Measurement for Improvement

Toolkit

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

Designed and typeset by Levitate Graphic Design, NSW

ISBN: 978-0-9803462-0-6

Quick Reference Card to the Measurement For Improvement Toolkit

Aim of the Toolkit

The 'Measurement for improvement toolkit' (the Toolkit) is a practical resource for health care professionals and organisations to facilitate measurement in three key areas of patient safety:

- **Organisational capacity.**
- **Patient safety incidents.**
- **Clinical performance.**

The collation of tools into a single resource aims to encourage measurement in each of these areas and support continuous safety and quality improvement.

The Toolkit is intended for use by a broad range of health care providers within the public and private, acute, subacute, residential care and community health care sectors.

Structure of the Toolkit

The 'Measurement for improvement toolkit' comprises of three sections.

- **Part A** – User's guide
- **Part B** – Background information and resources
- **Part C** – Measurement tools and processes

    Part C1 – Summary of measurement tools and processes

    Part C2 – One-page description of measurement tools and processes

Part A – User's guide

Included in this section are instructions for use of the Toolkit, as well as case examples to illustrate when and how to use the different sections of the Toolkit.

Part B – Background information and resources

This section provides information about current knowledge regarding the measurement of patient safety outcomes, and a comprehensive list of patient safety resources and references.

Part C – Measurement tools and processes

The tools are summarised in tables (Part C1) for easy reference and comparison. They are presented according to their key area of measurement, that is, organisational capacity; patient safety incidents; and clinical performance; and according to the specific component(s) of these key areas that they measure.

The attributes of each tool is described in more detail in a single page summary (Part C2) to guide appropriate selection and access.

Contents and links to Toolkit sections

List of tables and figures

Part A - User's Guide

Contents

Disclaimer

The purpose of the 'Measurement for improvement toolkit' (the Toolkit) is to provide health care professionals with a practical resource that supports their existing patient safety and quality improvement programs. It is not intended as a comprehensive and definitive resource in this area. Every attempt was made to ensure the accuracy and completeness of the contents of the Toolkit at the time of development.

1. Background

The primary aim of all health care facilities is to provide high-quality and safe care. Measurement of patient safety is an important process that supports achievement of this aim. Measurement of patient safety informs health care organisations and health care professionals about:

- gaps in current provision of safe health care services
- the impact of changes implemented to achieve improvement
- performance relative to national and international standards, or comparable peer groups.

1.1 What is the purpose of the Toolkit?

The purpose of the Toolkit is to assist health care professionals in accessing appropriate measurement tools and processes to support their patient safety and quality improvement programs.

1.2 Who should use the Toolkit?

The Toolkit is designed for use by a broad range of health care professionals across all health care settings. It is not a substitute for safety and quality improvement expertise, but supports users with different levels of skills and knowledge to choose patient safety measurement tools suitable for their purpose and setting. For users requiring additional information, links to resources and references for further reading have been provided.

1.3 What does the Toolkit contain?

The Toolkit contains a collection of measurement tools and processes that can be used to plan and evaluate continuous quality improvement activities in three key areas of patient safety:

- Organisational capacity to provide safe care.
- Patient safety incidents.
- Clinical performance.

While each of these areas has a distinct contribution to make to patient safety, they are also closely interrelated. For example, changes in safety culture have the potential to influence the reporting of patient safety incidents, which may in turn impact on an organisation or clinician's ability to monitor clinical performance. When using the Toolkit, organisations and health care professionals should be aware of the distinct role of each area of measurement as well as the potential interrelationships.

The Toolkit may be used as a navigational instrument to determine what tools are available, what the different tools can offer and how to obtain them. It is divided into three sections to assist this process:

- Part A: a comprehensive Users' guide
- Part B: Background information and resources
- Part C: Measurement tools and processes

The Toolkit guides users in selecting a measurement tool or process appropriate to their safety area of interest. Although other important activities are related to patient safety measurement, such as interpretation of measurement outcomes and recommendations of appropriate actions, this Toolkit does not aim to

comprehensively guide users through these additional activities. It is recommended that users requiring more detailed information on measurement and patient safety issues seek further expert guidance.

1.4 How was the Toolkit developed?

The Toolkit was developed by a project team in collaboration with a national panel of experts in quality and safety, and the former Australian Council for Safety and Quality in Health Care Measurement for Improvement Group. Additional input was obtained from extensive stakeholder consultation across Australia.

Key activities undertaken for Toolkit development included:

- a comprehensive peer and grey literature review
- a national stakeholder survey of patient safety measurement tools in current use
- critical assessment of identified measurement tools
- national stakeholder workshops to gain feedback on the draft Toolkit
- a methodical development process.

1.5 How were tools chosen for inclusion in the Toolkit?

Tools were initially selected on the basis of their relevance to the three areas of measurement: organisational capacity, patient safety incidents and clinical performance. The tools were subjected to structured review and assessment of the following desired attributes:

- accessibility
- clear description of the measurement tool in the area(s) of measurement, aim and target audience
- rigour of development and methods used to assess validity and reliability
- general utility, including format presentation and clarity, time, and staffing resource burden.

1.6 What are the limitations of the Toolkit?

Measurement for improvement is an evolving science. Limited tools developed in accordance with high quality research methodology are available, and few are validated within the Australian context or across different health care settings.

Although comprehensive consultation and literature review was undertaken, it is possible that the Toolkit developers have missed some tools currently used in Australia. Tools that did not meet the minimum criteria for inclusion were excluded.

Few specific tools were identified in some key safety domains such as 'teamwork' and 'communication', although composite tools such as 'safety culture' capture aspects of these domains. Conversely, in other areas such as 'patient satisfaction' the number of available tools exceeds the capacity of the Toolkit. The use of patient satisfaction tools has therefore been described in a generic sense with links to representative samples and resources.

Although the Toolkit focuses on tools that measure change, a number of key processes in patient safety were considered integral to Toolkit use and have been included. However, a considerable number of other processes have not been included in the Toolkit but for which links and references have been provided.

2. Content and layout of the Toolkit

This 'Users' guide' supports navigation of the Toolkit and provides information on each part of the Toolkit. A flowchart and a worked case example are provided to guide its use.

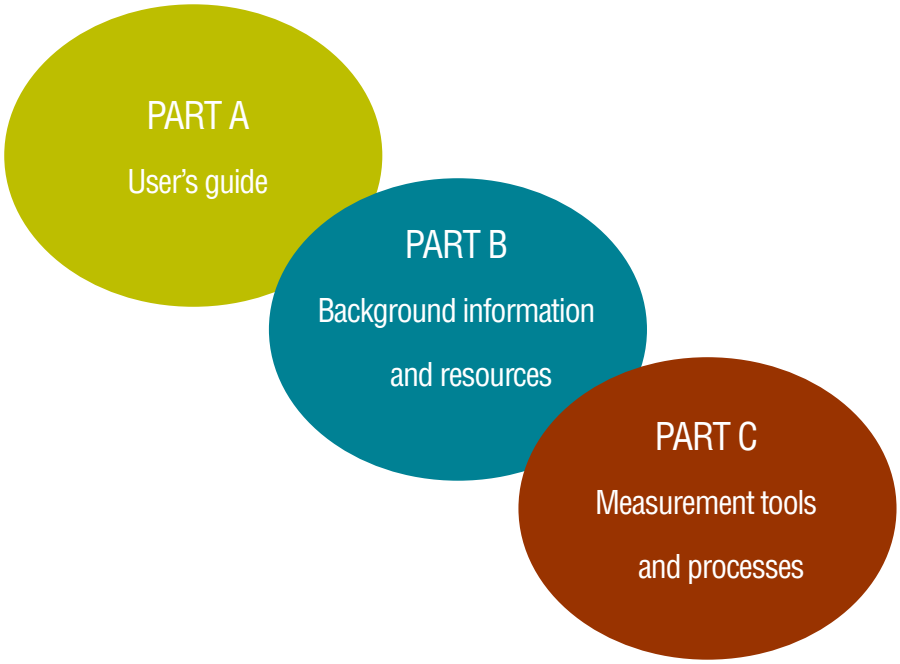
In addition to this section, the Toolkit consists of two additional sections:

Part B – Background information and resources

Part C – Measurement tools and processes

- Part C1 – Summary tables of measurement tools and processes
- Part C2 – One-page description of measurement tools and processes

Figure 1: Elements of the 'Measurement for improvement toolkit'



2.1 Part B – Background information and resources

Part B provides valuable background for those undertaking measurement for patient safety. It includes an overview of current knowledge in the field of patient safety, including research relevant to the use of measurement tools for improving patient outcomes. It also provides definitions of the key areas of patient safety.

The background information addresses the three key areas of patient safety and their components:

- Organisational capacity
  - Clinical governance
  - Leadership
  - Safety culture
  - Communication and teamwork
  - Consumer and community involvement
  - Professional competence
  - Ongoing education
  - Information management.
- Patient safety incidents
  - Identification
  - Analysis and investigation
  - Management
  - Feedback and learning
- Clinical performance
  - How performance measurement is defined
  - How clinical performance is measured
  - Characteristics of performance measurement
  - The advantages and disadvantages of clinical performance.

Part B also includes a comprehensive list of resources and references. Resources include national and State-based health department publications on patient safety; links to professional bodies; Australian and international patient safety agencies; consumer resources; accreditation agencies; and general practice resources. Website addresses and links, postal addresses and phone contact numbers are provided where available.

2.2 Part C – Measurement tools and processes

Part C contains the measurement tools and processes that form the central part of the Toolkit.

It is divided into two key subsections:

- Part C1, which summarises the measurement for improvement tools and processes available. This is a navigational guide that enables users to determine the range of tools available in a particular area and to identify those that might suit their needs.
- Part C2, which provides single page descriptions of each of the tools and processes included in Part C1, enabling the user to further refine their selection.

Within Parts C1 and C2, the tools and processes are presented according to the three key areas of patient safety:

- Organisational capacity.
- Patient safety incidents.
- Clinical performance.

Organisational capacity measurement tools and processes

Tools that measure organisational capacity are presented in summary form in Tables 1A to 1F of Part C1. They are grouped according to the primary area of measurement as follows:

Table 1A – Composite tools

The measurement tools listed in Table 1A are checklists which help evaluate whether safety management processes are in place. Please note accreditation is described in the clinical performance section.

Table 1B – Tools that measure clinical governance and leadership

Table 1C – Tools that measure safety culture

Table 1D – Tools that measure communication and teamwork

Table 1E – Tools that measure consumer and community involvement

Table 1F – Tools that measure medication use processes

Each of the tools is described in more detail in Part C2, according to the same groupings and order as Part C1. There are limited measurement tools available that have been developed to specifically assess change in certain areas, such as professional competence, ongoing education and information management.

Patient safety incident measurement tools and processes

Tools that measure patient safety incidents are summarised in Tables 2A to 2C of Part C1. They are grouped in tables according to the primary area of measurement as follows:

Table 2A – Tools that identify patient safety incidents

Table 2A includes measurement tools that measure patient safety incidents by way of detection. Some of these tools also begin the process of gathering information to enable further analysis and investigation into incidents.

Table 2B – Incident reporting systems (processes)

Table 2B includes non-specific measurement tools that can also be used to identify patient safety incidents. Although consumer satisfaction surveys are not specifically designed to assess patient safety, they have been included in Table 2B, as they may provide information on the occurrence of patient safety incidents.

Table 2C – Tools for: analysis, investigation and management of patient safety incidents; and learning and feedback with respect to patient safety incidents

Tools that measure the analysis, investigation, management of patient safety incidents, or measure feedback and learning processes, were not identified. Information on processes that assist in these areas is presented in Table 2C.

Each of the tools and processes is described in more detail in Part C2, and presented according to the same groupings and order as in Part C1.

Clinical performance measurement tools and processes

A number of processes are currently in use to support minimum clinical performance standards and/or improved clinical performance; however few specific measurement tools currently in use assess *change* in performance.

A selection of measurement tools and processes used to assess clinical performance are presented in Table 3A and Table 3B. Generic descriptions have been provided where many versions of a specific tool or process exist, such as performance indicators and clinical audits.

Table 3A – Clinical performance measurement tools

Included on this table are tools that can be used to measure change in clinical performance.

Table 3B – Clinical performance processes

Included in this table are generic descriptions of commonly used processes to support maintenance of clinical performance standards and/or improvement in clinical performance.

Each of the measurement tools and processes is described in more detail in Part C2, and are presented according to the same groupings and order as Part C1.

3. How to start using the Toolkit

3.1 The process of measuring patient safety

The process of measuring patient safety may be summarised into five key steps:

1. Identifying the patient safety issue.
2. Identifying what measurement is needed
3. Choosing the appropriate measurement strategy and tool.
4. Implementing the chosen tool.
5. Evaluating the outcomes of the measurement tool.

Applying this process, the 'Measurement for improvement toolkit' serves as a quality and safety improvement cycle in its own right, as well as one that can contribute to broader quality cycles. The Toolkit has been developed to more readily facilitate Steps 2 and 3 of this cycle.

Figure 2: Measurement for improvement cycle

3.2 Measurement for improvement toolkit steps

Use of the Toolkit itself is also best broken down into a number of steps. This section describes these steps. A worked example and summary flow chart are also provided to assist understanding of this process.

The steps are as follows:

1. Identify the patient safety issue.
2. Consult the Toolkit to identify available tools.
3. Decide on an appropriate measurement tool(s) to suit your purpose.
4. Obtain the chosen tool(s).
5. Understand your chosen measurement tool(s).

Step 1 – Identify the patient safety issue

Gaps in capacity to provide safe health care, patient safety incidents and issues relating to clinical performance may be identified from internal and external information sources. Gaps may be identified proactively, that is, in response to organisation- or clinician-initiated questioning, or reactively, in response to information provided by another source, often an external source. Proactive questioning is desirable.

- Internal sources of information including:
  - proactive identification of gaps in the existing patient safety framework or patient safety program(s)
  - reporting of patient safety issues within the usual patient safety framework communication system.
- External sources of information including:
  - consumer complaints
  - coronial reports
  - media reports
  - government department information.

It is useful to begin by considering the following questions, which may assist in prioritising area(s) for patient safety measurement and choosing the appropriate tools.

- Why do we need to measure?

  Consider the following:

  - In response to internal issues or concerns, for example from findings of a root cause analysis, staff or patient complaint.
  - In response to external sources such as the media, or new evidence in the literature.
  - In response to funding provider or governance bodies' requests.
  - To identify discrepancies in patient safety through a gap analysis.
  - To set a baseline of patient safety before the implementation of an intervention.
  - To compare patient safety of one health care organisation against another.

- Who has prompted, commissioned or requested this measurement?

  Consider the following:

  - Management.
  - Safety and quality staff.
  - Clinicians.
  - Consumers or general public.
  - Media.

- What are the timelines for this measurement process?

  Consider the following:

  - Ongoing review of patient safety.
  - To assess the implementation of a safety improvement activity.
  - To perform a gap analysis.

In addition, consider existing sources of data such as registers, and whether the data being collected can be linked to available administrative data sources.

Step 2 – Consult the Toolkit to identify available tools

Once a key area of patient safety has been identified, users should proceed to **Part C 'Measurement tools and processes'** to determine the tools available.

Part C1 'Summary tables of measurement tools and processes' summarises the available tools and processes for each area of measurement. Tools are grouped according to their area of measurement. Figure 3 shows an example of the layout of summary tables in Part C1.

For example, if you want to measure the safety culture of your organisation or department, go to Part C1 'Summary tables of measurement tools and processes'. Select from Summary Tables 1A to 1F as listed on the contents page.

In this case you would choose from:

Table 1C 'Organisational capacity tools that measure safety culture'

or

Table 1A 'Composite organisational capacity measurement tools', as some of these tools also measure safety culture.

The summaries provided in Part C1 offer an important opportunity to screen for potentially suitable tools. The particular issues that need to be considered during this process include:

- the area of measurement. Does the tool address the area of patient safety that you are seeking to measure?
- the purpose of the tool. Is the purpose of this tool compatible with your measurement aims?
- the target group of the tool. Does this tool target the same health care professionals that you intend to target using your own measurement process?

Figure 3: Example of summary table layout (taken from Table 1C 'Organisational capacity tools that measure safety culture')

The purpose of the tool.
Is the purpose of this tool compatible with your measurement aims?

The area of measurement. Does the tool address the area of patient safety that you are seeking to measure?

Name of tool	Source and reference(s)	Purpose	Target group	Areas of measurement
Tool 7 Checklist of JCAHO Recommended elements of safety culture C2 Page 13	University of Michigan Hospitals and Health Centres, and Joint Commission on Accreditation of Healthcare Organizations	Designed to assess an organisation's culture of safety. Provides an opportunity to identify areas in need of action and the level of action needed.	• Staff of health care organisations including - hospitals; - community health care centres; - larger-scale clinical practices; - residential care agencies.	✓ Clinical governance ✓ Leadership ✓ Safety culture ✕ Communication and teamwork ✓ Consumer and community involvement ✕ Professional competence ✕ Ongoing education ✕ Information management
Link to tool: http://www.med.umich.edu/patientsafetyToolkit/culture/jcaho.doc				

Page reference link to more detailed description of tool.

Link to access tool.

The target group of the tool. Does this tool target the same health care professionals that you intend to target using your own measurement process?

Step 3 – Decide on an appropriate measurement tool

Once a number of potential tools (shortlist) have been identified from the summaries in Part C1, you should progress to Part C2 'One-page descriptions of measurement tools and processes' for more detailed information about each tool. The page reference for tools in Part C2 is listed as part of their summary in Part C1. Figure 4 shows an example of the one-page description.

The detailed information provided in Part C2 enables you to refine your choice of tool. The particular issues that should be considered in this selection process include:

• Type of health care setting

Is your health care setting:

- an organisation?
- a department/unit?
- a clinical practice?

Check the icons and target group section.

The nature of your health care setting is particularly important, as some tools are designed for specific health care environments and may not be able to be generalised to others.

• Volume of clinical services

Are your services:

- high volume?
- low volume?

The volume of clinical services requires careful consideration, as this can affect the calculation of patient safety incident rates. For example, the occurrence of a patient safety incident in a small regional hospital can be over-represented in numerical terms due to a low volume of clinical services suggesting the presence of a less safe health care environment.

• Outcomes

Will your chosen tool provide information regarding what you aim to achieve?

• Resources

Do you have the appropriate resources to help your tool selection and measurement process including:

- data management experts?
- staff skilled in data collection?
- staff available to complete the activities the tool requires?

Implementation of a patient safety measurement process relies on a combination of safety and measurement expertise to achieve the desired outcomes-based on reliable data.

Consider the target audience as well as the structure of each tool, for example, tools that take a short time to complete but are aimed at a broad target audience such as nursing and medical staff, may be resource intensive for a medium to large organisation. Whereas a similar tool that takes longer to complete but is aimed at quality and safety management (much fewer staff required to complete it) will be less resource intensive.

Figure 4: Example of one-page description of a tool (Part C2)

ICONS: These can be used as a quick reference to see if the tool suits your needs.

Tool 7 Checklist of JCAHO recommended elements of a safety culture

University of Michigan Hospitals and Health Centres (USA)

Description and function	A questionnaire designed to assess whether the essential elements of a safety culture, as laid out by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards in support of patient safety and medical / health care error reduction, are in place.
Target group	• Staff of health care organisations including hospitals, community health care services, larger-scale clinical practices, and residential care facilities.
Areas of measurement	✓ Clinical governance ✓ Leadership ✓ Safety culture ✕ Communication and teamwork ✓ Consumer and community involvement ✕ Professional competence ✕ Ongoing education ✕ Information management
Structure	• Comprised of 19 items to assess JCAHO's essential elements of a safety culture. • Items are responded to on a three-point Likert scale: not present/some activity/fully implemented.
Administration details	• Available in electronic and hard copy. • Administration takes 10 minutes to complete.
Data collection	• No specific scoring instructions provided. • This checklist may be administered over time to identify changes/trends in safety culture.
Strengths	• Clear presentation. • Simple, easy and brief administration. • May be administered in different health care settings to diverse staff groups. • Use of Likert scale allows a depth of responses to be collected.
Limitations	• There has been no formal assessment of validity or reliability.
Technical attributes	• Good face validity – items address a wide range of organisational issues around patient safety. • There has been no formal assessment of validity or reliability.
References and further reading	Available online at http://www.med.umich.edu/patientsafetyToolkit/culture/jcaho.doc Or by contacting University of Michigan Hospitals and Health Centers NI 5C06/0470 300 N. Ingalls, Ann Arbor, MI 48109-0470 Phone: +1 734-764-4427

Step 4 – Obtain the chosen tool(s)

Information on how to obtain each tool is provided in:

- Part C1 – the summary tables include a link to the tool
- Part C2– in the 'References and further reading' section of the tool's one-page description.

Most tools in the Toolkit are available online. Where available contact details or links to the contact details found in the Resources section of Part B are provided in the 'References and further reading section' on the tool's one-page description. Where a tool is not available online, a reference to the hard copy is provided.

Step 5 – Understand your chosen measurement tool(s)

It is important to understand the characteristics and background of your chosen tool to maximise the value of the information gathered from its use and its benefit to improving patient safety. It is therefore suggested that you:

- read any references/further reading to gain a greater understanding of the tool and how it is used
- consider any research that has been conducted on the tool, particularly in settings similar to your own
- where appropriate, contact the authors or developers of the tool to discuss it further
- discuss the tool with others within your organisation and peers from other health care organisations
- seek quality and safety expertise as required.

It is important to recognise that any modification to a tool will alter the tool's reliability and validity.

The above steps are summarised in Figure 5.

Figure 5: Steps in using the 'Measurement for improvement toolkit'

STEP 1- Identify patient safety issue

Consider

- Why do you need to measure?
- Who has prompted, commissioned or requested this measurement?
- What are the timelines for this measurement process?

Identify the key area of patient safety relevant to your patient safety issue

- Organisational capacity.
- Patient safety incidents.
- Clinical performance.

If you are unsure what to measure read **Part B –Background information and resources** before selecting a measurement tool or process.

STEP 2 - Identify available tools

Go to Part C1 'Summary tables of measurement tools and processes'

Go to the summary tables corresponding with the chosen key area of patient safety.
Identify potential tools for your measurement process.
Consider

- the area of measurement. Does the tool address the area of patient safety that you are seeking to measure?
- the purpose of the tool. Is the purpose of this tool compatible with your measurement aims?
- the target group of the tool. Does this tool target the same health care professionals that you intend to target using your own measurement process?

STEP 3 - Decide on an appropriate measurement tool

Go to Part C2 'One page descriptions'

Go to the One-page description of each tool identified from Part C1 for more information.
Consider

- your health care setting
- the volume of your clinical services
- compatibility between tool/process and what you aim to achieve
- the resources available to implement the tool/process
- the need for expert statistical advice.

STEP 4 - Obtain the chosen tool(s)

Use links provided to obtain chosen tool(s).

STEP 5 - Understand your chosen tool(s)

Confirm suitability of tool by accessing further information from links provided, discussing with peers and quality and safety experts.

4. Case example – using the Toolkit

The following case example has been adapted from a scenario used at the workshops held nationally to assess the Toolkit's content and utility.

4.1 Measuring organisational capacity – a case example

You are the manager of a pharmacy department in an Australian regional hospital, and have been made aware, through recent media attention, of deficiencies in the provision of safe health care at a neighbouring hospital. You would like to be reassured that your department does not have the same problems. Your hospital board has also asked all departments to consider issues of safety culture, leadership and communication.

Step 1 – Identify the patient safety issue

Consider the following:

- Why do you need to measure?
  - In response to external sources – the media.
  - In response to the board.
  - In response to your own concerns.
  - To identify any discrepancies in patient safety.
- Who has prompted, commissioned or requested this measurement?
  - To a degree the media, but also you as pharmacy manager and the board have prompted this measurement.
- What are the timelines for this measurement process?
  - You would like to know quickly (within two months) the current status of your department with regards to its safety culture, communication and leadership. The board has also asked for input within two to three months.

- What do you want to know?
  - How does your department measure up in terms of safety culture, leadership and communication to facilitate the implementation and practice of safe care?
  - Are there gaps in your department's capacity to provide safe care in the key areas of safety culture, leadership and communication?

- Existing sources of information
  - Refer to systems that already exist within your department and the hospital, for example the accreditation report and recommendations, or perhaps data from patient satisfaction surveys.

Step 2 – Consult the Toolkit to identify available tools

You consult the Measurement for Improvement Toolkit for a range of tools that may be used to assess the areas of **safety culture, leadership and communication.**

Go to **Part C1 'Summary tables of measurement tools and processes'**. This section provides a summary of each of the tools and processes within the Toolkit.

You are interested in the **'Organisational capacity measurement tools' (Tables 1A to 1F)** and refer to the following tables to identify potential tools:

Table 1A – Composite organisational capacity measurement tools for potential tools to evaluate whether general safety processes are in place.

Table 1B – Tools that measure clinical governance and leadership for information regarding possible leadership tools.

Table 1C – Tools that measure safety culture for information regarding possible safety culture tools.

Table 1D – Tools that measure communication and teamwork for information regarding potential communication tools.

You consider the following aspects:

- Areas of measurement

You decide to start by looking at the 'Areas of measurement' column, as this provides a quick and easy way of knowing what the tool is designed to measure.

- From Table 1A – none of the tools listed cover all components, but all measure safety culture and leadership.
- From Table 1B – Tool 6(i) measures all the areas you are interested in and; Tools 3 and 4 measure two of the areas you are interested in assessing, that is leadership and safety culture.
- From Table 1C – Tools 8 and 10 measure all the key areas you are interested in; and Tools 7 and 9 measure two of the areas you are interested in.
- From Table 1D – Tool 11 measures all the components you are interested in.

You decide to look first at the tools that measure all the components you are interested in assessing. This eliminates Tools 1, 2, 3, 4, 7 and 9, and leaves you with **Tools 6(i), 8, 10 and 11.**

- Target group

You want the tool to target staff within your department including yourself (management). You look at the target group for each tool and realise some of the tools are not appropriate for your needs. This eliminates Tool 6(i) which is aimed at executives, leaving you with Tools 8, 10 and 11 which target departmental staff and management.

- Purpose

On further examination of the purpose of each tool, you decide that Tools 10 and 11 seem appropriate and that you need more information on the purpose of Tool 8.

But before you go to Part C2 'One page description of measurement tools and processes' you would like to know how you can obtain the tools.

- Obtaining the tools

You have internet access at work and given the time limits you have set yourself, you decide you would like a tool that can be accessed online. Both Tools 8 and 10 are available online. Tool 11 will need to be obtained via your work library and this may take a couple of weeks if the journal is not available locally.

Step 3 – Decide on an appropriate measurement tool

Having shortlisted your choices you now go to **Part C2** to learn more about each of your selections (Tools 8 and 10) including the resources required to use each tool, and their technical attributes.

You read through each tool's one-page description and check each of the components described.

- Tool 8 – Hospital survey of patient safety culture (Agency for Healthcare Research and Quality)
  - ✓ Description and function – *feel you need more information*
  - ✓ Target group – *previously checked*
  - ✓ Areas of measurement – *previously checked*
  - ✓ Structure – *seems suitable for your needs*
  - ✓ Administration details – *quick and easy to administer*
  - ✓ Data collection – *has a user's guide to assist with this which could be helpful*
  - ✓ Strengths and limitations – *data analysis as a limitation will need further investigation*
  - ✓ Technical attributes – *has undergone research and has published literature available on its validity and reliability*
  - ✓ References and further reading – *has further information available in the public domain*
- Tool 10 – Safety climate survey (University of Texas, Institute for Healthcare Improvement endorsed)
  - ✓ Description and function – *description fits what you want to measure*
  - ✓ Target group – *previously checked but unclear whether it targets management*
  - ✓ Areas of measurement – *previously checked*
  - ✓ Structure – *seems suitable for your needs*
  - ✓ Administration details – *quick and easy to administer*
  - ✓ Data collection – *user's instructions available online*

- ✓ Strengths and limitations – *scoring system may be a limitation and will need further investigation, lack of assessment of validity*
- ✓ Technical attributes – *has undergone research on its reliability and has published literature available on this*
- ✓ References and further reading – *further information is available in the public domain*

Further considerations:

- Is the tool applicable in your setting?

You notice both tools have been developed in the USA – and so may not be applicable in the Australian context.

You will need to check if they have been applied in a rural setting.

- Is there a cost involved in its implementation?

There are no costs involved in obtaining or implementing either tool.

Steps 4 and 5 – Obtain and understand your chosen tool(s)

Both tools have similar strengths and limitations and so the next step would be to obtain the tools and decide from looking at the tool and from further reading which one to use. This is as far as the Toolkit takes its users, that is, as a guide to what tools are available and as a navigational instrument to assist with choosing a tool that best suits the user's needs, as well as providing the web links to obtain the tool and information on how to obtain the tool using methods other than the web.

Definitions

Following is a list of preferred definitions for terms used throughout the Measurement for Improvement Toolkit. These definitions have been adopted from the Australian Council for Quality and Safety in Health Care (ACSQHC). The primary reference for these definitions is provided where they have not been devised by the ACSQHC.

Accreditation – A formal process to ensure delivery of safe, high quality health care based on standards and processes devised and developed by health care professionals for health care services (ACSQHC).

Public recognition of achievement by a health care organisation, of requirements of national health care standards (ISQUA).

Adverse drug event – A particular type of adverse event where a drug or medication is implicated as a causal factor. This encompasses both harm that results from the intrinsic nature of the medicine (an adverse drug reaction) as well as harm that results from medication errors or system failures associated with the manufacture, distribution or use of medicine (WHO June 1984).

Adverse event – An incident in which unintended harm resulted to a person receiving health care (ACSQHC).

Audit – See Clinical audit.

Benchmarking – The continuous process of measuring and comparing products, services and practices with similar systems or organisations, both inside or outside the health care industry for continual improvement (ACHS).

Clinical audit – The process of reviewing the delivery of care against known or best-practice standards to identify and remedy deficiencies through a process of continuous quality improvement (MIG, ACSQHC).

Clinical governance – The framework through which health organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish (NHS).

The system by which the governing body, managers and clinicians share responsibility and are held accountable for patient care, minimising risks to consumers, and for continuously monitoring and improving the quality of clinical care (ACHS).

Clinical performance – The extent to which an organisation or individual clinician provides care that is consistent with objective evidence-based best–practice. (AMA).

Clinical indicator – One type of performance measure that relates to specific clinical issues (ACHS).

Clinical privileges – The scope of clinical practice that a health professional is authorised to undertake within an organisation (ACSQHC).

Clinician – A health professional, such as a medical doctor, allied health professional, or nurse, involved in clinical practice.

Competence – A range of abilities including clinical skills, knowledge and judgement together with communication skills, personal behaviour and professional ethics (RACS 2004).

Complaint – An expression of dissatisfaction or concern with an aspect of a health care service. Complaints may be expressed orally or in writing and may be made through a complaints process or as part of other consumer feedback mechanisms such as consumer surveys or focus groups (NSW Health Care Complaints Commission).

Consumer – Any individual who does or could receive health care or services. Includes other more specialised terms, such as beneficiary, client, customer, eligible member, recipient, or patient. (SAMHSA)

The population of potential recipients of a service within health care or anyone who has expectations regarding health care delivery (Kazandjian VA, The 1996 medical outcomes and guidelines sourcebook, a progress report and resource guide on medical outcomes research and practice guidelines: developments, data, and documentation. Maryland Hospital Association, Lutherville MD).

Credentialling – The process of assessing and conferring approval on a person's suitability to provide specific consumer/patient care and treatment services, within defined limits, based on an individual's licence, education, training, experience and competence (ACHS).

Information management – The way in which an organisation collects, analyses and uses their patient safety data. It includes anything used by health care facilities involving the collection and application of information to inform and improve safety (VQC).

Error – Error will be taken as a generic term to encompass all those occasions in which a planned sequence of mental or physical activities fails to achieve its intended outcome, and when these failures cannot be attributed to the intervention of some chance agency (Reason 1990).

Health – A state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity (ACSQHC).

Health care – Services provided to individuals or communities to promote, maintain, monitor, or restore health. Health care is not limited to medical care and includes self-care (ACSQHC).

Incident – An event or circumstance that could have, or did lead to unintended and/or unnecessary harm to a person, and/or a complaint, loss or damage (ACSQHC).

Incident reporting – The activity of documenting the occurrence of a patient safety incident.

Indicators – Statistics or other units of information that reflect, directly or indirectly, the performance of the health care system in maintaining or increasing the wellbeing of its target population (AIHW).

Integrated risk management – Lessons learned in one area of risk can be quickly spread to another area of risk. The process of identification, assessment, analysis and management of all risk and incidents at every level of an organisation, and aggregation of the results at a corporate level. This facilitates priority-setting and improved decision making to reach an optimal balance of risk, benefit and cost (NPSA).

Monitor – To check, supervise, observe critically, or record the progress of an activity, action or system on a regular basis in order to identify change (AS/NZS 4360:1999 Risk Management Standard).

Morbidity – The negative consequences (symptoms, disabilities or impaired physiological state) resulting from disease, injury or its treatment.

Mortality – Death from disease or injury (ACSQHC).

Near miss – An incident that did not cause harm (ACSQHC).

Organisation – For the purposes of this Toolkit an organisation represents all health care facilities regardless of size or type. It includes public and private hospitals, community health services, private practice clinics, residential care facilities, etc.

Organisational capacity – The capacity of a health care organisation to provide safe health care. Organisational capacity incorporates the structures, resources and commitment of an organisation to patient safety.

Organisational performance – The capacity of an organisation to deliver care that is consistent with objective evidence-based standards developed to achieve optimal patient outcomes.

Organisational resilience – The positive side of safety, defined as the system's intrinsic resistance to its operational risks (NHS, NPSA).

Outcome – Results that may or may not have been intended that occur as a result of a service or intervention (ACHS).

Patient safety indicator – A set of measures that can be used with hospital inpatient data to provide a perspective on patient safety. Specifically, patient safety indicators screen for problems that patients experience as a result of exposure to the health care system (AHRQ).

Patient safety incident – An event or circumstance, which could have or did lead to unintended and/or unnecessary harm to a person and/or complaint, loss or damage (IHI).

Performance indicator – A statistic or unit of information which reflects, directly or indirectly, the extent to which an anticipated outcome is achieved or the quality of the processes leading to that outcome.

Preventable adverse event – Those adverse events attributable to errors that could have been avoided entirely given what was known at the time (VQC).

Professional competence – see competence.

Process – A set of activities, an actual operation of an organisation, the discreet steps in a process, such as procedures (ACHS).

A series of linked, often (but not necessarily) sequential steps that convert an input into an output, cause some set of outcomes to occur, generate useful knowledge or add value. (Abbott L & James B.,1996)

Reliability – reproducibility of a measurement including:

- agreement between different observers using the same measurement technique

- agreement between replicate measurements taken at different points in time (Kirkwood B & Stern J).

Risk – The chance of something happening that will have an impact upon objectives. It is measured in terms of consequences and likelihood (AS/NZS 4360:1999 Risk Management Standard).

Risk Management – The culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects (AS/NZS 4360:1999 Risk Management Standard).

Root cause analysis – A systematic process whereby the factors that contributed to an incident are identified (ACSQHC).

A process for identifying the basic or causal factor(s) that underlie variation in performance, including the occurrence or possible occurrence of a sentinel event (JCAHO).

Safety – The degree to which the potential risk and unintended results are avoided or minimised (ACSQHC).

Safety culture – The individual and group values, attitudes, perceptions, competencies, and behaviour towards health and safety management of an organisation (AHRQ).

Sentinel event – An unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof. Serious injury specifically includes loss of limb or function. The phrase, 'or the risk thereof' includes any process variation for which a recurrence would carry a significant chance of a serious adverse outcome. Such events are called 'sentinel' because they signal the need for immediate investigation and response (JCAHO).

Standard – Agreed attributes and processes designed to ensure that a product, service or method will perform consistently at a designated level (ACSQHC).

Surveillance – Supervision, close watch (Kohn et al, 1999).

Oversight, watch, inspection, supervision (Macquarie Dictionary).

Tool – For the purposes of this Toolkit, the term tool has been defined as an instrument or device that provides specific instruction and support for an activity. Examples of tools to measure or assess are surveys, checklists, questionnaires, etc.

Validity – Of measurement: an expression of the degree to which a measurement measures what it purports to measure, it includes construct and content validity.

Of study: the degree to which the inferences drawn from the study are warranted when account is taken of the study methods, the representatives of the study sample, and the nature of the population which it is drawn (internal and external validity, applicability, ability to be generalised) (NHMRC, 1999).

Abbreviations

ACHS – Australian Council for Healthcare Standards

ACSQHC – Australian Commission on Quality and Safety in Health Care

AIHW – Australian Institute of Health and Welfare

AMA – Australian Medical Association

EQuIP – Evaluation and Quality Improvement Program

IHI – Institute for Healthcare Improvement

ISQUA – International Society for Quality in Healthcare (Incorporated)

JCAHO – Joint Commission on Accreditation of Healthcare Organizations

MIG – Measurement for Improvement Group (ACSQHC)

NHMRC – National Health and Medical Research Council

NHS – National Health Service (UK)

NPSA – National Patient safety Agency (UK)

RACS – Royal Australian College of Surgeons

SAMHSA – The United States Department of Health and Human Services – Substance Abuse and Mental Health Services Administration

VQC – Victorian Quality Council

WHO – World Health Organization

Acknowledgements

The Clinical Epidemiology and Health Service Evaluation Unit, Melbourne Health, would like to thank the following and the many other people who contributed to the development of the Measurement for Improvement Toolkit.

CLINICAL EPIDEMIOLOGY AND HEALTH SERVICE EVALUATION UNIT (CEHSEU) MELBOURNE HEALTH

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- **Professor Allan Spigelman**, Director of Clinical Governance, Hunter Area Health Service, University of Newcastle
- **Ms Cathie Steele**, Director of Quality and Patient Safety, Bayside Health
- **Dr Alan Wolff**, Medical Director, Wimmera Healthcare Group

STATE AND TERRITORY QUALITY OFFICIALS

- **Dr Stephen Ayre**, Tasmania
- **Dr Jenny Bartlett**, Victoria
- **Ms Elizabeth Garrigan**, Queensland
- **Ms Dorothy Jones**, Western Australia
- **Ms Penny Parker**, Northern Territory
- **Ms Christy Pirone**, South Australia
- **Ms Kathleen Ryan**, New South Wales
- **Ms Catherine Shands**, Australian Capital Territory

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- **Professor David Ben**-Tovim, Director, Clinical Governance and Clinical Epidemiology Unit, Flinders Medical Centre
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- **Dr Shiong Tan**, Clinical Advisor, Office of Safety and Quality, Department of Health, WA, and General Practitioner

FORMER AUSTRALIAN COUNCIL FOR SAFETY AND QUALITY IN HEALTH CARE

- **Professor Paddy Phillips**, Chair Measurement for Improvement Group
- **Ms Marie Colwell**, Measurement for Improvement Group representative to the project team and expert group
- **Ms Jane Phelan**, Consumer representative to the project team and expert group. Member of Consumer Advisory Committee to the Safety and Quality Council
- **Ms Vicki Grant**, Acting Director, Office of the Safety and Quality Council
- **Ms Catherine Butt**, Project Officer, Office of the Safety and Quality Council
- **Ms Michelle Clewett**, Project Officer, Office of the Safety and Quality Council
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