FAMILY AND COMMUNITY DEVELOPMENT COMMITTEE

Inquiry into perinatal services

Melbourne — 18 September 2017

Members
Mr Paul Edbrooke — Chair  Ms Chris Couzens
Ms Cindy McLeish — Deputy Chair  Ms Maree Edwards
Ms Roma Britnell  Mr Bernie Finn
Dr Rachel Carling-Jenkins

Witnesses
Associate Professor Rod Hunt, Director, Newborn Intensive Care, Royal Children’s Hospital; and
Professor Cheryl Jones, Stevenson Chair in Paediatrics, The University of Melbourne, and Head of Department, Melbourne Children’s Campus.
The CHAIR — Welcome to these public hearings, Professor Cheryl Jones, Stevenson Chair and head of the department of paediatrics, and Associate Professor Rod Hunt from the Melbourne Children’s campus. Thank you for attending here today. We appreciate your time. All evidence at this hearing taken by the committee is protected by parliamentary privilege as provided by the Constitution Act 1975 and is subject to the provisions of the Parliamentary Committees Act 2003 and other relevant legislation. Any comments you make outside this hearing will not be afforded such privilege. It is a contempt of Parliament to provide false evidence. These proceedings will be recorded, and you will be sent a proof of the copy of the transcript. I now invite you to make a 10 to 15-minute statement, and we will follow that up with some questions.

Prof. JONES — Thank you for the opportunity to make our presentation today. I am Professor Cheryl Jones, as you said, Stevenson Chair and professor of paediatrics at the University of Melbourne. I am also a paediatric infectious diseases physician at the Royal Children’s Hospital. I will be deferring most of my comments to the expert in this area, Associate Professor Rod Hunt.

Assoc. Prof. HUNT — Good morning. I am Rod Hunt. I am a neonatologist at the Royal Children’s Hospital. I am the director of the neonatal unit there, and I am also the chair of the perinatal safety and quality committee at the moment.

Visual presentation.

Prof. JONES — Our presentation will be particularly about the scope of postnatal services in Victoria. This is on behalf of the Melbourne Children’s campus. By that we mean the Royal Children’s Hospital, the department of paediatrics at the University of Melbourne and the Murdoch Children’s Research Institute. Apart from us, we did a number of consultations, as listed here, with all three entities. We are presenting the consensus opinion to the report we submitted.

We have three key points we would like to make to you. Outcomes for mothers and babies in Victoria are generally excellent, although there are disparities in outcomes for some groups. Further work is required to determine what underpins these disparities. Secondly, there is currently some maldistribution of cots within the tertiary neonatal sector. In the short term more level 5 cots are required. This is not sustainable in the long term, and a strategy is required to bolster level 3 to 5 capacity beyond the tertiary sector. Finally, optimisation of accountability is essential through more extensive data collection to ensure that the required change provides ongoing safe and excellent care. I will now hand over to Professor Hunt.

Assoc. Prof. HUNT — Thank you very much. I would like also to thank the committee for the opportunity to present at this inquiry. In addressing the first term of reference about the availability, quality and safety of health services delivering services to women and their babies during the perinatal period, I would just like to reiterate the point that perinatal mortality is currently the lowest that it has been in Victoria in 15 years. Perinatal mortality includes the number of stillbirths and neonatal deaths up to 28 days of age. The second purple line from the top is adjusted by excluding termination of pregnancy for psychosocial reasons, leaving a better measure of preventable mortality and allowing better comparison with other jurisdictions. You can see from the second line that the adjusted perinatal mortality rate in Victoria is currently the lowest it has been 15 years at nine per 1000, and it is better than the most recently reported national average of 9.6 per thousand.

Mortality rates for Aboriginal and Torres Strait Islander babies have also declined from 23.6 per thousand in 2008–10 to 13.6 per thousand in 2013–15. The perinatal mortality rate does remain high for a number of vulnerable groups in the community, including Aboriginal women, women who have multiple pregnancies and women who have preterm and fetal growth restriction-affected pregnancies.

This slide shows the causes of perinatal death from the Victoria’s Mothers, Babies and Children report from 2014–15. Congenital abnormality remains the largest prompt for termination and the largest cause of perinatal death. But what this graph also shows is a small but significant number of potentially preventable causes of death like hypoxia and fetal growth restriction, which I will come back to later. These babies who die from these conditions are all reviewed by CCOPPM, with feedback to individual healthcare providers and through the system to stimulate training and other safety mechanisms to try and prevent further preventable death.

There are still disparities in outcomes within our community, and this graph shows the percentage of preterm birth, being less than 37 weeks, and low birth weight, being less than 2500 grams, for Aboriginal compared to non-Aboriginal babies born in Victoria in 2014–15. Our recommendation based on this data is that further
resources be invested in the improvement of perinatal services for Aboriginal women and their babies in Victoria.

We will not be addressing the second term of reference in this submission, but the third term of reference about the adequacy of the number, location, distribution, quality and safety of health services capable of dealing with high-risk and premature babies in Victoria we will speak to. Over the last few years the Capability Framework for Victorian Maternity and Newborn Services has been developed. The principles driving the development of this framework were ensuring quality and safety, providing women with greater choice and more control of their birthing experience, and achieving the right balance between primary level care and access to appropriate medical expertise when required. Now, the framework outlines six levels of care, with level 6 being separated into 6A, tertiary perinatal services, and 6B, those tertiary services where neonatal surgical capacity was provided. The framework was applied across the sector in Victoria in 2015–16.

Now, as you may have heard from the previous speaker, at about the same time the REACH website was developed. The REACH website was developed for the neonatal sector to bring us into line with the reporting of ICU capacity that aligns with adult and paediatric reporting, but as you have heard from my esteemed colleague, it has brought with it some issues.

Currently in Victoria there are four level 6 NICUs — the Royal Children’s Hospital, the Royal Women’s Hospital, Monash Children’s and the Mercy Hospital for Women — and there are plans underway to open a fifth NICU at Sunshine Hospital, the Joan Kirner nursery. Those infants who require neonatal surgery are cared for either at the Children’s Hospital or at Monash Children’s, and you can see that all four tertiary NICUs are located in the Melbourne metropolitan region.

At the same time that the capability framework was being developed, a self-appointed specialist advisory group, the neonatal advisory group, which consists of senior neonatal clinicians, nursing staff and midwives, defined what a level 6 baby would look like when they sat within an ICU cot in the sector. This is a brief summary of the criteria that we felt babies should achieve if they were truly requiring intensive care. They include prolonged mechanical ventilation; extreme prematurity, being less than 28 weeks; those infants requiring surgery; and some specific diagnoses like seizures or unstable upper airway obstruction. If babies required non-invasive respiratory support that was more complex and involved the use of intercostal catheters or parenteral nutrition and administration of various drugs, they were also deemed to be intensive care. There were some specific interventions, like exchange transfusions that required intensive care, and generally we felt that any baby who required one-to-one nursing care should be looked after in a level 6 cot.

Now, this is just a snapshot of the REACH website taken one day last week, and it is fairly representative of the situation that has existed since the REACH website was introduced a few months ago. On the left you will see the four current tertiary NICUs listed, their capability level, and on the far right column you can see what their funded capacity is at the current time, with 108 neonatal intensive care costs being funded in Victoria. What is surprising, and perhaps where the REACH website falls down a little, is that there is a high number — in fact, half — of NICU cots reportedly empty and the occupancy of level 6 intensive care cots is actually on this day about 50 per cent distributed, as you can see, across the four NICUs.

Looking more closely at this, though, if we look at the NICUs in their entire capacity, levels 3 to 6, we can see that capacity runs between 90 and 100 per cent for all the four NICUs, and in fact, I agree with Dr Watkins, there are a certain number of days per year where occupancy runs between 100 and 110 per cent. This is because in every level 6 NICU there has to be provision for downscaling of care before babies can be deemed safe to be transferred out to a more peripheral centre. What is obvious from this slide is that the level 5 babies that sit within a level 6 NICU are grossly over-represented and sit within most of the NICU cots, so this means that level 5 capacity within level 6 NICUs is grossly out of whack.

So there is some geographical maldistribution of combined public and private cots across the state, and that is often the source of delays in transfer from level 6 to level 3 to 5 nurseries, and we would recommend that there would be a rebalancing of agreed level 6 acuity and level 3 to 5 cots situated in level 6 services so that the reality reflects current acuity distribution. Underpinning this, there is a capability gap because there is a difference in the level 5 babies that sit within the tertiary NICUs and the level 5 babies that sit in the two current level 5 services — those being Geelong and Sunshine. We would say that further work is required to resource and train services and staff in regional and rural centres. There need to be more specialists in regional and rural
generally excellent at the current time, although there are disparities in outcomes for some groups, with further

I come back to our executive summary, and that is that outcomes for mothers and babies in Victoria are

should only really be applied in the

systematic review, and now hypothermia is the standard of care for these infants, although it is a therapy that

Hypoxic

implemented across Victoria and nationally and internationally as a result of local investigators

national and international level, and this is just an example

relate to the conduct and parti

I have a few comments to make about the identification of best practice within the sector in Victoria

trained and accredited in the provision of neonatal resuscitation, and we need to further establish links between

developed between levels

following comments

Within Victoria all of the public hospitals currently submit data and are benchmarked against each other and

ranked in the way that shows which units are improving and which units require work in order to address

morbidity like fetal growth restriction, and there are 10 indicators in the suite. This information is fed back to

individual units, and the safety and quality committee look at mechanisms by which education can be provided

through the sector to try and address common problems. If there were to be a move to decentralise care of mild
to moderate prematurity, there would need to be more rigorous data collection on neonatal outcomes from

smaller centres to ensure that decentralised care did not increase risk, bearing in mind Dr Watkins’s earlier

comments about the excellent perinatal outcomes that are currently reported through our Victorian cohorts.

In addressing terms of reference 5 and 6, about access to and provision of an appropriately qualified workforce
and the disparity in outcomes between rural and regional and metropolitan locations, we would like to make the

following comments. We would strongly recommend that variation practices are minimised through adequately

resourcing level 3 to 5 nurseries with staff, equipment and funded cots. There need to be effective links
developed between levels 1 and 2 and level 3 to 5 services. We need to ensure that staff in all nurseries are

trained and accredited in the provision of neonatal resuscitation, and we need to further establish links between

the level 3 to 5 nurseries and the level 6A and 6B nurseries so that best practice guidelines and support are

immediately available.

I have a few comments to make about the identification of best practice within the sector in Victoria. They

relate to the conduct and participation in large randomised controlled trials that our tertiary NICUs participate

in. This evidence is translated into practice through participation in guideline development at a local, state,
national and international level, and this is just an example of such a therapy that has been trialled and

implemented across Victoria and nationally and internationally as a result of local investigators.

Hypoxic-ischemic encephalopathy is still one of the major preventable causes of death in the perinatal sector.
Local clinician investigators embarked upon a trial of hypothermia. These results were incorporated into a

systematic review, and now hypothermia is the standard of care for these infants, although it is a therapy that

should only really be applied in the tertiary sector.

I come back to our executive summary, and that is that outcomes for mothers and babies in Victoria are
generally excellent at the current time, although there are disparities in outcomes for some groups, with further
work being required to determine what underpins these disparities. There is currently some maldistribution of cots within the tertiary and neonatal sector, and in the short term more level 5 cots are required. But this is not sustainable in the long term, and a strategy is required to bolster level 3 to 5 capacity beyond the tertiary sector so that families have greater choice and some control and are afforded better opportunity to remain together and close to home. Optimisation of accountability is essential through more extensive data collection to ensure that required change provides ongoing safe and excellent care. I would like to invite the committee to ask us some questions.

The CHAIR — Thank you so much, Associate Professor. If I can start, we have talked about how the perinatal mortality rates are the lowest they have been in I think it was 15 years, at nine in 1000. At this stage, do you think the rate can be lowered from nine in 1000, and if so, how?

Assoc. Prof. HUNT — Yes, absolutely. I think there are still gains to be made in the perinatal mortality rate, nationally and internationally. It is a very competitively low rate, but as I showed from the graph of causes of preventable death there are still gains to be made, particularly around hypoxic-ischemic deaths and fetal growth restriction. There is currently work being undertaken in those areas through the department of health and through the college of physicians and the college of obstetricians and gynaecologists rolling out education programs so that clinicians within the sector are able to better identify fetal growth restriction and deliver babies at a time when their survival is optimised.

The CHAIR — Just while we are on it, would we be able to get a copy of that presentation for the secretariat as well?

Assoc. Prof. HUNT — Yes, of course.

The CHAIR — My second question is: what incentives would you recommend to attract specialists to work in rural and regional areas or with Aboriginal communities? You have talked about in your submission needing incentives. What would you recommend?

Prof. JONES — In my former role, where I was deputy dean of the Sydney Medical School, I had a lot to do with rural health and medical training about our national federal government-driven support for increased rural and regional support. That requires not simply getting our medical graduates to have better rural and regional exposure so that they then want to have a long-term career, but it also requires internships and specialist training places. This is particularly where the inquiry can help us — having those dedicated neonatal specialist training places.

In addition, though, they require support. To have someone go to a rural or regional area, they have got to have ongoing continuing professional development and support, and that requires partnerships with the tertiary and quaternary institutions such as our own so that they feel not that they are there and left behind but that they are part of the ongoing state excellence in research and education development to keep them there.

Finally there needs to be an adequate level of staffing so that, as Dr Watkins mentioned earlier, there is a work requirement so that it is sustainable in the long term and that you are not the only person required in that state to deliver care 24 hours a day.

Assoc. Prof. HUNT — Can I just add that Dr Watkins very succinctly made the point that there is a severe shortage of neonatal nurses in the tertiary sector, and we absolutely agree with that. I disagree slightly with the notion that we have got too many consultant neonatologists trained. We certainly do have for the current tertiary sector, but what we are finding increasingly is that qualified neonatologists are taking up positions at large regional centres or certainly large metropolitan centres like Sunshine, like the Northern, like Barwon Health and Geelong. If we are going to look at decentralising care and moving level 3 to 5 babies closer to home, then we are going to need to continue to train the numbers of neonatologists that we are so that the peripheral centres can be staffed with the appropriate expertise.

Ms BRITNELL — Can you just elaborate on how we actually develop more specialist training places? What is actually needed to do that?

Prof. JONES — Two things. So there has been the enhanced — and I cannot think of the exact acronym — rural and regional training program, which has come out from the federal government. What that does is it has
dedicated training programs so that, for example, the RACP will accredit a rural or regional site for neonatal training or general paediatric training with support, and that is a funded position. So that has to be accredited and there has to be a training program that can be delivered based in a rural or regional area where most of your time is there with some rotation back to a metropolitan area. It is the reverse of the current situation. With strategic planning some of those places can be dedicated to neonatal specialists in some of the areas of need in Victoria.

Ms BRITNELL — Okay. Just to elaborate on Paul’s question, what actual rural specialists were you referring to that you want to incentivise? Dr Watkins said it was not the neonatal specialists. It is what?

Assoc. Prof. HUNT — I think there is a whole gamut of specialist care that is required in the rural sector in bolstered numbers, including midwifery, lactation consultants, specialist neonatal nurses, anaesthetic support for safe provision of caesarean sections under appropriate anaesthesia and general physicians who look after mothers and have specialty skills in complications with pregnancy that go beyond the skills of the obstetricians. So I think the whole gamut of specialist care is required.

Prof. JONES — But in addition you would argue also neonatologists for the step down —

Assoc. Prof. HUNT — Yes, sorry, in addition.

Ms BRITNELL — Okay. That is probably enough, thank you.

Ms McLEISH — Thank you. That was a very enlightening presentation. When you were referring to data collection, I noticed you mentioned that there was not the same input required for level 3 to 5 beds and facilities. Is that the only thing that is missing out of the data collection that you would like to see?

Assoc. Prof. HUNT — At the moment the data that is collected for the perinatal service performance indicator report comes from two sources: the Victorian perinatal data collection system and the Victorian admitted episodes dataset. Out of that we have developed a suite of 10 indicators that we hope captures, either directly or through surrogate markers, a snapshot of quality and safety across the sector. We would always love to collect more data, and we would always love to drill down on certain nuances of the data to see if we could better understand what underpins some of the problems. For example, I can show you that outcomes for Aboriginal babies are not as good as they are for the non-Aboriginal community, but we have not got the breadth of data that allows me to expand on that and tell you why that might be.

A limiting factor is that we have to be pragmatic about what data is required, and most of this data is entered in the wards by clinical staff who are already overworked, who are already under-resourced. If there was to be a push for more data collection and more depth of data, then the staffing would need to be resourced in a way that made that possible, because at the moment the clinicians are furiously entering as much data as they can and we are drawing what we can get from it. But, yes, we would love to see a broader depth of data collected.

Ms McLEISH — When you were referring to that, were you referring to the collaboration between you and Murdoch and the university, or were you talking generally?

Assoc. Prof. HUNT — I am sorry. I think I misunderstood the question. Are you talking about best practice?

Ms McLEISH — I am talking about the data collected; I am thinking probably on a statewide basis of what is there and what is not there.

Assoc. Prof. HUNT — Yes. Statewide data collection, from what we currently have, comes from the two data sources I have mentioned. We would like to expand that, but pragmatically we cannot because the hospitals are not resourced in a way that allows broader data collection. If units that engage in level 3 to 5 care were to start to submit data to a national body like the Australian and New Zealand Neonatal Network, they too would have to be resourced in a way that allowed them to collect that data in a way that was reliable. In addition to that, the tertiary units that currently participate in that data collection pay a modest annual fee to the ANZNN for the privilege of submitting the data and getting a report back, and that too would need to be resourced. But if we are going to decentralise the care of level 5 babies out to large level 5 units, then we absolutely need a mechanism where their activity can be monitored.
Ms McLEISH — I just want to home in on the Aboriginal and Torres Strait Islander mortality rate being what it is. Do you know what the principal reasons are behind that? I know you said there is a lack of data, but do you have a feel for that rate?

Assoc. Prof. HUNT — I honestly do not know. My feel is that there may be some issues around accessing care. There may be some issues around the provision of care with culturally appropriate staff. I think in order to better understand that problem there would need to be a body of work conducted that interrogated those sorts of issues. It comes back to training appropriate staff. We would have to ensure that culturally appropriate staff are trained in a way that encourages Aboriginal women and their families to access the care that is available. There will be a socio-economic factor driving part of that as well, but understanding exactly what role each of those factors play is unclear at the moment.

Ms EDWARDS — Thank you for coming in today. Rod, you are also the director of the neonatal research group at MCRI and the chair of the Department of Health and Human Services Perinatal Safety and Quality Committee.

Assoc. Prof. HUNT — Correct.

Ms EDWARDS — I just wondered if there was any work being undertaken in terms of research and also in terms of the department committee in relation to Aboriginal and Torres Strait Islander women and also women from CALD backgrounds?

Assoc. Prof. HUNT — From what backgrounds?

Ms EDWARDS — From CALD backgrounds — non-English speaking backgrounds.

Assoc. Prof. HUNT — There are certainly groups within the Murdoch Children’s Research Institute that are dedicated to the better understanding of health problems within the Aboriginal sector, but I cannot report to you at the moment what their findings might be in relation to perinatal outcomes specifically. At a department level there is certainly a strong awareness that this is a disadvantaged group, but I think at the current time, without wishing to sound like I am making excuses, they are constrained by the data they have, and I think, in addition to what we have discussed, we would recommend that there be a broader body of work undertaken to better understand those problems. That needs to be driven in part by the department of health.

Ms EDWARDS — So the data is lacking around Aboriginal and Torres Strait Islander women and similarly the data is lacking around women from CALD backgrounds, and also about babies and outcomes?

Assoc. Prof. HUNT — That is correct.

Ms EDWARDS — I just wondered whether the organisations that you are involved in participate in prevention programs around pregnancy, neonatal health and perinatal health.

Assoc. Prof. HUNT — Certainly the safety and quality committee are actively involved in the measurement of outcomes and risk factors like smoking during pregnancy and are keenly driving programs that look to prevent or minimise smoking during pregnancy as a key risk factor for adverse neonatal outcomes. That would be one example of prevention. There is another big body of work being driven through the department of health and the college of obstetricians and gynaecologists in partnership with the ANZNN looking at better screening of fetal growth restriction prior to term. If clinicians are better able to recognise the problem, then babies will be delivered in a more timely fashion and hopefully with a reduction in mortality associated with that morbidity. So there is certainly some effort being invested in some of those prevention programs, but there could always be more.

Ms EDWARDS — And in terms of education programs at the royal children’s, are there education programs for women and parents who come in?

Prof. JONES — From the department of obstetrics and gynaecology, Professor Sue Walker also put in a separate submission related to antenatal care and health, but there is a global program of health education which goes from undergraduate training to post-professional training related to maternal and child health. It deals particularly with a focus on primary care and prevention at all levels. Similarly, run from the Royal Children’s Hospital there are a number of programs which are outreach programs which are both again to specialist
paediatric services — there is a clinical paediatric update that is run from the university — as well as primary care.

Ms EDWARDS — I have just one last question in relation to the need to train more neonatal intensive care nurses across the board. Are you aware of any of our rural schools of health that are actually doing that work? For instance, we have Monash and Latrobe in Bendigo.

Prof. JONES — There is no doubt that for the rural-regional centres, which are multi-university higher education centres and great centres of work, that is a main focus and often with a lot of the local higher education providers as well. That enables them to recruit from the local regional areas to have higher level nursing care. That is a focus of work, but I would not be able to provide the exact detail of the work.

Assoc. Prof. HUNT — As I currently understand it, to train in newborn intensive care nursing requires placement at one of the tertiary hospitals currently, and so whilst there might be background and encouragement coming from the rural sector, in order to undertake the training I think you have to be in the tertiary sector.

The CHAIR — We just wanted some clarification around levels 6A and 6B. I think there was a slide that showed that.

Ms McLEISH — Yes, there is an early slide where you had the four hospitals.

Assoc. Prof. HUNT — That is not a very good slide, I am sorry.

Ms McLEISH — It is that one, where we have got the Monash and the royal children’s capability levels as 6B and the Mercy and the Women’s as 6A. What is the difference?

Assoc. Prof. HUNT — Really the major distinction between 6A and 6B is that the provision of major surgery occurs in the 6B sector. The 6A centres are tertiary newborn intensive care units that provide the full gamut of newborn intensive care and in fact are probably more expert at the provision of intensive care to the extremes of prematurity between 23 and 27 weeks, because that is their bread and butter. As I showed you with the slide of the distribution of our patient population being more or less skewed towards a term at the Royal Children’s Hospital, that is because we are dealing with a surgical group of babies who present later in gestation. Both Monash and the children’s hospital currently provide major surgery to babies, and that is what defines us as 6B, but in every other respect the units are similar.

The CHAIR — And just a very simple question: is the neonatal intensive care unit level 5?

Assoc. Prof. HUNT — The NICU is level 6.

Ms BRITNELL — So with the 1 to 3, is that when they can go back to real regional areas?

Assoc. Prof. HUNT — Right.

Ms BRITNELL — What is the definition of 1 to 3?

Assoc. Prof. HUNT — I can certainly provide the committee with the capability framework which gives very detailed definitions for each of the levels of care, going from the smallest units, where obstetrics are not practised at level 1, through to smaller regional and rural services, where there may be an obstetric unit but not capacity for the provision of greater levels of care. The capability framework did not only deal with staffing so much as ancillary services around laboratory services, midwifery services, lactation consultancy, the whole gamut of care that is required to safely provide perinatal care. I can provide that, but it is quite a lengthy document.

The CHAIR — Thank you.

Ms EDWARDS — I have a question around the staffing in level 3 to 5 nurseries. How many staff are trained and accredited in the provision of neonatal resuscitation?

Assoc. Prof. HUNT — That is a very good question. What we are aiming for is 100 per cent saturation of training of newborn resuscitation. There are certainly courses available within Victoria that are managed and run through the Perinatal Infant and Paediatric Emergency Retrieval Service — PIPER — formerly NETS.
They have an education outreach service which delivers resuscitation training to all of the neonatal services across the state in addition to the provision of education, essentially in Melbourne, to which staff can come into.

Ms EDWARDS — What difference would that make, that quarter per cent in 3 to 5? What is the visible difference?

Assoc. Prof. HUNT — In real terms we hope that no baby should be born in Victoria and delivered in a state that requires intervention and not have that intervention readily available. This is not the sort of resuscitation that can only be provided by medical specialists. Every midwife and nurse present at a delivery should be able to — GPs, anaesthetists, everyone involved — provide basic life support to a newborn until a more specialist service can be consulted and arrive to provide assistance, so that is the ideal. It would be a great tragedy in this state if that service was not available and babies were born and suffered because of a lack of resuscitation expertise. Of course that does still occasionally happen, most commonly in Victoria in the home birthing sector, but that is why each of these cases is reviewed by CCOPMM so that those sorts of factors can be identified, and if there is an obvious deficit of training in a specific area, then that can be recommended back to a health service.

The CHAIR — Thank you so much for your time today, professors. We appreciate you are busy people, and we appreciate your submissions. If we can get a copy, that would be fantastic. Thank you once again.

Witnesses withdrew.