"Multimedia is part of our philosophy for learning": James Nardella and Abraham Zerihun Megentta of Last Mile Health on scaling across Ethiopia, aligning with government priorities, and innovative training techniques

Ambika Samarthya-Howard

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Ambika Samarthya-Howard: Can you start by talking about what methods and what models you're working on right now around this work? Especially about the approach you are using on the ground.

James Nardella: I'll jump in with the general hypothesis that was related to this program, and then Abraham can talk us through some of the key components since he leads all of our work in Ethiopia, so he's got a much closer bead on this project as it has begun its implementation.

The general hypothesis was that if we want to address presbyopia — thinking about reaching rural and remote populations in particular — that the two delivery pathways for eyeglasses would likely be community health workers and small pharmacies.

Community health workers could develop the skills and supply chain if they're well-supported to deliver eyeglasses to rural and remote families, and we felt that this could be integrated into their service package in countries where this was already a priority.

We learned from a pilot that had been run in Liberia with EYElliance, where eye health and reading glasses were integrated into the National Community Health Program. That got adopted into the national policy, and we're now thinking about how that can get rolled out across the whole of the country, not just the pilot county.

Abraham and his team in Ethiopia were on the forefront of providing a kind of innovation in training community health workers in Ethiopia by doing blended learning – a combination of in-person and digital training. We felt that there was the time ready opportunity to integrate eyecare into the training of community health workers because eyecare was one of the subjects in the national training curriculum for non-communicable diseases, which was just being rolled out for the first time in Ethiopia.

Training on things like cancer screenings, high blood pressure, and diabetes were great opportunities to incorporate screenings for reading glasses needs, which was an exciting opportunity. Our team was in the midst of designing that new training curriculum for non-communicable diseases, so we engaged the Livelihood Impact Fund in a conversation about how we could meaningfully incorporate presbyopia into that training. By injecting this innovation on presbyopia into the national training curriculum, you're not just doing a one-off project, but you're seeing how it could be incorporated into the training curriculum and [offered] as part of blended learning.

Ambika Samarthya-Howard: When you say that you're incorporating this in, how do you actually do that? Do you design something separately and you get approval through the regulatory boards that gets added in as another class? What does that look like in real life?

Abraham Zerihun Megentta: Just to provide a little bit more context, I think the timing is what helped us in terms of integrating presbyopia into their training curriculum. The bulk of their Ethiopian health extension workers' work has been focused on maternal, newborn, and children's health, but more and more, non-communicable diseases are becoming an unavoidable part of life in Ethiopia. They're the leading cause of death in Ethiopia, so the ministry has been trying to incorporate a non-communicable disease package to their services. Thankfully, as part of that package, eye care is one component.

The ministry was giving the NCD [non-communicable disease] training for the very first time in Ethiopia, and we were a partner in helping the ministry roll it out. We came up with an efficient and technology-driven training approach. It's a blended learning approach, which has a face-to-face component and digital component, so that gave us the opportunity to really incorporate some new content, particularly in the form of multimedia.

Usually incorporating such content is a very laborious process and has a lot of steps and a lot of advocacy needs to go into it. We were excited because when this presbyopia product came about, the timing was perfect for us because we were working on the multimedia component – the training videos. Because the timing coincided, we were able to integrate presbyopia [into the curriculum]. In many parts of the world, [reading glasses are] available over-the-counter in supermarkets, so this doesn't have a lot of technical areas [like] other components do, so it was not very difficult to integrate a training video.

Ambika Samarthya-Howard: Is presbyopia in this bundle package along with cancer, blood pressure and the other things, or is it that you've had training videos and you just added another training video on?

 **Abraham Zerihun Megentta:** There are many, many training videos because using multimedia is part of our philosophy for learning. So presbyopia is just one. Actually, it's one of the eye care videos. It's not even the only one.

 **James Nardella:** Our big innovation within the National Community Health program in Ethiopia has been to model blended learning; moving away from traditional training where community health workers were brought together for two weeks of in-person refreshers on all of their core concepts. We moved the majority of that training to be delivered over mobile through the use of multimedia — animations, videos, quizzing — and brought the community health workers together in-person for the skills portion of the training where their skills could be assessed and they could go through a skills lab where they're actually doing the practices.

  In the case of eyeglasses, they're actually doing the screenings for eye care as an activity but could learn the content over their tablets. The community health workers already had tablets as part of their workflow, so we pushed that out through the government's existing community health worker network. There are 40,000 community health workers in Ethiopia, almost all of whom are women. Here is a video to help you understand what we're putting on here.

  The video shows how CHWs can conduct screenings and the basic skills. This [platform] presents the information through multimedia so that community health workers can go back to the information over time. What we're doing differently is that we're providing them with a pre-knowledge and post-knowledge assessment so that we can actually see what knowledge and skills community health workers had on eye health and presbyopia prior as well as what knowledge and skills they gained [after the training]. We want to make sure that we're not sending them out into the world without the required knowledge and skills for this service delivery area.

Ambika Samarthya-Howard: What was their response to adding this onto their already existing workload? Were they paid more in compensation? Was there pushback around it?

 **Abraham Zerihun Megentta:** The Ministry already had plans to include non-communicable diseases, including eyecare, so the presbyopia content does not really add much workload. Actually, it might increase their acceptability because you are actually putting commodities in their hands. When they go do screenings, they [are able] to actually provide definitive care with those glasses. It might even drive demand for other services because reading glasses are a valuable commodity in rural areas, even in urban areas.

Ambika Samarthya-Howard: How has it been going? What's been the percentage of people who have been screened? Are the glasses free? Do they have to pay for them? How many of them actually take the glasses?

 **Abraham Zerihun Megentta:** So glasses are free. We have been focusing on training so far. We have trained 600-plus community health workers, so far. The training is not focused only on presbyopia, it's a blended training for non-communicable diseases. It takes four in-person days and five digital learning days to complete. It covers a wide range of areas like hypertension, cancer care, all of that. The class size maximum is 30, but we might have multiple classes running at the same time. We hope to train a total of 1,500 health social workers by the end of June.

Ambika Samarthya-Howard: Is the training done at the capital or closer to where they live? How do you decide where they're happening?

 **Abraham Zerihun Megentta:** There's been a push by the Ministry for training to happen in what they called CPD Centers – Continuous Professional Development Centers. These are health science colleges where community health workers are trained for their pre-service education. There's a big push to integrate pre-service and in-service education. They're usually not in capitals, but they're not in rural areas either. They're done in cities and towns closer to their sites.

Ambika Samarthya-Howard: When do you expect them to start doing the screenings in the field?

Abraham Zerihun Megentta: We have been perfecting our M&E [monitoring and evaluation] protocols, verification protocols, because this is an expensive commodity and we need to track if it's going to the right beneficiaries, so we've been working on that at the site of training.

We were hoping to start right away, but because the demand for these classes are so high, we decided to put systems for M&E systems for verification [in place] before we start distribution. We feel like once we start distribution, it would be a matter of days until we go through all 20,000 [pairs of reading glasses]. Currently, we are scheduled to start distribution of glasses in June 2024.

Ambika Samarthya-Howard: It's interesting to me that you're not having issues around demand generation because most of my interviews have been focused on how to increase demand. Is it because there's a cultural want for the glasses or has there been a media campaign? Could you talk a little bit about why the demand is so high?

Abraham Zerihun Megentta: It also caught us off guard. We had a dissemination workshop on the overall NCD [non-communicable diseases] services where we invited ministry people and people from various organizations from different regions, including health access workers to demonstrate the skills for screening. We had a corner for presbyopia screenings, and in that meeting, we had four to five people asking for glasses.

Ambika Samarthya-Howard: When you said four or five people, were they part of the Ministry or community health workers themselves?

Abraham Zerihun Megentta: They were part of the Ministry and part of the regional health bureaus as well. That's when we realized that we needed to tighten our protocols for distribution. We did not expect to have strong demand. I cannot say I know the reasons behind it, I don't know if it's cultural, but we have rough estimates of the need. We feel like rural demand might exceed 6 million glasses.

Ambika Samarthya-Howard: One thing I am curious about and, again, I'm just asking your opinion. If the demand is so high, how come people haven't bought glasses already? Is it just because of the price point?

Abraham Zerihun Megentta: I think so, and overall availability. People feel like there are various barriers in rural areas like availability of reading glasses and [opportunities to go] for screenings. And I think not knowing that a simple pair of reading glasses can fix the problem.

For example, in the video that James showed you, those were not actors. The old man you see operating the sewing machine and the lady sorting lentils are from rurals areas that had similar issues.

 I think it's too early to say we have high demand because of X, Y, Z, because I'm also surprised that there's high demand. We'll get to see more when we actually start distribution, but I can't think of any other valuable commodity being handed out by community health workers. They hand out vaccines or family planning products, but a valuable commodity like reading glasses, I can't think of any other equivalent that community health workers provide for free to their clients.

Ambika Samarthya-Howard: Is the long-term plan to start charging or to start selling the glasses?

James Nardella: Maybe not within the health extension worker program. We're utilizing the Vision Catalyst Fund as the supply chain – that's the EssilorLuxottica fund. They apparently have 100 million glasses to give away. We only have 20,000 in the country right now. Right now, we're trying to prove that distribution can be done and incorporated formally into the National Community Health Workers Program.

 Understandably, the government would be pretty resistant to door-to-door sales of glasses because the program is meant to expand universal access to health coverage and not just be a glasses delivery platform.

  We don't want community health workers to only focus on things that [might] make them more money. It would put a side hustle into their workload. We want them to focus on care for pregnant women, for communicable diseases, for children under five for the things like malaria, diarrhea, and pneumonia that get them sick most often. And so we're trying to incorporate glasses into that.

My understanding is Livelihood Impact Fund's hypothesis is that even if you give a client a free pair of glasses, once they recognize the value of those glasses in their work – whether it's sewing or sifting wheat from chaff – you can expect that they will understand the value of that commodity and purchase it on their own the next time they need them.

Ambika Samarthya-Howard: What are you tracking and looking for in terms of the M&E framework?

Abraham Zerihun Megentta: For this small subset, because it's a pilot, we plan to have more verification integrated into the M&E, which may not be appropriate for scale.

 For example, for a subset of households, we want to track their GPS coordinates so that we have an idea of which glasses went to which household and track their GPS locations. We

want to conduct house to house visits for a selected subset of households to see who's wearing those glasses and if they're being put to use appropriately.

We have those in place, and that is going to be done through the supervision system of the Health Extension Program. They're going to provide that type of support that will already be integrated with the existing system so that we are not creating any parallel system or M&E of the distribution of glasses.

Ambika Samarthya-Howard: Can you tell me a little bit about what the supervision framework looks like? The ratio of the supervision, the length of it, what they're supervising? Any details would be appreciated.

 **Abraham Zerihun Megentta:** In a given district of roughly 100,000 people, the Ministry's standard is that each health post is supposed to have two health extension workers that serve 5,000, so, 20 health posts make up a total of 100,000 people, which is the average population served by a district. That's basically what the district health system looks like in Ethiopia.

 One district is led by a District Health Bureau which serves 100,000 people. Under it, it has five to six health posts. Each health post is supposed to serve an estimated 20,000 to 25,000 people. And then, under each health center, there are about five health posts, which serve an estimated 5,000 people. Each government structure that I've mentioned has a supervision mechanism.

Each health center has a health access worker supervisor who supervises health access workers reporting under that health center, and each district also supervises the health center. So those are the supervision mechanisms that are in place, which we plan to utilize.

Ambika Samarthya-Howard: And in this specific context, what are they supervising? Just that the glasses have been distributed and screenings have been done?

 **Abraham Zerihun Megentta:** Yes. During the training as well, the supervisors are also trained on the content so that they understand what they're supervising.

James Nardella: If you think about the outcomes that we're trying to achieve here, it's demonstrated knowledge gains and demonstrated skills gains. Again, the hypothesis is that health extension workers can learn this task and do this task consistently and effectively.

 So in the blended learning training on non-communicable diseases for which eye health and presbyopia skills are part of, each of the community health workers who goes through that

training comes out with essentially a report card that tells you which areas of the training they had good knowledge and competency scores on and which they need further training and supervision on.

That report card is then printed and fed back to their supervisor, so those supervisors should be able to see whether each of their health extension workers gained adequate knowledge in presbyopia and demonstrate the skills and competencies on eye health, including being able to screen patients for the need of readers.

Ambika Samarthya-Howard: How are you planning to iterate on this model? Will you pause your training until you get some insights back from your first two weeks of distribution? What's the rollout plan for the next few months?

 **Abraham Zerihun Megentta:** The training is not only presbyopia, but the bigger set of NCD services, so that is going on already. There's a big push by the Ministry to scale that training.

 The training will actually be concluded by the time [we distribute] because the 20,000 glasses are not being distributed to all of our training sites, it's only a subset. The numbers are still very small because by our estimates, one healthcare social worker might need up to 160 glasses to meet demand, but now, we're only testing it out with 20,000 glasses, so we are only doing this in a subset of districts. Because presbyopia is a very tiny component of the training, it's not influencing the rollout of training.

Ambika Samarthya-Howard: Okay, got it. I see what you're saying.

 **James Nardella:** Just to make this clear, this is a pilot, so we've committed to training 500 health extension workers and distributing the 20,000 glasses. Obviously 500 is a small portion of the 40,000 health extension workers, but we're trying to work out the kinks with 500 to make sure.

From Livelihood Impact Fund's vantage point, they want to understand if this can be incorporated into the national program in terms of figuring out where to inject training for knowledge and skills gain and how to manage the supply chain & affordability.

 Affordability is really important because the argument over eyeglasses is that social return on investment is high, but only if you keep the cost of distribution low. We're trying to model out what it takes to distribute these at scale, so we're starting with 500 health extension workers and just 20,000 glasses. This is just to test the case.

Ambika Samarthya-Howard: How will the M&E feed into the pilot? If you're distributing through the 500 community extension workers, will the M&E be feeding into the next roll out?

Abraham Zerihun Megentta: The plan is to compile the results of this, including the process, the objectives, and the potential. There are definitely opportunities for iteration as we implement after we start in two weeks. In one district or another, we might run into X challenge or another, so there's the opportunity to iterate and change course as things come up.

Ambika Samarthya-Howard: Are pharmacies involved in some of this eyecare work or not at all?

 **James Nardella:** No, pharmacy work isn't a part of our core model in any of our program countries other than we do a lot of work on supply chain in Liberia and managing the supply chain directly for community health workers, but we don't directly engage with private pharmacies in any of our programs.

Abraham Zerihun Megentta: Traditionally, people go to doctors or hospitals or clinics for eye care, not necessarily pharmacies, but after this pilot, this is something we can explore.

Part of the advocacy might be for insurance coverage to include reading glasses in rural areas. There's community-based health insurance being scaled up nationally at rural levels, so instead of paying out of pocket, this can be something that can be made available in pharmacies at the health center level for rural clients who are enrolled in community health insurance.

So far, the role of pharmacies in eyecare is quite limited in Ethiopia, but as part of this pilot, that's something I think possibly we can explore as alternative delivery mechanisms, particularly rural pharmacies at the health center level.

Ambika Samarthya-Howard: I know Last Mile Health has such a longstanding relationship with the Ministry of Health, both in Liberia and Ethiopia. Outside of that relationship, what other partnerships or what other people did you have to get buy-in from in order to roll this out?

 **James Nardella:** Prior to taking on this work in Ethiopia, EYEllliance was a real learning partner from running their pilot in Liberia.

Last Mile Health plays a key technical assistance role to the government of Liberia in the National Community Health program, so we worked alongside EYElliance to help start their pilot in one county of Liberia. When those results came out, we thought about how eyeglasses distribution in Liberia gets incorporated into the national curriculum and retraining of the community health workers.

That gave us really good space to learn about this in another setting, so when Livelihood Impact Fund offered to support us in testing that approach in other places, we were well set up to understand it. And certainly, the Ministry helped.

Ambika Samarthya-Howard: How did your partnership with EYElliance start?

 **James Nardella:** Last Mile Health, EYElliance, and VisionSpring are all a part of a set of social entrepreneurs that are in close company with each other through forums like the Skoll World Forum and through being co-funded by different philanthropic funders, so we've known each other and there's good trust between our leadership.

When EYElliance was launching its work in Liberia, a couple of the key staff that helped start that work had been former Last Mile Health staff, so they were able to build on their history of having experience within the National Community Health Worker program in Liberia.

 Our connection to the Livelihood Impact Fund came through VisionSpring and EYElliance. The kind of community of practice that exists within places like the Skoll Awardee Community have helped to broker these relationships. And of course, the relationship with the Livelihood Impact Fund has been important to getting this up and going. Otherwise, Vision Catalyst Fund as a supply partner. 20,000 glasses is one thing, but if we're going to do this at massive scales in Ethiopia, Vision Catalyst Fund, and EssilorLuxottica, the company behind it, will need to help us on the supply chain of getting glasses at a much larger scale.

Ambika Samarthya-Howard: My last question is around the Liberia and Ethiopia comparison. You mentioned how the work you've done in Liberia was instructive to what you were doing in Ethiopia, and I would love to hear more about that. That's one thing that I haven't heard a lot of people say.

 **James Nardella:** We really believe that community health workers should not be disease-specific deliverers of care, not just doing TB care or not just being assigned to do immunizations, but that they should be focused on community-based primary care delivery from an integrated approach. The basic hypothesis is for CHWs to fit this into a bundle of services, goods, and supply chain. That's what we were able to see from EYElliance's pilot in one county of Liberia. At the same time, anytime you're adding a service, you're left wondering if we're asking them to do too much.

What we saw was that community health workers could take on this service, and actually, it could also lead to a credibility bump because they're often associated with really focusing on women of reproductive age and children under five. There are others in the community that want services that are accessible, and reading glasses and eye health are a way for community health workers

to be seen as available providers of something of value within their community for adults. That's what some of the early findings we saw in Liberia, and that's what we're seeing translate into Ethiopia.

Ambika Samarthya-Howard: Is there anything you want to add on?

 **James Nardella:** We want to make sure that this [principle] gets maintained in these programs as part of a community health workers' scope of work and as an integrated service delivery cadre; that they're focused on primary healthcare and that they don't just become eyeglass distributors. We can design it into programs as an additive to their current scope of work. That's the decision we made with support from the Livelihood Impact Fund; that we're not going to do just an eyeglasses specific training module. We're going to incorporate that into noncommunicable diseases, which already has government prioritization and support. That's the story that we want to make sure we're telling to ourselves and to others.

Even though we know that eyeglasses as a 700-year-old innovation are useful, we want to make sure that they're incorporated into the broader workload of community health workers and the health benefit to the communities. We don't need to create a separate workforce that's just distributing eyeglasses or asking community health workers to just do eyeglass distribution.

Overall, we're really excited by the project and we think it boosts community health workers and their perceived benefit within the communities that they serve, and could conceivably drive up other services for community health workers. And I think that could be a good news story in the end.

Ambika Samarthya-Howard: Abraham, did you have anything to add before we close?

Abraham Zerihun Megentta: Just to echo what James has mentioned. We are really excited and pleasantly surprised that there's a lot of demand for this at the community level, and we feel like this is going to help increase the acceptability and credibility of community workers. It could have a lot of spillover benefits, which will drive increased demand for other services. So we are quite hopeful and excited about this.

Ambika Samarthya-Howard: This has been great, really insightful. Thank you.

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Ambika Samarthya-Howard (she/her) is Solutions Journalism Network's Chief Innovation Officer. She strategizes on communications, metrics, impact, product and technology, leveraging platforms for the network and creating cool content. She also leads the Solutions Insights Lab, an initiative of SJN that uses targeted research and analysis to identify and interrogate what's working and what's not in a particular sector or field. She has an MFA from Columbia's film program and has been creating, teaching and writing at the intersection of storytelling and social good for two decades. She has produced content for Current TV, UNICEF, Havas, United Nations Population Fund (UNFPA) and Prism.

** This interview has been edited and condensed.*