
This is very much a reason why we decided to do this webinar and why I know that our sponsors were interested in having this happen. I think sharing the information is very, always tricky to have one country look at another country's pilot projects, as we've seen even in Nigeria. Within the country, a pilot project that was very successful is having trouble scaling up nationally. There is a tendency on other countries often to say well, that might be fine there, but in our country things are different. So I think one of the challenges is to begin, and I think we are getting close. This is why we shared information from other programs as well, showing that there's a lot of different countries that have tried a lot of similar models and are finding common challenges and common successes and really beginning to document and talk about the overall experience is one way of moving this forward. But can I turn to both you, Dr. Danmusa, and also to Esther, to talk about what can be done specifically in Nigeria and Ghana to really share this with policymakers?
>> Sada Danmusa: Yes, I think if I can comment here, I think we already have an idea based on what Zaria work, how it was shared with policymakers. There was a lot of advocacy material that came out of policy briefs and some pamphlets that shared information. There were some formal organized meetings with policymakers that are in charge of primary healthcare and at the federal Ministry of Health. I think more can be done in terms of getting it to professionals, getting it to people that work in the public health activities and advocates. Perhaps through regular sharing at every opportunity that presents itself. Like in the meeting at technical working groups, at conferences and specifically with organizations. I think one key thing that will be very useful in this era of electronic messaging is if it is possible to have some of those pamphlets and policy briefs on the websites of many organizations so that a lot of people working in this field can be able to access that. I think we have to thank MacArthur a lot for being very proactive in this end, trying as much as possible to disseminate the information, to as many organizations and as many people as possible. But I think more can be done. Francine?
>> Francine Coeytaux: Sorry about that. And I want to now just move to our sponsors and thank very much, as Sada just said, first the MacArthur Foundation for having invested and continuing to pay attention to this very important issue of post-partum hemorrhage and of maternal mortality and having funded both the work in these three countries and then this evaluation, and now this webinar. Then really a huge thanks to the Global Affairs of Canada, the International Development Research Center, the Global Affairs of Canada and the West African Health Organization.
Thanks to their commitment to including the Francophone countries that we were able
to do this in two languages and we really, really thank you for this. This is a
commitment on their part on addressing some of these reproductive health issues and
really sharing across all of Africa and all of the world regardless of language.
So thank you all very, very much. Thank you to my presenters and thank you all for
those of you on. And Dave, back to you.

>> Dave Clark: Thanks so much, Francine. And thanks to all of our presenters today
for their insights and into maternal mortality reduction. As was mentioned earlier a
recording of today's session as well as the presentation slides and several other
relevant resources will be available shortly at D4H.org. You will also receive an email
with a link to the recording and the slides. Check your inboxes for that.
That email will also include a link to a brief survey we hope you will take. We would like
to know your thoughts concerning today's web forum and what topics you would be
interested in for future Dialogue4Health health forums. We take your comments and
feedback seriously. We read all of it. Take a couple of moments, please, to complete
that survey. We appreciate it. Thanks so much for being with us today. That does
conclude today's web forum. Have a great day.
(The webinar concluded at 12:00 o'clock p.m. EDT.)

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