

Patient Reported Measures – Program overview



The Agency for Clinical Innovation (ACI) works with clinicians, consumers and managers to design and promote better healthcare for NSW. It does this by:

- *service redesign and evaluation* – applying redesign methodology to assist healthcare providers and consumers to review and improve the quality, effectiveness and efficiency of services
- *specialist advice on healthcare innovation* – advising on the development, evaluation and adoption of healthcare innovations from optimal use through to disinvestment
- *initiatives including guidelines and models of care* – developing a range of evidence-based healthcare improvement initiatives to benefit the NSW health system
- *implementation support* – working with ACI Networks, consumers and healthcare providers to assist delivery of healthcare innovations into practice across metropolitan and rural NSW
- *knowledge sharing* – partnering with healthcare providers to support collaboration, learning capability and knowledge sharing on healthcare innovation and improvement
- continuous capability building – working with healthcare providers to build capability in redesign, project management and change management through the Centre for Healthcare Redesign.

ACI Clinical Networks, Taskforces and Institutes provide a unique forum for people to collaborate across clinical specialties and regional and service boundaries to develop successful healthcare innovations.

A priority for the ACI is identifying unwarranted variation in clinical practice and working in partnership with healthcare providers to develop mechanisms to improve clinical practice and patient care.

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SHPN (ACI) 170581, ISBN 978-1-76000-741-6

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Version: V0.6

Date created: March 2018

ACI_0047# (03/18)

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Citations: NSW Agency for Clinical Innovation. *Patient Reported Measures – Program overview*. Chatswood: ACI; 2018

Acknowledgements

The Agency for Clinical Innovation (ACI) acknowledges the traditional owners of the land that we work on, the Cammeraygal people of the Eora nation. We would like to acknowledge any elders past or present.

The ACI would also like to thank and acknowledge all contributors to this guide which has been developed by the Patient Reported Measures Program team at ACI.

Glossary

ACI	The NSW Agency for Clinical Innovation
ACSQHC	The Australian Commission on Safety and Quality in Health Care
AQoL	Assessment of Quality of Life
HRQoL	Health related quality of life
NSW	New South Wales
PRMs	Patient Reported Measures
PREMs	Patient Reported Experience Measures
PROMs	Patient Reported Outcome Measures
REDCap	Research electronic data capture
PDSA	Plan-Do-Study-Act

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Introduction

Patient Reported Measures

Patient Reported Measures (PRMs) capture outcomes and experiences that matter to patients. The NSW Agency for Clinical Innovation (ACI) PRMs Program aims to enable patients to provide direct, timely feedback about their health related outcomes and experiences. This feedback is intended to drive improvement and integration of healthcare across NSW. Additionally the program aims to add value to the patient and clinician, the healthcare service and the system. PRMs can be broken into two specific groups:

- Patient Reported Outcome Measures (PROMs)
- Patient Reported Experience Measures (PREMs).

Patient Reported Outcome Measures

PROMs capture the patient's perspectives about how illness or care impacts on their physical, mental, emotional health and wellbeing. PROMs are used to provide real time feedback to clinicians about what matters most to patients in regards to their care, treatment and overall quality of life.

In the PRMs Program, standardised and validated tools are used to measure patient outcomes including quality of life and symptoms related to specific treatments, symptoms, diseases or conditions. It is important that PROMs are completed directly by the patient (or carer). This information can then be used in care planning and decision making to provide timely person-centred care and ensure appropriate referrals based on identified patient needs.

Patient Reported Experience Measures

PREMs capture a person's perception of their experience with healthcare services. Various indicators are collected through validated anonymous surveys.

In the PRMs Program, PREM surveys have been developed through expert reference groups and collaboration with local services to provide a realistic gauge of patient experience, as well as providing information for local service improvement. In this context, sites and services are using the timely results of the PREMs to drive service and quality improvement activities, building the findings into Plan, Do, Study, Act (PDSA) activities.

Purpose of this overview

This overview explains Patient Reported Measures and outlines the process for administering and reporting PRMs to ensure that:

- measuring PRMs becomes business as usual for patients and clinicians
- PRMs data is integrated into shared decision making and care planning with patients and informs service provision and improvement.

Intended audience

This overview document is intended for use by NSW clinicians and service administrators who are considering implementing PRMs and using PRMs data. Users will include clinicians, managers, service providers, care coordinators, and project staff across NSW Health, primary care and community-based settings.

Case for change

NSW Integrated Care Strategy

Delivering integrated care is a clearly identified strategy for the future delivery of healthcare in NSW.

The [NSW State Health Plan: Towards 2012](#) provides three key directions for delivering innovation and providing the right care at the right time at the right place.¹

1. Keeping people healthy.
2. Providing world class clinical care.
3. Delivering truly integrated care.

Integrated care involves the provision of seamless, effective and efficient care that responds to all of a person's health needs, across social, physical and mental health, in partnership with the individual, their carers' and families.

The NSW Integrated Care Strategy's aim is to achieve outcomes for:

- the individual (patient and clinicians), services (healthcare services) and systems (the NSW healthcare system)
- improved patient navigation, experience and outcomes, improved communication and sharing of information
- enhanced efficiencies across the NSW health system.²

The following enablers of integrated Care have been identified and prioritised for delivery.

- *eHealth solutions*: this includes the state-wide rollout of a fully linked-up eHealth record: HealthNet.
- *Risk stratification*: developing a tool or approach to identify early intervention opportunities for people likely to need healthcare services frequently.
- *Patient reported measures*: to enable patients to provide direct timely feedback about outcomes and experiences.

Further information is available on the following websites:

- [ACI Integrated Care](#)³
- NSW Health. [Integrated care in NSW](#)⁴

Leading Better Value Care

The NSW Health system is shifting focus from the traditional approach of measuring value in terms of volume or output, to measuring value in terms of the triple aim of health outcomes, experience of care and efficient and effective care. In this context, health outcomes are defined as the outcomes that matter to patients.

The Leading Better Value Care Program seeks to identify and implement opportunities for delivering value based care to the people of NSW.⁵ The program is being implemented with support from the Agency for Clinical Innovation and the Clinical Excellence Commission. Opportunities are grouped into three categories: Better Value Healthcare, Commissioning and Contestability, and Workforce Capability. A key component will be capturing the outcomes and experiences of patients receiving care. For further information visit the [Leading Better Value Care website](#).

Model of care

The ACI has worked to co-design, test, refine and implement PRMs into business as usual across a variety of healthcare settings in NSW. The PRMs Program is a critical component to achieving the NSW Health vision for truly integrated, better value care across the state. The focus of the PRMs Program is on transforming how we deliver care to improve health outcomes for patients through the repeated and routine collection, measurement and use of direct timely feedback of PRMs.

Internationally, PRMs have been collected for some time, typically for the purposes of research, data input into clinical quality registries or quality improvement. The PRMs Program aims to take this approach further by using PRMs at:

- the point of care (to add value to clinicians and their patients)
- the health service level
- health system levels.

PRMs will support clinical care and service delivery based on what matters to patients. Through supporting local services and sites to implement PRMs, ACI has assisted administrative staff, clinicians, managers and health services in their efforts to understand, and respond to the true burden of disease, especially in diseases that are marked by morbidity but not necessarily mortality.

The PRMs Program acknowledges that for effective implementation and achieving improvements in clinical care and service delivery PRMs must be:

- reliable, valid and sensitive to detect change
- relevant and meaningful to patients across all populations including priority populations
- relevant and meaningful to clinicians
- not duplicative or overly burdensome
- inclusive by aiming for high response rates across the target population to include people with complex needs
- acted upon – meaning that PRMs data is used collaboratively by the care team at the various levels, patient, service and system, to improve and integrate care.

Further information, including videos with clinicians and consumers, is available on the [ACI PRMs website](#).⁶

Literature

There is a growing knowledge base, demonstrating the benefits of using PROMs and PREMs in clinical practice treating a wide range of health conditions (see [appendix 1](#)). PREMs and PROMs are now commonly considered as robust measures of healthcare quality.^{7,8} At the commencement of the PRMs Program, ACI commissioned a [rapid scoping review of PROMs and PREMs](#).⁹

A systematic review of the impact of PROMs on clinical practice identified the following potential clinical benefits of PROMs.

- Aiding the discovery of physical or psychological problems.
- Monitoring disease progression and providing information about the impact of prescribed treatment.
- Supporting patient-clinician communication.¹⁰

The use of PROMs can support patient-centred care and shared clinical decision making.^{8,11} Evidence strongly suggests that PROMs act as a tool to improve patient and clinician communication by enabling patients to raise issues with clinicians.^{8,11,12,13} In summary, the use of PROMs and the measurement of the factors that contribute to patients' health related quality of life (HRQoL), directly acknowledges that patients may value different outcomes than their providers, outcomes that may not always be raised in consultations.⁹

With regard to PREMs, systematic reviews have found that patient experience is positively associated with self-rated and objectively measured health outcomes, demonstrating that there is a positive association between better patient experience measures and better health outcomes for patients.^{14,15}

Further, the [Patient-reported outcome measures: Literature review](#) was recently published by the Australian Commission on Safety and Quality in Health Care.⁸ The intention of this work was to present a detailed picture of best practice use of PROMs, inform practice and to learn from international experiences.

The literature review reported that 'the evidence to support the use of patient-reported outcome measures (PROMs) to inform quality improvement is growing internationally. The evidence is strongest for their use in understanding variation in clinical practice, as they can help in determining the relative effectiveness of different treatments and interventions. There is also good evidence that the use of PROMs enhances processes within the patient-clinician interaction'.^{8 piii}

Of note, the literature review found that there are three primary reasons cited for the adoption of PROMs.

- Patients are the best judges of the impact of their treatment on their pain, function, symptoms and quality of life.
- PROMs are a valuable support for patient-centred care.
- The systematic collection of PROMs data informs efforts to improve quality and safety.

Clinician comments

Throughout the implementation of the PRMs Program in NSW, remarks by clinicians and managers regarding the benefits of PROMs and PREMs have included the following.

- It (PROMs) enables me to triage what my patient is coming to see me for today.
- PROMs help me get a better holistic view about the patient.
- PROMs are a great conversation starter, they help to identify what matters most to patients.
- PROMs have helped me to pick up issues or concerns that I wouldn't have otherwise known about, helping me to better care for my patient.

Patient comments

Patients' remarks have included the following.

- It (PROMs) helped me find the words to tell my doctor what I was feeling.
- The questions helped me to reflect on all the things that were happening in my life and what was important.
- Repeatedly doing the surveys gave me the motivation to continue with my program because I could see that my treatment really was making a difference.

Program design

The design of the PRMs Program has been, and continues to be, iterative. At the core of this has always been ACI's approach to using co-design to ensure all aspects of the program were designed with consumers, clinicians and managers. This approach aims to ensure that learnings and ideas from all of these levels inform the planning and implementation of PRMs at all proof of Concept sites.

At the commencement of the Program in 2014, four early adopter sites self-selected to implement PRMs. The number of sites grew rapidly across care settings and sites including hospital, community and primary health care, as more services have begun to appreciate the potential value in the routine collection and use of PRMs in their practice or service setting. [View the list of current sites](#).¹⁶

Patient cohort selection

The PRMs Program staff from ACI work with sites to select and identify the most appropriate patient population. Services and sites have focused on patients living with chronic and complex conditions, some of whom may be enrolled in integrated care.

Surveys

The collection methods for PROMs and PREMs, including identifying the surveys that are most appropriate for the setting and patient population, are important next steps for services. The ACI PRMs team provide expert advice to services on the collection of PROMs and PREMs (including the what, when, where, why and how).

Infrastructure

The PRMs Program has used a stand-alone web-based application, Research Electronic Data Capture (REDCap), to initially facilitate the collection and use of PRMs data and to explore clinician and patient acceptance of the system and preferences for an ideal system. The current application has the capability to disseminate real-time feedback and reports to clinicians, allowing the results to be used during consultations.

To facilitate this process, all sites in the PRMs Program are provided with tablet devices to support the routine collection of PROMs and PREMs. The collection of PROMs typically occurs in the waiting room or while patients are waiting to see their care provider. PREMs are collected after the patient's consultation or at a local agreed time in the patient's journey. All sites receive extensive training and education in the applications and are provided with a user guide and quick reference sheets.

As part of the proof of concept, all sites contributed to the user acceptance testing of this initial technology platform, to clearly identify the needs of consumers, clinicians, managers and services for an ideal future PRMs information system.

Overwhelmingly consumers, clinicians, managers and services asked for a system that would:

- allow clinicians single sign on access, meaning they do not have to log in and out of separate systems
- integrate with their practice software, meaning there would be no need for practice or service staff to manually input data to obtain reports
- allow the ability to view data in real time
- perform analytics of patient populations
- have a patient portal, where patients can complete the surveys on any device (e.g. desktop computer, smart phone, or tablet device) and be able to access their results and self-management information.

While not all of these elements were present in the initial system, ACI and eHealth NSW are engaged in a process involving an extensive market scan and procurement process to select a sustainable and scalable information system. The new system is intended to meet the growing needs of NSW Health to facilitate the routine collection, use and reporting of Patient Reported Measures. **Implementation of the new PRM IT solution is expected to occur in mid 2018, all existing sites will be migrated across to the new IT solution.**

Patient journey

The Patient Reported Measures Program team worked with proof of concept sites to determine the optimal patient journey through services when collecting PROMs and PREMs. The examples below illustrates how PROMs (Figure 1) and PREMs (Figure 2) may be collected to assist in building PRMs into business as usual, and ensure that there is minimal impact on workflow and services. The PRMs team will often support detailed patient journey mapping locally to ensure the impacts on clinical and patient flow are minimised.

Figure 1: Patient Reported Outcome Measures (PROMs)

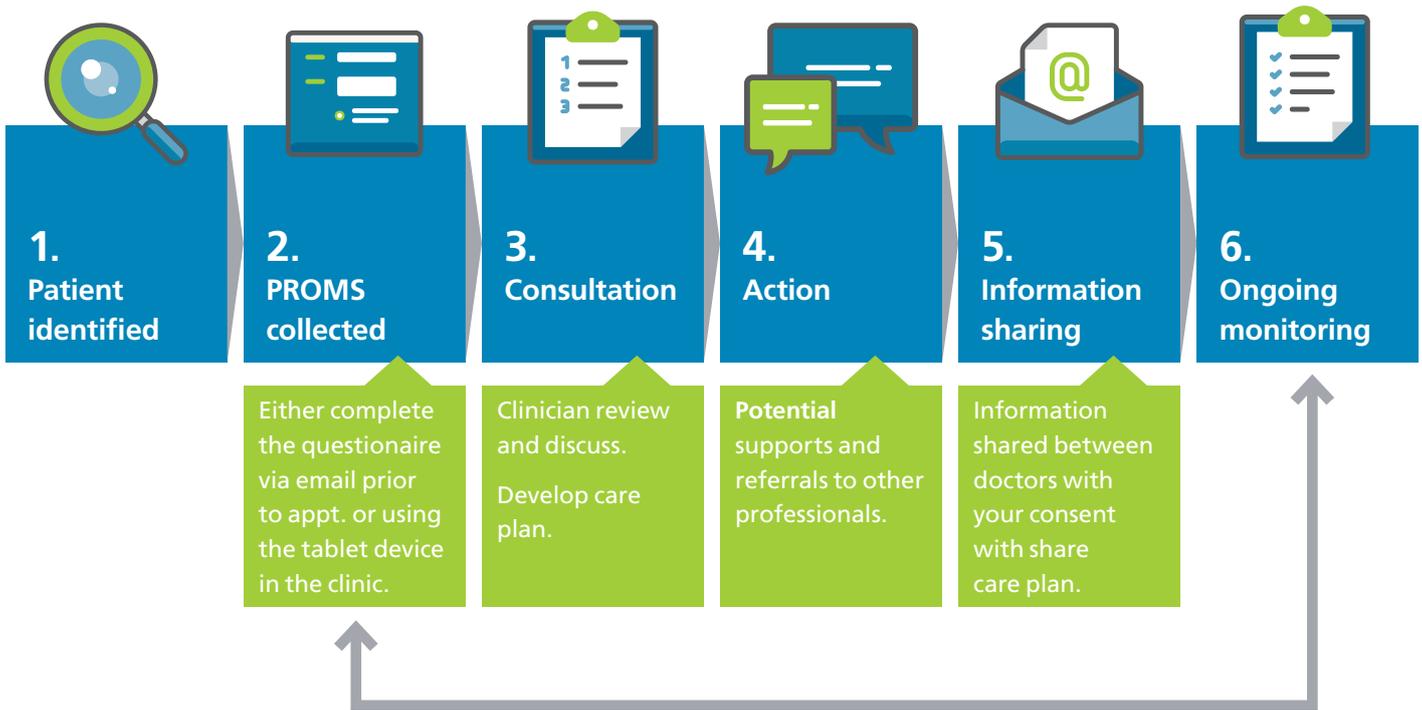
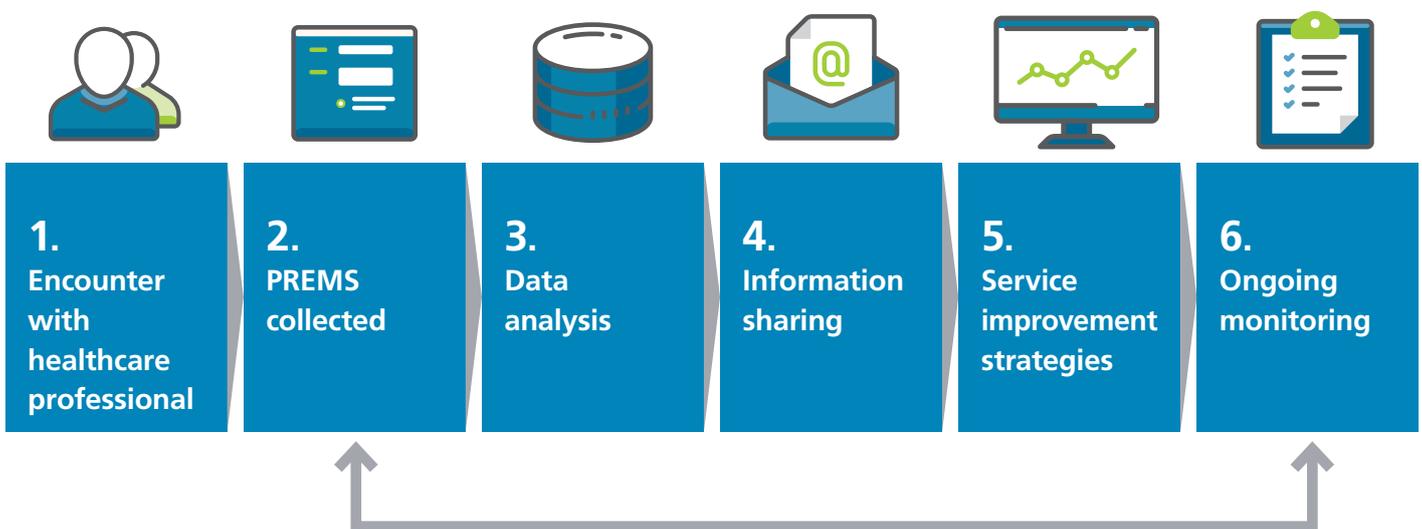


Figure 2: Patient Reported Experience Measures (PREMs)



Patient Reported Outcome Measures

There are many validated PROMs to choose from and the appropriate selection of a validated tool for the specific patient population, condition or symptom being measured is an important consideration.

Quality of life

The use of a generic quality of life tool across care settings and patient populations is important. Such a tool can provide a holistic overview of a person and how they are managing with multi morbid conditions or complex situations. The use of a generic quality of life tool also enables comparisons between groups at a service or health system level.

The preferred quality of life tool being used currently in the PRMs Program is the **PROMIS 10**. The **PROMIS 10** is a validated measure from the Patient-Reported Outcomes Measurement Information System (PROMIS). This measure is a set of 10 validated, person-centred questions that serve to evaluate and monitor physical, mental, and social health i.e. health-related quality of life in adults and children. It can be used both for a general population and for individuals living with chronic conditions. Further information is available on the [Health Measures PROMIS](#) webpage.¹⁷

It should be noted that some sites in the PRMs Program have elected to use the **AQoL** (Assessment of Quality of Life) instead of **PROMIS 10** to assess health related quality of life.¹⁸ Moving forward the PRMs team will be encouraging the use of the **PROMIS 29**. This measure provides a more valid and detailed assessment in 29 questions using the same domains of health, physical function, social health and mental health that are explored in the **PROMIS 10**.

Condition specific surveys

Validated surveys also exist to capture outcomes for specific patient populations that explore symptoms related to specific conditions, e.g. for patients with arthritis, in more detail. Expert advisory groups comprising specialist providers and clinicians within proof of concept sites were established to identify an array of condition-specific measures. Examples of condition-specific measures include but are not limited to the **DASS-21** (Depression Anxiety Stress Scale), **HOOS** (Hip disability and Osteoarthritis Outcome Score) and **KOOS** (Knee injury and Osteoarthritis Outcome Score). The use of condition specific measures is an optional part of the PROM measurement, and is initiated most commonly by local clinicians, based on needs articulated at local sites that relate to the specific populations for whom they provide care.

Patient Reported Experience Measures

PREMs surveys are designed to measure and evaluate a person's experience of care. The surveys are designed around the Picker Institute [*Principles of Patient-Centered Care*](#) and domains of healthcare e.g. access to care, being involved in care.¹⁹

The PREM survey development for the PRMs Program has been informed by extensive consultations. An expert reference group, comprised of researchers, policy managers, clinicians, consumers and experts in the field, provided input and advice during the development. The proposed questions were reviewed by local clinical groups and went through a series of consumer focus groups and cognitive testing with consumers for further refinement.

Implementation

Site requirements

Under PRMs Program requirements, sites are required to:

- establish appropriate local governance arrangements
- establish a local team to implement PRMs into business as usual
- identify a target population or patient cohort from which to collect PRMs
- share de-identified PRMs data with the ACI and the NSW Integrated Care Strategy Evaluation team for evaluation purposes.
- participate in education and training.

ACI support

The PRMs Program at ACI supports local sites to implement PRMs into business as usual through:

- identifying opportunities to increase value based care and decrease burden on clinicians and patients when implementing PRMs
- mapping local PRMs patient journeys and clinical workflows to assist in meeting local needs
- providing education, training, workshops and local one-on-one support with clinicians including capability building
- providing resources such as tablet devices
- providing educational materials and promotional materials
- providing access to the PRMs system.

Resources and further information are available on the ACI [PRMs website](#) and [PRMs online learning](#) site.

To initiate PRMs Program implementation, contact Melissa Tinsley, Manager, Health Outcomes, ACI, at aci-info@health.nsw.gov.au

Questions for services considering initiating PRMs

- What is your practice or organisation setting?
- What existing local software are you using and how will it link with REDCap?
- Which patients would you like to select? Are you considering all patients or a condition-specific cohort?
- What validated tools would you like to use? A quality of life survey and/or condition-specific?
- Who will be involved in each part of the patient journey process?
- How will your practice or service manage the informed consent to participate in PRMs?
- Registering patients – who will complete this action and when and where will it take place?
- How will you document patient record identification and access codes for surveys?
- How will you help patients to complete the survey on the portable device if they require guidance and support?
- Who will access the reports in your practice or service setting?
- Who will discuss the reports with the patients? The reports are available immediately after completion and ideally should be discussed during the consultation.
- Who will support the patient with information, including
 - invitation to participate
 - information about the PRMs program
 - information to support clinical needs?
- Who will refer on to other services if required?
- Who will coordinate the follow up appointment for scheduling the next set of PROMs?

Frequently asked questions

Why should my service partner with the ACI to implement a PRMs Program?

The PRMs Program staff have found that although services may be capturing outcomes measures for some patients, this process does not always occur systematically and routinely, or in a way that consistently enables patients to provide direct timely feedback to inform care. Capturing PROMs in a consistent and structured way allows tracking and trending of patient outcomes, and evaluating experiences, over time. The ACI have now worked with many teams and can share lessons learnt about implementation to include challenges, barriers, facilitators and enablers. In addition, the PRMs staff from ACI can provide education, training and support to help you to implement a robust PRMs system in your service.

What are the benefits of using PRMs for my service?

PRMs enable a consistent and structured method for capturing and using patient reported outcomes and experiences in real time and can also serve to support services to identify quality improvement initiatives to drive service improvement. The use of PRMs also aligns with accreditation standards regarding partnering with consumers to create a consumer centred health system; responding to patients' feedback on their experience to support your quality improvement activities; and ensuring that care is responsive to the needs and preferences of patients.

What financial and time investment is there?

Engaging with the ACI for your PRMs Program is free of charge. It is advised that local services establish a small dedicated project team to implement and sustain the PRMs Program in their setting. The implementation of a PRMs program certainly involves some workflow changes and sometimes also cultural change. The identification of a small group of key team members, from the clinical and administrative staff, to facilitate and champion implementation, can provide services with the support that is needed to implement and sustain change.

How do I receive my PROM and PREM results?

Patients completed surveys generate instant PROMs reports via the reporting portal and can be filed directly into your local systems as a PDF.

PREMs reports will be sent on by ACI to your organisation each month, if three or more surveys have been completed. This is to ensure we maintain anonymity and confidentiality.

Where does the PRMs data go?

All data in the PRMs portal sits in a secure location on the NSW Health server. As part of the NSW Health Integrated Care Strategy, aggregated and de-identified data may be used to evaluate the integration of care across NSW.

Will the PRMs information technology system integrate with the systems currently used in my service?

It is anticipated that the new information communication technology system for collection of PRMs, currently being developed, will integrate with existing electronic medical record systems, in the next phases of the PRMs Program.

When can my service start with the PRMs Program?

Your service can start as soon as staff have received appropriate education and training, and local processes for implementing PRMs in your setting have been determined.

How will my patient population use the PRMs system?

While some patients may need support with their initial engagement with the devices used to record PRMs, most find it acceptable after an initial explanation.

What are the right validated questions sets to use?

There are hundreds of questions sets that exist across the world. It is important to find validated tools for your patient population or condition specific questions for your setting. The PRMs Program staff from ACI can spend time with you upfront to ensure that the selected surveys suit your patients and service.

How do we build the collection and use of PRMs into business as usual?

Initially, getting the process to fit in with current work flows can take some extra time and consideration. However once this is achieved, clinicians and services have advised that collecting PRMs can fit into business as usual.

Appendix 1 – Evidence for PRMs

‘Systematic tracking of health outcomes is the foundation of any value-based health system’.^{20, p28} Patient-reported measures are questionnaires that measure patients’ perception of their health and healthcare experiences and the impact of conditions and treatment on their health and quality of life.^{12, 21, 8} Patient-reported outcome measures (PROMs) and patient-reported experience measures (PREMs) enable patients to provide direct, timely feedback about their health related outcomes and experiences to improve care and clinical interactions.²²

There is a growing knowledge base demonstrating the benefits of using PROMs and PREMs in clinical practice treating a wide range of health conditions. The following is a synthesis of recent evidence.

Improving clinical practices

A systematic review of the impact of PROMs on clinical practice identified the following potential clinical benefits of PROMs.

- Aiding the discovery of physical or psychological problems.
- Monitoring disease progression and providing information about the impact of prescribed treatment.
- Supporting patient-clinician communication.¹⁰

Clinicians value data that is timely, specific and indicates where care processes can be improved. Several studies have demonstrated how PROMs inform clinical practice and practice change.²³ Evidence is now emerging that clinicians are more likely to engage with PROMs if the PROMs program is focused on improving the quality of care and measures variables that matter to clinicians.¹² Clinicians will take more action, as shown by referral activity, if PROMs are routinely reported back to them.²⁴

PROMs can be used to monitor patients’ conditions to help them and their doctors make informed decisions about treatment options, for example, quarterly PROMs completed by people with hip osteoarthritis helped decisions about if and when to operate.¹¹ As a tool for clinical monitoring, PROMs have been used recently in England for service improvement and national benchmarking for elective procedures, and for patients with chronic conditions in primary care, e.g. skin cancer, depression and cardiac revascularisation.²⁵ A recent study of a quality of life measure and its relationship with traditional clinical measures for patients with knee osteoarthritis, found that this measure was related to patients’ clinical status and functional ability and that it could be used as a sensitive health status measure for clinical evaluation.^{26 p166}

Enhancing patient-clinician communication

Evidence strongly suggests that PROMs act as a tool to improve patient-clinician communication by enabling patients to raise issues with clinicians.^{11-13, 8} Routine use of information from PROMs enhances communication and decision making between doctors and patients.^{27, 28} For example, studies report that surveying quality of life routinely in cancer patients improved clinician-patient communication, while some patients also showed improved quality of life and emotional functioning.^{29, 30} Importantly, the aspect of patient experience most strongly associated with a better outcome is the level of communication with and trust in their doctor.³¹

Improving quality of care

PREMs and PROMs are now commonly considered as robust measures of healthcare quality.⁷⁻⁸ In addition, timely information about patients’ symptoms, functional and emotional status derived from routine use of PROMs in chronic care management can be used by clinicians to ‘manage patients more effectively and efficiently’.^{29 p.1506}

The use of PROMs can support patient-centred care and shared clinical decision making.⁸ It has been reported that PROMs contribute to enhanced quality of care and decision making in routine care for cardiovascular disease.³² A study of PROMs in Swedish clinical quality registries reports that PROMs data informs care plans, clinical decision aids and treatment guidelines, improves the precision of indications for surgery and is used to monitor complications after the patient has left hospital and to improve patient information.³³ A study of patient-reported measures used with haemodialysis patients suggests that the use of PROMs may help multidisciplinary teams to identify dialysis patients in need of additional support such as symptom control and advance care planning and found that ‘baseline participant EQ VAS self-rated health, patient reported symptom burden (POS-S Renal) and health status as assessed by the EQ-5D were predictive of all-cause mortality over follow up in haemodialysis’.^{34 p621}

Improving patient outcomes

Systematic reviews have found that patient experience is positively associated with self-rated and objectively measured health outcomes, demonstrating that there is a positive association between better patient experience measures and better health outcomes for patients.¹⁵⁻¹⁶ While PREMs are strongly correlated with better outcomes, studies also have found no correlation between patient experience measures and volume of services ordered.⁷

Recent studies suggest that PROMs can assist clinicians in determining and evaluating treatment and interventions aimed at improving patient outcomes.^{35,36,37} Tracking health outcomes in clinical quality registries has allowed Swedish clinicians to identify clinical best practice and disseminate these to all clinicians, improving average health outcomes over time.²⁰ Falls are frequently reported adverse events among adults in acute care; while falls prevention programs include multiple components, the inclusion of patient-reported risk factors can support patient safety and improve patient outcomes.³⁸ A study assessing psychosocial outcomes in patients with diabetes across 17 countries reported that self-reported health status, quality of life, treatment burden and self-management in diabetes patients provided insight into unmet needs and best practice to inform change and improve health outcomes for people with diabetes.³⁹

PROMs have a greater impact on patient outcomes when used as a tool to monitor patient progress in disease-specific populations, than when used as a screening tool.¹² For example, the American Heart Foundation stated that patient reported health status is considered as a 'strong, independent predictor of other health outcomes, including mortality, cardiovascular events, hospitalisation, and costs of care'.^{40 p2235} Clinical benefits were associated with systematic symptom self-reporting through PROMs during cancer care and patients reported health outcomes, for example, improvement in quality of life, reduced depression, and improved satisfaction with care.^{41,42}

There is increasing evidence, notably in oncology, that PROMs are effective. For example, a controlled trial in cancer care showed an association between routine use of PROMs and improved quality of life, enhanced patient-clinician communication, reduced emergency department use and increased survival rates.^{43,44} Other areas of clinical care are also administering PROMs, for example, results from PROMs surveys taken before foot and ankle surgery have been shown to predict the likelihood of clinically meaningful benefits after surgery.⁴⁴ Increasingly used in palliative care, PROMs can improve awareness of unmet need and enable clinicians to act to address patients' needs.²⁵

Enhancing population health evaluations

PROMs support the comparison of the effectiveness of different treatment options to help guide better practice.⁸ Analysis of aggregated PROMs data can help to understand and minimise clinical variation.^{8,46} The integration of PRMs into population health monitoring can provide a more comprehensive picture of population health status than currently detected through traditional health outcome measures, such as morbidity and mortality.⁴⁵

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