Using data to inform child protection

[Using data to inform child protection – video transcript]

[Using data to inform child protection]

[PowerPoint: holding slide]

[Professor John Lynch speaks]: So, I want to tell you a little bit about how we've been working for several years now in South Australia, how that's evolved to our work over here in Victoria, and also talk a little bit about evidence and interventions.

[PowerPoint: SA Early Childhood Data Project]

So, this is bubble diagram of what we call the South Australia early childhood project. I started building this ten years ago in South Australia with basically a bunch of money that the NH and MRC gave me with a fellowship that I could spend on whatever I want, so I spent it on this, and it's evolved now to be a project that has every birth cohort from 1991 onwards. So, that's every child, about 20,000 births a year.

It is deidentified of course because we work under research ethics, and we have now about 500,000 children, about 18,000 Aboriginal children, and we've been able to create family files which means we can have siblings and we can have parents represented as well.

[Shot of Professor John Lynch speaking]

That's been difficult to do but it is essential for the sort of interest that we have because families are often the units that we're dealing with, rather than individual children.

So, there's tens of millions of records in there now. This is big data by anybody's standard. The most important thing is this was always conceived as a public good enduring resource. Most linked data projects, you bring it all together. You answer your three research questions and then you destroy it. 99% of data linkage projects in Australia are like that and that's just straight up crazy because there's so much work that goes into doing this.

So, this will be a platform that could be around long after I'm gone and hopefully continuing to inform government, non-government and we're also starting to work with community-based organisations as well.

The idea is returning data to source. The public has already paid to have this data collected. It ought to be able to be used in ways that are valuable and one of those ways is by joining it up.

So, you can see some of the data sources we cover here now. So, we go through health, education, child protection where we've done a lot of work recently, youth justice, homelessness, drug and alcohol, housing, and importantly - is that...? No. There. Importantly, we now have access to Centrelink data, so we're the first linked data project that has individual linkage into the domino data set, and that's been because the federal government wants to work with jurisdictions to more - to better share data. They obviously have a lot of spend in this area, as do jurisdictional governments, but we pretty much have no idea what the overlap is. So, there's plenty of opportunities there. It starts by having access to...

[PowerPoint slide: AIHW. Australia's Welfare. September 2019]

So, if you want to read more about the project, we were asked to do a chapter in the latest Australia's Welfare for 2019.

[Shot of Professor John Lynch speaking]

Chapter eight is the one that describes the project, so you can go there and have a look and it's got some examples of what we've done.

[PowerPoint slide: One platform, multiple purposes]

It is a big data platform. It has multiple purposes. Obviously, we're in universities, so there is a traditional academic role to this. So, the traditional academic role is, you know, I have a bright idea and I go and get a bunch of data and then I sit in my office and think clever thoughts and I write a paper, four people read it, two people understand it and the university says well done because I've got another one on my CV.

So, that is a caricature of a game that academics are meant to play. We also try to do things that actually have a bit more translational potential where we look for topics that are of interest to not just other academics, and then most recently the need for public good outputs beyond the traditional academic ones.

[Shot of Professor John Lynch speaking]

We call those business intelligence outputs and they're the kinds of things that we'll talk a little bit about today.

[PowerPoint slide: Partnership research]

So, this work that we do involves very close partnerships with lots of government and non-government agencies. So, we have lots of different data custodians as you do. We have lots of different ethics committees that we report to, but everything we do is under ethics approval.

So, this will give you a flavour for the sorts of agencies that we work with in South Australia. That's the TACSI, the Australian Centre for Social Innovation. We work with them as an NGO. We're trying to bring their family by family data into the platform so we can do better evaluations of their program. Across health, hospitals, education. We have a very strong governance group for the use of Aboriginal data and by governance, I mean control. They decide what gets used and how it gets used. That's not our authentic voice. That is completely controlled by an Aboriginal governance group. The federal department of social services and as I said, NGO's.

We try to work with rapid response. So, typically when governments or other agencies partner with academics, you get a grant that goes for three years and then in the end, you find out that you didn't get the question answered that you started with anyway or the question is changed.

[Shot of Professor John Lynch speaking]

Those time cycles don't really work for people who are trying to make policy and practice. So, rapid response. Lots and lots of co-design. Figuring out what the question is that we're actually trying to answer and whether we can even answer it. That is not a trivial task. Actually, trying to figure out what it is you want to know, do you have the data to answer that, is a non-trivial, time-consuming task, and lots of transparent communication.

[PowerPoint: Policy and practice directed, tailored outputs]

So, in the last couple of years we've generated 50+ reports. 99% of those are cabinet and confidence in South Australia. Some people see that as a good thing. It means they're actually maybe being used.

[Shot of Professor John Lynch speaking]

Others say well, there's a lot of stuff here that you've done that can't be made public, and that's the way this works, but you can see from the titles there you get a flavour for some of the things that we've done.

So, I'd say that these are easily the equivalent of an academic publication, each one. Probably large.

[PowerPoint: Some Basic Epidemiology of Child Protection System Contact]

Okay, so one of the things that we're trying to do is to illustrate what you can do with linked administrative data.

[Shot of Professor John Lynch speaking]

So, I'll do some of the basic epidemiology. I should confess, I'm a public health person. I come from epidemiology and so I use that language, so I'm certainly not a child protection expert.

[PowerPoint: Child Protection in South Australia]

So, what can you learn? Here's another publication. There's the link down there if you want to get it, where in 2017 we actually started to put some of this stuff out there, and you can have a look at that if you want to revisit some of these slides.

[Shot of Professor John Lynch speaking

So, if we do something called cumulative incidence - how many new cases of contact occur by certain ages - then by age ten in the South Australian population, in a birth cohort of 20,000 - so, imagine we've got 20,000 births in a year and we're following them through time until they get to age ten and we count all the contacts with child protection. Does that make sense? So, it's the cumulative incidents up to a certain age for one birth cohort of 20,000.

[PowerPoint: SA Population by age 10]

So, we'll have 25% of children during that whole birth year. We follow them all up to age ten. 25% of those children will have at least one contact.

[Shot of Professor John Lynch speaking]

When I first heard that number, I said no way, that's not right, it's too high, go and do it again. I didn't believe it, but it is right, and if we look in other jurisdictions - we don't have exactly the same windows but if you look in other jurisdictions in Australia, this is about right for everybody.

So, the first thing you learn about basic epidemiology is the scale of the problem. So, we've got 4,700 children out of 20,000 in every birth cohort who will have at least one notification.

[PowerPoint: SA Population by age 10]

19% will be screened in, 10% will be investigated, 5% substantiated and about 2% will have an experience of out-of-home care. As I said, this is not extraordinary. This is what most jurisdictions in Australia look like if they did the data this way.

So, that means we get 1,364 children not screened in. 1.649 not investigated, 829 not substantiated. So, out of that 4,700 children who will have some contact with child protection, 3,840 actually receive no service. So, 80% of the business of pulling things into the child protection system at various points go back out and they get nothing.

[Shot of Professor John Lynch speaking]

So, that's a prevention opportunity in our minds.

[PowerPoint: Of children who have contact with the Child Protection System... cumulative incidence]

So, let's look at cumulative incidence, this time just by age up to five. So, that's about 53% of notifications are under age five. There are screen ins, there's investigations, substantiations in out-of-home care. So, if you're in the child protection business, half of your business is under age five. That's worth thinking about.

[Shot of Professor John Lynch speaking]

These are basic epidemiological characteristics of this problem.

[PowerPoint: Scale of the problem]

So, the scale of the problem is large. A little factoid. That's two and a half times more than childhood asthma. Childhood asthma is pretty common and it's a major problem. Contact with child protection is two and a half times bigger than that, and neglect is in about 30% or 40% of cases as the primary cause.

[Shot of Professor John Lynch speaking]

I highlight that because of the overlap between neglect and multiple social disadvantages, and there's been some things written about the neglect of neglect in this story when we talk about child abuse and neglect. We cannot disentangle this from the complex, social, economic and health conditions that sit behind as some of the drivers.

Half your contacts are under age five. So, that makes us think well, who is in touch with under-five's? They're not in school yet. Who is in touch with under-fives? Well, it's the health system. So, what's the implication for the health system? Because they've pretty much got them up until age two and then it's child care and then it's early learning, etc, but the health system has to play a big role here because they are the ones who are on the ground.

[PowerPoint: Re-notification to child protection]

Re-notifications.

[PowerPoint: Number of times re-notified by age 5 - at age of the first notification]

Okay, so if you have a first notification under age one or under age two - so, there's you're under one's and under two's - 40% of these, 28% of those. On average, 35% - they will be renotified more than five times by the time they're age five.

[Shot of Professor John Lynch speaking]

So, I'm not telling you anything you don't know. There's a lot of churn in this system. There's a lot of re-returns back in.

[PowerPoint: Renotification]

But these are basic epidemiological principles, so multiple renotifications.

[PowerPoint: Looking forward]

The other thing you can do with linked data is find out what happens to kids who experience different contact patterns.

[Shot of Professor John Lynch speaking]

And that's really hard because child protection often doesn't know, it doesn't have that data.

[PowerPoint: Vulnerability on the Australian Early Development Census and child protection system contact by age 5]

So, what we did was take the AEDC - some of you might have heard of that, that's the Australian Early Development Census.

[Shot of Professor John Lynch speaking]

We're the only country in the world that has a universal census of five-year old's, other than Tonga, and so you can use that, having a look at developmental vulnerability at age five.

[PowerPoint: Vulnerability on the Australian Early Development Census and child protection system contact by age 5]

So, here's the kids who have had no contact with child protection and about 18% of them are vulnerable at age five on one or more domains. Here's the children who have had one or more investigations but no substantiation. Substantiation, no out-of-home care, and at least one out-of-home care experience. These are mutually exclusive categories.

What I want to draw your attention to is this group. So, these are children who only have ever had a contact, a notification. They've been screened in, they've never been investigation, never substantiated, no out-of-home care.

This ought to be where all the false positives are.

[Shot of Professor John Lynch speaking]

You know, the Mars Bar in the lunchbox is one of the stories we hear, teachers complain about.

[PowerPoint: Vulnerability on the Australian Early Development Census and child protection system contact by age 5]

But these kids - this group that's got all the false positives - is two times higher developmental vulnerability.

[Shot of Professor John Lynch speaking]

On average, there's something going on in those kids. So, it doesn't mean that - there are false positives. Of course, there are, but on average we've got twice developmental vulnerability. That's the same as the difference between the richest and poorest households. There's something going on for those children who are coming in for those notifications.

[PowerPoint: Insights from Administrative Data Are Valuable]

So, I think insights from administrative data are valuable.

[PowerPoint: Widely recognised that the "true" incidence and prevalence of child maltreatment is unknown]

If we reflect for a minute, it's widely recognised that the true incidence and prevalence of child maltreatment is unknown. We see that written a lot. We also know that administrative data underestimates the true prevalence. Everybody says that, which makes me think well if it's already one in four, what's the true prevalence? You've got to ask yourself what's going on out there if we're underestimating in administrative data, and there is a need for population prevalent studies.

So, the population prevalent studies rely on self-reports from older children. You can start to ask children questions about the age of eight to ten. Some say much earlier, but they become pretty unreliable if you're talking to five-year olds. So, we're talking about older children, youth and adults about their early life maltreatment experiences.

Some of you may have heard of adverse childhood experiences. This was something that's been done in the US.

[Shot of Professor John Lynch speaking]

So, it's similar to that where you ask adults about their adverse experiences in childhood.

[PowerPoint: First national study of child maltreatment]

I know the first seminar you had here was Ben Matthews talking about the first national prevalence study for child maltreatment which is great.

[PowerPoint: Agreement Between Prospective and Retrospective Measure of Childhood Maltreatment]

I just wanted to highlight this for you in thinking about different kinds of data, looking at this problem.

[Shot of Professor John Lynch speaking]

So, this is a study that was published just this year in JAMA Psychiatry. It's the agreement between prospective and retrospective measures of childhood maltreatment.

[PowerPoint: Agreement Between Prospective and Retrospective Measure of Childhood Maltreatment]

So, the idea is you get a longitudinal study. We start with kids and we ask the kids - so, they're ten, twelve, something like that - what's your experience of maltreatment in early life, and then we follow the same kids forward until they become adults and then we ask them again as adults, what was your experience of early childhood maltreatment. Do you get the game? So, it's the same individuals. So, we ask them as kids and then when they get to be adults, we ask them again what happened back here.

[PowerPoint: Child Maltreatment]

So, 52% of the individuals who report as children did not report as adults. 56% of the ones who reported as adults do not report as children.

[Shot of Professor John Lynch speaking]

That's not very good agreement.

[PowerPoint: "True" incidence and prevalence will likely never be known.]

So, the true incidence and prevalence of child maltreatment will likely never be known. We won't have a way to get at that, but why do we want to know the true prevalence? What's that for? To understand the extent of the problem, presumably.

Retrospective self-reports like ACEs - they were originally intended to help treat the adults.

[Shot of Professor John Lynch speaking]

So, Feliti and Ando were actually obesity doc's and these obese patients that they had as adults were reporting a lot of child maltreatment. That's where it came from.

[PowerPoint: "True" incidence and prevalence will likely never be known.]

The purpose of that was to help better treat them as adults. That's what the self-reports were for because they were carrying this burden forward with them.

If you want to design supportive interventions in real time, if you're in the business of trying to prevent things today, then self-reports don't help you very much.

[Shot of Professor John Lynch speaking]

They don't inform the business that's flowing through your systems now.

[PowerPoint: "True" incidence and prevalence will likely never be known.]

If the purpose is to better treat the adults, then they're really valuable. So, you've just got to figure out what the goal is, and if 50% of the notifications are under five, then you can't ask five-year old's anyway. You can't survey them.

[Shot of Professor John Lynch speaking]

So, we've got limitations whichever way we go. We need both sets to understand the nature of this problem, but most of your problems will not be solved by self-report prevalent studies.

[PowerPoint: Priority Populations, Predictions, Pathways]

Alright, so let's move on a little bit and I want to show you some of the work that we've done around identifying these priority populations. So, this is work that we did in co-design with various agencies in South Australia.

[PowerPoint: Potential Priority Populations]

Now, young mums. So, only 3% of all births in Australia are to women under 20.

[Shot of Professor John Lynch speaking]

It's a very small proportion, isn't it?

[PowerPoint: Potential Priority Populations]

Then, of those births to young mums, only 6% of those will go on to have an experience of out-of-home care.

[Shot of Professor John Lynch speaking]

So, if you look at the data that way, you'd say young mums aren't a big part of the problem here, are they? A very small proportion of births. A very small proportion of those go on to have contact.

[PowerPoint: Potential Priority Populations]

If you look at it the other way and you take all the children who are in out-of-home care, then 58% of those children were born to mums under 20.

[Shot of Professor John Lynch speaking]

It depends which way you look at the data. Both are true. If you start with the population of children who are in out-of-home care, then young mums are a big deal. If you start with the whole population of young mums, then they're not such a big deal. It depends what you're trying to do.

[PowerPoint: Predicting Risk]

So, if you've got data like this, you can also start to predict risk and this is very trendy.

[PowerPoint: Child Abuse & Neglect]

Lots of people doing this. The US seems to like it a lot. This is just a smattering. It's in the literature. People are doing it. Most of it is done using risk prediction after contact with child protection.

[Shot of Professor John Lynch speaking]

So, the work that you might have heard about that they do in the US is an internal process of predicting who should get investigated, who should have those procedures.

If you do that kind of risk prediction, the problem you're solving is that we're not engaging those at highest risk. We need to sift and sort better to allocate our resources. In other words, we're treating the wrong people. That's what that kind of risk prediction will help you do, but you can also do risk prediction before contact so that it might inform prevention, that you actually want to stop the flow into the contact system.

[PowerPoint: Risk Prediction]

The problem here is the system cannot cope with the scale of child maltreatment.

[Shot of Professor John Lynch speaking]

So, we need to reduce the flow into the child protection system by better having preventive activities before we get contact.

[PowerPoint: Predicting the risk at birth of child protection system contact by age 5]

You can do both, and we've played around with this in the administrative data. We do risk prediction in health all the time. Men of a certain age, when you go to see the GP.

[Shot of Professor John Lynch speaking]

Blood pressure, cholesterol, history, all of that stuff all goes into a computer and out spits your five- or ten-year risk of having a heart attack and then they say, "Here, John, here's your statton and here's your blood pressure drug." We do this all the time.

[PowerPoint: Predicting the risk at birth of child protection system contact by age 5]

So, if you do this in terms of predicting risk at birth for contact with child protection, you can run fancy statistical models and you can start to say which groups are at highest risk. I'm going to skip through this because what I'm basically saying is you can do this stuff.

[PowerPoint: Predicting the risk at birth of child protection system contact by age 5]

We've done it and if you do it, you take a whole bunch of characteristics that would be known at birth, and that's the important thing. It's already collected.

[PowerPoint: Moving from dealing with identified cases to preventing cases]

If you use this information, then you can get risk prediction where you've got areas under the curve. I won't bore you with what that means. The definition is there for when you get the slides, but that's better than heart disease prediction. That's pretty good. We can do it, and we get sensitivity and specificity and positive predictive values, and I'm not going to go through all of that stuff but you need to think about will identify 14% of children who will not have a notification.

[Shot of Professor John Lynch speaking]

We might tap people on the shoulder and 14% of them are going to be just fine that we tap on the shoulder. You have to think about what the cost of that identification is in terms of labelling.

[PowerPoint: Potential for prevention is large]

So, in our field, there is no point in screening unless you have an effective intervention to offer. That is the number one rule of risk prediction. If you can't offer anything, do not go screening, and you've got to have an intervention that not only has impact but it's got reach.

[Shot of Professor John Lynch speaking]

If you've got an intervention that has impact but you can only get it to 5% of the population, it has no reach. It's not going to turn the curve. You get too few people.

Perhaps most importantly, there will inevitably be false positives and false negatives.

[PowerPoint: Potential for prevention is large]

You cannot estimate the cost - and I mean social, personal, stigma, etc - unless you know what it is you would do.

[Shot of Professor John Lynch speaking]

If you are offering a non-stigmatising supportive positive intervention on the basis of that screening, then those costs change dramatically as if it's a more aggressive, assertive, negative stigma. Do you get my point? You cannot use risk prediction unless you know what it is you're going to do. That's actually really hard, but I just want to sort of hammer that point home.

[PowerPoint: Our Work with DHHS Victoria]

So, our work with DHHS. So, that's a bit of a flavour of kind of what we've done. That's idiosyncratic to South Australia because that's the relationships we had with the various bits of government and what they wanted to know.

[Shot of Professor John Lynch speaking]

They will literally call and ring up on Thursday afternoon and say, "Can you tell us about such and such a group and can we have it by Monday?" and inevitably, we get it by Monday, but they're the kinds of interactions that you have. So, depending on what you want to know, you can use the data in lots of ways, but we have been doing, as I said, priority populations, pathways and opportunities for prevention. That work will also happen in Victoria, and most recently we've been looking into residential care reform strategy and looking at transitions into and out of residential care.

[PowerPoint: Menu of Evidence]

So, similar kinds of data analytics to the examples I've shown you there, and then the other thing that we're engaged in is the menu of evidence. Some of you may be aware of that, and we are working to underpin a transparent, clear and usable resource around evidence. It communicates who the evidence applies to - target populations.

[Shot of Professor John Lynch speaking]

That turns out to be, I think, really important. We have to know where the evidence has been generated, in which groups, because they might not be the groups that you're interested in. So, you get this drift of evidence from where it's been done and it's been done in poor, white women in Alabama and then it gets applied in a different group. It's really important to understand where the evidence comes from.

[PowerPoint: Menu of Evidence]

Which outcomes are underpinned by evidence, and I'm going to say some more about that in a minute. That's also a place where we think more attention needs to be paid.

[Shot of Professor John Lynch speaking]

So, evidence-based programs. Evidence based for what outcome, and I'll give you an example of that in a minute.

[PowerPoint: Menu of Evidence]

Where was it generated? So, if you're generating evidence out of Alabama, I can assure you usual care is vastly different than it is to Australia. So, you have to think about what the usual care conditions are and then the quality of the evidence.

[PowerPoint: Evidence and Interventions]

Alright, so I'm going to say a little bit about evidence and interventions.

[PowerPoint: Social Policy Report]

I love the title of this from Jeanne Brooks-Gunn, 2003. Do you believe in magic?

So, the social, economic and health conditions that underlie child maltreatment are powerful, multidimensional and often chronic, those conditions.

[Shot of Professor John Lynch speaking]

Poverty, domestic violence, serious mental illness. They don't change easily.

[PowerPoint: Social Policy Report]

So, why would we expect a relatively short-term intervention in the first few years of life to provide lifelong immunity to those conditions that help drive the manifestation of child maltreatment?

[Shot of Professor John Lynch speaking]

We would have to believe in magic. You're not looking like you like that message. What we should have is a whole series of interventions that are integrated and supportive over time, but the idea that there will be a special age where we'll drop in and do something magical and we'll all be inoculated from the conditions that drive it - I think that's magical thinking.

We love our evidence based, don't we?

[PowerPoint: Unless you're using evidence-based...]

So, you know, I'm an epidemiologist. I do this stuff for a living, but even I think the pendulum has kind of swung over a bit too far and...

[Shot of Professor John Lynch speaking]

We've just taken all the right cordial and it all says it has to be evidence based. Let's explore that a little bit.

[PowerPoint: Research Evidence Industry]

On our side, we've got a research evidence industry. We churn this stuff out all the time. So, we've got policy frameworks and we've got individual research studies. We then have reviews of those studies and we then have reviews of the reviews, and then we put it all through evidence rating houses.

[Shot of Professor John Lynch speaking]

There's lots of them all around the world, of various sorts who tell us how good that evidence is.

[PowerPoint: Obama Care] Let me give you one example. So, this some of you may have seen. It's homevee. That's all the home visiting programs and the reason this evidence clearing house and rating house exists is because when Obama was president, he bought in Obama Care. They did a lot of comparative effectiveness research.

[Shot of Professor John Lynch speaking]

They sprayed $1.5 billion out to run home visiting programs and they said which ones are evidence based, so that's why it exists.

[PowerPoint: Home Visiting Evidence of Effectiveness]

You can go to the website and have a look. It's good. I think it works actually really well. One of their domains there is reductions in child maltreatment.

[Shot of Professor John Lynch speaking]

So, let's just take a snapshot of what these folks are saying. These are only home visiting programs, mind you, so it's not the full range of programs.

[PowerPoint: Homevee reviewed 50 home visiting programs...]

So, I pulled these out. So, here's the highlights. They reviewed 50 home visiting programs, declaring 21 as evidence based. That means high to moderate quality and they have their own rules about how they do that. They're pretty standard.

So, we've got 50 programs out there and 21 are high to moderate quality. Only 9 of these evidence-based home visiting programs even measured child maltreatment as a primary or secondary outcome.

Of those, 6 showed a favourable effect on child maltreatment, however that was measured, but there were more outcomes showing no effect than a favourable effect. So, here's the no effect column. So, here we've got evidence-based programs that have a range of null effects.

[Shot of Professor John Lynch speaking]

So, you think about an evidence-based program, you need to ask for what outcome because the evidence might not be on that outcome. It might be on a different outcome. So, evidence ratings of programs aren't very helpful unless you specify which outcomes they were positively affecting. Does that make sense?

So, there's no such thing as an evidence-based program without saying was it for child maltreatment, was it for dyslexia, was it for family attachment? Where was the evidence coming from for the positive effect?

[PowerPoint: From Best Practices to Breakthrough Impacts]

That coincides with Harvard Centre for the Developing Child is a great resource, I think probably the best in the world, and I really like this quote. It says the widespread preference for evidence-based programs, many of which have produced small effects on random categories of outcomes that have not been replicated, seriously limits the likelihood of achieving larger outcomes.

[Shot of Professor John Lynch speaking]

That's not a great state of the art for the research, is it? Random categories of outcomes. That's why thinking outcome specifically is important for us to take on.

[PowerPoint: The research cupboard is not bare...]

So, the research cupboard isn't bare but we do need a bit of a restock, I think.

[Shot of Professor John Lynch speaking]

I'm saying this as a researcher.

[PowerPoint: Doing better]

Can we do better and how would we know if we do better? Can we do better? Well, positive effects that we see from research studies are usually modest in scope and size, and despite what researchers will claim as significant effects and substantial and large, it ain't true.

[Shot of Professor John Lynch speaking]

Most of these are not. They are modest in size.

[PowerPoint: Doing better]

Everybody brings up Perry and Absidarian. You know, Perry Preschool in the sixties and Absidarian in the seventies and so forth. These are exceptions, not rules. They were exceptions at the time.

[Shot of Professor John Lynch speaking]

If you look at other programs, they had nowhere near those effects, and if you look over time, nobody else has ever been able to replicate those effects. So, it doesn't mean they're not right, but they're exceptions, not rules.

[PowerPoint: Doing better]

Usual care matters. So, we do nurse family partnership in the US with David Olls. We do the same program in the UK and what happens?

[Shot of Professor John Lynch speaking]

Zip. It doesn't work. Why? Probably because the usual care that's already there is vastly different than the usual care that existed in 1981 in Almira in New York. Things change, so you have to think about what usual care we're offering out there.

[PowerPoint: Doing better]

It is patently clear that the reporting of intervention studies in this field is well below what we would expect in health and medical research. Less than 50% of the research evidence is high to moderate quality.

[Shot of Professor John Lynch speaking]

What are we doing as researchers? What a waste of public money. Why are we doing that?

I think agencies like yours and the centre ought to be demanding ARC and NH and MRC get their act together. Stop funding this stuff that's not helping us. That's a bit radical, but have a go.

[PowerPoint: Doing better]

If you're going to run an RCT, power the damn thing properly, especially if you want to look in disadvantaged groups or refugee populations.

[Shot of Professor John Lynch speaking]

Less than half of all the randomised trials that occur are adequately powered. That is unethical. We're asking people to participate in studies and we are not powering them properly. They can't answer the question by design. That's just wrong. Again, we need to stop that stuff.

[PowerPoint: Doing better]

Again, policy relevant populations. One of the things that we've noticed is that when we look at some of the evidence, the people who get into these randomised trials - now, let's imagine.

[Shot of Professor John Lynch speaking]

I'm going to run a randomised trial and I'm going to come and knock on your door and I'm going to get you to fill out a questionnaire for two hours and then I'm going to poke you and weigh you and ask about all this stuff. Oh, and then I'm coming back every three months. Who wants to sign up for that? Yeah, nobody? That's about right.

People that sign up for randomised trials are different to people who don't and they may not be anywhere close to the populations that you see as priorities for your organisations. We need much better transparency of who is in these trials. So, think hard about policy relevant populations and then what the evidence base is coming from. They could be the same but they might not be.

[PowerPoint: Doing better]

Policy relevant outcomes. Why are we running randomised trials that have implications for child maltreatment and we're not measuring child maltreatment? Why are we doing that?

[Shot of Professor John Lynch speaking]

We're measuring other things that researchers think are important.

[PowerPoint: What can early interventions really achieve...]

You can have a read of this. This is something I wrote for AIFS and Family Matters where I sort of have an even more of a rant about that in that article. So, you can have a look in there.

[PowerPoint: Too many evaluations of programs...]

We talk about this concept of good enough evidence.

[Shot of Professor John Lynch speaking]

We have too many evaluations of programs and innovations that are uninformative by design.

[PowerPoint: Too many evaluations of programs...]

They can't tell us what we need to know, often because of the inability to find a decent comparison group. We can't get a decent comparison group.

[Shot of Professor John Lynch speaking]

We do a pre-post and who do we compare to? Either nobody or, you know, some Elsac study or something which is nothing like the population that you'd want to have as a comparison. So, what do we learn from that? Probably not much.

[PowerPoint: How will we know what works?]

Alright, so I'm going to finish up. How will we know what works? Where will the next gains come from for us?

[PowerPoint: Where will the next gains come from?]

So, we need to develop new programs and test them in well designed and powered studies that explore the required dose.

[Shot of Professor John Lynch speaking]

We know nothing about dose. By that, I mean dose of therapeutic contact. We know exactly how much of a blood pressure drug I need to take every day to keep me from having a heart attack in the next ten years. We know all about dose for that. We know almost nothing about the experience of dose in the therapeutic interventions that we offer.

[PowerPoint: Where will the next gains come from?]

I think those programs that we test will need to have integration with real services. So, I think the desire - if we're going to run a randomised control trial, it's pragmatic. It's embedded in the systems.

[Shot of Professor John Lynch speaking]

That will make the learning much, much faster and much more real than sometimes the more artificial conditions that exist when researchers run off and do their own thing. That's going to require a lot of partnership with agencies though.

[PowerPoint: Where will the next gains come from?]

I think we need to develop well planned, well resourced, iterative enhancements to existing services. Enhancements to usual care. There's innovation going on every day out there. You're doing it. You're changing practice, getting it better.

[Shot of Professor John Lynch speaking]

How do we leverage that knowledge and that innovation to generate better quality evidence?

[PowerPoint: Where will the next gains come from?]

To come back, that's where administrative data can help because if we know what you're doing, it's recorded in the administrative data, then we've got some way of trying to evaluate it.

We can't have it as an afterthought that gets 5% of the investment of the intervention itself. We hear a lot about evidence-based practice. We ought to be thinking about practice-based evidence. This is where the innovation is going on. How do we leverage that as researchers?

[Shot of Professor John Lynch speaking]

How do we help you learn from that innovation in ways that generate good enough evidence? It might not always be an RCT but RCTs are a bit weird anyway. Everybody says they're the gold standard. Well, in lots of ways they're not because who gets into them? Do people stay in them? Yes, please, I'd love to answer your questionnaire every three weeks. Of course, people drop out. So, RCTs aren't always what they're cracked up to be. That's why good enough evidence is something we ought to think about.

[PowerPoint: Where will the next gains come from?]

That has major implications for the data we collect programmatically and how we use it strategically.

[PowerPoint: Outcome Practice Evidence Network

That's where you're already starting to do great work...

[Shot of Professor John Lynch speaking]

...with the open process of trying to build that evidence base from the grass roots.

[PowerPoint: SA Early Childhood Data Project]

So, this is how we think about it. Here's the SA early childhood data project. We've got big data platforms here and I've described those. So, we have the jurisdictional ones. We can add in federal government things, ADC, Centrelink and then we can even collect special local data. So, that's your combined platforms where you see the same family and the same child in all three and they're the big data analytics things that we've shown you, the epidemiological insights all the way through to the fancy modelling, but you can also think of evaluation and innovation uses of a platform like this.

So, we can do quasi-experimental designs where we have a group that gets a new program and a group that doesn't, but because we see the whole population, we can create a good enough comparison group. Not an LSAC, something like that, but one that looks just like the people who got the innovation but didn't get it. That's good enough evidence, quasi-experimentally, and we can see them in the platforms or if you want to do an RCT, let's try a pragmatic one. Let's plan it together properly and try and run it within the service system and then you're getting even higher quality evidence. Somebody who gets the program, someone who doesn't but they've been randomised, and that has lots of advantages, despite my flippant dissing of RCTs.

[Shot of Professor John Lynch speaking]

You can use the platform to test innovation. So, that's why when we talk about our work with TACSI, family by family program, they're bringing their data into our platform because they don't have a comparison group. So, they're looking at the effects of their program and we're supplying the comparison group and that helps build their evidence base. Whether it works or not, it doesn't matter, but the way the evidence gets generated is higher quality.

This will present challenge for researchers. Not all researchers are created equal, believe it or not. Just because they have a PhD does not mean they're clever.

[PowerPoint: I'm University professor Jason...]

I have lots of colleagues like that. I used to be like that. So, I sort of transformed. I find this engagement stuff much more interesting, much more useful in the end. The good thing is there are drivers out there that are pushing researchers your way. Mandates. So, here we see, this is from nature. Wanted, academics wise to the needs of government. Should social science be more solution oriented?

[PowerPoint: World View]

Society is ready. Is academia? Funder mandates. Get into NH and MRC, get into ARC and tell them to start generating stuff that helps you.

[Shot of Professor John Lynch speaking]

Rather than let's hope the stars align, the researchers will do something clever and it will be exactly what we need to know. Sometimes that happens but sometimes those stars don't align

[PowerPoint: Many things we need can wait, the child cannot]

So, thank you. That's the end. I'm happy to take some questions but we don't have much time, I'm sorry.

[End]