“The eyeglass work has had this boost in patient satisfaction, and probably increases the credibility of the community health worker”: Follow-up conversation with James Nardella and Abraham Zerihun Megentta of Last Mile Health.

Ambika Samarthya-Howard

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Ambika Samarthya-Howard: Can you give me an update on how your project has been going? Specifically with the eyeglass work, but also the last few months with the pilot.

Abraham Zerihun Megentta: Initially, we were excited about this project, but we didn't know just how compelling, interesting and exciting it would be for us as well. When you start designing projects, you are consumed in the logistics of how you deliver, how you design, the cost implications, Ministry approval, customs clearance. There are several things you need to think about, address and plan for, but then eventually when you start producing stories of changing lives, that is quite satisfying.

We're also seeing that even health extension workers, who are supposed to deliver this product, are also in need of it. So, we have a chance to engage them as beneficiaries as well. What we do now is when we call health extension workers for any other training, even not necessarily eyecare or NCDs [non-communicable diseases], we screen and provide reading glasses. For example, we had a child health workshop, nothing related to eye care, but we were able to use that opportunity to screen health extension workers and provide them with glasses. It's been quite fulfilling and an exciting part of our work.

The community is quite responsive. Some of the personal stories are also quite compelling, and we posted some on our Last Mile Health LinkedIn page. In terms of programs, there have been

some blind spots that we had to deal with. For example, the first batch of deliveries went well, but the second batch had some custom clearance issues. We had to ask for the Ministry to intervene.

Ambika Samarthya-Howard: Where are you getting your glasses?

 **Abraham Zerihun Megentta:** We get them from RestoringVision, but once they arrive here, we have to do a lot for custom clearance and for distribution. We work with the Ministry of Health and the regulatory agency, which needs to give a go-ahead. Then there's a lot of logistics planning, because we are delivering these glasses to the last mile for communities in rural and remote areas.

Ambika Samarthya-Howard: You said the first shipment was fine, but the second shipment got held up. What was the difference between the first and second shipment? Was something wrong with the product?

Abraham Zerihun Megentta: It has absolutely nothing to do with the product. It has to do with some procedures required by the regulatory agency which were not applied in the first shipment.

Ambika Samarthya-Howard: Why didn't you have those same problems with the first shipment? What made the shipments different?

 **Abraham Zerihun Megentta:** Part of the challenges of working with regulatory agencies is predictability of processes. This applies for businesses as well as for NGOs. We think, "Okay, I've done this before. I know what to do," and then your second shipment goes through a completely different process. I think overall it comes with the territory and the ecosystem. The government is working to reform these processes and make them more predictable, but then it also becomes a learning process for us.

Ambika Samarthya-Howard: When we last talked, you hadn't started distributing glasses. How much were you able to distribute, and what approach was the most effective?

 **Abraham Zerihun Megentta:** So far, we've been able to distribute 13,000 glasses. We're quite excited with the progress we've made, but some changes had to be made along the way. For example, we realized that most of the community's needs are with lower diopters. Because of that, we had to slightly adjust the distribution of lower diopters versus higher diopters. Overall, we have involved around eight districts. Over 400 health extension workers were involved in the distribution, which has not been finalized yet. We're going to be pushing until the end of December.

 We have plans to distribute over 30,000 glasses. Initially, the plan was to distribute 20,000, not 30,000. The additional 10,000 glasses is something we suggested. We looked at the demand

and said, "Can you add more glasses?" This change came because we wanted to reach more people, and also because we were asking for lower diopter glasses, which were more in demand. Because of that, we added an additional 10,000 glasses in the middle of the project. We have a distribution plan through the end of November and beginning of December. We're really pushing ahead to complete distribution in Ethiopia.

Ambika Samarthya-Howard: How have the community health workers done in terms of training? There were two issues–one was actually getting the product to folks–and then there was the community health worker screening and training. What's been easy and what has been difficult?

 **Abraham Zerihun Megentta:** Here is where one of the key innovations comes in. We have integrated presbyopia training with existing non-communicable disease training for health extension workers. There's a module for non-communicable diseases and major communicable diseases funded by several partners. It didn't have presbyopia in the initial thinking and design, but with support from Livelihood Impact Fund, we were able to include content and multimedia on presbyopia screening. Recently, we added the multimedia component for eye care.

 The key thing has been integration. This is not a standalone training, it's integrated with several other components, and this has multiple benefits. One is efficiency. You're not calling on health extension workers only to tell them about presbyopia, but also non-communicable diseases overall. Second, you can leverage funding from other partners. For example, the Global Fund is now funding presbyopia training, because they're funding major communicable diseases and non-communicable diseases as a package. The major communicable diseases are HIV, TB, and malaria, but NCD [non-communicable diseases] are bundled into that package along with presbyopia.

The most exciting opportunity now is that we have a pool of health extension workers who are trained and ready to go. In the next four years, we estimate there's going to be over 7,000 health extension workers who are going to be trained on presbyopia screening and distribution of glasses, as well.

James Nardella: The overall point around integration is extremely important for us. Our hypothesis explored whether health extension workers could be trained to screen for presbyopia and distribute glasses, and whether Ministry of Health buy-in could be achieved. The biggest way to get that buy-in was to integrate this training into the existing workforce training and refresher training for health extension workers. Then, our third hypothetical question was whether we could achieve a reasonable unit cost for the distribution of glasses. Part of that unit costing comes down to whether you pay for bespoke training of health extension workers every time you're paying for glasses, or can the glasses distribution sit on top of training that's already part of the national system? We know that training is the most expensive input in most community health

worker programs. If you can integrate it into government training for a new skill, you're riding on top of that already-existing investment.

Ambika Samarthya-Howard: Have you found any challenges with integration? Is there a reason the eye care field waited so long to do it?

 **Abraham Zerihun Megentta:** It's been close to 10 years that the Ministry has been committed to better integration. They've developed a training module called IRT, Integrated Refresher Training, which they've been pushing. But, it's been challenging because there are verticalized programs each with their own funding. And those funders are not necessarily always interested in the integrated approach. If you have funding for family planning, you want your resources to go into training for family planning. Shifting that mindset has been one challenge for the Ministry and its implementing partners. The integrated blended training has advanced this effort by working closely with the Ministry to advance integration through the use of technology.

 The second challenge was, even with the integrated training, there's a lot of content that needs to be covered. The face-to-face approach that the Ministry was using was quite expensive. It was costing around $600 per health extension worker to cover one comprehensive module. We improved the approach by introducing a blended learning concept, where some of the training is face-to-face, the other is delivered through self-learning. Even then, we want to keep refining and optimizing for cutting costs by as much as 40%. When it's more efficient, it's more attractive for the Ministry of Health to roll out.

 The integration is not only across diseases and programs. We are, for example, using tablets procured for the electronic community health information system. We're not buying our own tablets. We're using existing systems. In many ways, we are riding on many other things in the health system–the infrastructure, the tablets, and the funding as well. We have multiple dimensions for the integration to showcase.

Ambika Samarthya-Howard: You needed to prove that integrated training was affordable at scale. Were you able to do that?

James Nardella: That's been a part of this pilot project. Part of the hypothesis was that we could integrate presbyopia screening and eyeglass distribution through the scale-up of blended learning training. We've been costing the approach very closely, running a careful cost analysis so that if we scale this up, we can better understand how unit costs change over time. We're working through some of those challenges.

If your customs clearance isn't the same every time, some of your unit costing gets thrown off, or if you're not ordering the right diopter glasses, then you have extra stock in your distribution network and you need to reorder. Some of this is working out those real unit costs. We're still

undertaking that cost analysis right now, but we have good inputs. Some early drafts give us reason to believe that we're going to achieve a reasonable and affordable cost at scale. That'll be a big part of this pilot project.

 We have been able to reduce costs. If you are injecting an innovation into an existing system and using that apparatus, something as simple as not hosting trainings at hotels but using government training facilities that already exist can lead to a lower unit cost for training. We also think program scale-up can ride alongside training that's already planned by the Ministry and other partners, so then you can focus more on the distribution of the commodity and making sure it's a part of the supply chain. We had this one-time cost in the pilot to develop blended training for presbyopia and screening, so we don't have to do that again. You can use the initial capital cost that we've already invested. There are lots of reasons to think this is scalable.

 I'll be totally frank–we didn't know that this would generate the kind of returns that it has, and those are returns that are a little hard to show. It has to do with patient satisfaction, in that patients are really satisfied when they can come in, get screened, and receive a commodity right at the point of care. That's not always the case in every health service. The commodities can be provided at the first level of primary care, at the village level through a health extension worker. Then you're not having to walk or pay for transport to go to a higher level facility. It's working through convincing key stakeholders that it's okay to demedicalize eyeglass distribution, as we have in other places, which obviously leads to greater affordability of eyeglasses, but also just that access is easier for the patients that need them. I think all of these factors have led to this degree of patient satisfaction. All of that leads to a greater desire for the program to scale.

Ambika Samarthya-Howard: Is there anything you've done with the Ethiopian government that you would advise for other people trying to do this kind of work?

 **Abraham Zerihun Megentta:** That's one of the complex dimensions of the program. When we refer to the government, our key counterpart is the Ministry of Health, but there are entities outside of the Ministry of Health that have interests in decision-making on this initiative. One is around customs clearance. For example, the EFDA, the Ethiopian Food and Drug Administration, has the authority to provide permits for clearance. The fact that we have built strong relationships with the Ministry has helped us to communicate through them with other government agencies, because the Ministry knows your work and can vouch on your behalf. Several letters were written from the Ministry of Health assuring the regulatory agency that this is really for rural and remote areas, and that was quite helpful.

 The other dimension is there are various associations and interest groups you need to engage with. In our case, optometrists had an objection to the health extension workers distributing this, because they felt it was encroaching on their territory, that this is their area of

expertise and it should not be handed over to health extension workers. Several engagements, consultations and negotiations later, we were able to involve them in this project by providing training and mentoring, as well as by referring cases to the health center to provide that support. Usually, we are the ones using them as data collectors, data validators and reviewers, so we turn them into champions. We are trying to include them, their voice, and their participation in the process.

Ambika Samarthya-Howard: At what point of the process are they included, and how is their voice included?

 **Abraham Zerihun Megentta:** We engaged them from the very beginning, when this initiative was piloted. They were engaged through their association, and they deployed in the field to train and support health extension workers in the distribution. If your problem is not only presbyopia, for example, if you have a distance vision problem, the health extension workers are supposed to refer you to the health center where the patient can find an optometrist. We had to reassure them that for any complicated case or for a case outside of presbyopia, we still need them. We're not saying we don't need them, or that now this can be entirely handled by health extension workers. We try to, as much as possible, make sure they have a part in the process. This needs to continue. This is not a one-time affair. You always need to champion. Even with the Ministry, you need to advocate for various different departments. There are various other government agencies, and regions, and associations that we need to reach out to. Even the ones we have already reached, it needs to be a continuous engagement process. We're compiling patient stories so that people see how compelling this intervention is. We're hopefully going to produce a documentary video which shows some of the patient stories as well. All of that is going to help with our advocacy efforts.

 **James Nardella:** This kind of protectionism from other healthcare cadres is a common challenge that community health workers face. For example, if you equip a community health worker to take blood pressure with non-communicable diseases, you might have nursing professionals who say that's a nursing skill and it shouldn't be shifted to community health workers. It's finding that common ground where you see the mutual incentives. It's not that we want community health workers to become optometrists or that we want them to take over the roles of nurses. We want every health worker cadre to perform at the top of their tasks, at the top of their scope of work. If we can get community health workers to screen and provide glasses for presbyopia, it should lead to a kind of incentive in terms of driving up demand for optometry services at a district level for optometry professionals. In the same way, we should be freeing up nurses to do higher skills, and freeing up clinical offices and medical doctors to perform at the top of their license.

That's the work we have to do in the field as a whole, i.e. helping people understand there's plenty of health work to be done and services to deliver, and that community health workers have an important role. We're definitely not trying to crowd out any other cadres of health workers.

Ambika Samarthya-Howard: Last Mile Health has scaled successfully across countries by creating relationships in a way that is not threatening and that works with governments. In the next phase, will you try to scale further in Ethiopia based on the districts you've already done, or what's next?

Abraham Zerihun Megentta: We have learned a lot about the pilots in terms of what works, what doesn't, what should be the logistics considerations, what are the regulatory considerations, what are stakeholder engagement considerations, what are the cost drivers and the cost components. We are better equipped now to scale.


The other thing we really want to seize on is already trained health extension workers. In the next four years, we estimate around 7,000 health extension workers will be trained on presbyopia, and we need to maximize the momentum. The best-case scenario is to distribute around 570,000 glasses in four years, which is a very ambitious number. With the number of trained health extension workers we have, that's definitely a possibility in the next four years. The key objectives of the pilot were to learn about how to do this, the challenges, the regulatory environment, and the logistics demands. We have learned a lot of lessons on all of these dimensions, and we're now trying to come up with an ambitious plan to reach as many people as possible.

Ambika Samarthya-Howard: What are some of the things from the pilot that you know you will not continue to do, things that did not work?


Abraham Zerihun Megentta: We have, for example, logistics and distribution as a major cost driver. We estimate that around 49.2% of the costs is logistics and distribution. In terms of man hours, in terms of overall execution, that's the main pain point. In the pilot, we tried multiple approaches, including some innovative ones. We tried the postal service, which was at one point reliable and cheaper, but in some cases not so reliable. We tried handling distribution by hiring logistics companies or cars to do that. In a scale-up mode, we will have to come up with optimal approaches which might be different for different locations and regions.

Ambika Samarthya-Howard: What is so expensive? Is it the custom fees?

Abraham Zerihun Megentta: Ethiopia is a huge country. It takes days to travel from one end to another, and the topography, the roads, and logistics distribution is quite challenging. It's basically a last-mile delivery, and it's quite complex. We want to zoom in on that for the scale-up, and use alternative options for these costs as well as for effectiveness, potentially exploring whether it can

be bundled with other commodities to maximize efficiency. Can we involve the private sector in the distribution? Are there any cost-efficiency gains we can have around that? We can explore many other ideas and options.

Ambika Samarthya-Howard: The community health worker perspective is really your bread and butter. What are some of the things you're going to continue to do?

Abraham Zerihun Megentta: We learned that patient satisfaction is the most compelling part of this program. When you see a patient with a problem, and a community health worker is able to immediately address that problem, the commodity really is life-changing. That's critical in terms of maximizing the credibility of health extension workers. Also, overall patient satisfaction might have a spillover effect of driving demand for other services, if patients are satisfied.

The thing which maybe needs further exploration is–can this be integrated with community health insurance, for example? Can this be a commodity covered under insurance packages? We have yet to see whether or not this is recommended. There are multiple countries experimenting with it. We know we have some of the data, but is this really relevant for Ethiopia, or is it something we need to explore?

 Community health workers are seeing a lot of demand–how do we address that demand? We rely on advocacy work. For example, the Ministry of Health says that if a patient has other conditions on top of presbyopia, you're not supposed to give them glasses right away. You're supposed to refer them, because they fear that if you give them glasses right away, they might feel that they're cured and all their problems have been addressed. They might not go back for a second visit. We defer [to the government], but we feel it's better to give them the glasses, they'll still come, and at least let's not lose the opportunity to address one of their problems as opposed to saying, if we cannot address all your problems, we cannot address even one. We still have our advocacy work cut out for us.

Ambika Samarthya-Howard: Did you feel there's anything from this particular project you're applying to your other work?

 **James Nardella:** It's reinforcing something that we're deeply committed to, which is working through public health systems that are the drivers of impact and scale. Sometimes it's even negotiating whether you can provide someone with diabetes a pair of glasses because it might distract from their diabetes healthcare-seeking behavior. That becomes worthwhile because you're seeing that the public sector can deliver something at a much greater scale, if you're investing in these early choices to set up standard operating procedures and integrate them into the government's training program.

 An important question for us as a field is to think about how we need community health workers to deliver essential health services. There's really good research to show that they are effective at addressing the things that make children very sick, and making sure that pregnant women get access to essential healthcare during their pregnancy and access family planning services when they need them. What the Ethiopian example reminds us of is that their community health workers have been a part of one of the largest reductions in under-5 mortality and maternal mortality in the world. Not to say they've got that covered, because there's still work to be done to improve the quality of care for sick children, for instance. I wouldn't start a program based on eyeglass distribution. I would build a program on top of the central health services, because the community health system in Ethiopia is a bit more mature than some other country locations. Community health workers are already paid consistently. They've gone through a year's worth of a diploma course before they're deployed. There's a lot that functions well within that system. Adding eyecare or just eyeglass distribution is possible.

Something I'm less bullish about is whether we should start with this service everywhere, because certainly in some of the contexts where we work, Sierra Leone for example, there are a lot of challenges related to deploying community health workers to hit the basics of essential health services for children under five and pregnant women. We probably still need to start there. The nice surprise for us is that far from being a distraction, the eyeglass work has had this boost in patient satisfaction, and probably increases the credibility of the community health worker, which is good for their other health services. We want to make sure they're doing their essential services before we add these services on top.

Ambika Samarthya-Howard: What about your Liberia program with EYElliance?

James Nardella: In the broadest outline, EYElliance works largely with the government. They ran an eyeglass distribution pilot through the community health assistants. Those are the community health workers that are a part of the National Community Health Program in Liberia. The results of that pilot were promising enough that this service was incorporated into a revision of the national community health policy to change the job scope for community health workers to standard operating procedures, with new curriculum, new job aids, new monitoring and evaluation tools, which is what we're in the midst of right now. We're trying to translate a number of key changes into the policy. For instance, the new policy allows community health workers to undertake injectable contraception, which is what patients have the greatest demand for. Last Mile Health piloted that in one of our implementation counties, and it was adopted into the national policy. Rolling that out into national practice is a multi-year journey to get it instituted. You need to change the curriculum, you need to change the commodity supply chain, retrain community health workers and their supervisors, and roll out the new job aids, et cetera. We're in the midst of that.

The same thing is true for the eye care interventions piloted by EYElliance that are being rolled out into the national policy. EYElliance contributed to a revision of the national policy through running

that pilot, and EYElliance contributed to revisions in the new curriculum for community health workers in Liberia. That curriculum has not yet been rolled out because retraining, in this case, 5,000 community health workers and nurse supervisors in Liberia is expensive. We're waiting for a next round of financing that's coming through from key partners like USAID and The Global Fund, which will allow the national cadre of community health workers to be retrained on some of these key topics like eyeglass distribution, and treating children up through age 12 for malaria. In the next year or so we will integrate those changes in policy into changes in curriculum and job aids. Our work with EYElliance has largely been as a technical collaborator in terms of translating their learnings into national policy and curriculum.

Ambika Samarthya-Howard: What are you most looking forward to in 2025?

Abraham Zerihun Megentta: We have a lot of exciting things happening in 2025, for example, scaling up this intervention in the new year after we close our pilot at the end of December. We are also scaling up our blended learning approach across Ethiopia, which goes hand in hand with this intervention. We're also exploring other areas like artificial intelligence and its application for community health workers.

Ambika Samarthya-Howard: Why isn't the field using AI more? What are you trying to explore with it?

 **Abraham Zerihun Megentta:** We have progressed quite a bit. We have this blended learning project where we are up-skilling community health workers, but we want to address post-training follow-up in case community health workers face complicated cases, or need case management support. We have tried teleconsultation where we set up a call center for health extension workers to call and consult when they run into complicated cases, particularly sick children who may be experiencing various symptoms.

Sometimes it's quite intimidating for community health workers. Even though they might be trained and know the theory, the caseload might be too minimal to really build their skills. This call center was quite successful, but we wanted to make sure that the advice, consultation and mentoring provided to health extension workers is standardized. We want to establish an AI-supported or AI-powered call center with the long-term vision being for health extension workers to have an AI assistant on their tablets if it's proven effective, which relies on Ministry guidelines and protocols. We've started piloting that work. We're excited to have set up an expert group with the Ministry of Health, another thing we want to push.

Ambika Samarthya-Howard: When you're scaling across Ethiopia, what's the hardest part, outside of transportation issues, for scaling from one district to another?

Abraham Zerihun Megentta: Ethiopia has multiple countries rolled into one. We have pastoralist areas which are culturally and lifestyle-wise quite different. Language is a major challenge. Every region you go to, your training content, your multimedia content, needs to be translated into the

local language and local culture. There are different ways of doing things in different parts of the country. Community health programs and health system development are quite different in different regions. Particularly in regions that the government refers to as developing regions, you might struggle a bit because the health system is not as strong in agrarian regions as developed areas. It's a big country, and you need to have a customized approach for various locations because of these multiple dimensions which need to be addressed as you scale.

Ambika Samarthya-Howard: How do you decide which district to scale into next, knowing all these differences?

 **Abraham Zerihun Megentta:** The Ministry plays a big role in that decision. We recommend, we propose. Usually, these things are decided by the Ministry of Health because this is a key decision for them. The Ministry is quite serious about this because they want to maximize equity. Sometimes they tell you to go to a district, even though it might be remote and you think, "Okay, for a pilot, this may not be the most appropriate," but the Ministry has several other considerations when they do site selections. They play a big part in that decision-making process.

 **James Nardella:** Just to be clear, our blended learning content has been deployed in 189 districts across 9 of the 13 regions. This refers to a district where health extension workers have been trained on screening for presbyopia as well as non-communicable diseases. This is the immediate workforce that could engage in this activity if they were given the commodities. We're scaling up this training, not just in a couple of districts. We're trying to make sure we're testing the approach across various settings. There were three regions and six districts where health extension workers were engaged in the pilot. This massive heterogeneity of districts is part of the design that the Ministry keeps pushing us on.

Ambika Samarthya-Howard: In other words, they want heterogeneity just to see how it's testing across different things?

James Nardella: Yes, especially with blended learning. We might want to stack the intervention so that if health extension workers had blended learning on one training element, like reproductive maternal and child health, you're also stacking training for non-communicable diseases, and then social and behavior change communication and first aid. I think the Ministry very much wants to distribute training so that it's more equitable across the country. Those are some of the negotiations. Our distribution of training is determined by the Ministry.

Ambika Samarthya-Howard: Thank you so much. I appreciate your time and insights.

ICON LEGEND

Ambika Samarthya-Howard: 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.*