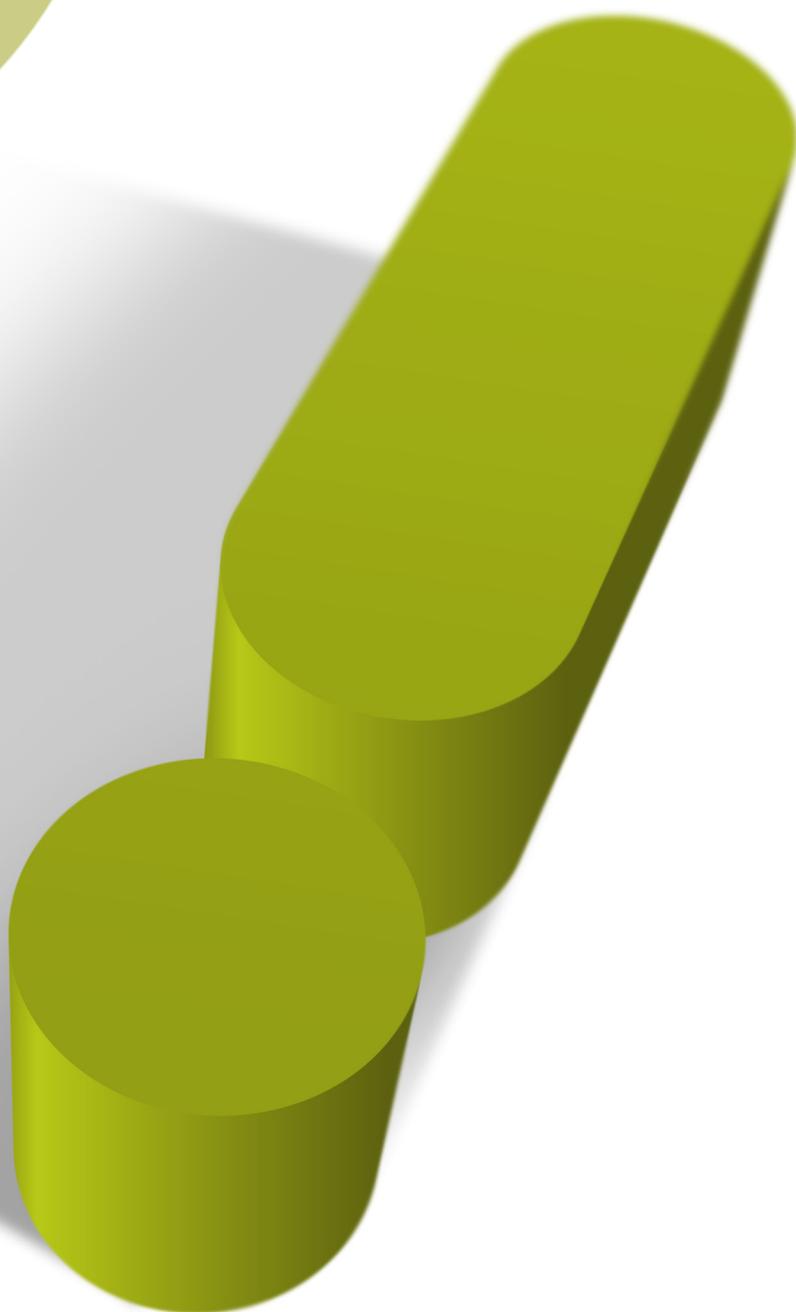


**Direct response**

2013:05



# Measurements for **Improved Quality** in **Healthcare**

## Australia

**This country report** is primarily focused on the development of Clinical Quality Registries in Australia. The handling of information in the Australian healthcare system is of particular interest due to the fast developments during the last decade. The report is part of the Swedish Agency for Growth Policy Analysis' Health Measurement Project in which quality measurements in healthcare have been studied in a number of countries.



Reg. no. 2013/012  
Swedish Agency for Growth Policy Analysis  
Studentplan 3, SE-831 40 Östersund, Sweden  
Telephone: +46 (0)10 447 44 00  
Fax: +46 (0)10 447 44 01  
E-mail: [info@growthanalysis.se](mailto:info@growthanalysis.se)  
[www.growthanalysis.se](http://www.growthanalysis.se)

For further information, please contact Martin Wikström  
Telephone: +46-(0)10-447 447 3  
E-mail: [martin.wikstrom@growthanalysis.se](mailto:martin.wikstrom@growthanalysis.se)

## **Foreword**

This country report is focused on the development of clinical quality registries in Australia. It is part of Growth Analysis Health Measurement project in which quality measurements in healthcare have been studied in a number of countries. The Swedish Ministry of Health and Social Affairs commissioned the project.

This report was written by Martin Wikström (project leader) at the Agency's Stockholm office.

Stockholm, April 2013

Enrico Deiacò, Director and Head of Division, Innovation and Global Meeting Places



## Table of Contents

Summary .....	7
Sammanfattning .....	8
<b>1 Introduction .....</b>	<b>9</b>
<b>2 Healthcare developments in Australia .....</b>	<b>10</b>
2.1 Introduction to Australian Clinical Quality Registries .....	10
2.1.1 Situation for and challenges in the development of Clinical Quality registries.....	11
2.2 National efforts for measurements and information .....	14
2.3 National arrangements for Clinical Quality Registries .....	15
2.4 The information strategy.....	16
2.4.1 Indicators of safety and quality.....	16
2.4.2 Health information standards for safety and quality .....	17
2.4.3 Reporting of performance .....	17
<b>3 Discussion.....</b>	<b>19</b>
<b>4 Interviews .....</b>	<b>20</b>
<b>5 Appendix .....</b>	<b>21</b>



## Summary

Data from registries may be used in many ways such as for comparative studies, for healthcare quality improvement, to ensure safety of procedures, and to find best practices or underperforming hospitals. Not least is registry data important for medium to long-term research.

The handling of information in the Australian healthcare system is of particular interest due to the fast developments during the last decade and in particular over the last few years. The development has been accelerated by a major national healthcare reform and other legislative efforts. While Australia previously may have lagged somewhat, compared to the best performing countries, with regard to clinical quality registries it can now be seen as a proactive and relatively fast mover. There are several reasons for this including a conscious effort to analyze obstacles for the development of new registries. A number of important factors relating to methods for data collection, management issues, access to expertise, and funding have been identified.

The introduction of electronic health records and unique identifiers of individuals and organizations is likely to be important for future developments. As electronic information systems often are advantageous for the collection of data, this should help a positive development. Furthermore, the information strategy brought forward by the Australian Commission on Safety and Quality of Healthcare is likely to be central to the development of safety, quality and performance standards. The Commission, whose role is to lead and coordinate improvements in safety and quality in healthcare, has together with other stakeholders developed a system of indicators on safety and quality, and for the development of more national clinical quality registries this is seen as important. A specific program for the national arrangement of clinical quality registries is under way and technical and operating standards have been developed. Regular reports on the performance of hospitals and clinics have also been introduced. While the number of known clinical quality registries was 28 in 2006/2007, this had increased to 37 in 2012. Only a fraction of these, however, have national coverage.

## Sammanfattning

Registerdata kan användas på många sätt, exempelvis för jämförande studier, för kvalitetsarbete inom hälso- och sjukvård, för säkerhetsarbete och för att finna bra arbetsmetoder eller underpresterande sjukhus. Inte minst är registerdata betydelsefullt för forskning på medellång till lång sikt.

Informationshanteringen inom det australiska hälso- och sjukvårdssystemet är av speciellt intresse till följd av den snabba utvecklingen under det senaste decenniet och i synnerhet under de senaste åren. En större nationell sjukvårdsreform har, tillsammans med andra legala förändringar, skyndat på utvecklingen.

Australien låg tidigare något efter de bäst presterande länderna vad gäller kliniska kvalitetsregister men är nu en både proaktiv och aktiv aktör. Det finns flera anledningar till detta, däribland en medveten ansträngning att analysera hinder för utveckling av nya register. Man har också identifierat ett antal viktiga faktorer relaterade till datainsamlingsmetoder, managementfrågor, samt tillgång till expertis och finansiering.

Introduktionen av personliga och integrerade elektroniska patientjournaler och unika identitetsnummer för individer och organisationer kommer sannolikt att vara långsiktigt betydelsefullt. Då elektroniska informationssystem ofta är fördelaktiga för insamlandet av data borde detta underlätta en positiv utveckling framöver.

Den informationsstrategi som har presenterats av Australian Commission on Safety and Quality of Healthcare kommer sannolikt att vara central för utvecklingen vad gäller säkerhet, kvalitet och operativa standarder. Kommissionen, vars roll är att leda och koordinera förbättringar av säkerhet och kvalitet inom hälso- och sjukvård, har tillsammans med andra intressenter utvecklat ett indikatorsystem inom området, vilket också anses vara betydelsefullt för utvecklingen av fler kliniska kvalitetsregister. Ett nationellt ramverk för kliniska kvalitetsregister håller på att tas fram och tekniska och operativa standarder har skapats. Vidare har regelbundna rapporter avseende sjukhus och klinikers resultat introducerats. Medan endast 28 kliniska kvalitetsregister var identifierade 2006/2007 så hade antalet vuxit till 37 år 2012. Dock täckte endast en del av dessa hela landet.

## **1 Introduction**

Clinical quality registries (CQR) are important, not least as they can collect information on diagnosis, procedures and outcomes, and provide comparative clinical performance data. They may not least be useful when there is a variation in treatments and outcomes that can be benchmarked. CQRs are central to collecting credible information in order to raise quality of care and avoid adverse treatments. Furthermore, such registries may insert an element of competition in order to develop best practices and monitor if evidence-based guidelines are followed. Registries may also be used to investigate whether access to care is good, timely and fair.

Obviously the detailed relevance and quality of the data contained in registries as well as the fraction of the whole population of possible results that can be collected are crucial factors as regards the usefulness of registries. Other important factors include for instance the management of registries, their funding situation, the duration of time series and that data is analyzed in a scientifically correct manner. One question is how any confounders are treated and it is obviously important to use relevant indicators. To give an example, mortality rate may be a very blunt and to some extent irrelevant measure for many procedures and diagnoses.

Many countries and organizations, in Australia as well as elsewhere, have realized the importance of CQRs to improve the quality and reliability of healthcare. In this text we have briefly studied the developments in Australia with regard to clinical quality registries.

## 2 Healthcare developments in Australia

A number of years ago Australian governments realized the challenges to the national, state and regional healthcare systems due to, among other things, an ageing population, life style-related diseases, and an increased prevalence of chronic and sometimes preventable diseases. In collaboration with state and territorial authorities, the federal government has therefore taken action and a national agreement was put forward in 2011. Some of the central components of the National Health Reform Agreement<sup>1</sup> as well as the National Partnership Agreement on Improving Public Hospital Services<sup>2</sup> and the National Healthcare Agreement 2011<sup>3,4</sup> are:

- a new framework for funding public hospitals and additional investments in public hospital services over the decade,
- a focus on reducing waiting times in emergency room and elective surgeries,
- an increased transparency and accountability across the healthcare system for the elderly,
- a stronger primary care system supported by joint planning between states and territories.

### 2.1 Introduction to Australian Clinical Quality Registries

The use of information and health data has been in focus for a number of years and the National Health Information Management Committee identified a better use of health information to improve quality as a cornerstone in its strategic plan from 2007-08 to 2012-13. This was also endorsed by the Australian Health Ministers Advisory Council.<sup>5</sup> A number of interesting and influential scientific studies on the use of CQRs in Australia have been made. Not least are the studies originating from the Centre of Research Excellence in Patient Safety (CRE-PS, see also chapter 2.3) at Monash University of interest.

While Australia previously lagged somewhat compared to some other countries with regard to the development of registries, the situation has changed over the last 6-7 years. The importance of national health data monitoring to increase the quality of healthcare has been realized, and Australia appears have a considerable momentum when it comes to the development of CQRs. However, according to the ACSQHC, there is still a limited capacity to monitor and report on healthcare within specific clinical domains. The development of more national CQRs could improve monitoring of health data (patient data, diagnoses, interventions, outcomes etc.) and comparative reporting of clinical care, and thereby drive quality improvements. The dependencies of CQRs in the view of the ACSQHC are presented in Figure 1 and definitions of such registries are listed in Box 1.

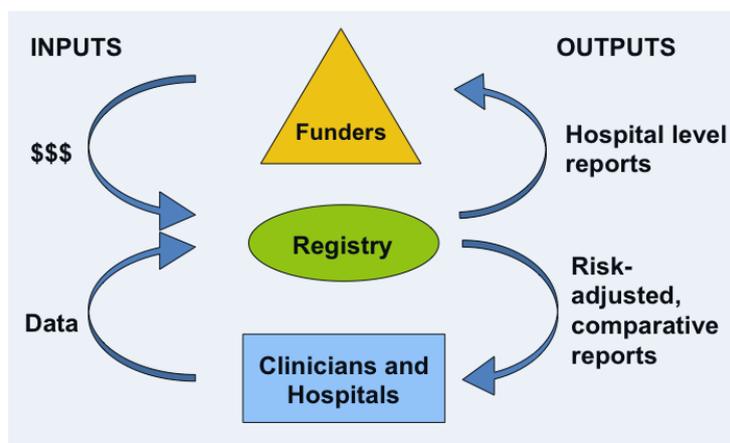
<sup>1</sup> <http://www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/Content/nhra-justreleased>

<sup>2</sup> <http://www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/Content/npa-improvingpublichospitals-agreement>

<sup>3</sup> <http://www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/Content/nha-agreement>

<sup>4</sup> [http://www.federalfinancialrelations.gov.au/content/npa/health\\_reform/national-agreement.pdf](http://www.federalfinancialrelations.gov.au/content/npa/health_reform/national-agreement.pdf)

<sup>5</sup> <http://www.registries.org.au>



**Fig. 1 Dependencies of successful and sustainable clinical quality registry systems according to the ACSQHC.**

### 2.1.1 Situation for and challenges in the development of Clinical Quality registries

A number of challenges exist with regard to the development of CQRs in Australia. According to the ACSQHC these can be grouped into the following main categories:

- Funding
- Collection of data
- Interoperability between information systems
- Development of technical systems and support
- Data governance issues.

Evans et al. (2011a)<sup>6</sup> described the perceived situation regarding clinical quality registries in Australia as it was in 2006/2007. The authors were at the time able to identify 28 clinical quality registries of which only five covered the whole country. These concerned joint replacements, renal dialysis and a number of types of organ transplants. The situation was at least partly due to the fact that many of the registries originated in research projects and/or regional or local initiatives, as well as relatively weak financial situations. The funding situation between the registries varied strongly with the majority of resources originating from government or from universities. Some registries were funded by grants or from private sources and/or had mixed funding pictures.

<sup>6</sup> <http://www.ncbi.nlm.nih.gov/pubmed/19811553>

### Definition of Clinical Quality Registries in Australia

An Australian clinical quality registry is a registry whose purpose is to improve the safety or quality of healthcare provided to patients. Australian clinical quality registries build on data collected from events in daily health care and use this information to assess care provision and implement quality improvements where required.

**Clinical registries** are 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 quality registries** are a particular subset of clinical registers. The purpose of a clinical quality register is to improve the safety or quality of healthcare provided to patients by collecting key clinical information from individual healthcare encounters which enable risk-adjusted outcomes to be used to drive quality improvement.

#### Box 1. Definition of clinical quality registries.

Source: Monash University, <http://www.registries.org.au>

The methods for and the success of data collection varied greatly. Australian registries that used an opt-out<sup>7</sup> consent method (75 percent) tended to estimate a greater success regarding the proportion of data collected compared to those that used an opt-in approach. Very high participation rates have been achieved in some cases, for instance in the United States (>97 percent) and Australia (100 percent opt-out in the Australian Orthopaedic Association (AOA) National Joint Replacement Registry and the Victorian State Trauma Registry), when opt-out strategies have been used (McNeil et al. 2010).<sup>8</sup> This is of interest not least because of the debate on integrity concerns and the fact that some jurisdictions do not have a legislative situation allowing for an all-out use of opt-out registries. However, the legal and ethical situation in Australia is complicated in this area and one problem is that the National Health and Medical Research Council (NHMRC)<sup>9</sup> and Human Research Ethics Committees (HREC)<sup>10</sup> do not recognize opt-out arrangements. If opt-in is required, this may contribute to case selection bias, reduced data validity and to make the registers less representative. A solution within the framework of the National Health Information Agreement (NHIA) may be possible.<sup>11,12</sup>

Evans et al. (2011a) also found that collection of data on paper was the most common method used by registries in Australia (2006/2007). This is however likely to have changed since then. Electronic data collection through web interfaces, hand-held computers or similar is likely to be a more reliable method and could contribute both to data quality and improved participation levels. Interestingly, the study could not show that data linkage was more common for electronically collected materials.

<sup>7</sup> In an opt-out registry clinical data is included unless the patient concerned expressly states that he/she does not want his or her data to be part of the registry.

<sup>8</sup> McNeil, J.J., Evans, S.M., Johnson, N.P., Cameron, P., 2010, *Clinical-quality registries: their role in quality improvement*, *Medical Journal Of Australia [P]*, vol 192, issue 5, Australasian Medical Publishing Company Pty. Ltd., Australia, pp. 244-245.

<sup>9</sup> <http://www.nhmrc.gov.au>

<sup>10</sup> <http://www.nhmrc.gov.au/health-ethics/human-research-ethics-committees-hrecs/human-research-ethics-committees-hrecs>

<sup>11</sup> <http://meteor.aihw.gov.au/content/item.phtml?itemId=512384&nodeId=file510b2058aff4a&fn=nhia.pdf>

<sup>12</sup> <http://meteor.aihw.gov.au/content/index.phtml/itemId/182135>

Collection, analysis and use of data should be supported by an effective management structure. Clinical expertise support as well as methods to validate data varied between the registries. Evans (2011b)<sup>13</sup> suggested that registries benefit from strong clinical research environments in which expertise in clinical areas as well as in biostatistics, epidemiology and clinical data management is present. An apparent conclusion from the reports is that an affiliation between registries and professional societies and/or colleges is advantageous.

Given the situation at the time the authors believed it to be important:

- for data to be more complete and accurate and to make provisions for risk adjustments and quality controls,
- to emphasize the potential for improved patient outcomes in order to enable a stronger “buy-in” of clinicians,
- to realize the potential of electronic systems including electronic health records,
- to realize the benefits of central and standardized reporting systems,
- to develop operational standards and a funding framework,
- to establish a coordinated approach on the national level.

Evans et al. (2011b) also suggested that it is imperative to develop new national registries and to extend some high quality registries that did not have national coverage. It was suggested that it was most pressing to develop registries in areas associated with high cost areas and/or patient morbidity where there may be large variations in processes and/or outcomes of care (see also McNeil et al., 2010<sup>14</sup>). Furthermore, development in areas where it is relatively straightforward to develop indicators and their use should be prioritized. It is likely to be important to focus on diseases with a clear and well-defined pathological development where stages are well defined. It was therefore believed that conditions such as Fibromyalgia and Irritable Bowel Disease (IBS) may be less suitable to begin with. Monitoring of new devices, procedures and drugs is also essential to ensure safety and treatment efficiency. It was suggested that registry development relating to the following should be prioritized:

- Conditions and procedures associated with large variations in processes and outcomes of care.
- Transitions of care across the healthcare system that influence optimal outcomes.
- Medium and long-term safety of clinical outcomes.

Methods, expertise and infrastructure have been developed and may need to be developed further to support the build-up of registries. Documents such as “Operating principles and technical standards for Australian clinical quality registries” were developed by the Australian Commission on Safety and Quality in Healthcare (ACSQHC) which was established under the National Health Reform Act 2011. Some factors that may be seen as particularly important for registry development include:

- robust management,
- transparency,

<sup>13</sup> <https://www.mja.com.au/journal/2011/194/7/development-clinical-quality-registries-australia-way-forward>

<sup>14</sup> <https://www.mja.com.au/journal/2010/192/5/clinical-quality-registries-their-role-quality-improvement>

- oversight,
- methods for data collection and analysis,
- reporting systems.

## 2.2 National efforts for measurements and information

In 2008 a national Australian e-health strategy was published<sup>15</sup> and in 2009, the National Health and Hospitals Reform Commissions report “A healthier future for all Australians; final report” included recommendation on improved monitoring of outcomes and processes. The strategies specifically point out the importance of smart use of data, information and communication, and not least e-health solutions. Recommendations included that:

- clinical and health services research be given a higher priority,
- greater investments be made in public health, health policy, health services and health systems research and evaluations,
- national efforts be made to measure safety and quality in healthcare,
- a national approach be developed for the collection and comparative reporting of safety and quality of care indicators,
- a national approach be taken to the synthesis and subsequent dissemination of clinical evidence and research, accessible through an electronic portal,
- all Australians have a personal electronic health record by 2012,
- unique personal identifiers for healthcare be developed.

A further recommendation was to establish the ACSQHC as a permanent independent body (originally established in 2006). This was as previously mentioned accomplished during 2011 through the National Health Reform Act 2011.<sup>16</sup> Unique identifiers for individuals and organizations were introduced through the Healthcare Identifier Bill (2010)<sup>17</sup> and the identifiers service is operated by Medicare Australia on behalf of the Governance Authority, the National E-Health Transition Authority (NEHTA). Furthermore, the Australian system for a Personally Controlled Electronic Health Record (PCEHR) was introduced on July 1<sup>st</sup> 2012 and individuals can now register personal health records.<sup>18</sup> Such records may become important for the efficient and quality assured operation of clinical quality registries in the future. To date, however, the PCEHR remains an ‘opt-in’ system which predisposes it to the abovementioned potential for case selection bias. The PCEHR also lacks the granularity of data required to populate a CQR. In its current form, therefore, the PCEHR is not a driving force for the development or operation of CQRs.

The ACSQHC plays an important role in developing, implementing and monitoring national clinical safety and quality standards. The agency leads and coordinates improvements in a number of areas relating to safety and quality in health care across the country.

<sup>15</sup>[http://www.health.gov.au/internet/main/publishing.nsf/content/604CF066BE48789DCA25751D000C15C7/\\$File/Summary%20National%20E-Health%20Strategy%20final.pdf](http://www.health.gov.au/internet/main/publishing.nsf/content/604CF066BE48789DCA25751D000C15C7/$File/Summary%20National%20E-Health%20Strategy%20final.pdf)

<sup>16</sup> [http://www.austlii.edu.au/au/legis/cth/consol\\_act/nhra2011216/](http://www.austlii.edu.au/au/legis/cth/consol_act/nhra2011216/)

<sup>17</sup> <http://www.comlaw.gov.au/Details/C2010C00440>

<sup>18</sup> <http://www.ehealth.gov.au/internet/ehealth/publishing.nsf/content/home>

## 2.3 National arrangements for Clinical Quality Registries

Clinical quality registries are here defined as discrete clinical data held in databases that systematically collect health-related information on quality, safety and outcome of care provided to individuals who are:

- treated with a specific surgical procedure, device or drug,
- diagnosed with a particular disease,
- managed by a specific healthcare resource or unit.

The purpose of CQRs is to inform improvement efforts about the quality of care by routinely collecting, analyzing and reporting on information about care, treatments provided to patients as well as of outcomes. It is therefore essential that adequate indicators be developed. Typically data on the appropriateness and effectiveness of treatments and procedures may be reported. The data should be widely available (however with safe-guards for personal integrity). The development of national registries has the potential to address gaps in healthcare quality measurements and help deliver improvements in patient care.

The commission is drafting national arrangements for clinical quality registries. This includes:

- Governance structures for data and clinical arrangements,
- Infrastructure options for best-practice technical design and operation of registries,
- Definitions of minimum requirements for reporting, assessments and security for registries on the national level.

One important question is if CQRs should be organized in a nationally centralized way, in centers of excellence or should be stand-alone. Accreditation and assessment methods for registries are also in need of development.

In 2007, the ACSQHC, NEHTA and Monash University's Centre for Research Excellence in Patient Safety (CRE-PS, see below) jointly developed a draft of operating principles and technical standards for registries. The principles and standards were subsequently subjected to an open consultation and six registries were contracted in 2008 to test and validate the applicability of the operating principles. These were:

- Australasian Rehabilitation Outcomes Centre (AROC)
- Australian Cardiac Procedures Registry (ACPR)
- Australian Stroke Clinical Registry (AuSCR)
- Bi-National Burns Registry (BNBR)
- National Breast Cancer Audit (NBCA)
- Neck of Femur Fracture Registry of Australia (NOFFRA).

After final revisions the operating principles<sup>19,20</sup> and technical standards<sup>21</sup> were released. Strategic and operating principles of a national approach to national clinical quality regis-

<sup>19</sup> <http://www.safetyandquality.gov.au/our-work/information-strategy/clinical-quality-registries/strategic-operating-principles-for-clinical-quality-registries/>

<sup>20</sup> <http://www.safetyandquality.gov.au/wp-content/uploads/2012/03/Operating-Principles-for-Australian-Clinical-Quality-Registries-Brochure-2011.pdf>

tries were defined, published and endorsed by ministers in 2010.<sup>22,23</sup> Furthermore, health ministers accepted the ACSQHC's recommendations to develop national health information arrangements for CQRs as well as a costed infrastructure plan.

### *Centre of Research Excellence in Patient Safety (CRE-PS)*

CRE-PS which is part of the School of Public Health and Preventive Medicine at Monash University was formed in 2005 to develop the national research capacity and capability in order to, in turn, increase patient safety. The centre designs, conducts and promotes research to improve the quality, safety, efficiency and effectiveness of healthcare and has published a list of CQRs in Australia (see appendix 1).

## **2.4 The information strategy**

The healthcare reform states that all Australians should be able to access information about the performance of the healthcare system and how hospitals are funded. It is believed that this increased transparency will be a driving force underlying performance improvement.

The ACSQHC has formed an information strategy that addresses responsibilities in the following ways:

- Report on the state of safety and quality in health care.
- Lead and coordinate in the development and dissemination of data standards for safety and quality.
- Actively engage in the e-health agenda to optimize secondary uses of health information to improve safety and quality in health care.

The strategy concerns the following main areas:

### **2.4.1 Indicators of safety and quality**

The National Indicators Project was a major project funded by the ACSQHC. The objectives of the project were to increase the quality and safety focus in national health data standards and indicators and to drive improvement in safety and quality. The project was undertaken by the Australian Institute for Health and Welfare<sup>24</sup> (AIHW) in collaboration with other agencies and organizations. In 2009 the AIHW proposed 55 indicators<sup>25</sup> where the focus was on the safety and quality of clinical care provided to patients. 13 of the indicators apply to primary and community health services, 25 to hospitals, six to specialized health services, and five to residential aged care. 11 indicators apply to multiple or all types of health services.

Six principal areas for the development of meaningful patient safety and quality information on the national level were identified:

---

<sup>21</sup> <http://www.safetyandquality.gov.au/our-work/information-strategy/clinical-quality-registries/technical-resources/>

<sup>22</sup> <http://www.safetyandquality.gov.au/wp-content/uploads/2012/03/Strategic-Principles-for-a-National-Approach-to-Australian-Clinical-Quality-Registries.pdf>

<sup>23</sup> <http://www.safetyandquality.gov.au/wp-content/uploads/2012/03/Strategic-and-Operating-Principles-for-Australian-Clinical-Quality-Registries-AHMC-endorsed-Nov-2010.pdf>

<sup>24</sup> AIHW

<sup>25</sup> <http://www.aihw.gov.au/publication-detail/?id=6442468285>

- *Core, hospital-based outcomes indicators.* In 2009 health ministers agreed to endorse recommendations that hospitals should routinely monitor and review an identified set of indicators.
- *Patient safety reporting for hospitals.* A national patient safety measurement model is being developed. This will include adverse event rates in order to inform and support patient safety programs.
- *Patient experience and patient satisfaction in hospitals.* This project will complement the National Patient Experience Survey.
- *Practice-level indicators of safety and quality for primary healthcare.* Indicators are being developed for voluntary inclusion in quality improvement strategies by individuals and organizations providing primary healthcare services.
- *Core outcome indicators for day procedure services.* A specification for core, hospital-based indicators of safety and quality for day procedures has been developed.
- *Condition-specific indicators for Australian Clinical Standards.* A clinical care standard is a set of specific concise statements and associated quality measures. Initial focus is on acute coronary syndrome, stroke and transient ischemic attack, and antimicrobial stewardship.

#### 2.4.2 Health information standards for safety and quality

The Commission's remit includes recommending national datasets and the Health Information Standards for safety and quality include dataset and indicator specifications as well as e-health standards. Important areas are:

- *Healthcare Associated Infection (HAI) dataset specification.* The purpose of the dataset is to support a comprehensive surveillance program of healthcare-associated infections.
- Structured microbiology requesting and reporting formats for HAI
- Core hospital-based indicators of safety and quality
- *Classification of Hospital Acquired Diagnoses (CHADx).* The classification will allow hospitals to use routine hospital diagnosis to improve patient safety. This will help monitoring and quality developments.

#### 2.4.3 Reporting of performance

The National Health Performance Authority (NHPA) is an independent agency formed in 2012. It is responsible for producing reports on the performance of hospitals and primary healthcare organizations. Target groups include individuals, clinicians, service providers, funders and policy makers. The NHPA will develop and produce quarterly reports on the performance of Local Hospital Network as well as of the hospitals within other networks, private hospital and Medicare Locals.<sup>26</sup> Performance measures and standards in the Performance and Accountability Framework<sup>27</sup> allow the agency to identify highly performing organizations. The idea is that this will enable sharing of innovative and effective practices, while at the same time making it possible to identify those units and networks that

<sup>26</sup> <http://www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/content/medilocals-lp-1>

<sup>27</sup> <http://www.nhpa.gov.au/internet/nhpa/publishing.nsf/Content/PAF>

are under-performing. The framework contains 48 indicators in the areas of equity, effectiveness and efficiency. The first report on hospital performance was published in December 2012 while the first primary care report was published in March 2013.

### 3 Discussion

The development of measurements, information systems and CQRs has been very fast in Australia during the last couple of years.

The emphasis on information in the healthcare system in Australia is of great interest and a driving factor underlying the development of CQRs. Not least is the development of such registries on the national level seen as important and the preconditions that would accelerate this have been discussed and analyzed extensively. The use of opt-out models is advocated (compared to opt-in approaches) to increase the proportion of data collected and registries using this method appear to have a better uptake of data. However, ethical and legal rules concerning the privacy and confidentiality of record-level data are currently creating some obstacles.

The expansion of high-quality registries on local or regional levels to the national level is seen as positive and something that should be encouraged. It is also believed that completely new registries are needed. However, the expansion needs to take place in a sustainable way. Reports suggest that improved funding, oversight, transparency, management, and scientific and clinical expertise, are central for a positive development and that the conditions and mechanisms need to be developed further. As a result, detailed operating and technical standards for registries have been published. Furthermore, it is believed that registries should be developed in disease areas where they have the largest positive effects. It has been suggested that diseases with a clear pathology and well-identified clinical stages should be prioritized over disease areas with more unclear pathogenesis (such as Irritable Bowel Syndrome, IBS).

Healthcare information has many uses and Australia has prioritized this as well as the infrastructure that will enable an efficient and quality-assured use. It is evident that a driving force for the reforms is the motivation to increase healthcare quality and also to be able to identify underperforming clinics and hospitals, and find best practices. The healthcare reform of 2011 as well as other pieces of legislation have made way for a number of initiatives concerning both primary and secondary care.

Australia has, in a relatively short time, introduced voluntary Personally Controlled Electronic Health Records (PCEHRs) as well as unique identifiers of individuals and organizations. This may enable the country and its states to further accelerate development in the future. However, at present PCEHR is an opt-in system without sufficient granularity to give direct effects on CQRs. The National Indicators project, which was commissioned by the Australian Commission on Safety and Quality in Healthcare (ACSQHC) and largely performed by the Australian Institute for Health and Welfare (AIHW), has developed a system with approximately 50 indicators to measure healthcare performance. This includes many different issues including patient safety, patient experiences, hospital-acquired infections and others. Public reports will be issued on a regular basis. The multiple use of clinical and performance data is illustrated by the large number of indicators and that managerial performance data as well as clinical data are seen as important. This also means that issues from management and funding, via patient experiences to clinical outcomes, will be measured and published in Australia.

## **4 Interviews**

**Mr. Nick Wilcox**, Project Manager, Clinical Quality Registries & Hospital Patient Safety,  
Australian Commission on Safety and Quality in Health Care.

## 5 Appendix

### Appendix 1: Australian Clinical Quality registries (updated during 2012)

The registries<sup>28</sup> may not necessarily have national coverage and are in a few cases international.

#### CARDIAC ARREST

- Victorian Cardiac Arrest Registry
- West Australian Pre-Hospital Care Database

#### CARDIAC SURGERY/CARDIOLOGY

- Australian Cardiac Procedures Registry (ACPR)
- Australian Society of Cardiothoracic Surgeons Database Project (ASCTS)
- Melbourne Interventional Group (MIG) Interventional Cardiology Registry (PCI)

#### CLINICAL CANCER

- ACCORD Comprehensive Cancer Patient Database
- Bi-National Colorectal Cancer Audit (BCCA)
- National Breast Cancer Audit (NBCA)
- NSW Clinical Cancer Registry Program
- NSW Oncology Group: Colorectal
- Prostate Cancer Clinical Quality Registry

#### INFECTION CONTROL

- South Australian Infection Control Surveillance database
- Victorian Infection Control Nosocomia Infection Surveillance System (VICNISS)

#### INTENSIVE CARE

- Australian and New Zealand Intensive Care Unit Society (ANZICS CORE)

#### ORTHOPAEDIC

- Australian Orthopaedic Association (AOA) National Joint Replacement Register (NJRR)
- Victorian Orthopaedic Trauma Outcomes Registry (VOTOR)

#### REHABILITATION

- Australasian Rehabilitation Outcomes Centre (AROC)

#### RHEUMATOLOGY

- Australian Rheumatology Association Database (ARAD)

---

<sup>28</sup> <http://www.registries.org.au/cqr.html>

**SCREENING**

- Breast Screen Victoria
- Cervical Cytology Registry
- National Bowel Cancer Screening Program

**SPECIFIC DISEASES**

- Australian Motor Neuron Disease Registry (AMNDR)
- Australian Cystic Fibrosis Data Registry
- National Creutzfeldt Jacob Disease

**TRANSPLANTATION**

- Australia and New Zealand Organ Donation Registry (ANZOD)
- Australian and New Zealand Cardiothoracic Organ Transplantation Registry (ANZCOTR)
- Australian and New Zealand Dialysis and Transplantation Registry (ANZDATA)
- Australian and New Zealand Liver Transplantation Registry (ANZLTR)
- Australian Corneal Graft Registry

**TRAUMA**

- Bi-national Burns Registry (Bi-NBR)
- CONROD
- National Trauma Registry Consortium (NTRC)
- South Australian Trauma Registry (SATR)
- Trauma registry, Royal Perth Hospital
- Victorian State Trauma Outcomes Registry and Monitoring (VSTORM) Group

**VASCULAR SURGERY**

- Australian Stroke Clinical Registry (AuSCR)
- Australasian Vascular Audit



**The Swedish Agency for Growth Policy Analysis (Growth Analysis) is a cross-border organisation with 60 employees. The main office is located in Östersund, Sweden, but activities are also conducted in Stockholm, Brasilia, New Delhi, Beijing, Tokyo and Washington, D.C.**

**Growth Analysis is responsible for growth policy evaluations and analyses and thereby contributes to:**

- stronger Swedish competitiveness and the establishment of conditions for job creation in more and growing companies
- development capacity throughout Sweden with stronger local and regional competitiveness, sustainable growth and sustainable regional development.

**The premise is to form a policy where growth and sustainable development go hand in hand. The primary mission is specified in the Government directives and appropriations documents. These state that the Agency shall:**

- work with market awareness and policy intelligence and spread knowledge regarding trends and growth policy
- conduct analyses and evaluations that contribute to removing barriers to growth
- conduct system evaluations that facilitate prioritisation and efficiency enhancement of the emphasis and design of growth policy
- be responsible for the production, development and distribution of official statistics, facts from databases and accessibility analyses.

**About the Direct response [Svar Direkt]: Direct requests from Governmental offices or partner authorities that are to be presented upon short notice.**

**Other series:**

Report series – Growth Analysis' main channels for publications.

Statistics series – continuous statistical production.

Working paper/Memorandum series - method reasoning, interim reports and evidential reports.