FUTURE-PROOFING HOSPITALS FOR CHANGING TECHNOLOGIES TRANSCRIPT

Intro: Welcome to the People and Place podcast. The challenging health, environmental and economic conditions that we've faced in 2020 has demonstrated that now more than ever, we must be thinking differently about the way we design and maintain the built environment to ensure that our communities and our natural environment can thrive into the future.

Over the next few weeks, we will be diving into some discussions with our own experts, clients and key industry players to talk about the challenges and opportunities presented to our industry, which can help us to deliver resilient healthcare facilities that are adaptable to the risks presented in an ever-changing world.

Roneel: Thanks for tuning in. My name is Roneel Singh and I'm a Director of Technology Systems, a specialist technology team within WSP. As our podcast series continues to explore key issues in delivering resilient healthcare facilities, our discussion today will be on the topic of future-proofing smart hospitals for changing technologies.

But firstly, I'd like to begin by acknowledging the traditional owners of the land we meet on today. I would like to pay respect to elders past and present.

Now to provide more context around our discussions. Currently there are approximately 700 public hospitals and over 600 private hospitals in Australia. And while its capital expenditure remains strong for new developments of healthcare infrastructure, with the extended lifecycle of hospitals, the future resilience of these assets is crucial. Some of the core questions we want to explore include, how can we then future proof the technology of hospitals for long-term?

How can we design infrastructure for hospitals when we don't know what technologies will exist in the next 10, 20, or 30 years? What are some of the considerations, challenges and barriers to designing smart hospitals today, which can stand the test of time. And finally, what has COVID taught us and how will it impact our projects moving forward.

For today's podcast, I have three very experienced industry leaders who I'm sure will allow for an in-depth and passionate discussion about healthcare technology and the challenges we face.

Joining me today are Barbara McKinsey, Adam George, and Kirsty Bowyer.

Barbara is the chief technology officer at Healthscope. Healthscope own 43 hospitals around Australia. Barbara has over 30 years of experience in IT and 20 years of those have been in IT leadership roles within healthcare. Prior to joining Healthscope she was at Sydney Adventist hospital in New South Wales, the largest campus-based private hospital with over 700 beds. In her time at Sydney Adventist Hospital she was a key driver in digital transformation of the hospital, placing it as a true integrated health care precinct. So welcome Barbara.

Barbara: Thanks, Roneel, and I'm very glad to be here contributing today.

Roneel: And the second panelist here today is Adam. Adam is a project delivery manager with Lendlease Technology, a specialist technology delivery team within Lendlease Digital. Adam has over 25 years of Australian and international experience working across industries in both public and private sector capacities. These roles are focused on ICT project management and delivery, ICT strategy and ICT consulting. This includes the last 10 years of working with various Queensland health ICT projects and capital works programs. Some of his key projects include Sunshine Coast University Hospital, New Royal Adelaide Hospital, Lady Cilento Children's Hospital and Gold Coast University Hospital. Welcome Adam.

Adam: Thanks, Roneel. And I look forward to the discussion with Barbara and Kirsty.

Roneel: And thirdly, and finally, Kirsty is an associate director with Johnstaff. Kirsty has over 12 years of experience in the construction industry, planning and delivering a wide range of projects predominantly in health care, education and research sectors. Her career to date has given her the opportunity to experience the full lifecycle of some of New South Wales most complex major projects and healthcare redevelopments, and her portfolio includes Liverpool Health and Academic Precinct, Statewide Mental Health Infrastructure program, Multipurpose Services Stage Five program and Sydney Adventist Hospital Redevelopment program. Welcome Kirsty.

Kirsty: Thanks, Roneel, very happy to be here.

Roneel: So, as you'll notice today, we've got three very experienced people from three parts of the health care life cycle and plan. We're not going to go into the nitty gritty of technology itself, but why it's important in our healthcare environment today and how, and what we need to do to put more focus on it. So, the first question I'd like to table to Barbara, what do you see the main challenges that have been faced by healthcare developments today?

Barbara: I'm going to jump straight in at the deep end here and say that for me I see repeated over and over again a very big disparity between the aspirations around a hospital development or around a precinct, and what is looking to be achieved and the capability to execute. And fundamentally, I put that down to the sheer complexity of the integrated technologies that are required to deliver a great user experience within the healthcare setting. I don't really believe that the footprint of hospitals has changed appreciably in design for the last half a century.

So, we're still building hospitals that look amazing, but fundamentally aren't that different in layout and where we need to actually push forward significantly is understanding how digital impacts the clinical workflow, the patient workflow and the entire experience of consuming health care. And actually, move that into the design

process and create different spaces where the interaction with technology and the built environment is presented in a way that supports clinical, digital workflows.

And to understand that we actually need to already be using the technology and following the patterns of usage rather than bolting on technology as an afterthought. Integrated means it has to be dealt with from the very beginning. The ultimate for me would be to provide a frictionless experience for all of those different parties, consuming technology within that healthcare setting. And that means that you are right down in the detail of where connectivity needs to exist, what types of devices or services are being consumed and where, when and how. And actually, that means that you're signing up for probably a five-year process where you've got to be laser-focused on what outcome you're looking to achieve throughout all of those engineered processes and design points and the entire life cycle of a project.

Then on top of that, the uncertainty around technology itself and how quickly it's changing and how slow our ability to adapt to that as in health healthcare. If you have a workforce that is working within an environment that isn't digitally enabled, then you're doing a co-design process with individuals who haven't experienced what's possible, and it can be quite difficult to shift the thinking beyond what we have today versus how is it going to be and how can we create spaces and services and scenarios that will support that into the future. So, it really comes down to one thing. We are still designing the future in healthcare, and we're all struggling to know what that looks like and exactly how to execute.

Roneel: Wow, very detailed Barbara thank you for that. One of the key aspects we've seen is that a lot of new technology and new systems and processes get put into a new shiny building and you get the dual impact of getting used to a new facility and also getting used to a new way of working.

Adam, I'd like to throw the same question to you and if the client's telling us that this is such a challenging aspect, and we're still getting to our feet and trying to understand how we put all of this together, how do you as a developer, see the challenges in the market?

Adam: Yeah, thanks Roneel and look, it is a huge challenge. I wouldn't mind just touching on something Barbara mentioned around what I would call evidence-based design. And I think, clinicians would understand that and obviously support that.

I asked that question probably 10 years ago, have we got a data set now that is going to help us change the way we design hospitals. And I think the answer is quite clearly no and probably still is to some extent. So, I completely support that point Barbara in terms of how hospitals are going to be designed and should be designed in the future.

In terms of challenges from a developer's side or a constructor's side. There's a lot of things, but the key things for us, cause we're at the end of the chain. So, getting a clear client brief and the specification that's tended to the market, that's what a builder or developer has to respond to.

So, having it clear and having it highly specified is a real challenge. And in some states, some jurisdictions do it differently. Some are mature, some are not. So that's a real challenge and I think the second thing that supports

that is actually a completely matching budget and that's not only the budget for the construct, but a budget for the entire capital works project. So, builders' budget, client budget. And I think one of the real big problems I've seen is that the apportionment for the client budget to get this thing out of the ground is quite often insufficient. It's not accurate and that creates huge challenges during our project.

So, I think they're the two and they sound quite simple, but they're obviously not. It's a huge challenge to get a matching and supporting budget. And it's a huge challenge to get a clear client brief and spec. And it goes back to some of what Barbara mentioned before about how do you actually get that down on paper and design for a hospital that might be coming out of the ground in seven- or eight-years' time?

Roneel: Thanks Adam. Kirsty from your side. you've probably seen and heard both sides of the conversation here. I'd like to understand how you see technology and if it's viewed as a core pillar, where does it sit in that whole conversation piece and why aren't we getting it right.

Kirsty: Yeah, unfortunately I want to add to the challenges as well. I think I'd say that not to make it all sound doom and gloom, but 10 years ago when I started in the industry, the largest healthcare facility that we were planning and delivering was circa 250 mil. And we would build that say over a three to four-year period. You could at that time, generally consider implementing a few new technologies within that budget, looking at it, maybe a 5 to 10-year horizon, and you could support a couple of key upgrades to existing assets. That was about as far as you went with the technology side of things.

Now, the trend really is that the clinical services plans are tending to have horizons for short, medium and longterm service needs. So, we're looking at 10 years, 15 years and well beyond and as you can appreciate that means longer construction programs. You know as an example. we're currently delivering a \$750 million build in New South Wales and it's being built over eight years. It's a major capital investment, and that doesn't really come along very often. So, the real question is what does technology in healthcare look like when we open that facility in 2026 and have, we as a team provided enough flexibility and redundancy to support the hospital of the future.

So, the questions that we're being asked now are really challenging to answer. With that in mind, I guess the importance of that is now critical and it really starts with the vision and the development of this aspirational framework that each individual healthcare facility or project and if we're talking public health, maybe the broader just districts might have, because they've often got a few of these large hospitals and facilities running as a network as well.

So that vision is now more and more intending to take the form of what we're hearing is a digitally enabled solution or integrated technology and I think it's really important that we unpack what's driving that requirement. And what does that mean, what are some of those key themes?

So clinically it's really about reducing bed block and length of stay, by improving patient flows. And what are some of the technologies that we can implement to support that, things like real-time location services or digital theaters, robotics. That's coming along faster than we can keep up, I think.

There's also reducing the pressure on EDs and ambulatory care. So that can be in the way of virtual care centers or virtual hospitals. RPA has just done a fantastic and really interesting vision of this. It's been open for nine months now and operating and it's leveraging platforms like Skype and other applications that might have a two-way interface system.

Some of the other key themes around the vision and aspirational framework that we have to apply early are around improving the full patient experience. And Barbara touched on this as well, but it's the technologies that we can implement around digital wayfinding, patient entertainment systems, bring your own devices and the real need for the simple things like uninterrupted wifi, very basic level now, but it's surprising how often we get that wrong.

Roneel: Look, thank you for that. One of the things there, you do a lot of work in the master planning area. So, what I'd like to understand is do we have the right structure in place to deliver technology in healthcare now, do we have the right procurement process or the right understanding to deliver technology in the traditional construction procurement process that we've become used to.

Kirsty: Short answer, I think is no. And we can always do better. A little bit more detail around that's probably that I've been very fortunate to lead a lot of small and large scale projects, through their full project life cycle, from inception all the way to implementation and I've been able to see along that spectrum, what we're doing well and what we're doing really poorly.

And there are some critical points in a project where key decisions around technology have to be made. And I think that they end up looking like anchor point for technology, right? This decision has to be made at this point in time. Otherwise we're risking cost and time to the client, but also, we have that inherent ability early to influence the outcomes and reduce those kinds of costs.

So, we definitely need to set those anchor points more strategically through the projects. Master planning, really that's the vision and aspirational framework I've talked about already. It does need to be established early, but it needs to be committed to, and you really need to find key stakeholders who have the vision for the change, but can also implement it and they can drive it and they can make others believe in it. Because all too often, as Barbara said earlier, you'll write an aspirational piece and it won't actually be implemented or, the capability isn't achieved because there wasn't that real push to get there.

Barbara: If I can jump in here, because to take it from the master planning process, creates the aspiration. But in my view, an issue is that healthcare IT, at least in Australia, I wouldn't consider that it is mature. So, the building blocks right from the beginning are often not able to be delivered on, and that comes down to the maturity of the organizations involved and their capability to deliver contemporary services that are easy to access whilst still being secure. And that's the thing that, for me, I feel that we haven't cracked. On top of that, there's all of the complexity around integrating disparate technologies. So that to the person presenting it or being presented with it, it is actually in a frictionless experience. So, unless you've got a commitment to get

down to that level of let's work out what's going to be the experience of a person traveling through this at every level of functionality, then we're never going to accidentally get that great experience. And that future-proofing either.

Roneel: So, Adam I wanted it to take this a little bit further to see your thoughts there. Barbara and Kirsty have both highlighted the gaps as they see the process and maybe even resourcing and funding to get that solution right. You're once again right at the end and you see all this documentation from briefing, the vision, the planning, the specifications, from the designers and consultants. So, you then have to be competitive to respond to that because otherwise, that's just the game that is. A, you got to do the right thing by the client, but also be competitive and commercially competitive to win the job. So, what do you see as the deficiencies or what's missing by the time the documents come to you?

Adam: Yeah, that's a good question. That's a really good point made before by Barbara. I think that I've lived over and over a few times around the integration.

And I think the challenge is the world is converging the interconnectivity, the integration, the interfacing it's converging and everything all should be using similar infrastructure, whether it be network, computing storage, security infrastructure. So, you know, that's the future. Getting there with incumbent precincts, campuses, districts, states is a long journey. Greenfield works obviously a lot easier.

I think from my point of view, Roneel just going back on that point, if we have an ICT strategy if we have an ICT roadmap and it's been what I would say is intrinsically linked to the, functional design, the clinical design of the facility or the extension it's too easy for people to be making decisions to pick it apart. But if it's intrinsically linked to delivering either day 1 models of care or day 2 or day 365. The decision to unpick that, and I'll use the term value manage it out, is a really difficult decision then it becomes very difficult to remove some of those technologies or the investment. And for me it comes back to having a proper ICT strategy and architecture and roadmap that's really robustly tested and a matching budget that all aligns to the clinical design.

Kirsty: Yeah, I agree, Adam, and something that we've implemented in our business, and I'm sure it will happen much more as a partnering piece with technology industry leaders, at that point of developing the strategy to align to the vision and the aspirational framework. Because we recognize as project managers, we don't know everything about digital solutions. We don't have that knowledge. So, to really get people into help the owners, the operators of these healthcare facilities, understand what they're capable of doing down the track is as a really important piece of work.

Adam: I think there's a great example in another industry happening right now. Obviously, we work across industry and in the aviation industry, the actual client has appointed what they're calling a mask technologist to work from master plan all the way through, and then become their advocate on the way through design and

delivering construct. Historically, I've rarely seen that in health projects, and they often supplement with backfill, with contractors, with consulting groups. That's, kind of BAU whereas, for some of these really significant and complex investments going down a route of partnering, exactly what you've said there before, with some real global and regional expertise to actually hold that IP all the way through, hold that role, the strategy, the budget, the roadmap, everything, and make sure that everyone understands the decisions that come with that on the way through.

Kirsty: It really provides that continuity.

Barbara: in terms of continuity, as it happens almost accidentally, I have been in that position of being a master technologist from inception through to build, on the Sydney Adventist redevelopment, which Kirsty was involved in as well. And that is exactly what happened as a result, we were able to deliver a level of an integrated facility that first started coming online in 2013. And I would still maintain that nowhere else in Australia has there been delivered a hospital facility to the level of integration as a result of that same team being involved. And it really wasn't planned that way. It's just that, I happened to be in a position at the beginning and all the way through. So, I completely support that, and I don't see that the approach to project lifecycle actually supports that within health care at the moment.

Kirsty: And I think there's definitely a want. You can feel the want from the client and from the capital funding streams and from the public sector, you can feel that they want to get there. And so, some of the other things that I think in that lifecycle that we can also support them in doing better is really looking at those ICT scope and specifications. Adam, you talked about the importance of having a need for a project to be well specified when it gets to you. And I think we often fall down and the fact that you've set your strategy, you've set your aspirations and then you start designing end documenting, and perhaps you're rushing at the last minute to get an ICT strategy put together, to go out or scope to go out to the contractor a few days before you release the tender.

There's really an opportunity at the end of SD, beginning of design development, to have another anchor point for the ICT scope and technology scope and say, right, we're one to two years on from the strategy that we developed, what's changed now, what do we need to look at for the future again, and really refine those kind of requirements and update it. The other point I would say is in procurement, prior to contract award, you've got a period where you're out to tender and things are moving there again. So, another anchor point in post tender negotiations could be worthwhile in terms of refining any needs or changes or additions or operational requirements. During construction and commissioning and handover, Barbara, that's probably more your forte around from an operator's perspective.

Barbara: And this is part of the complexity now around integration and commissioning. Back in the olden days, practical completion was a very clear line in the sand. Now, even in the process of build, we can settle for

solutions that aren't going to provide as great an experience because it's just too much bother to implement them throughout parts of the design process or the build process. So, situations happen because we'll still tick the box for compliance and then that facility is left with that situation forever.

Kirsty: That's so important Barb. I think that we need to be very critical in our post-occupancy evaluations as well. We need to come back with a philosophy of continuous improvement and It's essential for the success of the next projects that will be going on.

Adam: Yeah, I think it goes back Barbara as well, to, where was that decision made? How was it made and when, and where was it made? And so. you've either got a really rigorous delivery process that governs decision-making, which occurs, some projects are better than others, but it still also needs to be tied back to the original intent of what was specified, what the outcomes for either patient experience, visitor experience, clinician experience, condition, workflow, outcomes, et cetera. What impact will that decision have on operating outcomes. That's one of the real gaps that I see regularly.

Barbara: And, and that's where that co-design needs to have, pretty much, an experienced champion. But what things can we value manage that are either going to be able to be addressed later or that we're giving up forever.

And when we talk about future-proofing, I may be out of step with the rest of the world, but that doesn't frighten me. For me, when we talk about integrated facilities, there is a level that is required to be integrated. So, by definition, you can't add it on later. Because in two years' time, what I'm going to get is going to be so much better than what I had today. And to me as a technologist, that pretty much translates into what has to be built into the walls as that building goes up versus what can I see and therefore deal with later.

And that comes down to the cabling, which is a lot harder than it sounds to get right. And so back down in that really basic infrastructure level, how do I build flexibility and supportability into that? Now, having been in a privileged position where I've been through design build and then operate, I'm always looking at not just what do I get day one but how am I going to actually realize the value over a period of time.

And I think that's another disconnect point. A project team rolls in delivers a building and then exits. And what they've built may have been cheaper upfront, but the actual operating cost of it, what does it cost me to go back and put a connection point somewhere later when I've got to carve up a hundred meters of hospital to get a cable back to somewhere. So, if I can mitigate that by really not skimping on that solution day one, because anything that you can imagine in the future that needs to connect, I have to have a way of doing that. So just creating the flexibility for myself in that one space actually makes all the difference. And then I don't need to worry about what I don't know yet.

Roneel: Thank you guys. That's a really robust discussion. I've just been capturing some of the key themes, which I obviously expected the first one being funding and or the lack of it, the silos and the lack of integration,

the development of healthcare precincts and I'm not just talking about one and two, three buildings next to each other, but these local area districts, health areas, or a number of geographically disperse hospitals together. That is the precinct that I'm talking about. And I guess the last one, there was the linking of the CapEx and the OPEX.

There are four very important items and if each of you had a magic wand and were able to solve it, or you could take something back up to ministerial level, what would you ask to be done better so that we could resolve some of those elements there. I'll throw to Kirsty first, cause you're in the middle there who has the power to make some of these decisions and change things.

So, I'll put the first challenge onto you.

Kirsty: Thanks, Roneel. Look, budget is always going to be an interesting topic. In the public health sector, traditionally, we apply a budget of 5% of the gross construction cost at the outset of a project to technology. And it might be okay on larger projects, as you can understand, that would be a lot bigger bucket of money, but on some of these smaller and more remote projects that would, in some instances perhaps, benefit even more from a greater focus and capital investment and technology, it really isn't enough to connect them to larger tertiary hospitals, clinicians, telehealth, any of the other systems that they might need to integrate the wifi and on some aging infrastructure as well.

We're now coming to a point where we have a lot of data on recent projects, we've got budget versus actual spends, and we've got a variety of outcomes that were achieved on those projects. So, analyzing that information will be really interesting to actually then determine is 5% enough. And obviously it could be different in different situations, but I think that would go a long way.

Roneel: Adam, your thoughts on that question?

Adam: Yeah, look, from a funding point of view, I have talked previously and I'll mention it again really tying in ICT architecture, planning, thinking, architecture into the budget process and doing that in a way that ensures that it can't just be moved aside, it can't just be given the 5% rule, which I respect, but it's tied into the clinical design future modes of care.

And I think there's an element of the funding that I think Barbara talked about, that needs to be allocated to future funding, to the future. So why are we saying we need 30% more cable in the walls? Why are we saying we need 30% more GPOs on the wall in our inpatient rooms? It's because there is a digital future that is inevitable. So, there has to be an element of securing a future fund. And it sounds a bit more like a government thing there, but, for me if I could wave the wand, I'd wave it on that.

Barbara: So, let me, jump in to say that on the subject of funding we're talking here in terms of ICT strategy. What we need to be talking in as terms of digital strategy and that spans obviously the traditional ICT, but the biomedical and clinical engineering, those facilities systems, life safety, IOT now across all of those categories.

So, you have the opportunity for funding sources tied both with their business as usual operations and also capital investment cycles. Every bit of investment, you should understand what you need to invest in to contribute to that digital vision. And so, it's a big conversation to have compared to where we're building a hospital.

Roneel: Yeah, and I think it's quite important, Barbara, you say that.

Look we can't have a podcast in 2020 without mentioning COVID-19 and obviously it's had a massive impact in the healthcare sector. I'd like just to get a brief thought from each of you in how you've seen COVID-19 impact healthcare in terms of its design and how we look at it, what we do for healthcare now.

Barbara: So obviously the whole remote working thing was the very first challenge that we had to solve. And as a result, we've discovered that we can do a lot more without being in a hospital than we ever thought. And I'm going to use the example here of mental health we have here a cohort of patients who are already potentially anxious or have conditions that are going to be exacerbated by the fact we're in pandemic conditions. And so, we very quickly had to move from face-to-face consultation and day programs to virtualizing that. And we did that and that's going to stay forever. So, the whole mind shift has changed from potentially obstructing progress, putting all kinds of blockers up, make sure we cover all the risks to just getting on with it. And then back to how that's impacted facilities. We very quickly understood that our infrastructure isn't up to the job for virtual care inside a facility. So, in that same example, we then got to a situation where inpatients were no longer face-to-face in rooms doing group sessions and mental health, but actually connecting virtually to a session from inside the hospital and does your infrastructure support that.

Now, this is where, what does the future hold? We don't know tomorrow or in a year's time, how are we going to have to adapt services in response to conditions. And so that comes back to the basics of having pervasive coverage and connectivity and, the ability to add in new elements quickly in response to conditions.

Roneel: Thank you, Barbara. Kirsty how have you seen things change during COVID, in terms of some of the things you traditionally do in planning and review, to previous hospitals, to what you're doing now in the pandemic and as a result of the pandemic.

Kirsty: Yeah. So, I agree with a lot of Barbara's points and one is the actual physical build. In Australia, we generally don't build hospitals greater than a thousand beds. It's just not financially viable. They're inefficient to operate.

And for a long time, we never built anywhere near that scale. But prior to COVID, there were quite a few hospitals coming up and healthcare facilities that were getting to that sort of thousand bed level. I think post COVID what we'll see is the efficiencies and the way that we've pushed forward in technology, and we've had to make it work, means that we're making decisions that don't need facilities of that scale. And I think the ambulatory care support services is a huge space where we will see a lot of change and we are already seeing

that. So, we will definitely see smaller scale builds, but much more targeted and a very different design going forward.

Barbara: Yeah, I think it's broken the back of that healthcare has to be in the hospital and this has really helped us to leapfrog in the thinking, and really start virtualizing and moving care out into the community.

Kirsty: Look, I also truly believe that from adversity comes opportunity, right? So, for the first time, in a long time, it seems that we actually need technology to catch up to us. And the global pandemic kind of has pushed us all to consider these new ways of working and to capitalize on the opportunities that comes with that in terms of design and implementing change.

Roneel: Thank you guys. And Adam, I guess you're receiving tenders now and opportunities that new hospitals and healthcare has had some funding come in through the COVID period. Have you seen a change in the documentation or the intent or the drivers that you have to respond to compared to pre COVID?

Adam: So short answer would be, yes. We've certainly seen some tenders arrive and we've had to respond to that, we had to focus on COVID-19 approach, COVID-19 within their design potential, intensive redesign taking into account pandemic situations.

We've also been actively working on a number of hospitals, as you imagine, through the period. Certainly, one here in Queensland, we've run our entire stage one design through this period and absolutely it's progressed and has progressed well. There were some pretty early challenges, but it was a catalyst for change. And for me that's quite amazing within the health sector, because I've always been in the belief in BAU Hospitals are not technology innovation centers, they're absolutely BAU keep the lights on, keep the service going. Whereas the clinical innovation centers, that's kind of changed a little bit. I think some of the precincts and jurisdictions that have made that investment in infrastructure, in telehealth infrastructure, particularly, will have certainly reaped the benefits and probably breathe a big sigh of relief that, over many years of investment, it really did pay off. And it's certainly raised that back again, either that connectivity or that remote care, right to the top of the pile.

Roneel Singh: No, thank you for that. And that rounds out the questions for today, but it's been good to see how the pandemic has played such a big part in what already is a major operational consideration and a clinical consideration in healthcare, which is the technology element. And I guess as Barbara put it quite right, the technology expands beyond just the ICT or just the cables.

I think we need to look at it as more holistically and really break down the silos to understand better how each little element integrates with each other.

I'd like to extend a big thank you from WSP to each one of you for sharing your time with us on today's podcast to share your thoughts and engage in this very passionate discussion.

Thank you very much.

Adam: Thanks, Roneel.

Barbara: Thank you.

Kirsty: Thank you.

Roneel: Thank you to all of our listeners and we hope that you stay tuned as we continue to explore some of the key issues that we face in delivering resilient healthcare facilities.

Intro: We hope you enjoyed this episode of People and Place. To hear more, find us on Spotify, Apple podcasts, and Google podcasts. You can also find us on LinkedIn and Facebook at WSP in Australia and on Instagram and Twitter at WSP_Australia.