JFAC S4 Ep.5: What does a propeller have to do with emergency heart surgery?

Farhaad Haffajee: [00:00:00] I would like to hope that every single individual in this country is able to access the healthcare service they deserve. There has to be equity with regards to health. Health is a basic human right. It's enshrined in our constitution. It is not something that we should be debating.

Ntombini Morengane: In case of emergency, dial 112. For us in urban areas, after punching in these numbers, we can listen out for the ambulance siren fairly soon. But what if you're far from a city? What if you live in a remote place? If you do, chances are essential services are far from accessible. Where and how would you take your baby for life saving vaccinations?

In case of a life threatening emergency, how do you get the care you need?

Reach Alliance YT Clip: These are the people being left behind. Those who are living in a slum. Maybe those who are [00:01:00] living far off in the countryside. They're being left behind because they're hard to reach. And they're hard to reach because they are, for all intents and purposes, invisible. If we're serious about eliminating poverty in all its forms, everywhere, then we have to figure out how we can reach those who are hardest to reach.

Ntombini Marrengane: Welcome to season four of the Just For A Change podcast, powered by the Bertha Centre for Social Innovation and

Entrepreneurship. I'm your host and Ntombini Marregane. In this series we're looking at unexpected connections, surprising overlaps, and unusual alignments in the work being done locally and globally that's moving our societies forward in positive ways. And just a reminder that the views shared by our guests may not necessarily reflect the views of the Bertha Center. Rural areas can be picturesque and peaceful, but they can also be disconnected from economic and [00:02:00] social infrastructure.

This means that communities experience limited access to vital health services. For example, mental health services or primary health care. Because of longer distances, rural communities may be without critical care at times of emergencies. In New South Wales in Australia, an area of over 800, 000 square kilometres, the Toll Ambulance Rescue Helicopter Service provides high quality clinical care and health related transport services.

To over 7. 5 million people located in remote areas, the highly qualified and experienced team of pilots, air crew, doctors, paramedics, engineers, and safety managers perform over 2, 500 missions per year.

The Sydney Morning YT Clip: Whilst every day is different, it's always the same kind of days that stick in your mind and they're the days at the extreme ends of what we get exposed to.

So, the days which have got a great outcome. Where you've rescued someone, you know, who was otherwise going to die without your presence there, that's [00:03:00] always a day that you're going to walk away feeling really good. By the same token, at the other end of the scale, when, you

know, despite our best efforts, people haven't survived, and those are the days that stay with you as well.

Ntombini Marrengane: South Africa has its own helicopter heroes. The South African Red Cross Air Mercy Service Trust. or AMS for short, is a non profit aeromedical rescue organisation working in partnership with provincial departments of health in South Africa. AMS provides air ambulance services and emergency care to rural communities.

On any given day, the AMS team may be attending to patients with life threatening injuries or delivering life saving care to the hardest to reach parts of our nation. Later on, I'll be speaking to Farhaad Haffajee from Red Cross Air Mercy Services about bringing healthcare to those most affected by geographic, social, and economic disparities.

But first, let's hear from Francesca Lanzarotti at the REACH Alliance based at the University of Toronto's [00:04:00] Munk School of Global Affairs and Public Policy.

Francesca Lanzarotti: Hi, I'm Francesca Lanzarotti. I'm currently working at a domestic abuse prevention charity. And I became involved in the REACH Alliance research whilst completing my Masters of Science in Women's Health at UCL last year.

Ntombini Morengane: The REACH Alliance is a network of student and faculty researchers at top global universities and leading companies who are investing in an inclusive economy that prioritises the flourishing of

people and the planet. Or as their website helpfully says, Investigating how to get important stuff to everyone, everywhere.

The REACH Alliance is finding out how critical interventions can reach those who are hardest to reach, those living in extreme poverty, the geographically remote and the administratively invisible and marginalised. Francesca is part of the REACH Alliance research team, investigating maternal healthcare access and quality for women with disabilities in Nepal.

Prior to this, she completed [00:05:00] her master's degree in women's health at University College London. I asked Francesca, what innovations suggested by its research teams had made the most impact, and what role policymakers play in these success stories.

Francesca Lanzarotti: I was part of a research team with two other researchers, Savonori, who completed a Master's of Research in Reproductive Sciences and Women's Health, and Laura Herron, who completed a Master's of Public Administration at UCL as well..

And we all worked closely with our two mentors and a team of researchers in Nepal to investigate the access and quality of maternal health care for women with disabilities. And we did this by interviewing the women with physical and visual disabilities, local policy makers, local health care providers, and female community health care volunteers.

Overall, we found that the key barriers to access were a lack of physical infrastructure for people with disabilities and insufficient funding in the

[00:06:00] sector, and the key barriers to quality were inadequate provider training, um, so healthcare provider trainings and inefficient policy implementation. So based on our findings from our research, we made three suggestions.

Firstly, to organise interactive workshops to bring together the women with disabilities and policymakers and healthcare providers together in conversation to create a shared understanding on the situation. Secondly, To improve, um, partnerships with NGOs and development banks to hopefully improve funding in the sector.

And lastly, to develop a specialised training program for healthcare providers to address women with disabilities needs. So currently we've secured funding to organise workshops with policy makers and healthcare providers in the municipalities where we conducted our research. And the aim of these workshops is twofold.

So firstly, we're aiming to increase their awareness of the women with disabilities, [00:07:00] perspectives and point of views that we gathered from our results. And hopefully we'll have a woman with disability be able to give a testimony at the workshops as well. And this is for the The policy makers and healthcare providers are aware of the women's lived experiences to make more impactful change.

And then secondly, we also hope that through the workshops we can gather thoughts or at least some brainstorming sessions for the next steps and for action planning on how all Our suggestions from our research can be implemented and really inform change through their roles. And this needs

to be quite an ongoing conversation and implementation process to be able to measure the future impact of these suggestions.

Ntombini Marrengane: Francesca highlights how multiple sectors need to work together, metaphorically and also physically, to give dignity and life saving services to humans no matter where they live. As I mentioned earlier, the South African Red Cross Air Mercy Service [00:08:00] Trust, or AMS, is helping to do just that. Established in 1966, the AMS has grown into a comprehensive aero medical service that brings health care services to the critically ill or injured.

AMS also provides specialist medical expertise for remote rural communities. To share more on this work, my guest for this episode is the CEO of AMS, Farad Hafeji. Thank you so much for joining me today, Farhaad. It's great to have you here.

Farhaad Haffajee: Thank you for having me, Ntombini. I'm excited about our conversation.

Ntombini Morengane: Farhaad, can you please share with us, what is the mission of AMS?

Farhaad Haffajee: So, AMS's purpose is to enable equitable access to healthcare for all. and the mission is to provide aeromedical services, rescue services, and health outreach programs through innovative means for communities in South Africa, especially remote rural communities.

Ntombini Marrengane: [00:09:00] What can and can't your helicopters do in terms of health care services? When one thinks of helicopter health

services, what comes to mind are rescues of hikers stranded on Table Mountain. What's the difference with outreach services?

Farhaad Haffajee: That's a very interesting question, Ntombini. So AMS has a fleet of aircraft, which are not only helicopters.

We have helicopters and what we call fixed wing aircraft. Now, the difference is that helicopters can get point to point. So, for example, when there is an accident, we can land on the road, um, and, uh, deal with, um, with trauma and injuries immediately and take the patient directly from that point of the accident to a hospital landing zone.

So, the patient gets transported from, um, Point to point, um, helicopters also traditionally work best within a shorter radius of around 200 kilometres, give or take with the fixed wing aircraft we are able to go longer, further distances, [00:10:00] um, but. Of course, you need a landing strip and so you cannot go point to point.

With the fixed wing aircraft, we do a lot of what we call inter hospital transfers, where a patient is already in some kind of healthcare facility, they have been stabilised and they need to be moved to a higher level of care. So if you take Western Cape, for example, um, a lot of patients need to come into Groteskier or Tigerberg or the Red Cross Children's Hospital from outlying areas.

Um, and so the fixed wing aircraft would take off, uh, go to the nearest, uh, airport, airfield, airstrip where the patient can be collected, brought back to Cape Town International Airport. We have an ambulance waiting here. The

patient will be transferred to the ambulance and then taken to the higher level of care.

And then of course the rescue, the technical rescue, which is both mountain and surf shoreline rescue. Um, [00:11:00] the AMS has, uh, aircraft helicopters, which are fitted with hoists, winches, which are able to do this technical rescue and, um, in many parts of the country, aside from the air force, we are the only organisation that has the ability to do this technical rescue.

Ntombini Marrengane: That's quite remarkable. How does AMS make use of partnerships and collaborations? And who are the different stakeholders who help you in this important work?

Farhaad Haffajee: So it is important, very important that we do, um, have partnerships and collaborations with others who work in the same space. Now you asked me earlier what the difference with outreach services is.

And I didn't really answer your question. So outreach services is where we use the fixed wing aircraft to take health professionals from the urban environment into the remote rural environment via scheduled service. Um, and what this does is that the [00:12:00] outreach service lends to building health systems.

It lends to capacity building in those remote rural institutions. Um, there's a lot of training that takes place. There's pre operative work, post operative work, operations, um, award rounds, teaching, and many of these things

that happen in those rural facilities. Now all of that would not be possible without the different stakeholders who participate in that program.

So government firstly, the Department of Health is a major stakeholder because the patients that are being seen are being seen in public health institutions. The government is a primary stakeholder with regards to outreach, with regards to rescue, with regards to air ambulance services.

So, there's government then there's the private professionals on the outreach program. About 40 percent of the specialists who participate in the program come from the private sector. And these are [00:13:00] professionals who want to give back. Of course, We also have, um, really good partnerships and collaborations with other civil society organisations, nonprofit organisations, NGOs, because through this collaborative partnership, we are able to bring together the resources that are required to help build, uh, rural communities.

Now, rural health outreach is not only just about taking specialists to go in, provide, um, highly specialised operations, but you know, health care is very broad ranging. If a community doesn't have water, we can't expect them to be healthy. If a child sits in a classroom and they cannot see the board, that's a health issue.

So, we look at health holistically and in its multidisciplinary form. And so, the partners that we get from the other civil society organisations help to deal with [00:14:00] the, uh, requirements to, um, facilitate improvement in rural health community, in rural communities with specific regards to

healthcare. And then, of course, a really, really important stakeholder are the communities themselves.

You know, communities have to accept that living in rural communities comes with many challenges, and they need to be advocates for change within their communities.

Ntombini Marrengane: Which partnership have you found to be the most contentious or the one that you've had a little bit more trouble with? Because I can imagine the communities would welcome your services, but that might also come with expectations which fall outside of your ambit.

Farhaad Haffajee: Look, it's no secret that dealing with government is always problematic. It's contentious because government doesn't communicate very well, um, it's a, it's a bureaucracy that moves slowly. And, um, sometimes we need things to move a lot faster. So we have learned how to try and box cleverly [00:15:00] and navigate those pathways, but they are not always easy.

And we learned this lesson, especially during the years of state capture in this country, where, um, there was a particular agenda and we were fighting against that agenda because people had their own interests. within that government space. But I must say things have improved a lot in the last few years.

Ntombini Marrengane: I've heard that AMS aircraft have now been equipped with night vision goggles, enabling them to respond to call outs

after dark. What other technology helps you and how has the equipment been modified to provide care for patients?

Farhaad Haffajee: Technology evolves rapidly and we like to think that we are innovative when it comes to technology within the aeromedical space.

The AMS was the first organisation on the continent to introduce night vision goggles to the class of aircraft that we use. What this did was it was a game changer in terms of how [00:16:00] we were able to respond to calls. Uh, after hours, the night vision goggles allows our helicopters to be able to get to emergencies and pick up patients in the dark.

Um, of course, within certain limitations as provided by the Civil Aviation Authority. We're always looking to what is new out there, but sometimes we are forced into certain technologies. So during the COVID period, we needed to protect our crew, both the medical crew and the aviation crew from patients who potentially had COVID.

We found, for example, a isolation chamber that could be used in the fixed wing aircraft. It's almost like an adult incubator, which allowed the patients to stay isolated and allowed our crews to be protected. We are introducing point of, portable point of care ultrasound, which will allow our medics to diagnose certain conditions in patients a lot quicker and able to deal with them a lot better.

We have also been very much involved on, um, the aviation side. With regards [00:17:00] to R and D for medkits for helicopters and fixed wing aeroplanes. Now, aeroplanes need to have equipment within them, which

are as light as possible in allow, in order to allow for more fuel upload and more patience, et cetera. And so we, along with some.

Um, partners in the manufacturing industry here looked at how we develop med kits that have hollowed aluminium, carbon fibre, and as lightweight as possible. On the medical side, we really need to look at equipment which is safe. lightweight, which is aviation certified and which allows our medics to do their job as quickly and efficiently as possible for the best patient outcome.

Now that's all on the aviation and medical side, but technology within our organisation is also important on the administrative side. And so like with many other industries and many other organisations, COVID, um, forced us to pivot into it. [00:18:00] To digitalization, we have adopted a software program called a maestro, which brings together, um, both the aviation and medical components in one software package, um, allowing us to track a number of issues, um, that are important for, uh, the organisation from things like flight and duty times for pilots, um, to shift and rostering.

Technology. is important to keep an eye on. If you look at drones and rapid pace at which drone technology is moving, it is a very interesting one for us because we would like to understand how we could use drones to further the aims of the organisation with regards to providing better outcomes for rural health care.

An example would be delivery of, uh, Medication to remote rural areas from central [00:19:00] warehouses. We just looking at where the technology is going and then we'll also adopt such technology within our organisation.

Ntombini Marrengane: Just staying on tech for a minute. What kind of innovations do you anticipate AMS will be investing in in the future?

Farhaad Haffajee: So definitely looking at where the technology is going with regards to drones. We have an application in with the Air Service Licensing Council for a drone licence. In some parts of the so called developed world, they are already, there's already technology around what they call EVTOLs, electric vertical takeoff and landing.

So these are like, um, aircraft which are autonomous. They don't have a pilot and they, can land in small spaces, pick up people and take them to a destination, effectively an Uber in the sky. And that is the pace at which technology is moving within the aviation industry. We are looking at what will happen in the next five years, 10 years, what will the role of [00:20:00] AI be?

Within the technology space in the aeromedical environment, technology is also simple things like portable, um, ultrasound devices, uh, new lightweight incubators, the simple tools which help our medics do their job, um, more effectively and help our patients, uh, with better outcomes.

Ntombini Marrengane: It sounds like a technologically advanced future will have a tremendous impact on achieving our health equity in your work and in the country.

Can we now turn to what are some of the challenges that AMS faces working in rural South Africa, namely the Eastern Cape, KwaZulu Natal, and

others, each with their own unique terrain and infrastructure? And how has AMS overcome these?

Farhaad Haffajee: So I think perhaps the biggest challenge is poor infrastructure in rural communities.

We use a very modern aircraft called a Pilatus PC 12. It's a [00:21:00] Swiss made aircraft. And one of the reasons we use it is because we need a relatively short landing strip that doesn't need to be paved or tarred. It can be grass or dirt. Um, and a lot of the municipal airstrips are not in a good condition. So to overcome that challenge, what we do is we try and work with the local communities and the local municipalities through the Department of Health and the Department of Public Works to have those airstrips graded and fenced off and secured.

A big problem of course in rural communities is animals grazing, um, on and around the airstrips. So it's to try and help communities understand the dangers of animals on or around the airstrips. Also, we go to the local farming communities. Many farmers in rural communities in South Africa have airstrips.

Those farms have had [00:22:00] airstrips for many, many, many years. And we explain to them the good work that we do within the communities where they are based and, uh, get permission from them to use their airstrips.

Ntombini Marrengane: It's very interesting when you think about the various strategies that AMS has had to adopt in order to overcome

infrastructure deficits and also to make sure that care gets extended to the most, uh, remote communities in South Africa.

You spoke a little bit before about how some of the technology that would make, uh, the work that you do easier and help you to reach more people is quite expensive. So what do you need that you haven't got funding for yet?

Farhaad Haffajee: There's always need for funding for many different things. I think right now, you know, aside from the medical equipment upgrades that we require, the new med kit that we require for one of our Pilatus PC 12 aircraft, we are really looking to how we can help fund and [00:23:00] expand the outreach program.

The impact of the outreach program is huge. What outreach does is that it takes healthcare to remote rural communities? Now, let's not underestimate what that means. Many years ago, the Save Our Children's Fund did some research in the Northern Cape and they found that patients were travelling on average a thousand kilometres to get to a tertiary institution for care.

The real sad part in Ntombini is that those patients were, on average, only being seen after three and a half visits. Now think about that. If you are an elderly person, you've got to take a child out of work or somebody who's economically productive in your family out of work to accompany you. If it's a child needing care, they've got to take their parents out of work to accompany them.

But on average, they are travelling three and a half times to urban centres before they actually get seen within the public health system. Outreach turned that [00:24:00] completely on its head. What outreach does is we take those skills to facilities close to where people live. It means that people get diagnosed earlier.

It means their prognosis is a lot better. And Effectively, it means that the state spends a lot less on that particular patient because they don't need to spend as much time in hospital because their prognosis is better, their condition is dealt with earlier, et cetera, et cetera. We really are looking for funding to expand the outreach program to more communities within the rural environment in South Africa.

Ntombini Marrengane: I'm kind of stunned, Farhaad, because in one breath you, you shared with us something that's actually a shocking indictment of the public health system in this country, that, um, such great distances and multiple trips are needed. Um, to access even the most basic care. And on the other hand, you've [00:25:00] also given us an, an amazing example of creative approaches to capacity building and making critical skills available to the community.

So, um, I'm caught between emotions of feeling very overwhelmed on one side and incredibly hopeful on the other. But what are some other ways that people can help or funders and stakeholders can get involved?

Farhaad Haffajee: You know, in the corporate environment, they are. Many companies and organizations who have corporate social investment initiatives.

And these are sometimes very boxed in, you know, a company may say, well, we'd like to just deal with education. We want to encourage, uh, corporates, particularly. To be a little bit more broad thinking, innovative and creative in their thinking around the impact they can have to rural communities in this country.

When we talk about rural health outreach, as I've said earlier, we must not let it be [00:26:00] defined to a specialist program where specialists go in and do operations. We need to think about what are the other social determinants of health that need to be dealt with. So one of our partners, as an example, is the African Eye Institute.

They provide screening and eye tests to, uh, school children, the elderly, and anybody who needs it. Now, we like to say that when we look at the multidisciplinary holistic approach to school children, as an example, we need to ensure that they. properly nourished, that they are able to clearly understand what they're being taught and they are able to see the board.

So we have just as an example been given some project funding by the Momentum Health Group to roll out a school eye care program for [00:27:00] certain communities in rural KZN. We also want to encourage the general public because in Ntombini, there's a lot of goodwill in this country. People just want to know that their money is not being eaten. It's not being put in somebody's back pocket. It is not being wasted.

Ntombini Marrengane: You've given us a really powerful example of how AMS and organisations like yours are filling the gaps and making healthcare available to all communities regardless of geography. Um, such

an important mission. We've heard that AMS offers internships to trainee pilots, flight engineers, and voluntary health workers.

How does someone with these skills get involved in your organisation?

Farhaad Haffajee: We like to bring in youngsters who need a break. They need to get their foot in the door somewhere, whether they are pilots, whether they are health workers, whether they are engineers, or whether they are finance interns, administrative [00:28:00] interns, etc.

So we take in internships through the TVET colleges. We get approached by, um, young people who have managed to get a pilot licence, but, uh, shall we say unemployable because they have no experience. And we have become so good at training people that, um, others in the industry, both locally and internationally, Look to snap up these youngsters after they've completed their training with the AMS because they are so well trained.

In terms of how you get involved, the best thing to do is to send an email to info at ams.org.za.

Ntombini Marrengane: That's really wonderful. Could you share a story about one of AMS's most impactful outreach programs with our listeners?

Farhaad Haffajee: So Ntombini, um, because of the big disparities in health in this country, especially between the urban and rural environments, every [00:29:00] one of the outreach programs that we do is highly impactful.

Perhaps the impact is mostly felt by those people who are the poorest of the poor in those most rural communities that are getting a service that is

of such quality, um, that is comparable to anything in the private sector or the tertiary hospitals within the public sector. close to where they live.

The AMS also does outreach by road. So we have, for example, a vehicle stationed at Grace Hospital in Pietermaritzburg and all outreach within 150 kilometer radius of that hospital is done by road.

Ntombini Marrengane: What role does AMS play in the greater picture of health care across South Africa? And how important is it for outreach services to be included as part of the proposed National Health Insurance Scheme?

Farhaad Haffajee: So, if we look at the air ambulance side of [00:30:00] things, I think, um, you know, the role that AMS plays in the healthcare environment is getting patients to higher levels of care quickly and in doing so, saving their lives. Um, with regards to outreach, the role is bringing health closer to remote rural communities so people have easier access to healthcare which they otherwise would struggle to reach or to get.

Now, NHI is an interesting one, um, for AMS because the AMS has been working in partnership with, uh, provincial governments of health, um, for the last 56 years. And we are a perfect plug and play model for NHI. We are already integrated into government health systems.

Ntombini Marrengane:: What do you hope for the future of healthcare services in South Africa and beyond?

Farhaad Haffajee: You know, I've been told that hope is not a strategy, but I would like to hope that every single individual in this [00:31:00] country is

able to access the healthcare service they deserve. There has to be equity with regards to health. Health is a basic human right. It's enshrined in our constitution. It is not something that we should be debating.

Ntombini Marrengane: That's a very powerful vision for our future. Um, an exciting one at that. Now I'm going to ask you questions that we've asked all our guests this season. And the first is what makes you hopeful and why do you do the work that you do?

Farhaad Haffajee: So I am an eternal optimist, a glass half full kind of guy. And while I've said before that hope is not a strategy, I do believe that we all need to be hopeful in order to have the positive change, the positive outcomes that we require in this country and in this world.

You know, at this time in our history, There is a lot of strife in the world. There are wars which are not necessary. Um, and it takes individuals to [00:32:00] collectively overcome many of these strifes. I do the work that I do because I know that even though I sit behind my desk in an air conditioned office every day, I know that the work that I do has an impact on the life of an individual in a remote rural community, thousands of kilometres away from me.

Ntombini Marrengane: I have no doubt that they will. Um, my other question for you is what does social innovation mean to you?

Farhaad Haffajee: Social innovation is using resources equitably and fairly taking what is available to us and what we are able to innovatively find

outside of that which is within our normal frameworks and use it for the betterment of communities that I need.

Ntombini Marrengane: Thank you so much Farhaad for sharing this fascinating information with us and the [00:33:00] Amazing work of AMS. Um, you've certainly got a new fan in me and I'll be talking to my community about how we can support your work. Um, and we wish you all the very best. Thank you so much.

Farhaad Haffajee: Thank you for having me. Um, I would encourage anybody listening to this podcast to please go to ams.org.za, learn more about what we do. And if you can contribute or through your networks, help contribute, we would appreciate it very much. Thank you so much.

Ntombini Marrengane: In this episode, we've had a glimpse of the efforts needed to create a more just world and what we can do to make it a reality. The dedication of these pilots and medical professionals is truly inspiring, but their work underscores the need for improved local infrastructure.

The future shouldn't only be about heroic helicopter missions. Health equity and access to health care should be available to all. Thank you for tuning in to season four of the Just For A Change podcast. Powered by the Bertha [00:34:00] Center for Social Innovation and Entrepreneurship. If you're interested in hearing about more unexpected connections, then make sure you subscribe to this podcast so that you don't miss any of our upcoming episodes.

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