

EMR Consumer Reference Group Meeting 2 – 19th April 2024

Data Use and the Electronic Medical Record – Transcript

SPEAKERS

- Pip Brennan, Convenor, EMR Consumer Reference Group
- Merrilee Needham Consultant at the Department of Neurology at the Fiona Stanley Hospital,
 National Head of the School of Medicine at Notre Dame
- Giles Nunis Executive Manager of Digital Transformation at the WA Primary Health Alliance

Pip Brennan 00:03

- Hello everyone, and a warm welcome to our conversation on the Electronic Medical Record and data use. For those of you who don't know who I am, I'm Pip Brennan. I'm working casually for the Health Consumers' Council, convening the EMR Consumer Reference Group. This group is building on the work of the development of the EMR Consumer Charter that was done in 2020 and 2021.
- We've got a dual focus. One is to upskill consumers around digital health and the Electronic Medical Record. And another is to ensure that consumers are involved in an EMR in our state.
- Now at the time I'm recording this, we still don't know for sure if WA is going to have a full EMR, but fingers crossed that we will be funded by Treasury to do so.
- So today's conversation, as mentioned, is about the EMR and data use.
- We've invited Professor Merrilee Needham to talk about the possibilities of hospital based EMR data. Merrilee is a Consultant at the Department of Neurology at the Fiona Stanley Hospital, and she's also the National Head of the School of Medicine at Notre Dame.
- However, as consumers, we're very interested in the topic of interoperability, how our health data between GPs and hospitals is connected to give a truer, fuller picture of the patient journey. We want to understand about the GP primary care data in WA, as well as about our hospitals EMR data.
- So we've invited along Giles Nunis to talk about primary care data. Giles is Executive Manager of Digital Transformation at the WA Primary Health Alliance.
- I think most people are aware that WA Primary Health Alliance is known as WAPHA and was set up in 1 July 2015. It's a Primary Health Network; they replaced the Medicare Locals which replaced the GP Networks. There's actually 31 Primary Health Networks across the nation, and there's three in WA, all of them governed by independent nonprofit organisations, and the three in WA are all governed by WAPHA. So my understanding Giles is that WA is leading the nation's work on primary care data. (I do apologise, I've got some printing going in the background. to apologise for that.)
- So my understanding Giles is WA is leading the work on primary care data, on then platform Primary Health Insights. Can you tell me more about the primary care database?



Giles Nunis 02:33

- Yes, so <u>Primary Health Insights</u> was established, now three years ago, and all the Primary Health Networks around the country do collect data from General Practice.
- And there's around about 8000 general practices across the country. We have in Western Australia, around 700.
- And what happened before is each of the Primary Health Networks collected that primary care data, put it in their own database and kept it, you know, maybe under the desk or on some kind of server somewhere.
- So what we've now done is we've aggregated all and collected all into one place, which is what we call Primary Health Insights.
- It's sitting in the cloud, it's managed by WAPHA. Nationally, I run that particular function.
- And in essence, each Primary Health Network has, if I could describe it, in terms of like a hotel, they've got their own little floor. So each PHN's got their own little floor, all their data goes in there.
- And then we have some collaboration spaces. So it allows them to pull together like a state based environment or a few primary networks together and look at primary care data in a more collaborative way.
- Our intent is to build eventually, one Primary Care Dataset across the country and have the 27 point 6 million people that we have in Australia in that space. Now we've got that already.
- We've got five years of data sitting in that particular space. And in essence, we use it for the purposes of population health outcomes. So what's happening in the population and the health and well-being in the primary care environment across the country.

Pip Brennan 04:12

• And that data is de identified I've got that right, haven't I?

Giles Nunis 04:16

- Absolutely de-identified so we don't know the names because the names aren't important to us, because we use it to help work out the ways in which we can fund programs particularly around chronic disease, mental health, aged care environments, which has a much higher interaction with a primary care environment.
- And so we want to work out our targeting, our funding around that so that we can actually be more targeted, more effective in the way in which we deliver health services in the community.
- Okay, I wanted to understand a bit more about how do we share data now between GPs and hospitals. There's different ways now, some of it's limited in terms of the technology that's being used.



- Unfortunately, in Western Australia, we still use faxes. We'd like to get rid of those, which would be great. So there are, there are the first thing is general practice are private businesses, so they're not government. So their private businesses do.
- The WA Primary Health Alliance has data sharing agreements with the General Practice to allow for us to extract data. And so we have that arrangement, we pay for that privilege as well.
- And then we also have data sharing agreements with the WA Health Department. And given the WA
 Health Department also has statutory authorities been the Health Service Providers, we don't
 specifically have one with each Health Service Provider, in some instances we do, but not not all of
 them.
- But they are, they do have one Patient Administration System that they will use and the like, but we don't, we don't share data named data. So we don't get any name data out of WA Health, we just get de-identified data.
- And we use that to help us work through the population health outcomes. We are in the process of
 negotiating access to the clinical workbench for our General Practice so that they can see what's
 happening inside the hospital when it comes to a patient coming out of out of the health care, the
 tertiary system and into primary care for that support.
- And we're working through that plus referrals and a whole range of other programs that help us be more connected, particularly in the patient journey, then that's on foot now.

Pip Brennan 06:37

• So if it's de identified as you say, you can do population health stuff, but you can't really I guess, track the patient journey right through. I was just wondering Merrilee, do you have any other insights we can share around the sharing of data between primary and hospitals?

Merrilee Needham 06:54

- Only that it is it is tricky. Really, it's, it's around episodes of care only. So GPs might write to us and refer
 patients, we write back to the GP. So outpatient-based communication is largely written mainly in sort
 of letter form.
- If it's urgent, often GPs will pick up the phone and we'll you know, take a call that's, but it's around again, a distinct episode of care and a particular patient at any one time.
- And then, of course, they receive discharge summaries from inpatients and they're largely written by sort of the junior medical workforce in the hospital. So and they come on templates that's, you know, written through a program called NACCS.
- And a lot of GPs might have views on that, because they're very big and cumbersome. And they, you know, they do outline a lot of the investigations that patients have had.
- But you know, so I guess the interaction between hospital and GPs from a hospital perspective is that, you know, we provide, we try to bring the GP into every episode of care whether it's an inpatient or



outpatient, either via letter form or discharge summary, sometimes we'll follow up with a phone call. And they can go either way.

- But they're all really just around distinct episodes of care, rather than necessarily a patient in continuity throughout their lifespan.
- And we do in the hospital rely bit on the My Health Record. So we do have the capacity in individual
 patients to log into their My Health Record, to see what's been done in community, if the GP and the
 pathology and whatever in the community also uploads patient information on to the patient's My
 Health Record.
- So for those patients that have consented to have a My Health Record, actually in the hospital system, that's really helpful because we don't get a lot of insight into what the GP does in community otherwise, unless the GP specifically put that in, in the letter or in the referral to us. So the My Health Record perhaps also acts as a bit of a bridge between hospital and community in that space.

Pip Brennan 08:54

• And in some ways, you might have anticipated my next question, which is, you know, what are the current pain points around data sharing, and this is to you Merrilee.

Merrilee Needham 09:01

- I mean, I think there are a lot of pain points.
- I think timeliness is one because a lot of it is written to speed it up, we are using electronic transfer and faxes, as Giles said, to be a little bit more instantaneous, or it's verbal, to get it to be more acute or urgent. But then there's no written record, when it's verbal unless it's followed up by an email or something. But emails aren't considered secure. So we have to be very careful in that space. So you know, I think timeliness is one pain point. Sometimes it might take a couple of weeks to get a letter back from a specialist in the hospital to the general practice, and sometimes the discharge summary doesn't follow with the patient and there's a delay there. And so sometimes GPs are left wondering what happened in hospital, and they've only got the patient kind of verbal understanding of what happened and there's nothing written to verify that so I think that's one pain point is the timeliness of the communication.
- Perhaps the second pain point is the fact that most of it is written and impersonal and perhaps even written by third party. So sometimes discharge summaries are written by junior medical staff, and sometimes those junior medical staff haven't even met or seen the patient. So they're not necessarily a cohesive summary of what's happened there. Just the, you know, from the medical record, what the doctor has been able to glean has happened. And I think that's, I think a lot of General Practitioners would find that painful.
- And I guess on the flip side of that, from the hospital, some of the GP programs that are used to write referrals to to us in hospital, also don't necessarily, they just sort of they pull stuff from the patient,



General Practice software. And so there might just be a sentence or two written above that for us. And then the rest of it is just information. And sometimes it's very hard to glean from that actually, what the question is, and what the what the issues actually are for the patient. And that's really important from our perspective, because we have to triage urgency of seeing patients based on the information we receive and if the information is scant that triaging is also scant. So often patients are dedicated, you know, or allocated rather to a less urgent triage category, because we can't see what the urgency is. So I think a really well cohesive, written high level summary of the patient's issues, received in a timely fashion, from our perspective helps us to triage them appropriately to either urgent or their surgeon.

- I think then the GP probably then needs good feedback back around, perhaps why we've made that decision, and that I don't think they received that they received the urgency but not necessarily the justification as to why that is. And so there's not a lot of interaction there. That's an automated sort of response back to the GP.
- And so I think that's another pain point, probably for General Practitioners. It's a pain point for us, but also for GPs and for terrible, terrible for patients to not have any insight into, you know, even when you ring a helpdesk, you say your approximate wait time is 13 minutes. I mean, I think even an approximation in that space for everybody, for the GP and patient to make, you know, choices around that would be very helpful.
- And I think a lack of insight into our waiting times, too. So I think there's an expectation, perhaps from community, that once you've been referred to a specialist in the hospital, you will receive notification back within a week or two. But it's an automated response saying, "Yes, you've been categorised as a category two", and in some services, you might get seen in a couple of months, and in other services, it might be a couple of years, and there's no insight into that.
- So I think that's another pain point, to be honest, for everybody. So I think, from my perspective, I think there are three main, I guess, pain points, are there that came off the top of my head anyway.

Giles Nunis 12:41

Can I add to that, Pip?

Pip Brennan 12:43

Please do Giles.

Giles Nunis 12:44

• I think one of the fundamental things that we don't have, and there's no clarity around this is the regulatory components of this. So the legislation that sits around who owns the data, who can be the custodian of the data, who can release the data, issues around privacy, as well, as well as consent, and which point of consent is it dynamic? So there's, in the absence of some kind of either policy or legislation, then the first response generally is no.



- So I think there needs to be a pain point needs to be to be clarity around the way in which data can be shared. And when I talk about data ownership, and is it as an example, whilst the GPs are there creating the data, they're creating it in a private system, clinical information system. And for me to get access to that, to that data, I have to negotiate not only with the GP, but also with the clinical information system, who argue that they're not the owners of the data, but they are the they are the people that gives us permission to get access to the data.
- So and they're putting forward a, a commercial proposition about getting access. So you've got commercial barriers, then you've got regulatory barriers. And I think if you solved a couple of those things, and we probably could have better exchange and data exchanges between us in a secure, private consent environment.

Pip Brennan 14:14

• I did have one question. Giles. I know that GPs are as you say effectively small businesses, but there's only a few GP systems have I got that right?

Giles Nunis 14:25

• Mostly in WA we have those two applications, Best Practice is one of the clinical systems, the other one's Medical Director, and I think it's probably 60 to 70% use Best Practice in Western Australia.

Pip Brennan 14:38

• I just I'm just asking that technical question, you know, just because, you know, we're always thinking of interoperability from the consumer perspective. The other thing I would just say is, I mean, I have a solution to all this. How about it, it's the patient's data!

Giles Nunis 14:53

Well, that's what we need the legislation for. I mean, yes, we need to identify who it is.

Pip Brennan 14:59

- Yes, yes, I think there was some conversations I had an interoperability discussion, we did talk about legislation and the idea of, instead of it being a My Health Record Act, it could be a My Health Data Act. So I think there's some really big things for us to understand as consumers.
- I just wanted to talk about, you know, because really what we heard in that pain point we heard about, there are safety and quality issues, because people can't necessarily be assessed in in a full or timely way, without all the data there. And I think that's a really core thing from a consumer perspective.
- But are there particular groups that are more disadvantaged? Because, you know, we don't actually
 have, say, an Electronic Medical Record at this point in time. And I might pass that to you first,
 Merrilee?



Merrilee Needham 15:46

- I mean, I think probably there are populations that are significantly more disadvantaged. I mean, I think, I just think about people in regional and rural WA, in particular, where the Internet access is, is scant at best. You know, I think there's often still paper records, at some of those sites, so it's only what's actually transcribed is ever received at any kind of Metro site. So if there's no digital record at all, I think that's, that's a problem. And if there's no internet to allow sharing, that's also a problem.
- You know, I do think there are particular kind of ethnic groups that are probably like, where English is a second language, for example, I think that's, that would probably be a population less well served by digital or even written communication, because perhaps they don't even understand what's written. And, and that's, I think, another pain point and our population that are probably disadvantaged. So I mean, I do think I do, I do think inequality is an issue. And how you bridge that gap-I mean, that's always probably been a gap. You know, I think technology can help but maybe using other forms of communication, like, for example, this video link, you know, obviously, interpreting services and Google Translate is a major plus, I think.
- I think patients, I mean, actually, fortunately, a lot of Australians do own smartphones. So you know, I think using, but educating people around the use in technology. Because I think probably then the aged population, who aren't as familiar with technology and able to use it, like the younger generations, probably can easily pick up a phone and translate things. I think the older generation would still struggle with that. My parents certainly would.
- So I think probably they're the big populations, the regional, rural, the English as a Second Language and Indigenous populations, perhaps. And with less trust, and less, maybe access to digital forms, and then, of course, the aged population, because of the digital component. Yeah.

Pip Brennan 17:59

• 100%, did you have anything else you wanted to add to that Giles?

Giles Nunis 18:03

- I find I completely agree with Merrilee, because I think I find the biggest issue really is around digital literature, and being able to understand the way in which you know, technology works and operates.
- And that happens not only with consumers, and actually is an issue with health professionals as well, who are actually trying to get on top of things understand and some of the issues that we get from General Practices that now they've got two or three screens in front of them, it's totally all taken up, there's notifications coming through, you know, there's too much, almost too much data in some shape or form. And they, you know, they they're paying less attention to the patient in front of them and looking more at the screen, and so, so it's a very different world that we're living in, and the way in



which we work and the way in which we use the technology, I think is the one of the big challenges as well.

Pip Brennan 18:59

• Merrilee, how do you think that an EMR could facilitate data sharing?

Merrilee Needham 19:04

- I mean, I am a personally a major fan of an EMR for WA. Partly because I think within the hospital system, there's obviously much more insight into when a patient travels between health sites, to be able to read back through the patient medical journey, you don't have to repeat then the same mistakes or the same tests that were done in other sites because you'll have direct visibility over them. And you know, if, you know, for example, if a patient had a bad response in a cannula and a left arm, it's not just the patient telling you at the next site that actually don't put a cannula in my left arm. You actually got the whole record, the nursing, everything that you have visibility over to show you exactly what happened to you know, through that patient journey. So I think an EMR will help within the hospital system by avoiding duplication of tests, avoiding duplication of, of experiences then allowing, I think a bit of insight around the patient journey and how their health system has serviced them and interacted with them and perhaps any challenges along the way to help prevent, you know, those continuing. So major advantages within the hospital system.
- And I would hope that a really good EMR would help a lot in terms of I'm not sure how the EMR would be allowed to be shared with General Practitioners, yet, I haven't seen any kind of adjustments in legislation or anything that would allow that sort of sharing or visibility even by patients themselves. So I don't know exactly Pip, I probably would need to understand what government is planning to do in terms of allowing sharing of some of that data with both the consumer themselves as well as, as the community service providers, both in community services and General Practice.
- But I would hope that having a central source of truth amongst the hospital system would facilitate more accurate data sharing into the community space. And even with the uploading to My Health Record, perhaps but which isn't a perfect system by any means. But at least it's a system that both the patient has access and insight into as well as well as it's a shared data space about particular patients. So it's actually a valuable resource, although I can tell you it's not perfect. Yes,

Pip Brennan 21:25

 Yes, definitely not perfect. But as you say, from a consumer perspective, it is one of our key ways of having access. Did you have anything else you wanted to add to that before- I wanted to put the same question to Giles?

Merrilee Needham 21:39



• No, not off the top of my head, really? I think that's the best I've got at the moment. I'm sure Giles will think of something.

Pip Brennan 21:46

 Giles I was curious know what you were thinking about the EMR and how it would facilitate data sharing?

Giles Nunis 21:52

- Well, firstly, I'd hope that Western Australia takes on an EMR that looks at one holistic view, because in other states, they actually had separate instances, so actually didn't have data sharing between HSPs though, so I hope at least in Western Australia, we have one single source of truth of EMR.
- And I hope they implement the full suite of functions within the EMR as well, rather than to cherry pick. So I say that in that context, if that were to exist, then then from my point of view, it is incredibly beneficial for health professionals to navigate their own health system, because they'll have a holistic view of the patient.
- But similarly, that data can be shared with the patient, ultimately, so because one of the biggest consumer complaints is that they have appointments all over the place, and not quite sure some of them are unsynchronized, in the wrong order, you know, what, what is it forecast look like. And so for some of the patients that and understanding of fit, fit in their normal lifestyle around that, I think EMR will be a significant contributing benefit for that, putting aside huge improvements in quality of care and, and safety as well.
- But at least from a consumer point of view, I think that'll be great in the tertiary system, I think the opportunity to share it with General Practice is will be restricted in terms of our private environment. But technically, there shouldn't be any restriction.
- So the interoperability, I think it'd be quite simple for that to occur, it's just a matter of having the right data sharing agreements, and then linking it up.
- One of the projects that we're actually working on now is data linkage. So linking primary care data and patient care data and in so that the patient we can link the patients between as they go in and out of tertiary and primary care that's happening now between WAPHA and also WA Health. So we're doing that at the moment is quite exciting, because that's the basis for which I think future data sharing cand both in primary care in tertiary care and bi-directional. So. Yeah,
- I've got great hope that's gonna happen. I say in this context, I think the technology is actually the easy part. It's really the policy and practice is the hard part that we need to get through. And certainly the EMR is not going to be an overnight success. It's going to be five to 10 years, I'm sure in order to get there.

Pip Brennan 24:21



- A journey. Right? A journey. Definitely that.
- Now, I think in some ways, the last question is the key one, but it's about it's really about what are the opportunities around this data.
- Merrilee I might come to you again, first, because I know that you're not just an incredible clinician, you're also a clinician researcher, but the opportunities of EMR data and, you know, obviously, what, from a consumer perspective, we're thinking about, you know, understanding what treatments work and you know, really optimising our health, what opportunities do we have with that data from the EMR?

Merrilee Needham 24:51

- I mean, I think there's huge opportunity because, I mean, Giles has already sort of, I guess, touched on data linkage, but WA has a really good data linkage, so as soon as you get structured digital data entry into any kind of format, within government, we have the opportunity then to pull data that's deidentified, but allows us to understand local health outcomes, benchmark it against other either interstate or national or international benchmarks.
- And then of course, once you've got your safety and quality data, and you realise that actually, we're
 getting amazing care here in WA, you start to then go into the research and innovation realm, how can
 we do this better. And you can then start to compare new outcomes to older outcomes, you can start
 to really track those in real time.
- Then you get to the next level, and maybe put AI sitting behind that so that the next patient that hits the emergency department that has a certain set of parameters, maybe the system dings at you saying "the last patient that looked like this had this outcome," or whatever.
- So I mean, that's obviously a bit future looking. I mean, I think there's huge opportunity because, I
 mean, Giles has already sort of, I guess, touched on data linkage, but WA has a really good data
 linkage.
- So as soon as you get structured digital data entry into any kind of format, within government, we have the opportunity then to pull data that's de-identified, but allows us to understand local health outcomes, benchmark it against other either interstate or national or international benchmarks.
- But I totally think that getting digital data entry is the first step towards a really smart sort of triaging system at the front door of hospitals, even in General Practice where computers can maybe trigger clinicians to consider things that maybe they might not have considered before.
- So I think for safety and quality for research, and of course, innovation, you know, I think it opens immense doors around that in terms of data linkage, for outcomes and, and, and other things. I mean, I think there are immense opportunities there.
- But the EMR probably itself isn't just the only answer, probably alongside that you do need, perhaps consent around sort of a research database that whether it sits within the EMR, depending on what you pick, or whether you need something like a REDCap, sort of database that sits outside it.



- Because the problem in a lot of EMRs is that it's not structured data entry. So I mean, I think people
 believe the EMR is the be all on the end all and it's certainly a massive step up on paper. And it's even a
 massive step up on the Digital Medical Record, where everything's largely PDFs, and unsearchable,
 and you can't extract that out of it. So an EMR is a step up, an Electronic Medical Record is a step up on
 a Digital Medical Record, because you can extract data out, and you can share data within the data
 linkage space.
- Alongside you know, some of the really good health systems around the world that have great research
 and innovation, alongside the EMRs they have a have a structured data entry portal, whether it's using
 REDCap, or, or something else that sits alongside that, so that you can extract and share data with
 national registries, you know, safety quality, you know, get your monthly kind of graphs back from
 within departments between departments.
- So the EMR, I think, if you're going to set up on hopefully in WA, we do set this up, and alongside it, we set up a structured data entry platform that can feed directly and have interoperability with the EMR, so that there's a single source of truth, but there's a way in which you can extract really useful data out that then you can sit Al behind, and then you really start to, I mean, you know, sky's the limit, you know, I think data, data is the very first step for making massive differences to health outcomes, and recognising what the big gaps are.
- We need the data. And so I think data is the absolute first step here. And I'm really excited by the possibilities.

Pip Brennan 28:26

What about you, Giles?

Giles Nunis 28:29

- Well, I think Merrilee covered it really well, because, I mean, I'm very excited by the I'm hoping that the EMR gets introduced with artificial intelligence at the same time. So I think that's going to be a really massive combination fix for a whole lot of things.
- The ability for us to exchange data between primary and tertiary care is an inevitable outcome. I mean, that will happen, I'm pretty sure it will. And I think from my point of view, in primary care, we will move into the named data position as well, we, you know, I think for us to be fully connected, we have to take on that, that capability and to work through so that we can link the data better.
- And ultimately, I'd love to see consumers have some kind of app that helps them navigate the health system relevant to themselves. I think that that is a great potential if you can link the data and you know, give more advice in that regard and have a little bit AI sitting behind at the same time.



- So I think those it really, in some ways I think Western Australia being a little bit a little bit delayed in implementing EMR is probably going to be significantly beneficial. We'll be leap frogging, you know, if we get this thing right, and we get the planning, right.
- And by the sounds of it so far, to my understanding, that pathway looks a lot clearer and are what it used to, you know, sort of three or four years ago.

Pip Brennan 29:57

- Yes, I would agree with that. And obviously I think a really key part of the pathway is that consumer involvement. We do have this opportunity as a state to really do some of that background work, I think. Some really good thinking work around things like, you know, standard care pathways and all that.
- And if we can keep the consumer at the centre, obviously, I would say that, then I think we're going to leapfrog the other states for sure. Is there anything else that you wanted to add, any of you want to add before we close?

Merrilee Needham 30:26

- Not really, except to say that I think a lot of people have a lot of fears around data and data sharing. But ultimately, you know, especially when it's de-identified, the idea behind the whole data sharing thing is to allow continuity of care, improve outcomes.
- And so, you know, I think we need to be transparent about exactly who we're sharing the data with, and what for and in what form the data is being shared with consumers so that there can be some reassurance around that.
- But I would encourage consumers to ask questions around that too, so that they feel empowered and feel comfortable that we're really only sharing data to try to improve things. I mean, there's no purpose in doing it for any other reason.
- And so, you know, sitting behind a lot of the data sharing conversations, I understand there's a lot of fears around that. But in general health, we're only trying to share de-identified outcomes, deidentified data in order to improve things locally.
- So, you know, I would encourage people to ask those questions, you know, who are you sharing my data with? Why you sharing it? For what purpose? Is that identifiable? Because they're really key questions.
- Because usually the answer to that is we're sharing it to try to understand our outcomes and to improve them and to compare them with other people.
- And we're not sharing, you know, we're not going to know that this is Pip Brennan at whatever, you know, address with this date of birth, it's, you know, it's sort of pixelated data that this is, a you know, a



30-year-old, beautiful female who's sitting in Perth, who has this, this problem and these outcomes, and how does that compare with other 30-year-olds sitting in Sydney, Melbourne, Kununurra, Broome?

• So, you know, really, we're just trying to get that level data, so that we can start to really improve our own understanding of what's happening locally, and improve it ultimately. So do ask the question, but feel reassured, you know, the only purpose of sharing data is to try to make things better.

Pip Brennan 32:23

• What about you, Giles, anything else you wanted to add?

Giles Nunis 32:26

- I think the probably one of the areas, which is still a bit cloudy is the way in which consent is given, I think just sort of what Merrilee's been mentioning there around, and I think we've got some safety measures that are in place that people can consent, and they can withdraw their consent, you know, in the system as well.
- And so and, and not necessarily, you know, consent to the whole, they can consent to the part. And so
 because people are concerned about, you know, future employment and things like that, that may, you
 know, the health record would be considered as big part of that process or expose, that would be an
 issue. And they're some of the things we can work through, but I'm pretty sure we can, we can get that
 right.
- And, but the opportunity, I think is is, you know, is so significant, at the moment. I find it this is the most exciting time I've worked in technology for 30 something years now, this is the most exciting time and technology I've ever experienced and being very data driven, and making good decisions on that is the is the critical, you know, the critical point we're trying to achieve here.

Pip Brennan 33:33

• Thank you so much, I really want to thank both of your for your time. I know you're both extremely busy. And thank you so much for taking the time to help fill us in on some of the possibilities of data use...