Special Commission of Inquiry

into Healthcare Funding

Before: The Commissioner,
Mr Richard Beasley SC

At Level 2, 121 Macquarie Street,
Sydney, New South Wales

Tuesday, 10 December 2024 at 11.00am

(Day 067)

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Also present:

Mr Richard Cheney SC with Mr Hilbert Chiu SC for NSW Health

THE COMMISSIONER: Good morning.

MR MUSTON: Commissioner, the first witness today is Professor Kathy Eagar.

THE COMMISSIONER: Good morning.

<KATHY EAGAR, affirmed: [11.05am]

<EXAMINATION BY MR MUSTON:

MR MUSTON: Q. Professor Eagar, do you still hold the role of an adjunct professor of health services research at the University of New South Wales?
A. I do.

Q. Could you just give us a little bit of background as to your experience within the area of health research and policy which has brought you to that role?
A. Yes. I started my life as a clinician in the New South Wales health system and then I moved into a range of management roles, both in Sydney and in the Illawarra, which is what took me there. Then I did a PhD in public health and health economics and then, by that stage, I was very interested in funding and how you create funding systems to create the right incentives for the sort of care we want to deliver and I became the foundation professor of health services research at the University of Wollongong, a position I was in for almost 30 years before my retirement for age at the beginning of 2023.

Q. And I understand you have held some roles which have seen you being involved in the admission of the public health system in New South Wales?
A. I have.

Q. What are those roles?
A. I've been in both management positions, but I also had very key roles over time in the resource distribution formula and I sat on - I was a member of the NSW Health Resource Distribution Formula for 15 years or so.

Q. What did that role involve?
A. It was an advisory role to the then department identifying those factors among populations which drive need for care and how to design a fair and efficient funding model that distributed the money between what were

then local health districts in proportion to population size and need. Importantly, it wasn't designed to incentivise particular types of care, but to give each district a global allocation and then, under the public health - the Health Services Act, they were then required to spend that money in a way which would maximise health gain for the population.

Q. We might come back to that aspect of it. Have you held other roles that have seen you being involved in the administration of public health?
A. Yes. Back in the 1990s I got very interested in case mix and case mix funding - in fact in the 80s - and I was one of two people who established what was then the New South Wales case mix area network, which had all of the area health services working together to develop an activity based funding model for New South Wales and that predated the National Health Reform Agreement by some 16 or 18 years, and we actually implemented activity based funding in New South Wales early on.

When the department then took on that role, I worked as a consultant to the department, and I worked with the funding branch and actually wrote the episode funding guidelines for New South Wales on behalf of the department for nearly 10 years.

Q. Just in very broad terms, that form of activity based funding, how did it operate within the system and how were the amounts payable assessed?
A. The big change came in the introduction of the health reform agreement in 2014, and that was agreement towards a national ABF model, which is an activity based funding model, and New South Wales made a decision to ditch the two-pronged health system that it had, which was resource distribution formula to distribute the money to the districts and area health services, and then area health services funding their hospitals and health services based on an agreed quantum and range of activity, and with the introduction of the health reform agreement, New South Wales made a voluntary decision, which it didn't need to do but it did, to simply adopt the national model developed by the Independent Hospital Pricing Authority, and use activity based funding from the centre to the districts.

Q. Insofar as the districts are concerned, I understand you've held a role more recently with the Illawarra

Shoalhaven Local Health District?
A. Yes, for the last - for 10 years up until 2022, I was a member of the board of the Illawarra Shoalhaven Local Health District. At the moment I'm currently doing a project partnering with the health service and others, trying to understand the demand for aged care in our region and what are the costs and other patient outcome implications of the huge issues to do - unresolved issues to do with unmet need for aged care.

Q. We might come back to that in a moment as well.

THE COMMISSIONER: You may be going to ask, but I'll ask now.

Q. When you say with the introduction of the health reform agreement, you said:

> *New South Wales made a voluntary decision, which it didn't need to do but it did, to simply adopt the national model developed by [IHACPA] and use [ABF] ...*

A. Yes.

Q. What do you mean by "voluntary decision which it didn't need to do but it did"? What do you mean by that?
A. What I mean by that is that the New South Wales activity based funding model pre that was much more sophisticated than the national model that the Independent Hospital Pricing Authority adopted and it necessarily needed to adopt a lowest common denominator model that could be used across the whole country and that lacked the sophistication and nuance that we had already in place in New South Wales.

And IHPA could afford to do that, the Independent Hospital Pricing Authority, because its goal was to distribute funding, the Commonwealth's share, to the states and territories rather than fund individual hospitals, and everybody was always very aware that any foibles in that model would be compensated for via the grants commission in terms of GST allocations.

So, for example, if I just use an obvious one, not New South Wales, Northern Territory, there is no way that Northern Territory can deliver care at the national

efficient price, but it doesn't matter because they get that bit of money and then they get compensated for that via the grants commission.

New South Wales could have maintained that more sophisticated approach and a couple of those elements that were lost - one is to pay a different price for each peer group of hospitals, that is that the major teaching hospitals actually have a different cost structure to district hospitals or country hospitals or the women's and children's hospital; we ditched the concept of that. We ditched the idea of seeing intensive care as a rare but important, incredibly expensive resource, that should be seen as a resource for every hospital rather than just the one it was in, and we used to fund intensive care separate from the rest of acute care.

We also had a model where we paid for renal dialysis on a per annum per patient basis rather than on each discrete activity. There were some other details as well. But the purpose was that we were trying to be much more precisely identifying what drives costs, in order to ensure that hospitals got a budget that was transparent and actually reflected their cost structure.

That went, necessarily went, when IHPA brought in one model that says, "There's one nationally efficient price", which is, of course, not a nationally efficient price, it is just the average of everybody in the whole of Australia and doesn't actually reflect anyone's price.

THE COMMISSIONER: Just before you follow up, just for the purposes of the transcript, I think it's worth recording that when Professor Eagar was talking about the Northern Territory and getting compensated by the grants commission, that's consistent with, I think, the evidence that Professor Duckett gave and the paper he prepared, the name of which currently escapes me, but we all know what I'm talking about.

MR MUSTON: Yes, I think that's right.

Q. Just exploring that, in terms of the activity based funding model adopted through IHACPA, so the less nuanced model that you referred to, that's the mechanism, I think you indicated, through which the extent to which the Commonwealth makes a contribution to the delivery of acute

care within the state is governed or determined?
A. Yep.

Q. Would you agree that harnessing as much of that Commonwealth contribution as one can, at least through that mechanism, is valuable?
A. The Commonwealth contribution to health, which I think in New South Wales is about 38 per cent, is absolutely critical. But you can have a more nuanced model which maps to the cruder model, whereas you can't do the reverse.

Q. You've sort of anticipated my next question, which is that the more nuanced model that was operating prior to the introduction of the IHACPA approach to activity based funding - would it have been possible to have continued to use that model whilst, at the same time, collecting the data that was needed to be collected in order to identify, for the Commonwealth exactly how much it should be paying?
A. Absolutely it was possible to map it, and if I go back to the conversations at that period, essentially, it was the ministry caving in to central agencies who were Premier's Department and treasury, who wanted the model just to roll down.

I think what that did - and I understand the pressure on the ministry to keep the central agencies happy, because they didn't want the National Health Reform Agreement to come unstuck - but it had quite detrimental, in my view, quite detrimental effects on funding for equity and outcome and efficiency in New South Wales.

Q. Can I explore that with you, and we might come to it in a bit more detail, but the evidence we have received suggests that the base funding that local health districts receive to deliver the care that they do has a historical origin that no-one can really recall, but it dates well back beyond the introduction of the ABF model?
A. Mmm-hmm.

Q. Is that generally consistent with your experience, to the extent that your experience would enable to you venture a view on that?
A. Absolutely. The reality is that governments across every state and territory work out how much money they've got with health - for health, they divide it by a unit price and then they calculate - they retrofit the volume. So if the total cost of the health service, total price,

equals volume by unit price, when the budget is fixed and you can't change the unit price, you just change the activity target.

Q. Again, correct me if this proposition is wrong, but does that mean that, at that point at which New South Wales made the voluntary decision to shift from the RDF approach to funding districts to the ABF approach, the amount of money, from day one to day two, that local health districts received, at least at that point, didn't change radically but, rather, the way in which it was sliced up changed, so there was a population based assessment which was used to justify the amount of money which was provided on day one?
A. Yep.

Q. The voluntary decision is made, day two, the same amount of money, or thereabouts, is provided but it's carved up into activity units instead of a population based multiplier. Is that roughly right?
A. Yeah, in practice, the amount of discretionary work you do in health is actually quite limited. We actually know - every emergency department, tonight, we've got a pretty good idea how many people are going to turn up, and that won't change, whether you fund them by population need or on the basis of activity. But I think what we lost when we moved away from population need as the basis of health system funding is that we lost the principle of equity, that we have some really disadvantaged groups in our communities, and their needs got lost in that model - Indigenous people, but others as well, homeless people.

We also lost our capacity to move funding around in response to population growth. Before I was in the Illawarra I was in Western Sydney and the early work I did was because we were arguing that Western Sydney, South West Sydney, did not get its fair share, and one of the things we achieved in the RDF, which I don't think has been sufficiently recognised, but I did include it in my submission, is that districts were plus or minus 10 per cent distant from their fair share of the funding.

Within a reasonable time, we gradually brought those down so that every part of this state was within plus or minus 2 per cent of their share of funding, and not only that, but everybody knew where they stood, and that's the other thing that's been lost. That was a very transparent process, you knew, and I knew that when I was working in a

district, I knew it when I was on the board, what - you know, whether we got our share of mental health money or acute care funding, or whatever. Ten years on, I wouldn't use that same model, I would make some changes, but the principle of funding for equity and outcomes is really, really important, and we don't want a health system that is incentivised just to produce activity.

Q. That's what I'm trying to explore. So the change in the model, at least in the early days, I gather from what you've said, did not result in any substantial change in the actual pot of money that was delivered to, say, Illawarra Shoalhaven Local Health District?
A. Yep.

Q. The people who were managing that money were the same people, subject to the usual sort of process of evolution that occurs within any organisation; would that be right - at least in those early days?
A. Yes, I think one of the things we lost almost immediately was a commitment to area self-sufficiency, that - not for quaternary and the high-level services, but for basic services, you should be able to get your hip replacement or your cataract close to home, and you shouldn't - so part of the resource distribution formula was explicitly predicting and providing districts with the money to revert - what to do, it was flow reversal. Illawarra was a case in point. But Western Sydney, where I had come from, was a much bigger case in point.

Q. I might come back to that. But I'm just trying to understand from a model point of view what it was that actually changed, at least in your view, in an adverse way? Same amount of money, same, by and large, people running the system?
A. Mmm-hmm.

Q. Presumably, overnight, there was not a radical reconfiguration of the services that were being delivered by local health districts to their communities?
A. I think we lost a couple of things, and it was - nothing happened overnight.

Q. Yes.
A. The first thing that happened is that we have lost the concept of equity, and based on - and I included my best case analysis that I could do on the data, the system is

now significantly more inequitable on a geographic basis than it used to be.

Q. Why is that?
A. Because when you fund on activity and the activity is based on the activity you did the year before, it is always a retrospective and retrograde model. It reinforces current practice and it reinforces the location where current activity is provided. That is really a problem if you are looking at how to improve allocative efficiency and outcomes, but it rewards those people already doing a lot of activity, and if you are in a growth area where your population is growing, you actually have to do the activity in one year first before you get it in your budget the next year, presuming you do.

Q. We are told that the growth figure that's applied to the base each year takes into account things like changes in population size, for example.
A. Mmm. It might. I have no idea. I mean, I do think that - and I don't say that in a flippant way, I spent 10 years on the board asking a basic question every year, "Does Illawarra Shoalhaven get its fair share of the funding?" And I never got that answer in the 10 years.

THE COMMISSIONER: Q. Can I just ask, so we're clear, what we mean by "we lost the concept of equity"? Should I understand that to mean we've lost the - we lost some of the capacity to address inequality in the system?
A. Yeah, we actually know that some parts of the state have much poorer health status than others; that some parts are much older than others; that some have particular Indigenous communities and culturally and linguistically diverse communities --

Q. Where there are worse health outcomes, yes.
A. -- who have greater measures of need. When all you do is treat that as a loading in an ABF model, you lose the nuance - you lose the sophistication and you lose the ability to track whether you're achieving anything.

I think the other issue, going back to your comment, I've not seen anything about the material - what is the impact of putting those factors in ABF? Does it shift money a half a per cent or 10 per cent? Knowing the materiality of that adjuster, for me, would be essential in being able to comment on whether it's a good idea.

MR MUSTON: Q. And so is it the lack of transparency around these things which is fundamental to your view that there is, at least potentially, a lack or we are losing equity as a driver of funding decisions?
A. No, I think --

THE COMMISSIONER: Q. Or is it a lack of precision as well and adjustments?
A. It's a lack of all those things. There is a lack of transparency, there is a lack of precision, but there's also the creation of the wrong incentives, and I - you know, I said my life - I started off doing clinical work and got interested in the whole issue of equity but I also got interested in the issue of how - what sort of incentives, and where you have performance agreements that are all based on activity targets, what you measure matters. We stopped measuring things before that I thought were really important things to answer some of these questions.

MR MUSTON: Q. Like what?
A. What is the health differential? How much does it cost to close the gap in Far West New South Wales? That's a really important question. Another question: to what degree has the availability of private hospitals and private health insurance reduced the demand for the public system and how should we account for that in a funding model?

Third issue: to what degree does the availability of Commonwealth funded services - aged care, disability, primary care, medical specialists in their rooms - reduce or change the need for public health system?

I mean, I could go on. But these are examples which, from my point of view, coming back after a 10-year break, what are the big gaps, those sorts of things, I still think. Somebody in the ministry may be doing it, but in the 10 years that I was on the board, I did ask for it every year and nobody ever could answer it.

Q. So just going through those factors, the examples you've just given, as part of an approach to the planning of the delivery of health services within a local health district, each of those factors should be taken into account in determining what the service mix should be in a

particular location or local health district; would that be right?
A. I just want to step back a bit. Funding system design is not a set of free choices where we have a smorgasbord and we say, "I will have a bit of this and a bit of that"; the system has to be designed coherently as a whole, and it can't be designed devoid of a governance framework.

I think the other issue we haven't talked about is who is accountable for achieving outcomes and best bang for the buck? Because one of the things that happened - and I think it's the most important - was that the ministry took on the role of determining the volume of widgets that were produced, and that really raises fundamental issues about what's the role of the ministry and what's the role of the districts and the degree to which you have a centralised or decentralisation, and the funding model should reflect that bigger purpose.

If you want the ministry to be running the operations of the health system, getting them to fund by activity based funding - that is, become the purchaser - is a perfectly sensible thing to do. But if you see that the ministry's role is primarily in policy and intergovernmental relations and Commonwealth-state relations and servicing the minister of the day, and that the role of the districts is to identify what local people need and how best to deliver it, then you don't use activity based funding at that level.

Q. You have prepared a submission to assist the Inquiry with its work, which was dated October 2023?
A. Yes.

Q. Before giving your evidence today, have you had a more recent opportunity to review that submission?
A. Yes. Given it's 14 months ago, yes, I did re-read it.

Q. Are you satisfied that the contents of it are still, to the best of your knowledge, reflecting beliefs that you hold?
A. Yes, they do.

MR MUSTON: Commissioner, that document is [SCI.0011.0718.0001]. It properly commences at 0002.

THE COMMISSIONER: Yes.

MR MUSTON: We might tender that document in due course.

Q. I might take you to that, Professor. Could we go to page 2, which I think is page 3 in the coding. Do you see there under the heading "The balance between central oversight and locally devolved decision making", in the first paragraph you tell us about the cyclic waves of centralisation and decentralisation?
A. Yes.

Q. I just want to ask you, I gather from what you go on to tell us in the next few paragraphs that your view is decentralisation is to be preferred over centralisation in terms of the running of a health system?
A. Yes, I've been following this issue with great interest over 40 years, not just in this state but in the rest of the country and also internationally and following the international evidence.

We've certainly seen in New South Wales cyclic waves of centralisation and decentralisation, and the interesting observation I would make about that is that the reasons that governments give to centralise are identical to the reasons that they give to decentralise, which is, "We want to have a better focus on efficiency and effectiveness and consumer engagement", blah, blah, blah.

My observation over that time is that the New South Wales health system is one of the biggest public health systems in the world. It is ridiculous to think that a group of people sitting in Artarmon know best what's the best way to deliver care and meet the needs of the people who live in the Murrumbidgee or the north coast.

It makes much more sense to me that you have a ministry - and I think we've got some international evidence on this as well - a ministry that is full of the sharpest policy people you can get, whose job is to develop a policy framework within which districts can work, that can meet the needs of the government of the day, keep the central agencies happy in the case of New South Wales, look after government relations and Commonwealth-state relations, and also some logical central functions, for example, quaternary services planning is best done statewide, but working out where to put maternity services is best done locally. So there's a horses for courses on

the planning, and it is a shared responsibility.

But the idea that the ministry can ever really improve allocative efficiency of a system as big as New South Wales I think is very optimistic, although I know that there are people in the ministry who think that that's their goal and that that is what the future role should be for the ministry. But I don't share that view.

Q. In relation to the planning side of it, accepting what you say about the logicality of the ministry dealing with quaternary services, the sort of pointy-end low-turnover high-complexity procedures like heart-lung transplants and the like, they're only going to be provided in one location and it's logical that the ministry is involved in decision-making around that, but is there a role for the ministry in system planning that goes a little bit deeper than that, in your view?

A. I think the ministry has got a role in a number of discrete areas. One is workforce planning, but again, that needs to be a shared function. You know, our workforce planning - our workforce issues in rural New South Wales are quite different to Sydney and we actually need a rural workforce strategy where the districts are working together. So I think there's a case in workforce for a more shared role.

But I think, if I go back to the bigger principles just for a second, in a sense, I think the more sensible arrangement for me is to go back to a bit of language that has fallen out of fashion but it is still quite accurate, the role of the ministry is as the funder and the role of the districts is as the purchaser and the role of the hospitals and health services is as the provider. Whereas I think what we're seeing at the moment is the ministry really sees itself as both the funder and the purchaser, and the districts as providers.

But I do think there are functions like workforce, like occ health and safety, some of the central functions of HETI, for example, do make best sense - the Health Education and Training Institute - to run on a statewide basis. But I don't think that the role of the ministry is to require districts to come along and argue the case of why they need to set up a new clinic or why they need to - whatever. They should be able to plan that level of services locally and be accountable for their money.

I'm not suggesting that they should just have a free-for-all, but the ministry's main job is to set the accountability framework and to be satisfied that the district is achieving best bang for buck.

Q. Accepting that the notion of a district coming forward and arguing for a clinic, for example, carries with it an implicit assumption that it's the ministry who makes the ultimate decision about whether or not the clinic should or shouldn't be delivered, if we walk it back a step from that, is there not a role for the ministry in collaborative, system-wide - participating with all of the local health districts in collaborative system-wide planning to work out in a way which makes best and most efficient use of the money available what should be delivered and where?
A. Look, I think we need to not think that there are two levels. There's a third level, which is the provider level, and a lot of the system issues we're talking about really need provider and consumer engagement, and we don't want that all being orchestrated. You're absolutely right, we need a collaborative issue, but I want to come back to the basic principle that power and responsibility need to be linked together.

Collaborative doesn't mean - you don't need an inquiry to say everybody should collaborate, and people try to do that to the best of their knowledge anyway. But the issue for me is who is responsible for making decisions and what are the - who is accountable for what? And at the moment, I don't see - if somebody said to me, "Gee, the people who live in this region are not getting very good health care", it's not clear to me anymore who is responsible for that. Is that the district's problem or is that the ministry's problem?

Q. Let me proffer an example that has come from the evidence, Central Coast LHD, from memory, don't offer neurosurgery.
A. Mmm-hmm.

Q. They have made that decision based on a range of factors, including what they perceive to be challenges in getting neurosurgery delivered in their local health district, the balance or the prioritisation of the spend of their limited envelope of money and the fact that they

perceive those services can be provided to their community adequately out of either Northern Sydney or John Hunter in Newcastle. That's an assumption that they have made, but is there not a role for the ministry in that planning process to actually determine whether that assumption is correct, and, if it is, perhaps increase the funding that's going to Northern Sydney or Newcastle to accommodate the fact that they are dealing with all of Central Coast's neurosurgery patients or, alternatively, say to Central Coast, "We're looking at your numbers and, whilst you have autonomy of decision-making here, we think maybe there is a case for setting up a neurosurgery clinic in your local health district and we could try and help you, through this workforce planning process, to achieve that"?
A. In a population needs based funding model, the district is still responsible for meeting the neurosurgical needs of its population and it exercises that responsibility by either delivering it locally or entering into, explicitly, a service agreement with another district, or many districts, to provide it, and there is a role for the ministry in facilitating those networks to make sure that that's in place.

It shouldn't be - and it currently is under ABF - that you can say, "Well, we've got no responsibility for the neurosurgical needs of our population"; in a population needs based funding model, you would say "You have to make a decision. Can you provide it efficiently and get good outcomes and, if not, what service arrangements are you entering into with other districts?" And the ministry's got a very important role in that.

Now, some of that is in feeding in the evidence that says, "Well, for this particular procedure, we've got good evidence that you need to be doing 800 of these a year to get good outcomes, therefore, in terms of an outcomes perspective, you need to show cause how you can run a quality unit with less than - doing less than 800 of those." That's part of the accountability that the ministry should have.

Q. Just dealing with that example you give of the 800 units, hypothetically, it's a hypothetical number, but that presumably is a measure of safety and quality of procedure?
A. Mmm-hmm.

Q. That is to say, if 800 units is what a CEC, for example, has determined is the safe and appropriate number of procedures to be done in a year in order for a facility to be operating safely --
A. Yep.

Q. -- then you would need to - are you saying you would need to put forward a pretty sound argument as to why you should be offering less than that or why you should be allowed to stand up a service that offers less than that?
A. That's right. But it's not just that. It's also that there are other middle courses. It's not like you go to the headmaster or the headmistress and they say, "Yes, you can do it", or not.

If I go back to some of the treatments for rare cancers, in the Illawarra, when I was on the board, we had a couple of rare cancers which we didn't really have the volume to do, so we entered into a partnership with South West Sydney district to share the care for those patients. We did the same thing when I was working at the Illawarra, in terms of renal transplants, where we provided all the pre-surgical care, the patients literally went to Prince of Wales on the day of the surgery and they were back a couple of days later, and I think we've lost that nuance of districts working across districts. The principle of close to home is really important, but it has to be close and safe.

Q. So there's close and safe, but there's also - let me test this proposition: within any health service, you could stand up a particular service and it would create demand for that service, within reasons?
A. Within reason, yes. I mean, we're not going to set up a new heart transplant service and generate demand for a new heart, but yes, but for most services.

Q. So neurosurgery, for example, to stick with that example, if you were to set up a neurosurgery service in the Central Coast, there would likely be a demand for that service and you could continue to meet that demand through that service?
A. I would want to distinguish between need and demand, because one of the weaknesses I think in the activity based funding model is that it assumes that need equals demand, and there is a level of latent need, latent demand, in the community, and you open up a new service and those people

come along. That doesn't mean, though - I mean, neurosurgery is a bit more straightforward, but in a lot of other things, that doesn't mean that the fact that people are demanding a joint replacement service, that all we should do is just set up a sausage factory and do more and more joints.

There are things we can do to change the nature of the demand and to channel that demand into more appropriate service responses, if we can achieve better value for money. And what I mean by that is that services are not - services of equal cost are not of equal value. All things being equal, you do the one that's the most valuable. And services of equal value are not of equal cost. All things being equal, if two services are of equal value, you do the cheap one.

Q. Let's use take that joint replacement example and let's use Central Coast again as a guinea pig.
A. Yes.

Q. You might have a demand for people wanting - perhaps have a perception that they need - a joint replacement procedure?
A. Yep.

Q. I take it that what you're telling us is you need to assess that potential patient base and make an assessment of whether the best bang for buck spend is delivering joint replacement surgery to all of these people as opposed to some earlier or alternative intervention, physiotherapy, diet management --
A. Yep.

Q. -- a range of things that might actually have people walking around comfortably without needing their joint replacement surgery?
A. Yes. Two things, I think, two aspects of that: one is if they don't provide enough joint replacement services now, people go over the border and that's a free good for Central Coast, because they're not required, nor held accountable, for meeting the needs for joint replacements for their residents, and that's because you fund on the activity, basis of activity rather than need, and that comes back to my earlier comment.

The second issue is that we talk about activity based

funding. "Activity" can mean whatever you want it to mean, but the national model defines "activity" very narrowly, and that has created a very narrow perception of what is worth doing. For the joint replacement, we have very good evidence of what is called pre-habilitation - people who are sitting on a wait list, who are overweight, should be, you know, helped to lose weight and they should actually improve their fitness, because even if they go ahead with the surgery, they'll have a better and quicker postoperative recovery if they're fitter, and a lot of those - some of those people, at least - will come off the waiting list.

We need to create a model which actually incentivises clinicians saying, "We need to set up a pre-habilitation clinic", and the district has got a mechanism to pay for it. But at the moment, all that happens is that somebody writes to the district and says, "Here's the evidence on pre-habilitation", and they've got to keep producing hip replacements because that's what they're funded to do under the activity based funding model. So you need a circuit-breaker.

Q. A circuit-breaker is one way of dealing with it. Another way of dealing with it would be a somewhat more sophisticated service planning process that involves both the local health districts, who know their communities and are able to make the best and most informed decision of what their communities need and what suite of services are required across the board for the delivery of care to their communities, coupled with proper planning input from the centre, whereby decisions are made as to where, system-wide, the best way of delivering - that all of those services should be provided.

Can I back that up with just an example. Let's say in Central Coast, limited budgetary envelope, they take the view that the best spend for their money is on pre-habilitation. They put the money into pre-habilitation, but there will always be a residual number of patients who do require their joint replacement treatment. There then comes a question about whether or not that joint replacement treatment should be provided in the Central Coast or whether it should be provided and can adequately and perhaps more efficiently be provided in either John Hunter or Northern Sydney. Maybe what Central Coast has to do is introduce adequate patient transport to

make sure that that person who does have to go and have their operation either in Newcastle or in St Leonards is able to get there, have their procedure and get brought back to recover in a hospital close to home. But for that to work, it requires some central involvement in the system planning, doesn't it?
A. Look, I think you can use words like "involvement", and "collaboration", and the obvious answer is "yes", but the issue is about who is accountable - who is responsible and who is accountable.

If you go back to that example you just gave, when you have activity based funding, what you measure matters, and you incentivise the things you can count. You can't count the transport to send somebody to Northern Sydney or the rehabilitation assessment or whatever it is, and that's why, I guess what I've been watching through the course of the Inquiry - I have browsed some of your submissions - there is no shortage of good plans people have put to you about how you need to invest more in prevention and early intervention, there is no shortage of those good ideas and pretty good evidence for them, too.

But I think at the end of the day, the question for this Inquiry is: what's the shape of the system? Is it in basically pretty good shape and you need to do a bit of tinkering at the edges? In which case, let's tinker the ABF model, and I could give you some ideas on how I would improve it after 15 years, not looking at it too much; or if you think it requires more fundamental reform, that is, there are bigger problems, then you need to design a funding model that achieves those bigger objectives. It's really straightforward. The worst outcome is to come up with a said set of recommendations that says, "Well, we can tinker ABF but we want the districts to do all these other things". Though two things can't - need to be aligned.

Q. Coming back to your concept of responsibility, one way of dealing with that responsibility is through key performance indicators?
A. Mmm-hmm.

Q. And I gather from your submission, consistent with a lot of evidence we've heard, that the key performance indicators at the moment are fairly uniform across all of the health districts and are, to use your term, measuring

things that are easy to measure but perhaps not the things that we should be measuring.

With service planning, and whether you use "involvement" or "collaboration" it probably doesn't matter, if you do have a process of slightly more nuanced service planning which identifies what services are going to be provided within a health district, what services are going to be provided external to the health district, the formulation of which will take into account all of those earlier factors you have identified - need, the availability of care through the private system, et cetera - you've worked out what your population needs to be delivered through the public health system and then you work out how that's going to be delivered either within the boundaries of your LHD or externally, KPIs can be set that measure some of those things that you identified a bit earlier as being immeasurable, can't they?

For example, if you've got your knee replacement surgery happening in Newcastle and Northern Sydney, then KPIs that measure waiting times for elective surgery are probably appropriate, particularly if they are perhaps targeted to elective surgery of that particular type, whereas in Central Coast, a KPI that measures waiting time for elective surgery might, at least in that instance, not be particularly useful, it might drive people to think they should be doing elective surgery when they don't really need to be, but you can measure things like wait times for a physio appointment in a public clinic or wait time to receive an assessment, can't you?

A. Absolutely you can. I mean, I think it's about the selective use of KPIs. What we know, you know, the last time I saw a list, it was 200 KPIs, every bit of ministry's goal in life is to get a KPI in for the district, and there are these things on it that are within your control and there are things on it that are completely outside your control, but at the end of the day, the activity targets drive everything, because that's what drives the budget.

Q. But does it really, in the sense that activity is important, but the way in which that activity is delivered remains at the discretion of the local health district?

A. Only within a framework for the five national case mix classifications, et cetera, et cetera. So all the pre-habilitation things we just talked about, a lot of other things I would do to improve health, are not

classified.

Now, it could be, and that's why one of my earlier comments was about New South Wales, in my view, made a fundamental strategic error in just going along with the national model and losing the ability to have a more nuanced model. So, you know, if I go back to my: if you think the problem is that the system is pretty good, it just needs tinkering, then you make the ABF model more sophisticated.

The way I would do that is I would have a broader definition of "activity". The things we've been talking about, I would actually make them activities and I would cost them and I would give them NWAU and all those sorts of things. I would have more sophisticated measures of need and more - you know, that would be my second. The third is I would make it more transparent.

The fourth is that I would actually move to recognise the cost structure of hospitals, which is that some costs are fixed and some are variable, and we should be moving much more now towards a fixed and variable funding model that says, "Every emergency department in this state has already got a roster for next week, and 90 per cent of those costs are locked in irrespective of the volume, and only 10 per cent of the emergency department costs are variable, but in elective surgery it's 50 per cent", or whatever, and I would move from a national average to a fixed and variable funding model, which is probably going to be in the vicinity, I guess, of 50 or 60 per cent of hospital costs are fixed and 40 per cent are within the control of the people who run the hospitals and the districts.

Q. That would vary depending on the size of the hospital?
A. Absolutely. So the fixed - and I designed, if I just use a very practical example, a couple of years ago now I designed what is now called the Australian national aged care classification for residential aged care. We did a big costing study and we developed a fixed and variable funding model which has a base care tariff, which is the fixed costs of running nursing homes, and there are six different tariffs depending on where you are, and the more - and the three factors which drive the percentage and the amount of costs that are fixed in residential aged care are location, size and Indigenous status.

So on average across the state, metro nursing homes are about 5 per cent cheaper than, you know, the national average, and in rural and remote, they've got a cost, their fixed costs are something - I haven't got the figure in front of me, but it's about four times more. So in metro homes, the variable component is about 50 per cent, but in rural and remote, it's about 10 per cent, and that starts to solve a lot of - that has solved, in residential aged care, the problem we've had in New South Wales hospitals for years, where we've got small rural and remote hospitals which get cost based funding, that is historic funding, but to move everybody to a fixed and variable model.

So they're the things I would do if I thought the system was more or less all right and I just wanted to tinker. But that's a pretty big tinker, but I'd still do that.

Q. Coming back to the extent to which the funding model is, in your view, incentivising the wrong types of care or the wrong approach to the delivery of care, do I gather that is because it's, in your view, incentivising the delivery of activity which the Commonwealth regards as activity, namely, that which is the more traditional acute hospital based care?
A. Yes.

Q. If the model were to recognise, at least at a state level, other forms of care - for example, outpatient, public outpatient clinics, paediatric care delivered in community settings and the like, as a species of activity which --

THE COMMISSIONER: Q. Or the perioperative advice that was discussed about --
A. Yes, perioperative. I mean, people will tell you about prevention. I don't actually think prevention is the problem, but I think the area where we've got huge potential to improve allocative efficiency is in better models for sub-acute and non-acute chronic disease management, particularly in early identification and intervention.

MR MUSTON: Q. Coming back to my question, if some of those early identifications and interventions were recognised as activity for the purpose at least of the

state's funding model, that would take away the problem that you've identified, wouldn't it, of the funding model incentivising the wrong type of care?
A. A couple - yeah, it solves part of the problem; it doesn't solve other parts.

Q. In what way.
A. If I go back to the fundamental issue, I think we've lost, is equity, it doesn't solve the equity problem at all. Responsiveness to local need, it does not solve that. Being nimble - and I think one of the things we saw, COVID was the best case study we've had in the world, really, in the last two decades: as soon as we had COVID, the whole ABF model just came unstuck because ABF isn't nimble enough to be able to gear up.

If we go back to the Central Coast, we could have an activity list with 10,000 things on it, but it becomes impractical, and it also - what we lose is the accountabilities and responsibilities: who is responsible and who is being held to account about who is achieving the best outcomes for the population, rather than just producing activity?

So you're right, we can make KPIs, you can classify - you know, you can expand activity classifications to include whatever you want and you can put in another 500 KPIs, but the fundamental issue - go back to what's the best way to govern the New South Wales health system and how do you have a funding model that reflects the governance structures, the power and responsibilities and accountabilities, that you want in that system? And at the moment, from my perspective, those two are not in alignment.

Q. But let's assume that there's an ample number of categories of activity to enable someone who is a vendor, a local health district, a vendor of activity, to decide exactly what sort of activity they want to be delivering to their community. Is the next piece your concern with the fact that the volume of activity which is being purchased from a local health district is something which is decided by the centre?
A. I think - I think it's quite easy to improve - to make technical changes to the ABF model that will improve the system a bit. So I don't disagree with you. I think if you, you know, expand the definition of "activity", bring

in better measures of need that are not just expressed need but are also normative need, comparative need and felt need, if you make the system more transparent and potentially to move to fixed and variable funding, you you'd actually improve the system, and that will work if the conclusion is that the system's pretty good and, more or less, what it needs is a bit of tinkering.

But if you think there are some more fundamental issues, like we're doing too much - we've incentivised hospital care at the expense of community, which I think is a really big structural fundamental problem, and even within hospitals, we still have concepts about a principal diagnosis that puts you into a specific DRG based on your principal diagnosis - the future and the biggest challenge for the New South Wales health system is chronic and complex health care for people who are living longer and don't have a principal diagnosis but have multiple things wrong with them, which, in combination, are driving their need for care.

Q. Just trying to come back, though, to the problem with using ABF, or the ABF model as a mechanism for funding, to take another one of our favourite examples of the paediatric intervention for a child who is about to start school. Let it be assumed, as I think we've been told, there's ample evidence out there to support the proposition that an early intervention for a child with a learning issue before they start school is going to produce better clinical outcomes and better life outcomes than waiting until they're in year 3 or 4.

So you've got a screening service which might operate, the Brighter Beginnings service, that identifies need within your population. The local health district is probably best placed to assess that information and identify the services that are required to deliver the early interventions that it provokes. I gather you would agree with that?

A. Yep.

Q. You could have a KPI - and I'm not suggesting we add 500 KPIs - but if it's important you could have a KPI that actually identifies the amount of, number of assessments which are done to determine that need, and you could have a KPI which relates to the period of time that a child who has been assessed as having a need waits to receive that

intervention.
A. Yes.

Q. That would at least put you on the trajectory towards some form of allocative efficiency?
A. Activity - I mean, I was one of the first that led the introduction of ABF in Australia, and to some degree, I would have to say that I think activity based funding has both achieved its goal and had its day.

ABF is designed to drive technical efficiency, how cheaply you can produce something, rather than allocative efficiency, which is whether it's worth achieving at all. I do want to distinguish between allocative efficiency and need, because they are not the same, and I think sometimes you've heard evidence which has confused those two terms.

Most of the future gains in the health system - and the New South Wales health system is technically efficient by national and international, and there is not much more blood in the stone to get out.

Q. To the contrary, you tell us in your submission that the existing level of efficiency is, in your view, not sustainable?
A. Yes. The current level is not sustainable, both because of climate change and the amount of dirty emissions that the health system produces, and also because wages will need to be kept at parity with other states and territories, otherwise we won't have a workforce.

So technical efficiency has been achieved. The big gains of the future are not trying, against the tide, to get more technical efficiency, but trying to improve the allocative efficiency of the health system. So you're right, you can go through this whole convoluted ABF process to something that might give you a better allocative outcome in the longer term, or you can redesign that funding model to specifically aim to incentivise allocative efficiency and then still report on technical - you've still get to produce; you know, you have still got to have surgery and medical admissions and all that sort of stuff, but moving the focus and the KPIs and the activity targets on to measures of allocative efficiency and not just technical.

Q. But let me just keep exploring that example we gave

a bit earlier. You have your paediatric intervention service?
A. Yes.

Q. Sorry, paediatric screening service. You identify the need within the population. You identify the service that you require to stand up in order to meet that need?
A. Yes.

Q. And when we talk about "need" there, we're not talking about the worried well wanting to have an assessment; this is a properly nuanced assessment made at the local health district level about what actually needs to be done to produce beneficial outcomes for a group of children within the population. You have a KPI that measures the time it takes for that intervention to be provided to the child, which is, itself, informed by an evidence base as to what a reasonable period of time to wait for whatever the service might be, paediatric intervention of some description?
A. Yep.

Q. You then have both the screening process and the paediatric intervention recognised as activity, such that, if a local health district chooses to deploy its activity in that way, then it's as free to deliver that service as it is to deliver a knee replacement procedure to a 65-year-old?
A. Yes.

Q. It has to make the choice as to where it wants to deploy that little piece of activity. What about that deprives it of allocative efficiency?
A. There's no doubt you can improve allocative efficiency by early identification and intervention, which is what you're talking about. So if you think about the care continuum, it starts off at primary prevention and then you get to early identification and intervention and acute care and continuing care, et cetera.

In this particular example, the other issue that that raises, though, is the interface with the Commonwealth in terms of the National Disability Insurance Scheme, because one of the things that happened in New South Wales was that there was a significant reduction of investment in disability, that is, the money that was previously - New South Wales previously had, early intervention programs

everywhere for children, all kids were screened, we had early intervention programs, with the introduction of the NDIS, all of that money was identified and transferred to the Commonwealth as part of New South Wales's contribution to the NDIS.

Q. So that, I think, consistent with what you have told us earlier, is a matter for the ministry to liaise with the Commonwealth about the funding stream and where the money comes from and who gets it?
A. Absolutely. I mean, we've got an opportunity now, with the new arrangements being negotiated, for early identification and intervention to become a state responsibility again, because it's demonstrably - the NDIS has demonstrably not done well with that sort of program. So that money will be returning and New South Wales is going to have to rebuild the services it lost with the establishment of the NDIS.

Q. But even under the existing arguments, an assessment might be made within a local area of the extent to which those early interventions are capable of being met by, for example, the NDIS and private providers that might be available in your community.
A. Yes.

Q. And if those providers are adequately meeting that need, or to the extent that they are meeting that need, that's not something that the public health system in New South Wales needs to deliver. Would that be right?
A. Yes.

Q. Obviously, we need to keep a close eye on it because these are dynamic processes. Would you agree?
A. Absolutely. We need models that screen newborns in hospital. We have really strong evidence on the value of infant home visiting. We need screening - milestone screening. We need to identify those children who start lagging. We need a therapeutic assessment of what's wrong and we need active intervention of every single child. No doubt if we did that, outcomes for those children, lifelong, would be improved, and we have to think about: why is it we used to provide those services and we stopped doing it? One of the reasons is because of the introduction of the NDIS, but the other is that we actually changed the funding model to follow the national activity based funding model, and when the choice you've got is,

"Use this $10 you've got to deliver a unit of activity that you've got an activity target for and a KPI for, or spend this $10 on an early intervention program for children that we don't count, we don't value and isn't in your performance statement", then human nature being what it is, we incentivise the places, and what we measure matters.

Q. So coming back to the ways in which that problem might be solved within the existing model, I think we've covered this, but if your activity recognised that early intervention is something which was capable of being sold by a local health district to the ministry, whether or not the ministry was able to persuade the Commonwealth to fund it through the ABF model - that's a matter for the ministry, not the local health district --
A. Yes.

Q. -- and there was a KPI introduced into the service level agreement because it was, as part of a planning process, perceived to be appropriate to measure the time it took for that intervention to be delivered, which, of course, would factor in things like the extent to which that service is capable of being delivered by the NDIS externally to the local health district - that would, on one view, produce a system which is capable of achieving both technical efficiency and allocative efficiency under the existing model, wouldn't it? When I say, "the existing model", I mean an ABF model as opposed to some other population based funding model.
A. There is no doubt we can make some technical changes to the ABF model that improves it. The first of those, as I said, was a different set of definitions of how to count activity, and that means moving away from being sold on the pricing model that the authority uses to a different set of activity, and the things I've just said: each of those, in my view, will give you some marginal level of improvement in the system.

But if all you're doing is adding those in to a system that's otherwise unchanged, you will get some improvement but you're not going to get any significant improvement in allocative efficiency, because if you put a million dollars in it out of a budget of a billion dollars, then you'll get a million dollars' worth. What we don't have is the systems in place and the incentives in place for districts to be saying, "Which of these two investment choices gives me the best bang for the buck", and the reason for that --

Q. That's what I was wanting to come to: how do we build those incentives in and what is it about an alternative funding model that introduces those incentives? Perhaps if I could ask you to answer that question by reference to a choice that might be made between deploying money to provide that knee replacement for the 65-year-old or the legion of 65-year-olds who need their knees replaced on the one hand or providing the early intervention in the paediatric space. How does a different funding model change the incentive structure there?
A. My observation of the New South Wales health system now is that districts are not responsible for the health of their population or for improving that health of the population. They are responsible for delivering on the KPIs in an activity; you know, if you produce enough widgets of activity, you've done your job. We're not actually saying to them, "Where is your epidemiological profile of your district? Tell us what your priorities are and how you set those. Tell us how you engaged with communities."

Unless we make those structural changes - you're absolutely right, we can get a bit of improvement, but whether that's enough, I would contend, in terms of the population profile of the next decade to two, that won't be enough alone.

Q. But isn't the change that's potentially needed to be made to bring that about, first, a proper planning process that actually clearly identifies need, identifies the extent to which population has been engaged in the process of deciding how to meet that need or what of that need will be met within the public health system as part of the allocation of resources within a limited budgetary envelope; and then a discussion system-wide as to how, across all of the health districts, the needs of all of these populations might most efficiently be met to make the best use of the money?

So that's that planning piece which, if it's done properly, has the capacity to identify and have local health districts properly engaged in the task of meeting the health needs of their population rather than just doing the same thing. That's step one.
A. I think --

Q. Let me go through two more steps and then I'll invite you to comment, but would you agree that that first step is potentially an important one?
A. Yes, but my proviso on that is to be clear about who's responsible for meeting needs: is it the ministry who's going to be held to account or is it the district?

Q. Well, let me explore that, then. As to the "held to account", the holding to account occurs at the moment through key performance indicators?
A. Yes.

Q. And if the key performance indicators, instead of being just a vanilla set that gets rolled out to everyone actually were more closely aligned to holding health districts to the outcomes that they are hoping to achieve through the services which are to be delivered as part of a more structured service delivery plan, that would have the districts being held to account, to the extent that the budgetary envelope available enables them to do it, would it not?
A. Yes, I think that's right. I mean, I would draw your attention in my submission to the extract I included from the World Health Organization on this topic, because WHO I think makes a very important point.

Q. That's page 13, I think.
A. Page 13 - that you cannot address allocative efficiency alone by just the funding model. It's all of the elements of the submission, and they cite who - you know, the elements they cite are human resource planning, health facility planning, capital planning, case payment and global budgeting - that is, what the WHO calls global budgeting is population needs based funding, and I do think - there's no doubt you can achieve a few, you know, if you think the system is just a bit cracked and not broken, then you can improve it in the ways you have been describing. I think there is a judgment call about whether that is sufficient.

Q. Well, the population needs based funding, there are a range of ways that that can be achieved. One is by making assumptions about what the population needs will be across the board based on demographic information and identifying a share of the budgetary envelope that's to be delivered to that slice of the population based on that sort of assessment?

A. Yes, it is. I think the element that is missing now is the sort of substitution element that was in the RDF - well, there are many elements but the big one is: to what degree does Northern Sydney and the Eastern Suburbs of Sydney, who have the highest rates of private health insurance in this state, have less need for public care than Far West New South Wales and South West Sydney, because of the availability of private hospitals, GPs, medical specialists and all the other things?

Those sorts of more nuanced and sophisticated measures would have to go into the model. They're not there now. I had a PhD student, a doctoral student, who did his doctorate on this very topic of how you incorporate access to Commonwealth funding into a needs based funding model, and that's - you know, we know how to do it now. We didn't know how to do it 20 years ago, we couldn't get the data, but we do now. But we have to move on into those more sophisticated approaches.

Q. But one way of doing that is through more sophisticated service planning that identifies, by reference to all of those factors, what services are required to be delivered as part of the public health system within a particular local health district?
A. Yep.

Q. And there may be ways of running a ruler over that by reference to demographic assessments that can be made based on population data to work out whether the total amount of money which is being delivered is broadly fair and equitable, but that doesn't necessarily need to be the driver of the funding decision, as opposed to the services which are being delivered being the driver of the funding decision, does it not?
A. NSW Health has some quite good, quite sophisticated expertise in planning, and it's not all in the ministry and a lot of very good planning is done at the district level. But that needs to be linked to governance: what things is the district responsible for?

Go back to the example, at Central Coast, you gave of neurosurgery: is it okay for the district plan to say, "Well, we're not going to do neurosurgery, we're confident someone else will do it", or is their job to say, "Actually, this is the type of neurosurgery we think we can be a purchaser of from Northern Sydney and give people

a better outcome and this is how we're going to do it." Those things haven't been clarified. There's just an automatic assumption that someone else is doing it.

Q. But why would the system work better - if decisions like that, for example, will neurosurgery be delivered through a Central Coast or some combination of Northern Sydney and Newcastle, why is the system better if decisions like that are informed by potentially ad hoc arrangements between the different health districts about the purchasing of activity, as opposed to a more central oversight of the system and central involvement, whilst not dictating the way the system is delivered, more structured central involvement in deciding about where certain services are going to be delivered and funding on that basis?
A. The centre needs to be the major driver and determiner at that quaternary level.

Q. Why not at the neurosurgery level?
A. Because there's no practical way they're going to do it. If you look at where we have big flows in really low-level things, cataract surgery, hips and knees - I also think we need to move away from thinking about surgery. If you look now at admissions in New South Wales, only 15 per cent of public hospital admissions now are surgery. The big challenges for the future are not designing a perfect funding model for surgery; surgery is becoming, and will become, even less and less. It's how do we deliver medical services to people with chronic and complex health care?

Q. Doesn't that reinforce the proposition, though, that we should be - we shouldn't be assuming that all of these different types of surgery will necessarily be delivered in every local health district if a more efficient and effective way of safely delivering that care is a hub and spoke model where you might certainly not have all of it delivered through the metro, but you might have - Dubbo hospital, for example, might be a place where people go to get neurosurgery, for example, but it might not be offered in other --
A. Look, we've got a lot of good examples of where that has already been - that is already what happens through the Agency for Clinical Innovation, through the ministry, through collaboration across districts.

Q. But does it? You say that, but does it actually get

done?
A. Well, I would argue, if I use something like cancer, you know, one of the things that New South Wales has done, go back to allocative efficiency, which is really world leading, is in introducing multidisciplinary case conferencing for cancer patients. If you come up and you've got a rare cancer, there will be a case conference and you will more or less get the same package of care if you are on the North Coast or Far West New South Wales or the Eastern Suburbs.

That has been a collaboration, not that the ministry's dictating or, in fact, Cancer Institute - you know, the health system has enormous power in the legs, you know, it's like an octopus and the power's in the legs and those legs are our clinical experts, they're the ones who drive this, not a bunch of people sitting in Artarmon.

Q. But what about more run-of-the-mill procedures, like the neurosurgery example that we've given: is the ACI playing any role or is the ministry playing any role that you are aware of in making decisions around, "Well, where should we be delivering neurosurgery so that it's available to everyone who needs it but perhaps not on their doorstep", but adequately --
A. I hope they are - I hope they are planning the high-level tertiary and quaternary care, I presume they are but I'm not on top of the detail.

Q. You mentioned earlier joint replacements, cataract surgery, those sorts of things, what role does the centre have in making decisions around how and where they are delivered, for example, do you think?
A. Yes, I will answer the question but come to say let's not get too obsessed about surgery because it's actually a minor part of the health system, it's only 15 per cent and it's going to go down.

Q. That's why I'm asking about it because at one level, coming back to something I said a moment ago, doesn't that lead one to the conclusion that there should be a greater role played by the centre in determining where this reducing pool of work is delivered so as to make sure it's delivered to everyone who needs it --
A. Yep.

Q. -- but most safely and efficiently, and potentially

not in their backyards?
A. Yes, activity based funding works demonstrably better for surgery and procedural care, and there's a case that if you had a really sophisticated model, you would limit some of the activity based approaches to the things that ABF is good at.

What it is not good at is fairly classifying, quantifying, et cetera, people with chronic and complex care and incentivising the delivery of that care in a non-hospital setting. ABF incentivises people to be admitted to hospital. It puts the focus - sorry, I shouldn't say it "incentivises"; it puts the focus back on hospitals, which is exactly the wrong incentive we want to have in the system.

New South Wales has demonstrably run down community health, chronic disease programs in the community, prevention and early intervention, and that is the inevitable, you know, outcome of an activity based funding system.

There is no doubt that we need central - and it makes absolutely no sense at all that every district is self-sufficient in heart transplants and this and that and the other thing, but that's why New South Wales has got a very good guide to role delineation and every hospital has a delineated role, and there should be very clear statements about what should each district be self-sufficient in, which is at least 90 per cent, and what are the things where we think it's okay to have cross-border flow for reasons of cost, quality or safety/?

Q. That won't be uniform, though, will it, across the districts?
A. No.

Q. What, say, Dar Western New South Wales should be self sufficient in might be quite different to what Southern New South Wales should be --
A. Absolutely, and that needs to be part of their service agreement, and that then --

Q. But for that to work, though, don't you need an overarching approach to planning which actually identifies, informed by and perhaps driven by the local health districts, understanding of its --

A. I don't think we're disagreeing. I think we're saying the same thing. New South Wales has always had central planning. That's not the issue. New South Wales is actually quite good at central planning and it's been that way. We've always had a ministry, historically, the department's always had a statewide services planning branch and it did statewide services planning.

Q. Well, when you say "statewide services", we're talking about heart transplants, intensive care and burns - I can't, off the top of my head, remember what the other statewide services are, but that planning, at least insofar as the evidence gathered to date reveals, doesn't seem to extend to that more nuanced service planning across all other areas of the health districts' operations?
A. I think you've got to trade - if you go back to different levels of service for different types, go back to the principle of close to home. For a patient who needs cataract surgery, having it as close to home as possible is a really important factor, and it's the most efficient way to do it, one of the most.

The only reasons we ever keep cataract surgery patients overnight now is they live a really long way away. We want most services for patients to be accessible and close to home. We also recognise that - because we can't staff them, because of safety, quality, staffing cost, a whole range of services can't be - having some very explicit planning about what each area should - district should be able to be self sufficient in and the things where the community should have an expectation of having to travel.

Go back to your previous example of early intervention for children, we want that to be as close to home as possible. We don't want to say, "Let's set up services at the two children's hospitals and all children in New South Wales will travel to the two children's hospitals for early intervention programs." So there has to be a reason to not have it locally, and those reasons are threefold: one is cost because the volumes are not there and the unit cost is too expensive; the second is safety, unless you do a certain amount of cardiac procedures a year, the mortality rate is substantially higher, and that's linked to quality; and the third is workforce, we cannot get the workforce - resourcing - we cannot get the workforce or the operating theatre requirements, or whatever. But there's

a set of pretty straightforward planning principles that can be applied.

Q. Is there also a fourth, though, which is prioritisation, in the sense that - let's come back to those two examples we gave, you might have an early intervention paediatric service which you would like to run and you feel that you could get the workforce to run and you feel it would produce good outcomes for your community --
A. Yes.

Q. -- but you can't afford to do that and do it properly and also provide a cataract service - that might not be a fair trade-off but let's throw that into the mix. But the adjacent local health district has a good cataract service and it's providing it adequately and has a solid workforce base and an ability to actually operate as a good hub for cataract care. You could provide access to that service if there was an adequate patient transport service which drove your patients to the day surgery to have their cataracts done and back home?
A. Yep.

Q. And you have to make a decision within your existing funding envelope: do we try to provide both and do so inadequately possibly on both fronts, or do we do one of them and make a compromise? The compromise might be people requiring cataract services have to go outside their local area to get it done. Is that prioritisation not also a fourth and important component of the planning process?
A. If I was asked to prioritise two things, one I have to pay for and one I don't, I'm going to go for the one I don't have - you know, that the priority's going to be - if I can send my cataracts across the border and somebody else pays, why wouldn't I choose that option? But I don't think that's actually helpful from a population health perspective. The question isn't: do you want to take the one that's free or the one that costs you? The question is: what's the best way of providing cataract surgery at a system level to achieve the best patient outcome?

Q. What if the budgetary envelope that you've got, even with the best funding system in the world, doesn't actually enable you to provide all of those things because the reality is there's not enough money in the New South Wales budget to meet everyone's health needs completely? How do

we deal with that prioritisation piece.

THE COMMISSIONER: There may not be enough money to meet everyone's health needs.

Q. This might be an impossibly general question and possibly stupid, but I'll ask it anyway. You have talked about in your evidence - I think because of the ABF incentives, one of the things you said is New South Wales has demonstrably run down community health and chronic disease programs in the community. We've talked about the KPIs and the service agreements, but there is an overriding statutory obligation under the Health Services Act which is that local health districts have got to promote, protect and maintain the health of the residents in their area.

Now, precisely what that means is probably difficult to define, but it's going to change over time, depending on what the health needs are, and probably since not long after the Second World War, we've had the shift from acute illnesses killing people to chronic diseases being the big problem and the big cause of healthcare costs.

If we have a funding model or models that really, in a way, overly incentivise acute services, if that's at the expense of services dealing with interventions, preventions, addressing chronic disease, then we're running the risk of potentially not fulfilling even the statutory obligations, let alone what we should be doing. Is that one of the problems?
A. That is absolutely correct. I mean, I think I would add a couple of historic exercises.

Q. Yes, go ahead.
A. One of the things we've seen that we need to bring into this conversation is what's the role of the Commonwealth and what's the role of the state? Because if I look at the areas, you know, as an outsider, engaged in the system, there are four - the things that New South Wales is solely responsible for in the main are pretty in control.

There are four areas where, in my view, the system is really stressed, and they are all areas that the Commonwealth - where the Commonwealth interface issues are absolutely fundamental. One is aged care, and that wasn't an issue until the last few years, and New South Wales has

an attitude which is quite different to the other states on aged care. The other states are saying, "Well, every single failure in the aged care system ends up in our beds. We might as well actually become a provider of Commonwealth funded aged care beds." New South Wales has taken the view of saying, "This is a Commonwealth problem, we'll keep negotiating with them and telling them that they need to do a better job."

MR MUSTON: Q. In fairness to New South Wales the MPS services that it offers around the state probably do provide a state based aged care service.
A. Absolutely, but I remember asking years ago whether we could expand the MPS model to metropolitan Sydney and the Illawarra, and at that stage it was, "No, MPSs are only rural, we're not interested in expanding them and if we can run them down and reduce the number we will", and I actually think MPSs are absolutely fundamental to our future.

So the four are aged care, NDIS - and we've got a strategic opportunity with the Commonwealth transferring early intervention back to the state to do the sorts of things that were really good quality early intervention work. I remember, going back, every district had three or four developmental paediatricians. Their job was to actually focus on measuring development of children and organising intervention programs. We haven't had a developmental paediatrician - people doing that work for decades.

The third area is primary care. We've got massive gaps in primary care and there's no reason that New South Wales couldn't follow the Aboriginal controlled medical services and start employing salaried doctors and click-clacking to the Commonwealth for that.

The last is specialist medical care in the community. What we've got at the moment is a whole lot of medical specialists charging enormous co-payments, which make access to medical specialist care in the community unaffordable for the people with the biggest health risks, and there is no reason, and I think you should be recommending that we pull medical outpatients out of the ABF model and start to say, "Whatever we provide in medical outpatients in hospitals, we can bill the MBS", and actually have services in hospitals, paid, whether they're

salaried doctors, VMOs, doesn't matter, but saying to a hospital, "If you want to set up a service with dermatologists and immunologists and respiratory physicians and the people who manage chronic disease, whatever you set up, we'll bill it to the MBS", that would be a game-changer, because unless we take on and address, those are the four biggest areas of stress in the health system at the moment, and that all involves Commonwealth-state. So in terms of what the state --

THE COMMISSIONER: Q. There is an element of "who blinks first" in this?
A. Absolutely.

Q. About whether you say to the Commonwealth, "Give us this money and we'll do this", and the Commonwealth is unlikely, perhaps, to just willingly hand over buckets of money, or whether you start the services and say, "This is your responsibility, we're providing the service, please hand over some money".
A. We do have - I mean if I just go through the --

Q. Is that right, though?
A. Absolutely. I will just go through each of them. In terms of aged care, we have an opportunity next year, because the Commonwealth has announced the cessation of the aged care approval round. At the moment, if you want to open up a new nursing home, you put in your bid and you might be approved for 60 beds or whatever, that's being abolished from next year and New South Wales can open up whatever aged care services it wants to become a provider of Commonwealth funded aged care.

In terms of NDIS, we've just talked about, but if I think about allocative inefficiency, the two single most inefficient things we do at the moment are have hundreds and hundreds of hospital beds in this state occupied by people who have been approved for aged care and who should be in NDS accommodation. That's the biggest example. It's not surgery, it is not whether we do this bit of surgery or that bit, I'm talking about thousands of beds, probably.

The third: primary care is patchy. Some districts have got enough, some don't. But instead of just saying "Gee, Far West has got a problem", we should be like the Northern Territory. Northern Territory has been delivering salaried primary care forever, and there's no reason we

couldn't have that model much more extensively than we've got it.

The last, for me, is really, really important, and this is the one that does require a change in Commonwealth-state: the Commonwealth would have to agree to a proposal that New South Wales would lead, which is you pull outpatients out of the ABF agreement and you fund it through the Commonwealth Medicare Benefits Schedule instead. And that way, you start to put some competitive pressure on private doctors in their own rooms.

In my region, it's not unusual for a medical specialist to charge $300 in out-of-pocket fees for a patient for a 15-minute consultation, where the patient is on a disability pension, and that's because there is no competition. But if that same service was provided by the hospital, you would also change the incentives and the behaviour of medical specialists in private practice.

Unless we actually make better use of medical specialists in the community, out of hospital, we will incentivise and leave no choice but for patients to be admitted to hospital, because it's the only place they can get affordable specialist medical care.

MR MUSTON: Q. The alternative to that is, I assume, you are referring to public outpatient clinics which, however they might be funded as between the state and the Commonwealth, your view is that the ministry should be funding local health districts, through whatever funding model we might have, to deliver, as part of the suite of public services, those public clinics?
A. I think it is a strategic planning issue. It is not a funding issue. At the moment you've got an outpatient clinic, and if the patient is privately referred, the named doctor can bill MBS as though they are in their rooms, and the doctor pays a facility fee to the hospital; and if it is not privately referred, if I just book into a clinic, then NSW Health pays the cost.

Not surprisingly, districts and hospitals are incentivised to channel more and more referrals to be privately referred, but that creates enormous inequities and inefficiencies.

If you actually just said, "Any patient who presents

to a clinic", and it doesn't have to be - I mean, the change at the Commonwealth level is that it doesn't have to be to a named doctor, but if I get referred to obstetric clinics, where we're also using it to train our junior doctors and our midwives, et cetera, at the moment, there's hardly - you know, more clinics - the quickest way for a health service to solve its budget problem is to close a few more outpatient clinics, and that's actually allocatively really inefficient, if closing outpatient clinics reduces access to care for people for early identification and intervention or for chronic disease management, and unless we actually incentivise setting up outpatients and not paying for it out of your fixed activity budget, we will always skew the system towards more and more hospital based care.

Q. You indicated a bit earlier, and I think the Commissioner took this up with you, that New South Wales has, I think you said, run down the community based and chronic disease type care. Is it that the NSW Health ministry has run down a service that was once offered as part of the state funded public health service, or is it that that type of care, that community care, primary care, specialist care, was traditionally provided by a Commonwealth funded market and that market has, through market forces, operated in a way which has led to the diminution in the quality of the care or the availability of the care in those areas, or some combination of the two??

A. The truth is somewhere in between all those. If I give a bit of history again, when community health was set up in this state, and all the other states, it was during the Whitlam era and it was all, in the case of New South Wales, 100 per cent Commonwealth funded and Whitlam said to the State of New South Wales, "You employ as many people as you want and we will pay the bill." And that was the halcyon days of community health. NSW dealt with that by putting them on through the public service because it was the quickest way to do it, and Victoria responded by putting ads in the local paper and inviting management committees to set up community controlled community health centres, et cetera.

It then moved to a fifty-fifty cost sharing arrangement - that is, it was exactly the same arrangement for hospitals as it was for community health - and the game-changer was the health reform agreement, because one

of the things that New South Wales traded off was that the Commonwealth withdrew funding completely for community health.

So if you were a community nurse - if you were a paediatric nurse, if you were at the hospital, you could be counted - your costs and activity could be counted for ABF purposes, but if you were at a community health centre, the state was 100 per cent responsible.

It is not surprising that the state has run down the very services that it needs to take if into the future, and that is, a strong and vibrant community health service which does not just do prevention but also does early identification and intervention and chronic and complex care management, including palliative care at home, and one of the major missing elements is community rehabilitation.

Q. Just picking up on the paediatric example, and this may be wrong, but is the disappearance of the baby health clinic that used to be an ubiquitous feature of most sort of suburbs and towns - is that a symptom of that change?
A. Yes, absolutely. I mean, if I go right back and talk about - one of my early jobs was in Fairfield community health centre, and in the City of Fairfield, we had baby health centres, but we also had in every public school, literally every public school, a community nursing clinic, and that nurse was responsible for the health of the people who lived in the catchment area of the school. She used to weigh the babies and she would do the school screening of the kids to make sure that their, you know, hearing and vision and height and all that stuff was okay, and if some old person was really socially isolated, she would organise some sort of support group for them, and she would run the new mums' group and she would do the community nursing, the home nursing, for anyone who needed care, and that included a home visit to every new mother who had a baby to see what they needed. That was routine, and I was assistant regional director western metropolitan, in one of my previous lives, responsible for that program, and we had, in the 1980s over 2000 people who did that work. And all the GPs knew, if the GPs were worried about a child at risk or a frail older person at risk, they would ring the community health centre and the community nurse was the first line of call, working in partnership with the GP. It was a fabulous program and it had all the things that people are now writing you submissions about, that have

been lost.

Q. Can I come back to your submission, back to page 2. Do you see, three paragraphs from the bottom, there is a paragraph commencing, "When the system is decentralised, the opposite occurs."
A. Mmm-hmm.

Q. I just want to ask you about the last sentence that you have written there:

> *There is no point maintaining Local Health District boards if they do not have the authority to make meaningful decisions.*

A. Yes.

Q. What do you mean by "meaningful decisions" when you use it in that context?
A. The "meaningful decisions", for me, is that the district has the power to make investment and disinvestment decisions. I mean, we haven't been talking about "disinvestment", we've only been talking about "investment", but actually, there is a need to do both, and for me - and I did have 10 years on the board - I saw the role of the board as being the governance organisation, the group that oversaw the development of a needs assessment for our district, that kept it updated, that did service planning and all sorts of service planning, and that set priorities for investment across the care continuum, and between our hospitals.

Q. So is that something that the current structure facilitates or is there a problem with the current structure that it prevents that system from working in the way that it should?
A. At the moment, I think that there has been - and it was when I was on the board, it started to develop - a real lack of clarity about what the district is responsible for and what the ministry is responsible for. Districts now need to go to the ministry, cap in hand, and ask for money for a range of new things, "Please increase our activity target because we now want to set up a clinic for early learning kids", rather than the ability to move money between the ABF component, et cetera. When you talk to the ministry, they say, "Oh, yes, well, we are responsible for that, but when people from the districts come to ask us -

they have to ask for permission, and we also say 'yes'", but I think that misses the point about who is accountable for making sure that each district has got the right balance of investment and who is accountable for those decisions.

Q. But again, is it coming back to one of what seem to be the core propositions: is part of the challenge with that the divvying up between Commonwealth recognised activity and non-Commonwealth recognised activity, as it were, such that in order to get your community based clinic, even if it were recognised as a species of activity that you could sell to the ministry, you might still have to satisfy the ministry that shifting some Commonwealth funded activity into some non-Commonwealth funded activity was an appropriate thing to do?
A. Yes, I will give you a practical example when I was on the board of the Illawarra Shoalhaven - and I don't want to talk too much about that because I have worked in lots of other places - we wanted to change the role of one of our hospitals and turn it into an MPS, a multi-purpose service, and the ministry said, "No, that's not our policy, you can't do it."

Q. Was it Milton or Berry?
A. Sorry.

Q. Was it Milton or Berry?
A. Berry. But also Coledale. But they were things up for discussion. We didn't even have the option, we did not have the authority, to do a plan for an MPS, because that's a ministry decision and the ministry's view was that it was trying to get itself out of, devolve itself of, responsibility for anything that the Commonwealth was financially responsible for, and that was a really poor - I mean, it is a good example where the district was - you know, Murrumbidgee has the same issue, lots and lots of little hospitals. The districts, the boards, should actually be able to make those sorts of decisions, meaning, you know - recognising, of course, that there is a political level, there is a political issue to be dealt with when you want to change the role of a hospital, but also who is accountable to the community for that? We should have, in my view, been able to change the role of one of those hospitals and account to the community for it, rather than say, "Oh, it was some nameless person in Artarmon who did it."

Q. In terms of this, the concept of who is to be held accountable for delivering allocative efficiency, in a practical sense, how do you actually - let it be assumed that it's the LHD that is going to be accountable for allocative efficiency: how do you hold them to account for it?
A. One of the things I would do is change - I would abandon all the activity targets and I would change all the KPIs and I would put four big headings, really, and that's to ask, each year, districts to report on four things: one is what strategies they have in place to protect, promote, maintain the health of the population; the second is what strategies are they pursuing to improve the balance of investment across the care continuum; the third is what strategies are they pursuing to improve outcomes for priority populations and the most disadvantaged people; the fourth is what strategies they have in place to attract and make better use of the workforce; and the fifth is what strategies they have in place to make better use of new and emerging technologies.

Q. Coming back to the second of those five --
A. The second one - about the balance of investment across the care continuum?

Q. Yes. What do you have in mind when you refer to that?
A. For me, one of the things I'd like to see for each of the districts is to use - I'd use something like a health benefits framework which says, if you think about the population you've got, what are the points of health intervention? You've got prevention, you've got early identification and intervention, you've got acute care, you've got chronic care, you've got palliative care - that's your care continuum. I would actually really like to know what percentage of investment each district has across those and then, by major broad clinic type of problem, like mental health: "What's our investment in prevention right through to end-of-life care for mental health?" "Cancer", "Heart disease" - so I would do it under some of the big categories, and I would also do it by sub-population groups: "What percentage of our money for children is spent on prevention, early identification, et cetera?" Then I would do some benchmarking and look at the international evidence about what we know is best practice.

MR MUSTON: I have no further questions for this witness, Commissioner.

THE COMMISSIONER: Q. By "best practice", meaning looking at the evidence for both the individual or even population based improvements in health outcomes?
A. Yep.

Q. But also economic benefits?
A. Absolutely. I mean, it's what I call the value proposition, which is how do we - each district needs to demonstrate what it's doing to maximise the allocative and dynamic - we haven't talked about dynamic efficiency, but the allocative and dynamic efficiency of the services they are delivering or purchasing to meet the needs of the population, rather than just reporting on how many widgets they produced.

Q. Is there anything that you think is important from your submission or evidence that you didn't think was explored as fully as you would like with Mr Muston, that you would like to add to your evidence?
A. No, I think we're fine, thank you.

MR MUSTON: Q. I will ask one more question, just given you have raised the dynamic efficiency and to make sure we're all on the same page. What are you alluding to when you use that term?
A. I will use the three terms: technical efficiency is how cheaply you can do things; allocative efficiency is that you are using it to achieve best outcomes; and dynamic efficiency is the ability of the health system to be agile enough to change in response to changing needs. The most obvious one I'll give you would be when we build hospitals and we do cost cutting, so we reduce the size of the operating theatres and a new procedure comes out, we've got this brand new operating theatre, in five years' time we can't do a new procedure because we can't get the machine in it. That's an example of something that's technically cheap to build and dynamically really inefficient.

Q. Technically cheap; maybe, at the moment that it is built, allocatively efficient, in that it is a good and effective operating theatre to produce outcomes based on the technology then available; but a new machine comes in, you want your inter-operative MRI, or whatever it night be, that can produce wonderful outcomes much more cheaply than

ever before, but you're not able to deliver that procedure because the room is too small?
A. Yes, so dynamic efficiency isn't just that, it is also how we use our workforce, how we develop our workforce. We run the risk of having such a specialised workforce that people cannot adapt and change. And we saw this in COVID. COVID really demonstrated that some health systems internationally were much more dynamically efficient than others. I sat on a WHO committee and one of the things we were trying to work out at the beginning of COVID: should we have some hospitals that just do COVID and business as usual with others, or should we leave it that everybody did. We didn't have a clue. Nobody knew how to do that. But they are really important questions for the future: how do we get a dynamically efficient health system that adapts and changes?

And the big issues for the future are not in elective surgery. They are in how to manage an absolute tsunami of people going into old age.

Next year, the first of the baby boomers turn 80, and we know that the average age of really getting high need care is from 80 on and average life expectancy is going up every year. If we do not deal with the changing population, our schism between Commonwealth-state and our focus on hospitals and acute care makes the system structurally dynamically inefficient.

THE COMMISSIONER: Q. Well, it is a trite point, but I think Mr Muston has pointed out that it's the health ministry, not the "surgery ministry", and it's the Health Services Act, not the "surgery services act". Actually, they are not potentially as trite points as - it is a health system, not an --
A. Absolutely.

Q. -- acute care system only?
A. Absolutely.

Mr Cheney, do you have any questions?

MR CHENEY: I don't, Commissioner.

THE COMMISSIONER: Or Mr Chiu, do you have any questions?

MR CHIU: No, Commissioner.

THE COMMISSIONER: Excellent. Thank you very much for your time and assistance to the Inquiry. We're very grateful, so thank you.

<THE WITNESS WITHDREW

THE COMMISSIONER: We'll adjourn until 2 o'clock.

LUNCHEON ADJOURNMENT

THE COMMISSIONER: Good afternoon.

MR MUSTON: Good afternoon, Commissioner.

This afternoon we have the authors of an expert report entitled "Building capabilities to drive health system improvements" giving evidence as a panel.

Starting with the screen, left to right, Professor Luke Wolfenden and Dr Martin McNamara, and then immediately in front of you, left to right, is Professor Andrew Milat and Professor Don Nutbeam.

I call each of those individuals.

THE COMMISSIONER: I will start with you, Professor Wolfenden. Would you like to give your evidence by way of oath or affirmation?

PROFESSOR WOLFENDEN: Sorry, can you clarify that question?

THE COMMISSIONER: Would you like to give your evidence by way of oath or affirmation?

PROFESSOR WOLFENDEN: Affirmation.

THE COMMISSIONER: Do any of you want to take an oath or would you all prefer to give an affirmation?

PROFESSOR NUTBEAM: I'm happy either way.

PROFESSOR MILAT: Affirmation.

DR McNAMARA: Affirmation is fine.

THE COMMISSIONER: If all of you are giving affirmation, we can do it all at once.

<LUKE WOLFENDEN, affirmed: **[2.10pm]**

<MARTIN McNAMARA, affirmed:

<ANDREW MILAT affirmed:

<DON NUTBEAM, affirmed:

MR MUSTON: As a matter of logistics, I've been informed that Professor Wolfenden has a commitment at 3pm which he would ideally like to get to. It doesn't cause me any difficulties, but on the assumption that it causes you no difficulties, could we preemptively excuse him from 3pm, if he drops off, so he's not doing so in contravention of his summons.

THE COMMISSIONER: Mmm-hmm.

MR MUSTON: Thank you.

Perhaps could I get each of you, starting with those who are here, Professor Milat first, just to identify who you are and where you are from, what your role is?

PROFESSOR MILAT: Yes. Sure. So my name is Professor Andrew Milat. I'm a professor of public health at the University of Sydney. I'm also a senior adviser to Sydney Health Partners, which is a partnership between five health services and the University of Sydney, that does translational research but also assists in clinical trials. It does some work in building consistent capability in implementation science as well. My areas of research expertise are policy and practice impacts, in scale-up of health system and population health interventions.

Would just like to disclose that in January I will be starting a role at the Ministry of Health, just wanted to let everyone know that. But at the time of the production of this report, I was not part of the Ministry of Health; it was done in my capacity as an academic at University of Sydney.

MR MUSTON: Professor Nutbeam?

PROFESSOR NUTBEAM: I'm Don Nutbeam. I'm a professor of public health at the University of Sydney, I'm the executive director of Sydney Health Partners, which Andrew has kindly described for you. As he has intimated, we are very closely involved working with local health districts in trying to improve the translation of research into improved clinical practice.

MR MUSTON: Professor Wolfenden?

PROFESSOR WOLFENDEN: Hi, I'm Luke Wolfenden, professor of public health at the University of Newcastle. I lead a National Health and Medical Research Council funded centre for research excellence and implementation science called, the National Centre for Implementation Science.

I also have a fractional appointment with the Hunter New England Local Health District as a health service manager in a population health unit. The authorship or the contribution to this report is in my role as a professor of public health in the university.

MR MUSTON: Finally, Dr McNamara?

DR McNAMARA: Yes, Martin McNamara, chief executive of the Sax Institute. We're interested in focusing on mobilising evidence from research in policy and practice generally and we've got a range of different ways we do that across really all jurisdictions in the country and lots of other organisations, other NGOs and other evidence users.

MR MUSTON: You have each co-authored a report headed "Expert Report 3: Building capabilities to drive health system improvements" dated 29 November 2024.

Commissioner, that's [SCI.0011.0605.0001].

Unless we hear anything to the contrary from any of you, we will proceed on the assumption that the views expressed in that report several days ago remain views that each of you hold.

Do you each have a copy of the report handy?

PROFESSOR MILAT: Yes.

MR MUSTON: Could I ask you to turn to page 6,

paragraph 10, in which you tell us that there is an urgent need for a conceptual leap in our understanding of how healthcare systems respond to some challenges that you have identified.

You then refer to the work of Professor Braithwaite and his colleagues suggesting a need to marry ideas drawn from complex science, data science and continuous improvement and proposals for creating a learning health system which you have described as "a dynamic learning model". Conceptually, one can understand why all of that sounds like it's a positive thing. What does a dynamic learning model actually look like in practice? Any of you can take that one up.

PROFESSOR WOLFENDEN: Commissioner, a learning health system is a system where evidence is generated to guide health decision-making and healthcare policy through research and evidence generated from the health system itself. So the idea is that rather than have a distinct academic enterprise that health systems need to identify, appraise and then apply if they can, we have the research - or, sorry, the health system generating the research or the evidence it needs for its own improvement, and if we can reorientate health systems so that they are more data driven, then we can accelerate the use of evidence for clinical and public health practice improvement.

MR MUSTON: What might that look like in practice, perhaps by reference to an example?

PROFESSOR WOLFENDEN: Certainly. So I mean, I can give - one of the case studies in the report is from the Hunter New England Local Health District population health unit where I work. In this organisation, there is an alignment or an embedding of academics or researchers within the population health unit and so the unit includes the necessary scientific expertise and academic infrastructure to support the generation of research to improve population health services.

Just to give a very kind of specific example, you know, one of the responsibilities of the unit is to support schools to implement healthy canteen guidelines consistent with nutrition guidelines so that children are consuming healthy diets consistent with dietary guidelines. The unit generated evidence that it needed to dramatically improve

the adoption by schools of this healthy canteen guideline and substantively reduce the cost of the health service in achieving that outcome. That followed a series of kind of sequential randomised controlled trials or studies. That has kind of rapidly but iteratively improved the impact of that population health service.

MR MUSTON: Just talk us through that in a little bit more detail. I can understand conceptually the benefit of healthy eating from a health outcomes perspective, and equally can understand the benefits of having school canteens delivering food which aligns with healthy eating practices, but what was it that this embedded part of the health service in Hunter New England did to bring about results or improvements in that area?

PROFESSOR WOLFENDEN: Yes, so there's good evidence about the effect of healthy canteens or healthy food environments in improving student diet and, of course, the beneficial effects on that in reducing chronic disease. The evidence that the health service didn't have was how do we actually implement successfully this policy or guideline in schools?

There wasn't a lot of evidence about how to do that well, and that was the primary responsibility of the local health district, so the population health unit. And so this guideline or this healthy canteen policy had been around for well over a decade, and compliance with the guideline was about 20 per cent. So about 20 per cent of New South Wales schools had implemented this mandatory policy.

One of the barriers was that population health units didn't know how to best support schools to implement the policy. So what the unit did was implement an evaluation or a research infrastructure around its usual practice, and what it found was that initial efforts were largely ineffective in supporting schools, and those sorts of approaches were providing kind of audit and feedback, so reviewing the products in the school canteen and providing feedback to schools about where they were not compliant and making suggestions about how they could change.

In response to that, the population health unit undertook a second trial where they used research methods to develop a more effective strategy and improved adoption rates to about 70 per cent, which was terrific, but that

model of implementation support that was being provided to schools was too expensive, and so then they undertook a further trial where the cost of delivering that support to schools was markedly reduced, such that they could achieve a similar outcome at a far more efficient cost to the health system.

So through that sequence of trials and kind of learning from doing and contributing that back to the evidence base, the efficiency and the effectiveness of the service from the population health unit was dramatically improved.

MR MUSTON: What was the secret source, as it were, in terms of getting canteens to start selling healthy food to school kids?

PROFESSOR WOLFENDEN: What we did is we kind of mapped a range of barriers that were occurring at the school level. So there were kind of individual barriers around, you know, canteen managers not understanding the policy or how they could comply; there were kind of barriers associated with the broader school community and their acceptability of changes to the canteen; cost considerations to schools regarding the use of canteen funds for a range of other school beneficial programs and activities. We kind of were quite deliberate in identifying and mapping strategies to address those specific barriers to overcome them and ultimately improve.

But without that data, you know, the conventional approach to public health, and, in fact, much of clinical practice improvement, are strategies that are largely educational based, that rely - that assume that if we teach, then people will change, and that's often not the case; you need far more nuanced and comprehensive kind of multilevel strategies to achieve significant change at scale across our health system.

MR MUSTON: So in that example, it was the embedding of the research function within the public health unit, in that case in Hunter New England, that enabled that work to be done in a way which produced results, at least in Hunter New England - were they then scaled to the whole of the canteens across the State of New South Wales?

PROFESSOR WOLFENDEN: Yes, great question. Certainly

there are a number of other LHDs that were engaged in the study and employed the methods, but, to my knowledge, at least, while the evidence was shared, I'm unsure if the strategies were replicated across the system. I suspect not.

MR MUSTON: That being so, whilst at least within the schools within your district, there's been some benefits from a learning health system, is it really a learning health system if it's not able to produce outcomes which traverse a wider population than those within that slightly more narrow geographic footprint in which the work is done?

PROFESSOR WOLFENDEN: Well, it's a learning health system from an organisational perspective within Hunter New England, but we appreciate that, you know, scale requires that this activity and this evidence is kind of disseminated and applied elsewhere, and we are actually extending this work where we're engaging all local health districts in more collaborative prevention efforts.

We've recently published a paper which kind of documents the expansion of that model for health promotion practice across the state for one project. So it's still, I guess, emerging, and it's certainly not universal, but I think we're seeing the seeds of what could be in terms of system-wide improvements in prevention practice.

MR MUSTON: This might not be the best example to use because there might be a debate about whether the Ministry of Health or the ministry of education is best placed to roll out a policy like that to bring about effectively the same result, but let it be assumed for argument's sake that this particular project or a project is clearly a health issue - that is to say, a Ministry of Health issue - do you have a view that anything needs to change about the way things currently operate within NSW Health to bring about that capability to scale research in a way that brings about change system-wide or at least spreads the benefit of that research across as large a group of the portion of the population as it can reasonably be spread across?

PROFESSOR WOLFENDEN: Yes, I mean, other authors may want to comment as well, but I think the substance of the report that we submitted was essentially that we're looking to create environments that facilitate research translation. There have been a number of reviews, both here and

internationally, which make a number of recommendations about the sorts of changes that need to happen, not just in New South Wales but elsewhere. They are typically around, you know, changes to research funding and research prioritisation, workforce capacity building, the investment in data infrastructure to enable research to take place, particularly within health systems, and models of kind of leadership and governance.

I would say that all of the - all of those elements exist to some extent within the New South Wales health system and probably the task is about how we kind of better strengthen and coordinate those. But I know that - Don, I'm not sure whether you want to elaborate on that?

PROFESSOR NUTBEAM: Yes, I'm certainly happy to come in. I probably won't follow that example, but perhaps refer you to another example that's embedded in case study, case example number 4 on page 14. A very brief reference to something called the "SHaPED trial". There are a lot of similarities. It is a group of researchers embedded in the Sydney Local Health District who have been looking to work with our emergency departments to try to identify ways in which we can reduce pressures there and introduce better practices, particularly, in this case, in relation to the management of lower back pain and, in particular, what most would see as the overprescribing of opioids to manage back pain in emergency departments. It's sort of established practice, but, actually, it's not best practice and may well be harmful to many patients.

They have undertaken a series of incremental studies, proving that it's feasible to substitute opioids with other forms of painkillers, demonstrating that both clinicians can manage this in the emergency department and that patients are very willing to accept the change, and then progressively scaling it up across one emergency department to three or four emergency departments, and that's a stage we've reached.

The features --

THE COMMISSIONER: Can I ask, it is probably a stupid question about this, but where you say - the note to myself about this part of the trial is, where you say "Sydney Health Partners ED trial slashed opioid prescriptions", et cetera, "by implementing the ACI evidence based model of

care", et cetera, why wasn't the ACI evidence based model of care already being used?

PROFESSOR NUTBEAM: Yes, that's a really great question, to which I don't have a simple answer. I did want to just pick up the themes that I think Luke alluded to. For the most part, if I could simplify matters, this can be explained by behaviours and by the organisations - "organisational inertia", I shall call it.

With great respect to clinicians in this example, working under enormous pressure, if you've always done something one way, you're inclined to continue to do it in that way, unless there is some active intervention that might persuade you to operate otherwise. I think that's what they are trying to do here, is to demonstrate that a different form of intervention can produce, actually, better outcomes.

THE COMMISSIONER: What's missing, though, between the ACI - the ACI develops an evidence based model of care, but somehow it doesn't get integrated into this hospital ED: what's the missing link that has prevented that happening? I hear what you say about people doing the same thing they've always done.

PROFESSOR NUTBEAM: Yes, sure. I don't mean that disrespectfully --

THE COMMISSIONER: No, neither do I.

PROFESSOR NUTBEAM: -- clinicians are operating under pretty difficult circumstances.

THE COMMISSIONER: They are in an emergency department, under pressure, so we'll take that as a given.

PROFESSOR NUTBEAM: I think, and again, I have to be very careful, I don't want to be disrespectful, but honestly, there are thousands of guidelines out there, like, we do not lack for evidence based guidelines. We lack enormously --

THE COMMISSIONER: It's translating them to --

PROFESSOR NUTBEAM: -- for an understanding of how you get change implemented in a complicated healthcare system

operating under pressure. I think, you know, that's where Luke began and that's where we'll get to eventually, and why the word "dynamic" is important. It's a constantly changing dynamic, especially at the point of entry in emergency care for many people, and the way in which we have a system that is more --

THE COMMISSIONER: But there is something missing from the system --

PROFESSOR NUTBEAM: Oh, yes.

THE COMMISSIONER: -- if that doesn't get linked up, what the ACI is recommending is an evidence based model of care and what actually practically happens in the ED.

PROFESSOR NUTBEAM: Sure. Honestly, forgive me for saying, if it was easy to fix, I'm pretty confident we'd have done something about it.

THE COMMISSIONER: Yes, sure.

PROFESSOR NUTBEAM: The complexity comes from understanding where the inertia sits. What is the --

THE COMMISSIONER: It won't be because clinicians are wilfully making decisions like "I'm not going to act on the best available evidence".

PROFESSOR NUTBEAM: Not at all, no.

THE COMMISSIONER: There is something that is just preventing the link between the ACI to what we do in the ED.

PROFESSOR NUTBEAM: Sure. I'm not going to put words into Luke's mouth, but I think what we're collectively advocating is for a much better embedding of research and better access to real-time data as being significant drivers of both the system and the individual clinician and their behaviour. If you've got access to data in real time that's prompting you and reminding you that there may be alternative and better ways of managing the condition that's in front of you, and if you've got a system that is supporting, driving and reinforcing that, saying, "This is how we want you to behave", you've a better chance, I think, of getting closer alignment between what we know

to be the best evidence and how clinicians are handling things on a day-to-day basis under pressure, basically, and again, I'm going to keep emphasising, I don't want to blame the victims here.

THE COMMISSIONER: No, no.

PROFESSOR NUTBEAM: You know, there is sometimes some inertia amongst our clinical workforce, but basically they are managing what's in front of them, using the best available advice they have at that moment.

For us, it's about understanding that dynamic better through research and it's also about ensuring that clinicians have the evidence they need available to them at the moment they need it, and that's where I think we're struggling at the moment.

THE COMMISSIONER: What would be the best structure or system - on this example you've given - of embedding what the ACI has done in terms of coming up with an evidence based model of care and getting it adopted in emergency departments? It's probably not going to be the bulk of the really busy clinicians in the ED who are just dealing with trauma and acute illness.

PROFESSOR NUTBEAM: Sure.

THE COMMISSIONER: It probably needs to be something else. What would it be?

PROFESSOR NUTBEAM: So, again, if I really knew the answer, I assure you we would have done something about it.

THE COMMISSIONER: I'm not going to know if you don't know, so --

PROFESSOR NUTBEAM: But I think that the conditions that make that more likely, if I can put it in those terms, are where people feel confident that making a change will make a difference, and that - I'm going to describe a lot of the research that we do in the translation and implementation world is about building confidence that something is practical to implement.

THE COMMISSIONER: So if you are a scientist or a clinician, being confident that making a change will make

a difference in a positive way --

PROFESSOR NUTBEAM: Will make a difference, yes.

THE COMMISSIONER: -- would involve looking at the research and the data; correct?

PROFESSOR NUTBEAM: Would involve different types of research. So a lot of the evidence based guidance that you refer to is classically constructed from clinical trials, where the focus is on demonstrating the effectiveness of something, often under optimal circumstances.

Where it may fall over is clinicians saying, "Yes, it might have worked in those circumstances, but in my emergency department, in my outpatient clinic, I have a different population, I have a different dynamic, I'm less confident" --

THE COMMISSIONER: Their pain thresholds are higher or lower.

PROFESSOR NUTBEAM: Yes, and so a lot of what we do in what we call translational implementation research is understanding a lot better how something of proven effectiveness could actually be implemented at scale in a real emergency department or outpatient clinic, with real clinicians and the kinds of pressures that they're operating under.

So when I talk about demonstrating the feasibility in real-life conditions, that's actually a research question of its own type. One of the challenges I think we face generally in our scientific community is the vast majority of research that is done is efficacy, proving something works, and far too little is done in trying to demonstrate that it can be implemented in practice in a way that builds confidence both in the managers, that they won't see a budget blowout, and in the clinicians, who care only about the best outcome for their patients.

We probably, in the end, are advocating for a shift in the balance of attention, particularly, I'd have to say, by the state government, because in fact, we have the NH&MRC and we have the Medical Research Future Fund providing enormous amounts of money that drive the improvement of evidence, but we still don't have a decent system that then

supports the research that's required to demonstrate feasibility and the ability for these things of proven efficacy to be implemented in practice in ways that deliver better outcomes and don't lead to cost blowouts.

For me, that's the essence of what we're advocating for, is building capacity to learn more about how we implement the scale in our complicated health system with clinicians who are incredibly busy and under pressure. My colleagues might feel free to contradict that.

THE COMMISSIONER: This is slightly off topic, and tell me also if it's not your precise field of expertise, but slashing opioid prescriptions by 12 per cent, I assume the benefit is not that people are putting up with pain that they don't need to; it's reducing the risk of some form of dependence?

PROFESSOR NUTBEAM: Yes, yes. So it's a bit of both. What they've been able to demonstrate is that people can manage their pain perfectly well without the use of opioids, which carry with them a whole range of risks and potential harm; and, secondly, demonstrating that the patients are actually very happy with that form of pain management relative to the use of opioids. It's a bit of both, but --

THE COMMISSIONER: I would be asking for the Endone, but I'm probably not a good patient to - an Eastern Suburbs softie.

PROFESSOR NUTBEAM: Yes, that's right. But I would have to say a part of the study was nervousness on the part of clinicians that if they didn't prescribe opioids, they would get an annoyed patient and, therefore --

THE COMMISSIONER: There you go. Yes. There's probably some truth to that.

PROFESSOR NUTBEAM: -- they don't have time to deal with it, basically. So being able to demonstrate --

THE COMMISSIONER: That doesn't mean the patient is right on this occasion.

PROFESSOR NUTBEAM: No, not at all, although there is a view that the patient is always right, but I definitely

agree with you in this case.

MR MUSTON: Can I step through that to make sure I've understood where the potential gap is. There has been happy coincidence of some researchers and some clinicians at the coalface, somewhere which has run a clinical trial of some description, the outcome of which - maybe multiple clinical trials across the world, possibly, the outcome of which is an acceptance that there is a way of managing lower back pain using other than opioid treatments which is as effective, if not more effective, and doesn't carry with it the risk of harm.

PROFESSOR NUTBEAM: Yes, correct.

MR MUSTON: That research has then been picked up by the ACI, in part by the work that has been done locally, no doubt assessed as against international work of a similar character; would that be right?

PROFESSOR NUTBEAM: No, so I think the order may be the other way around. The ACI has undertaken a really helpful assessment of the global science around pain management, lower back pain management in emergency departments. It's a surprising number, by the way, of people who turn up in emergency departments with acute back pain. It's, you know, a serious driver of emergency department activity. So they've created guidelines based on that evidence, but what we're testing here is how well they can be implemented in practice in a real-life emergency department.

So, in other words, the ACI's role has been to assess the quality of the evidence and recommend that practice changes in relation to that. We are now trying to understand how to make practice change.

MR MUSTON: So in this case, neither the state nor the ACI has had to actually step up and fund that underlying piece of research; rather, they've looked at the world of research, they've identified a body of research or an evidence basis which supports the proposition that there's a better way of dealing with lower back pain. They have then produced a guideline.

PROFESSOR NUTBEAM: Yes.

MR MUSTON: It's been thrown into the mix with a thousand

or so guidelines.

PROFESSOR NUTBEAM: Yes. So this work was initially funded by the partners, Sydney Health Partners, who are four local health districts, and the Children's Hospital at Westmead.

MR MUSTON: When you say "this work was initially funded", what's that work that was funded?

PROFESSOR NUTBEAM: So the initial sort of feasibility study, I think we gave something like a $50,000 grant to this research group, embedded in the local health district, working with the emergency department. They've actually subsequently gone on to secure something like $6 million in external funding to continue that work.

MR MUSTON: I might have missed a step, though. The original piece of research that was done as, as it were, almost a literature study - I know that's a terribly- that downplays it, but ACI has done a piece of work --

PROFESSOR NUTBEAM: Yes.

MR MUSTON: -- which has identified the need to change behaviour.

PROFESSOR NUTBEAM: Change practice, yes.

MR MUSTON: Who funded that? That was funded by the ACI?

PROFESSOR NUTBEAM: That was done by the ACI using their internal resources.

MR MUSTON: That then resulted in the production of a guideline of some description --

PROFESSOR NUTBEAM: A guidance, yes.

MR MUSTON: -- that was made available to all practitioners across the state in whatever platform the multiple guidelines can be found on?

PROFESSOR NUTBEAM: Yes.

MR MUSTON: There is then the question about the extent to which that guideline is being followed or taken up in the

delivery of care to patients in emergency departments.

PROFESSOR NUTBEAM: So I think that's the nub of our challenge.

MR MUSTON: So the piece of research you're --

PROFESSOR NUTBEAM: So we don't lack for guidance, I'm going to keep emphasising that. There are a few areas, relatively few areas, of clinical research where we don't know what might be best or better practice.

MR MUSTON: So the $50,000 piece of research that was initially commissioned by your organisation is the work on determining how to convince clinicians --

PROFESSOR NUTBEAM: How do you get this change that the scientific community have identified as being advantageous? How do you actually get it implemented in practice? It's a straight research question, and getting answers to that is what builds confidence, both in the clinician community and in our health services managers, that these kinds of changes - and we're focused on a very narrow example, but you could find multiple examples, both in the report and elsewhere, of efforts to move past guidance to how do we manage change in practice and then how do we manage change at scale across the system?

Those, for us, are the two really critical areas of research where having research embedded in our healthcare system, having clinicians and researchers working together, is almost the only way you get answers to those sorts of questions.

MR MUSTON: In relation to that example, that's a piece of work that was done by your organisation, but is there a reason why --

PROFESSOR NUTBEAM: It was funded by our organisation; it was actually done by embedded clinicians working within emergency departments.

MR MUSTON: Okay, so funded by your organisation.

PROFESSOR NUTBEAM: Yes.

MR MUSTON: Let's step that through. Your organisation,

as part of its decision-making around what to fund, decided that would be a good project to pick --

PROFESSOR NUTBEAM: Yes.

MR MUSTON: -- provided the funding for that project?

PROFESSOR NUTBEAM: Yes.

MR MUSTON: Clinicians on the ground, working with researchers, came up with some answers to that tricky question.

PROFESSOR NUTBEAM: Yes.

MR MUSTON: Is there any reason why that sort of decision making around how and where to deploy, effectively, change management funding or research funding shouldn't be being made by the ACI? In the sense that the ACI has its suite of guidelines, it has made a decision that it's important that everyone follows these guidelines, there is a reality that every clinician out there is not going to have a capacity to learn on the job the thousand or so guidelines and maintain a knowledge of their dynamic status. Isn't it the role of the ACI to be deciding how to translate this research into practice?

PROFESSOR NUTBEAM: Yes - so my colleagues might - all of my colleagues should feel to free jump in at any time, but I - that's a difficult question to answer in that it assumes that a single-point decision will lead to change in a very complex organisation, if you took the New South Wales system as a whole, across all of its local health districts.

What I think is, it's a bit of both. So I do think, when the ministry issues guidance, it's important that there's some system in place that reinforces the need for that guidance to be given the attention it deserves. But the other part of that is the route that we're taking, which is that you also need to work on the ground in local health organisations with local clinicians to understand their circumstances and look at what implementing something like that from generic science - how it might be implemented at a very local level. It's not either/or, it's got to be both, in my view, and my sense is the ACI has established a broad network of - they're called

clinical networks, I think.

PROFESSOR MILAT: Yes, they are, yes.

PROFESSOR NUTBEAM: Specifically for the purpose of trying to get a much better feel for how clinicians can respond to the guidance they produce, and we're working actively with our local health organisations and actively in our local hospitals actually to test this proposition in a more systematic way than the ACI could ever do at a statewide level. So it has to be a bit of both, a bit of incentive from the centre, if I can put it like that, and then some confidence building at a local level among both health service managers and the clinicians responsible for change.

DR McNAMARA: Just to go back to the nature of the question that you asked just before, I mean, I think it's fair to say, in defence of ACI here, that they're not releasing guidance out to the system with no thoughts around implementation of that guidance. I mean, I think there are genuine efforts to make sure that evidence based clinical guidelines are shared appropriately with the system and there's support for their implementation. But as Don started to describe there, it's a challenging model in the sense that it's such a large diverse system, to have an implementable approach to this is a challenge.

So thinking about what might happen locally - and this example that Don has been through is a really good example of what could happen locally that could actually strengthen the implementation of what might be developed elsewhere - but I guess I think it is worth flagging that a group like the ACI would definitely be thinking about implementation elements of what they are doing, but there's a natural limit as to how far they can take that as a centrally located group.

We've got clinical networks, we've got relationships out there in the clinical settings, but there need to be other sorts of support around the implementation of these sorts of guidelines and these evidence bases because it can't all be driven from one group, despite the best intentions, I think.

THE COMMISSIONER: Sorry, just while we're on this topic of the case study in back pain, I was just looking, while some answers were given - one of the ACI networks is in

relation to pain management. And then I think the model of care that we're talking about is the one in relation to lower back pain, which has a principle of "opiates should be avoided" and emphasising "active physical therapy encouraged", so for whatever reason - that, which is a 2016 model of care, for whatever reason, that needed this extra trial and push to get it adopted in the ED.

PROFESSOR NUTBEAM: And I think that's the point I'm making, really - and I agree, thank you, Martin, I'm not suggesting ACI haven't thought this through; it's more that there is a limit to what you can do in such a large dynamic system from a central point. It's not either/or, it has to be both, it seems to me, and what we've been able to do here is to create more local dynamic that allows us to build confidence by addressing questions of feasibility and cost effectiveness that are really important at a local level in the decision-making about how clinical services are provided and managed.

PROFESSOR MILAT: I think one of the challenges with any large scale system transformation is that you can't give everything all at once. There are potentially thousands of models of care that would occur across health care. I think one of the challenges for the system is appropriately prioritising system priorities and then investing resources into that change process, because you can't change everything all at once, because, you know, clinicians would be unable to absorb all of that change simultaneously. But it's a case of sort of going through and you have to provide evidence based guidance, but then you have to pick some opportunities to actually implement those large-scale system transformations that have maximal benefits to patients and are implementable.

That's one of the challenges I think that Don was talking about. Luke and I did a study, I think it was 2016/17, that looked at the amount of research that's produced across a whole range of different areas and we found that only, you know, about a quarter of all research focuses on interventions. These are things that, you know, are viable solutions, whether they be a campaign, a new model of care or - so the whole research enterprise is primarily focused on descriptive and methodological research, so this whole multi-trillion dollar enterprise internationally, and of those interventions that do occur, there's very few of them that focus on implementation and

the practical application of that research evidence.

So what you will see in clinical trials, for example, is you will get high quality efficacy research, randomised controlled trials, but they are often implemented with a level of resourcing that really isn't possible to replicate in the real world. But then you have to do the next step, which is think about how you would implement that high-quality evidence that shows that something works under normal circumstances, in clinical contexts with real-world clinicians who are trying to balance all of the challenges of implementing their practice, changes, you know, good days, bad days, and then having to implement a model of care. So I think that's the missing bit, that sort of jump from efficacy studies which are highly - well, quite well funded, often with unrealistic levels of resourcing, and then how you apply these things to practice.

So the clinical guidelines, by their very nature, are based on the best available evidence, and often that is randomised controlled evidence, but that evidence doesn't talk often about how you would implement things practically.

I think that's one of the challenges, and for a system, you know, you need to have - so up until the single digital patient record, it's still an important - it's a critical piece of infrastructure for the system. Prior to that - and it still has a long way to go in terms of its implementation and its potential as a clinical practice tool but also as a tool for research, I'm not saying the issue is solved, but it provides great promise as one of the tools that could be used to improve practice.

Often those feedback loops to clinicians really weren't there within our data and administrative systems. There's often long lag times between the data that is put into the system and getting it back from a clinical perspective, but then also from a system management perspective, so I think we're hopeful, and we do mention it in the report, that that single digital patient record will enable the implementation of a lot of these clinical guidelines and processes with a much more timely feedback loop between the collection of data and its use in practice.

With those sorts of records as well, they can put in clinical guidances, you can put in nudges within systems, but unfortunately, just our IT system, though, the health system, is not short of data, we have collected data for many, many, many years, we're certainly not short of it, but really, where we are missing the data is that sort of timely data that can be used to inform clinician practice in a practical way. And we're transitioning to a space where we're hopeful that that, as an asset of the system, could be used to really implement some of these models of care, use more evidence in clinical practice, and it should be a focus of our efforts, I think, moving forward.

The other thing that I think we can do as a system is to build broader capability of clinicians and population health practitioners in the use of evidence, the use of research and data. It's not something that will come naturally to a system, and there are pockets of excellence - for example, Sydney Health Partners has worked with its partner LHDs through its clinical academic groups to do these types of trials and to implement things.

I think to do that on a system level will require a focused effort from NSW Health. Certainly the report outlines a whole series of things that are there, but they're not connected and well funded and they don't have the levels of reach through all of the clinical groups to build that broader system capability.

So it does require, I think, a sustained focus and investment in those areas to really provide another enabler to implement those evidence based models of care, which is that data, research and evidence literacy of our workforce, and we need to support them, and to make that the easy decision, because often, you know, for example, if people want to find out the most up-to-date evidence, they have to go into systems.

We have a system called SIA within New South Wales. It does provide clinicians with access to the broader literature but it doesn't provide - correct me if I'm wrong, I went into the system and tried to have a look at it, it doesn't provide all of the full text articles. It provides abstracts, which are fantastic and it does provide the system access --

THE COMMISSIONER: And you have to have the time to access

it.

PROFESSOR MILAT: And you have to have the time to do it, yes. So if there are ways to sort of build that capability across systems, I think we need to sort of focus on those efforts. It's not going to be one thing that will change that evidence practice gap.

THE COMMISSIONER: Can I just explore something? This is, by the way, for any of you, and any of you can feel able to add to what a colleague says, but I just wanted to go back to - we were exploring this ACI evidence based model of care for back pain, and that it sort of took the push of this Sydney Health Partners trial to get it adopted. Then Mr Muston asked, "Is there any reason why that sort of decision-making about how to deploy", et cetera, "shouldn't be made by the ACI? Isn't the role of the ACI to be deciding how to translate this research into practice?" Just on that, part of the ACI's functions, as I understand it, is when there is a new model of care, to provide implementation support. Is part of the problem that it could be doing that role more broadly but it's just not resourced to do it, or is that too simplistic, not correct, or is there some other answer?

PROFESSOR NUTBEAM: I'll just jump in. I'm going to be consistent: I do think it is really hard for a central organisation to get involved at the level of detail that's required in our large complex system and that this has to be both locally driven, centrally supported, if I can put it like that. I think my best answer to the perfectly legitimate question is that ACI have a role in creating - or the ministry - ACI/ministry has a role in creating a culture that is, you know, very clearly evidence informed and supports best practice, but the whole reason we have localised health districts is because we understand there are significant community differences in the way you might go about making something that is evidence based work in practice.

For me, it's not either/or --

THE COMMISSIONER: Although avoiding prescribing opioids probably won't be community specific.

PROFESSOR NUTBEAM: Well, in a way that's probably an unhelpful example, just in the fact that it's so obvious

that we really need to do all we can to minimise prescribing opioids. But I think of several other examples in areas where we support - we've been working with colleagues out at Westmead in the development of a rapid access chest pain clinic that would enable people with non-life threatening chest pain to go somewhere other than the emergency department. We've been looking at the effectiveness of that as a mechanism for reducing pressures on the emergency department and we've demonstrated that it can be done safely and effectively and that patients will accept it, and we are now looking at, well, how do you scale that across other emergency departments with different clinicians and different patient populations.

Again, I get back to the fact that we know how to manage chest pain, there's good evidence based guidelines on that, and the ACI has a role in saying, "You need to explore, locally, how best to make this happen", and our role has been, "Well, let's explore how we build confidence in this among clinicians and patients that it's a service that can actually reduce pressure on emergency departments, deliver at least as good, if not better, outcomes and is something that could be scaled up in more than one place." That's the kind of learning - when Luke started us on our learning health system, that's the kind of learning that could come from this type of research into implementation and scale-up.

MR MUSTON: Can I just come back --

PROFESSOR WOLFENDEN: Do you mind if I add to that? I would like to just make two quick points. I think whether it's ACI or any agency that's responsible for improving health care, how best to do that is an empirical question, it is a scientific question: how best do you improve or change clinical practice so it is more beneficial to patients?

As Andrew and others have kind of described, there is very limited scientific evidence to answer that for us. Two per cent of research funding, 2 to 3 per cent of Australian research funding in public health is devoted to that type of question, getting evidence into practice.

So while Don and others have been saying, you know, a lot about what works, you know, about effective models of care, we don't know how to get them in practice.

Behavioural science suggests in order for a clinician to change behaviour, they need - there needs to be three things in place. They have to have the opportunity to undertake the behaviour; the capability to do it; and the motivation.

There are a range of factors that at individual level, at an organisational level and a system level, that may kind of facilitate or impede that, and they differ that across context - so across jurisdictions, across hospitals, they often differ. So it's very complicated or difficult for a central agency to have a one size fits all generic approach.

I think the idea of a learning health system is that we build the capacity of systems, central systems, as well as local systems, to generate the evidence they need to implement programs that may come centrally in a way that's best for their kind of local context. I think much of the recommendations in this report are around providing the necessary preconditions for that localised, I guess, response to healthcare improvement that is supported kind of centrally. So I just wanted to make those two points.

MR MUSTON: I suppose my question about the ACI, and perhaps poorly expressed, not necessarily suggesting that the ACI alone should be deploying its personnel in a way that undertakes this translational research into working out why it's working or not working, but is there not a role - to the extent that money within the public health system is being deployed into research in this area, is there not a role for the ACI to act, as it were, as a commissioning body?

So the ACI decides, "We've issued a new guideline on the use of opioid drugs in lower back pain. We can probably assume, off the bat, the fact that we've issued that guideline is not going to change behaviour in clinicians overnight. There may be different drivers in different health districts and different settings that will impact on the uptake of that particular guideline. We've got a whole lot of guidelines out there but we think this one is the most important at the moment, so we think that money should be deployed towards working out how to translate that into practice." ACI then, consistent with its function, can commission an organisation like yours to

do that research with local clinicians on the ground in a way that means the ACI is still maintaining some oversight or control of the way in which that overall parcel of research money is spent so as to ensure that it's spent in a way that best meets or is best likely to achieve the objectives that the ACI, as the central body, has in shaping the health system.

PROFESSOR MILAT: I'm happy to respond to that. I mean, I think that the way that you've described that, I think, is a very viable strategy and, you know, the opportunity, particularly to leverage additional sort of external resources to help those implementation efforts is an opportunity, I think, for the New South Wales health system.

The ACI could broker partnerships between some of the advance - the translation centres, and they could be used as a potential laboratory, a living lab, because they have existing partnerships with the local health districts, they have clinician researchers that are sort of aligned with the objectives of those translation centres. For example if there was a priority, you know, some money could be put into that as a show of good faith, and then applications for Medical Research Future Fund, or NH&MRC funding could be put in, and then potentially, you know, that Commonwealth funding could assist in the New South Wales efforts to test these transformations of the healthcare system.

That process does take a bit of time, but I think what is pretty clear is that, you know, it's a very stubborn - it's a very challenging thing for the health system to do and having a systematic process where things are prioritised and the ACI could potentially have a role in sort of brokering that and bringing the partners together to then focus on generating implementation research that would sort of give us some really important clues on how you could implement that across systems.

Certainly there are examples internationally. You know, bringing things to scale across systems, believe it or not, is a very challenging exercise. So the evidence - there was a fantastic umbrella review conducted by a colleague of mine, France Légaré, and it was done in Milbank Quarterly in 2003, that showed that the best examples of scale-up across systems really are in lower and

middle income country contexts, that in high income country contexts, including Australia, there are relatively few examples where things have been implemented at scale across systems. It is a much more disparate picture.

What is really interesting about that picture as well is there are pockets of excellence, you know, there are some examples in the United States where Kaiser Permanente, for example, over a decade were able to improve hypertension control in their patient group, and we're talking hundreds of thousands of patients in northern and southern California. They implemented a series of things that would be akin to a learning health system, developing models of care, providing incentives for systems, developing information systems that allowed clinicians to see their own performance but then looking at central performance, monitoring that performance over time, incentivising change, training staff on a regular basis, using multi-strategic strategies to bring about change, and they were able to bring their blood pressure control of their total patient population - so we're not talking about, you know, within three of their services of, you know, let's say 50, this is every single patient in their patient group, they were able to bring that control up to 90 per cent, people on appropriate medication operating within models of care.

So there are some pockets and really fantastic examples, and they are great, and that's in a high income country context, but there's still very little focus in the system on some of those large-scale system transformations.

So the ACI having a bit more of a role and trying to add to the science and then, more importantly, improving clinical care and getting those models of care implemented, I think that's a real opportunity for the future and there is a real absence of that sort of research being funded currently.

PROFESSOR NUTBEAM: Can I just come back to the question you posed about ACI. I mean, I think there was an assumption in there that I just wanted to test a little bit, which was the ACI is able to prioritise. I think one of the challenges for ACI has been that it is really trying to cover an enormous spectrum, and if you can't see your disease category or group in the ACI's range of activities, somebody will, you know, say, "Well, why aren't you doing

this?" And I do think --

MR MUSTON: But could I ask rhetorically, or partly rhetorically but not entirely, why doesn't that person say to the ACI, "Why aren't you doing this and here is why you should be doing this", and that then enables the ACI to make an informed decision about whether or not it should be doing it.

PROFESSOR NUTBEAM: Yes, so I think a lot of that occurs and I think that the challenge ACI has had is that the agenda is enormous.

I have had the luxury, in Sydney Health Partners, of working with a group of chief executives who are prepared to make a call on a smaller number of priorities and for us to focus on trying to make a difference in a smaller number of priorities.

As a statewide organisation, it is very hard to say, "We're only going to do X and Y. We're not going to work on Y and Z", if you get my analogy. I think there is a challenge in there about prioritisation and how that occurs. So that was just one piece but I think it is a real challenge for statewide organisations to really say, "We're only going to concentrate on this smaller number of things because we feel this is where we get the best outcomes for patients in the short term, and thereby, these other things are less important." It sort of - it doesn't feel that it works so easily like that for a statewide entity.

The other thing to say is, more positively, the ACI and the research translation centres like Sydney Health Partners - there are three centres in New South Wales - over the last 18 months have got into a much more structured dialogue in order to reduce overlap and to see if we can't find the right way of getting the kind of system I think you alluded to, which is where the ACI performs its role from the ministry's perspective, creates a culture where it's encouraging change in clinical practice, and we work with our local health districts to actually implement - to test the implementation of change in actual hospitals and clinics.

So I think there's currently soft foundations for the kind of model that you've identified. Any boost that that

could receive I think would be welcomed by all of us as a mechanism through which we get the best of a central organisation with capability and local organisations with capability, that's complementary.

MR MUSTON: Just looking at paragraphs, say, 24 through to 39 of your report, it might be a slightly unfair characterisation, but there would seem to be a constellation of different bodies, committees, organisations who are vying for and providing funding streams for pieces of research, but it doesn't really leap out of the report, at least, that there's any sort of systemic or structural consideration being given to how the collective heft, intellectual and financial, that sits behind them could be directed to produce the best outcomes for the New South Wales health system. Would that be fair or unfair?

PROFESSOR NUTBEAM: I'm definitely going to speak in a personal capacity now. I think there are widely shared frustrations that we don't, as a state, quite have our act together around this, and to be fair, for the last 18 months the ministry has been engaged in a highly consultative, highly participative process of looking at a research strategy - a health research strategy for New South Wales. I suspect the outcomes are known to the Commission or the progress that has been made is known to the Commission.

So I'm optimistic that that problem as you've described it is widely recognised, better understood now, I think, by the ministry who are working out what role the ministry has in solving a problem that has multiple - so there are a large number of independent medical research institutes, over which the ministry has some limited influence as a funder in many cases.

There are the universities over which the ministry has some influence but, frankly, rather limited, based on my experience of working in universities, and then, of course, there is the health system and our local health districts over which the ministry has rather more. If you look at that universe it's messy and you made a fair observation, it seems to me, from our report, and it feels slightly messy.

The critical question for me, and this is where Martin

and Andrew will feel free to say, "Yes, that is very interesting, Don, but I disagree": the issue for me is what is the role for a state health ministry in this large research ecosystem? As I mentioned very early on, we do have these enormous funding agencies in the National Health and Medical Research Council, Medical Research Future Fund, who support a lot of discovery research, a lot of the efficacy research that we've described earlier that helps us build evidence of what are the best things to do, creates a pipeline of discoveries that might lead to improved health practice.

The question is, in that ecosystem, what role does a state ministry have and can it best play? I think the feedback that the ministry has received through their consultation process is that it's largely at the far end of the research pipeline; it's at the translation end; it's how you take what we've learned from discovery science and randomised trials and other forms of outstanding research - how do we get that implemented in practice in ways that deliver better outcomes for the community in New South Wales.

If there was a single message that I saw from all of the feedback received, it was we need to concentrate the ministry's attention - it's not to say that's the whole research universe, but the ministry's attention needs to be concentrated on exactly the types of questions that we've been discussing this afternoon: how do we take what we know to be effective in practice and see it implemented successfully at scale to deliver better patient outcomes, and what research supports that process, basically, which is a lot of what we've been talking about earlier. But now my colleagues will come in and --

DR McNAMARA: I don't disagree what you're saying. I probably would suggest we extend it in two ways. One is to say that the research and other infrastructure that you're referring to - I forget the paragraph numbers but around the 30 to 100 part of the document - is a really impressive portfolio that is quite unique in Australia, what has been created in New South Wales, and I think that is a great foundation to build on. I think that's one point to make here.

I think the other is about how to best utilise that infrastructure that has been created. Don has quite

rightly pointed to the translation and implementation side of the role of the ministry, and I agree with what he is saying there.

The other opportunity I think is to consider what are the big priorities that the government sees for reforming the system in the New South Wales health system that can give some guidance to where the effort - in all of that research infrastructure that has been created, can give some guidance to where the effort should be placed within that research infrastructure, both funding and otherwise. Because at the moment we've got the phenomenon that we just talked about in this discussion of ACI and others being spread across so many different specialty areas with so many different sorts of priorities and real limitations and how much of that you can actually translate into the system. Even if we increased the resourcing substantially, it would be hard to generate change across all parts of the system that we've got evidence based guidelines floating around in.

So there is an opportunity to think about what are the big priorities over the forward period that really warrant the attention of this research infrastructure that we've created. There's also an important signal to the research community and to the clinical community about where extra effort is going to go in things like translating and implementing it at the local level.

I think that's what's implied in some of the latter parts of this report, about thinking about what advice or direction we can give to the system that can start to set out what those priorities are for change.

PROFESSOR NUTBEAM: If it's of any help, in the discussions we've had within our partnership about how you do that prioritisation, we've organised our work around three broad domains. One is that there are some major causes of ill health that we really have to deal with, because they come through the door - cardiovascular disease, cancer, musculoskeletal health, diabetes, for example, would fall into that category, and they're too important to suggest that they are not going to be priorities.

The second is looking to the future and trying to shape the future, and that has to do, in particular, for

example, with digitally assisted health care. I hate the term "virtual health care", by the way, you should never use it. Nobody wants to be "virtually cared for". But people are accepting of digitally assisted health care, and it's an important part of the future of health care, along with what we're understanding now in the possibilities of genomics and precision medicine and so on. So that's a bit about prioritising the future.

The third category is things that concern our chief executives. To give you an example from that category, we have invested a lot of attention to the care of the frail elderly in hospital, because not managing that correctly will often result in significant extended stays in our hospital system that have all sorts of long-term effects. So it's trying to get the big issues, the issues that are causing practical concern in our healthcare system, and a bit of investment in the future. But I only use that as an illustration.

There are ways in which you can say everything's important but actually, we're going to concentrate on these two or three areas for these sorts of reasons. And I sincerely hope that we'll move on to that in the work that's going on in the ministry at the moment about its prioritisation, and Andrew was quite right - sorry, Martin was quite right to point out, we've actually got great foundations in New South Wales, better than most other states, to build something like that.

MR MUSTON: But without some sort of central oversight or involvement in the way in which research funds are being deployed, particularly public research funds within the New South Wales system, you run the risk, don't you, that the autonomous decisions being made by all of these various individuals, perhaps informed by autonomous decisions being made by individual clinicians, can come to shape the public health system in a way which means it's sort of growing and morphing organically and perhaps in a way which doesn't reflect what systemically might be seen as the best way of meeting the health needs of the community through the public health system?

PROFESSOR NUTBEAM: I think there is an honest risk, if not a risk, an actual observation, that can be made, that that is a feature of a system overall. So I think your observations are correct, and finding the right way of

prioritising is a real challenge, I think, in the ministry generally.

MR MUSTON: I throw up as an example a new and innovative procedure for treating drug resistant epilepsy that is being delivered through Westmead kids and Westmead adult hospital. It's remarkable what we are told about what it can do. But putting to one side the fact that it is of obvious clinical benefit and serendipitously seems to be in a perfect location with that co-location of children's and adult hospitals, the reason it seems to have arrived there is a combination of a clinician who was interested in a new technique, a Churchill fellowship that enabled that clinician to go and study that new technique, which, of course, was a funding decision made wholly externally to the local health district; some philanthropy from local residents that enabled the local health district to stand up the machinery needed to perform the procedure; and then, of course, an insatiable demand for the service because once you stand up a service, demand will grow.

But that process - undoubtedly that happens across the health system in lots of different ways every day - that results in a system where the health system, in effect, and the services that are offered, are being shaped by these forces that are entirely external to any planning mechanism that exists within the health system. I'm wondering is there a way of controlling that or at least steering it, which gives some level of central oversight and control, perhaps through the ACI, whilst at the same time not stifling the innovation and the organic way in which these sorts of innovations crop up and workforce benefits of keeping people interested in advancing their skills and all of those sorts of things? That's probably a bit of an open-ended - more of a statement than a question, but if it is a comment, please comment.

PROFESSOR NUTBEAM: I suppose part of my answer to that is that dialogue and alignment - so dialogue isn't someone directing, it's an actual dialogue with a goal of achieving a higher level of alignment, and we often talk about this in the world we inhabit, which is how do you get things implemented.

So we have this extraordinary research capability in New South Wales. As I said, it is quite dispersed and it's definitely not within the control of the ministry. But in

the language I use with my academic colleagues when I'm feeling particularly rude, we're constantly providing perfect answers to questions that no-one had asked.

For me, the issue is how do I get a dialogue going so that our research capability is a bit more aligned and better connected to the actual needs and priorities of our health system, and a lot of the work we do is actually to get that dialogue going.

The awful thing, though, is even when you get the dialogue going, if the system itself isn't receptive to change, then it all gets very frustrating, and so the other point of alignment is how do we get our health services - I tend to operate more locally so I talk about services rather than the whole system - how do we get our health services culturally more attuned to the idea that change is constant and we have ways of gathering information that both provide confidence in the evidence and confidence in the potential that it can be implemented.

That's the kind of dialogue we need to try to create, and again, I will say there are a lot of very practical things that can be done at a ministry level, by the ACI, by the Office for Health and Medical Research, which are the platforms that Martin referred to that we have that are unique to New South Wales, and give us a head start. There are a lot of things that can be done that create a culture for change within the system, and then we can foster this dialogue where people are actually asking and answering questions of much closer relevance to the needs of our healthcare system.

MR MUSTON: So what are those things? What needs to change, do you think, to foster that dialogue in a way that means questions are being asked that people actually want the answers to, not suggesting that the other answers are not useful but --

PROFESSOR NUTBEAM: Sure. Sure. No, so I'm going to be a little bit parochial. I'm not trying to promote Sydney Health Partners, but we've been trying to do this for a few years, and so we've created things called clinical academic groups, which are groupings of clinicians and researchers, around critical clinical challenges, as I mentioned - cancer, cardiovascular, musculoskeletal, care of the frail elderly, perioperative care, really critical things in the

health system - in order to get that dialogue running, and we've provided modest - very modest - seed funding to enable some initial questions to be asked and answered that actually position these groups then to apply for much larger grants, nationally competitive grants, that enable them to look at this at scale in our healthcare system.

So there are these kinds of mechanisms for fostering dialogue.

Andrew, very kindly, last week chaired a meeting where we had a group of our chief executives in a panel discussion with a group of our leading researchers on exactly these questions: "What type of evidence is important for me, as a chief executive, to persuade me that I would need to change the way I fund a service or change the way I configure a service?" And it was a very enlightening discussion.

Our researchers learned that the approach that they take and the kinds of questions they typically seek to answer aren't providing information that's actually persuasive in our clinical system, and it's that kind of dialogue, I think, that gets a different culture created and gets different questions being posed and answered through research.

I don't know, Andrew, if you want to --

PROFESSOR MILAT: Yes, I think to add to what Don has said, it requires conversations at multiple levels throughout the system, because I think the challenge for the system is when you've only got one voice, you know, the voice of clinicians is absolutely fundamental, and, you know, you can get that through various ways, through either clinical academic groups or through ACI's networks; you also need to talk to the chief executives who, you know, oversee the health services and have sort of different priorities. We also need to know what is feasible and appropriate for patient groups, and I think the challenge is how do you take all of those dialogues and sort of join them to come up with priorities that are appropriate for a system?

But once those priorities are articulated, I think, as Martin and Don have said, I think we have an amazing infrastructure and research ecosystem in New South Wales

that, with some tweaks, could focus its efforts a bit more on what those system priorities are.

To give you an example, there is the Translational Research Grants Scheme. Over various points of time that has been thematically organised, so if we do identify five system priorities. We could say that that scheme would focus on answering those questions. We have an early to mid career fellowship scheme. Once again, that could be aligned with those system priorities once they have been identified. I think the ACI has a small grants work, which has been to foster innovation, that could be aligned with system priorities.

I think the modest amounts of money that the New South Wales health system has could be better aligned with research priorities if we do have a process of clearly articulating those through a series of dialogues, and I don't think it's one dialogue - you know, the temptation is you just talk to senior people and that's the answer that you get. I think it requires multiple conversations across the system.

To be fair, the research strategy would be an example where the ministry has been through a process of systematically talking to people about what those priorities are for the system. But I think you can't have a thousand bloomings and expect that that finite and relatively modest amount of research funding is going to go far. I think it is a case of trying to identify what the priorities are in the system and then aligning and sending signals to the research sector but also to clinicians, that if they want to play in this space, these are the priorities for this point in time.

They can shift, of course, over in time. But that's the only way I can really see feasibly to have that modest investment, and by virtue of investing in these areas which are priorities, then people can leverage Commonwealth funding in that sort of priority area, because I think my observation, working in academia recently, is that once you get a critical mass of expertise and focus on a particular area, that does snowball and people can gain additional resources to focus on that priority.

So I think, going back to your comment about the system having so many priorities, so many inputs, the

opportunity of really motivated clinicians, I think that still needs to be there, but I think it's really about aligning and - aligning those efforts where we can on those system priorities and allowing a lot of that innovation to still occur, but then noting that these are the priorities for the system that we need to push forward.

MR MUSTON: So we've used the term "dialogue", as part of that critical discussion between the system and researchers and clinicians, but is there something - what structure needs to exist to facilitate that dialogue or make that dialogue either business as usual or a gateway, as it were, to research and research funding?

PROFESSOR MILAT: Yes, I think there are some obvious examples where that sort of dialogue is happening currently, and I'd expect that that would be great to continue that, through the translation centres, because they - you know, the LHDs themselves have bought into these entities as a vehicle for doing research and helping them to sort of get the best available evidence to implement care.

I think obviously there are - where the CEs get together with the ministry and pillars, that's obviously a very important forum, the senior executive forum. There are also similar sort of entities where patient views can be brought to bear, and having conversations with various peak bodies and organisations, it's critical to do that, but to do that in a sort of systematic way.

Obviously consultation needs to be an ongoing dialogue, these things need to continue, but then at some points in time when you are developing priorities, you need to have, I think, a more formal process of sort of engaging with systems and then coming up with those priorities, putting them up the flagpole, testing them with your different constituencies and making sure that you're on track to get some consensus across the system to then set some of those priorities.

So I think, you know, the ministry has a guide on setting research priorities, and I know that it's been done in some areas across the system, but I suppose it's, you know, been a challenge to do that across the whole system and to get that consensus. So there's a reason why it hasn't been done, because it's very challenging to get

consensus across such a diverse system with different stakeholders at play, and balancing all of that is a challenge. But I'd certainly look to the Office for Health and Medical Research's recent process to give us some signpost as to where we should be going through that consultation process, but also those ongoing conversations with some of those key organisations that I've outlined.

MR MUSTON: Are there other jurisdictions, either in Australia or around the world that do this better in terms of a slightly more structured approach to the deployment of research within public health systems?

PROFESSOR MILAT: Yeah, I think this is a challenge internationally. If you look at some systems, certainly Don, I'm sure, will talk to some examples of some stuff that has happened in the United Kingdom. But I think, you know, often when we do look to the United States, they have a very fragmented system, they almost have three health systems and a lot of commercial interests drive activity in that space, it's very difficult to get consensus in that environment. I think if you do look to Canada and perhaps the United Kingdom, there are some pockets of excellence in that space.

I don't know if you wanted to talk about that example that we were chatting about in the session about the alignment from some of the equivalent organisations in the United Kingdom around health technology and how they've been through a prioritisation process and helped align with the NHS's goals in that space.

PROFESSOR NUTBEAM: I mean, I have worked in the UK system, both in the ministry and as an academic. What I would say is it's more decisive over there, first of all. They made a call, they've created a national network of research translation centres. They've given them money and a really clear mandate. The mandate extends a bit beyond what has been the subject of much of our discussion this afternoon, which is about how you take evidence of best practice and see it translated at scale in our healthcare system, back into the pipeline a bit - they want to see the potential for economic contributions to be also supported, so the example you gave in Westmead, which is phage therapy, I'm guessing.

MR MUSTON: No, I don't think it's that.

PROFESSOR NUTBEAM: It's something else but --

MR MUSTON: It is a laser that is used to ablate parts of the brain.

PROFESSOR NUTBEAM: Okay, well, there are some good examples out of Westmead, more than one, of serendipitous discovery turning into something of great practical importance in the health system.

They've just been more decisive and have not been afraid to prioritise and have dealt with the political blow-back that comes with prioritisation, and they put money into it. That is a sort of refreshing contrast to the situation I think we find in Australia generally nationally, and can observe in New South Wales as well, which feels a bit like 11,000 flowers bloom and possibly one of them might make good. We've not been so good, I think, at being decisive in identifying clear areas of need in our healthcare system and concentrating resources and trying to make that work better through research.

MR MUSTON: Within the ecosystem that is NSW Health, would the ACI be the body best placed, do you think, to make those decisive calls and seek to cordon off and direct, as best as it can, the allocation of research - state based research moneys into those areas?

PROFESSOR NUTBEAM: It's best set up to do that, no question about that. My understanding of one of the reasons why ACI was set up in the way it was, was to mobilise intelligence. So there's no question, I think, that the ACI is probably best set to do that.

You would have to want it to be in good dialogue with the Clinical Excellence Commission as well, though, who have identified some clear priorities for the healthcare system and, you know, do have need of those being intelligence driven and do need to know that, for example, if you want to reduce hospital acquired infection, which is one of the clearly identified priorities, we actually have the evidence and we have good evidence of what you need to do in practice at scale in our healthcare system.

So for me, ACI is set up to do that, but it needs to work with the other parts of government who are making

decisions about clinical priorities in that regard.

MR MUSTON: To the extent that they're making decisions about health priorities or about research priorities which are perhaps driving research priorities at the moment, it is contributing to the thousand blooms, is it not? If you have the CEC expressing a view about a range of different things that are worth looking into and the ACI expressing some views about things it thinks are worth looking into, LHDs and organisations like yours looking at things that might be on the ground worth looking into, that's fertilising the fields, is it not?

PROFESSOR NUTBEAM: So I'm not necessarily going to agree with your proposition. So I'm going to be confident that the ministry knows how to create its internal dialogue to minimise that. As I've said, certainly our experience of working with the ACI over the last 18 months has been very positive. They want to join the dots, if I can put it like that. But I think, you know, any casual observer would say we still suffer from fragmentation, to some extent within but particularly without the health ministry, and I don't think it serves New South Wales as well as we might like to, as a consequence.

MR MUSTON: Professor Milat, can I come back to an issue you raised a bit earlier around the single digital patient record and the potential benefits that it offers, from a research perspective, just to make sure I have understood the gist of what you were telling us.

Coming back to the example of the opioids to treat lower back pain, at the moment, you've got a range of different patient record systems across the state which are producing a different array of data in different formats, visible, at least at a dashboard level, by a range of different people in different areas, but it takes a bit of work to collate all of that data and use it in a meaningful way. Would that be a fair assessment of the current state of affairs?

PROFESSOR MILAT: Not being an expert in that, I know that there's - this is an example where that record has been prioritised and, you know, the ministry has appointed a fantastic senior executive to really drive this initiative, to really, you know, ensure that it actually is able to provide the information that it requires.

But to give you an example of what's happened in Kaiser Permanente, that data became real-time data that clinicians could use, entering it, and then they could also look at it on the basis of, you know, hospital or a ward but then also use it as part of the performance system.

I know that NSW Health has a comprehensive performance system which uses a multitude of data, but I think often where the missing piece currently is is to use those pieces of information for informing clinical practice in real time. So that's the challenge, yes.

MR MUSTON: But to step through that, you introduce a new guideline that says, "You should not be prescribing opioids for lower back pain other than in particular unique circumstances where it's warranted." You introduce that guideline perhaps with an early suite of clinician education around it, but then, almost from day one, you're able to utilise, once it's up and rolling, the single digital patient record to actually give you a cut of people presenting with back pain who are given opioid treatments and you can break that down into this emergency department at Concord hospital and that emergency department at Wagga Base Hospital, and you can look across the system almost in real time at how, if at all, this guideline is being implemented and taken up by particular emergency department practitioners across the state.

PROFESSOR MILAT: Yes, I think that's the Nirvana of how these systems would work in the future, and I think that plan, do, study, act cycle and clinical audit - I mean, I think Luke would talk about that the most effective strategy that's found in the implementation literature again and again is the ability to do clinical audit, reflecting on practice, so anything that can support that plan, do, study, act cycle, and the single digital patient record has great potential to do that.

In an ideal world, moving forward, we would have those information systems that would enable us to know whether we're hitting that model of care. I mean, there are examples under the "Leading Better Value Care" initiative where sort of linked datasets have brought together the admitted patients data collection, births, deaths and marriages - like a whole bunch of things - patient experience. So there are efforts within the Ministry of

Health to actually try to create these linked datasets to really critically assess what's happening with the introduction of new models of care. But I think the challenge has been in the past that, you know, we really have to catch up. The technology is there to get the alignments of those different data systems to enable information to be extracted in a timely fashion.

I think that's something that is being worked on, I believe, throughout the system. Once again, if that single digital patient record can be used for research purposes, once again, it's opening up a lot of that clinical data for use in research, quality improvement, system transformation. So I think that's what we sort of need to work towards.

I don't have the answer to how to do that, and when that would occur, but certainly it presents an opportunity for the system, should it be implemented in the way that we would hope, to achieve some of those objectives, and would be, you know, removing, I think, a critical barrier in the current system for how to use that information in a timely way.

MR MUSTON: I think you mentioned prompts, as well. The other potential benefit of something like a single digital patient record across the state is if, as part of that translational research, it's determined that, well, look, this is not being taken up as quickly as it should, for one of an array of reasons that you've identified in paragraph 13 of your report, the systemic barriers, an answer to that might be, "Well, we need to introduce a little prompt or a dialogue box that pops up every time you've clicked on the 'back pain' box and clicked on the 'prescribe opioid' box, and it says, 'Do you really want to do this? Have you considered the guideline? There are better ways potentially of dealing with this problem'", no doubt in far more technical terms than that, which require a clinician to then click on a button in order to progress beyond the, "I'll just give them the opioid treatment", which might, in and of itself, operate as a behavioural change mechanism.

PROFESSOR MILAT: Yes, and I think there is strong evidence that those promise and dialogues can work, but I think we do need to exercise caution. Once again with the sheer number of models of care, we do know that time is

one of the things that we've looked at in the literature and certainly anecdotally here through Sydney Health Partners it's the lack of time that clinicians have to do a lot of these things but also the challenge of balancing multiple priorities.

I think that a lot of consideration has to go into sort of timing of the introduction of some of these things, because people could be overloaded with just so many dialogue boxes and it could slow down the process.

So really, that's a critical thing in thinking about, you know, what is a reasonable load of change within a system, and it obviously - but what you've described, you know, that would be an ideal scenario, and once again, I think that the challenge is we need to introduce these things in tranches to not overwhelm systems. We do know that from the broader literature, if we do introduce too much change too quickly, that people just don't engage with the process. That's one of the challenges with large-scale system transformation, that you have to find the right balance and hence the importance of things like implementation science and implementation research around trying to - you could even, you know - the importance of quality improvement as well, so we actually are getting those constant feedback loops that we're introducing change as part of an organisation that is sustainable and is being adopted and we're pivoting what we're doing to ensure that we're not overwhelming our clinicians on the front line.

MR MUSTON: Which, in a slightly more rough and ready way, means you don't want to turn your dialogue box or your, "Do you really want to do this" button into a "Have you read the terms and conditions" type question at the end of --

PROFESSOR NUTBEAM: I was going to offer just a note of caution about - so I think all you have suggested makes great sense, and Andrew's right, there's great evidence that suggests prompts like that will help change behaviour.

I think the issue for me remains one of - so I'm on the board of one of the local health districts. Every month we meet and every month we get a report on the number of hospital acquired infections, and it goes up and it goes down, but honestly, you would have hoped by now we might have seen a really sustained (indicates) - and that's not the case.

One of the reasons for that is that we know - we know we need to tackle it, we know many of the things that we need to do to avoid hospital acquired infection, but the feasibility of implementing in practice is not well enough understood, and the reason why people continue to behave in ways in which they've always behaved, that might often increase the risk, is not well enough understood.

I'm almost back to where I started: we know what is the right thing to do in most situations. We can apply pressure to the system, and I can tell you there is real pressure applied to the system on that specific indicator. And yet, because we don't completely understand what actually happens in practice on a day-to-day basis - with our staff, working in real life, real time, we don't understand that enough - we still are not making the progress that we would wish to make.

I'm sort of back in the circle, that if there was one thing that we could do better and need to do more of in New South Wales, it's research that helps us to understand how you build confidence for actual change in clinical practice in our healthcare system. That, for me, is still pivotal in almost every part of every discussion that we've had.

MR MUSTON: You would, presumably, advocate for that to be one of the ACI's priorities if it were in the decisive way that you've referred to, as happening in other jurisdictions, identifying those key research --

PROFESSOR NUTBEAM: I would say it was almost inescapable from the 18 months of consultation that they've been involved with now. The single most consistent piece of feedback that they have received is, "We need to focus on the point of translation." So I would be surprised if it wasn't. I would, not surprisingly, perhaps, given all I have said, consider that to be a really important priority for a state health system, not necessarily for the entire research ecosystem that we have, but for what the state government can most constructively do and add most value to the system - that would be the point of our attention, it seems to me.

MR MUSTON: The wider research ecosystem includes pharmaceutical companies, medical device companies --

PROFESSOR NUTBEAM: Yes, discovery research, people doing molecular chemistry to understand the functioning of the body that's a long way away from practical application in humans. There's a full spectrum of research going on and some really world-class research going on in New South Wales, of which we should be incredibly proud.

But the point at which a state government can make a difference through its health ministry to that big system feels, to me, like the point of translation, where we know something works and we would like to see it implemented at scale to deliver patient benefit.

MR MUSTON: Can I ask you to come to case example 1 on page 10 of your report. I'm just curious, in the second paragraph, you refer to the initiative as having produced a return on investment of $7 for every dollar of New South Wales funding. I'm just wondering, how was that quantified?

PROFESSOR MILAT: What paragraph number was that?

MR MUSTON: Sorry, you see case example 1 --

PROFESSOR NUTBEAM: On page 10, case example 1.

MR MUSTON: -- immediately beneath paragraph 39.

PROFESSOR NUTBEAM: Are you able to comment on that?

MR MUSTON: It seems like a pretty good investment but --

PROFESSOR NUTBEAM: So I'm going to guess that one part of the calculation was whether or not the clinician researcher was able then to go on to generate external research funds. So the 7:1 ratio might be around, given the amount invested in their research development, did they go on to become a successful researcher? I may be wrong in that.

MR MUSTON: Does anyone else want to proffer a view on that one?

PROFESSOR MILAT: Yes. I think it comes from a process evaluation that's published on the Ministry of Health website, and so, look, I am familiar with - a lot of this is around potential earnings as well, depending on how - so

in terms of the early to mid career researchers, they essentially are - their salary is covered for a period of three years, as I understand it.

In terms of the producing a greater publication yield, obviously there are contributions to the research sector but also their ability to attract additional funding, I think that's how that calculation occurred. I think the greater detail is in the report but I can take it on notice and give you further answers. But I know that with other research schemes, there are different ways to calculate that benefit. So obviously they are: lifetime learnings can be sort of thrown into a researcher, once they begin to become productive, they get a fellowship, then they move on to other research funding, they then leverage additional research funding, so there are a number of ways that you could calculate the benefit of a scheme like this, depending on the methods.

MR MUSTON: But the $7 return on every dollar spent is not subject to you looking further at it and coming back to correct this, but it's not suggesting that for every dollar of research spend there was, in effect, a $7 saving within the health system?

PROFESSOR MILAT: No, certainly I know that that's not the case in this particular analysis. It's other benefits that maybe leverage funds. I can provide a definitive answer. I'll go back to the report.

PROFESSOR NUTBEAM: I think the return on investment is a research related return --

PROFESSOR MILAT: Return on investment, yes.

PROFESSOR NUTBEAM: -- rather than a clinical practice return, if I can put it that way.

PROFESSOR MILAT: Yes. Yes, it is.

MR MUSTON: Which is excellent for the clinician or for the researcher and no doubt for the organisation that they might be affiliated with, but from the point of view of the New South Wales Government spending $1 on research and then getting a tangible benefit in terms of costs associated with the delivery of health care in New South Wales or the --

PROFESSOR NUTBEAM: I'll turn it around and say New South Wales probably doesn't - is not at this point competitive on a population basis to Victoria and Queensland in attracting national research funding. I think in terms of the benefit to the state, the kind of investment that's alluded to here about developing excellent clinical researchers who can then go on to generate research income from outside of the state has some definite benefit, it seems to me. And one of the reasons for the current review of research strategy in New South Wales is this fact that we're probably not competing as successfully statewide as we could and should in national and international grant getting.

MR MUSTON: Accepting the benefit of research as a general proposition, what is it that is good for the state about attracting more research money?

PROFESSOR NUTBEAM: So, for example, we have - I don't know, it might be 2 or 3 per cent, and I mustn't be - I can't be firm about it. A very small proportion of our patients are enrolled in clinical trials, and we know that patients who are enrolled in clinical trials get better treatment and achieve better outcomes than patients who are not involved in clinical trials.

Raising the volume of clinical trial activity in New South Wales and increasing the proportion of patients who have access to clinical trials will improve outcomes, health outcomes, for the population in New South Wales; will provide access to cutting-edge treatment faster and at a greater scale than is the case at the moment; and depending on the nature of the trial - they'll either be externally funded through a research grant giving body or by a pharmaceutical or other private sector - it will actually bring income into the state of New South Wales.

So increasing our research activity delivers positive benefits to patients, better health outcomes and grows our economy, if I can put in a little pitch like that. But there is good evidence to support that position.

I don't think the two are sort of mutually exclusive. There are benefits in growing research activity and research competitiveness in New South Wales that are directly beneficial to our healthcare system and good for

the economy.

MR MUSTON: Commissioner, I have no further questions for these witnesses.

THE COMMISSIONER: Thank you.

Mr Cheney?

MR CHENEY: No, Commissioner.

THE COMMISSIONER: To all of you, including those that have left, thank you very much for your time and for your assistance. We're very grateful.

And we'll adjourn until 2 o'clock tomorrow?

MR MUSTON: Yes.

THE COMMISSIONER: All right. We'll adjourn until then, thank you.

<THE WITNESSES WITHDREW

AT 4PM THE SPECIAL COMMISSION OF INQUIRY WAS ADJOURNED TO WEDNESDAY, 11 DECEMBER 2024 AT 2PM

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