KPMG IMPACT Podcast

Digital Health in Vietnam

Welcome to our KPMG IMPACT Podcast.

I'm Ruth Lawrence, a senior executive with KPMG IMPACT, a global initiative designed to build a more sustainable and resilient future.

Before we begin our conversation today, I'd like to acknowledge that many of us are meeting on land of our First Nations people. I'd like to pay my respects to elders past, present, and emerging leaders and recognize their continuing connection to land, waters, and culture.

Each month, KPMG IMPACT is highlighting a different Sustainable Development Goal. This month we're highlighting SDG10 — Reducing inequality within and among countries. Today, I have great pleasure speaking to Luke Treloar. Luke is the managing director of KPMG's Global Strategy Group and national head of Healthcare and Life Sciences at KPMG in Vietnam and Cambodia.

Ruth Lawrence:

Good morning, Luke!

Luke Treloar:

Good morning. Thank you for setting this up.

Ruth Lawrence:

Glad you could be with us.

Luke Treloar:

Wouldn't miss it.

Ruth Lawrence:

Before we begin, can you tell us a little bit about your background and your role at KPMG?

Luke Treloar:

Sure. Thank you for doing this. I really appreciate your efforts (and for) doing this for the globe. I'm Luke Treloar. I'm the managing director of KPMG's Strategy Group based here in Ho Chi Minh City, looking after Vietnam and Cambodia. I'm also the national head of Healthcare and Life Sciences for the same two markets.

Ruth Lawrence:

Luke you recently published a report — *Future of Digital Health in Vietnam* — can you tell our listeners a little bit about what digital health means?

Luke Treloar:

Sure. Digital health is shrinking the gap between accessibility and patients, improving accessibility, improving quality, improving affordability of healthcare, providing the best quality healthcare to the most number of people, and doing so through a digital means. It's not reinventing healthcare. It's just providing a new access point.

Ruth Lawrence:

What are the key drivers of this market and where do you see the biggest opportunities for this type of application?

Luke Treloar:

We take that definition of digital health in Vietnam because the challenges for healthcare in Vietnam are so acute. You have urban cores that have healthcare systems that are comparable to Western or Central Europe, and then a few hundred kilometers away, you have people that don't have access to basic healthcare. We believe that digital is a way of shrinking that divide and providing access to people in need of quality and affordable care with the best possible medical services.

Ruth Lawrence:

And how can a developing country like Vietnam use digital to accelerate its industry, or what we might say leapfrog its development trajectory?

Luke Treloar:

There are a couple of ways. One of the main problems for a country like Vietnam, or a developing country for that matter, is to provide access to healthcare to people that are far outside of the city center. By using digital aid or through telemedicine or other means, you're able to create economy of scale/of access to users, so that it improves the business model, while efficiently rolling out services that are geographically isolated in one part of the country but needed in another part of the country.

For example, here in Vietnam, if you look at follow-up visits for eye hospitals. We did a very interesting project with a large Swiss pharmaceutical company that has a drug that's administered post-op (after operation) to patients in need, if the doctor sees eye infection post intraocular injection of a certain type of medicine during operation. Traditionally, a patient has to come in from their home to the hospital to see the doctor, so that the doctor can look into their eyes. A year ago, when the pandemic was just starting, this pharmaceutical company and Microsoft (I can say Microsoft as they published the results) realized that that's not necessary. We can find a way to allow people to see a doctor in the comfort of their own home, geographically separated from the doctor, and not have to suffer the financial hardship of traveling across the country, waiting in line during the pandemic, and exposing themselves to potential nosocomial infections in the hospital. And also, relieving overcrowding in those hospitals.

Microsoft, through Microsoft Teams, and some very clever engineering through the back end of the hospital system, allows patients now to see their doctor post-op by looking into the camera and holding a special camera right next to their eye to look for signs of infection. So the 95 percent of patients that do not have an infection can then go about their lives and not have to suffer the financial hardship and life disruption of traveling across the country to go see a doctor.

Ruth Lawrence:

Some real innovation and different uses. Are there other advantages of bringing big data and AI into the health area?

Luke Treloar:

There are. But Vietnam, just like around the world, is trying to figure out big data and how to use artificial intelligence for diagnostic work and treatment course of care recommendations. There are a few flagship hospitals now in Vietnam that are even using things like IBM's Watson for cancer diagnostics and treatment care recommendations. So we are adopting the bleeding edge of technology here in Vietnam. But the real challenge is actually the real opportunity for Vietnam — and that is the low-hanging fruit of improvement in quality of care still within our grasp. That is the digitization of this system that still, even with the government's efforts to roll out digital platforms for healthcare, the vast majority of healthcare records are still paper-based and travel with the patient in the form of a printed out Manila envelope rather than a digital packet that would travel with the patient through the cloud.

Now we're getting there, and there are definitely some local champions that are advancing this cause. But this alone will be a major push forward for not only healthcare but ultimately for digital health (for big data and artificial intelligence) because you need that data set before you can apply it back to patient outcomes.

Ruth Lawrence:

It sounds like it will be quite a game-changer. Is there any other particular initiative or case study that you think is particularly promising?

Luke Treloar:

Absolutely. Building on what I was just talking about, the digitization of the healthcare system, maybe to give a little bit more context. Vietnam actually has one of the largest single-payer healthcare systems in the world. Vietnam has 100 million people and the Ministry of Health controls all the hospitals. 95 percent of the hospitals in Vietnam, whether you count by the number of hospitals or number of beds, the number is about the same, are controlled by the Ministry of Health. So, you have one system that both provides care and pays for care, together.

As that system slowly comes online, and you slowly build, or hopefully rapidly build, a digital backbone that links all the systems together provides new industry and business opportunities that otherwise weren't there. For example, Vietnam, in our view (and we published in our paper), could be one of the emerging powerhouses in clinical trials research.

Once you have all of these state hospitals that all run on essentially the same system brought online in about the same time, and you're able to create anonymized disease registries for patients, you'll be able to recruit patients very quickly and know exactly where patients are and with what conditions nationally. Obviously, the government already knows that, but in a paper-based system, recruiting those patients is very inefficient and time-consuming, and therefore costly.

So, Vietnam also (not to go too far into the nerdiness of healthcare) has the unique advantage of having both, excuse the tired term, first-world and third-world conditions or (developed) world and developing world conditions, living side by side. Again, in the heart of the city, you have skyrocketing rates of non-communicable diseases like diabetes, heart conditions and, very sadly, many types of cancers that we know all too well in the developed world. But just outside of the city, you still have infectious diseases (such as) malaria and dengue, and other tropical diseases that are, sadly, still quite common in Vietnam.

This, combined with a medicine-naive population, meaning that in much of the country hasn't had the exposure to pharmaceuticals that other countries have, creates a very interesting location for clinical trials.

Ruth Lawrence:

It sounds like the digitization of records could have quite far-reaching consequences in terms of opening up different opportunities for healthcare in the country and clinical trials.

Luke Treloar:

And for business. We have a very interesting role at KPMG working in healthcare because we're looking at (it) both through the lens of improvement of health outcomes, the improvement of social services, and the provision of healthcare, but also the business of our clients that want to improve human health and make a business out of this. I think that Vietnam, and as we've published in our papers, is now reaching this inflection point where the private sector and global MNCs will be able to really advance the pursuit of digital health and public health in Vietnam.

Ruth Lawrence:

I want to turn now to Covid (COVID-19) Luke. Throughout Covid, we've seen a differential impact of the pandemic in low socioeconomic rural communities. And one of those differentials is, as we all know, the digital divide. I'm just wondering if you could tell us a bit more about what have been some of those challenges for big data and AI in the health area.

Luke Treloar:

Obviously, the biggest challenge for the digital divide and Covid is that in countries where people work from offices with computers, in roles where people have offices and computers, those offices can be brought home. You can work from home. If you are living in an offline society, like 70 percent of Vietnam lives outside of a city, it's very difficult to work from home. Vietnam is in the middle of another wave of Covid, sadly, and we're in the middle of rolling lockdowns of different levels of social distancing. We can do this as office workers, but the populations that can't are the unofficial workers, or the migrant laborers, or the construction workers, or the food stall vendors that have no choice but to do their job.

So, there is this digital divide. It is most acute if you look at, say, education. In Vietnam, the wealthier parts of the country were able to study from home when the pandemic lockdowns first happened, but a lot of families don't have laptops and don't have a computer in the household. That was an immediate challenge for so many. KPMG for one, we again teamed up with Microsoft; we took our old computers that were now a little bit too old to run advanced Microsoft products; and got a free Teams license and basic Microsoft Windows; and we were able to refurbish them and give them out to children who otherwise wouldn't be able to work from home.

We realized that a lot of companies could probably do this. By the end, I believe (I haven't seen the final number) tens of thousands of laptops were collected from multinational corporations and other companies, refurbished, and given out to charities. So there is the digital divide, but there is definitely something that can be done if you apply yourself towards it.

Ruth Lawrence:

Definitely a good news story. Regarding the role of government, I'm just wondering if you could consider what sort of policy incentives the government should be considering when you're looking at universal healthcare for the entire population?

Luke Treloar:

Maybe take a little step back and first let's talk about what the universal healthcare in Vietnam is — because it gives a little bit of context. Vietnam is at the forefront of providing healthcare to its population; it's quite unique in Southeast Asia. In about 1992, Vietnam put into its constitution that access to healthcare is a right — that people have the right to receive basic healthcare.

At the beginning that was only about 2 percent of the population, but had to start somewhere. Every year they would set a new goal — 5 percent, 10 percent, 20 percent. Different groups of people. So first it was just the cadres of the government because they were already within the government system. Then it was the elderly, and then the poor, and then war veterans. And then slowly layering on different groups. And now they are at 90 percent of the population and want to get to the last 5 percent (to) 95 percent. Just like in every system, you'll have some percentage of people that will opt out; so the government thinks that 95 percent is full capacity.

As we get everybody covered, we start to change the conversation from not who is covered and how to get people to buy into the national healthcare scheme, but what is covered. That's where the real challenge is for the government, going forward, and where I see a place where I see multinational corporations can add value.

Ruth Lawrence:

In the paper that you recently wrote, you noted that the out-of-pocket expenses in the country are some of the highest in ASEAN. However, there had been some success in lowering them from 61 percent in 1999 to 45 percent in 2019. So there has been that progress over that time period. What else do you think can be done to improve insurance coverage and lower out-of-pocket expenses?

Luke Treloar:

You're absolutely right. Beginning in about the late 1990s, early 2000s, Vietnam had 60 plus percent out-of-pocket expenditures, meaning that if you wanted healthcare, you had to pay for it directly out of your pocket. There wasn't a state scheme behind you. As that state scheme has rolled out, the out-of-pocket expenditures have come down.

Interestingly, if you do the math (and we have in our paper), the cost of (the) social security system or the provision of care is about 33 percent of total healthcare expenditure in Vietnam. Out-of-pocket expenditures are more than or around 45 percent, which means that out-of-pocket expenditures are still outpacing the social security system. So even though people have universal healthcare, it doesn't work as well as it hopefully someday will.

To get there, we have to provide more care to more people at an affordable or even cheaper price. To do so, we think that there are few things that could happen.

1. Expand access to global healthcare companies, to encourage them to come to market so that the incremental cost of provision of care comes down, the cost of drugs comes down, the cost of devices; and down the list.

2. Expand access to digital care. When people have access to digital care, which has a much lower incremental cost than going to a hospital and seeing a patient and using physical hospital resources for a basic checkup, the total cost of care will come down.

As well, rolling out digital health not just at the patient level but upstream into hospital management. Much of Vietnam's hospital systems are still paper-based and translating from one type of paper to another. By digitizing that, we'll be able to remove a lot of the incremental cost that adds up in the hospital system. That will have downstream impacts on the cost of care for patients and allow the government to provide more care at a cheaper price.

It might seem slightly counterintuitive, particularly to an American, where our system is so incredibly different. But in Vietnam, since the government, the Ministry of Health, controls all aspects of the public health system, if you remove a cost from one part of the system (in their accounting) the cost of care theoretically can be a bit cheaper because you're either having to raise taxes or provide the same care at a slightly cheaper cost. That's just how the math works.

I don't think Vietnam is going to raise taxes to provide for more healthcare coverage from the revenue side, because Vietnam already has a 6 percent of GDP directly into healthcare. So there probably isn't a whole lot of appetite to raise that; so it has to come through savings.

Ruth Lawrence:

That's exactly where I was going to hit with my next question about public and private expenditure, and that split there, which I think is fascinating in your paper. And I note that the expected compound annual growth rate from 2019 to 2024 for public is almost double the private growth rate. What sort of compound annual growth rate do you think is needed to achieve universal healthcare comparable to other ASEAN nations?

Luke Treloar:

That's a great question. I don't think comparing to other ASEAN nations is actually the best way to go. I see your point, but I think it's more (about) how Vietnam can achieve the best it can possibly achieve for its own right. I say that because in some areas we're exceeding other nations in the region, but (in) other areas we need to catch up.

The reason why private healthcare expenditures are racing to catch up is, as we just talked about, the government is racing to keep up with the growing demand and changing nature of demand for healthcare. At the same time, one thing we haven't talked about today is that Vietnam has one of the fastest-growing middle classes in the world. This middle class is emerging onto the scene and they want healthcare their way, which may be different from the state-provided healthcare.

The government is saying that this group of people doesn't have to use our healthcare system. That's actually (getting back to the accounting example) a net benefit to the government if they're taking that dollar and spending into the private sector. So, we're seeing a blossoming of private hospitals, clinics, ambulatory clinics, and down the list that are, in a very interesting way, converging. So now you have world-class private hospitals here in Vietnam that will accept the state social security insurance. So that now the two systems are coming back together.

The private sector Vietnam is growing now at double-digit growth rates, somewhere around 12 or 13 percent pre-Covid. All the numbers from Covid year are skewed, so we try not to quote them except to show how we're recovering. It's going to be a very interesting next couple of years as the private sector grows quickly to fill in the gaps.

Ruth Lawrence:

It's going to be fascinating to watch that roll out. One of the topics that people are often concerned about is data security, when you start to talk about digitalization. It's a critical consideration. How do you think regulators can maintain the appropriate data security while also allowing space for innovation?

Luke Treloar:

Do you mean globally or here in Vietnam?

Ruth Lawrence:

I mean here specifically in Vietnam and your journey towards digitalization there.

Luke Treloar:

The government has rolled out a few policies to help guide the development of the digital ecosystem. Your question is exactly spot on. How do you put in the safeguards to make sure that you have control of data and sufficiently anonymized data, so that people cannot trace back to identifiable information on patient records, but also the breadth of access to enable innovation — that is the key question.

The government rolled out two laws that are critical to this. The Cyber Security Law and the Data Protection Law. The Cyber Security Law says that all data has to be at least backed up inside Vietnam. The reason they did this (there is a variety of them) but the top-level reason is that they want to make sure

that they can see how the data is being used, where it is going, and what they're doing with this data. That would translate directly into the Individual Data Protection Law, which means that the government has provided a list of guidelines and principles that you have to abide by if you're going to collect personal data, particularly healthcare-related data.

Ruth Lawrence:

That sounds like they've been on the front foot in terms of actually creating some guidelines and putting some checks and balances in place. Looking forward Luke, what role do you see KPMG playing in the evolution of healthcare and digitalization in Vietnam?

Luke Treloar:

Vietnam is just getting started. So, our role will be determined by the ambitions of our clients. And our clients are quite ambitious. In the pre-Covid world, we were working with the government to help them understand how they should diversify and focus their efforts on industry development within the ASEAN region. I pushed back before and your ASEAN comparison because it's so complex. One of the reasons is — if you say we're in the ASEAN region, what metric are we comparing against and what industry gap are we shooting for to develop Vietnam's healthcare development future.

Going forward, there are a few key areas where we see Vietnam developing. One, as I mentioned before, is around the digital backbone. Developing the digital backbone is going to link the ecosystem, from hospitals to clinical trial centers, laboratories across the country, to create very efficient flows of anonymized data, to certain types of manufacturing (branded generics and stuff that allows Vietnam to kickstart its pharmaceutical manufacturing). We manufacture some generics in Vietnam, but there's a lot of desire and capability to move up the value chain.

We've even seen that in the Covid time. We now have four molecules in clinical trials here in Vietnam for future vaccines. Whether or not those are ultimately commercially viable is kind of is not the point. But the fact that we have figured out how to manufacture a vaccine at scale is a major learning curve that can be applied downstream for Vietnam, and potentially exported to other developing countries, going forward.

And the last part, as we talked about, is clinical trials. We strongly believe that Vietnam could become a center of excellence for clinical trials for Southeast Asia for all the reasons we just went over, but also because one of the points we haven't talked about is that Vietnam has a large population of very skilled doctors and that work in facilities that, for the size of Vietnam's economy, are quite good and quite well equipped.

Ruth Lawrence:

Is there any other key takeaway you'd like our listeners to consider just before we wrap up?

Luke Treloar:

I think that Vietnam has been thrust into the collective consciousness of the world, and more recently with highlighting its successful control of the Covid pandemic in the early days of the outbreak.

To our listeners out there, who maybe haven't considered Vietnam for part of their business, I would encourage you to take a look and see where Vietnam might fit into your business, not only as a source of labor and manufacturing base, which it surely is, but also as a consumer base for healthcare products and goods. As I mentioned before, Vietnam has one of the fastest-growing consuming middle classes in the world. Also, from a healthcare perspective, Vietnam is quickly transitioning into being a major addressable market for healthcare goods and services.

Ruth Lawrence:

Thanks so much for your time today, Luke.

I'm sure all our listeners will be fascinated to hear about the various levels at which technology can be leveraged for better health access and outcomes, as well as the future for Vietnam. We will watch with interest.

My guest today has been Luke Treloar, national head of Healthcare and Life Sciences at KPMG in Vietnam and Cambodia.

Thank you all for listening.