Transcript

Department of Health and Aged Care
Ministry of Health

Australia/New Zealand Summit on the Value of Allied Health Care

Day 1

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**mc:**

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**Welcome to Country:**

Aunty Serena Williams
Ngunnawal Elder

John Whaanga
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**Speakers:**

George Leipnik
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[*Opening visual of slide with text saying ‘Manatū Hauora’, ‘Ministry of Health’, ‘Australian Government with Crest (logo)’, ‘Department of Health and Aged Care’, ‘Australia/New Zealand Summit on the Value of Allied Health Care’, ‘Day 1: Thursday 25 August 2022’*]

[The visuals during this webinar are of each speaker presenting in turn via video, with reference to a PowerPoint presentation being played on screen]

**Dr Martin Chadwick:**

Kia ora koutou and welcome everyone. It is 9:00am Australian Eastern Standard Time and 11:00am New Zealand Standard Time. So just want to welcome everybody to the Australia/New Zealand Summit on the Value of Allied Health Care hosted by myself, Martin Chadwick, and Dr Anne-Marie Boxall. We are a little bit overwhelmed insofar as that we have got over 800 people that have registered for this conference today. So I think that demonstrates that there is a real need for what we’re going to be going through over the next couple of days. So really do thank everybody for their interest.

And just to really affirm that the purpose of the Summit today is to explore and understand the value and utility of allied health especially as it pertains to patients, the health system, so that consumers, employers and policymakers really do get a much better understanding of the value of allied health and begin to look at how to prioritise more in the way of allied health service provision. So it is quite an exciting few days that we have ahead of us and we again are just extremely grateful for you all taking your time to put in the time to being with us today.

So what I’d like to do now is to hand over to my co-host Dr Anne-Marie Boxall and then we will lead in to an opening proper. So Anne-Marie over to you please.

**Anne-Marie Boxall:**

Thank you very much Martin and hello to everyone as well. I am also thrilled and excited to be here today and really, really grateful that so many people are interested in the topic that we are discussing today, the value of allied health care because both Martin and I are very passionate about this. So thank you for joining us.

As we start all meetings with a little bit of housekeeping, I get the lucky task. I just wanted to let everybody know that we are using a webinar format today. So the audience has been muted. That doesn’t mean you don’t have an opportunity to participate. You do and we strongly encourage your active participation over the next two days. If you want to ask questions you can submit it in the Q&A function and those questions are being monitored and we will be able to pick out questions from the ones that you submit. So please be active in this forum today. If you don’t already have the agenda it is available online on the Summit web page and you need to go to www.health.govt.nz – so govt.nz. And search for ‘Summit’.

So we also during the day will have some polling questions. And so we do encourage you to participate in those polls when they come up. They’ll often be during the breaks. And that’s just a bit of a way of us to get a sense of who is online as well. This is new for us and we’re excited that there’s so many people from both Australia and New Zealand participating. We also have a writer who is with us and they will be developing a written summary of today’s event, today’s and tomorrow’s event, and the event is also being recorded. So we have James Nicholls an illustrator as well and he will provide us with a visual summary of the Summit. His video will be on throughout the session and attendees can watch his illustrations. You can see it there now. You can watch his illustrations or check him out sporadically during the event as well. And I do believe there’s a cartoon of both Martin and I there. Lucky it’s small. But hopefully it will be really interesting to see the visualisation of our work. It’s not something I’ve seen before so I’m excited by that.

All right. So now to the most important part of our opening session and that is to do a proper Welcome to Country in both Australia and New Zealand. So I’d like to introduce Aunty Serena Williams. And Serena is a Ngunnawal Elder from here in Australia and I’d like to hand over now to Serena to welcome you all to country. Thank you Aunty Serena.

[*Visual of slide with text saying ‘Welcome to Country and Mihi Whakatau’, ‘Aunty Serena Williams, Ngunnawal Elder, Australia’, ‘John Whaanga, Deputy Director-General, Māori Health, New Zealand’, ‘Australian Government with Crest (logo)’, ‘Department of Health and Aged Care’, ‘Manatū Hauora’, ‘Ministry of Health’*]

**Aunty Serena Williams:**

Good morning everyone. For those that don’t know me my name is Serena Williams and I’m a very proud Ngunnawal Wiradjuri Elder. I was born in Canberra and raised here in Canberra and have lived here on country most of my life. But with that I’ve also had extensive travelling through remote communities running accredited training for allied health in the remote communities of Australia and successfully delivered training to the allied health communities in the remote areas on DV alert that I wrote for Lifeline to recognise, respond and refer.

I’m very happy to be here this morning as a Ngunnawal Elder to do the Welcome to Country and I’d like to thank Dr Anne-Marie Boxall, the Chief Allied Health Officer of the Australian Government, the Department of Health and Aged Care, and also Dr Martin Chadwick, the Chief Allied Health Professions Officer for New Zealand Ministry of Health.

I’d also like to acknowledge firstly my Elders past, present and future and all other Aboriginal and Torres Strait Islander people that are joining us today on this webinar for the Australia/New Zealand Summit on the value of allied health in Australia and New Zealand.

I’d like to acknowledge also the New Zealand Māori Elder John Whaanga and I look forward to meeting him through the webinar.

Aboriginal and Torres Strait Islander people are the oldest living culture in the world and the culture is still alive and well here on Ngunnawal country.

You know what? You can put me in front of all these beautiful faces publicly and I will not be nervous. You put me in front of a screen and I just freeze up a bit. So my apologies. I’ll get on with the Welcome to Country. With that I just want to stand for a moment because I acknowledge my ancestors when I do this because it’s the reason that I’m here, to ensure that Welcome to Country is done. And I’ll speak just a little bit of language. And the first is Yeddung Mura. Yeddung Mura is welcome, hello, the pathways. I will sweep the pathways for you to come on to beautiful Ngunnawal country. Nadjung. Nadjung the water of the roaring of the Murrumbidgee.

(Aboriginal language spoken)

That will cleanse you of all harm. Mulleun. Mulleun is our wedge‑tailed eagle, the totem of the Ngunnawal people. She will guide, protect and oversee you in your journey here on Ngunnawal country. Welcome, welcome, welcome to beautiful Ngunnawal country. I hope you have a beautiful two days for this Summit for Australia and New Zealand. And pay my deepest respects in regards to where we are as a country but also as a world with what COVID has done, the pandemic, and understand the pressures that you take on within this industry of allied health.

Welcome to country. Welcome to beautiful Ngunnawal country. Thank you.

**Dr Martin Chadwick:**

Thank you so much Aunty Serena Williams. What a great name you have as well I have to say. So I would like to take that invitation and then pass over to my colleague John Whaanga for Mihi Whakatau from New Zealand, so from Aotearoa in New Zealand. So over to you please John.

**John Whaanga:**

(Speaking Māori language)

Greetings to us all. I shared with you at the beginning of my Mihi an incantation which talks about the journey of our ancestors to understand knowledge and all its wisdom. I also acknowledged us all and the ancestry that we bring with us, the connections we bring with us, our communities and our people. I particularly wanted to acknowledge Aunty Serena Williams and how pleasing it is for me to be able to Mihi to you who lead our kōrero or our speaking today. I want to acknowledge you and your people and indeed the many people of [0:10:33] of Aotearoa.

I also acknowledged a saying that we have in Māori which is [0:10:41]. My strength comes not from the single person but my strength comes from the many. So I join along with Aunty Serena our best wishes to everyone gathered today who are here to share knowledge, to share understanding and to advance not only allied health but the service and needs that the communities [0:11:06]. So I wish to acknowledge you all, wish you best on the next two days and look forward to engaging with you and others as we go through this journey. Kia ora koutou katoa. Greetings to you all.

**Dr Martin Chadwick:**

Kia ora John and kia ora Aunty Serena. What an absolute privilege to sit and listen through. So very, very thankful for your time and just the importance of making sure that we start well, just acknowledging our lands for both of us, and to be sure that we can start this in a right way.

(Speaking Māori language)

So in a way of introducing myself it’s just acknowledging the kōrero and the welcome that we’ve had so far and also welcome everybody that has joined us and come in today for this gathering. There was also a little bit about me, about where my ancestry comes from, is that somewhere around about 25/26 generations ago is that my ancestors boarded the Mataatua Waka and they came to New Zealand and eventually they settled on the east coast of New Zealand. And so where they landed was close to a place called Whakatane and so there’s a mountain for those who know the area called Putauaki. And so that’s the ancestral mountain for me and Whakatane is the river that runs through that area. So that’s where I come from.

So I really just wanted to start today in just thinking about what we all have to deal with in the everyday and thinking about the complexity of healthcare. And it’s the scales of complexity and I think about what many of you do in your everyday in your clinical practice with the person who is in front of you and as you strive to think through what you need to do in order to effect best outcome for that individual. But then that person is placed within a context and the care that you provide is placed within a system. And as we start to think the complexity of the individual and their whanau, their family, what that means to the care that they’re providing as well, how that then links in to the systems that we all work within. And there is complexity and the point I’m trying to make with all of this, that it doesn’t really matter whether you’re thinking about the person in front of you or whether you’re thinking about the system in which you work. It’s equally complex.

And that’s part of the challenge that we all have when we start to think about the services that we provide on a day to day basis is it is complex. And there is a need to think about how we can collectively start to influence the system in which we all work within. Most of you will be able to talk to me at length around the clinical care that you provide and the benefit of what you provide and how you address that complexity at a patient level. And it’s about how we can start to pull that up within a lot of our kōrero, our talk over the next few days, to start to think at a systems level how we can start to really highlight the benefit that will come about that.

And there are some key messages from my perspective that I guess I feel I just want to repeat as often as I can. When there is a sense of allied health it is many, many professions that come together and there is acknowledging the sociology of professions and really acknowledging the sense that how we move past the sense of competition. It’s not about one profession trying to compete for another but more it’s about how we can multiply the care that we’re providing to our people, that if we can look at how we work together – and allied health generally does this very, very well – in working together there’s the ability to multiply care, multiply the benefit that we provide to people.

And then thinking about the concept of utility, how we can start to really place ourselves into an economic context. And same for both Australia and New Zealand, is as publicly funded health systems there is always the drive to think about how do we get the most for every dollar that we invest within the health system. And from that there’s a huge argument that I think we can continually put forward that is about the utility of what we do, the utility of what we provide. And what I mean by utility is that if we invest a dollar into allied health is that we can get an as good or better outcome. Or in some cases we can get an as good or better outcome with a lesser investment. So it doesn’t mean as much investment to deliver a better outcome for the people that we’re here to serve. And so it’s trying to frame that argument around a utility that what we provide is a greater utility, and within that there’s the ability for us collectively to contribute to system level outcomes, our ability to say that if there is a greater investment within allied health what we can do with regards to lengths of stay, our ability to reduce the time that people need to be in our facilities, or even better the fact that people don’t need to come to our facilities in the first place, that there’s the ability that if there was more in the way of allied health that we can actually keep people well so they don’t need to access our services in the first instance.

But then again we come back to the point of system level outcomes that if there is the ability to invest more within us what does that mean as far as better outcomes? And there are many instances where we can start to think of whole system outcomes as to what we can deliver, whether it be admission avoidance, whether it be length of stay or whether it be allowing people to live well with long term conditions. But it’s being able to articulate that discussion, that argument and the frame of utility and it’s the utility that we can provide in delivering those system level outcomes.

And so all of this I try to tease up in the argument in saying it’s about investing. Because it’s very easy I think to get into an argument that it’s what about us? If they are getting this why do we not get that? But rather trying to turn that argument around and saying actually we are worthy of investment because we know that we deliver the outcomes. We know that if we are invested in what we can mean for better outcomes for people, if we’re invested in it’s actually better for the system. So being able to have a very articulate argument that we can put time and time and time again to say this is why there needs to be a stronger presence of allied health because if we are invested in what we can do in improving the patient journey and improving patient outcomes and making a better effect for the system.

So that’s the key message that I will preach and continue to preach and I’ve been accused of it before, but that’s okay. I think there’s a message that we need to continue to get out there. But then to kind of place that into what do I do, what can I do within my role? How does my role fit within the New Zealand health system? And for those of you who are in New Zealand you’ll get this. For our Australian colleagues we have just gone through and continue to go through the largest reform in the New Zealand health system in around about 20 odd years with the introduction of the Pae Ora or Healthy Futures Bill. We’ve had a substantive reform of our health system. Previously we had 20 district health boards equivalent to your area health services. So they have been collapsed into a single entity of Te Whatu Ora and there’s also a Te Aka Whai Ora which is the Māori Health Authority that will work with Te Whatu Ora in ensuring that we are discharging our responsibilities on providing right care for Māori and start to address the inequities that occur within our health system.

And so what that means for us within the Ministry of Health is that we are really embracing the sense of kaitiaki-ship or the chief steward, is that we are the chief steward of the health system. And some of the things that we really exist to do is that we provide the coherent system level leadership and ensuring that aligns our priorities and focus areas across the health system and across Government in relation to health and wellbeing and striving towards that concept of pae ora which is really wellness. Within that we are as kaitiakis to drive the system strategy and performance and we are to be the Government’s primary advisor on health, priority setting, policy and system performance.

And then probably one of the components that excites me the most is that we are to be the principal source of horizon scanning and Government level leadership including leading on advice on determinants of health and wellbeing and taking a medium and long term investment focus on health and wellbeing. And so I think about many of the allied health professions. When we start to think about health and wellbeing and determinants of health I think there is so much about what we can contribute more around how we keep people well and how we keep them from needing to access any of our services in the first place.

The other component is that we’re to be the regulator of the health system to make sure our facilities are appropriate and then to work around legislation to make sure that our health practitioners are safe and competent to be delivering the services that they need to be delivering.

So that’s what our focus is now within the reformed health system. And specifically there are four responsibilities that we’re trying to discharge. The first is that we lead. So that kaitiaki-ship is that we’re leading the system and thinking about how we can provide more and better care to our people. We convene. We have the responsibility to convene senior leadership within the health system. We assess. There is that sense of how do we know the system is delivering what it needs to be delivering. And we advise. We advise the Government of the day and we advise the Minister of Health and the associate Ministers with regards to the performance of the health system and the direction of the health system.

And so when I come back to allied health specifically I think the responsibility around convening is one that it weighs on me the heaviest insofar as that we recently finished the first version of an allied health dictionary for want of a better descriptor, of trying to gather the information on the many professions that fall under allied health. And probably for the first time we fell on a very definitive number and that number is 62. So 62 professions that fall under the very broad umbrella of allied health. And so I then put that into the context of me fulfilling my role, what am I to do. And so I think there is a real sense of convening how can I be sure that within my role that I’m convening well and thinking about the very complex health system that we live in and that there are many components that need to be gathered together and think about how we can do that in a right way.

And it is thinking about those constructs and how we need to be sure that we’re gathering not just the people that are providing services but also thinking about how we gather employers, how we gather regulators, professional leadership, have an equity perspective, commissioners for services, unions, educators, the next generation, for us [0:23:16], lived experience. In all of those is how do we gather people together in a right way so that we can start to think that everybody holds a piece of the puzzle that when we come back to that point of investing how do we make sure that we are getting a whole view, a complete view of how we can demonstrate that investment in allied health that’s going to start to meet all of these components and delivering better care for our people.

So that’s a little bit of a snapshot of me, a little bit of a snapshot of the role of the Chief Allied Health Professions Officer within the Manatū Hauora, within the Ministry of Health. But it is all so new. As I look at the date today of the 25th of August that means we’re one month and 25 days old. So there is still a lot of learning that we need to do. But I think within this is the sense of we can be doing far more, that there is much more opportunity now to think about how do we use the skills, the talents and the abilities that sit within the allied health professions to begin to deliver better outcomes to the people that we’re here to serve in the first place.

So kia ora everyone. Welcome. It is an absolute pleasure to be in front of you and I’m excited to see the rest of the day unfold. And I know we’re a little bit ahead of time so Anne-Marie I chewed up a few extra minutes for you and that means that you’ve got a few extra minutes as well. So I’ll hand over to my good colleague Dr Anne-Marie Boxall. Over to you please.

**Dr Anne-Marie Boxall:**

Thank you Martin and thank you to everyone again for joining us. And I would also just like to echo Martin’s comments about the wonderful Welcome to Country from Aunty Serena Williams and from John Whaanga as well. It is really important. It’s something that I think we are all learning how to do better and so I’m really pleased that we started this Summit so well as Martin said. So that’s great.

And I also would like to acknowledge the traditional owners of the lands on which I am meeting, so the Ngunnawal country, and to pay my respects to Elders past, present and emerging and to particularly welcome any Aboriginal and Torres Strait Islander and Māori people who have joined us today. So thank you. You are very welcome and we are pleased that you are able to participate in our Summit.

So what I am really hoping from today’s Summit is that at the end of the two days that we all have a better understanding of what we mean by value in healthcare and come out with some practical and actionable ideas, to do more research and to implement that research in our health system. Because we all know that allied health deliver wonderful patient care but I think for us it’s having that frame of understanding what we do as a collective and how will we improve health outcomes for people but also improve the health system. So that’s I think a really important focus of the event for me.

So a little bit about my role as well. So I was appointed as the Chief Allied Health Officer here in Australia in July 2020. So just over two years ago. So came back to Australia in the middle of a pandemic and have been operating in that environment ever since. And so it’s been a challenging couple of years to establish a new role but I’m starting to get a sense that we’re really making progress in allied health as a sector in Australia and really achieving some greater visibility. So it’s been a great two years and I’m looking forward to many more.

One of the great things about my role is that I do get to collaborate internationally with Martin in New Zealand and I also collaborate with the UK Chief Allied Health Officer as well. It’s really interesting, even though we have different roles and very different health systems, that a lot of the issues for allied health are pretty common. So it’s nice to have that kind of international network of people thinking about allied health and its value as well.

So the primary objectives of my role here in Australia is to raise awareness of the value of allied health care, so exactly what this Summit is about. I am often surprised I think about the general community don’t often have a good understanding of what allied healthcare is. They may have a good understanding of the individual professions but often not what allied health is as a collective. So that’s part of my role, to raise awareness of the collective of allied health, also to build engagement with the allied health sector from the Australian Government. So one of the things about our role here is that we do not deliver services from the Federal Government. So our connection with health professionals and providers is a little bit more distant. So part of my role is to bridge that connection with people delivering care on the ground.

Another core objective of my role is to improve allied health workforce data including identifying where we don’t have data and improving the data that we have. And this is really relevant at the moment in Australia and I know other countries including New Zealand where we do have some pretty critical workforce shortages and we’re needing to plan strategically to address those workforce shortages. So obviously without data it’s pretty hard to be strategic about it.

And then finally one of the main parts of my role and my team is to make sure that allied health is included in policy making, in programs and decision making about the way healthcare is delivered in Australia. And that’s been a really exciting part of my role up until now.

So in Australia there are over 200,000 allied health professions working in a whole range of different sectors. So primary care, acute care, hospitals, disability, education and other sectors as well. It is really one of the distinguishing features of allied health is not just the number of professions but the number of sectors that allied health work in. It really does give us a lot of presence on the ground.

In Australia allied health professions are actually the fastest growing. So again that’s an exciting future for us in terms of having an impact on patient care. One of the exciting things that I have is the opportunity to represent all of these professions. We haven’t stuck to a number, like 62 as Martin has pointed out, but there are a very large number of allied health professions in Australia as well.

So the role of the Australian Government in healthcare. I just thought I’d point out a little bit of how we work because it’s quite different from New Zealand. So I mentioned before the Australian Government doesn’t deliver services directly and doesn’t employ health professionals. So the Australian Government’s role in healthcare is largely about supporting access to care and supporting access to high quality care. That care can be delivered through the public sector but also through private sector and also not for profit as well. And so the Australian Government’s role is largely about financing and governing and regulating care not delivering that care. So it gives us a different range of levers with which to influence outcomes.

In Australia the states and the territories predominantly are responsible for service delivery and also workforce regulation and also public health. So working with our state and territory colleagues is a really fundamental part of improving health outcomes. The Commonwealth, the Federal Government, cannot act alone to improve health outcomes or the health system. Likewise our states and territories cannot act alone. We need to collaborate. And I’m very happy to say that there are Chief Allied Health Officers in all of the states and territories in Australia and that we meet regularly and collaborate on a whole range of issues relating to allied health and progressing that allied health. Without that collaboration it would be a very difficult situation for us so I am very thankful for that.

Okay. Some recent initiatives in Australia. So those of you who are Australian will know that we’ve recently had a change of Government and that Government has committed to some pretty significant reforms in different parts of the health system. In aged care, in primary care strengthening our Medicare system which is our universal healthcare system, and also progressing some reforms in primary care in particular. The agenda is still being worked out in more detail but I think you’ll see immediately that allied health is strongly represented and very active in all of those areas. So there will be reforms on the agenda in the future that affect allied health and we need to be ready and positioning ourselves to make the case of why allied health needs to be a central part of those reforms.

And so now to the main I guess message that I wanted to share in this introductory session and that’s about value-based healthcare. I really think that before we sort of have a detailed discussion on value-based healthcare at this Summit we need to recognise that both Australia and New Zealand’s health system are very good. They are amongst the best in the world. We like to rival for who’s the best but they are both excellent healthcare systems that perform very well. They provide high quality care that is safe and affordable. That doesn’t mean that we don’t have challenges. We clearly do and many of those challenges come from the rising burden of chronic and complex conditions, our ageing demographics, changing consumer expectations. What people expect from care now is quite different from what it was 20/30 years ago. Rapidly changing technology is also a huge driver of our health system and some of the challenges that we face as well. And some of the traditional ways that our health workforce and health services are structured can be a barrier to reform as well.

And then finally the maldistribution of the workforce especially in Australia. It’s an extremely large country and we do not have equal access to care in different parts of the country because we do not have an equitable distribution of the workforce. So they’re just some of the challenges that we face that we need to address as part of our thinking and discussions about value-based healthcare.

In Australia we have an extremely large amount of money spent on healthcare like in all other countries. About 70% of all health expenditure in Australia is from Government funded sources. About 15% is from consumer out of pocket costs. So it’s actually quite large. And also in Australia we have funding through private health insurance and some other non-Government sources. The volumes of money are large and there is a stake for everyone, both Governments and for consumers, to make sure we get the best value from that expenditure. You will all know that healthcare expenditure grows at a faster rate than wages and inflation and therefore we need to be always conscious of the need to make sure that we are getting the best bang for our buck. And I guess that’s really what we’re talking about here today. How does allied health get involved in demonstrating that, allied health services are the best bang for the buck? So that’s really one of our main focuses.

In terms of the way healthcare is funded in Australia we do still have a predominantly fee for service model. That’s our Medicare system. And it works very well for access to acute health services. However it is mainly about output. It’s a volume-based system. And so it’s not set up to consider quality or patient outcomes. It doesn’t work very well for people who have chronic and complex conditions of which allied health professionals spend a lot of their time treating those patients. And so Australia like many other countries in the world is starting to look at alternative payment models that might be better value for money. And so that’s my kind of definition of value‑based healthcare and we will have a presentation from someone more expert than me after this. But it really is looking about how we can get best patient outcomes without jeopardising safety and quality, in fact improving it, and making sure both patients and providers are satisfied with the care that they receive.

So I mentioned before looking at alternative payment models to fee for service and of course there are examples from around the world that are starting to demonstrate that there are better ways of doing things for some types of patient care. For example pooling funds from different sources. There’s some evidence from the UK where they in 2013 established the Better Care fund where they pooled funding from both health and social care services. So in Australia they’re entirely separate funding sources. But they pooled them together and what it did was shift activity and resources from the hospital to the community, where of course most people spend their time and most people engage with health services in the community. So that I think is a really interesting study on sort of alternative funding models and value for care as well.

Another option is looking at bundled payments. And this is where there would be a single payment for an episode of care that crosses sectors or boundaries, for example joint replacement or stroke where people are receiving care in the community and in a hospital as well. One single payment. And what of course that does is it promotes collaboration of health professionals who are working in different sectors. It also provides a stronger incentive for prevention. So preventing people from using expensive care if it’s really not necessary, reducing the needs of expensive things like surgery if that can be done out of hospital through conservative means. When there’s a single payment it really does provide a financial incentive to invest in prevention and out of hospital care.

So I think it gives you a little bit of an idea of some of the alternatives that certainly Australia and other countries are looking at. And I guess the main message for us is that we really want allied health to be at the forefront of this shift to value-based care. For that to happen allied health professionals need to both do and promote the research that they are already doing and show how allied health contributes to this value-based healthcare agenda.

And that is why we’re here today. Martin and I were absolutely thrilled at the responses that we got when we called for submissions for research on value of allied health care that was already completed. We were overwhelmed. We got way too many that we could fit in to our two day Summit which is a fantastic sign. And we’re already thinking about what we might do as a next step. But part of the challenge for allied health I think is that we don’t always share that research. We might share it with our colleagues in a single profession or we might share it with people sort of in our local area health service, but we need to get better at sharing it with decision makers and policy makers. And that’s essentially the stimulus for this session today is that we are able to hear from you about the fantastic research that you are doing, that we bring that research together, we use that research to promote to Governments, policy makers, decision makers about what allied health can do to improve value-based healthcare in both Australia and New Zealand.

Of course that’s not a static exercise so we will need to think about how we continue to find out about cutting edge research on allied health and that demonstrates the value of those services. For today I think it’s a really great starting point that we have this two day Summit and we’re able to gather that information and produce a document at the end.

So what I’ll do now is just wrap up by again thanking everyone for their participation today but also thanking you all for the fantastic research that you are doing in your communities with your patients in your health services and for taking the time to write that research up and to share it with us. That is exactly what we’re here for. I know it takes time. When I worked as a physiotherapist and I did some research alongside my patient care, it was, it’s extra effort and it takes time. But it really is worth it and so I would strongly encourage you to continue to do research if you are delivering patient care but also find ways of sharing it with your colleagues, with other professional groups and of course with decision makers.

So with that I will wrap up and I will hand back to our next speaker. And I’d like to formally introduce Mr George Leipnik who is the Director of Strategy and System Priorities from the Strategic Reform Branch in New South Wales Health. And he will be speaking to us on what do we mean by value-based healthcare. So over to you George and thank you for joining us.

**George Leipnik:**

[*Visual of slide with text saying ‘NSW Health with Crest (logo)’, ‘Health’, ‘What is value based healthcare?’, ‘George Leipnik’, ‘Director, Strategy and System Priorities’, ‘Australia/New Zealand Summit on the Value of Allied Health Care’, ’25* August’]

My pleasure. Thank you very much for the introduction Anne-Marie. And it’s good to see both yourself and Martin were foreshadowing what you see as value-based healthcare is very much aligned with the messages in this presentation. So that’s a great starting point, that we’re all on the same page and can demonstrate the really important role of allied health professionals in driving the system towards value-based healthcare.

Before I begin I’d also like to acknowledge that I’m dialling in from Cammeraygal land here in St Leonards in Sydney, New South Wales, Australia. Can you please go to the next slide?

So just starting off touching on why do we need value-based healthcare. I think these points have been raised a little bit this morning but our workforce always strives to deliver high quality care for our patients and our community. And as Anne-Marie mentioned Australia and New Zealand have some of the best performing healthcare systems in the world however with some of those changes in systems worldwide we do face challenges and if we want to continue to be such high performing healthcare systems we need to respond. So some of those challenges that we’re all aware of include the rising health costs and the impact of new technologies which both bring opportunities and challenges, the increasing demand and complexity of the care that we’re delivering to patients. But most importantly as well it’s the changing needs and expectations of our patients, our carers and the broader community, how they want to be involved in their healthcare. And we see them taking a much more active role in healthcare and the choices about what matters most to them.

So value-based healthcare is really a response to some of those demographic, social and chronic and complex conditions, the pricing, the technology challenges we all face, and value‑based health care tries to address those challenges in a more holistic way. Because there’s international consensus that improvements in efficiency alone or productivity alone, they’re not sufficient to respond to these challenges of sustainable healthcare delivery. And when I use the word sustainable – and I’ll touch on this a bit more throughout the presentation – I mean much broader than just financial sustainability. Although clearly that’s important. We’re also talking about environmental sustainability and we’re also talking about the sustainability of our workforce to deliver this change.

So the transition from volume to value really provides a more sophisticated and sustainable approach I believe to organising and providing healthcare in the 21st century. Next slide please.

So over the next few slides I’m just going to talk about what defines value-based healthcare from New South Wales Health’s perspective and how that builds on where we are and where we’ve come from.

So globally there are many different definitions of value-based healthcare and slightly different approaches to how health systems around the world go about implementing value-based healthcare. But really at the heart of it all, is common across all those in the jurisdictions, is a focus on improving outcomes for patients. A traditional definition that we sort of see in the literature and sort of globally is value equals outcomes divided by costs or achieving the best outcomes at the lowest cost. As I’ll discuss on the next slide we’ve taken a slightly different approach but it’s still consistent with that but I think it’s something that will resonate with everyone online about the challenges and nuance of value and what does value mean to different people. Go to the next slide please Nick.

So how do we define value-based healthcare in New South Wales? In New South Wales we define value-based healthcare as a way of organising healthcare to maximise value where value is defined in terms of the outcomes and experiences that matter most to both the people receiving healthcare as well as those delivering healthcare. And it’s relative to the costs of achieving those outcomes. And I think that our experience to date highlights that there are many dimensions and perspectives that we need to incorporate into a value-based healthcare approach. And as I said before it can mean different things to different people.

So we focus on what’s known as the quadruple aim approach to value-based healthcare and there was that deliberate decision when we started our value-based healthcare journey several years ago to move away a bit from an equation of value being outcomes divided by costs and focus more on the consideration of patient and provider experience of care and make that relative to the costs of providing care.

And I think that reflects that value is not really a simple equation. It’s a relative term and it requires defining and determining what those best outcomes are and who they are for. So when we implement value-based healthcare we’re really seeking a culture change, really to make this business as usual and encouraging everyone to consider value-based healthcare in all their work whether that’s at an individual level considering are you providing the care that delivers outcomes and experiences that matter most to your patients, right up to the allocative decisions we make at a system level as system managers in the Ministry of Health or through the Australian and New Zealand Governments. And although this concept may appear simple I think we all know that delivering at scale in the complex health systems that we have is a challenge. Next slide please.

And I just want to emphasise that point before I move on, that value-based healthcare is really about the human experience and how we’re approaching that it’s really the interface between patient and staff experience. Because it recognises that those two are inextricably linked and that we can’t achieve universally excellent patient experiences without also focusing on our staff experiences of delivering care. And that’s an important point I think to remember throughout, that the models that we develop and the changes that we’re seeking to implement across the system have to be driven with patient and community engagement and clinical leadership and support for it to be sustainable and these changes to stick.

So focusing a bit more on what distinguishes value-based healthcare from what we’re already doing. And as I’ll talk about in a few slides it’s an evolution from what we’ve been doing. It’s not a revolution. I’m not saying to throw out what we’ve already been doing. Let’s build on the fantastic foundations we’ve had for our health system.

So value-based healthcare is about moving from that focus on outputs towards outcomes. So traditional volume or activity-based funding models, they focus on the number of patients being treated within a service. It’s really a measure of throughput. And under those models they traditionally reward outputs rather than outcomes. And that really only tells us how resources are being used or the cost of providing those outputs. Whereas measuring the value, it really tells us about the impact of what we’re having by using those resources and the impact on patients first and foremost. And that’s what defines value-based healthcare, measuring what matters most to patients. So that requires really systematic measurement of patient reported outcomes to inform care planning, evaluate the impact of care and improve care delivery.

And as Martin mentioned in his address value-based healthcare and the changes we’re seeking to apply, it’s all about structuring care around the people, bringing together multidisciplinary teams. Not just focusing on that one episode of care with the one profession or one clinician, but really breaking down the fragmented system that we have at the moment where care is often structured around medical specialities or the facilities or the care settings. And value-based healthcare is really looking to apply that integrated and multidisciplinary approach to guide our resource allocation, our policy decisions and really reduce the costly fragmentation and duplication we’re seeing across the health system and ensure we can deliver better outcomes and experiences that are centred around the patient. Next slide please.

And building on what Anne-Marie mentioned in her opening address I think value-based healthcare is building on our longstanding commitment to safety and quality. Safety and quality is a non-negotiable but I think value-based healthcare is a higher order concept. And something that I’ve sort of talked about in the past, and this is a bit of a flippant example but I think it illustrates it quite well, is that it’s possible to have high quality care that was not necessarily better value care but it’s not possible to have better value care that isn’t already high quality. So it’s about building on safety and quality and therefore best practice clinical care and clinical outcomes need to consider the outcomes that matter to patients and the effectiveness and efficiency of that procedure not just within isolation of the episode of care but from a system perspective and thinking across the whole patient journey. And it really shifts the focus from again that isolated view of did we do things right at that point to are we doing the right things more holistically. Next slide please.

So I’m just now going to touch a little bit on how we’ve framed our move to value-based healthcare and note that this is an ongoing journey. And once again not to sound like a broken record but really value-based healthcare, it’s important to frame it as maximising outcomes from the patient perspective. I think when we started communicating this within our health system it’s fair to say that there were some large pockets of resistance who hear the term value and think that it’s synonymous with low cost or cost saving and really it is first and foremost about outcomes and then improving outcomes that has the flow on effect to bending the cost curve later. But if we start with improving outcomes and experiences and designing care more effectively then those sort of savings come later.

And it’s an evolution as I said, not just a discrete project. I think our health services and districts across Australia and New Zealand, they’ve seen projects and priorities come before, the shiny new documents that come out of our bureaucracy. But value-based healthcare is a long term cultural change and it’s about embedding that practice and culture change into business as usual and a way of thinking. And it’s building on the good foundations of work that are already happening. And I think that’s been an important narrative as I mentioned before, that we’re not saying the system is necessarily doing things poorly. We’re saying that we now have those foundations that we can build on and we can evolve to give our clinicians, our managers the tools and the support that they need to deliver the kind of care and outcomes that they want to deliver. I think value-based healthcare at its heart resonates with care providers because it’s about breaking down those structural barriers that often get in the way of providing the kind of care that you signed up for when you entered into these professions. So I think that’s an important message as well.

And as I said it’s about systematically measuring outcomes and then linking that back to reprioritisation. So value-based healthcare is about reprioritising and realigning care. It’s not always going to be about hard cashable savings. It’s about doing things differently to bend the curve which then allows us to have that additional capacity in the health system to reprioritise it and repurpose it for where we need to. Next slide please Nick.

Hopefully this works. I’m just going to play a video now. Because you’ve heard from me about what I think value-based healthcare is but I want you to hear a little bit about it from our patient and staff perspective, about what value-based healthcare means to them.

**Nick Andreopolous:**

Hey George. Sorry. I think I just realised that there wasn’t a lot of sound there hey.

**George Leipnik:**

No. I couldn’t hear sound on my end so unfortunately it may not have come through for participants. But in the interests of time I think I’d be more than happy to share that link around in the chat later and have people view that video in their own time. Essentially the key messages there are about value-based healthcare working for everyone and the messages there from Matt, one of our physiotherapists, was about that multidisciplinary care. And I think from one of our nephrologists up in the Hunter region talking about how value-based healthcare from his perspective allows him and his staff and his colleagues to be working at the top of their bands in terms of they’re seeing the kinds of patients that they should be seeing by optimising where we deliver care. If you could just skip ahead to the next slide please.

And just to wrap up I’m going to talk a little bit about how we’re going about embedding value-based healthcare.

And again please.

So we have a value-based healthcare framework in New South Wales and it’s really focused around driving and accelerating change through a few key state-wide programs but then focusing on the enablers of value-based healthcare. Because as I said it’s a long term journey and it’s about significant long term cultural change supported by executive sponsorship, strong clinical leadership and engagement and then chipping away at some of those structural barriers we’ve talked about to create the environment and the tools and support to deliver outcomes.

So there’s a lot of work underway in New South Wales, for example measuring patient reported measures. We’ve developed an IT system that allows our clinicians and patients at the point of care to discuss and measure what matters most to them and have that informed shared clinical decision making. That information is then used for multiple purposes over time longitudinally as well as for evaluation later.

We’re also really focusing on working with our partners, primary health networks, other primary care providers, NGO sector and community sector, because we recognise that from a patient perspective there isn’t that distinction between say New South Wales Health in the hospital and then their broader healthcare. It is just about healthcare as a system. So we’re working through programs such as our collaborative commissioning programs or integrated care to join up the delivery pathway and make that much more patient focused. We’re also scaling and embedding virtual care to improve outcomes and experiences and patient choice and that’s a key enabler of value-based healthcare. As well as Anne-Marie mentioned piloting new and more flexible funding models that can deliver interventions more based around the patient and that care pathway and making outcomes the defining factor of that rather than outputs.

And we’re also investing significantly in advanced data linkage, so through virtual registries joining up the data from all different aspects including across both New South Wales Health and the primary care sector to provide that holistic view of the patient journey. So there’s a range of work underway that really value-based healthcare is both driven from the ground up in terms of those interactions you have as professionals with your patients but also from a systemic perspective and putting in place the structures that enable you to deliver value-based healthcare. Next slide please.

And I guess when we talk about delivering better value care the flipside of that coin is disinvesting from lower value care. And I think traditionally low value care has been thought about in terms of what is ineffective or inefficient but really again putting the patient at the centre. It’s also about unwanted care, so care that doesn’t necessarily meet patients’ preferences, needs or solve the problems that matter to them. So if we think for example about patients in their last year of life there are different more supportive models that could be applied than traditional hospital‑based models and those are better aligned with patient preferences. It means that our hospitals are more focused on the patients where we can add value to their journey and that the health systems allocating resources most appropriately. Thank you.

If you’d like more information to get in contact or to view our website where we’ve got a range of resources about value-based healthcare. And I look forward to seeing some of the great initiatives that you’ve already got underway throughout the rest of today and tomorrow’s program and looking for opportunities to be able to work with you and work with our other colleagues across the Commonwealth and jurisdictions to highlight the role of allied health. Because we’ve seen from all our models that are probably going to be highlighted over the next couple of days allied health professionals have been at the centre of implementing our leading better value care initiatives in New South Wales. Thank you.

[*Visual of slide with text saying ‘Find out more on the NSW Health website’, ‘www.health.nsw.gov.au/value’*]

**Dr Anne-Marie Boxall:**

Thank you so much George for a very clear presentation. We really do appreciate it. And I really liked what you said about health professionals want to deliver value-based healthcare. That’s actually what they signed up to do. And also your acknowledgment that in New South Wales allied health professionals have been at the forefront of that shift to value-based healthcare. For me if there’s one broken record message that I would like to share with this Summit over the next two days that’s exactly it. Allied health are and should be at the forefront of the shift to value‑based healthcare. So thanks again for a fantastic presentation.

Look we do probably have time for just one or two quick questions if you’re able to hold on. And I’ll just have a look at the questions here.

Let’s have a look.

Sorry. I was just trying to find where the questions are.

Okay.

*Q: Given that value-based healthcare is about outcomes for patients I assume that culturally appropriate care is crucial and that cultural safety is a key component.*

Are you able to address that one for us George?

**George Leipnik:**

Yeah definitely. And I think that’s where our definition of value-based healthcare – we did leave it a bit more open in terms of it’s both looking at the patient and the broader community because we want to take that perspective. And it’s about outcomes that matter to the individual. So some of the work that we’re doing to ensure that care is culturally appropriate as well is through the selection of for example patient reported measures that we’re using and adapting those to be culturally safe and appropriate for different groups. So that’s just one way but I think it’s about embedding that focus on personalising the care to the outcomes that matter most to the patient in every step of the journey.

**Dr Anne-Marie Boxall:**

Great. Thank you. And just one final question. What about access? So there’s a person asking a question about access to healthcare as an integral element of value-based healthcare. Given that there’s existing inequities for many patients in many communities, how does that feature in value‑based healthcare?

**George Leipnik:**

Definitely. Equity is a fundamental principle I think of value-based healthcare. Again when we take the system view of what we mean by value. And I think for those familiar with the New South Wales health system you know there has recently been an inquiry into regional and rural health in particular where some concerns with access to care was raised and that’s very much part of the response. I think we do have to recognise that the healthcare system and the infrastructure is going to look different whether you’re where I’m sitting today just across from the Royal Northshore Hospital in Sydney versus some of the facilities we may have in different parts of the country. But ultimately it’s about taking a broader view of accessibility.

A big focus in our future health strategy is on improving health literacy and partnering with patients, so enabling people to have more access to the decisions that are being made with them about healthcare, as well as through our virtual care strategy. So there’s some fantastic models underway where some of our tertiary facilities like Royal Prince Alfred Hospital are partnering with say Far West Local Health District to be able to ensure that there is access to specialist care through things like Telestroke and other mechanisms. So I think it’s about thinking a little bit differently about how we engage with people. I think accessibility improvement is also through working with our partners. So there’s some great initiatives in western New South Wales for high risk patients with high risk feet from diabetes and leveraging the Healthy Deadly Feet Program and using our Aboriginal health practitioners who are out in community to be able to do those initial consultations and connect people up with the care that they need in more specialised centres.

**Dr Anne-Marie Boxall:**

Fantastic. Great. Thanks George. And again thanks for answering the questions and providing a link to more information. It’s been a really valuable session so appreciate your work but also your time presenting to us. Thanks.

**George Leipnik:**

Thank you.

**Dr Anne-Marie Boxall:**

Okay. So now we are moving on to the presentation sessions. So this is presentation session number one. Just a little bit of housekeeping before we start the sessions. So each of our speakers has ten minutes. Now that is a short amount of time and we’ve warned everyone that ten minutes is ten minutes because we need to make sure we get through the high number of fantastic presentations that we have today and tomorrow. So each speaker will have a warning at one minute and at the end of the ten minutes we will politely usher our speakers off the stage. So no offence to anyone. We’re not trying to be rude but we do just want to make sure we get through all of the presentations today. And of course we will make the presentations available should speakers agree.

[*Visual of slide with text saying ‘The value of allied health care’, ‘Session one’, ‘Please submit your questions via the Zoom Q&A. Please reference the name of the presenter in your questions’, ‘Australian Government with Crest (logo)’, ‘Department of Health and Aged Care’, ‘Manatū Hauora’, ‘Ministry of Health’*]

We also have a Q&A function. So just to point out for people who haven’t found it yet at the bottom of the screen there is a Q&A function. That is where we want you to post your questions, not in the chat. So we won’t be monitoring the chat for questions. We will be monitoring the Q&A function. And there’s ability to upvote them. And so if you have a similar question just upvote somebody else’s and then we will try and monitor the questions that way. There will be probably too many questions for us to answer but please post what you can and of course we will find a way to try and address some of the common questions after the forum as well if we are not able to get to them.

So hopefully with that we can now move in to the sessions. And I am going to hand over to my colleague Nick Andreopoulos who is going to be our facilitator for these questions. So over to you Nick.

**Nick Andreopoulos:**

Thanks Anne-Marie. Actually before we go on just one more thing. Could all the presenters obviously please stay after the five presentations. Please stay until question time in case there are questions asked of you. And just remain during the other presentations you too then with your video off if you could do that for me please. And any questions – just because there is one question time per five presentations – just please make sure you include the name of the presenter to whom you want to ask the question of just so we know who to address it to and the presenters know who to answer.

For Sarah and for the others I will probably minimise the full screen presentation at about nine minutes so you can see that it’s probably time to start wrapping up. When it gets to ten minutes I might just jump in and say something as well. So without further ado Sarah it’s on to you.

**Sarah Alani:**

[*Visual of slide with text saying ‘Coast to Coast Health Care’, ‘COVID Clinical Care in the Community’, ‘Innovative Primary Care approach’, ‘Sarah Alani’, ‘Prescriber Pharmacist’, ‘2022’*]

Thank you very much.

(Speaking Māori language)

Welcome everyone. I’m very grateful for this opportunity to showcase today some of the work that I’ve been involved in managing COVID-19 patients in the community through an innovative primary care approach.

I’m a prescriber pharmacist working in general practice north of Auckland and I will give you some background about the place I work in. Next slide please.

So Coast to Coast Health Care is a primary health organisation that has eight primary healthcare clinics across large geographical areas with high need populations. Its vision, to provide high quality primary healthcare to persons of our rohe addressing the issues of access and equity and creating opportunities through innovation. And this project really demonstrates what the vision says.

So March 2022 we saw a surge in COVID-19 cases and March ‘til June we triaged over 3,600 patients. To date we’re up to 5,000 patients. So Coast to Coast Health Care has over 20,000 enrolled patients. So we’ve triaged almost a quarter of the population.

We’ve created a centralised population-based approach to safely manage those patients and we aim to improve health outcomes, eliminate inequities for Māori through our commitment to Te Tiriti o Waitangi in our approach and our Pae Ora at the heart of our care. And that includes individuals, the families and the environment. We aim to reduce hospitalisation and health burden. We aim to promote patient engagement and satisfaction and also patient-clinician rapport established. We worked on opportunistic health improvements as we were triaging the patients and plans for follow up and team building internally and externally and with local providers and stakeholders. Next slide please.

So one of the things that I was involved in is while we were getting data across nationally and locally of COVID surges I started recording daily case numbers that we were getting and feeding that back to management. And you can see we’ve had some huge numbers, 187 cases a day. These patients would have been triaged through the main system so creating a centralised approach actually relieved some of that burden on our other team members. This also helped us forecast trends and reflecting. So every week I would reflect on are we doing the right thing as was mentioned before. It allowed us to allocate resources and communicate with our staff and keeping them up to date of what’s happening in our local area. It also helped demonstrate to management outputs and efficiencies and also keeping our clinic safe. This was something that evolved and was used to determine how much COVID have we got around us and do we need to move to tele-consults and reduce our face to face consults. As we were out of the COVID surge we reverted back to more face to face consults. So it became a really useful tool. Next slide please.

So the design. So I would go through all the inbox results and we would allocate high risk and low risk cases based on their acuity levels. We would put them on a template. We would send them a letter that communicates to the patient how they escalate their need, how they can get welfare support, access to information on health navigator and especially when it came to antivirals. We continuously adapted our processes to reduce barriers and improve patient access. So this was mentioned before and an example of that was back in April I managed to integrate antivirals in our urgent clinics. Being a rural clinic setting the pharmacies were not open seven days a week and with antivirals we needed to be able to provide that service or that therapy in a timely manner. So we integrated the antivirals in the urgent clinics and utilised my role as a clinical pharmacist to collaborate with a prescriber on how to safely I guess evaluate the suitability and the eligibility for patients after hours.

We had weekly meetings with the wider team, training for staff that I was very actively involved in. It was a real team approach. The clinical director was very instrumental in how we went about managing patients in a timely manner. So his time and his expertise were very, very useful. It was also important for me to reflect and know my own limits and when to actually escalate patients who were acutely unwell and what to look out for.

So our commitment to our Māori and Pacific population. No matter what risks there were, whether they were high risk or low risk, they were contacted, and made sure that their needs are met. So including welfare, food, oximeters, etcetera. We also opportunistically screened patients with high risk of developing rheumatic fever and starting them on empiric antibiotics if indicated.

Clinical reviews and medication reviews. We managed reinfections, repeat prescribing, long COVID support which was also quite important for patients and reassurance, and also health promotion, looking at what can we discuss with the patient in that triage to promote self-care as well. We also had three rest homes that had outbreaks with COVID and I had a big role in assessing those patients for antiviral eligibility and suitability as well. Next slide please.

So outcomes. So if we look at the New Zealand Clinical Governance Standards 2009 I think we’ve met every standard. What we’re working on at the moment as Martin said at the beginning is multiplying that initiative and building on successes. So the next thing will be looking at exactly what we did with this project and looking at our diabetic and cardiovascular populations and see how we can evolve this going forward.

I think I’ve mentioned everything in this slide. The highlight I want to just go over is patient satisfaction and health journey. There’s not a day that a patient doesn’t appreciate the level of support and care that has been provided. And also the team satisfaction I think. It demonstrated to the team my role and the value it brings being integrated into the practice and built new relationships for future projects. Next slide please.

So enablers and barriers. So just quickly the enablers. We’re a seven day a week support for our COVID in the community. We work collaboratively. We engaged. We had a very supportive team culture, strong leadership. IT was crucial. And really upskilling in all domains. Strong network partners with our PHO, regular meetings, clinical hub leaders discussions. Because we’re a seven day service we actually decided to look after all our patients ourselves and free up the clinical hubs for other clinics that might need their support.

From a macro level local for local approach. So we adapted processes for our needs.

And the funding model, the fee for service was excellent. And a real wraparound service for the patient. The barriers. Overstretched workforce, lack of awareness for what a pharmacist prescriber role is and what are their capabilities. The barrier also was IT integration from external prescribers and primary care. So we had some clinical governance and safety going on there that we were discussing. And nurses’ pay parity and that falls into resources as well. Next slide please.

So we had an equity driven approach. The team was culturally safe. We identified patients at risk and prioritised based on our resources. We managed to get in touch with everybody that has registered a COVID result and provided that support. And it was a really tough time especially for some elderlies. It was really great having that daily phone call to check in on what their needs are.

Next slide please.

**Nick Andreopoulos:**

You’ve got about 20 seconds Sarah.

**Sarah Alani:**

So where to from here? So pharmacist prescribers are a versatile role. We demonstrated an innovative approach through integration and centralisation. We worked smarter. Huge role in quality improvement and clinical governance going forward. And I look forward to share with you the next project going forward. Kia ora.

**Nick Andreopoulos:**

Thanks Sarah. That was excellent. Thank you for keeping to time. I know it’s a little bit stressful but you did very, very well. Great. And we’re going to move on to Dr Jo Wrench who’s talking about ReCOVery: Designing an allied health led model of care for post-acute long COVID.

**Dr Joanne Wrench:**

[*Visual of slide with text saying ‘ReCOVery: Designing an allied health model of care for post-acute (long) COVID-19’, ‘Dr Joanne Wrench, Manager, Psychology, Leigh Seidel-Marks, ReCOVery Clinical Lead, Jessamae Pieters, Neuropsychologist & Brit Gordon, Chief Allied Health Officer’, ‘Austin Health’*]

Thank you very much for having me. So I’m going to be talking about a program that we developed at Austin Health earlier this year. If you want to pop the next slide on for me.

I think most people are very familiar with what post-acute COVID or long COVID is but just a bit of a reminder that the definition from WHO is that it is a condition that is present at least three months post having a COVID infection and has a range of symptoms that we cannot find any other cause for. So effectively it’s a diagnosis of exclusion.

Research is still emerging and so the question comes up as well what can we do to support people who are experiencing these persistent symptoms. There are a range of consensus recommendations available and I’ve popped up a couple from the UK and Australia. And effectively what they are suggesting is good rehabilitative processes and practices with a focus on multidisciplinary teams including allied health and supporting people to gain functional improvement and return to valued life roles and quality of life improvements. There’s also a focus on self-management. And I think these recommendations really strongly align with allied health goals and services.

One of the issues that we face is one of scale. So the estimates of prevalence vary wildly and it is pretty unknown in the Australian and I’m assuming New Zealand context too in the sense that we have a highly vaccinated population and also due to changes in variants as to what the prevalence might be. But even at that lower end of four or five percent this is looking at over in Australia 400,000 people nationwide and in Victoria where we live 100,000 people which is the same number of people who currently have cancer.

Not everyone’s going to need tertiary level care or allied healthcare and the question that we have now is how do we make sure that we provide access to high quality care for those people that are going to benefit the most. If you can pop the next slide up.

So at Austin we started to have a think about this last year and developed a model of care that is allied health led and meets the current guidelines for providing support for people who have long COVID. This has involved a lot of work to think about how we can support the most people that we can and also triage people effectively through automatic systems. And this has meant that we do as much as we can by getting people to fill things in online and stratify care to those people that need it and we also do a lot of our work on telehealth to maximise our reach.

Because we still don’t really have good data and evidence around need and outcomes in this population we’ve made sure that we have set up a system that is data and research aligned and we have partnerships with universities to ensure that throughout this process we can evaluate our model. Next slide please.

So what does it look like? Well we start with a referral process and this has involved us contacting every patient who has come through Austin Health, which is over 4,500 of them, over the time of the pandemic. And we send them a text message to check whether they have any ongoing symptoms and would like to receive care and then we also take referrals both internal and more recently we’ve opened up to GPs. And staff of our organisation can also self-refer.

Basically this is like a giant funnel and that’s because when you’re looking at 4,500 people you’ve really got to think about how you’re going to triage people effectively into the service. And so our initial triage is actually done online. We have developed a recovery tool that is a triage tool that looks at symptoms and a range of other important factors and that is filled out on REDCap by patients individually and they are offered support and translation if they need it but the vast majority of people do this independently. And this automatically scores and assigns people into mild, moderate or severe categories. The mild patients get self-management tools so we don’t have to use clinician time to support that pathway. And those people with more severe symptoms then start – this is the first time they would actually meet a clinician and we do a range of standardised assessment tools to support allocation into relevant disciplines.

And I’ve popped up the disciplines that we have there. These are not all full time staff and there’s varying allocations of EFT across that team. If you could pop on the next slide.

I’m not going to dwell on this. I’m happy to share the slides so people can have a look at the tools. But these are the tools that are done at each stage. So we have the triage which is the ReCOVery tool and then the standardised measures that are done when people first enter the service and then again when they finish up. And that will help us evaluate our impact. Today I’m presenting the triage, that first level, because that’s the data that we have at the moment. So if you could put the next slide up for me please.

So this is some preliminary data that we’ve had. The majority of the service we’ve provided has really been over the last three months. It has taken some time to get this set up and with recruitment difficulties that I’m sure lots of people are facing to get the full team on board. This information is a few weeks old now. We’re probably a bit higher than this. But we’ve sent over 4,000 text messages to our patients. We have about a 40% response rate which is not bad considering some of these people had COVID over two years ago. About 250 of those are reporting ongoing symptoms and then we have a range of people that have come in through our referral pathways as well.

From our triage assessments – and I’ll present data on roughly the first 200 that have come through our service – what you can see is that the vast bulk of people do triage as having moderate or severe symptoms. And I should point out that of course this is not a population based study. This is a clinical piece of work and so obviously there’s going to be sampling bias in this, that we do this to be able to provide clinical care. And so people who have more severe symptoms are going to be more likely to complete our questionnaires. And certainly as we’ve moved to GP referrals what we’re finding is we’re really skewing very much into the severe end. So GPs who refer to us tend to refer people who triage as severe. Next slide please.

So just a little bit of initial data that we’ve pulled together to date. I think what we’re seeing really is a very similar pattern of demographics to what some of the bigger overseas studies have found. We do have a predominance of women in our sample. The vast bulk of them were vaccinated when they contracted COVID and the majority who weren’t vaccinated contracted it prior to being able to have a vaccine. We have a lot of healthcare workers once again because we have quite a number of people who we’re seeing back who had it in 2020 when in Victoria certainly we had large outbreaks that impacted our aged care and healthcare sectors. And you’ll see the vast majority of our patients are in the prime of their working life. So these are people who are working and studying and quite a number of them, 15%, have had to stop work or change their work as a result of their ongoing symptoms.

What we have found is that COVID has had a significant impact on people’s quality of life and their physical and mental health. So when we have a look at the impact and the change in quality of life and mental and physical health scores they significantly reduce. We’ve also had a bit of a look at are we sorting people correctly through our symptom triage tool and the answer so far is that it looks like we are. So that graph that’s up there just shows how it relates the quality of life and physical and mental health changes to how we’ve triaged people. And what you’ll see there is that those that were triaged as severe have the biggest changes and those are really big changes in quality of life score. So that’s on a zero to 100 scale. Next slide please.

What is the symptom profile? So these are the top ten symptoms that people report at a moderate to severe level. I don’t think these are going to surprise anyone. But I guess you can see how the symptoms really map on to areas that allied health can provide support and care for. And then I’ve just popped a couple up on the right there. They’re not our top symptoms but they’re also highly impactful and I think really interesting from an allied health perspective and intervention perspective. I thought 12% of people having swallowing problems was actually really high and then that loss of smell and taste as well. If you can pop the next slide up please.

**Nick Andreopoulos:**

You’ve got about 30 to 40 seconds Jo.

**Dr Joanne Wrench:**

No worries. I’m right at the end. So we’re just at that point now of actually evaluating the impact of the service as people come towards the end of it. I’ve popped up a couple of quotes there. By far what we’re finding anecdotally is that people are so grateful to finally receive a service. Many of them have not had access to any allied health or intervention, some of them for a couple of years. And we are seeing people able to return to life roles and to work.

One of the issues that we have in Australia is equity to access and that means that really there’s a few of these clinics popping up but there’s no standard of practice and it’s certainly not accessible to everyone equitably across our state or the country. The other thing I think that really is imperative that we do now is to evaluate and understand the value that we’re adding through these clinics and to make sure that we’re seeing the right people at the right time. And that links in to this issue of sustainability over time as COVID numbers continue to rise and we potentially have large numbers of people needing to access our care. Thank you.

**Nick Andreopoulos:**

Thanks Jo.

Now I’d like to pass on to Jolene Hunter who’s going to be talking about allied health welfare, responding to the waves. Over to you Jolene.

**Jolene Hunter:**

[*Visual of slide with text saying ‘Allied Health Welfare’, ‘Responding to the Waves’, ‘Jolene Hunter’, ‘Clinical Coordinator’, ‘Canterbury Hauora Coordination Hub’, ‘Health Welfare Team’, ‘Te Whatu Ora Health New Zealand’*]

(Speaking Māori language)

Kia ora everyone. My name’s Jolene. My role here is the clinical coordinator of the allied health welfare team within the Canterbury Hauora Coordination Hub. I am a social worker by trade is what I like to say. Next slide please.

So coordination hubs were set up across Aotearoa with a focus on equity. We knew that many of the people who were going to be affected by COVID won’t have a doctor or wouldn’t be enrolled with a medical centre. So in Aotearoa to access primary care you have to be enrolled to get it subsidised otherwise it’s a very expensive thing to do.

So within the hub we have an admin team and we have a nursing team. They are responsible to contact everyone who’s unenrolled to complete their health checks and support their needs while they’re isolating. The Canterbury Hub was lucky enough to have Rose Henderson who’s the Director of Allied Health or one of the Directors of Allied Health here. So part of setting up the initial service she identified the need for potentially social work support as an allied health component to the work that was going to be undertaken. So while the nursing team was focused primarily on the unenrolled population the allied health welfare team focused on addressing the wider population who were going to have barriers to accessing the support pathways that had been set up to help.

So when I was working on a scoping project around social work and health a while ago I developed a framework that I’ve used within the context of setting this service up which we had to do very quickly. And it also supports the way social workers and allied health profession supports health which can be sometimes really difficult to explain. So when creating the themes for all the tasks that others valued about social work within health it became clear there were some themes that developed. I call them now the five C’s. I’ve worked a bit with colleagues to develop it further. Next slide please.

So the five C’s of health social work. So we’re a team here of three social workers and up to six allied health assistants at various times. Staffing has come and gone over the last six months. But we work with complexity and we utilise the skills of communication and coordination with a goal of connecting people to supports and resources. And we always have that cultural lens particularly here in Aotearoa New Zealand. We really are aware of the inequities that exist in health so we’re looking to connect people to cultural supports and also responding and working in a culturally sensitive way.

So we’ve been working in and across Government, a collaboration, particularly here in New Zealand with the Ministry of Social Development. We’ve created a safety net, an advocacy, referral and escalation centre for anyone who requires support while isolating. So we have connected across the health system to ensure basic needs are met and if needed we do assessments and coordination for the alternative accommodation for people who can’t safely isolate at home. Next slide please.

A lot of you would have seen this before but it has really been part of the heart really of what we’ve developed here in Canterbury. Equity was the focus. We hear a lot that everyone should be treated equally but often that means that inequities are ignored. So while equity is important and it helps with some of the underlying issues we have really tried to focus on social justice. And even the service being set up was part of that because we removed that fence by having a service focused on the people who are unenrolled and unlikely to get the healthcare they may have needed. Next slide please.

So the numbers I’m about to share are around from the 15th of December to the end of May. We had a huge wave then and we have just finished another one now. So our team, the health welfare team, have connected with over 1,800 individuals and whanau and family during that period of time. So it would be in the thousands now. Five hundred of those referrals were direct referrals from general practices for community, from primary health from the hospital. The rest of them were what we call our safety net checks and those ones were everyone who got signalled within the system as needing welfare our allied health assistants would ring and check that they received the support that they needed. We had about 10%, up to 10% of our referrals were disability related particularly the deaf community. We had a number of referrals for support to help them navigate the systems and communicate their needs. Next slide please.

So if you think of a focus on equity I think that I look at this slide and I feel like we reached the target groups that we were hoping. Inequities in health in Aotearoa New Zealand for Māori and Pasifika are really well documented. And so in Canterbury the Pasifika population make up just over 2%, Canterbury and Māori almost 8% and Asian 6%. So I feel like this shows that our service was able to focus its resources and supports to the populations we were most hoping to reach.

Of note was the Pasifika population. And Canterbury had a really large wave early on and what that showed was their usual support networks went down all at the same time. The second wave that we’ve had we’ve had a lot lower numbers of Pasifika whanau. And of note was the Asian and Pasifika populations that we supported. A lot of those and along with the deaf community it was language barriers. That was meaning that the needs they had they weren’t able to communicate or advocate appropriately so our team got involved to support them through that. Next slide please.

So two thirds of our referrals out. So we did a lot of connecting which was one of our key roles. We created some really early relationships with kaupapa Māori services which are services that are focused on a Māori approach responding to the need and Pasifika services which meant that we were able to respond really quickly to those referrals and keep them connected up appropriately. So those relationships are crucial and work when you’re working quick to build a service to respond. Next slide please.

So implementation and translations to practice. So I think one of our key learnings here was that utilising allied health assistants allowed us to meet a huge work demand. What we did is created triage scripts which allowed the initial engagement to be consistent and in addition to the basic needs and other welfare needs while we had this often invisible population on the phone we checked if they needed employment support and what other support needs they needed. So the allied health assistants would triage and escalate to social work anything that had a level of complexity and then social workers would then refer back to our allied health assistants to complete referrals or do research of topics that were needed if we were looking for a particular pathway. And while working virtually has some challenges utilising emails, phone calls and texts has meant we were able to respond to a large amount of people and we’ve been able to check and support them. Next slide please.

So collaboration. No. So we are the service that completes the assessments for people who need what we call alternative isolation accommodation. So that can be somebody who’s just been on a trip who has run out of money and maybe they were backpacking and they’re about to fly home, and now they’ve got no supports here, or someone from the City Mission or of no fixed abode or in shared accommodation. So a wide range of people. For very vulnerable people socially and medically we were really amazed to watch people thrive when you meet their basic needs and you add a layer of emotional support on top of that. We saw huge improvements in that seven day period when we were caring for people. People from hospital with AOD who made some real life changes to improve their outcomes while they were in our alternative accommodation and many people who had their first positive experience with the health system.

So the emotional layer of it was about problem solving, it was about reassurance and about creating connection. So those daily phone calls were a great success for people. It isn’t rocket science I suppose but a bit like Maslow’s theory, if we address the most basic of needs for people and layer on top a layer of emotional support to the socially isolated it can create real opportunities for change and connection. Next slide please.

Collaboration. So we had multiple Government agencies coming through for us in our initial time at the Hub and they were there to support if the need arose. But by far our most successful connection was with the Ministry of Social Development, particularly a work and income manager and case manager sat in our office. So while relationships are really key to advocating and connecting people in complex situations and there needs to be a spirit of collaboration what has made by far the biggest difference is that practical application of co-location and having people available. Last slide please.

**Nick Andreopoulos:**

Great. You’ve got about 30 seconds.

**Jolene Hunter:**

Great. So next steps. We are running some pilots here at the Hauora Hub. We are looking to take pressure off the hospital system by supporting again the unenrolled population. We get a daily report from the emergency department on who’s coming out of hospital who doesn’t have a primary care provider and providing assessment and support and connection for them. And we’re also supporting the hospital system using the framework that we’ve built around our alternative accommodation to offer people who are coming out from hospital with complex discharge plans, to offer that seven day piece of support and piloting that.

So while the New Zealand Government set up national guidelines for hubs they actually allowed us to offer a local response which in Canterbury has meant that we’ve been able to support many of the disconnected and isolated individuals and whanau across our area. So that’s been a real privilege for our team and taking something that was a difficult situation and turning it into a service that’s addressed equity has been definitely a real privilege. Kia ora. Thank you very much.

**Nick Andreopoulos:**

Thanks Jolene.

Moving on we’ve got Kate Palmer to talk about Allied Health COVID Community Navigator Service. Over to you Kate.

**Kate Palmer:**

[*Visual of slide with text saying ‘Allied Health COVID Community Navigator Service’, ‘Presenter: Kate Palmer’, ‘Role: COVID Community Navigator’, ‘Organisation: The Royal Melbourne Hospital (RMH)’, ‘Acknowledgements: Michelle Lin, Genevieve Juj, Melissa Rixon & The Royal Melbourne Hospital staff’, ‘We would like to thank our Medical, Nursing and Allied Health colleagues for their ongoing contribution to the COVID Community Navigator program’, ‘The Royal Melbourne Hospital’*]

Thank you. Good morning. Hopefully my voice holds up. I am Kate Palmer. I’m a physiotherapist and I’m currently working in the COVID Community Navigator team. Today I’ll take you through a pilot program that we ran at Royal Melbourne Hospital called the COVID Community Navigator Service. Next slide please.

Next again. So the Royal Melbourne Hospital is a major metropolitan tertiary hospital which was designated as a COVID-19 streaming hospital and has firmly remained at the epicentre of the pandemic in Victoria.

In September 2021 in response to rapidly rising COVID presentations our allied health department implemented a pilot program called the COVID Community Navigator team or CCN. The program was spearheaded by allied health clinicians and aimed to create additional surge capacity in the ED to support COVID-19 patients to return safely home.

In November 2021 the program expanded to also service the wards to meet the changing needs and challenges of COVID patients presenting to the hospital. So our role includes discharge planning, so facilitating safe and efficient discharge home or to alternate accommodation such as hotel quarantine. We also provide assistance for the broader allied health team, nursing, medical teams on COVID positive wards to help with discharge planning. We provide education and symptom management, on how to isolate correctly in the community. We provide practical support such as food and medications. We link people in with community follow up such as our COVID home monitoring program, virtual social work and mental health networks.

We also play a role in end of life care, so working to gain exemptions with our executive team, public health unit and coordinating logistics to allow family members to come in and visit their COVID positive family member that has reached end of life care. Next slide please.

So initially the patients being referred to our service were typically younger, so kind of under 50, and presented with a range of symptoms but many were very anxious and distressed about the potential progression of their COVID symptoms. So I’ll take you through a bit of a case study that we would typically see in an ED.

Miss X was a 22 year old female, came in with respiratory symptoms on a background of asthma. She tested positive to COVID in the ED, was very distressed about needing to isolate alone with limited support.

We received a referral from the medical team to facilitate discharge home on the medium risk pathway which I’ll take you through in a few slides. So we provide education and reassurance about symptoms and recovery both verbally and through our handouts. We also did a bit of troubleshooting with her to make sure that she did have support, so her mum was able to drop her off food and medication if she needed them. We organised follow up, making sure that she was linked in with a GP. If she wasn’t we would have organised a GP that she could be linked in with. We also put in a referral for our COVID home monitoring pathway.

We provided dry food and frozen meals to ensure that she had enough food until her mum was able to drop off food for her, provided education of isolation requirements. We gave her a thermometer and pulse oximeter and ongoing referrals through our virtual social work clinic to provide some counselling and also link her in with some Centrelink support. Initially our service also had its own COVID bus so we organised transport for her home.

So more recently the patients being referred to our service are becoming more and more complex. The majority of our patients being referred now are over 70 and have multiple comorbidities and immunosuppression. Next slide please.

So in terms of addressing health inequities we provided written education packs. All our packs were translated so they were accessible for culturally and linguistically diverse patients. We facilitated the social work referrals and mental health support contacts. We provided essential equipment such as thermometers, pulse oximeters, N95s, clinical wipes. We avoided unnecessary hospital admissions by providing timely care to avoid additional days in hospital. So our ED treating time reduced from 600 minutes to 209 minutes within three days of the inception of our COVID Navigator Service in ED.

We also provided food and transport vouchers, emergency food supplies as I mentioned before, and facilitated access to the Government crisis payment.

We set up patients with COVID home monitoring programs and also facilitated transport for patients to our quarantine hubs and our homeless COVID positive facilities. Next slide please.

So in terms of discharge pathways there were three. So the low risk pathway where we would ensure a patient was linked in with a GP and they organise their own follow up. Then there was the medium risk pathway. So we would put in a referral for COVID home monitoring where they would get a daily phone call. Our high risk pathway where they would either get twice daily phone calls or someone visiting their house through our hospital in the home program. So the low risk pathway was about 35% of our referrals. Our medium risk pathway was about 25% and high risk was about 7% of our referrals.

So the COVID Navigator Service has changed the way we manage COVID patients and streamline care at the Royal Melbourne Hospital. This pathway has also become a model for COVID care across Australia and has funding from the Victorian Department of Health. So it’s been a very successful program.

Thank you.

I’m done early.

**Nick Andreopoulos:**

That’s great. Thanks Kate. You saved us a couple of minutes actually which is really good.

**Kate Palmer:**

You’re welcome.

**Nick Andreopoulos:**

We’ll move on now. We’ve got Associate Professor Christian Barton here to do his presentation on the GLA:D to provide high value care for people with osteoarthritis. Take it away Christian.

**Associate Professor Christian Barton:**

[*Visual of slide with text saying ‘GLA:D to provide high value care for people with osteoarthritis’, ‘A/Prof Christian Barton’, ‘GLA:D Australia program co-lead’, ‘La Trobe Sport and Exercise Medicine Research Centre, Melbourne, Australia’, ‘Department of Physiotherapy, Podiatry and Prosthetics and Orthotics, School of Allied Health, Human Services and Sport, La Trobe University, Bundoora, Australia’, ‘La Trobe University’, ‘Sport and Exercise Medicine Research* Centre’]

Thank you very much. Well done Kate getting through that very quickly. Thanks for the opportunity to present today on what I hope will start some conversations with funders going forward about how we can improve the quality of life of people with osteoarthritis. So next slide please.

I’m going to talk to you about three things. Firstly what is key effective first line care which we’ll see very much should be led by allied health professionals. We’ll talk about the evidence and guideline practice gap which we’ve been exploring for a number of years and trying to address. And then I’m going to talk to you about a program which we embarked on implementing back in 2016/2017 and had a lot of challenges through the pandemic but also pre-pandemic and ongoing. Next slide please.

So if we talk about the evidence for first line care for osteoarthritis most of it centres around exercise therapy and somewhat education. And I put this slide up. It’s a very busy one which shows standard mean differences for exercise being provided to people with osteoarthritis. So you’ll see the diamonds there which is the SMVs. As you go down you’ll see they stay pretty stable all the way through and what you notice changes is the confidence intervals get smaller and smaller. So what that is is the accumulative evidence. So as we go through each trial is added and by the time you get down to the 2012 you can see the effect size is moderate and consistently moderate.

What’s really important about this graph it stops at 2012. We probably could have stopped it at 2002 because as of 2002 there was sufficient evidence that we should in our health system be providing people support with osteoarthritis, supporting them with exercise therapy. Unfortunately that’s still not happening today which I’ll talk a little bit more about.

The other really important thing about providing patient education on exercise therapy is it’s highly cost effective as well and as we’ll talk about shortly can reduce the cost of surgical interventions too. So it’s highly cost effective from a quality of life and productivity perspective but also can reduce health system burden as well. So next slide please.

So I just want to go the person with osteoarthritis. And it was really nice hearing Martin talk about the complexities of the individual and also the complexities of our health system and society we live in and hopefully this slide will illustrate that a little bit for people about osteoarthritis. And this is some research and evidence around knee and the program we’re going to talk about GLA:D is for people with both hip and knee but a lot of the research I’ll chat about today is dedicated to knee.

So what we see in people with knee osteoarthritis, we know exercise and we know physical activity is very beneficial for their condition but also for managing comorbidities, yet just 17% of people with knee osteoarthritis meet the physical activity guidelines. And for context in the Australian population there’s probably around 35% to 40% would meet the physical activity guidelines. So less than half. If we talk about appropriate care, and this is engaging with first line care like exercise, education, weight management, less than half would be seen to engage in any appropriate first line care and then when they do engage with that care it’s usually not dosed adequately. So the exercise interventions would be too short, not supported enough, weight management may be poorly supported, may not have the support to actually lose weight etcetera.

There’s lots of beliefs of people. So if we go to intrapersonal factors beyond their behaviours is we have this pervasive belief in society that osteoarthritis is a wear and tear disease and that leads to society, people with OA, doctors, other health professionals fearing pain and damage as a result of doing exercise and this pervasive belief that exercise could be dangerous. And many people with osteoarthritis and health professionals who reinforce this often believe that surgery is inevitable. Next slide please.

So if we look at this pyramid we can see education, exercise and weight control are recommended first line care for all people with osteoarthritis across all guidelines. There are a number of other second line interventions, pharmacological pain relief, many other passive treatments. And surgery really should only be provided to a few people and when we talk about surgery we’re talking about joint replacement surgery. So things like arthroscopy are not recommended in guidelines because they don’t outperform a sham. If we have a look at what happens in GP practice though, in primary healthcare, we see that actually you’re around about three times more likely to be referred to the surgeon if you present to your general practitioner for osteoarthritis than you will be if you get referred to a physiotherapist or any support for exercise. And for those dieticians out there it’s actually less than 1% getting any referral for dietetic support. And in fact opioids, you’re probably around three to five times more likely to be prescribed an opioid to manage your osteoarthritis than you are to receive allied health care. Next slide please.

We’ve done lots of work in this space and I could talk about this for many hours but just to highlight a few key things from some of our qualitative work. And this is a qualitative study talking to advanced practice physiotherapists. It’s really challenging to try and get people on the page of first line care because they’ve been told by medical professionals, GPs, surgeons that they’ve got bone on bone, their joints are crumbling, they’re going to need a knee replacement. But then the other thing we’ve got to consider is that GPs and surgeons are also often frustrated about the type of care that’s provided by allied health professionals as well. So we’ve got allied health professionals providing low value care, passive treatments that may not actually benefit people. And so that quote at the bottom, ‘I find it really hit and miss with the physio that you’re getting’ is a really good one to kind of consider for us. Next slide please.

We’ve done a lot of background work in terms of understanding where the barriers might lie in workforce capacity. And so without going through the reams and reams of data that we have I’ll put up this slide with some simple data and this is looking at using the Com-B model to understand potential capability and motivation barriers of physiotherapists to deliver first line care. And if you look at capability and if you have a look at the second line there about people being trained to deliver education and exercise following guidelines you’ll notice that actually less than one in two of our workforce believe they’ve actually been trained to provide the care required by people with osteoarthritis. And if we go down to reflective motivation, the second line there in terms of confidence of delivering this care to unmotivated patients which is very common, we see a similar trend. In fact less than one in two again believe they’ve actually got the capabilities of providing that care to people.

In terms of awareness of guidelines it’s around one in ten actually even could name a guideline in our workforce. So there’s a lot of workforce limitations that we need to try and address. Next slide please.

So what’s the cost? And I could go into lots of data and I know Haxby Abbott’s going to talk about some of this a little bit later hopefully. But if we look at the cost of joint replacement surgery for hip and knee osteoarthritis it’s estimated to exceed about $5 billion by the year 2030. If we just invested a fraction of that on top of the $5 billion that we’re going to spend on joint replacement surgery into allied health care we could make a huge, huge difference. So in working with some researchers at Monash Uni led by Ilana Ackerman we’ve done some modelling around what happens if we spend a little bit of money on first line care. And conservatively just in knee OA alone we would expect that we’d save more than $300 million a year just by providing first line care costed at somewhere between $1,000 and $1,500 for someone who may go on to have joint replacement surgery if they don’t receive that care. Next slide please.

So this led us to GLA:D. And so GLA:D’s a not for profit initiative and what we’ve looked at doing is trying to implement education and support for physios and now exercise physiologists. They go to their clinic, they deliver the program as intended to try and reduce the healthcare delivery variation, and the most important thing we have is we have a data registry of more than 12,000 people now which we can look at the data and evaluate outcomes. Next slide please.

And just in the interest of time we have a huge team behind it. Next slide please.

And we now have more than 600 sites across Australia, many tutors and around 2,500 allied health clinicians providing the program. Really importantly it’s in all states and territories but only about 10% of the provision is actually in the public health system. So that’s a big limitation. Next slide please.

Briefly a whistlestop tour through some outcomes of our initial program evaluation. Three in four people report clinically meaningful improvement in pain or quality of life and of those desiring surgery which is about one in five people, three in four of them have not had surgery and no longer desire surgery at 12 month follow up. So some really, really big improvements. Next slide please.

And this brings me to the final point. What we have is a program and developing workforce to deliver a program that can reduce a health system burden but when we look at program evaluation, talking to patients, talking to doctors, talking to physios, our health system simply doesn’t support it. It’s easier to access first line care following a surgical intervention than it is to actually access first line care in an attempt to avoid that joint replacement surgery. So this is a really important thing for us to consider. Final slide please.

I can’t see my slide but I assume it’s up. So key take home messages is we have first line care that we can help people with osteoarthritis. We have mechanisms to implement it and train our workforce. Unfortunately we don’t have the health system funding to be able to support that implementation. So my call to anyone in the room that can influence MBS, PHN, private health, we really need to get better funding for programs like GLA:D. And it shouldn’t stop with osteoarthritis. There’s many other allied health initiatives that we simply just need better health system funding for. So thanks for everyone for listening. I look forward to any questions that might arise.

**Nick Andreopoulos:**

Thanks Christian. Sorry about that dropping out. That was just a little glitch here I think at Department of Health. Great. I’m going to throw back to Anne-Marie and Martin now. I’m going to stop sharing my screen and presenters if you can all turn your videos back on and just unmute when a question is being asked of you. And I’ll make sure that everyone can see you in a gallery view so you’re all there together. Over to you Anne-Marie and Martin.

**Dr Martin Chadwick:**

All right. Well kia ora. Well done everyone. First of all it’s a little bit hard to take on board all of that information but I do have a couple of questions I’d love to go through here. Just trying to work through what’s been coming through the chat as well. But Sarah first up. Just really want to get a sense of what you presented there and if you’re able to think about how can you capture the quantifiable difference from inequity. Because there was a lot of anecdote that you were able to get through. Is there anything that you’ve been able to really capture to say you’ve quantified the difference from an equity perspective this way?

**Sarah Alani:**

Well the whole idea of a centralised population approach is to have a tight understanding of who we actually are looking after in the community and try to break down those barriers and improve their access. We chose different methods of engaging and that’s emails using the clinical hub’s whanau HQ, and we regularly ask for feedback from all our patients and we receive plenty of that. In terms of hospitalisation because of that tight engagement while we don’t have exact figures because it’s hard to quantify if they have been admitted because of COVID or complications from the other comorbidities, but probably out of the 5,000 I can probably put ten of them that have been admitted to hospital. So I’ve got a very good understanding of who’s gone to hospital because of that tight engagement with the community.

**Dr Martin Chadwick:**

Great. Thank you for that. Jo I have to come to you because long COVID is something near and dear to my heart leading the piece of work within New Zealand. We’re about to have our clinical guidance come out hopefully within the next week or two. But my question is how are you funding it?

**Dr Joanne Wrench:**

Good question. The funding arrangements are currently internally through COVID based funding for our service but they are not long term or sustainable in their current form. And that means there are some conversations obviously that have to happen at a Department of Health level in terms of what the longer term options are for services like ours. In Melbourne there’s a few others as well that are running in tertiary hospitals or largely is my understanding internally funded. So that’s not going to fly long term I think and it’s unknown.

**Dr Martin Chadwick:**

Okay. Good. Snap. I think we’re in a similar situation. So Jolene a question for me, and having been reasonably close to the COVID care in the community in the past, magic wand? What would you carry on post COVID if you were given the opportunity having had this experience?

**Jolene Hunter:**

I think that the biggest thing that we would carry on is being a resource for the population who struggles to access the key services. The unenrolled is how we define that cohort and obviously it’s made up of different groups of people. But the highly vulnerable, we discovered a whole group of people through our alternative accommodation who are on the edge of homelessness. We discovered real inequalities for Māori that are in really tenuous housing. So I think we would continue with that real focus on the group of people who most struggle to access. And the unenrolled allows us to not step into other people’s spaces but also allows us to have a really clear focus. So definitely that, that ability to be a resource for health, and the nursing team and us have worked really closely. Couldn’t do it in a health system without both but we would continue to focus on that group.

**Dr Martin Chadwick:**

Great. Thank you. And now a question. I’m going to repeat back what I heard to make sure that I was hearing it correctly. So what I heard was that someone who goes to a GP alone as opposed to going through a physio in the first instance is three times more likely to have surgery and is three to five times more likely to be prescribed opioids. Did I hear that correctly?

**Acting Professor Christian Barton:**

So three to five times more likely to be prescribed opioids. Absolutely. Imaging is another big one. Much more likely to go for imaging. Not have surgery but three times more likely to be referred to the surgeon for opinion and then what that leads to. We know there’s long waitlists to see a surgeon in public health, in the public health system. Many people are waiting a year or two and just sitting on a waitlist without accessing allied health, possibly taking opioids, other things. So it’s a huge problem.

**Dr Martin Chadwick:**

And the other one which I think is a little bit of the unspoken is how do we get rid of low value care? Because surely the hot pack is a good thing.

**Acting Professor Christian Barton:**

So I think we need to fund high value care. Plain and simple. So if we talk about the funding problem in Australia at the moment GLA:D as an example is a group education and exercise program. There’s no Medicare mechanism to fund that as a program. Our current funding for allied health services with extended primary care funding is really, really poor. And so we just need funding for better services in our public health system which could also be delivered in private clinics as well.

**Dr Martin Chadwick:**

Great. Thank you. I’m going to hand to Anne-Marie. Do you have any questions there?

**Dr Anne-Marie Boxall:**

I do Martin. I’m having a bit of a technical problem. I’ve lost video and the questions. But I’ve got a question for Kate in particular. And Kate I was listening to your presentation and I was wondering about the use of allied health assistants or a role for allied health assistants in your service. Any thoughts on that?

**Kate Palmer:**

Yeah. So we did have allied health assistants as part of our team. More recently we’re almost merging to kind of a discharge coordination model. So we’ve found having experienced clinicians in the role to be able to work as that discharge coordinator has been really helpful. We’ve got quite experienced clinicians. But that’s not saying that allied health assistants can’t be trained up to be able to work in that discharge coordination role. But yes initially we did have allied health assistants but not currently.

**Dr Anne-Marie Boxall:**

That’s great. Thank you. Martin I’ve also lost access to the questions so I’ll hand back to you. And we’ve probably got time for one or two more questions before we have a break.

**Dr Martin Chadwick:**

Actually as I’m looking at the time we’re at 1:07pm New Zealand time. So we were going to have a break from 1:00 o’clock New Zealand time to 1:10 or 11:00am Eastern time Australia to 11:10. So what I will do is first of all thank the speakers. Wonderful first up panel. That was really, really good information. I’m already struggling to get all of it down on my notepad. So I really appreciate the time you’ve put in to putting yourselves forward for this.

What I would also ask is that we do have a couple of questionnaires or a couple of interactive bits that we would like you to partake in. So Nick can I just have you explain what we’ve got that we want people to link in to if they can please?

**Nick Andreopoulos:**

So I’m about to post some links to answer the questions in the chat. So you can click through the link and just answer the questions. And essentially I think some people have actually answered them already. I’m going to put up the responses as they come through live up on the screen during the tea break so you can see what we’ve got as it live updates. So you’ll see that in just a few seconds. So if everyone could just answer the questions through the link in the chat. Not through the link in the actual shared screen but the link in the chat. Please answer there and then we will see everyone back in about ten minutes.

**Dr Martin Chadwick:**

All right. So just to be explicit where we’re at timewise, so we’re at 1:08pm. So I’ll tell you what. Why don’t you all log back in at about 12 minutes past 1:00 or for Australian Standard Time about 11:12 and then we’ll pick it back up again. So for the first panel thank you so much for your time, energy and effort and we’ll just take a brief break, go to the loo, get a drink and we’ll see you back very shortly.

So the little bit of the competitive side in me can’t help but noticing when I’m looking at the maps that New Zealand seems to be far outweighing Australia at the moment. Nothing to do with the potential technical glitches. But I’m going to lay claim at that for the time being anyway.

And good to see when we’re just looking at where we’re at where people are working, a good chunk policy and advocacy, hospital a good chunk, and private sector as well as research. So good to see the spread we have there. How are we doing Nick. Are we ready to go?

**Nick Andreopoulos:**

I was trying to think of a witty response to your New Zealand domination comment but sorry guys I didn’t think there would be a full option. So I’ll see if I can fix that. People can still put in responses. I’ll give an update when I’ve found a potential fix and then we can have a look and see who’s really winning at the end of the day Martin maybe.

Anne-Marie’s back so we can take it away from you Martin.

**Dr Martin Chadwick:**

All right. Good stuff. So just really appreciate everybody for the first session. So we’re ready to go for the second session. So we’re going to keep it – so for those that have logged on to the panel just know that we’re just trying to be really particular with our timing just to make sure that we do respect everybody’s time from that perspective. We will continue to monitor the question and answer function and we’ll make sure that we try to fire off some of the questions at the beginning there. But really keen to get your questions there and I know the panellists are trying to answer those as they go along as well.

So with that Nick I’ll hand back over to your very able hands and to lead us through the next session. So over to you please.

**Nick Andreopoulos:**

Great. I just wanted to double check Katrina Azer if you are in the webinar could you please just make sure your name is correct. Otherwise we will jump – no you are there. Great. We’ll start with you then if you’re ready to put your video on and unmute. And we’ll go with you Katrina.

**Katrina Azer:**

Sorry about that. I just had a technical glitch too. I’m not sure what’s happening today.

(Speaking Māori language)

So greetings to you all. I’m offering my warmest salutations. My name is Katrina Azer. I’m a primary care pharmacist and board member of the Pharmacy Council of New Zealand. I also wish to begin today by acknowledging the traditional custodians of the land on which you are present and pay my respects to their Elders past, present and emerging. I extend that respect to any Aboriginal or Torres Strait Islander people present here today.

(Speaking Māori language)

So today I’ll be speaking to you about telepharmacy and the value of integrating clinical pharmacists in general practice virtually. I think my presentation follows on nicely from Sarah’s earlier presentation at the beginning of the forum. So I guess a good segue on how can we increase access to those fantastic clinical pharmacist services. Next slide please.

So some of you may not be aware clinical pharmacy is a growing field in pharmacy practice. It is the branch of pharmacy that focuses on optimising medicines related outcomes through comprehensive medication management which not only enhances health outcomes but also reduces the economic burden of medicines and morbidity specifically for patients with long term conditions.

Although evidence does exist for clinical pharmacist integration into general practice and its effect on enhancing patient health outcomes the effectiveness of this integration virtually in light of a shortage of clinical pharmacists and funding constraints have never been explored previously. So an innovative approach was adopted to integrate a clinical pharmacist in general practice remotely virtually to provide pharmacist led telehealth or telepharmacy services to patients and advice to clinicians in a multidisciplinary, collaborative environment to enhance health outcomes for patients. Next slide please.

So the clinical pharmacist virtually undertook medicines optimisation activities such as medication reviews, medicines reconciliation post-discharge, medication counselling, clinical education to clinicians and responded to clinical queries both from clinicians and from patients.

So an analysis of the feedback qualitatively received from practitioners and patients followed up strongly supports the case for embedding a clinical pharmacist in general practice even if it is virtually. Prescribers reported reduced administrative task burden and better patient relationships. Nurses reported a reduction in time spent answering medicine-related patient queries and medicines reconciliation activities and repeat prescriptions were also referred to a pharmacist which allowed the pharmacist to review the need for continuation of therapy or the need for a medication review activity. And patients reported a better relationship with their provider, increased medicines understanding and therefore adherence to medications and subjectively some of them had improvements in biomarkers such as HbA1c or blood pressure which are markers of cardiovascular disease and diabetes control.

So obviously there are significant health system benefits to integrating pharmacists in general practice virtually as well as in person. Cost savings for the health system, sustainability for the health workforce as the burden on general practice is reduced, reduction in the burden of long term conditions through proactive care, increased patient access to pharmacist services and better patient outcomes. Next slide please.

So this model of care allows equitable access to clinical pharmacist services to remote, vulnerable, Māori and Pacific populations which would not have been possible physically due to the limitations highlighted earlier in the abstract. The equity in access means that clinical pharmacists can optimise medicines and health outcomes in vulnerable Māori and Pacific populations with long term conditions from anywhere they’re present. It allows integration between providers which is not limited by physical presence. In this scenario the pharmacist was present in a different city to the general practice. It is a novel and sustainable model of care which leverages the scope and ptoential of all health practitioners working together to enable better health outcomes for patients. Next slide please.

So from a policy or practice implication perspective clinical pharmacists are significantly under-utilised. They can significantly reduce the burden of chronic conditions through their expertise on the quality use of medicines, reduce medicine related hard and save health spending. Virtual or remote integration of clinical pharmacists providing pharmacist led digital health services is a sustainable strategy for the adoption of this model of care.

Another practice implication that I actually thought of now as we present is how telepharmacy allowed patients to connect with a preferred provider. For example Indigenous patients may prefer seeing an Indigenous provider who hears their culture and who they can connect with and therefore would be more receptive to advice from them. It is a signifciant enabler of equity. If this virtual model of collaboration is ingrained into health policy for the delivery of health services it removes the need for physical presence which can be a barrier to collaboration between the different disciplines in healthcare.

The levers that I would like to say that would support this change are funding for clinical pharmacists in general practice and their education, funding for telehealth and its expansion and wide adoption, and medication safety needs to become a priority with emphasis on data gathering about the quality use of medicines. We need a public policy for the quality use of medicines that recognises the value that pharmacists bring to reducing medicines related harm and enhancing medicines related health outcomes. As an example Australia has a national medicines policy led by the Royal Commission which recently recommended a $345 million investment for the integration of pharmacists in aged residential care facilities to optimise medication use in the elderly or aged population.

I also want to tie this presentation back to the opening remarks by Martin and Anne-Marie and add that if health systems need to make the most of every dollar spent considering a significant investment goes into funding medications it is only sensical to make sure they’re used wisely. And pharmacists are the stewards of medicine. They must be present wherever medications are used. Their presence in every setting will provide significant return on investment for money spent on medications. Their presence will reduce medication related harms, the cost to the health system and more importantly improve outcomes from medications, and that is what value-based care is. And so the main message here is that telehealth enables access to value-based telepharmacy services. Next slide please.

Na mihi nui kia koutou. Thank you all for listening. If you have any questions or similarly want to connect please reach out to me through any of those channels. Thank you.

[*Visual of slide with text saying ‘Thank You!’, ‘in’, ‘Katrina Azer’, ‘katrina.azer@gmail.com’*]

**Nick Andreopoulos:**

Thank you Katrina.

Moving on to Hannah Snelling on improving telemedicine delivery for Aboriginal people with diabetes related foot complications using virtual reality. And I did watch this video Hannah and I think it is excellent so I’m excited to put it up on screen a little bit later. But over to you.

**Hannah Snelling:**

[*Visual of slide with text saying ‘Training health workers with advanced technology to assess and triage diabetes-related foot disease in Aboriginal and Torres Strait Islander people’, ‘Hannah Snelling, Joseph Agius, Cathy Loughry, Ancret Szpak2, Zygmunt Szpak, Nell McMillan, Robert Fitridge’*]

Thank you. So my name’s Hannah Snelling. I’m a podiatrist currently working at the Royal Adelaide and Queen Elizabeth Hospitals in Adelaide, South Australia. I work within a multidisciplinary high risk foot team primarily in diabetes related foot disease and lower limb amputation prevention.

So today I’m going to showcase a project we’ve been working on over the past 12 months training Aboriginal health workers with advanced technology to assess and triage diabetes related foot disease in Aboriginal and Torres Strait Islander people. First slide please.

Before we begin I just wanted to acknowledge the traditional custodians of the lands on which each of us meet today. I’ll be presenting to you from Kaurna land here in Adelaide. Next slide.

So as we all know there are huge health inequalities between Aboriginal and non-Aboriginal Australians. Certainly this is the case when it comes to diabetes related foot disease. Aboriginal people particularly those living rurally or remotely are drastically affected by diabetes related foot disease which is the leading cause of amputation. Diabetes related foot disease is extremely complex and requires specialist care from a multidisciplinary team, a team that is not currently readily available in these rural and remote areas.

So a need was identified. We have our most at risk population living furthest from specialist care, often living in areas without a local podiatry service. Our solution which is funded by the Commonwealth is a virtual reality education package to train local health workers to assess and triage Aboriginal people with diabetes near their home communities. The education package offers interactive and culturally safe training developed by podiatry and Aboriginal Health in consultation with multidisciplinary stakeholders.

We’ve piloted our virtual reality clinic so far with Aboriginal health practitioners here at the hospital in advance of a full test program with project partners in rural, regional and remote South Australia. Evaluation will be based on both skill progress as well as practitioner satisfaction with virtual reality training. Next slide.

So to give you some context of the burden of diabetes related foot disease currently there are over 1.2 million people with diabetes in Australia. Diabetes related foot disease is one of the top ten major global causes for disability affecting 159 million people. This is 2.2% of the global population. Every year over 4,400 lower limb amputations are performed in Australia 80-85% of which are largely preventable with appropriate care and prompt referral to specialist teams. Diabetes related foot disease is estimated to cost $1.4 billion each year which could be halved with best care practice. Next slide please.

So to help address this problem we first implemented a telehealth foot service at the Royal Adelaide Hospital. The telehealth foot service connects the specialist high risk multidisciplinary foot team which includes podiatry, orthotics and prosthetics, vascular surgery, endocrine and others to the patient and their local health practitioner whilst allowing them to remain in their home communities. Telehealth also proved extremely important with the onset of COVID. We were able to continue servicing and monitoring patients living rurally and remotely who were no longer able to make the trip to Adelaide. Next slide.

So to really demonstrate just how significant the health inequalities are between Aboriginal and non‑Aboriginal Australians suffering from diabetes related foot disease Aboriginal people are up to three to six times more likely to experience a foot complication such as a foot ulcer and 38 times more likely to undergo an amputation. Aboriginal people experience higher comorbidity rates for example five times higher rates of chronic kidney disease. Aboriginal people have a far higher hospitalisation rate. This is five times higher for males and 11 times higher for females. This is even higher again, three times higher for those living in remote communities. Next slide.

So we went a step further and built on to our existing telehealth foot service and developed our virtual reality education software to empower and upskill local health workers to assess and triage patients on the ground. This package is funded specifically for our Aboriginal population to help address the health inequalities we see. We developed the modules using Aboriginal models and voice actors and in consultation with our Aboriginal and Torres Strait Islander unit at the Royal Adelaide Hospital to ensure a culturally safe environment. Next slide.

Whilst still in the evaluation stage so far the feedback has been extremely positive. The package allows immersive training in a totally controlled environment. It gives the user the ability to interact with the material they’re learning about. It also includes haptic feedback. So for example when palpating a pulse in the foot you experience that feedback through your hand controls. We are hopeful that the training package is received positively by our regional Aboriginal health services and can eventually be rolled out to the wider community long term. Next slide.

So to give you a sense of what the training program has to offer I’ve included a short video which takes you through our virtual clinic.

[START VIDEO PLAYBACK]

§(Music Playing)§

[*Visual of slide with text saying ‘Clinical Virtual Reality Training:’, ‘Managing Diabetic Foot Complications in Regional Clinics’*]

[*Visual of slide with text saying ‘Designed for Aboriginal healthcare workers practicing in rural communities’*]

[*The visuals during this presentation are of a virtual clinic waiting room with virtual patients as well as health practitioner examining patients virtually using VR technology*]

[END VIDEO PLAYBACK]

Thanks Nick. You can go to the next slide.

**Nick Andreopoulos:**

Just letting you know you’ve got about a minute and a half left Hannah.

**Hannah Snelling:**

Okay.

So these case studies are designed for any base level of knowledge and they range through from a low risk patient to a high risk patient. As you can see it also includes active and acute diabetes related foot disease with the presence of foot ulceration, infection and ischaemia. Each case study or patient includes protocol for a diabetes foot assessment, diagnosis and triage, action planning and escalation and referral pathways including telehealth. Next slide.

So currently we’re in the early stages of implementing our training package around the state to our three key sites in South Australia. We have upcoming visits to Yadu Aboriginal Health Service in Ceduna, Pika Wiya Aboriginal Health Service in Port Augusta and Moorundi Aboriginal Health Service in Murray Bridge. The virtual reality headsets and software will be kept onsite at these services for two to three months to allow Aboriginal health workers to upskill and train at their convenience. Evaluation and feedback will then be collected from these three key sites with a view to hopefully distribute the software to a wider community as well as develop further preventative healthcare measures in the future. Next slide.

Thank you.

**Nick Andreopoulos:**

Thanks Hannah.

Moving on to Liz Love talking about [2:29:46]. Over to you Liz.

**Liz Love:**

[*Visual of slide with text saying ‘Te Whatu Ora’, ‘Health New Zealand’, ‘Dietitian-led GDM telehealth pathway’, ‘Liz Love – Diabetes Dietitian, NZRD’*]

Hello. Thank you for giving me the opportunity to speak today. So my name’s Liz Love and I’m a dietitian and I’m working in diabetes in Canterbury in New Zealand. So today I’m going to present to you on a dietitian led pathway in the gestational diabetes group here at Christchurch Women’s Hospital and it’s a telehealth model of care that we have introduced post COVID. Next slide please.

Okay. So what are the problems and how did this project come about? We’ve had an increase in gestational diabetes prevalence in Christchurch and that’s obviously nationwide and it’s nationally as well. From 2019 to 2020 we actually had a 17% increase in prevalence. There was no increase in resourcing of physicians, obstetrics, midwifery and dietetics. The clinics were overloaded and there was only a certain capacity of clinics per week. Physician burnout resulted in one physician taking leave on stress leave. It was very unsustainable at the time.

It was a very hospital centric model of care as well. So a lot of appointments for these women were in a hospital setting. There were poor systems and processes. That was more around still paper documentation and little uptake of use of IT [2:31:16]. And around the same time COVID‑19 hit. So along with the lockdowns and the changes in levels something had to change.

So were these women being seen in the right place by the right people? Next slide please.

So just to give you an overview of gestational diabetes nutrition is the cornerstone management of gestational diabetes. Every woman in Canterbury who has gestational diabetes has access to a dietitian whether that’s face to face, virtually or via telehealth. And how the women are managed throughout the rest of their pregnancy, they’re either treated by diet, metformin or insulin as we’ll see on the way through. We’ve also done a study on equity with our women and Māori and the Pacific Island women are at higher risk of getting gestational diabetes. Their rate of efficient screening is only at 57-63% of our population. So a lot of these women aren’t getting adequate screeing for gestational diabetes so there may be a big group of the population that we aren’t even seeing because they’re not getting the screening for gestational diabetes. Next slide please.

So prior to COVID and the lockdowns [2:32:35] women to us, the diabetes and pregnancy team. Gestational diabetes is about 65% of all referrals through our diabetes and pregnancy team. The women were then invited to a group education session [2:32:49] so they had to attend hospital, it was a two hour session with a dietitian and the midwife, and then they had medical appointments throughout the remainder of pregnancy. So most women with gestational diabetes are diagnosed between 24 to 26 weeks pregnancy and we will see them every one to two or if not [2:33:07] monthly until they have their baby. Next slide.

So as you can see there’s sort of the three ways for women to manage gestational diabetes [2:33:22] or having to attend throughout the remainder of their pregnancy. So every woman who was diet controlled, one to two obstetric appointments and three to four physician appointments. If they needed treatment, the treatment pathways were either metformin and/or insulin. Next slide please.

And next slide again.

So in 2020 [2:33:57] it got started for eight months. Go back a slide please Nick.

So when this pathway started up it was an eight month trial. So the referrals still came in through [2:34:09] however over this time we have developed an online learning package for women coming in for a face to face group education session. There was at times poor uptake on this due to people not being able to attend the set times in the hospital or other commitments. We have developed an online learning package so the women can access all of this information online at home in their own time. And then we’ve also got the dietary management with the pathway with the dietitian. So if we click through please. So that health info page.

So in Canterbury we have a health information website and this is intended for use by the general public. It is a resource for health information and it’s been approved by local health professionals. It isn’t password controlled so anyone can access this page and we’ve developed a special diabetes package on this platform. So a lot of information around diabetes and gestational diabetes. The first there are three videos included in this package. So the first video is a just a general explanation of what is gestational diabetes. The second video and third video overtake what was done in a group education setting. So the dietary education is a midwife explaining the targets for pregnancy [2:35:18].

Referrals come through from the midwives where these have women have tested positive for gestational diabetes. They receive an email package. All of our women receive an email from their midwives for obstetric referral. So we’ve got all of the email addresses [2:35:41]. The first sheet on the page here is the glucose and food record and every woman we get to fill this out weekly, sometimes fortnightly. We also send them information on where to access [2:35:54], so for troubleshooting as well and how to test their blood glucose levels. The dietary information is in written form. There’s a blood glucose and record sheet. So the troubleshooting has tips around [2:36:09] glucose levels. There’s lunch ideas and a supermarket guide. So just further resources that women can access. Their midwife is also cc’d into this email education so they get the same amount of information. Next slide.

So those women remain diet controlled solely by the dietitian [2:36:31]. So the communications are via email. So the women weekly or fortnightly email in their blood glucose and food records to us and we give them a call [2:36:40]. The dietitian also determines when to initiate treatment and that’s based on their blood glucose levels, are they consuming [2:36:49] calories, carbohydrates, are they food restricting. And we also take into consideration the growth of the baby. If a woman comes [2:36:58] and they need treatment they are referred to the physicians and the midwives for further management and they will also have access to a dietitian in clinic. So that’s more hospital based. So those women who remain diet controlled throughout their pregnancy are managed through the telehealth model of care. Next slide.

So if we go back to the three pathways for women [2:37:17] reduce the physician and obstetric input for the diet controlled women. If we flick again Nick. [2:37:25] throughout their pregnancy. And they may only need an obstetrics appointment once at 36 weeks. For a lot of these women if everything is fine, the growth of the baby is absolutely fine, they are managed by their LMC and they don’t need an obstetrics appointment. So taking out two to six physician and obstetrics appointments throughout their pregnancy is taking a huge burden off our clinics and also for the women to attend these appointments. Next slide please.

So when I came into the role it had stopped due to a retirement and maternity leave and no increase in resourcing. For the last 12 months I’ve been in this role to review and develop the program. So in Canterbury we’ve had almost one third of gestational diabetes come through our clinic. So the GDM dietitian has had access to all of these women and what we’ve shown is that 28% of them have remained diet controlled, 16% metformin controlled and those needing insulin is around 54%. These numbers actually have changed in the last couple of years. So the diet controlled is actually up from 18% a couple of years ago and the insulin treated is down from about 60%. So less medical intervention for these women. So if we go to the next slide.

When we are trying to obtain funding which we’re doing at the moment we can look at the cost avoidance, the cost savings of this diet controlled pathway. So within a 12 month period we have saved upwards of 714 physician and obstetric appointments, new appointments and follow up, and cost savings of upwards of $240,000. And then [2:39:02]. Next slide.

So the biggest changes to the [2:39:16], we’ve gone from group education which has been face to face and [2:39:20].

(Inaudible audio)

We actually haven’t had anyone needing this face to face option so far. So these women are no longer requiring three to four physician appointments and there’s reduced or no obstetric appointments required as well. It is dietitian led. So allied health has taken over quite a physician and midwifery [2:39:57]. We’ve gone from a hospital centric to a patient centric model of care and patient led learning at home in their own time. The majority of our women are working or have children at home and coming in for set appointments at the hospital was just not working for them, alongside the other challenges of parking and when we are in different levels, so no visitors or children are allowed at the appointments as well. So we are having very positive feedback from the women. A lot more of our patients are used to the idea of telehealth care for a lot of their appointments.

Also what’s happened within our department is that the midwives are now prescribing metformin under the supervision of a physician. So this is further reducing the [2:40:36] on clinics. And in the future [2:40:41] will be prescribing metformin as well. So this is another option that we could pick up the metformin pathway alongside the diet pathway. And we’ve had an increase in women managed by diet and reduction of medically managed on insulin with a physician. So next slide.

So the feedback from our patients, the women and also our colleagues has been very positive. The women are enjoying having access to the information in their own time. We let them know how long each video is so they can plan their evenings around work times when they want to view that video. Some of the women [2:41:14]. It’s keeping them on track and it’s reminders weekly of what they need to do. The dietitians can also prescribe iodine, folic acid, calcium, iron and some other supplements [2:41:28]. We can also do that for them. Many women find coming into appointments too difficult. So over the last 12 months we’ve actually only had about 4% non‑respondent rate. So out of 450 women about 17 women have not engaged in the program despite calling, email and text reminders. When this happens, after one week if we don’t get communication from the women we refer them for a face to face appointment with a midwife. Quite often the women who aren’t engaging with our telehealth model of care are also not turning up to the appointments. So they’ve got a high DNA rate of face to face appointments as well. Next slide.

**Nick Andreopoulos:**

You’ve got about 20 seconds.

**Liz Love:**

Perfect. Future direction we’re looking at is the dietitians potentially prescribing metformin and other consumables for diabetes, translation of resources into seven other common languages. A lot of Chinese and Indian patients have gestational diabetes. And follow up emails for these women with reminders for HbA1c checks post-partum at three months and 12 months and also trying to [2:42:30] to get some solids information for their babies in there as well. And we are looking to get this permanently funded in Canterbury. Last slide.

Our project’s shown allied health can be heavily involved in change management or a change in the model of care. We do work alongside physicians, nurses and midwives. The program reduces hospital activity. We’ve increased the use of telehealth resources. It allows more consultant resources [2:42:58] with Type 1, Type 2 or the really complex gestational diabetes patients. So we are continuing as business as usual but we are seeking extra funding. Know your diabetes team, obtain additional resources and funding and hopefully it can be New Zealand wide. And the last slide is just some feedback from women we’ve had go through the program. Thank you for your time.

**Nick Andreopoulos:**

Thanks Liz. Your video and your sound was a bit choppy so it might just be good if you could have your slides available for everybody potentially at the end if they want to have another look at them if that’s okay with you.

Great. Our next one is Professor Haxby Abbott who unfortunately couldn’t make it today but we have a pre-recorded video for him. Just want to remind people to use the Q&A if you have any questions of any of the presenters that have come up so far and just make sure you include the presenter for whom your question is designed for. And I will play Haxby’s presentation right now.

**Professor Haxby Abbott:**

[*Visual of slide with text saying ‘Are primary and community care programmes for osteoarthritis cost-effective?’, ‘A modelling study using data from the Mobility Action Programme’, ‘Prof Haxby Abbott, PhD, DPT, FNZCP’, ‘Dr Ross Wilson, PhD, BComm(Hons) Economics’, ‘Centre for Musculoskeletal Outcomes Research’, ‘University of Otago Medical School’*]

(Speaking Māori language)

Today I’m presenting a computer simulation modelling study using data from the mobility action program of the New Zealand Ministry of Health to investigate whether primary and community care programs for osteoarthritis are cost effective. I’m presenting this research on behalf of myself and my colleague Dr Ross Wilson here at the Central Musculoskeletal Outcomes Research at the University of Otago Medical School.

In 2015 the New Zealand Government initiated a pragmatic pilot program to investigate what would be the benefits of delivering early intervention community-based programs for people with musculoskeletal conditions, the mobility action program. We conducted a computer simulation modelling study from a one to 15 year time horizon to look at the cost-effectiveness of the mobility action program for people with osteoarthritis. These represented the majority of patients seen through the mobility action plan, other musculoskeletal conditions including low back pain, shoulder degenerative conditions and neck pain and other conditions. This is reporting the results for people with osteoarthritis.

So we estimated the incremental health and economic impacts for the mobility action program compared with a usual care group from observed data from a randomised controlled trial conducted here at Aotearoa in Dunedin because the mobility action program did not have a usual care comparison and so we sourced those observed data from a clinical trial. We did the simulation modelling in the validated New Zealand management of osteoarthritis computer simulation model. Both its validation and its use has been published in the academic literature over the last several years.

The mobility action program for people with osteoarthritis observed outcomes that were positive, they showed gains of incremental health related quality of life and incremental treatment programs. The quality adjusted life year gains from the modelling study indicated significant quality adjusted life year gains not just from the observed one year time horizon but the model 15 year time horizon. With cumulative incremental healthcare costs remaining in the negative over all time horizons despite the cost of the program, the cost savings from other areas of the healthcare system were estimated to be approximately $14,500 per participant over 15 years due to reductions in the need for GP visits, other specialist visits, medications, imaging and specialist appointments and surgeries.

Observed outcomes compared with the results from the clinical trial that was used to augment the MAP data in the modelling study indicate that there were gains and quality adjusted life years based upon the SF-6D utility value that were better than the usual care group of the trial data here in blue and GP visits were lower than observed in the usual care group in blue. For comparison in orange the results from the more exercise therapy group observed in the randomised control trial over that time and these are somewhat consistent with the MAP program although consistently with greater effect.

In the modelling study of the observed outcomes from a mobility action program for people with osteoarthritis the economic outcomes included an incremental net monetary benefit to the New Zealand healthcare system and society at a willingness to pay of one times GDP per capita showed an incremental net monetary benefit of $2,500 at the one year time horizon and over $22,000 at the 15 year time horizon. There was considerable uncertainty in those results as is typical for the very variable costs data and economic evaluations but the probability of cost effectiveness being observed at the one times GDP per capita per year level indicated here by the vertical orange arrow was greater than 80% at all of the one year, five year, ten year and 15 year time horizons in the modelling study.

Looking at health inequities the MAP program observed that there were features that were associated with better outcomes across the various MAP programs delivered across the country and these features included whether the program specifically had a focus on equity, improving the health disparities and implementing specific strategies to target priority groups and to meet their specific health, social and cultural needs. And programs that had these features got better outcomes. In particular MAP participant surveys across all of the programs showed that respondents who identified as Māori were 1.9 times more likely to report learning how to manage their weight than were non-Māori, 3.6 times more likely to improve health improvements and three times more likely to report improved ability to seek or return to work following the MAP program. So these are very significant findings that indicate the ability of a program for people with osteoarthritis and other musculoskeletal disorders at no or low cost to the participant and were able to help health disparities.

In terms of implementation and translation to practice currently the New Zealand healthcare system is failing to deliver the most effective and inexpensive treatments to adults experiencing musculoskeletal conditions and in particular osteoarthritis. Despite the knowledge that these are what people prefer and want and that they are recommended by all of the international clinical practice guidelines these are not available for the most part in the public healthcare system and the mobility action program aims to evaluate whether it was effective and cost-effective to provide these. So the MAP program does demonstrate that a national implementation of such programs is cost-effective and can decrease inequities of access and outcome.

This is subject to limitations and it is important to note that the mobility action programs that were funded were required to fit a well defined brief at the expression of interest stage. They were subject to peer review prior to approval and many were rejected at that stage. And they were explicitly audited and evaluated for process and outcome. And so I would recommend that fidelity to these features and fidelity of implementation would be likely to be pivotal to the success of any national program and pivotal to gaining the cost-effectiveness results that are indicated by this trial.

So thank you very much for the opportunity to present these results and thank you to the Ministry of Health Mobility Action Program Expert Advisory Group for permission to use and analyse the data. Kia ora.

[*Visual of slide with text saying ‘Acknowledgements:’, ‘Thanks to the MoH MAP Expert Advisory Group chairs and project management team for permission to analyse the MAP data’, ‘Thank you. Questions?’, ‘Correspondence to: haxby.abbott@otago.ac.nz’*]

**Nick Andreopoulos:**

Thank you to Haxby. And just a reminder to the panellists at the moment. The Q&A questions that are coming in at the moment, let’s leave them unanswered until we get to the question time just so it doesn’t subtract away from any of the presentations currently happening. And our last presentation of this session is Ianthe Boden. I hope I’ve pronounced that correctly. Presenting on preventing pneumonia after surgery, after major abdominal surgery and cost effective and a multicentre randomised controlled trial. Take it away Ianthe.

**Dr Ianthe Boden:**

[*Visual of slide with text saying ‘Preventing pneumonia after surgery’, ‘Preoperative physiotherapy providing BANG for buck’, ‘Dr Ianthe Boden PhD, MHSci, B. Physio’, ‘Cardiorespiratory Specialist Physiotherapist’, ‘Launceston General Hospital’, ‘Launceston, Tasmania, Australia’, ‘Senior Lecturer’, ‘University of Tasmania’, ‘College of Health and Medicine’, ‘Tasmanian Health Service’, ‘Tasmanian Government’, ‘Clifford Craig Foundation’, ‘University of Tasmania’*]

Great. Well thank you very much for the opportunity to present how physiotherapy before major surgery provides an incredible bang for buck for both hospitals and for our patients alike. And it’s a privilege for me to be able to present to you from the Palawa and Pakana country here in Australia’s south island of Tasmania. Next slide please.

So my research has been focusing on whether or not physios can prevent pneumonia after major surgery rather than just treating it after it arises. Next slide please.

Now the timing of when we present our physiotherapy message, which is it’s important to do your breathing exercises and get moving as soon as possible after surgery, can be interpreted quite differently depending on when we give it knowing that pre-operatively patients aren’t in pain and are generally less anxious compared to when they’re in the post-op phase. Next slide please.

And Anne-Maree would you be able to press through the slides please. Thank you. So our first phase was whether or not patients would value the preoperative physio intervention before surgery and also quite importantly would they actually remember what we taught them? Next slide please.

So we’ve published this mixed methods study. Next slide.

And cycle through I think three clicks. And what we found when we interviewed patients was that they highly valued preventing pneumonia. It was really important to them. They found the education and the training we provided them at preadmission clinics before surgery to actually be fascinating, really interesting and quite meaningful to them. It really ticked all their boxes and really interestingly as well they didn’t like booklets. They liked face to face information delivered by professionals. Next slide please.

What we found interestingly also is that we were the most memorable part of the preadmission clinic if we gave them face to face information. Eight out of ten of those patients said we were the standout feature of the whole preadmission clinic process and nine out of ten of those patients then went on and remembered exactly the breathing exercises that we taught them. Next slide.

And so we then progressed into the clinical phase trial of doing a multi-centre randomised controlled superiority trial. Next slide.

And in this study – and you’re going to have to cycle through. Unfortunately you’ve got the old version which is many transitions Anne-Marie. My apologies – we then set out to determine this via a multi-centre RCT. Next progression please. Just keep on clicking through. We had three hospitals, two in Tasmania in North Shore Hospital in Auckland where we included all patients having major abdominal surgery. Next slide.

And here are our results which we published in the British Medical Journal a few years back. Next click. And what we found is that the single session pre-operatively by our physios in these three hospitals more than halved the rates of pneumonia after surgery. And that was the only respiratory physio intervention they received was what we gave them before surgery. Next slide.

We also found a mortality benefit. Next click. And especially so if the patients are seen by an experienced physio. This was a halving of all cause mortality from immediately after surgery to a year after surgery just simply seeing an experienced physiotherapist a single time before surgery and therefore then halved their pneumonia rates after surgery. Next slide please.

And we also saw an almost halving of antibiotic prescription rates which is a stunning finding and there aren’t too many studies out there that have demonstrated such an incredible reduction in antibiotic prescribing based on physiotherapy intervention. Next slide please.

It was quite a bit of a fuss. It has been acknowledged this LIPPSMAck POP trial is one of the top 20 trials of all time in physiotherapy which is amazing and I was very honoured for that to happen. Next slide please.

But there’s always a bit of a kick back. This would require a systems change. And so we’ve got a lot of people saying is it worth the time? Is it worth the cost to actually change practice and get physios involved in pre-admission clinics? Next slide.

And so yes. So I did some cost-effectiveness analysis within this trial as well because I knew that this question was coming. Next slide please.

And we published this in the top physio journal of the world and it won Paper of the Year Award for 2020. Next slide.

And here we found that a single respiratory complication cost our hospitals an additional $30,000 to treat. So one single chest infection cost 30,000 additional Australian and New Zealand dollars to treat. And that was mainly driven by ICU and surgical ward stay, pathology testing and MET calls. Next slide.

So Anne-Marie would you mind cycling through a couple of clicks. So we can map out the way we cost the additional cost of implementing pre-admission clinic and we can map out the costs according to the effect and also how much we save. So yes it costs more money to put a physio in pre-admission clinics but what we will see is a downstream reduction in hospital costs. So what does it look like if we put it on a map? Next slide please.

And so this is called a cost-effectiveness plain where if a new treatment improves outcomes it may actually sometimes cost more for a health service to implement. And so we would see this mapped out in that top right hand quadrant. And new treatments sometimes can actually lead to cost savings and then we’d map it out into this bottom right hand quadrant. Sometimes new treatments might actually lead to worse outcomes but could still cost less and so health systems might want to implement them. You’d hope not. Where you don’t want to be is here in that top left hand quadrant where a new treatment leads to worse outcomes and actually costs more to the healthcare system.

So what do we see if we map out the results of 10,000 simulated patients if we ran it like a LIPPSMAck POP trial? Next slide please. Next click. Sorry Anne-Marie. Just clicking through where we want to be. Yep. Keep on going. And this is what we find is that this is the outcome of our clinical trial simulated 10,000 times. What we see is that on average a single pre-operative education and training session by a physiotherapist will save our hospitals close to $500 per patient in downstream hospital costs. So that’s a return of investment of $1 in $8 spent. That’s an 800% return on investment. And the red dots indicate the experienced physiotherapists that were participating in this trial. The grey dots were the more junior ones. And interestingly the more money a hospital spent in seniority or experience level, yes we cost more to front up, but we actually drove more cost savings downstream. So in this trial our senior physios had a return of investment of 1,500%. So the hospital saved $15 for every $1 spent on that pre-operative physio. So this is called a dominant strategy. This means that it’s effective, it’s valued by patients and it ends up probabilistically to lead to more cost savings for the hospital rather than leading to more costs accrued. Next slide please.

Well what about from a patient perspective? What about quality adjusted life years? Next iteration. Thank you. And this is where we get the difference between seniority being quite starkly demonstrated where the benefit to the patient for every gain in quality adjusted life year per cost the patient got much greater benefit at a lower cost in the end if they were seen by an experienced physiotherapist. Next slide please.

So patients really care about not getting pneumonia. Patients really wanted face to face education. Next iteration. Where there are millions of people having elective abdominal surgery every year this intervention halves a serious post-operative hospital acquired infection. It’s simple.

It’s a single dose intervention. There’s no harm to the patient. It is low cost. It costs $50 max and that includes also room hire and those sorts of things and overheads. And it has the best outcomes and cost savings if done by a senior physio. Next slide.

So there’s been again a bit of a fuss about the cost-effectiveness side of things. Next little click. And the NHS in the UK and the National Institute of Health Research in the UK have recommended that pre-operative physiotherapy be implemented across the NHS. And I must say it would be lovely if we could do the same thing here in Australia and in New Zealand. So we’ve got to the point where the evidence is so strong and the cost-effectiveness is so strong and the value to the patients is so high, what are we waiting for? Thank you very much.

**Nick Andreopoulos:**

Thank you Ianthe. I am going to pass back to Anne-Marie and Martin. Panellists if you could re‑video yourselves so we can see all of your lovely faces. And I’ll stop sharing screens so we can see everyone in a gallery view. And Anne-Marie and Martin if you want to lead off some questions for the presenters.

**Dr Anne-Marie Boxall:**

Great. Thank you. I might start off this time if it’s okay. So again fantastic presentations. Thank you to all of you for keeping to time and really showcasing some wonderful research. I’m looking at the questions now in the Q&A box. So I will ask a couple of questions there. Please people start posting your questions. They’re starting to come through now. I’m trying to keep up. So let’s start with one for Liz. And the question is:

*Q: Did the specialist doctors resist the reduction in appointments for the diet only group, the diet controlled only group due to I guess a loss of income or a loss of control? And if you had any resistance, how was that managed?*

**Liz Love:**

Okay. Hopefully you can hear me this time around. We didn’t come across any resistance at all from the physicians or obstetricians. The number of clinics that we have in Canterbury has remained the same. There’s less post-clinic and hallway prescribing. So they’re not pulled in all directions and having to fit in more patients in terms of consults. And no we haven’t had any issues with them. I guess they did have eight months of the program and then it got stopped due to no funding and resources. So we reverted back to how it used to be and they all saw the extra pressures on the clinic. So once we got it back up and running again, and we’re still running it at the moment, they’re all very happy with how it’s all running.

**Dr Anne-Marie Boxall:**

Fantastic. Thank you. Martin to you.

**Dr Martin Chadwick:**

I’ve got lots. I feel like I’m trying to go between the questions that people are posting and all the questions that I have. So this is a very self-serving question. So Katrina with regards to your piece of work has it improved your efficiency?

**Katrina Azer:**

Yes. I’m sorry. That’s a quick answer. I think it puts you in a better mindset when you actually know that you’re organising your own schedule, you know how to get in touch with patients effectively away from the hustle of being in an office pace, being interrupted by people, or even in a community pharmacy setting where you’re constantly being interrupted by patients. So yes it does increase self-efficacy, efficiency and definitely professional satisfaction as well. So I also look at it from a perspective of workforce retention. If we have more pharmacists operating in such roles it’s really satisfying to actually know that you’re applying your skillset in that way. So sustainability for the workforce I guess.

**Dr Martin Chadwick:**

Great. Thank you. Back to you Anne-Marie.

**Dr Anne-Marie Boxall:**

Thank you. So Hannah a question for you. I mean that equipment looked amazing and in terms of improving access to care in remote communities and upskilling Aboriginal health workers it just looks like a fantastic program. A question here is:

*Q: How expensive is the interactive equipment?*

**Hannah Snelling:**

Sure. So at this stage there is no pricing for the software. The headsets are provided to our three project partners in Ceduna, Port Augusta and Murray Bridge for free for now because we’re really in that pilot stage of the project. So we’re still collecting feedback and evaluating whether this is indeed an effective way of training and upskilling people in remote communities. And so until we’ve collected that data and evaluated our package I don’t know how that will look. The virtual reality headsets themselves though, they retail for around $600 per headset. So they’re the ones that we’ve been working with at the moment.

**Dr Anne-Marie Boxall:**

So you’re planning to do a cost benefit analysis at some point in the future are you?

**Hannah Snelling:**

Yeah. And I suppose the evaluation falls into two sort of categories. Were people on the ground feeling more confident and upskilled in diabetes related foot disease and secondly do they actually find virtual reality training helpful or are people using it, is it easy to use, those sorts of things as well. So I guess we’ll pool all that data and then look at the broader community after that.

**Dr Anne-Marie Boxall:**

Fantastic. Great. Thanks. To you Martin.

**Dr Martin Chadwick:**

All right Ianthe. So a question for you and it’s very much along the lines – and actually this is a bit of a curious one because there are a number of systems within both Australia and New Zealand that might use a system called the health round table. I don’t know if you’re familiar with that. And has there been any type of correlation that you’ve seen that when this type of a service has been implemented that you’ve been able to see some quite definitive system level change?

**Dr Ianthe Boden:**

Sorry Martin you just dropped out. Yeah. You were talking about clinical coding?

**Dr Martin Chadwick:**

No. So I was talking about with the health round table it’s the ability to do some quite high level system reporting and so have you seen any examples where this program has been implemented that it has been able to demonstrate a system level change?

**Dr Ianthe Boden:**

At this point in time we’re still in the implementation phase. We would obviously like to be able to accelerate the usual ten year process from publication and results to implementation. This is now just one of six other RCTs that have now been published showing exactly the same outcome. There’s not a single negative trial in this space. So we’ve got meta analysis data now following on from my original trial. So we’ve got to the point where the data is firm. There’s no question that this is beneficial. The difficulty with system wide processes is that it’s how it’s measured as well. So this intervention looked at reducing one single post-operative complication and that was pneumonia and it did it incredibly effectively. The only way you can get from a systems perspective is from clinical coding and we know that clinical coding significantly under-reports true prevalence rates of those complications.

So actually to be able to determine whether or not it's working as you would intend it does require either measuring specifically or diagnostically the pneumonia rates. But for those places that are implementing it at the moment they are saying this works so we actually don’t need to measure the clinical coding rates. What we’re going to measure are do their patients remember these breathing exercises just as well as our patients did? And so it’s looking more at patient quality, patient value and the patient recall and how they can train their physios to do this effectively. So we’re looking at more how do we upskill their physios to do exactly the same intervention to the same quality as we did.

**Dr Martin Chadwick:**

Great. Thank you. Anne-Marie back to you.

**Dr Anne-Marie:**

Thanks Martin. I might actually ask a follow up question on that one if that’s okay. I was intrigued by the difference between the senior and the less experienced physios. So I mean obviously that poses some challenges, workforce challenges. So two parts to the question. First of all what in particular do you think it was that the senior physios were doing that more junior clinicians weren’t and do you think it’s possible to upskill or train more junior clinicians to achieve the same outcomes?

**Dr Ianthe Boden:**

The first question I think is easier to answer than the second one.

My gut feel is that there are a number of verbal and non-verbal benefits to experience that we develop over time as being an experienced practitioner and you generate that rapport in the ten metres it takes for you to introduce yourself to the patient in the waiting room and walking them into the consult room. And we would see that experienced allied health professionals can engage with our patients a lot more readily and have a level of authority which is not autocratic for want of a better word. Our intervention was semi-scripted. We actually had to for the purity of this trial deliver the education and the training in the same order using the same sequence of stanzas because it was designed on educational theory that we guided the patient through a journey and each stanza of education was a hook to grab the patient’s attention. So the education was designed to be fascinating.

So what made it more memorable and more effective for the experienced physio? It’s a question I’d love to answer Anne-Marie because then that leads me to the next question how do I upskill a more novice physio quicker than the five years it would take for them to become an experienced physio? So yes that’s now going into education theory and yes that’s my next research project. Whether it’s videos, it’s feedback, it’s practice, those sorts of things, rather than just iteratively absorbing those sort of skills through osmosis.

**Dr Anne-Marie Boxall:**

Yeah. Fantastic. Thank you. Back to you Martin.

**Dr Martin Chadwick:**

All right. Love that. Any good researcher always looking for the next research question. So well done. So just going back – and funding. Yeah. Fair enough. So just going back to you Hannah with what you have there. So one of the things that we’ve been exploring especially around podiatry is how to make rural clinics or distance clinics more accessible for students. Do you have any sense as to what are some of the next steps or do you see this being as a tool that could be used for students as well for those that are working in those remote clinics?

**Hannah Snelling:**

Sure. Absolutely. I mean as part of my undergraduate program I was required to do a certain amount of hours in country health clinics. So I was lucky enough to have experience all across the state really. With COVID I know that was made quite difficult with some placements being cancelled and things like that. So I mean the benefit of the virtual reality clinic is you’re able to get hands on without being hands on in the clinics with a real patient in front of you. So for sure. Part of piloting this project before we took it out to the three key sites was actually having a couple of students come in who were completing their undergraduate studies to try it out for us and see what they thought from sort of a student perspective. They obviously had quite a good base level of knowledge but I suppose moving more into those high risk foot patients with the acute diabetes related foot disease it was really good for them to get hands on with those patients without actually having to have the added pressure of a diabetes related foot ulcer in front of them. So for sure. I think there’s definitely scope there to expand to students as well.

**Dr Martin Chadwick:**

Great. Thank you. Now Anne-Marie I’m just looking at time. We’re at 2:22 our time so that means we’re just about at time. So maybe first of all if I can maybe thank the panellists for this session. I think there was some really good robust information in there so I thank you for giving again your time and energy to being here today.

What I might do is just try to give my initial reflections on what we heard today, that we had two discrete panels, one very much with a COVID focus and I think there was some really good commentary that came through in the Q&A. And I think what I was reading within the Q&A was that whole sense of the flexibility that sits within the allied health workforce, our ability to adapt and then adjust to what was quite extraordinary environments and how we could really lead out. And I think especially when you think about quite a unique scenario that COVID gave us, really bringing the strength of social work as a profession to the fore and seeing what they were able to lead out with there.

Thinking about the second grouping here there was some real heavy hitter data and analysis with regards to utility of allied health and I think that’s some real power. I was kind of amused. I’m sitting here trying to look at the chat, the Q&A and then I’ve got colleagues around the country texting me saying ‘Oh my goodness. That’s a strong one isn’t it?’ It’s like yes it is. Again I think it’s a really good sense of the strength of some of the information which sits there. The challenge is how we look to really apply that more at a system level.

So some reflections for me is one I think from the COVID is really understanding the power of the flexibility of allied health to adapt and then two thinking of the most recent panel is the power of the information which is coming through to really reinforce the utility. Anne-Marie any thoughts from you?

**Dr Anne-Marie Boxall:**

Yes. Thank you Martin. Again I thoroughly enjoyed this and we’ve got some really fantastic research presented today. So the first thing I’ll say is I can already see a practical application for showcasing this research to our Minister in a couple of weeks’ time. So what I will be asking my team to do – hopefully they’re listening carefully – there’s a number of research projects here that do demonstrate the value of multidisciplinary teams, the value they have in prevention, so primary prevention but also secondary and tertiary prevention, from a general practice setting. And that is something that is absolutely front of mind for our Health Minister at the moment. So I will be pulling together some of this research in a format to present to our Minister in a couple of weeks’ time. So I just wanted to reinforce how we can make that connection from the research that you’re doing to taking it in front of decision makers.

So the key messages for me are really about that role in prevention but also the value that allied health have in understanding different health professions and different health workers contribution to patient outcomes as well. And that’s something that I think we do a lot more intuitively but it’s something that we could sell a lot better as well. So we heard about the role of allied health assistants. We heard about the role of Aboriginal health workers. And I think we need to really claim that as part of the shift to value-based healthcare as well. And that’s not to undermine the value of allied health professions themselves and I think Ianthe’s research really showed that experience and seniority and expertise does matter and we can quantify that. But I think we need to tell both stories. So I think there’s some really interesting things there.

Two more reflections. As a very non-technical technological person I was thrilled to see how allied health professionals have embraced technology in their mission to improve the value of healthcare. And I particularly loved the sort of virtual reality piece and how that can really upskill Aboriginal health workers and other health professionals as well. And the fact that in COVID even though it’s been incredibly challenging allied health professionals have taken advantage of that and been innovative with technology. So I think that has been a real lesson for me.

And then finally as well there was a lot of examples of allied health led services and innovations. And to be honest with you that is still sometimes a difficult ask. And so to have again robust evidence that says the allied health professional can lead this team, can lead this service and here’s what you get for it has been really useful. So yeah look fantastic suite of resources and research that’s being done and I’m very much looking forward to continuing the conversation tomorrow.

However before we do that I would ask that we could post the results of our PollEV surveys and perhaps we can also have a close up look at our illustrations. So I’m just looking at where is your principal place of work and it looks like certainly in Australia we have all states and territories represented which is fantastic. And it does look like there are a number of people who are living or working in rural and remote areas which is also fantastic to see. And I’ll leave you to comment on New Zealand there Martin.

**Dr Martin Chadwick:**

I think it’s more just a reflection of a smaller country that we’re all a bit more bunched together. But good to see the numbers that are coming through there and looking at where people are working I think a really nice spread there to see, based on a hospital of 30% but then we’ve got a good cohort in policy and advocacy and then community health and private practice. I think that’s really pleasing for me to see a good cohort of private practice that have linked in today because I think more and more it’s when we look at a system which is not just that which is publicly funded but that which sits in the private sector as well. So good to have you along for today, on board today.

**Dr Anne-Marie Boxall:**

Fantastic. And is there some way of making James’ visualisation a bit larger? That’s fantastic. That’s great.

That’s wonderful. And I’m sure James we’re able to share that are we?

**James Nicholls:**

Ki ora. Yeah. That’s absolutely fine. Please feel free. I’ll send through today’s piece and then we’ll update and extend it on tomorrow’s as well.

**Dr Anne-Marie Boxall:**

Fantastic. Wonderful.

**Dr Martin Chadwick:**

And thank you for putting a tie on me James. I do appreciate that.

**James Nicholls:**

My pleasure.

**Dr Anne-Marie Boxall:**

Wonderful. All right. Well look I think the only final thing to do today is to again thank you all for your participation, for your questions, for your fantastic presentations and for your interest in value-based healthcare and the role that allied health play. We would be very excited to see you again tomorrow. We have another huge range of fantastic presentations that are different from today and I think will make a fantastic contribution. So please re-join us again tomorrow. We look forward to seeing you there. And Martin I’ll give you the last word.

**Dr Martin Chadwick:**

I would just echo all of that. Go well. Enjoy the rest of your days and again we will see you at 9:00am Australian Eastern Standard Time and 11:00am New Zealand. So ka kite. Go well everyone.

**Dr Anne-Marie Boxall:**

Thanks everyone. Bye.

[End of Transcript]