Special Commission of Inquiry into Healthcare Funding

Statement of Dr Nhi Nguyen

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1. This statement made by me accurately sets out the evidence that I would be prepared, if necessary, to give to the Special Commission of Inquiry into Healthcare Funding as a witness. The statement is true to the best of my knowledge and belief.

2. This statement is provided in response to a letter of 24 May 2024 issued to the Crown Solicitor's Office and addresses the topics set out in that letter relevant to my role.

A. Introduction

3. My name is Dr Nhi Nguyen. I am an Intensive Care Staff Specialist at Nepean Hospital, Nepean Blue Mountains Local Health District (**NBMLHD**). I am also Deputy Chair of the NBMLHD Board and Chair of the Safe Care Committee (Healthcare Safety and Quality Committee), and the Clinical Lead for the Nepean Hospital Redevelopment. A copy of my curriculum vitae is at **Exhibit A**.

4. I am also the Clinical Director of Intensive Care NSW (**ICNSW**) at the Agency for Clinical Innovation (**ACI**). ICNSW (formerly the Intensive Care Services Network) was formed following the establishment of the ACI. The network has representation from intensive care clinicians across the state. As the Clinical Director of ICNSW, I work with a Network Manager and project officers to support the development of guidelines and models of care, as well as convene regular meetings with working groups focussing on various areas of expertise with a view to supporting clinicians to provide safe care which is of high quality for the community they serve.

5. ICNSW has members in Nurse Leaders, ECMO (Extracorporeal membrane oxygenation) Advisory, Paediatric Intensive Care Advisory Group (PICAG), Performance Working Group and the ICNSW Executive. These groups have a monitoring function on

activity and performance (by reviewing state reports from the national Australian and New Zealand Intensive Care Society (ANZICS) Registry), provide a vehicle for feedback from clinicians from the front line, and also lead programs of work to support staff providing frontline care. These groups also maintain clinical engagement and networking opportunities.

6. I am also the Co-Chair of the NSW Health System Advisory Council (**HSAC**) with A/Prof John-Frederic Levesque, the Executive Co-chair. HSAC membership comprises both Ministry of Health executive as well as 24 frontline clinicians from across the state. The HSAC meets once a month with the clinical representatives to provide independent and impartial strategic clinical advice on key priorities and functions of the health system. The HSAC also conducts 3-hour workshops three times a year on important programs such as artificial intelligence (20 November 2023) and NSW Health Transformation Agenda (11 April 2024).

B. New Model of Care – Intensive Care Service Model Project

7. Approximately 15 years ago there was a recognition that the way intensive care units (**ICUs**) were organised within hospitals was highly variable. The greatest variability was in intensive care units in smaller hospitals. In collaboration with the Ministry of Health, the components of the role delineation guideline for intensive care was developed by the ACI. The ACI developed a model which provided recommended standards for the safe and efficient delivery of care in Level 4 ICUs. The implementation of this model in small ICUs across NSW is a good example of how the ACI has supported the embedding of new models of care or service redesign.

8. Following extensive consultation with clinicians across the state, the Intensive Care Service Model project was developed in 2014 - 2016. Following the allocation of funding, expressions of interest were sought from Local Health Districts (**LHDs**) in NSW where there was a desire to implement a Level 4 ICU.

9. Funding supported the ACI teams as well as local project officers to develop project plans and outlined the steps to "putting a model into practice". The project was implemented across the state in 2016, and embedded an agreed common language, accepted standards for the delivery of ICUs, and a networked service approach, rather than a standalone unit approach to enable timely access to senior critical care clinical advice and shared responsibility for intensive care service delivery.

10. Relevant documents developed by the project include:

    a. *Intensive Care Service Model: NSW Level 4 Adult Intensive Care Units*, ACI Intensive Care Service Network, dated 14 July 2015 and updated November 2020 (**Exhibit B**);

    b. *Intensive Care Service Model: NSW Level 4 Adult Intensive Care Units Implementation Guide. Putting a model into practice*, ACI, dated 29 January 2016 and updated November 2020 (**Exhibit C**);

    c. NSW Intensive Care Model: Patient Feedback, published September 2018 and updated November 2020 (**Exhibit D**);

    d. NSW Intensive Care Model: Staff Feedback, published September 2018 and updated November 2020 (**Exhibit E**).

11. The ICU service model design continues to provide a framework to support the delivery of intensive care services in NSW, and the adherence to statewide standards has seen some positive impacts on service and patient outcomes. The guide and self-assessment tools continue to be used by LHDs to evaluate the intensive care services which are delivered in their districts.

C. New Model of Care – ICU Exit Block

12. The ICU Exit Block project is a second example of a statewide program supporting the delivery of care in hospitals with ICUs. Through feedback from our clinical network, ICU Exit block had emerged as a significant challenge for our staff and health system. ICU Exit Block refers to an inability for a patient to be transferred out of ICU to a ward, when they no longer need ICU level care. Exit block is an indicator which is recorded in our binational registry (ANZICS Adult Patient Database). Patients who experience exit block may be delayed in their recovery. Furthermore, ICU exit block may also impact on the access of those beds for patients who are waiting for ICU admission.

13. In 2017, ICNSW was successful in securing ACI executive support for a pilot project to evaluate and reduce ICU exit block in 4 units (Liverpool, Nepean, Gosford and Wyong Hospitals) across NSW. Similar to the Level 4 Intensive Care Service model work, the project funded a local project officer, supported by ACI to assess, evaluate and implement local strategies to reduce exit block.

14. The key framework of the project was that improvement measures needed to address ICU processes as well as whole of hospital processes, as ICU exit block is an important component of whole of hospital patient flow.

15. Whilst the project was underway, ICU Exit Block was identified as a priority for the Health System in NSW. This led to a prioritisation of the project which was a collaboration between ICNSW and the Whole of Health Team of the Ministry of Health.

16. The statewide project had several foundational components:

    a. Review of literature – for example, *Intensive Care Unit Exit Block Project, Evidence Review,* dated 9 February 2019 is at **Exhibit F**;

    b. Gathering of local data specific to site and NSW – for example, *Addressing ICU Exit Block: Right care, right patient, right place,* published November 2018 and updated November 2020, is at **Exhibit G**;

    c. Expression of Interest process – which involved identification of a local executive sponsor;

    d. Provision of central support to the local team for project implementation using standardised templates and tools. See for example, *Guiding Principles to optimise intensive care capacity, A whole of hospital approach to improving patient flow,* October 2019, is at **Exhibit H**, and a one page summary at **Exhibit I**.

17. The COVID-19 pandemic demonstrated a need to maintain ICU capacity in extreme circumstances. In the post-pandemic period of significant strain on the health system, the ICU Exit Block project has led to the development of specific improvement measures which are reportable to Ministry of Health. Clinical teams in hospitals are able to track exit block on a specific dashboard on the Patient Flow Portal and hence monitor and modify local initiatives related to improving flow of patients in and out of ICU to maintain ICU capacity.

18. The project is a good example of how a signal from clinicians matched that from the system overall and resulted in a coordinated statewide program to address the challenge from different angles.

19. The COVID-19 pandemic provided an opportunity for the development of dynamic simulation models to test different scenarios and their impact on ICU capacity and flow.

A similar approach has been developed in paediatric intensive care services to support future planning and impacts of new models of care.

20. Evaluation of the ICU Exit Block model has not been possible as implementation was disrupted by the COVID-19 pandemic. There is however general acceptance that ICU exit block is a measure of strain on the system, hence an ability to monitor it has the support of clinicians.

D. Funding Arrangements for New Models of Care

21. Clinicians are continually looking for ways to improve care delivery and explore innovative models. Funding for the development and implementation of new models of care is often opportunistic in nature.

22. Funding for local initiatives often need to come from repurposing or redirection of existing funding (which is part of business as usual operations of the hospital). Previously, LHDs were able to put forward bids for enhancements to support new models. For clinicians this is a culmination of work towards business cases which had no certainty of being supported.

23. For larger statewide initiatives, such as the ICU Service Model or ICU Exit Block; resourcing for work involves deployment of existing ACI staff, and use of ACI funding and work plans; however, funding for LHD project officers who are involved in the initiative depends on external grants or support from the LHD's own budget.

24. An example is how ICNSW and ACI have partnered with clinical groups that were successful in being awarded National Health and Medical Research Council (Medical Research Future Fund) or Translational Research Grants Scheme (NSW Health) which have supported the development and evaluation of new models of care (for example, the EsCAPE Trial regarding improving equity and outcomes in cardiogenic shock).

25. Funding often involves an injection of money for a set period. Depending on the innovation in question, projects which are locally funded may have a limited budget as well as limited available staff with the right skill mix.

26. Although good will and local funding may support a small project to be scalable beyond a LHD, I believe that scaling beyond a hospital requires more centralised coordination. For example, ICNSW have been collaborating with NSW Pathology for the development of a dashboard to monitor a quality improvement project on targeting appropriate

pathology testing in ICUs. Without dedicated funding, it proved difficult to scale the project and embed the initiatives despite there being a desire to do so from all involved. The outcome is there may be a duplication of efforts across LHDs because many are using local teams to develop similar tools to monitor outcomes of local projects which have similar goals.

E. Evaluation of long-term impacts for new models of care

27. Evaluation of long-term impacts for new models of care is an important part of any implementation program. This is a challenge for clinicians and system managers as pilot programs or innovative strategies have funding which is time limited. The evaluation period may also be insufficient to measure genuine and sustained change.

28. When clinicians across the state work together on new models of care, clinical engagement is enhanced. From the establishment of the network following the formation of ACI, the network links have strengthened such that when needed the ICU clinical community gathered to support and share learnings.

F. New models of Care – challenges, including prioritisation

29. The development, implementation/trialling, and evaluation of a new model of care can be disruptive to the current status quo. It is also often not clear which models of care will have broader support including funding.

30. There is significant variation in what can be achieved locally. In smaller hospitals or intensive care units, new models of care or innovation may result in role overload, as the staff are often performing existing duties such as clinical, educator or manager. This might limit the extent to which a model can supported or implemented.

31. Conversely, there may be fewer local barriers to exploring new models as it may be easier to be adaptive, trial and disinvest in initiatives which are assessed to not work. To be successful, executive sponsorship, local capability and good will, need to all be aligned.

32. In my view, it is important that LHDs have some flexibility in implementing new models of care, however they would benefit from coordination and support which is centralised. This may be particularly true for rural and regional areas who have limited flexibility in staffing resources.

33. Over the last few years, ICNSW, together with the clinicians in our network, have prioritised work which aligns well with the Future Health Strategy. We have balanced this with the development of models of care in response to signals from the broader system, which includes the following examples:

    a. Extracorporeal membrane oxygenation (ECMO) – adult and paediatric resources are available on the ACI website; and

    b. A High Acuity Child Model of Care – see for example, *Managing a high acuity child outside of a tertiary children's hospital, key principles,* June 2024 at **Exhibit J.**

34. Reflecting on my experience locally at Nepean Hospital; NBMLHD has a clinician in the role of Director of Strategy and Innovation as part of the NBMLHD Executive team. He also chairs the New Technologies and Innovations committee at NBMLHD where new models of care are presented for discussion and support. Funding for local innovation proposals is often from existing budget allocation, research grants or trust funds.

35. The Nepean Redevelopment provided an opportunity to develop innovative new models of care which informed the design and infrastructure of the redevelopment of the hospital. On commissioning of the hospital, not all models of care have been able to be implemented to their full potential because of an inability to secure funding for every new model. Examples of these from Nepean Redevelopment include the ongoing operation of the paediatric emergency model of care and the Comprehensive Ambulatory Care Area. These were two key priorities and part of the benefits realisation framework for the Redevelopment. This highlights the challenge of funding new models and the transition period from existing models whilst new models are implemented, evaluated and embedded.

G. Dissemination of information by ACI and mechanisms to gather information from frontline clinicians

36. ACI have a well-established communications strategy throughout the stages of the development of models of care. If a model of care has worked at a number of sites, ACI often develops a toolkit as a model of care and disseminates this information to facilities and districts, so they can make the decision as to whether they want to adopt and implement it. Whenever a model of care is finalised, ACI aims to disseminate as much as possible through its website, social media, and email. There are districts looking to pick up models of care 'off the shelf' as smaller hospitals may not have time or expertise

to put a model together. They can then take the toolkit and amend to suit their local needs. Those facilities wait for ACI models and that is our role centrally.

37. ICNSW has established different strategies to disseminate information as well as share local innovation. Working groups who meet 3-4 times per year provide a mechanism to provide information specific to their group (PICAG, ECMO, Nurse Leaders). The ICNSW convene four meetings a year specifically for ICU Clinical Leadership from the Network. Two of these meetings are of the ICNSW Executive and two are for all directors and nurse managers of all ICUs across NSW. These fora are used to provide updates on relevant activity/projects in Intensive Care.

38. ICNSW also hosts an Intensive Care Forum each year. In 2024, we moved to a hybrid format (program attached). The program is designed to provide a balance of show casing local innovation, update on new models of care, and panel discussions on emerging work (sustainability initiatives in Health and ICU). It is an opportunity for clinicians to network outside of their work environment, connect and communicate shared experiences. An example of the recent ICNSW forum agenda is at **Exhibit K**.

39. ICNSW has held a monthly Intensive Care Community of Practice since the COVID-19 Pandemic. This forum continues to have good engagement, particularly for those in rural and regional centres. We use this forum to both receive feedback from our clinicians and disseminate relevant information.

Dr Nhi Nguyen

Witness:

18/6/24

Date

18/06/2024.

Date