

**Community Conversations on Vaccines, Season 5, Episode 3:
Reaching Zero-Dose Children and Underserved Communities: Lessons from
Pakistan and Ghana with Dr. Aamer Ikram and Rukaya Mumuni**
English Transcript

Francesca - 00:00:10: Welcome to Sabin Vaccine Institute's Community Conversations on Vaccines, presented by Immunization Advocates.

Vince - 00:00:17: In this Podcast, we speak with professionals closest to vaccine delivery and decision-making in low and middle income countries to hear the latest in immunization challenges and explore programs and tools to build and maintain community trust and vaccine equity.

Francesca - 00:00:32: We're your hosts. I'm Francesca Montalto.

Vince - 00:00:35: And I'm Vince Blaser.

Vince: We're recording this episode a couple of weeks ahead of new annual data on immunization coverage globally coming from the World Health Organization and UNICEF, which will give us a snapshot of where coverage did at the end of 2022. Last year's report found that in 2021, there was the largest sustained decline in coverage of vaccinations defined as routine immunizations in nearly 30 years.

Vince: Among the 25 million children who missed critical lifesaving doses of routine immunizations last year were 18 million zero-dose children. And that is defined as children who have not received a single dose of the most basic routine immunization, that for diphtheria, tetanus, and pertussis, or the DTP Vaccine. The number of zero-dose children increased by more than 5 million during the pandemic. And they constitute nearly half of all vaccine-preventable deaths. So regardless of the numbers that come out in the WHO, UNICEF report, lowering that number of zero-dose children is imperative for us working in global immunization today.

Francesca - 00:01:42: Yes, and we're so fortunate today to have two guests who have great perspectives on talking to us about the efforts needed to reach more at zero dose children. Our first guest, Dr. Aamer Ikram, CEO of the National Institutes of Health in Pakistan, and Rukaya Mumuni, a public health officer and Registered Nurse in the Accra region in Ghana and a Nursing Now Challenge and Sabin Vaccine Institute Immunization Advocacy Champion. Aamer and Rukaya, welcome to the show.

Dr. Aamer - 00:02:10: Thank you.

Vince - 00:02:11: All right, Rukaya, Ghana reported a very high rate of children receiving their first dose of DTP Vaccine, nearly 99%. Just wondering, first off, why do you think that Ghana has had some success in reaching some of these underserved communities and preventing some of the higher numbers of zero-dose children?

Rukaya - 00:02:34: Ghana Immunization Program, Ghana Expanded Program on Gains over the past years. The system is so established. The system is so grounded that we are able to get all children vaccinated in most parts of the country. The program focuses on providing universal access to vaccines, particularly in underserved areas in their country. We employ several strategies that we use to be able to reach these children.

Rukaya: Most of the time, we use community outreaches that we employ Community Health Workers or community health nurses that goes into their communities to do vaccinations. So the API System comprises several strategies that ensures that all children in their countries are assessed and vaccinated. There's other strategies include routine vaccinations, sessions at health centers across the country. So at every health center or every health facility in the country has a vaccination point in it. And caregivers and mothers are able to assess vaccination within their catchment, within their communities.

Rukaya: Then the other approach is public health campaigns or public health awareness campaigns that we normally engage in. So as part of the activities to increase vaccination uptake, Ghana's API program has ensured that we educate all community members on vaccinations, vaccination, the importance of vaccination schedules. We educate people on how they are supposed to attend child welfare clinics for vaccinations to be given to their children. So all this information and messages something that we give to make sure that people are informed about the need to get their children vaccinated.

Rukaya: Then the other one is we have some political commitment at least for the successive government have ensured that we have vaccines available in their country that we will be able to use to vaccinate all our children in the various communities. So at least we have some leadership commitment. People at the leadership levels are able to commit themselves into making sure that vaccines are available in their country to get children vaccinated.

Rukaya: Then there are collaboration from other partners like UNICEF, GAVI, and WHO. It's also a way to ensure that Ghana is able to move to ensure that children are vaccinated or to make sure that we maintain the vaccination coverage throughout the society's three years so that we don't lose the gains that we have. So collaboration is to place a lot in Ghana's success in reaching underserved children.

Rukaya: Then we have innovation such as the use of drones. Recently we have an innovation such as drones to deliver vaccines to areas that have to reach. So these innovations are available at any time in cases where vaccines are not available in some areas where people are not of transportation of vaccine is a challenge. Then the use of drones has also helped in delivering vaccines. So that is our vaccination success so far.

Vince - 00:05:51: Thanks, Rukaya. That was really helpful and it's impressive to hear about this, how Ghana has built up and sustained this kind of culture on vaccination, and the success you've had, especially in reaching those children early on, some of the innovations like drones to reach some of the harder-to-reach areas.

Francesca - 00:06:09: It looks like Rukaya is having some connectivity issues. While she tries to rejoin, Aamer, I do have a question for you. You have recently returned from the Vaccination Acceptance Research Network Conference, VARN 2023, co-hosted by Sabin and UNICEF, where conversations with community-based researchers across disciplines around the world focused on vaccine acceptance and demand challenges, especially the imperative to successfully reach zero-dose children.

Francesca: We know this is something you have worked many years on, trying to reach populations in Pakistan that have high numbers of zero-dose children. What are your reflections from VARN 2023, or what we have learned during the last few years of the pandemic?

Dr. Aamer - 00:06:53: Thank you so much. First of all, my deep-endedness to both of you, and Sabin in particular, for this podcast. And equally grateful to Rukaya. Congratulations to her as well.

Dr. Aamer: Coming back, I think this was my first experience with VARN at Thailand, and I think it was really amazing. And not only that lot of sharing, but the networking and the experience, actually on-ground experience coming from the low-middle-income countries, practically shared at the platform, was I think the main crux of that one research network. I appreciate the network, the forming of this network, and then the way these proposals are taken by Sabin, they are declared successful, and then definitely the participants, the way they have been performing over the years. I think it's been nurtured in a very nice way through Sabin, and as we move on, I think it can exactly be translated into strategies and implementable policies. I think that's the foremost and primary thing.

Dr. Aamer: You've talked of the zero-dose, I think as I would like to divide the vaccine period into three different categories. One is the pre-COVID, then the COVID period, and then the Post COVID. I think pre-COVID, there'd been a lot of help through the international sources, talking of WHO, UNICEF, GAVI, Sabin, as we moved on. But unfortunately, we got in a crisis, and that was a global crisis. But the best thing is, I think there's been a lot of learning coming out of this COVID crisis as well. I've got a vaccine which was globally utilized, and then as we moved on, I think vaccine has been the game changer. It has already proved. And then the Post COVID period, when we are moving on with the GAVI 5.1, which already includes the malaria, and the HPV vaccine in particular, and then moving on to the GAVI 6, where we would be having additional things, and the top priority goes in both to zero-dose children and the missing communities.

Dr. Aamer: And I think the way that I saw all these things being addressed, in particular, when talking of low-income countries, where they talked about the conflict, the fragility, urbanization, poverty, and I think the region that I belong to, the AMRO region, where these things are quite evident, I think the way these projects move on would definitely help us a lot in this region and in the African region to move on with the strategies to finding the zero-dose children, addressing them, the missing community, and definitely taking it, because I think it's the right of every individual to that goal.

Dr. Aamer: So in particular, talking of routine vaccination, and then definitely vaccine related to outbreaks and response, just like COVID, which is now becoming a part of the, for the time being, a routine immunization. And then, I mean, the recent examples that we can share is outbreaks related to natural hazard. In our own country, for instance, during the flood season, there were certain outbreaks of cholera. So the way the international authorities and bodies help can make a true difference. And then taking them down to the actual requisite people, where it is required, where it is definitely necessary to vaccinate them, can make a true difference.

Dr. Aamer: But in a nutshell, I would say the way one is moving on down the line in five years time and 10 years time, I can see a huge success, I think, not only for the zero-dose children, but I think making the vaccine hesitancy more addressable in the communities and different parts of the world.

Vince - 00:10:45: Thanks so much, Aamer. I wanted to follow up on what you, a couple of points that you just made. You alluded to some of the increasing challenges that we have with disasters. Of course, Pakistan has last year had a severe flooding as a tragic example of that, but we also have an increasing complexity of number of vaccines that have public health benefits, increasing amounts of information.

Vince: Just kind of curious, I know that I appreciate what you shared about coming out of the VARN of a lot of the nuanced conversation, a lot of the conversation coming from different communities. And some of it is, of course, very contextual, but just curious as to coming out of that, where are you most motivated to try to either make some transformations and or put some more focused effort in the coming years, given the increasing complexity of these challenges?

Dr. Aamer - 00:11:39: I think a very pertinent question. Now, again, going back to COVID, when the first lockdown that was massive in our country as well. And I think the learning coming out of the first lockdown because of maintaining the economy, the government adopted a policy of having micro lockdowns. So it was definitely AI based and database driven, where it helped us a lot. And that's one of the reasons that we could maintain later on with the routine immunization within the country.

Dr. Aamer: And then once we were coming out of the COVID crisis, unfortunately, we had a huge flooding in the country whereby almost 33% of the land was under water and 30 million people displaced. And they were a huge concern, not only for the routine immunization, but as I said earlier, that there were certain outbreaks of cholera in different parts. So we have to take care of that, not only from the hygiene point of view, but for the first time, we got the Oral Cholera Vaccine in the country. And we utilized it in a way that we never had any major epidemic of cholera.

Dr. Aamer: And similarly, as you remember some time back, we had an episode of extremely drug resistance, *Salmonella typhi* in the country, in one of the provinces, and then it spread to the other parts as well. So we were equally concerned about those. The second thing was that we had already launched the vaccine for typhoid fever in 2019 as part of an expanded program of immunization. And we wanted to continue that. But overall, if you see a scenario, it's been, I think more so, whether talking of COVID vaccination, whether trying to maintain the routine vaccination, or whether going for the emerging vaccination requirements. I think it's been context driven. It's a quite difficult thing to maintain in a population burden more than 220 million.

Dr. Aamer: So what we did was basically a bottom approach to break the gap and create a sustainable model in parallel with other structures. And it was basically based upon the social profiling and evidence-based implementation. We tried to identify the union council in selected areas and districts, more so based upon where it was more required or it was mandatory. And that social profiling was done by using the global demand diagnostic tools. And we tried to work with the focal persons in the regions to organize, join sessions with the union council, health staff, EPI staff, and in particular, lady health workers, and the local religious leaders and the community influencers. I think there's a huge role in countries like ours, in particular talking about the community influencers and religious leaders.

Dr. Aamer: But coming down to another important thing that was basically the role of CSOs in all that. So we developed a very targeted communication plan for each of the union councils using the human-centered design approaches by involving the departments of health at the provincial and regional level, the CSOs, and the community. I think the community engagement is very, very important. And we have had a great experience with the lady health care workers previously, and especially during the COVID as well.

Dr. Aamer: And then the merger of these plans and actions and making the micro plans for the regions so that they, in order to avoid any duplication. And then the referral of the zero dose and defaulted children, there's been a huge follow-up with the EPI Program and the caregivers to record them directly. And then in turn also the government and community accountability as well to create linkages between the governmental structures, CSOs, and actual community. So they can actually perform on ground and deliver on ground that is authenticated directly as well as indirectly.

Dr. Aamer: So this has been the model in a nutshell, whereby we try to attain the strengths and availability of resources. And one more thing I would like to add here is that as we move out of the COVID, as I said, it's been a great learning for a country like ours with 95% of the eligible population beyond 12 years and above was partially vaccinated and more than 90% was fully vaccinated. And I think based upon that model, the human resource that was trained and the infrastructure that has evolved during that crisis period can carry forward in helping us in delivering much beyond for the zero dose and defaulted children or the missing communities.

Francesca - 00:16:15: Unfortunately, we have been unable to get Rukaya to be able to rejoin us in the studio, but we still want to hear her insights. So we will be sending the questions to her via email and she will be sending us audio clips that we will still include in this Podcast episode. This is sometimes the difficulty in recording remotely, but we're still happy that Rukaya and Aamer were both able to do this.

Francesca: Rukaya, Aamer was speaking on Community Health Workers during this episode. We know that one of the challenges we often hear from health workers like yourself, working directly with patients and in communities, is finding ways to communicate complex topics on vaccines and immunization. For example, communicating the current status of development and rollout of the malaria vaccine. As the number of vaccinations community members could potentially benefit from has increased at the same time as misinformation and disinformation has increased. What do you think has worked well in terms of communication between public health authorities and health workers in Ghana? And what are your ideas on how it can be improved?

Rukaya - 00:17:24: So in Ghana, several strategies has been implemented to facilitate effective communication between public health authorities and health workers to address misinformation about vaccines. Some of them are the use of clear and consistent messages. Public health authorities in Ghana have emphasized the importance of providing clear and consistent information about vaccines. These include disseminating accurate information about vaccines, safety, efficacy, benefits to their communities. Consistent messaging helps health workers to become knowledgeable about vaccines, enable them to address concerns or misconceptions among the general public.

Rukaya: Then the other issue is the other strategies is training and capacity building. Training programs has always been organized for health workers to enhance their understanding of vaccines and equip them with the necessary skills to communicate effectively with the public. These training sessions provide accurate and up-to-date information about vaccines and address common misconceptions. By improving health workers' knowledge, they become more confident in addressing vaccine-related information.

Rukaya: Then the other strategy that has been used is engaging local community leaders and other stakeholders. They're recognizing the influence of community leaders and local influencers. Public health authorities mostly have the collaboration with leaders and religious bodies that help in disseminating information about vaccines to their members and then people in their communities. So engaging these leaders help in disseminating accurate information about vaccines and debunking myths and then common misconceptions.

Rukaya: Then the use of mixed communication channels are the traditional media, television. And then recently we have social media that we use to disseminate information on vaccines for all disabused misconceptions in their communities. So these are the strategies that are normally used to communicate about vaccines and then to disabuse some of the misconceptions that normally goes wrong. And what I want to add is about getting all health workers because especially we normally have only people who are delivering vaccination, like those who are in the vaccination, only the vaccination staff are normally trained.

Rukaya: And now what I want to recommend is we should get all health workers trained on vaccines. We should give them the information that they need to be able to educate people in their communities because health workers are part of the community. And mostly they are the first point of contact when it comes to information regarding vaccination and other health issues. So getting all health workers trained and provided with the right information to be able to educate other community members who will help in the aspect of communication when it comes to vaccination.

Francesca - 00:20:25: To close this month, shortly after this Podcast airs, Rukaya, you will be traveling to Kigali, Rwanda for the Women Deliver Conference. What is your message to policymakers about elevating women leaders and making some of the policy changes that could boost immunization coverage and reach zero-dose children?

Rukaya - 00:20:43: To policymakers, I would like to emphasize the importance of elevating women leaders at the forefront of delivering vaccination and involving them in decision-making process. Women take up a significant portion of the health care workforce and possesses valuable insights and perspectives that can shape effective policies and strategies. By empowering women, we can tap into their expertise and then their unique understanding of communities they serve, ultimately leading to improved coverage. So some of the areas that policymakers can look at is to recognize and support women leaders, acknowledge the vital role that men play in health care delivery, particularly in vaccination program, provide the resources, mentorship, and training opportunity to support their professional growth and leadership development.

Rukaya: Then the other thing that they can do is to promote gender equality in decision-making process, ensure that women are actively involved in decision-making process related to vaccination policies. It creates the platform and forums where women leaders can contribute their perspective and then experiences to shape policies and address the unique needs of women, children, and marginalized communities. And with this, I'd like to commend Sabin and Nursing Now for their initiative of ensuring young career nurses are supporters to take leadership roles in their various settings by training young nurses as immunization advocacy champions. These are some of the things that can build our capacity to be able to contribute effectively in the health care delivery, especially when it comes to vaccination.

Vince - 00:22:34: Thanks, Rukaya. I was recently in a conversation with some policy leaders in the US here about what the US needs to do better in supporting and reversing some of the immunization coverage that had declined around the world. And there was talk about the notion that vaccinations that are given on schedules, which are called routine immunizations, are really anything but routine. And I know that you've been in a lot of different conversations this past year or two years. And you alluded to that of the intense learning from the pandemic and some of the disasters that have happened. As we're about to receive some of this new data from WHO and UNICEF, what are your broader reflections, maybe more globally, as some of the policy changes we need to be thinking about, especially trying to better support national and local governments to boost and sustain high uptake of vaccination, especially those populations that are most vulnerable?

Dr. Aamer - 00:23:31: Thank you for that question. I think, again, it's a very simple question, but definitely has a huge umbrella whereby we can talk in different contexts. But I think the top priority where we need to talk a lot about is the communication. And that is, in particular, directed towards the two strategic elements. One is the target audience. And the second one is your own human resource and the community and health care workers. Now, talking in particular, you see, you adopt a methodology within a country, as I already mentioned in detail, what we did, how we did in mall. But I think it's the social media. I think social media has gained a huge momentum all across the globe. And I think most of the people are quite occupied with the amount of information.

Dr. Aamer: Just to give you one example coming out of COVID, where the WHO also had to say that we were fighting not an epidemic, but infodemics. So I think the social media can play a very positive role in this regard as well. But we need to engage all the elements coming down from our side who are well-trained, who can communicate, who can clear the concept about the vaccine. And I'll be briefly talking about the different elements of vaccine hesitancy, which is quite context-driven and in different parts of the world. So I think utilization of all the internet-mediated resources. I was just

seeing even your own VARN network. How amazing it is translating and capturing the people and they can come on platform beyond the conference on day-to-day basis as well. And they can share the experience. They can put down the question. They can have clarity of answers.

Dr. Aamer: And in turn, the strategies coming down, I think the best way communication for the human resource to work on is to prepare the master trainers. And then those master trainers, they need to work with the EPI Program in particular, the community social organizations in general, and at the lowest possible level of the union councils and the farthest areas within the country where they can convey. You're truly right. We are just expecting the WUENIC data coming up. And I think that is going to be very, very important. So I think equity is something important, which is being, I think, addressed and advocated at the international and global arena. And based upon that, it becomes the job of the countries that they are being helped through different sources.

Dr. Aamer: Now it is their job not only to make the strategies, but I think make very positive communication strategy that can make a true difference. And that will work a lot because coming down to, if you talk of new vaccine, like HPV is on now in certain parts, and it's going to be expanded now in different ways. And so this is the best time for the developing countries and LMICs to take them along in making a communication strategy that works very well.

Vince - 00:26:42: Thanks, Aamer. That was great. And you had mentioned some of these learnings are on the fly. And some of them, like the WHO Act Accelerator you had mentioned, are things that we need to continue to analyze and see how we can continue to do better. And that linkage between equity and acceptance is something we've heard people in the Podcast say. And multiple instances is something that I think we still need to, especially, like, as you say, it turns back more into national strategies after this huge rollout of the COVID vaccines those last couple of years. But as you say, some commonalities with some of major rollouts of HPV and other vaccines coming in the coming year. Any last closing thoughts from you? Just messages, the short message you'd like to impart to leaders in immunization as we carry forward.

Dr. Aamer - 00:27:32: Thank you, Vince, once again. As I said, a lot to say. But just to conclude, primarily, I think we are extremely grateful to Sabin for providing a different angle to a vaccine strategy. And as I said, down the line, two years, five years, and 10 years, this is going to make a true difference. Because this is research based upon actual ground implementation, the difficulties being faced on both sides. One, the vaccine, and the other side is the deliverers. And that deliverer definitely is a complete category.

Dr. Aamer: So how we can address, and especially considering, the conflict-driven and fragile areas where it is much more required. And because we truly understand that infectious disease threat anywhere is an infectious disease threat everywhere. And that is, I think, the area where the global community needs to join hands to make it a much safer and a much healthier world. And that is possible through vaccine. And I praise the efforts that are being done by Sabin. And we stand as your soldiers to help you out further in our own region, in our own countries, whatever we can do in our humble capacities. Thank you.

Francesca - 00:28:48: Thank you so much, Aamer, for joining us on the show. We really appreciate you taking the time.

Dr. Aamer - 00:28:54: Thank you.

Francesca - 00:28:55: Again, we really want to thank Rukaya and Aamer for joining us virtually. We know sometimes technology can be very challenging and difficult. So again, thank you to both our

guests for joining us and sharing your experiences on vaccines and immunization and reaching zero-dose children.

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