"We've tried things before and they work": Alice Mwangi of OEU on strong government partnerships, building vision centers and linking hospitals with communities

Ambika Samarthya-Howard

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Ambika Samarthya-Howard: Can you start by telling me a little bit about your organization and the model you use for your work?

Alice Mwangi: I work for Operation Eyesight, a development organization based in Calgary. We have programs in Africa and Asia. In Africa, we are working in several countries. Ghana, Zambia, Ethiopia, Kenya, and Malawi.

Ambika Samarthya-Howard: Can you tell me a little bit more about your approach?

Alice Mwangi: For us, we are in the business of prevention of blindness and how we prevent blindness is work through government institutions. We partner with government hospitals to build their capacity to provide quality eye care services through infrastructure and development support in consumables, equipment, training of personnel, and of course research and advocacy to ensure that the government is allocating the required resources to provide these services. We have a very unique model. We call it hospital-based community eye health for service delivery.

Ambika Samarthya-Howard: So you said hospital-based?

Alice Mwangi: Yes. Hospital-based community eye health.

Ambika Samarthya-Howard: That's interesting because when I think of hospital-based, I think the opposite of community.

Alice Mwangi: Yes. And the model actually links the two, the hospital and the community.

So on one side, the hospital being on the supply side of the health services, we build the capacity of the hospital to be able to provide those services to the community. And then on the other side, because it's not always obvious that if you put a hospital here, the uptake of services would be automatic. Research has shown that it's not obvious for several reasons. Then, we establish the services on this side, but engage the community to improve the health-seeking behavior and utilize the services that are available. So you see the link now comes in that if we are going to a new area, the first thing we do is assess availability of those services.

In Kenya we had districts, now we have counties. Those are the government administrative units. In each county there is a county referral hospital that is at the apex of any health system within that county. And it's the county referral hospital, meaning that it should be able to provide all the health services to each population. But we found that in Kenya, not all of the counties will have eye health services. So going to a new area, we assess if there's minimum or nothing in place.

 If there's a minimum, what are the gaps? Sometimes there are one or two health personnel trained in eye health who probably have no equipment. So we assess all that and build around that program to strengthen its capacity. In all the counties that we've worked in Kenya, one of the things that we've done is build the eye units, either building an eye unit or if the government gives us space, we renovate it and turn it into an eye unit and then train personnel.

Ambika Samarthya-Howard: Can you describe what an eye unit is? What do you mean when you say you build an eye unit?

Alice Mwangi: An eye unit, that would be the building itself. The building itself and then the equipment that is required for eye health services.

Ambika Samarthya-Howard: How did you pivot from prevention of blindness into eyeglasses with your work with Livelihood Funds?

Alice Mwangi: That's a very interesting question. So remember our work is to connect the two platforms, the hospital and the community. So for the community, we have a program that includes awareness creation, providing preventive services at the community level so that eye health conditions do not advance to hospital level.

 If we can provide solutions in the community, of course preventive measures taken at that point is surely the best because of course prevention is better than cure. So at the community we work with a cadre called community health volunteers. These are not medics, they're actually members of the community that are being nominated by their own community to promote general health services.

Ambika Samarthya-Howard: And how is the cadre different from the community health workers that the ministry deploys?

Alice Mwangi: It's the same cadre of community health workers. It's the same cadre that we work with. So we come in as the experts in eye health to build the capacity of this cadre in eye health, so that they can help us in community engagement, in creating awareness about eye health among the community, and preventive measures. And also telling them about the available services within the facility.

 I don't know if you've heard of IAPB [International Agency for the Prevention of Blindness], it's almost like an agent of the WHO [World Health Organization] when it comes to eye health. It's an international body. So it's that agency that populates guidelines and policies at the global level and also strategies for us. Over the years I have confirmed that community health workers, these people at the community level, can be trained to screen and identify basic eye conditions.

Ambika Samarthya-Howard: Where do they get screened? Do they get screened back in the hospital?

 **Alice Mwangi:** We train them to screen the community in their households. For us, the ones that we train actually move from house to house, checking the eyes of the community members. We train community health volunteers to screen and identify eye conditions and refer people to the hospital. You see the connection?

Ambika Samarthya-Howard: Okay and so the hospital is where they get their glasses?

Alice Mwangi: At the moment, yes. And the work that we are doing with the Livelihood Impact Fund is to see whether this community health volunteer can now identify people with presbyopia, people who just need readers to correct their refractive error. Whether [they can] diagnose their refractive error correctly and issue the glasses themselves, not necessarily referring them to the hospital.

Ambika Samarthya-Howard: In the old model, they would refer people to the hospital and in the hospital they would get the readers. And in the new model, they're giving the readers themselves, correct?

Alice Mwangi: Yes. Now that's where we are. So it hasn't been confirmed yet because it was research that we are doing. We completed it at the end of December. The research was to confirm that the community health volunteers or the community health workers can identify correctly and manage that condition called presbyopia. Without requiring the patient to the hospital.

Ambika Samarthya-Howard: Can you tell me a little bit more about how many districts, how many people, how many community health workers we're talking about?

 **Alice Mwangi:** For the pilot, for the research, we trained 12 community health workers to screen for eye conditions and diagnose only one condition. We call it presbyopia, where they need just readers. Any other condition is too complicated for community health workers to manage. So any other condition has to be referred to the hospital.

And we engaged them for about three to six months, and they saw a population of close to a thousand people and we gave them the proper [training].

Ambika Samarthya-Howard: And where was this?

Alice Mwangi: In a place called Elgeyo-Marakwet, in Kenya. It's rural.

 We gave them the tool for data collection. So whatever it is, if they take visual acuity they would be required to record. If they make a diagnosis on the powers of the glasses, they also need to record that. And then we had an optometrist as our gold standard who would also see the same patient, take their visual acuity, and also diagnose their refractive error and management. We took these two readings and compared optometrists' and community health workers' management of presbyopia. The results were compared with optometrists as a gold standard. So over 80% of the time, the community health volunteers correctly identify the presbyopia and managed it well.

Ambika Samarthya-Howard: How did the people respond to the community health worker doing the screenings and giving them the readers as opposed to an optometrist? Did the person trust them?

 **Alice Mwangi:** Good question. The good thing about our community health workers is that they are known members of the community. They have been supporting health issues, maternal child health, TB, HIV, everything. So they're actually more trusted. Community health workers [are more trusted] than these optometrists I brought from outside their community.

Ambika Samarthya-Howard: Was it a hundred percent of the time that the person bought the glasses or how often was it that after they got screened for presbyopia, that they bought glasses?

 **Alice Mwangi:** For this one, we did not sell the glasses, we gave them for free. You remember it was based on research, and one of the basis for getting ethical approval to do the research is how are you going to provide intervention for people you found in the community with some conditions. So we said we are going to provide the intervention including glasses for free.

Ambika Samarthya-Howard: Got it. Are you still planning to keep providing them for free?

 **Alice Mwangi:** To make the program sustainable, we may be forced to introduce a fee. We have another program where we have introduced something called a vision center. This is just an optical shop very close to the community and the vision center actually sells the glasses to people. We don't give them for free. The uptake has not been very high, but over time there's an upward trend. I think people with time start appreciating the services because when we started, the uptake of services was about 14%. By the end of the year, after a lot of health education and community engagement, it had gone to 40%.

Ambika Samarthya-Howard: Can you tell me what you mean by uptake of services? When you say the 40%, 14%, what are you referring to exactly?

Alice Mwangi: This one I'm specifically talking about the glasses. That is the percentage of people who actually purchased readers from those who were prescribed. [It's the] conversion rate from prescription to purchase.

This is specifically with the vision center community-based eye health program. So this [program] is introducing a vision center, which is more of a health facility at the primary levels. It's lower in the health system. In the health system we have several layers or levels of health facilities. We have level one, community, level two, we have dispensary and health centers. Level three, we call them sub county hospitals, then county and then tertiary. So this is at the lowest level of the health system [where] we introduce optical services.

Mainly, though, we have an optometrist or an ophthalmic worker who is able to identify cases, people with eye conditions and provide minor treatment. Any complicated cases are referred to the base hospital. So in this vision center we also provide refractive error services not only for readers, but more complex refractive error.

Ambika Samarthya-Howard: And the vision center is a building that you built?

Alice Mwangi: Usually not a building I've built. We are working with a private hospital, so they have rented space and put in equipment and personnel to provide the services at that level.

Ambika Samarthya-Howard: Is the vision center within the hospital?

 **Alice Mwangi:** Away from the hospital, usually 20 kilometers away from the hospital. This is to make sure that patients don't have to travel long distances to get the services to the main hospital. It's also a siever. It sieves the people for the main hospital. So the main hospital doesn't have to treat all conditions, but some are seen at the vision center. The minor conditions can be treated at the vision center. And then only complex conditions are referred to the base hospital, which is about 20 kilometers away.

Ambika Samarthya-Howard: How do people know that the vision center exists?

 **Alice Mwangi:** We also train community health workers and the market, the catchment population of the vision center. And community health workers educate the community about eye health, and also conduct screening and refer them again to that vision center. So this is a bit different from what we are doing with the Livelihood Impact Fund research, because with the vision center, the community health volunteers can only refer, they're not managing at this point. They refer any case of refractive error, any condition they have to be referred. Whereas with the other project, with the Livelihood Impact Fund, we are trying to see if community health workers can take some of the load – like the prescription and diagnosis and provision of glasses to the community – instead of referring everyone, like what we do now with this vision center.

Ambika Samarthya-Howard: Can you tell me a little bit about how big the sample case was when you said it moved from 14% to 40%? How many vision centers were you talking about over what expanse of time?

Alice Mwangi: For that one, I can't remember the [exact] number, but it was close to 10,000 people screened. [Of those], the ones found with eye conditions [were] referred for treatment. Usually in Kenya we say 15% of the population will be expected to have some level of visual impairments.

 People with presbyopia were referred to go to the vision center to purchase glasses. The patient had to be further diagnosed [at the vision center], and once they confirmed they needed glasses, they were asked to purchase. So we're talking about the issue of purchasing. Initially, of the prescribed, only 14% of them purchased the glasses. With health education, uptake of glasses increased to 40%.

Ambika Samarthya-Howard: Was it the same people you screened at the beginning and end, or were they different populations? Specifically, when we are talking about any attitude changes that have occurred, I'm curious if it's new people who changed their attitude or people who were reluctant before and have now changed their attitude?

Alice Mwangi: Because when we're setting our targets for the program, like now with the vision center, we draw a cluster. We know that we are covering a certain radius within that village and that will be our target population for our intervention.

 When we realized that the conversion of people requiring spectacles and the ones who are actually purchasing is very low, we trained our community health volunteers on health education and how to conduct health education within the community. And we actually supervised that whole process. They [did outreach at] all the community gatherings either in marketplaces or Chief Barazas, the religious groups. Anything that is a gathering, they would go there and train them about eye health.

We conducted the KAP survey. That is the knowledge, attitude and practice survey of that community. And one of the things we ask them is whether they are aware of the vision center that is providing eye care services. Have you ever been screened? Do you know about cataracts, which is the most common blinding condition? Where did you hear about it? Why were you referred to the vision center? If you attended, what motivated you to attend? If you didn't, why did you not attend? And also the practices. Do you think an annual eye checkup is necessary? Just to gauge their knowledge and also attitudes. Surprisingly, we found towards the end of the program, the knowledge about eye health was very high. Actually it was close to 90%.

Ambika Samarthya-Howard: And you think that was because of the training?

Alice Mwangi: Yes, the majority of them actually confirmed [that they] heard about eye health from their community health workers. That's what they said. But what surprised us is that the practice was not matching the knowledge. And probably that's what I thought about the uptake of services. The services are here, but is the community fully utilizing the services.

Ambika Samarthya-Howard: Why do you think that is?

Alice Mwangi: I think there's very low priority over eye health compared to other health conditions. Most of them would say, "Yes, I was referred, I was supposed to go, but I've never gone." Why? "I was busy." Some of them actually cited the cost of glasses specifically because there was a question on glasses, which was also our area of interest. They said they felt the cost of glasses is high or some felt the distance they have to travel and the cost of travel was a hindrance for them.

Ambika Samarthya-Howard: And so what do you think made the big difference between the 14% and the 40%?

 **Alice Mwangi:** I think health education. It's not that it didn't work at all. It did influence some people. I think the community health workers did a good job convincing them of why they should go for the services. And I think over time, influence from community members. You see, you find a community member who probably was identified with cataracts and they were referred for treatment, and then they come back with their sight. That could also be a positive thing for the community members.

Ambika Samarthya-Howard: That makes sense. What are you trying next?

 **Alice Mwangi:** Our findings were supposed to try to influence the policy in Kenya to allow the government to have community health volunteers manage this bio-care. Currently, the policy does not allow community health volunteers to manage any condition. Anything they feel is management of a condition, the policy does not allow. But remember we are trying to influence the government to tell them that presbyopia is not too risky a condition. In other countries, community health workers are actually issuing the glasses.

 So even in our neighboring country, I think Uganda is already doing it. So it's to influence the government to change that policy. I am meeting with the head of ophthalmic services in Kenya to discuss the way forward. [We've already] kicked off the discussion. One of the things that he proposed was that however much we want community health workers to prescribe for presbyopia, they must be trained first. So the issue of standardization of the training in the country, that means standardization of development of the training manual and have them ratified by the government and then the supervision mechanism, how will they be supervised? And then the criteria for selection.

Ambika Samarthya-Howard: How did you train your community health workers?

 **Alice Mwangi:** We start from the selection. As I said, we used the community health workers already in the health system in that county. So we used the government officials to select them for us.

The manual, we developed ourselves as Operation Eyesight, of course with a lot of reference to the WHO manuals and discussion with the Ministry of Health. So they were trained for three days, two days of class work and one day of practicum. They were trained by health workers. We had two trainers, an ophthalmic worker and an ophthalmologist, and then practicum. And then they were supervised when they were doing the work. What they recorded, they came back, it was reviewed, corrections were done, and then sent to do the data collection.

Ambika Samarthya-Howard: And then how do you continue to supervise them?

 **Alice Mwangi:** For us, because we work with the government, we'll have to embed it in the government structure. Community health volunteers within the government structure for us are supervised by public health officers. So that means we have to work closely with the public health officers to continue with their supervision because they already supervise them for other things. When they're doing tuberculosis programs or HIV, or maternal [health], they're supervised by the public health officers.

Ambika Samarthya-Howard: And what about payment? Are they paid extra for doing this work, or do you know how they're paid for this?

 **Alice Mwangi:** Previously our community health workers were actually known as community health volunteers, meaning that they were just volunteering their services. So for us, we would only facilitate their travel and give them a lunch, which they used to appreciate, but we do not call it payment as such. But what the government of Kenya has done is actually change that policy. The president has proposed they're no longer even called volunteers. They're called community health promoters. They need to be paid for the work they do on a monthly basis. And I know the government is putting a system in place to ensure that happens.

Ambika Samarthya-Howard: A lot of what you have talked about as being the most effective has to do with community health workers going to every door and talking to people. It's really a direct one-to-one awareness model. You haven't mentioned a lot about radio or mass marketing. How scalable is the model?

 **Alice Mwangi:** They're very much scalable because remember we are working within the government system. In every county we have community health promoters. The government has actually digitized their data collection. They're getting forms for data collection. We have several programs in another county in a different program. We want to see whether we can have some indicators for eye health in that digital platform of the government.

Ambika Samarthya-Howard: Yes. And do you think that's going to work?

 **Alice Mwangi:** Well, we've tried things before and they work. So that's why I'm saying it's scalable because we have community health promoters in the whole country. In all 47 counties, they're there. I may now say that we have the funds to roll out all these programs in all the counties. What we are doing is developing models that anyone can take up and use. And you remember we are working with the government already. I'm talking about the head of ophthalmic services who is actually the one in charge of the national eye health programs in Kenya. So it's just challenging the government to be able to provide those services. If I developed a manual, it wouldn't be the Operation Eyesight manual, it would be the manual for the government to use in any other county where they need to train community health promoters to prescribe for glasses. It's a mechanism that can be taken elsewhere.

Ambika Samarthya-Howard: Right now your community health workers, after they do the screening, they're giving the readers for free. How do you think it will work when you have to charge for readers and there is a second touchpoint?

 **Alice Mwangi:** Provision of incentives for our community health promoters. If you ask me, this is my personal opinion, I see it as an opportunity for us to introduce the glasses as part of income generation for community health promoters. They get them from their health facility at a subsidized fee and they sell with a margin as a profit for themselves.

Ambika Samarthya-Howard: Right now when the community health worker screens and the glasses are not free, where does the person go and get them?

Alice Mwangi: At the moment, in our programs, at least where we work in around eight counties, we've tried to put up optical services within the government. Unfortunately, in other places, they have to go to private optical shops to get them. But remember these programs are an initiative of Operation Eyesight. It has not scaled yet. So it's a huge gap in the whole country.

Ambika Samarthya-Howard: But the purpose of the vision center is to sell the glasses after the community health worker screens you?

 **Alice Mwangi:** Exactly. You can go to the vision center where they are available. So even this model, the vision center, for us it's testing different models and trying to influence and make them available for anyone, including other INGOs and governments to implement. The vision center is a unique thing for us. We started as a pilot in this county where I am today, it's called Kisii. We have so far in the last two years developed two vision centers. One of the other things that we want to do by mid or end of year is to assess their performance. And again, [we want to find out] whether these are models that are scalable. So we keep testing different models and see whether we can try them elsewhere.

Ambika Samarthya-Howard: Wonderful. It was nice speaking to you. Thank you.

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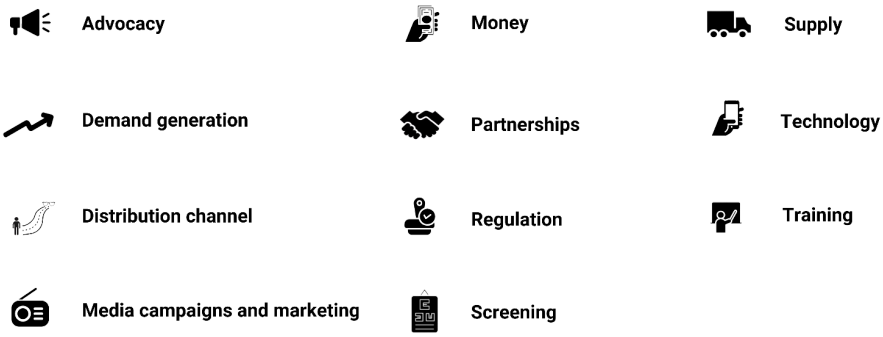

Ambika Samarthya-Howard (she/her) is Solutions Journalism Network's Chief Innovation Officer. She strategizes on communications, metrics, impact, product and technology, leveraging platforms for the network and creating cool content. She also leads the Solutions Insights Lab, an initiative of SJN that 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.*