

Submission to the Standing Committee on Finance & Public Administration  
Inquiry into Public Hospital Performance Data

by

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The NHMRC Centre of Research Excellence in Patient Safety (CRE-PS) would like to provide input into the Terms of Reference for the Inquiry into Public Hospital Performance Data. The Terms of Reference as outlined by the Standing Committee on Finance and Public Administration are:

*to inquire into and report on the capacity of hospitals to meet demand, standards and quality of care, resourcing and access levels, and the accuracy and completeness of performance data for Victorian public hospitals.*

We would specifically like to comment on the need by hospitals to provide accurate and complete data if they are to accurately measure performance in public hospitals.

The NHMRC Centre of Research Excellence in Patient Safety is very supportive of the move to introduce measurement into quality. We believe that it should form a key part of Victoria's total quality framework. However, this should proceed with caution because historically, there is ambiguity as to the benefit provided by the public release of performance data. Few studies have demonstrated significant improvement in quality of care,<sup>1</sup> some have demonstrated only moderate effect<sup>2-4</sup> and others have had a perverse and undesired effect on quality of care (including racial profiling, inability to find a surgeon to operate on higher risk patients, increased preference to treat affluent and more educated patients).<sup>4-7</sup>

For performance measurement to have measurable impact on improving outcomes, it is important that measures are chosen very carefully and that there is a clear purpose to which they are being put. This needs to be articulated at the outset.

## Criteria for evaluating performance measures

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Proposed performance measures should be reviewed using the following criteria:

### 1. Are performance measures epidemiologically sound?

- Are the definitions being used both clear and unambiguous?
- Does the indicator make sense? Does it "look like" it is going to measure what it is supposed to measure? (does it have face validity?)
- Has research been undertaken to assess whether what you think is being measured is *actually* being measured? (does it have content validity?)
- Are data being collected from all eligible patients? It is important that there is no cherry picking; where hospitals include some patients but exclude those who will make outcomes look bad.
- Is information recorded systematically in the source document, usually the medical record? For example, is information being recorded in the medical record by clinical staff and is it documented in a consistent and standardised manner?
- Is it reproducible? If two people were to collect the data, would they both collect the same data?

### 2. Are performance measures likely to be impacted on by quality of care?

- Is the indicator likely to detect a quality of care issue or is it likely to just cause lots of noise with little signal? For quality performance measures to be useful there needs to be a credible link to quality of care.

### 3. Are proposed measures likely to drive perverse behaviour?

- Perverse behaviour is often driven by poor quality data. If data do not take into account factors which are not within the control of healthcare workers then it encourages 'gaming'. Gaming is the process where the provider can misreport data. An example of gaming might be that surgeons will not operate on high risk patients, such as the poor, elderly, disadvantaged and those with multiple comorbidities because it is likely that their outcome will be worse than operating on healthy people. Gaming has been shown to happen when performance indicators are collected.<sup>8</sup>

When introducing performance measures it is imperative that they can stand up against this litmus test, otherwise they will have no clinical credibility and will not drive change in practice. In advancing this work we outline below a number of strategies.

## How to promote accurate and complete data

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The NHMRC Centre of Research Excellence in Patient Safety propose that greater attention be placed on collecting good data from high risk/high cost areas across the health sector.<sup>9</sup> Five strategies for improving measurement are outlined:

### 1. Invest in Clinical registries

Clinical registries have the capability of collecting epidemiologically sound data which is respected by clinicians and administrators and therefore has unrivalled potential to drive quality improvement. Clinical registers refer to databases that systematically collect health-related information on individuals who are:

- treated with a particular surgical procedure, device or drug, e.g. joint replacement;
- diagnosed with a particular illness, e.g. stroke; or
- managed via a specific healthcare resource, e.g. treated in an intensive care unit.

Clinical registries are established and operated with the aim of improving patient care and outcomes through greater understanding of events, treatments and outcomes. The data collected by a registry over time are analysed and used to identify positive and negative trends and these analyses can be used, generally by clinicians, to lead to improvements in practice, and in medication and device usage.

Throughout Europe and the USA, registries are becoming one of the most clinically valued tools for quality improvement.<sup>10</sup> The Swedish Stroke registry provides an excellent example of how registries can be used to monitor quality of care and improve clinical performance at a national level.<sup>11</sup>

We propose a greater investment in the development of clinical registries which are strategically placed to generate high quality “quality performance measures” in high risk areas. The Department of Epidemiology and Preventive Medicine collaborates with a number of world-class clinical registries which have been created to monitor quality of care in the health sector. These include registries to monitor cardiac surgery, treatment and outcomes in intensive care, burns and trauma.

### 2. Invest in validating proposed performance measures

Many performance measures proposed for collection at a national level will be collected using pre-existing administrative data. These data are generally collected for funding purposes. Specialised personnel in hospitals are trained to code data from the medical records which will then be used to provide funds to hospitals. Coders can only code what is documented. Healthcare personnel have some understanding of how data can be documented to maximise funding opportunities.

Relying on this administrative data is problematic for a number of reasons. There are vast gaps in documentation in medical records. Important details are either not reliably entered or there is variability in language used which impacts on coding principles.<sup>12</sup> Little or no validation work has been carried out to assess whether this data truly has the ability to measure quality of care. For this reason, the data are most

useful for screening for differences in management and driving quality improvement and are generally not very useful for benchmarking

In order to assess the completeness and accuracy of data used to measure performance in Victoria's public hospitals it is important that validation work is carried out. It is also important that, as performance measurement is being introduced, the impact it has, both positive and negative, is being monitored to prevent gaming. Publicly reporting on poor quality data has the potential to disenfranchise and harm the reputation of clinicians and hospitals.

### **3. Invest in developing composite performance measures**

Strategically placed probes or indicators measuring various aspects of the health system have potential for measuring the health of the wider health system. There is promising work to suggest that composite performance measures can accurately reflect quality in an institution. Given the huge investment which will be required by institutions to collect the currently proposed set of performance measures, this needs further work. A number of methods have been developed for aggregating performance measures into composite indices.<sup>13</sup>

While greater work is needed to explore the suitability of these methods to the national Australian context, their ability to link processes with patient outcomes at the hospital level is appealing. The first step is likely to be to determine which individual performance measures may be appropriate for composite approaches and then how these measures may be combined most effectively.

## **A framework for development of performance measures**

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When considering a framework for the collection and reporting of performance measures it is important not only to consider the accuracy and completeness of the data, but also how much should be reported and to whom. We propose a system whereby some information is reported at a public level and other data is used by clinical networks to foster quality improvement.

### **1. Invest in developing a core set of Standards**

There are some processes which fundamentally should attain 100% compliance for an institution to be considered safe to function. These processes may not be collected on an ongoing basis but must at a minimum be audited periodically. Accreditation provides the best opportunity to assess that these Standards are being monitored and met. This principle is well established in other sectors, such as finance, where a set of high quality, understandable and enforceable global accounting standards have been established in the public interest and are audited periodically to ensure compliance.<sup>14</sup> This information should be made available to the public to give confidence on the ability of hospitals to monitor and deliver quality care.

### **2. Invest in developing clinical networks**

We propose that clinical networks be established across clinical areas to work with the Department to Human Services and other interested parties to develop and monitor performance measures.

Some performance measures should be reported publicly to give confidence that the health system is working effectively. However, there are thousands of measures and these should not all be reported publicly. Of more value would be establishing and using clinical networks so that data can be peer-reviewed, benchmarked and used to drive change within clinical groups. Clinical networks do exist in Victoria<sup>15</sup> and have been used successfully in the US. The “Get with the Guidelines” program developed by the American Heart Association and the American Stroke Association.<sup>16-18</sup> has successfully improved adherence to guidelines in the management of stroke and cardiovascular disease. It does this by providing tools to support decision making, collect high quality data, and benchmark performance with other clinical networks. It has harnessed support from clinicians by engaging respected clinical leaders in the field to collect good data and adopting a collaborative quality improvement framework.<sup>19</sup>

## Summary

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The NHMRC Centre of Research Excellence in Patient Safety has been established as Australia’s only national centre of research excellence in patient safety. We have among our staff academics, clinicians and policy makers. The Centre is housed within a department that has particular expertise in epidemiology and quantitative research methodology. It has strong clinical links and collaborations around Australia will enable access to the highest level of expertise in each discipline.

The public reporting of performance data demands that high quality data be used. For this to occur, proposed indicators of quality must be assessed to determine whether

- data are epidemiologically sound;
- the proposed measure will accurately reflect quality of care; and
- collection and public reporting of it will have potential to drive perverse behaviour.

Investment in the development of high quality data sources such as clinical registries, and validation of proposed measures through pilot studies will ensure that data have clinical credibility and therefore the ability to change practice at the coalface. This must be underpinned by good accreditation procedures and effective peer review to drive quality improvement.

A coherent approach to the dissemination of data is required. Some performance measures should be collected through the accreditation process which hospitals must undertake. Standards of care should be assessed periodically through this process and reported publicly. Many other performance measures serve little purpose to be publicly reported but should be used by clinical networks to foster competition and discussion. The development of these networks requires further investment.

We would welcome involvement in the development of performance measures and a reporting framework for use in Victorian public hospitals.

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