Public Sector Residential Aged Care Quality of Care Performance Indicator Project Report

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A project conducted for the Aged Care Branch of the Department of Human Services (Victoria) by:

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and
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Contents

Executive summary

Introduction

In 2003, the Aged Care Branch of the Department of Human Services (Victoria) contracted the Gerontic Nursing Clinical School of La Trobe University to develop a set of quality of care performance indicators for the State's public sector residential aged care services (RACS)[1]. It is intended that the quality indicators identified and developed in this Project will complement and be used in conjunction with the accreditation standards. While numerous quality indicators have been developed and evaluated in the United States, little has been done in Australia and even in the US debate continues regarding which indicators are most appropriate.

Project aims and purpose

The objective of this project was to identify and recommend a set of appropriate quality indicators (QIs) to assist in monitoring and improving the quality of care provided to residents by Victoria's public sector RACS. It is intended that the establishment of a more comprehensive accountability framework related to quality of care will enable RACS to trend their care performance over time, benchmark against other services to identify both improvements in quality of care and target specific areas for improvement. Learning in relation to care management could be disseminated across the sector (i.e. between different RACS) and facilitate enhanced focus on issues considered to be influential markers with respect to quality of care within a RACS. The proposed set of quality indicators are intended to monitor major aspects of quality of care at the facility level. It is anticipated that identification of quality indicators will enable a framework that will assist RACS to report publicly on the quality of care delivered to residents. Furthermore, that a flow-on effect of this public reporting will be enhanced community understanding of the quality and other performance issues in RACS.

Method

The Project was undertaken between September 2003 and April 2004. Phase 1 of the Project involved establishing a Project Advisory Group and conducting a literature review of existing QIs. Phase 2 involved consultations with residential aged care stakeholders through forums held at Benalla, Geelong and Melbourne, interviews with experts in clinical/quality indicator development, and a consumer issues focus group. A website (www.latrobe.edu.au.becc/quality) was also constructed to advertise the forums, invite feedback and provide updates of progress on the Project.

1 Residential aged care service (RACS) – "An organisation that provides care and accommodation for aged people requiring a certain level of care. For the purposes of accreditation, this refers to services that receive funding from the Australian Government

Results and recommendations

Key findings of the literature review are as follows:

- QIs provide an essential tool in the efforts to continuously improve residential aged care.

- QI sets should ideally include structure, process and outcome indicators, however structure and process indicators do not necessarily reflect outcomes.

- QIs must be demonstrably valid, reliable, applicable and practicable.

- Some published research in Australian has looked at QIs of care in RACS (e.g. Courtney & Spencer 2000; Madsen & Leonard 1997).

- Most commonly referred to QI set in the literature is that developed by CHSRA and the University of Wisconsin-Madison, by Zimmerman and colleagues and derived from the MDS.

- Many researchers, both in Australia and internationally, argue for inclusion of some form of Quality of Life (QOL) elements in assessments of RACS. However Courtney et al. (2003) did not identify any tool that currently exists for this population and identified a need for an appropriate tool to be developed and validated. Thomas et al. (2004) suggest the SF 36 is worthy of consideration, although it would require modification

- Incorporating consumer input is increasingly being recognised and the development of consumer experience – rather than consumer 'satisfaction' –tools appear to be providing more meaningful data.

- There is a trend toward including staffing experience/satisfaction indicators in QI sets.

Consultations with industry stakeholders

The indicators identified by the stakeholder groups as being important reflected domains where some of the participants already collected data for other purposes. This may have included their own internal quality requirements or government bodies, eg complaints. There was some indication by participants that data already being collected had its original focus in the acute care sector. While some domains were seen as transferable to RACS, others such as death rates may not be. Important to the industry stakeholders was that they would be able to learn from the performance of other RACS on QIs. For example, if one RACS performs well on one indicator, then it was hoped that that RACS could be approached about what practices they used, so other RACS could use them to improve their own performance.

Perceived barriers to implementation of QIs included issues related to data collection, culture and staffing, resources, the need for genuine collaboration with DHS and the need for agreement on QI definitions. Strategies to overcome the barriers included efforts to minimise additional work, training related to QIs and change management skills and leadership, timely reporting from DHS back to RACS, aiming for resource neutrality and/or recognising the need for more/different staff, use QIs to report better practice and develop RACS, develop agreed definitions and establish networks to ensure peer support.

Consultations with experts

All participants emphasised the importance that the QI process be inclusive of the views of all stakeholders (this included government, industry and consumers such as staff, residents and family). It was seen as essential that those involved in the QI process agree upon what data would be collected, how the data would be analysed and the reporting back mechanisms implemented. Lack of understanding and how the program was constructed and integrated into other management processes was seen as a barrier to the successful implementation of QIs.

When discussing the QOL indicators, the value of outcome measures and how they measured improvement for the individual were raised as issues. There were some concerns expressed regarding the feasibility of having this as a QI. There were also differences expressed regarding the definition of QOL.

Consultations with consumer issues focus group

Consumer representatives identified QIs that were unique to this group. This included up to date practices within a RACS and how they dealt with the death of residents in the RACS community. Overwhelmingly the major indicator of quality revolved around inclusion of residents in decision making processes.

Following analysis of all of the data collected through the Project activities (forums, interviews and literature review), the general consensus of the Project Advisory Group was that some of the QIs are more ready to be implemented at this stage than others. The six QIs seen to be most ready for implementation in a pilot phase are:

- Incidence of stage 1–4 pressure ulcers
- Incidence of new fractures as a proportion of falls
- Incidence of daily physical restraints
- Incidence of residents using nine or more different medications
- Incidence of weight change (i.e. a significant increase or decrease from the norm)
- Prevalence of symptoms of depression

Four other QIs were seen by the Project Advisory Group as very important to implement, however require further refinement before being rolled out. The rationale behind deferment of implementation is due to definitional and measurement issues.

These are:

- Incidence of behavioural symptoms
- Resident experiences of care
- Health related quality of life of residents
- Staff experiences of care

The way forward

Frequency and timing of data collection and reporting issues

In relation to the issues of how often and when data should be collected, the relationship between useful impact upon Quality Improvement Plans (QIPs) and activities is pivotal. On the basis of consultancy feedback, quarterly reporting should be implemented, so that there be would four cycles of indicator data available for each QIP. There will need to be consultation between the DHS and RACS to formulate an agreed sampling strategy that adequately balances effort and outcomes.

Data validation issues

The second substantive issue is the issue of data validation and quality. A number of options are presented and it is recommended that the decision involve detailed consultation between the DHS and RACS.

Dissemination of indicator results

The third substantive issue is how the indicator results should be disseminated. An important driver in quality improvement activities is the use of benchmark data where services/facilities compare their performance on common data and indicators with each other. The Project Team recommends open disclosure, however it is to be expected that most RACS will want to be satisfied with the reliability and validity of the data and processes before publishing their QI data. Central to agreement on dissemination will be a collaborative approach between DHS and RACS, alongside timely feedback.

Proposed piloting of QIs in RACS

The proposed implementation strategy for the QIs takes account of the barriers and strategies identified by the consultations and better practice in change management. Gaining support from the RACS generally will be facilitated by testing the QIs initially in a small number of RACS to identify and address any implementation issues. The following steps are suggested in implementing the pilot phase in RACS:

1. Publish final report on DHS (Aged Care) website;

2. Identify RACS to be involved in the pilot of QIs;

3. Use an action research approach to implementation and evaluation;

4. Provide education of staff at pilot RACS;

5. Establish action groups/liaison persons at each pilot RACS to assist implementation and clarify any matters related to the QIs;

6. Implement through 2 to 3 cycles, and

7. On the basis of feedback from pilot RACS, finalise/modify the QI collection and implementation strategy for roll out to the rest of the Victorian public sector RACS.

Conclusion

This Project, conducted for the Aged Care Branch of the DHS (Victoria), has identified and made recommendations for a set of QIs for the State's public sector RACS. The recommended QIs were identified through a literature review and consultations with residential aged care stakeholders, experts in clinical/quality indicator development and a consumer issues focus group, in addition to input and guidance from the Project Advisory Group.

It is recommended that six QIs are currently ready to be implemented in a pilot phase. These are:

- Incidence of stage 1–4 pressure ulcers
- Incidence of new fractures as a proportion of falls
- Incidence of daily physical restraints
- Incidence of residents using nine or more different medications
- Incidence of weight change (i.e. a significant increase or decrease from the norm)
- Prevalence of symptoms of depression

Four other QIs, whilst no less important, require further refinement before their implementation. These are:

- Incidence of behavioural symptoms
- Resident experiences of care
- Health related QOL of residents
- Staff experiences of care

A piloting phase is suggested and it is clear that the implementation process should include a strong educative element. This would include information about what QIs are and their role in the accreditation process and should be provided to all levels of staff. There will also need to be a process for the subsequent development of the indicators recommended in the three new domains of resident experience, staff experience and resident health-related QOL, as well as the indicator relating to behaviours. It is suggested that the development of these new indicators be conducted in parallel with the roll out of the currently collected indicators and be added to the set perhaps at the time of the second data collection cycle. This will

allow the timely introduction of the indicator system without having to wait for the full development of the new indicators.

A key feature of further activity is engagement between RACS and the DHS to finalise the indicators and their implementation. The implementation of the recommended Victorian RACS QI set should take a participatory approach based on the principles of action research and contemporary change management. As expressed during the consultations, it is important that there is a partnership between DHS and RACS and that RACS receive timely feedback from the DHS. In addition, involvement of staff at all levels within each RACS will support implementation. Finally, while monitoring QIs will illuminate poor practice, a punitive approach will only result in low compliance and inaccurate recording. For the QIs to impact positively on care for older people in public sector RACS the emphasis must be on highlighting and sharing practice improvements.

1. Introduction

1.1 Background to project

Currently in Victoria, there are 194 public sector RACS. This includes 11 multipurpose services, 17 psycho-geriatric RACS and eight that are generic and psycho-geriatric) provided by 79 agencies.

 These services provide over 6,700 residential aged care places, including 585 psycho-geriatric places. Almost two thirds of all places are high care places, and 79% of all places are located in rural and regional Victoria. The vast majority of services are co-located with other health services. All services, with the exception of the 11 multipurpose services, are required to be accredited under the *Aged Care Act 1997* and hold a current, affirmative accreditation status.

The Australian Government approves public sector RACS as providers and their residents are eligible for subsidies under the *Aged Care Act 1997*. The State Government provides $67.7 million a year in additional recurrent funding and also provides capital funding assistance for building and upgrading.

Quality of care provided by RACS in Australia is currently regulated through an accreditation process, managed by the Aged Care Standards and Accreditation Agency, which is independent of government. In order to continue to receive Australian and State Government funding, RACS must at least meet accreditation standards within the following four domains:

- Management systems, staffing and organisational development,
- Health and personal care,
- Resident lifestyle, and
- Physical environment and safe systems (Aged Care Standards Agency 2001).

 All four accreditation standards have an expectation of continuous quality improvement (CQI) built in to them (Bartlett & Boldy 2001). The initial phase of CQI is identifying care issues, and this is where quality indicators (QIs) can

> *provide a structure, organising framework and guidance mechanism for launching the improvement effort* (Karon & Zimmerman 1996, p.65)

However, although some Australian RACS have developed QIs to gauge their own activity and in some cases to benchmark across RACS, there are no agreed QIs across the industry sector, and while the accreditation process requires evidence of CQI, it does not dictate what this evidence should be. Quality indicators

> *are not direct measures of quality in themselves: they are tools that can support quality improvement* (Thomson et al. 1997, p. 49)

Furthermore,

> *Indicators are seen as a guide to monitor, evaluate and improve services delivered. Indicators are neutral. Their sole purpose is to provide information* (Harrigan 2000, p.163)

Karon and Zimmerman (1996) argued that QIs could be used by staff to:

- compare their performance on key indicators with that of their peers or other standards;
- identify particular problem areas to target for quality improvement efforts;
- identify residents to review in order to help identify the types of quality improvements needed; and
- structure information to be used in identifying and monitoring quality of care issues.

The Center for Health Systems Research and Analysis (CHSRA) at the University of Wisconsin-Madison argues that QIs

… represent the first known systematic attempt to longitudinally record the clinical and psychosocial profile of nursing home residents in a standardized, relatively inexpensive and regular manner requiring the expertise of only in-house staff…quality indicators are the starting point for a process of evaluating the quality of care though careful investigation (www.chsra.wisc.edu)

QIs of care are used in RACS most notably in the United States, although their development and use in other countries are expanding. Some of the domains that have been included in QI sets include clinical, staffing, environmental, and consumer satisfaction. Distinction has been made between QIs, quality measures and clinical indicators. The primary focus of this project is with QIs which it is expected will include predominantly indicators of clinical care quality – i.e. clinical indicators. The purpose of this project is not to focus on QIs related to management systems. Quality measures require

clear agreement as to the acceptable level of outcomes, and the circumstances under which an undesirable outcome would be tolerated. The latter also requires detailed information about those circumstances (Zimmerman 2003, p 254)

While this may be an ideal for the future, the development of QIs is a first and more achievable step in the CQI process.

1.2 Project aims and purpose

The objective of this project was to identify and recommend a set of QIs to assist in monitoring and improving the quality of care provided to residents by Victoria's public sector RACS. It is anticipated that the proposed set of indicators will be used to monitor and report on major aspects of quality of care at the facility level. The establishment of a more comprehensive accountability framework related to quality of care will enable RACS to trend their care performance over time, benchmark against other services to identify both improvements in quality of care and target specific areas for improvement. Learning in relation to care management could be disseminated across the sector and facilitate enhanced focus on issues considered to be influential markers with respect to quality of care within a RACS. A stated desire of the DHS was that any recommendations take account of accreditation standards, and as far as possible, not add significantly to paperwork already required by RACS providers.

2. Project Methodology

1 A Project Advisory Group was established by the DHS and comprised of 15 representatives from public sector RACS, Aged Person's Mental Health Services and the DHS.

2 A literature review was undertaken to identify and investigate QIs currently used in similar contexts.

3 Public forums were held to gain comment from stakeholders in relation to the applicability and practicability of QIs, as well as to identify potential QIs of care, possible obstacles to implementation and strategies to overcome them.

4 Individual interviews were held with experts in the field of quality/clinical experts.

5 A consumer issues focus group was conducted.

6 Qualitative data from the forums, interviews and focus group were audio-taped and transcribed for analysis.

7 Recommendations from all consultations were analysed in the context of the literature and a set of criteria developed to formulate recommendations.

8 The Project Advisory Group and Project Team convened and discussed the recommended QIs and implementation strategy.

9 A set of QIs was recommended and an implementation strategy provided.

3. Literature Review

A search of the computerised databases (Ageline, CINAHL, Medline, PsychInfo) was conducted to locate relevant existing QIs and issues relating to quality measurement in healthcare. A search was also conducted via the Internet search engines Yahoo and Google for details of QIs. The search term *quality indicator*, was combined with *long term care*, *residential aged care*, and *nursing home*. Searches were restricted to the English language and went back as far as 1990. An exception was a paper by Donabedian (1988), who was much referred to in the literature. A hand search of reference lists from the journal articles was also conducted.

The review of the literature identified a number of significant areas around which this section is organised:

• Defining quality of residential aged care

• Characteristics of quality indicators

• Australian studies into quality in RACS

• Some studies undergoing completion

• MDS derived quality indicators

• Validation of MDS quality indicators

• Mega QI and the public reporting of QIs

• Other QI sets

• Limitations of the MDS 2.0 QI set

• Consumer satisfaction and perceptions of quality of care

• Consumer input and health and human services

• Incorporation of QOL QIs into the RACS indicator suite

• Staffing issues

• Staff satisfaction and perceptions of quality of care

• Using QI information

Defining quality of residential aged care

Governments and service providers across the world are requiring services to demonstrate CQI and provide an evidence base for clinical decisions. The accreditation processes now in place for Australian RACS reflect this trend. It is within this environment that interest in QIs has developed. QIs have a number of potential applications, such as being:

• Part of a regulatory review process;

• Part of a facility's quality assurance and improvement activities;

• The basis of research into care practices;

• The source of consumer information, and

• An aide for policy makers (Karon & Zimmerman 1998).

However, attempting to define quality care in RACS is complicated (Wiener 2003). The concept of 'quality' is multifaceted (Rantz 1999a, 1998, 1997). It is widely recognised that good performance on one QI does not guarantee an equally good performance on another QI (Mukamel & Brower 1998; Porell & Caro 1998). According to Zimmerman (2003), most attempts to categorise RACS care quality include a variation of the following elements of care:

- Medical/clinical care

- Functional care, including three subcategories of physical, cognitive and emotional functioning

- Psychosocial aspects of resident status, and

- Preservation of resident rights, such as dignity, privacy and autonomy.

This categorisation is reflected in examples of **domains of quality** that have been suggested by a range of researchers and practitioners, including:

- Moxey et al. (2002) developed their own Quality Measurement Tool and Reporting Format for long term care settings following a literature review and discussions with their Project Advisory Group. The domains arrived at were: organisational (e.g. staffing, accreditation), clinical (using MDS data), environmental (i.e. ambience, staff-resident interactions) and social (e.g. resident, staff and family satisfaction, activities).

- Rantz et al. (1999a, 2000a, 2001a, 2002) developed a tool known as Observable Indicators of Nursing Home Care Quality, intended to be used in conjunction with MDS assessments. Domains incorporated in this tool were: communication, care, environment, staff, and home/family.

- Glass (1991) in a literature review, identified the domains of staff intervention, physical environment, nutrition/food service and community relations as reflective of long term care quality.

- Gustafson et al. (1990) used an expert panel to identify the following domains: direct resident care (outcome), resident care (process), recreational activities, staff, facility, dietary and resident/community ties. These domains were incorporated to produce a Quality Assessment Index (QAI).

Perceptions of the key dimensions of quality of care in RACS may differ between stakeholder groups. Stakeholder groups such as consumers, funders, provider agencies and professional clinicians do not necessarily agree on what constitutes good performance (Pearson 2003). One of the key steps Rubin et al. (2001) advocated in the development and evaluation of process QIs was to ensure the participation of different groups of stakeholders.

Consumers (residents and relatives) and nursing staff were consulted in an Australian study by Doyle and Carter (1992). In this study consumers suggested that objective indicators could be incorporated into the assessment of quality of care. Examples given of potential indicators included: the number of agency staff, number of therapists employed, polypharmacy and staff turnovers.

Within staffing groups there may also be differing perceptions of what is a 'good' indicator of quality care. Courtney and Spencer (2000) asked 36 RNs in Queensland RACS to nominate which clinical indicators they deemed to be the most important clinical indicators of high quality aged care. A clinical indicator was defined as "a performance indicator that relates to the clinical practice of health care" (p.17). Twenty-six of the participants provided bedside care, and this group ranked the absence of decubitus ulcers as being the most important medical condition. The other ten participants were employed in managerial capacities and rated hydration management most commonly as being the most important clinical indicator in RACS. Polypharmacy was the clinical indicator that received the greatest agreement of importance between both groups, despite giving it different rankings.

Characteristics of quality indicators

Donabedian (1988) classified information about quality of care into three elements: **structural**, **process** and **outcome**. The three are theorised to be linked;

> *better structure and more appropriate processes are expected to yield better outcomes* (Kane 1998 p.232).

In their paper, Spector and Mukamel (1998) presented studies that link process and structural elements of care in RACS to outcomes. According to Donabedian (1988) each element has its own strengths and weaknesses with regards to assessing quality. As such, he advocated the inclusion of all three elements in any assessment of quality framework. Doyle (1991) argued along a similar vein in her discussions about the then-used 31 outcomes standards for Australian RACS, asking why only outcomes were used and not structures and processes as well.

Structural aspects of care settings include material resources (e.g. equipment, finances), human resources (e.g. staffing numbers and qualifications) and organisational elements such as medical staffing organisation, peer review strategies and reimbursement methods (Donabedian 1992). Despite Donabedian's recommendation for their inclusion, structural indicators are not included in all studies of QIs applicable to RACS. Saliba and Schnelle (2002) intentionally did not focus on structural indicators (such as private rooms, arrangement of dining areas). Their rationale was that current knowledge and the variation amongst the nursing home population precludes the ability to prescribe a set structural environment (Day et al. 2000, cited in Saliba & Schnelle 2002). Mukamel (1997) suggested that the "quality of hotel services and living environment of nursing homes" (p.369), which could be classified as structural aspects, are able to be assessed by residents and their relatives, whereas quality of clinical care outcomes are not able to be assessed so easily. However this assertion is untested. Holtzman et al. (1997) reported that two drawbacks with assessing structural aspects of quality are that good structures do not necessarily result in a good outcome and the structure of a facility does not necessarily reflect the care that an individual receives.

Despite this, there appears to be a current shift in the US towards structural indicators, at least in terms of staffing issues. Among recent movements has been the *California Nursing Home Search (CNHS)* website (located at: **www.calnhs.org**) becoming the first in the US to list ratings of staffing levels (i.e. RN, LPN-LVN, CNA) and quality for individual nursing homes (Harrington 2003). Prior to developing the website, a sample of 30 nursing facilities in Southern California was used to address the following two questions:

1. Do homes that score in the upper and lower 25 percentile of selected QIs and staffing indicators provide different processes of care that reflect quality, and

2. What information about the indicator can be useful for consumers?

Process indicators capture information about the content, actions and procedures conducted by the provider in response to the assessed condition of a resident. **Outcome** indicators capture information about how the resident fared in response to the intervention provided, which is whether there was an improvement, no change or a decline in their condition (Zimmerman 2003).

In the QI literature, a distinction is often made between what are called **prevalence** and **incidence** indicators. Prevalence is the occurrence of cases over usually an extended period of time. Incidence is the occurrence of cases at a specific time, a snapshot. Another distinguishing characteristic of QIs is the level at which they provide information. **Resident** level QIs provide information about the presence or absence of a condition in that resident. **Facility** level QIs allow comparison with other RACS or with population norms (Zimmerman et al. 1995). The focus of this project is on facility level QIs.

Australian studies into quality in RACS

The current Review found few published Australian research articles conducted into this area. The potential to use QIs in Australian RACS was explored in 1991, when Doyle presented a Working Paper which reviewed three methods for assessing the quality of long term care;

- criterion-guided assessment
- structured assessment protocols/written questionnaires
- assessment based on selected indicators

Doyle concluded that an advantage of using indicators is their efficiency in 'piggybacking' existing data sources. For example, Doyle (1991) suggested that the Pharmaceutical Benefits Scheme could be used to provide information about a polypharmacy indicator. A similar approach was actually investigated in an Australian study by Robertson et al. (2002), which looked at whether routinely collected Health Insurance Commission (HIC) data could be used to derive prescribing indicators that would be useful for general practitioners.

A number of identified studies focused on the accreditation of Australian RACS. This included a comparison of approaches to quality improvement in Australian and UK nursing homes (Bartlett & Boldy 2001), in which it was noted that there is growing interest in consumer satisfaction as an indicator of quality of care in assessments of Australian RACS. Another paper reviewed the implementation of the accreditation process of Western Australian RACS. While accreditation was generally supported, one specific concern was inconsistency and subjectivity with regard to the conduct of the site audits and expectations of different standards (Grenade & Boldy 2002).

Braithwaite et al. (1992) critiqued the 31 outcome standards that at that time were used to assess quality of care in RACS. The outcomes fell under seven domains:

1. Health Care

2. Social Independence

3. Freedom of Choice

4. Homelike Environment

5. Privacy and Dignity

6. Variety of Experience

7. Safety

In their discussion, Braithwaite et al. (1992) noted that one criticism of the objectives was that they were not objective enough.

A Queensland study (Madsen & Leonard 1997) focused on the development of a clinical indicator for pressure ulcers. Subjects were 117 residents drawn from one RACS. Nurses categorised each resident's risk of developing a pressure ulcer using Waterlow's Pressure Sore Risk Adjustment Tool. For any residents with existing pressure ulcers, the stage of tissue breakdown was noted. Mobility and continence status of all residents was collected and short stay residents were excluded. It was found that although many of the residents were at risk of developing a pressure ulcer (53.8% fell into the highest risk category), the actual incidence of pressure ulcers was low (only four residents actually showed a breakdown in skin integrity). The authors concluded that using the Tool is clinically relevant, as well as being valuable to staff and providing a convenient data bank about quality care. From their work they derived the following Pressure Ulcer Indicator (see Figure 1).

Figure 1: Example of a Pressure Ulcer Clinical Indicator from Madsen & Leonard (1997) Source: Madsen & Leonard (1997)

Title:	Clinical Nursing Practice
Indicator:	Pressure ulcer
Definition of terms:	Pressure ulcer = stage 1, 2, 3 or 4
	Total number of residents during study period
Exclusions:	Short-term respite residents
	Residents admitted with ulcer
Type of indicator:	Rate based
Indicator data format:	No. residents developing pressure ulcers
	Total no. residents during study time period
Indicator threshold:	0.0034
Data sources:	Physical examination of residents based on Waterlow's Risk Assessment Tool

Other work by Australian researchers (e.g. Courtney et al. 2003; Mitchell & Koch 1997) is referred to in other sections of this Review.

Relevant studies undergoing completion

- The Joanna Briggs Institute (JBI) is completing a systematic review entitled *The effect of documentation on quality of care in residential aged care facilities*. Information obtained from the JBI website (www.joannabriggs.edu.au/protocols, accessed 29/07/03) advises that the review question is "What is the most effective system of practice in achieving quality of care through documentation in nursing homes?" Effectiveness is to be measured in terms of: Resident outcomes, Staff satisfaction, and Amount of staff time required to complete documentation. Resident outcome measures will include the incidence of falls, the nutrition of residents, condition of resident's skin and quality of life measures. The systems of nursing documentation that will be looked at include documentation in case notes, electronic documentation systems, facility documentation and card systems.

- *Nursing Home Working Conditions and Quality of Care.* Conducted by COHO and UCHSC (School of Nursing), with funding from the AHRQ (Agency for Healthcare Research and Quality). Due to be completed in September 2004.

- Details of some other ongoing research are also available at **www.chsra.wisc.edu**, **www.hebrewrehab.org** and **www.nursing.uiowa.edu/centers/gnirc/rantzpilot.htm**.

MDS derived QIs

The most commonly used and referred to QI set for RACS in the literature is that derived from the **Minimum Data Set 2.0** (MDS) used in the United States (Berg et al. 2002).

The MDS QIs were developed by the Center for Health Systems Research and Analysis (CHSRA) and the University of Wisconsin-Madison (Zimmerman et al. 1995). The MDS 2.0 is an assessment tool designed to capture uniform information on all nursing home residents (Harris & Clauser 2002), and is completed for all residents upon admission to an aged care facility, and then quarterly thereafter or in response to a substantial change in condition (Zimmerman 2003). The MDS is a component of the Resident Assessment Instrument (RAI) (Hawes et al. 1997). Further information about the MDS and RAI is available in papers such as Rantz et al. (1999b) and Phillips et al. (1997). Since 1998, the Centers for Medicare and Medicaid Services (CMS) have required nursing homes to electronically submit MDS data collected. CMS then uses the MDS data to derive information about QIs (Wiener 2003).

On 2nd April 2003 a draft version of MDS 3.0 was released (a working copy is available from the CMS website, **http://www.cms.gov/quality/nhqi**). The currently used MDS 2.0 is available in 6 versions, the most commonly used version being 6.3 which contains 24 QIs for use in nursing homes that fall under 12 domains (**http://www.chsra.wisc.edu**) (see Appendix 11.1).

Validation of MDS QIs (independent to the developer's validation studies)

The following section provides a review of papers identified which have conducted validity studies of some MDS 2.0 QIs, independent of the developer's validation studies. The first five papers (Schnelle et al. 2003; Simmons et al. 2003; Bates-Jensen et al. 2003; Cadogan et al. 2004; Schnelle et al. 2004), used care processes derived from the Assessing Care of Vulnerable Elders (ACOVE) project to test the assumption of the MDS QIs, which is that

> *differences in scores reflect real differences in the quality of related care processes* (Schnelle et al. 2003, p.910).

The format used in the five studies was to use ACOVE-developed care processes and compare them in facilities where residents scored in the lower quartile for the QI of interest on the most recent MDS assessment, against facilities which scored in the upper quartile.

The findings have been mixed. Bates-Jensen et al. (2003) investigated whether the MDS Pressure Ulcer QI reflected differences in care processes related to pressure ulcer prevention and treatment in nursing homes. It was found that nursing homes that scored low (i.e. had few pressure ulcers) did not necessarily provide better care than nursing homes which performed badly on the QI. One limitation of the study however, was that the researchers did not include facilities that scored high and low on pressure ulcer prevalence in high-risk and low-risk residents, as determined by the MDS. A reason given was that "risk adjustments are controversial" (p.1211). Similarly, Schnelle et al. (2003) investigated whether the MDS urinary incontinence QI reflects differences in care processes, and concluded that this QI does not reflect differences in quality of incontinence care.

Conversely, Simmons et al. (2003) concluded that the MDS QI does differentiate between nursing homes with a lower prevalence of weight loss than those with a higher prevalence. Verbal prompting and social interaction with meals was one care process that consistently distinguished low weight loss nursing homes from high weight loss nursing homes. The study used an observational protocol for feeding assistance developed by Simmons et al. (2002), from which data collected could be reported as a QI score.

Cadogan et al. (2004) investigated whether the MDS prevalence of pain QI reflected differences in care processes. They found that the QI was accurate in discriminating between prevalence of pain in nursing homes scoring in the lower pain quartile versus nursing homes scoring in the upper pain quartile. More interestingly however, it was found that on every measure of pain-related quality of care evaluated by the study (detection, assessment, treatment and documentation of treatment response), performance was better in nursing homes that had high reports of pain prevalence. This suggests that the prevalence of pain QI (where a high score denotes a high prevalence of pain), rather than indicating poor quality of care, may be in fact associated with better pain assessment and treatment care processes.

A fifth independent evaluation of a MDS QI was conducted by Schnelle et al. (2004), who investigated whether the prevalence of physical restraint QI reflects differences in care. It was found that this MDS QI is not an accurate measure of restraint use as it only measured restraint use when the resident was out of bed and did not include the use of bedrails. "The observational data did not agree with the [MDS] prevalence rates and the extent of the disagreement depended on the definition of restraint use" (Schnelle et al. 2004, 252).

Zisselman et al. (2002) conducted a preliminary study to assess the validity of the MDS depression without treatment QI and whether staff education would improve the accuracy of responses to the QI. Staff received education about psychotropic drugs and differentiating between apathy associated with dementia and negative symptoms of schizophrenia. Zisselman et al. (2002) made the point that the MDS QI 'Depression without treatment' does not "acknowledge nonpharmacologic treatment modalities for depression" (p. 44), such as Electro-convulsive Therapy (ECT) and psychotherapy. They further note that this QI does not address dosing adequacy or effectiveness.

Schnelle et al. (2001) looked at the prevalence MDS QI for depression. Two sites were selected; one of which was flagged by the MDS as having an unusually low depression prevalence, the other as having an unusually high depression prevalence. However, after applying the Geriatric Depression Scale (GDS), the research team did not find any significant differences between the two sites. It was concluded that prevalence of depression, as measured by the MDS, may be more reflective of staff ability to detect depression symptoms, than of actual depression prevalence and differences in care processes. The authors again recommended staff training to assist them recognise depression symptoms.

Mukamel et al. (2003) developed a risk-adjusted urinary incontinence QI derived from the MDS, for residents of aged care facilities. Other studies have provided evidence of the MDS urinary incontinence QI to distinguish between continent and incontinent residents, however they also reveal that there is scope for inaccuracies in the reporting of the severity of incontinence. For this reason, Mukamel et al. (2003) elected to base their outcome on change in the resident's urinary incontinence status, as opposed to level of urinary incontinence.

Mega QIs and the public reporting of QIs

In 1998, CMS launched its Nursing Home Compare website (**www.medicare.gov/nhcompare/home**), to make public to consumers various aspects concerning the quality of residential aged care. In 2001, it was announced that the website would publish information to enable consumers to compare nursing homes. One of the issues in publishing collected information of QIs was deciding which QIs to publicise. This led to CMS contracting the services of Abt Associates and the National Quality Forum (NQF) (Sprague 2003).

Abt conducted a review of existing QIs (Abt Associates Inc. 2001a), and identified 143 QIs, 44 of which underwent empirical analysis. This included all of the CHSRA QIs, as well as QIs from other sources. Following the literature review, additional QIs were developed to 'fill-in' for any 'gaps' – i.e. where certain aspects of care were not being addressed by the existing QIs (Abt Associates Inc. 2003). These 15 newly created QIs became known as **Mega QIs**. The existing QIs and the Mega QIs were put forward for validation testing. Of the 15 QIs considered, 8 were relevant to chronic care and 7 to post acute settings.

NQF then reviewed Abt's findings to (a) recommend a set of QIs appropriate for use in the six state pilot program and (b) develop a set of quality measures (QMs) to be used nationally (Sprague 2003). Care outcomes are publicised in terms of QMs through the *CMS Nursing Home Compare* website. The rationale for reporting QMs as opposed to QIs is that CMS believes the new measures have been sufficiently validated and thus can be termed measures, compared with QIs, that are used as pointers to potential problems (Manard 2002). Thus, by definition, QMs are applied when it is certain that there is a problem and are used to identify the aspects of care that are deficient (Zimmerman 2003) and have undergone validation and reliability tests (Sprague 2003).

On 3rd October 2003, a press release announced the endorsement of a set of Nursing Home Performance Measures, designed to assist consumers in their selection of nursing homes. This set comprised of seven chronic care measures, two chronic care measure pairs, three post-acute care measures and two measures to be used in all facilities.

The seven chronic care measures endorsed were:

- Residents whose need for more help with daily activities has increased
- Residents who experience moderate to severe pain
- Residents who were physically restrained during the seven-day assessment period
- Residents with a decline in their ability to move about in their room or the adjacent corridor
- Residents with a urinary tract infection
- Residents with worsening of a depressed or anxious mood

Two chronic care measure pairs were also endorsed, which should not be pursued independent of each other:

- High-risk residents with pressure ulcers AND average-risk residents with pressure ulcers
- Residents who frequently lose control of the bowel or bladder (low-risk) AND residents who have a catheter in the bladder at any time during the 14-day assessment period.

The two measures applicable to all facilities were:

- Pneumococcal polysaccharide vaccination of residents age 65 or older
- Influenza vaccination for all nursing home residents

Other QI sets

QI set developed by Grant et al. (1996)

Grant et al. (1996) developed QIs of nursing home care, as perceived by residents, significant others and staff. An indicator was defined as 'a factor which is useful to show quality of care as defined by a specific population' (p. 471). Participants described an incident about the care that they liked best and one that they liked least, from which themes were identified and translated into indicators (Appendix 11.2). A limitation of these QIs is that they are not quantified. For example the first indicator "nature of the facility" does not even have any sub-indicators and could refer to a vast range of elements concerning the facility. Furthermore, as the authors noted, weighting of QIs in terms of most critical, validation of QIs, and replication of results is lacking.

International Quality Indicator Project (IQIP)

The aim of the IQIP is to identify the more frequent, significant and representative elements of care provided by four health settings, namely hospitals, psychiatric institutions, nursing homes or home care agencies (Kazandjian et al. 2003). Much of the information regarding the Project came from two websites: (**www.internationalqip.com** and **www.qiproject.org**). Participation in the Project is through paying a fee, that enables users access to a password protected website, where they can enter their data and receive a quarterly performance report.

Participants can chose from four sets of indicators which each correspond to a care setting; acute care, psychiatric care, long term care and home care. The long term care set contains six domains of QIs (Appendix 11.3).

The specifics and outcomes of validating the QIs are not outlined on the websites (although queries to the research department are invited), however the general methods used in testing potential QIs are listed as involving literature searches, expert panels and pilot tests amongst health care providers.

In summary, of all of the QI developments for RACS, the MDS 2.0 set appears to be the most widely used and validated – although not without its limitations.

Limitations of the MDS 2.0 QI set

Whilst not a criticism per se of the MDS 2.0 QIs, it is interesting that structural indicators are not included in the set. In the paper which describes the development of the initial set, Zimmerman et al. (1995) wrote:

> *To fully measure quality of care requires a complete accounting of the interplay among structural, process and outcome measures* (p. 110).

Later in the paper however, it is commented that:

> *The QIs were designed to cover both process and outcome of care…* (p. 111).

Criticism also has been levelled against the MDS 2.0 QI set for its reliance on clinical aspects of quality of care. Saliba and Schnelle (2002) argued that whilst the MDS measured levels of ADL needs, it neglected to take into account the degree that needs were met on a daily basis. As such, they identified a need for a "residential care" domain, which would acknowledge the nursing home as being home to residents, daily interactions between staff and resident, resident preferences etc. Using a review of the literature and reference to an expert panel, they developed a set of QIs (see Appendix 11.4) for use in nursing homes, intended to complement the MDS QI set. The is set reported to be an attempt to

> *contribute to the literature that seeks to move quality discussions beyond general descriptions of quality of life and toward more specific items that might be measured and improved* (p. 1425).

Whilst not referring to the MDS QIs or any specific "service evaluation", Marquis (2002) suggests that the complexity of defining quality may explain why such evaluations

> *typically concentrate on tangible, material, quantifiable components and overlook the more subjective aspects of service life or 'what it's like' to live in a service* (p.25).

The need for a greater focus on more than clinical aspects of quality of care has not gone unnoticed however (Mor et al. 2003). Kane et al. (2003) were funded by CMS to develop quality of life (QOL) measures that were not captured or explicitly emphasised in the current version of the MDS 2.0. The researchers developed QOL

scales using the 11 domains suggested by Kane (2001); sense of security, physical comfort, enjoyment, meaningful activity, relationships, functional competence, dignity, privacy, individuality, autonomy/choice and spiritual wellbeing. These domains were developed using a review of the literature, expert opinion, focus groups and stakeholder consultation.

Adoption of a 'comfort domain' in the MDS was recommended by Bowers et al. (2001). Bowers et al. conducted in-depth interviews that were analysed using grounded dimensional analysis, to investigate how residents defined quality. The authors concluded that the MDS QI set

> *does not acknowledge the complexity of quality as it is experienced by nursing home residents* (p.544).

The closest category in the MDS 2.0 QIs for 'comfort' is 'pain', prompting Bowers et al. to recommend that a 'comfort domain' be incorporated into the MDS QI set. The comfort domain suggested by Kane (2001) included, in addition to pain, discomforts such as being too hot or cold, or being uncomfortably positioned.

Kane (2001) noted that the domains they identified were not exhaustive, which underlines one of the issues in measuring QOL; lack of consensus over a definition. Courtney et al. (2003) conducted a review of QOL tools and concluded that there is a need for a measure specific to RACS in Australia and that one of the practical considerations in developing such a tool would be arriving at QOL definitions many agree with.

However, even once a definition is agreed upon, there still remains the issue of how best to elicit QOL information from residents of RACS. Mitchell and Koch (1997) attempted "to give nursing home residents a voice in the quality improvement process" (p.453). They found however that out of the 32 residents in the RACS, 78% had dementia, with only seven residents being classed as articulate. Two methods used to obtain information were asking significant others and during the negotiation period, reading out relevant sections of transcripts from interviews with residents at stakeholder meetings. However, whilst the latter strategy *does* provide residents with a 'voice', it also raises potential confidentiality issues, if stakeholders recognise who the transcripts originated from. Another study, by Kane (2003), suggested four methods for assessing QOL in nursing home residents:

1. through directly asking residents;

2. through proxy informants, such as staff or family members;

3. through inferences made from resident's behaviour, and

4. through collecting information regarding the physical, social and care environment, deemed to be associated with QOL.

In addition to older age, poorer ADL functioning, and longer length of stay, it was found that MDS cognition score was strongly linked to ability to complete the QOL questionnaire (Kane et al. 2003). Similarly, Simmons and Schnelle (2001) found that

the MDS-derived cognitive status score is an excellent predictor of the accuracy of a resident's self-report of care received. They concluded that given care documented on charts is not always what was actually received by the resident, this implies that nursing home care quality should be assessed using a number of strategies, such as resident self-report.

Kane et al. (2003) concluded that their research indicated that it is possible to produce resident self-reports of QOL information, that could be incorporated into MDS assessments. Indeed, an addition to the MDS 3.0 (at draft state) is a "Self-report quality of life". This includes 14 questions such as:

- Can you find a place to be alone when you wish?

- Can you make a private phone call?

- When you have a visitor, can you find a place to visit in private? (**http://www.cms.gov/quality/nhqi**).

Whether these will be developed into actual QIs is unclear. However, their inclusion in the MDS 3.0 is in stark contrast to the MDS 2.0, where the QOL domain is linked with two QIs;

• Prevalence of daily physical restraints, and

• Prevalence of little or no activity.

Consumer satisfaction and perceptions of quality of care

Kane (1998) discussed strengths and limitations of the MDS, and suggested that its biggest flaw is that it does not provide cognitively intact residents with the opportunity to provide their views on domains such as satisfaction, meaningful social activity and social interaction. According to Grenade and Boldy (2001)

consumer 'satisfaction' is increasingly being recognised as an important indicator of quality in residential care for older people (p.11).

Donabedian (1988) asserted that resident satisfaction is integral to quality assessment;

Whatever its strengths and limitations as an indicator of quality, information about patient satisfaction should be as indispensable to assessments of quality as to the design and management of health care systems (p.1746).

Kane (1998) went as far to argue for the adoption of two forms of the MDS; one for cognitively intact residents, and the other similar to the present format. Whilst not intending to detract from Kane's argument, it should be remembered that even if residents are able to articulate, there may still be barriers to eliciting helpful feedback regarding their perceptions of quality of care. Pearson et al.'s (1993) study into quality of care in RACS from the resident's perspective, conducted between 1988 and 1990 found that residents were reluctant to complain about the RACS where they lived, and tended to give bland answers. However, with an increased emphasis on 'rights', it may be that in the 13 years that has lapsed since the study

was completed, that residents may be more likely to offer insightful and critical feedback about their 'home'. Conversely, the increased prevalence of dementia in RACS in Australia suggests that any resident experience survey would need to rely heavily on proxies.

Casarett et al. (2002) investigated whether satisfaction with a particular area of care (pain management) is a valid and reliable QI amongst nursing home residents. Findings of the cross-sectional interview study were that satisfaction with pain management is stable over time in this population, as well as being weakly inversely correlated with pain severity. This was true even for residents with a Mini Mental State Examination (MMSE) score of less than 21. Cognitive status can impact on a resident's likelihood of reporting pain, as Fries et al. (2001) found in their study that developed and validated a pain scale based on MDS items, for nursing home populations. They noted that the percentage of residents who reported they did not have pain, increased rapidly with increasing impaired cognition.

Casarett et al. (2002) presented several cautions about the findings from their satisfaction with pain management study:

- The stability of satisfaction raises questions about the responsiveness of the technique;

- Pain severity and pain satisfaction were inversely correlated only in residents with severe pain, raising questions about the applicability to residents with mild pain, and

- There was an inverse significant relationship between pain satisfaction ratings and Global Depression Scale (GDS) scores, which reinforces that measures of satisfaction should always take into account the possible presence of depression.

One tool that has been employed by some researchers to gauge resident satisfaction is the Satisfaction with Nursing Home Scale (SNHS). Mattiasson and Andersson (1997) modified McCaffree and Harkins' (1976) SNHS, by adding additional single item questions. The Scale was used as an indicator of resident autonomy, and quality of care was defined as the "discrepancy between level of [resident] perceived autonomy and institutional possibility" (p.1117). Included in the tool were measures of security, social relations, activities and routine. Findings again recommended that resident's perceptions of quality of care be taken into account.

The SNHS was also used in a longitudinal study by Yeh et al. (2003), which looked at resident satisfaction and clinical outcomes as indicators of quality of care in nursing homes in Taiwan. Resident satisfaction was assessed using the SNHS during four interviews; initial, 3 months, 6 months and 12 months. Results indicated that residents consistently found nursing home life monotonous, failed to meet their preconceived expectations and that they did not receive adequate privacy.

The ability of residents of long-term care facilities to exercise autonomy and choice was the focus of a report by Polivka and Salmon (2001) of the Florida Policy Exchange Center on Aging. Providing the consumer with autonomy is said to be largely denied by long-term care:

The implicit assumption of most long-term care programs for the frail elderly is that they must sacrifice their autonomy – their ability to exercise sufficient choice – as a condition of receiving care (p.3)

However,

The limited research done on the importance of choice and control to recipients of long-term care services indicates that a substantial percentage want greater control over the delivery of care and that the ability to exercise choice and control greatly affects the recipient's perceived quality of life (p.37)

This desire for more control was also noted by an earlier study conducted by Kane et al. (1997). The study investigated the importance that nursing home residents and nursing assistants (NA's) place on residents having control and choice over day-to-day issues and the level of satisfaction residents had with their level of perceived control. Both groups viewed choice and control as very important to residents. However, the groups differed significantly in terms of the importance placed on having control over use of the telephone and mail (NA's placed less importance), nursing home activities (NA's placed more importance) and visitors (NA's placed more importance). Satisfaction with level of perceived control and choice amongst residents however was very low, with residents desiring greater control and decision making potential.

Information is available on the Internet to assist consumers in making their own assessments of indicators of quality. The most prominent example is the CMS *Nursing Home Compare* website (Wiener 2003), as mentioned earlier in this Review. The *California Nursing Home Search* website also mentioned earlier in this Review has a section labelled "Quality Indicators". Other examples include checklists put out by some organisations (e.g. British Columbia Ministry of Health and Ministry Responsible for Seniors, ElderCare Online, California Advocates for Nursing Home Reform) which comprise of questions to ask and things to observe when viewing a prospective aged care facility. Furthermore, according to Kaplan (2002), consumers are now able to approach facilities directly and ask for a copy of their QI report, which provides performance scores based on the MDS QIs.

Consumer input and health and human services

The last two decades have seen a widespread international and Australian commitment towards "giving voice" to consumers in the design and delivery of health and human services. A key event in the progress towards the incorporation of consumer input into service delivery occurred when the United Nations Assembly passed a Resolution concerning consumer rights on 9 April 1985. The following rights were endorsed:

- The right to safety

- The right to be informed

- The right to choose

- The right to be heard
- The right to satisfaction of basic needs
- The right to redress
- The right to consumer education
- The right to a healthy environment

This statement has been at the foundation of the enshrinement of such rights in a wide range of legislation and in service standards and statements of service principles in the delivery of health and human services.

Another highly significant piece of work in this area was the 1998 report of President Clinton's Advisory Commission on Consumer Protection and Quality in the Health Care Industry (**http://www.hcqualitycommission.gov**). This was and is a very important review of consumer issues in the health industry. It asserted the rights of consumers:

- To receive accurate easily understood information
- To choice
- To fully participate in all decisions
- To considerate, respectful attention
- To a fair and efficient process for resolving differences
- To assume reasonable responsibilities for their own care

The consumer "voice" imperative is now included in many consumer charters where the rights and responsibilities of consumers are formally stated as a commitment by the facility as to how it is to conduct its business with its consumers.

The issue arises then as to what should be collected routinely from consumers and carers? There are two main candidate domains. The first of these domains is health related QOL measures and the second domain is consumer experience and satisfaction measures. Health related QOL measures seek to determine the health related QOL status of people. Most health and human services have at their base the goal of maintaining the maximum possible well being of their consumers. Health related QOL measures directly address the measurement of the effectiveness with which this goal has been achieved. As presented in the following section of this Review, the incorporation of health related QOL measures into clinical effectiveness outcome measurement suites is a common approach in recommended national and international protocols.

Consumer and carer satisfaction and experience measures seek to determine the experiences that they have had with the service delivery and their view of them. The incorporation of consumer and carer experience tools into quality monitoring of health and human services is also becoming routine.

Incorporation of QOL QIs into the RACS indicator suite

Thomas et al. (2004) were commissioned by the Australian Government to recommend a suite of continence outcome measures to be used by clinicians and researchers in Australia. The recommended suite includes health related QOL measures as a key component and built upon work conducted internationally in this field.

The World Health Organization (WHO) in association with the International Continence Society (ICS) hosted two international consultations on incontinence in 1998 and 2001 in which important determinations were made concerning outcomes measurement. The WHO report recommended the inclusion of both generic and condition specific QOL measures as a way of ensuring that consumers had adequate input into consideration of the effectiveness and efficiency of the services provided to them.

Both the Australian study and the WHO/ ICS study recommended the use of the SF-36 tool. This tool is now widely used in health service and clinical research. A full review of the tool is provided in Thomas et al. (2004). It must be noted that this tool was not designed for RACS consequently many of the questions are not relevant as written and responses would rely on proxies.

Staffing Issues

Many papers identified in the current literature search referred to the role staffing and related issues play in quality of care. Teal (2002) presented a 'consumer's perspective', in which she noted that the majority of calls received by an advocacy organisation for "long-term aged care residents", are concerned with staffing issues, in particular staff levels, inadequate training or high turnover rates. Kovner et al. (2000) listed 12 research priorities relating to staffing, case mix and quality of care in U.S. nursing homes. These included looking at the relationship between staff education/training and resident outcomes, what is the appropriate staff mix and estimates of the time taken to perform basic nursing activities at a high level of quality. A report funded by CMS found that staffing levels are associated with quality care, however there is a threshold above which more staff were not associated with further benefits. Once this threshold is reached, it was found that other issues relating to staffing, such as practices and management, were the major determinants of quality care (Abt Associates Inc 2001b).

Staffing turnover and retention

Whilst staffing levels are linked with quality of care, other staffing factors, such as turnover and retention rates, are also important determinants of quality care (Abt Associates Inc. 2001b). Sheryl Zimmerman and colleagues (2002) found that RN turnover was significantly associated with infection rates in nursing home residents and infection-related hospitalisation.

Castle (2001) provided "preliminary evidence that the turnover of administrators of nursing homes may have an important influence in the quality of care" (p. 765). His study investigated the relationship between the turnover of nursing administrators and five quality of care outcomes (restraint use, pressure ulcers, urethral catheterisation, psychoactive drug use and nursing home code violations). A survey of 420 nursing homes and the 1999 On-Line Survey, Certification and Reporting (OSCAR) System was used. For nursing homes belonging to chains, all, bar one of the quality of care outcomes (proportion of residents restrained) were significantly associated with nursing administrator turnover. Also, for nursing homes that were not affiliated with chains, all but one of the care outcomes were significantly associated with nursing administrator turnover, the non-significant association being with the proportion of quality of care deficiencies. Furthermore, it was found that as nursing administrator turnover increased, the association with dependent variables likewise increased.

Interestingly, in their study, Brannon et al. (2002) assumed that neither high (75th-100th percentile) or low (0–10th percentile) nursing assistant (NA) turnover is optimal, therefore these two categories were compared against a more ideal middle referent (11th–75th percentile). The study was conducted to explore which job, organisational and environmental factors were associated with high and low NA turnover in nursing homes. The authors concluded factors associated with high turnover of NAs are different to factors associated with low turnover, with the exception of a linear relationship found to exist between RN turnover rate and NA turnover rate in both types of facilities. The authors did note however, that the notion of assuming that neither very high nor very low turnover is desirable, is an exploratory approach.

Other staffing issues related to quality of care

Wiener (2003) presented a discussion of issues relating to staff training, wages and working conditions. A report by Biles et al. (2003) summarised some of the work to date, with respect to quality, staffing and payment of nursing homes. Bowers et al. (1992) found that many of new nurses aides interviewed in their study have been taught tasks, yet had received minimal advice about how to integrate the tasks once 'on their own'. Bowers et al. (1992) reported that the findings supported Litwak's hypothesis that NA's who are economically motivated provide poorer quality care by cutting corners. Alternatively, NAs who are affectively motivated may choose to quit if they are unable to organise their time in a manner that enables them to provide what they perceive to be good quality care.

Staff satisfaction and perceptions of quality of care

Schirm et al. (1999) investigated how nursing staff (NAs and Licensed Nurses) defined quality of care in nursing homes, within the context of the structure, process and outcome framework. Analyses of narrative statements from staff indicated that they perceived structural elements important to quality of care as being staff

teamwork, time for extras for the resident and the availability of staffing and resources. Process elements of care seen as important to quality care were resident-staff relationships, acknowledging the resident as a person, the nature of staff-resident communication and technical aspects of care. Outcome elements were resident satisfaction, resident health and mental status, family satisfaction and staff satisfaction.

Bowers et al. (2000) found that when defining quality, NAs focused on the quality of relationships between resident and staff and how care was delivered, rather than on specific outcomes, such as measured by the MDS QIs. A similar focus on staff-resident relationships was seen in a Western Australian study. Marquis (2002) conducted interviews with residents and aged care workers at seven RACS in Western Australia to examine the manner in which day-to-day interactions between staff and residents influence resident perceptions of the quality of the care they received. A study conclusion was that quality assessments of RACS should include an evaluation of daily staff-resident interactions, as current procedures neglect to address relational deprivation and abuse.

Another Western Australian study investigated the application of the Measure of Job Satisfaction (MJS) instrument in RACS. Chou et al. (2002) examined the factor structure of the MJS and assessed the validity and reliability of the instrument in RACS. Five elements were found to be linked with staff satisfaction; personal satisfaction, workload, team spirit, training and professional support. The researchers concluded that the MJS is a valid and reliable tool, and may be appropriate for further research examining the link between staff and resident satisfaction.

Interestingly, Berlowitz et al. (2003) found staff at RACS who had taken on quality improvement programs reported being significantly more satisfied with their jobs compared with staff from RACS who had not adopted similar programs. The authors hypothesised that the reason for this relationship was that

> QI [quality improvement] implementation may enhance satisfaction by empowering employees to be more active in daily care decisions. (p.79)

Using QI information

There exists extensive literature on implementing change generally that has not been reviewed for this Project but that could inform any future implementation strategy. Specifically in relation to using QIs, Popejoy et al. (2000) investigated how much support facilities require to utilise information about MDS QIs and the extent to which a Gerontological Clinical Nurse Specialist (GCNS) would be helpful in reviewing, interpreting and implementing changes specified in the QI reports. There was a tendency for facility administrators to interpret poor QI scores as coding errors, whereas Directors of Nursing (DONs) tended to perceive them as reflecting the true state of events. Some staff did not see the value of the QI reports. The GCNS was perceived as an ally by some facilities, who eagerly accepted any quality

improvement strategies, based on their QI reports, which were offered by the GCNS. A randomised clinical trial conducted by Rantz et al. (2001b) provided further recommendation that a GCNS is beneficial in assisting facilities utilise QI feedback to improve resident outcomes.

Rantz et al. (2000b) proposed that staff would be more able to use QI data when it was presented in conjunction with meaningful thresholds. A concern was that simply comparing a single facility's QI performance with relative standards (e.g. statewide averages, medians and percentile rankings) may give false feedback of quality. For example, whilst not empirically explored, a potential problem may be if many aged care facilities were performing poorly, thereby lowering the 'bar' of comparison. The study involved the convening of an expert panel and single-round Delphi to derive appropriate thresholds for all of the MDS QIs that were then displayed in a user-friendly format. For example, staff would be made aware that for QI 6 ("use of nine or more different medications") the following would apply;

> Lower threshold (good score): fewer than 13% of residents should be taking nine or more different medications.
> Upper threshold (poor score): this would be indicated by 30% or more residents taking nine or more different medications.

In his editorial, Schnelle (1997) presents three assumptions that are warranted if changes in processes and outcomes have occurred as a result of the MDS:

1. It must then be assumed that residential aged care providers are aware of how to change processes in a manner that affects outcomes

2. It must be assumed that residential aged care staff have the resources to provide effective care processes

3. It must be assumed that what is documented in care plans and medical records is more than just paper compliance; i.e. the resident has actually received the care.

Summary

Whilst quality in aged care has been a focus for some time in Australia, there is clearly a need both for the development of a set of QIs and a QOL tool with credible psychometric properties and are appropriate to Australian RACS. It is also clear that meaningful consumer input should be integral to the development of QIs for RACS. Setting thresholds for the QIs appears beneficial for staff in using the QIs to improve care, however it does rely on the availability of valid, reliable data regarding 'best' practice. In summary, the key findings of the literature review are as follows:

- QIs provide an essential tool in the efforts to continuously improve residential aged care.

- QI sets should ideally include structure, process and outcome indicators, however structure and process indicators do not necessarily reflect outcomes.

- QIs must be demonstrably valid, reliable, applicable and practicable.

- Some published research in Australian has looked at QIs of care in RACS (e.g. Courtney & Spencer 2000; Madsen & Leonard 1997).

- Most commonly referred to QI set in the literature is that developed by CHSRA and the University of Wisconsin-Madison, by Zimmerman and colleagues and derived from the MDS.

- Many researchers, both in Australia and internationally, argue for inclusion of some form of QOL elements in assessments of RACS. However Courtney et al. (2003) did not identify any tool that currently exists for this population and identified a need for an appropriate tool to be developed and validated. Thomas et al.(2004) suggest the SF 36 is worthy of consideration, although it would require modification

- Incorporating consumer input is increasingly being recognised and the development of consumer experience – rather than consumer 'satisfaction' –tools appear to be providing more meaningful data.

- There is a trend toward including staffing experience/satisfaction indicators in QI sets.

4. Consultations

In phase two of the Project, forums provided the opportunity for public sector stakeholders and individuals from consumer representative groups to have their views recorded. In addition, individual interviews with people knowledgeable about QIs and aged care were conducted. These people were identified through the networks of the DHS and La Trobe University (LTU).

4.1 Industry stakeholder forums

Forums were held in Benalla, Geelong and Melbourne. Participants included staff and managers of RACS. A total of 61 industry stakeholders attended the forums; Benalla (9), Geelong (22), Melbourne morning forum (14) and Melbourne afternoon forum (17). The designations of the forum participants are detailed in Table 1 (Appendix 11.5). The duration of each forum was two hours.

Letters of invitation were sent out by both the DHS and LTU, using a database of public RACS provided by the DHS (Appendix 11.6). The letters provided information regarding, date, time and venue (Appendix 11.7). The letters also directed the recipient to a website that was constructed through LTU to advertise the forums, invite feedback and provide updates on the progress of the project. Industry stakeholders unable to attend the forums were invited to provide written submissions.

The facilitator began with a brief presentation on the project and its objectives. Participants were then asked a series of questions, these were:

- What QIs are currently used by your RACS, how are they collected and what is done with the data collected?

- What other indicators does your RACS wish to recommend and reasons why?

- What does your RACS perceive to be the potential barriers that may impede the use of specific indicators or indicators generally? and

- What strategies has your RACS experienced, or believes would, facilitate the implementation of QIs?

Participants were provided with a handout listing the 24 MDS/CHSRA QIs and asked to list the six QIs that they believed were the best or most critical indicators of quality. The six QIs could either come from suggestions raised by the group or from the handout. Participants indicated the QIs chosen, and the forum then ranked the QI according to majority voting.

4.2 Clinical/quality indicator experts

People identified by the Project Team and the DHS to be knowledgeable about clinical or quality indicators were invited to participate in a telephone interview. A total of six participated as interviewees (Appendix 11.8). Typically an interview lasted between 30–40 minutes.

An interview protocol was developed however interviewees were encouraged to provide any information that they felt would be valuable to the Project. Following a brief introduction and outline of the project, interviewees were asked the following questions:

- What indicators do you believe would be the best or most critical indicators of quality of care in RACS?

- What do you see to be the barriers to implementing quality of care indicators in RACS?

- What strategies do you feel would be helpful in implementing quality of care indicators in RACS?

- What are your thoughts on a QOL indicator?

- Are you happy for your name to be mentioned in the report as a contributor?

4.3 Consumer issues focus group

Individuals from peak consumer bodies were invited to attend a consumer issues focus group. A total of four consumer representatives participated; Ministerial Advisory Council of Senior Victorians, Department of Veteran Affairs, Partners in Culturally Appropriate Care-Victoria and Alzheimer's Australia, Victoria (Appendix 11.9). Proceedings were consistent with those used at the industry stakeholder forums.

5. Data Analysis

Qualitative data from forums, individual interviews and the consumer representative issues focus group were transcribed and analysed using constant comparison methods developed by Glaser and Strauss (1967), to identify concepts and then develop codes and patterns and themes.

6. Outcomes of Project Activities

The outcomes of consultations are presented separately in the following section. A summary is presented of comments from the three groups highlighting common and contrasting themes.

6.1 Outcomes of industry stakeholder forums

A key theme throughout the forums with industry stakeholders was how specific QIs would be defined. This became a springboard for subsequent discussions in relation to what QIs were currently used by their RACS, and how they collected and utilized data. This also guided recommendations of potential QIs.

Forum participants identified QIs which fell under the following domains:

- Behaviours of concern
- Complaints
- Continence management
- Death rates
- Depression
- Falls
- Human resources
- Infection Control
- Medication management
- Pain Management
- Palliative care
- Resident Lifestyle
- Restraint
- Separations
- Weight change/Nutritional status
- Wound management/Skin integrity

Following is a description of the QIs suggested by forum participants, listed under domains, presented in alphabetical order. Each QI suggested under each domain is presented in a small table, preceded by an explanation of some of the comments and issues raised regarding the suggested QIs.

Behaviours of concern

QIs relating to behaviours were suggested at all four forums. Types of behaviours that were suggested included aggression (towards staff and/or other residents), assault (of staff and/or other residents), absconding and withdrawal.

You can have emotional injury[Melbourne AM forum]

…if it [i.e. a behaviour] is reportable, it's really because it is affecting another person…[Melbourne AM forum]

We define them just as aggressive behaviours…wandering is not something that is a great issue [Benalla forum]

DOMAIN	SUGGESTED QIs
Behaviours of concern	Percentage of residents exhibiting behaviours of concern; Reduction of consequences/outcomes e.g. injury to staff/residents; Number of injuries from aggressive assault; Reduction of identified behaviours; Behavioural incidents relating to other residents; Number of aggressive behaviours

Complaints

Potential QIs relating to complaints were suggested at two of the forums. The number of complaints against a RACS was tentatively suggested as a QI, however it was then rejected on the basis that it may be more reflective of resident's or family's ability, willingness or reluctance to complain. This means it can not be assumed that RACS with a high number of complaints have poorer quality of care, it just may mean that residents or families feel more able to complain. As one participant put it,

That could be an issue of quality in itself, if people are living in facilities and don't speak up… [Melbourne AM forum]

DOMAIN	SUGGESTED QIs
Complaints	The number of complaints The number of complaints accepted by the complaints resolution scheme Awareness of how to lodge a complaint/the ability to complain

Continence management

QIs relating to continence management were suggested at three of the four forums. However, not all of the suggested indicators were well received by other participants. For example, it was it was felt that "the number of pads used per resident day" may be more a financial indicator, than an indicator of quality. Similarly it was questioned whether the "number of residents who are incontinent" is really an indicator of quality.

DOMAIN	SUGGESTED QIs
Continence management	Number of residents with catheters; Number of incontinence pads per resident per day; Number of residents who are incontinent; Number of people who are continent who have had continence assessments; Increase or decrease in the incidence of incontinence; Presence of a continence management program.

Death rates

Death rates were suggested at two of the four forums. However, they were typically seen as more relevant to acute care settings, rather than RACS.

It's almost unexpected deaths…what's the definition of unexpected…[Melbourne AM forum]

Bit of a flag…rather than a quality indicator [Melbourne AM forum]

DOMAIN	SUGGESTED QIs
Death rates	Number of deaths over a specified time

Depression

A QI relating to depression was suggested at two of the four forums.

DOMAIN	SUGGESTED QIs
Depression	Percentage of residents assessed as having depression and then reassessed at 3 months to identify any improvement.

Falls

QIs relating to falls were suggested at all four forums. However defining falls was seen as problematic. One participant reported that their RACS used the following definition –

landing in spot lower than intended…and not including a CVA that caused that fall… [Benalla forum]

Participants suggested that central to defining a fall is taking into account behaviour. One participant [Geelong forum] reported that their RACS distinguished in their internal reporting process between being found on the floor and being seen to fall.

There's a difference between whether they're [resident] standing beside the bed and sink or whether they actually crashed [Melbourne AM forum]

Participants at the Benalla forum reported collecting information about the number of falls on a monthly basis. However, it was argued that it was not enough to simply report the number of falls as a QI. Rather the severity of a fall should also be reported. Many participants (Benalla and both Melbourne forums) reported currently collecting falls information and using a grading system of no injury, minor injury, major injury and death. However, not all participants reported using such a matrix:

They're not graded as such, you do an incident form and it goes off to quality improvement people [Melbourne PM forum]

One participant was concerned that RACS with repeat fallers may score higher rates of falls. It was suggested that a tag be used to identify repeat fallers when reporting to the DHS. However, a suggested problem with this strategy would be that RACS may use this as an excuse for their fall rates.

DOMAIN	SUGGESTED QIs
Falls	Incidence of falls; Incidence of new fractures; Outcome of the falls – falls that result in abrasions, bruising, fractures or require surgical intervention

Human resources

At all four forums, participants identified many possible areas to focus on relating to staff at RACS. Comments included:

however agency use is far less in country

It is very difficult to measure change from training

DOMAIN	SUGGESTED QIs
Staffing	Use of agency staff/Continuity of staff v's agency staff Numbers of staff Staff Qualifications/Training Staff injury/WorkCover Separations/Turnover/Resignations Absenteeism Staff EFT (look at volunteers when calculating staff EFT) Staff development Staff satisfaction/Staff suggestions Staff skills mix Compliance with no-lift policy

Infection control

QIs relating to infections were suggested at all four forums. Infections about which data could be reported included gastroenteritis, chest infections and urinary tract infections (UTIs). One issue with reporting UTIs is at what stage it becomes reportable. It was suggested UTIs become reportable when they impact on behaviour [Melbourne AM forum].

Participants at the Benalla and Melbourne morning forums reported collecting information about the prevalence of infection rates on a three monthly basis.

It was suggested that if a QI relating to infection was used, then immunisation rates and epidemics/outbreaks should be risk adjusted for. A counter argument was that epidemics would possibly show up across RACS.

DOMAIN	SUGGESTED QIs
Infection control	New infections per resident per day Prevalence of infection rates Incidence of UTIs

Medication management

A number of areas which fell under the broad heading of medication management were identified by forum participants at all four forums. Whilst a polypharmacy QI was suggested, medication review was seen by others as a better QI than polypharmacy, because of perceived difficulty in deciding how to define polypharmacy. One participant at the Benalla forum reported their RACS defined polypharmacy as a resident being on nine or more different medications.

Another area in which polypharmacy was seen as problematic was in determining a suitable data source for polypharmacy. Community pharmacists are sometimes involved in doing medication reviews. Part of this review is to look at polypharmacy. Using a pharmacist to report polypharmacy information was rejected by at least one forum participant, who felt this would be too hard and that some smaller facilities do not have contracts with pharmacists. Another felt that a pharmacist may conduct a review and comment on prescribing, however this may still have no effect on what GP's chose to prescribe. Some forum participants felt they themselves had little impact on drug prescribing, as this was a GP's domain;

…in some cases we don't even have a say in it" [Melbourne AM forum]

"Whose quality is being reported…is it the GP's or the facility's? [Geelong forum]

Regarding medication errors, there were concerns raised over whether the errors arise internally (i.e. within a facility) or externally (i.e. pharmacist). Monitor those arising within facility and those due to other agencies, such as pharmacy error.

Have to decide on definition [of medication errors], because at the moment it includes not signing [Melbourne AM forum]

Caution was also urged with respect to reporting data about prns, the name given to 'when required' medications. PRN medications are defined by the Australian Pharmaceutical Advisory Council (APAC) as being

…those which are ordered by a medical practitioner for a specific person on that person's medicine records and when the registered nurse, using clinical judgment, initiates, or delegates to an authorized enrolled nurse, when necessary. The administration of PRN medicines must be recorded on the person's medicine record (APAC 2002).

As one participant pointed out:

You have to be careful with prns because quite often they become routine [Melbourne AM forum]

DOMAIN	SUGGESTED QIs
Medication errors	Number of medication errors
Polypharmacy	Number of drugs people have and how frequently
Medication review	Is there a medication review process in place and does it actually take place?
Adverse events	Incidence of adverse events arising from medication

Pain management

QIs relating to pain management were suggested at two of the four forums. One concern with reporting the number of residents who report pain was that residents may not, in all cases, actually report pain.

Sometimes it is difficult for people to verbalise their pain, so you do the non verbal thing, but it is still difficult to get completely adequate data [Melbourne PM forum]

The number of residents who report pain at assessment, but do not receive analgesics was also suggested, however there was debate over whether facilities would report this information. Furthermore, as another participant pointed out, pain management is more than the prescribing of analgesics; position changes and massages may also be instrumental in alleviating pain.

It's not all medication related though, there are other things you do. You don't just give analgesic for pain, you do position changes, you might do massages there's a whole range of things that you do [Melbourne PM forum]

One RACS [Melbourne PM forum] reported that they collect information at baseline (admission to RACS), including whether they experience pain, the site of their pain and the medication they are taking. Further assessments are then conducted, so information is gathered over a period of time.

DOMAIN	SUGGESTED QIs
Pain Management	Number residents who report pain, with pain management plan Number of residents who report pain at assessment, but do not receive analgesics

Palliative care

The following QI relating to palliative care was suggested at two of the four forums.

DOMAIN	SUGGESTED QIs
Palliative care	Access to palliative care

Resident lifestyle

Potential QIs relating to quality of life (QOL) and resident satisfaction were suggested at all of the four forums. As one participant noted:

We've got the clinical focus, not the resident satisfaction/lifestyle issues. [Melbourne AM forum]

The main barriers to developing a QI for QOL was difficulties in arriving at a definition of QOL and deciding on what would be used to measure QOL. The number of bedfast residents was suggested as a possible QI for QOL, as was little or no activity. However it was felt that the latter suggestion would be too difficult to define, given residents would hold differing ideas about activity levels.

The ability of residents to choose what and when they performed activities was mentioned in some of the forums.

You're going to have to go to very low levels…is this what the resident wants? [Geelong forum]

Lifestyle's not just about doing activities…lifestyle issues things…for instance…does the resident get to go to bed at a time they choose, do they have showers at a time they choose, do they get their meals at a time they choose…? [Geelong forum]

The value to us, as facilities, in collecting any type of measurement, is can we make a difference to the lives to the people who are living with us at the moment. So we can dig down into falls and polypharmacy and any of the others, but to actually have a lifestyle indicator would be of more benefit to us…To actually look at lifestyle issues is something that the industry probably needs badly to do [Geelong forum]

Participants reported that they were already monitoring, to some extent, resident and/or family satisfaction. This was reported to be collected through surveys, family meetings and resident rights portfolios. A participant at the Benalla forum reported their facility surveyed families once or twice a year for their satisfaction levels.

However there were a number of issues raised when considering resident satisfaction as a QI. One issue was the difficulty in obtaining information from residents with dementia and the like. Consider the following two quotes:

None of them [residents with dementia] respond to a satisfaction survey…they aren't able to respond [Geelong forum]

One approach used by RACS was to use a proxy report of the resident's satisfaction. One participant reported that they used a carer satisfaction survey for their residents with dementia because

…none of the residents can actually answer.

Another concern raised was the usefulness of any feedback received from residents or family about satisfaction.

The question is how honest are they…don't get many returned [i.e. resident satisfaction surveys]…and everything's wonderful anyway so you just keep going the way you are.

DOMAIN	SUGGESTED QIs
Quality of Life	Number of bedfast residents Number of residents with little or no activity
Resident satisfaction	
Activities	Minutes per day devoted by staff to activities Number of minutes per resident per day offered with a lifestyle co-ordinator Non-clinical time spent with residents
Choice/decision making	

Restraint

QIs relating to restraint were suggested at all four forums. This included both physical and chemical forms of restraint. Types of physical restraint suggested were lapbelts, tables, chairs and bed rails. Types of chemical restraints suggested included benzodiazepines and psychotropics. Antidepressants were not popularly perceived as a chemical restraint.

It's such a grey area, chemical restraint [Melbourne PM forum]

Drugs that are given as a restraint measure…because the doctors put it there [on the resident's chart], he (sic) has to say why he's giving it, you can't just put them on psychomedicines… doctor has to indicate his reasons [Melbourne PM forum]

DOMAIN	SUGGESTED QIs
Restraint	Incidence of restraint (physical and chemical)

Separations

The relevance of this suggested QI to RACS was debated with participants suggesting it is more appropriate to acute settings.

DOMAIN	SUGGESTED QIs
Unexpected/ unplanned transfer	Number of days in acute setting

Weight change/nutritional status

QIs relating to weight change and/or nutritional status were suggested at three of the four forums. Body Mass Index (BMI) was not reported to be commonly collected by RACS. For example, when asked, no participants at the Melbourne morning forum reported collecting weight information using BMI. Participants at the afternoon Melbourne forum reported that none of them collected BMI information, however they did have visiting dieticians who collect BMI data. However, one forum participant reported using BMI.

Hydration was also mentioned in relation to weight change and nutritional status of residents. A participant at the Geelong forum reported that their facility noted fluid intake on resident charts on a random basis.

DOMAIN	SUGGESTED QIs
Weight change	Number of residents who have significantly departed from the norm for weight
Hydration	
Oral health/hygiene	

Wound management/skin integrity

It was agreed that there is a need to look at the severity of pressure ulcers, however debate arose over whether to report stage 1–4 pressure ulcer data or only stage 2–4 pressure ulcer data. One concern with collecting and reporting information about stage 1 pressure ulcers was that

Stage 1 is difficult to define.

Another participant reported that they felt:

Stage 1 is an internal indicator, rather than for DHS [reporting].

A vote was held at one forum, with 3 participants voting to report information on stage 1–4 pressure ulcers, and 4 participants voting to report information on stage 2–4 pressure ulcers only. Some participants who currently collect information about stage 2–4 pressure ulcers, believed that incorporating stage 1 reporting would "markedly" increase documentation. Others agreed, however noted that the Victorian Quality Council (VQC) now recommends it is included. Some participants reported their RACS to be in transition (from reporting stage 2–4, to reporting stage 1–4), following participation in the Pressure Ulcer Point Prevalence Survey (PUPPS) conducted by the VQC.

Skin tears were also mentioned at forums and participants at the Benalla and Melbourne morning forums reported that at their facility, skin tears are noted on incidence forms.

DOMAIN	SUGGESTED QIs
Pressure ulcers/ Pressure areas/Bed sores/Pressure sores	Abrasions Incidence of residents with pressure ulcers stage 1–4
Skin tears	Incidence of skin tears

Following completion of all of the forums, the data was collated and the QIs ranked (Table 1). Most forum participants (65.6%) believed reporting Stage 1–4 pressure ulcers would be a critical indicator of quality. The prevalence of falls related injury was also strongly perceived to be a QI, 60.6% of participants ranked this in their top six QIs. The prevalence of residents using nine or more different medications and prevalence of daily physical restraints were perceived by 54.1% of participants as being useful as QIs. The QI that the least number of participants identified was prevalence of indwelling catheters. Forum participants also suggested four QIs they deemed to be indicators of quality that were not in the MDS/CHSRA set. These were Transfers to Acute Settings, Death Rates, Sick Leave/WorkCover and Medication/Adverse Events.

Table 1: Quality indicators **industry stakeholder forum participants** perceived to be the most critical indicators of quality of care.

	Benalla	Geelong	Melbourne (am)	Melbourne (pm)	
	n = 8*	n = 22	n = 14	n = 17	N = 61
Incidence of stage 1–4 pressure ulcers	3	17	9	11	40 (65.6%)
Prevalence of falls	8	13	8	8	37 (60.6%)
Prevalence of residents using 9 or more different medications	6	10	10	7	33 (54.1%)
Prevalence of daily physical restraints	5	12	9	7	33 (54.1%)
Prevalence of weight loss	3	18	0	8	29 (47.5%)
Prevalence of behavioural symptoms	5	10	6	7	28 (45.9%)
Prevalence of urinary tract infections	1	15	4	5	25 (41%)
Incidence of new fractures	6	7	2	7	22 (36.1%)
Prevalence of depression and no antidepressant therapy	1	1	7	4	13 (21.3%)
Prevalence of antipsychotic use in the absence of psychotic and related conditions	2	0	7	3	12 (19.7%)
Incidence in decline in range of motion (ROM)	3	0	0	6	9 (14.8%)
Prevalence of depression	0	1	1	6	8 (13.1%)
Prevalence of occasional bladder or bowel incontinence without a toileting plan	1	2	5	0	8 (13.1%)
Prevalence of bedfast residents	0	4	1	2	6 (9.8%)
Prevalence of hypnotic use more than two times in the last week	2	2	0	0	4 (6.6%)
Prevalence of faecal impaction	0	1	0	2	3 (4.9%)
Prevalence of dehydration	1	2	0	0	3 (4.9%)

Table 1: Quality indicators industry stakeholder forum participants perceived to be the most critical indicators of quality of care, continued

	Benalla	**Geelong**	**Melbourne (am)**	**Melbourne (pm)**	
	n = 8*	**n = 22**	**n = 14**	**n = 17**	**N = 61**
Prevalence of anti-anxiety/ hypnotic use	2	1	0	0	3 (4.9%)
Prevalence of little or no activity	0	3	0	0	3 (4.9%)
Incidence of cognitive impairment	0	0	0	2	2 (3.3%)
Prevalence of bladder or bowel incontinence	1	0	0	1	2 (3.3%)
Prevalence of tube feeding	0	1	0	1	2 (3.3%)
Incidence of decline in late loss ADLs	0	1	0	1	2 (3.3%)
Prevalence of indwelling catheters	0	1	0	0	1 (1.6%)
Transfers to acute settings		3			
Death rates		1			
Sick leave/WorkCover				3	
Medication/ Adverse events				4	

* One participant at the Benalla forum did not vote

Barriers and strategies to implementation of QIs

Forum participants identified a wide range of barriers they perceived may be experienced when attempting to implement QIs in RACS. They also identified many strategies which they believed would be instrumental in aiding the implementation of QIs in RACS. These are both presented in Table 2.

Table 2: Barriers and strategies to QI implementation as perceived by industry stakeholders

Barriers to implementing QIs	Strategies to implementing QIs
DATA COLLECTION: • Additional work/ adds to documentation • Complexity of data collection • Existing electronic systems and/or data collection – able to cope with new data collection? • Possible changes in priorities	• Align to current work • Modify existing data collection • Simple to use – link to current data collection and quality processes • Update existing systems? • Single data program provided by DHS? • Incorporate into electronic care-planning? • System needs to be flexible • Training re data collection and analysis
RACS CULTURE/ STAFFING ISSUES: • Culture of clinical indicators and not QIs • RACS perception of ability to bring about change in outcomes • Lack of compliance/ commitment • "what's in it for me?" • Ageism – can't see relevance • Lack of knowledge about QIs /need for education	• Training at all levels. Leadership CEOs, DONs, Boards • Timely reporting back – improve feedback • Change management skills • Leadership • Recognition of bias e.g. expectations re people with dementia • Education – why, how, benefits to resident and facility • Sell as supporting accreditation/benefit to RACS • Keep simple • User friendly tools • Part of forum offered by DHS quality branch
RESOURCES: • insufficient staff • skills mix/ expertise/ attitude	• DHS to simplify data collection procedures • Systems online? • Funding for quality coordinator? • Increase staff? • Skills mix?
RACS-DHS COLLABORATION: • DHS-RACS-staff-all stakeholders; timeliness of feedback • Fear of repercussions/what happens/ comparison of results with other RACS	• Engage staff in feedback loops • Sell QI collection and reporting as good practice and not punitive by DHS • DHS to provide feedback • Awareness raising • Make clear outcomes of reporting • Communication from DHS Develop collaborative networks
OTHER: • Lack of definition/ need for agreed definitions • Lack of trust/time to share/ benchmark etc	• Develop generally agreed definitions • Resources to support leadership networking to establish the process. • Resources to support leadership networking to share/develop/review strategies

6.2 Summary of consultations with industry stakeholders

The indicators identified by the stakeholder groups as being important reflected domains where some of the participants already collected data for other purposes. This may have included their own internal quality requirements or government bodies, eg complaints. There was some indication by participants that data already being collected had its original focus in the acute care sector. While some domains were seen as transferable to RACS, others such as death rates may not. Important to the industry stakeholders was that they would be able to learn from the performance of other RACS on QIs. For example, if one RACS performs well on one indicator, then it was hoped that that RACS could be approached about what practices they used, so other RACS could use them to improve their own performance.

Perceived barriers to implementation of QIs included issues related to data collection, culture and staffing, resources, the need for genuine collaboration with DHS and the need for agreement on QI definitions. Strategies to overcome the barriers included efforts to minimise additional work, training related to QIs, change management skills and leadership, timely reporting from DHS back to RACS, aiming for resource neutrality and/or recognising the need for additional/different staff; use QIs to report better practice and develop RACS, develop agreed definitions and establish networks to ensure peer support.

6.3 Outcomes of interviews with quality/clinical indicator experts

Six experts participated in the interviews. A protocol was used to guide the interviews, however interviewees were encouraged to provide any information that they felt would be valuable to the project. Following a brief introduction and outline of the project, interviewees were asked to comment on the following areas:

- indicators they considered would be the best or most critical indicators of quality of care in RACS
- the barriers to implementing quality of care indicators in RACS
- strategies that would be helpful in implementing quality of care indicators in RACS
- their thoughts on a QOL indicator

In response to the question regarding the best or most critical indicators, interviewees tended to answer globally, focusing on the QI process itself rather than on specific indicators. This included thoughts about what the implementation processes of QIs should be; the importance of understanding the process; the various forms of QIs; barriers relating to the implementation of QIs and strategies to successfully implement QIs. They provided their thoughts on QOL indicators, which were appreciated as very important, however some spoke of the difficulty in their implementation. Some participants identified tools that are already in use internationally and nationally.

The quotations used in this section of the Report have been extracted from the recorded interviews and are presented anonymously, in order to retain confidentiality.

QI processes

This theme was at the core of what participants spoke of, and was viewed as essential before embarking on the identification and implementation of QIs:

> To me the most important thing about indicators is not the individual indicators, but how you construct the program.

> So I rarely start off with what I think is ideal to measure, but I'd start of with "who wants the information, who's going to collect the information, who's going to use it, and how will it be used?" If you're going to get the nurses to collect the information because you want something that's real, then they have to get the information back, so they feel they own it.

Interviewees discussed the need for processes to be used when

• identifying the purpose of QIs;

> …what's the purpose of the indicator. If you're getting indicators to set standards, then you need to choose indicators that do not have double interpretation and there's very few, there's not many indicators around that can't be looked at in two very different ways.

> I think when you look at what people have done with indicators, my personal belief is you need to look at why are the indicators there and who will be using them.

• determining who should develop the QIs;

> So essentially what will happen is people will create indicators …they might do some sort of desktop analysis and face validity of indicators and say "does that sound like something that would be a good quality indicator?", then they go out and ask consumers and providers what they think would be good, then they get this set.

• determining who will be using the QIs;

> …I think needs to take into account the different perspective or different suite of people involved. You may have some indicators that staff feel are good, that help with their work, that clients of the residential homes wants, what the government may see as important government issues or bigger picture things and something that can be reported to the general public.

It was also seen as important that all involved in the QI process agree upon what data would be collected;

> What I've always argued is to have consistency, from the point of view that whoever's setting the policy, to whoever's implementing it, to whoever's evaluating it, you need consistency in your target audience.

Understanding the process

Consistently the theme emerged that those involved in the QI process must understand the purpose of the process.

One of the most important strategies is of course that (the QIs) make good sense, And so its important to have things that are very visibly useful and practical and all of those things and so a lot of work has to go into designing the thing, so its not something that just looks like a good idea at the time and then gets built into the system and forever sanctified and done because people like to see the results. It has to have more justification. That justification needs to be understood by the people collecting the data and getting the feedback.

For others it was how the program was constructed and integrated into other management processes.

The programs often aren't put in the context with other programs, so how will these indicators fit into an accreditation program.

Structure of QIs

While there was agreement on the need for consistency regarding the QI process and development, it was also identified that the process could be tailored to individual needs, this included culturally appropriate QIs. However it was noted that tailoring had to ensure a quality outcome.

You can't have the same indicators in a particular cultural diversity nursing home, to the mainstream nursing home because their activity program is different, cultural different, etc.

If a particular cultural behaviour or attitude leads to bad care, I don't think it's acceptable to modify things to meet the sensitivity of a particular group if the outcome is poor care. So it's more about interpretation and to some extent the language and the process of gathering this data and analysing it that has to be culturally tuned.

The issue was also raised regarding the definitions used when identifying QIs. This included definitions of quality:

When you are talking about quality – you are looking at it in two different ways, one is perceived quality and the other is delivery quality.

At the moment we only look at the delivery quality, not the perceived quality.

Discussion also focused around the structure (type) and development, and the multidimensionality of QIs.

I think there's two dimensions to be appraised. One is the delivery of health and health care in a broad sense, that is management of illness and functional and related problems – psychosocial issues and so forth – how well is the home attending to those, and the second aspect is what about the person's lifestyle from the point of view of recreation, meaningful activities, capacity to see their relatives,

availability of privacy, things like that are also important. It is a bit of an artificial divide, but you can for the sake of convenience, you need different methodologies to develop indicators for each. Broadly speaking you've got to attend to both sets of issues

There's a need for a range of things that cover a pretty wide territory. If you went for just one of these [process, structural or outcome indicators only], you would miss some essential elements

The other thing I like to do when I look at indicators is get a suite that integrates, so that they reflect different parts of the care process and they sort of complement each other, so you're not focusing only on, lets say, health care, or only on lifestyle issues or only on complaints

Participants spoke of the types of QIs they were familiar with and their preferences. Preferences were reported as personal biases and from research or implementation experience. Comment was also made that the type of information to be elicited from the indicator and its purpose would influence the type of indicator required. The notion was raised that perhaps no one type of indicator would be appropriate and that several indicators with different foci would be required.

…that's a tough question. In years gone by, it would have been pressure ulcers….that's the one we got the most questions about in the past…I suppose the one most people would talk to us about…I think resident falls. Resident falls would be the biggest one…either resident falls or medication errors.

Structural indicators are quite commonly used, things about numbers of nursing hours or facility, equipment and design and so on. There are process indicators that are about different forms of care and the way their provided and then there are outcome indicators which are I think the more valuable in terms of measuring what the results of care are e.g. if you look for things like pressure areas or incidents of infections of various kinds, behavioural issues – a whole range of things around what the consequences of care are...It's very difficult to get something that is best – one size fits all.

You can then also have the debate about outcomes and process. People prefer outcomes because they understand that much better, but the outcomes are often highly variable and are due to factors beyond the control of an organisation.

…I tend to favour process measures, but people don't like process measures because they say they are too specific and they don't give you a global picture.

My belief at the moment is that process is the simplest way of getting comparable measures and they are easier to define than outcomes.

I'd get the InterRAI 24 quality indicators and use them and that's 5 minutes work otherwise I could spend several years trying to validate someone else's set of instruments. So that's my simple answer to the health ones. And there is a little bit of quality of life material in there. The others, I'd have to sit down and do some work, figure out what I'd do with quality indicators in the other area.

Barriers and strategies to implementation of QIs

Lack of success in the implementation of QIs revolved around the accuracy of the data collected and understanding why the data was being collected, the lack of feedback and the utilisation of the data.

Barriers

Data interpretation and utilisation

Nothing will be more of a barrier than if the process is seen not to be effective. It is terribly important for the people who have responsibility for collecting the data and also for interpreting it to understand what it's all about

… but all of the data collected seems to go into a big black hole and no one ever hears what use it's made. And the tragedy is very little damn use is made of it, yet it could be very valuable.

Timeliness of reporting

…so if you're asking nurses to collect data that's going to be used once a year by management, they're not going to put any effort into it. If you want them to use it, you've got to come back to them within 3 months.

This information will never be used unless you can get it back to the people its intended to serve in manner that gives them proximity to it

Other reasons for unsuccessful implementation included a lack of commitment, lack of time, lack of staff involvement and a lack of education.

Quality won't work if it's in the manager's office

…they don't have time to do this type of thing

There isn't the commitment to them…, there isn't a commitment to collecting them, reporting on them, interpreting them and reviewing what they mean and reviewing the relevance of the program to the context that you're in.

The programs often aren't put in the context with other programs, so how will these indicators fit into an accreditation program, how will they fit into building regulations and other legislated requirements, how do they fit into OHS, how do they fit into professional, and people often just disregard indicators..

Strategies

For some participants the success of the QI process would appear to be dependent on several factors including the definitions used; the reporting mechanism and its purpose; the development or creation of the QI; and the testing of QIs. The main strategies identified to support the success of QI were education and changing attitudes, this included management and staff.

The one question you need to ask yourself is what will be the response to an indicator report. And if you can determine what the response to the indicators will be – who's going to respond and how do you want them to respond – if you can answer that question, then you can design the program.

Then there really needs to be about 3 years testing to actually figure out whether they work or not…A lot of these things you need several years of data before you can start to see significant change.

The kinds of measures need to be ones that are valid, reliable and can be properly collected. There of course needs to be built in (and there usually is in such things) some sort of internal checks/consistency and so on that can highlight data that has been fudged.

Education

I think the whole process needs to be linked very closely with education.

Any introduction of these things needs to be accompanied by a major educational effort. At the outset to teach people what it's all about and subsequently to ensure that there's a process whereby there can be re-education where it's necessary to improve in any particular area, rather than litigation.

Changing attitudes

Every unfortunate occurrence is an opportunity for improvement. So if the attitudes and understanding of these things can be turned into a more positive light then I think it's a lot easier to achieve.

You need to change their thinking process before bringing in the indicators.

Timely reporting back

…change in practice, change in clientele and people's ability to learn more means you've got to be feeding back within about 3 months

If you want them [nurses] to use it [QI data], you've got to come back to them within 3 months

…the feedback should be no longer than a month or so after the analysis has been carried out

QIs need to be meaningful/practical/effective

One of the most important strategies is of course that they make good sense, and that isn't always the case

It's important not to create a super structure for its own sake…the outcome has to be improvement in care or what's the point?

What the staff who are involved in patient care want to know often is 'what can I do to do a better job for the patient today, how will this information help me'?

Quality of Life indicator

There were some concerns regarding the feasibility of having QOL as a QI. Some of these concerns arose because of difficulties expressed regarding the definition of QOL.

What constitutes a good QOL indicator was seen to be difficult to decide upon

…the anomalies about it all are of course quality of life is strictly in the mind of the recipient, rather than being something that can be objectively assessed effectively by an outsider

I think there should be some kind of process to reflect on how the residents are feeling and how their carers are feeling in a home at least once a year. But whether that turns into what we traditionally call quality indicators is another matter.

Quality of life is a difficult area everywhere. I think it's very good to have one. I'm not sure we have got tools yet to support such an area – it's an area that there needs to be more development on

…people aren't that willing to accept the measures that are used for quality of life, but they talk about that being the most important thing

I think it is dangerous to label them as quality of life measures, I think it's useful to argue that these measures facilitate or help promote a healthier lifestyle, they make for long life and they reduce disability and promote function which we believe enhance quality of life.

Eliciting information regarding QOL was also seen as problematic in the residential aged care population:

Where possible to, ask a resident – it's best to be able to collect that data from them

Some participants identified tools that were already being used for gathering data on QOL indicators:

Quality of life is quite important. Kane and Kane, have been working on a set of quality of life indicators for residents in residential care and they start to talk about many of the things that we take into consideration here – person's level of autonomy, privacy that they have, independence to make decisions, many of those sort of things that we already take on board, and then there's another term, life satisfaction – are they satisfied with life, or does it mean they have a good quality of life. Duncan Boldy over in Perth, they've got a life satisfaction tool that they've constructed a couple of years ago and a lot of things on that start to creep into the things that you might think are good quality care.

I think you can actually get robust measures of things like social engagement, there is a social engagement scale in the InterRAI schedule that gives some idea of how much resident interacting with the outside world, and that's a validated measure.

If you wanted to look at quality of life, then standardised quality of life, we're using the WHOQOL, we were going to try and devise one ourselves, but we found that would be a whole project in itself, so we used the WHOQOL, and there is Australian standardised data for it, so we could actually use that and look at the standardised data for that age group and see how it stands up. There's a short version and then there's a long version, 100 questions is the long version and the short version is about 20 questions. It's got 6 domains, it's quite good.

Summary

All participants emphasised the importance that the QI process be inclusive of the views of all stakeholders (this included government, industry and consumers such as staff, residents and family). It was seen as essential that those involved in the QI process agree upon what data would be collected, how the data would be analysed and the reporting back mechanisms implemented. Lack of understanding and how the program was constructed and integrated into other management processes was seen as a barrier to the successful implementation of QIs.

When discussing the QOL indicators, the value of outcome measures and how they measured improvement for the individual were raised as issues. There were some concerns expressed regarding the feasibility of having this as a QI. There were also differences expressed regarding the definition of QOL.

6.4 Outcomes of the consumer issues focus group

The focus of consumer representative discussions was not on clinical aspects of care, but rather on the patient as a person and the RACS as a home – a "*community of individuals*" and "*not one size fits all*". A key issue from the focus group was the need for RACS to provide "*resident-centred care*". It was suggested when developing QIs, that rather than first going to the existing structure (i.e. the accreditation standards), that developers approach the residents first and then build the structure around them. As one participant put it:

> the 44 ticks [of the accreditation standards] are very worthy but not the whole story

One way in which the consumer representatives felt RACS could demonstrate they were resident-centred was through the capacity of their residents to engage in decision making and self-determination, rather than the clinical indicators normally used. Examples of how this could be achieved included the identification of different QIs. These included:

- Are residents able to engage in decision making and self determination?
- Are the staff responsive to residents and engaged in interactions with residents?
- Is the diversity/individuality of residents acknowledged?
- Are days of significance/commemoration acknowledged?
- How the RACS handles death – are residents able to attend the funerals of other residents, is dying discussed with the residents?
- How cutting edge is a RACS – meaning the degree to which a RACS keeps up-to-date with new research findings?
- How is the rite of passage from hospital to RACS handled?

- Are residents able to engage in decision making and self determination?

One way in which the consumer representatives felt RACS could demonstrate they were resident-centred was through the capacity of their residents to engage in decision making and self-determination. Examples of how this could be achieved include providing residents the opportunity to choose what they want to wear and what they want to eat. Therefore consulting with residents and ensuring they were informed and able to exercise choice was seen as highly valued. When asked how this would be demonstrated, participants gave a number of responses:

> There is so many things – do they choose what they wear, do they choose when they wake up, do they have a choice about what they want to eat and when they want to eat it, if they want to have a peanut butter sandwich in the middle of the afternoon when no one [else] chooses that – can they say no, I don't feel like doing that and that is okay, or do they have to participate because everyone does

> They can't do everything they want because they do live in a facility which brings some constraints with it, but equally we don't want everyone to be automated and told what to do all the time, so we are looking for a spot in the middle

- Are the staff responsive to residents and engaged in interactions with residents?

Related to decision-making was staff-resident communication. Staff-resident relationships were seen as particularly important to resident wellbeing. Participants spoke of looking at the level of engagement between staff and their residents, and staff responsiveness to resident's communications. One participant looked beyond the level of communication, to what she referred to as the 'how' of communication; whether ageism was indicated by how the staff spoke to residents – the example given was of staff referring to residents as 'dear' which may be patronising.

> The level of noise, social interaction and the relaxed faces which smile. The kind of interaction which is happening within the facility. Whether the staff are engaged, or whether they are just performing their work – the communication you see taking place.

- Is the diversity/individuality of residents acknowledged?

The consumer representative focus group differed from the industry stakeholder group in that its focus was not on clinical aspects of care, but rather on the resident as a person and the RACS as a home – a "*community of individuals*" and "*not one size fits all*".

> We should be looking at it as this is the home of X people – they live here, so you would be looking at all the ways in which the facility is demonstrating that they're recognising they have a community of individuals rather than a one size fits all.

- Are days of significance/commemoration acknowledged?

Such days may relate to birthdays, deaths, cultural days or ANZAC day and may be linked to activities such as enabling residents to visit graves and attend cultural or commemorative days.

- How the RACS handles death – are residents able to attend the funerals of other residents, is dying discussed with the residents?

  How facilities handle death? …Do they pretend it doesn't happen – all of a sudden there is a gap. Allowing people to talk about approaching death and how they might want to arrange that time that's left for them

  It's about honesty – all these residents are facing exactly that and it's the one issue that won't be talked about

- Another suggested QI was how cutting edge a RACS is, meaning the degree to which a RACS keeps up-to-date with new research findings.

  …has that facility got people in it who really are interested and are concerned with new ideas coming out of the Alzheimer's Association?

  I would love to aspire to something like a system whereby we can actually verify the range of training that the staff have had with regard to dementia and that this facility is one which is involved in ongoing communication, updating information etc…

- How is the rite of passage from hospital to RACS handled?

  And sometimes of course they go to hospital to care and never make the point of been able to say goodbye at home and we're trying to look at models where there is in fact the capacity of someone wanting to be home with that person for even one night so they can say goodbye and they can actually collect a few things which will take their own lives with them…that will tell you something about whether that person is allowed to be that person"

Quality of life indicator

Consumer representatives were asked for their views on a QOL indicator.

Quality of Life is not something that I would feel comfortable defining for another person – there are so many constraints, so many factors operating that quality of life is going to vary enormously.

What I'm saying is that quality of life wouldn't just be measured by seeing that they didn't have any pressure ulcers, but somehow or other people want an indicator that says all of that…

I would say how the staff interacted with that person is the important part about quality of life.

Table 3: Quality indicators that **consumer representatives** perceived to be the most critical indicators of quality of care

	N = 4		N = 4
Prevalence of residents using 9 or more different medications	4 (100%)	Incidence of stage 1–4 pressure ulcers	1 (25%)
Prevalence of behavioural symptoms	4 (100%)	Prevalence of bedfast residents	1 (25%)
Prevalence of little or no activity	4 (100%)	Prevalence of falls	1 (25%)
Prevalence of urinary tract infections	3 (75%)	Prevalence of indwelling catheters	1 (25%)
Prevalence of weight loss	3 (75%)	Incidence of new fractures	1 (25%)
Prevalence of depression	3 (75%)	Incidence of decline in late loss ADLs	1 (25%)
Prevalence of dehydration	3 (75%)	Prevalence of depression and no antidepressant therapy	0
Prevalence of occasional bladder or bowel incontinence without a toileting plan	2 (50%)	Prevalence of faecal impaction	0
Incidence of cognitive impairment	2 (50%)	Prevalence of anti-anxiety/hypnotic use	0
Prevalence of daily physical restraints	2 (50%)	Prevalence of hypnotic use more than two times in the last week	0
Incidence in decline in range of motion (ROM) 1	(25%)	Prevalence of bladder or bowel incontinence	0
Prevalence of antipsychotic use in the absence of psychotic and related conditions	1 (25%)	Prevalence of tube feeding	0

Barriers and strategies to implementation of QIs

Consumer representatives identified resource constraints as a barrier that may be experienced when attempting to implement QIs in RACS. They also identified strategies which they believed would be instrumental in aiding the implementation of QIs in RACS.

Barriers

Perceived resource constraints – time, money

> *There are a number of arguments I think people would throw up immediately which would be things like you can't teach everybody – we haven't got the resources, we don't have the time…*

> *It's time consuming as a start. I think its one of those perceived as something which is onerous and burdensome and very time consuming*

Strategies

Cultural change

Cultural change is something that is required

…cultural change from the perspective there is no time or energy to do this warm fuzzy stuff…

Cultural change is something that is required because if the proposal was to have an indicator about inclusiveness and making decisions about things like that.

Present positives and benefits

People need to be led gently and helped to understand what the benefits are and these are not in fact insurmountable barriers, but it's an achievable goal

…I think if you weigh that [perceived barriers] up against the benefits of it – I think that longer term if the transition is eased and the family is happy, the resident is happy – its time and energy well invested because you get a very good return on it – talking about transition QI.

People need to understand why they are collecting QIs

I suppose the other thing it has got to be something that people generally understand.

…the other thing is because I always feel the PCA's have a very tough job and they don't really get a lot of appropriate recognition – so it would be again that thing of this is what we would like you to do and this is why we would like you to do it and this is the benefit of it, rather than here at this facility, enforce it

6.5 Summary of consultations with consumer representatives

Consumer representatives identified QIs that were unique to this group. This included up to date practices within a RACS and how they dealt with the death of residents in the RACS community. Overwhelmingly the major indicator of quality revolved around inclusion of residents in decision making processes.

6.6 Written submissions

There were two written submissions to the LTU website. One RACS submitted suggestions for QIs (Table 4). Some of these were also mentioned and voted on in the forums, such as prevalence of depression and number of resident deaths.

Table 4: Suggestions for potential QIs provided by one RACS in Victoria

Clinical	1	Number of resident deaths
Clinical	2	Number of residents admitted with a diagnosis of depression
Clinical	3	Number of residents diagnosed with depression post admission
Administrative	1	Number of resident admissions
Administrative	1	Number of resident transfers
Administrative	2	Number of new care staff hires
Administrative	3	Number of new non-care staff hires
Financial	1	Number of total beddays unfunded each month
Financial	2	Number of Respite beddays unfunded each month
Financial	3	Number of RCS claims denied by CDHA (late submissions, etc)
Financial	4	Number of residents dropping in RCS category each month

CDHA = Commonwealth Department of Health and Ageing, RCS = Resident Classification Scale

Another industry respondent advised that they currently collect information on three indicators; pressure ulcers, falls/found on fall and medication errors. However, no information was provided regarding data collection, as the development of the indicators was still in its infancy.

Summary

The three groups consulted with (industry stakeholders, academic experts and consumer representatives) differed in their responses regarding what they believed to be the most critical indicators of quality care. The industry stakeholders who participated at the forums tended to suggest clinical indicators of care. Conversely, the consumer representatives did not spontaneously suggest any clinical indicators of care, and instead suggested indicators that showed the resident was recognised to be an individual and the RACS was recognised to be their home. When provided with the MDS/CHSRA QI set, they were hesitant to nominate which QIs belonging to the set they perceived to be the most critical. The experts differed again in that they tended to talk more globally, about approaching quality of care as consisting of both the delivery of health and recognition of resident lifestyle issues. Barriers to implementation and strategies to overcome them were perceived similarly across groups although the industry groups provided more examples. Barriers and strategies fell under the headings of resources, education, networks and collaboration and agreed definitions.

The following section discusses findings from the literature review and the consultations.

Discussion

For the introduction of QIs to be successful, clearly they will need to be endorsed by the RACS industry and consumers as meaningful and useful. While the identification of high and low thresholds for each indicator would allow each RACS to see how they were performing in relation to these, at this initial stage in the absence of Australian data, they would need to be based on international literature. It is suggested therefore, that thresholds be determined after full implementation and when valid Victorian data is available. A number of clinical indicators have been tested and provide some basis for discussion regarding relevance in Victoria. In particular, the MDS provides a QI set that has been well researched and which may prove applicable to the Australian context – although it would probably require supplementation to compensate for its clinical, process/outcome focus. Some indicators require more development than others if included in the Victorian set – but for various reasons this effort could be considered worthwhile. For example the assessment of depression, while not commonly undertaken, would seem worthy of inclusion given the level of unrecognised/untreated depression said to be the norm in Australian RACS. The prevalence of falls is seen to be inadequate by the consultations unless it is related to injury – that is the indicator would be falls related injury and /or data should be collected on falls, fractures and use of restraint. The rationale was that some staff may increase the use of restraint in an effort to reduce falls and that while the number of falls may increase with reduced restraint, increased severity of injury was more likely where restraint is used. Polypharmacy is a major issue for older people and is linked to increased falls and restraint use. While the Project Team recognise that at times there may be a therapeutic reason for nine or more medications this does seem to provide at least a flag for further investigation and justification. Evidence of regular medication review could be required. Weight loss was not supported as an indicator because in some cases it may be appropriate that residents lose weight; significant weight **change** was perceived to be a better indicator of quality care.

It is useful to note that the nature and function of consumer and carer surveys has evolved somewhat over the last decade. It used to be the case that consumer surveys focused solely on satisfaction with services. However, there is a developing view that such global responses have not proven to be particularly useful in quality improvement activities. Some surveys have reflected this thinking in their naming, e.g. the Picker Patient Experience Survey. Now the focus is on developing consumer and carer experiences, specifically in relation to service standards or undertakings given in consumer or service charters.

This approach is best illustrated by example, as follows. Under the old style satisfaction question form, the question might have taken the following form:

• Were you satisfied with the handover between your previous nurse and your new nurse?

This question provides general information about the respondent's level of satisfaction, but it does not reveal whether the handover actually occurred according to the manual's requirements. The new form of the question might be:

• When you had a new nurse, did your previous nurse introduce the new nurse to you?

This question tells you, according to the consumer, whether the desired action actually occurred, not whether the resident was happy with it. This type of item is called an 'experience' item rather than a 'satisfaction' item. Thus the focus is not whether the respondent was happy but whether the desired activity actually occurred. This represents an orientation towards factual matters rather than interpretation of these matters.

On the basis of the literature review and consultations it seems clear that the indicator suite should ultimately include:

• A health related quality of life measure and

• A consumer experience and satisfaction measure.

The Australian Government's Department of Health and Ageing, Ageing and Aged Care Division have recently released a set of materials relating to *Seeking Residents' Views in Residential Aged Care*. This package of materials is designed to assist RACS to gain and use the views of residents. The materials in the package complement major aspects of the aged care reform strategy and provide a practical way for services to learn more about residents' needs and concerns. The *Seeking Residents' Views in Residential Aged Care* set contains five products:

• An Information Booklet

• Getting Started Notes

• A Resident's Survey Tool that seeks residents' views on a range of matters. It includes multiple-choice questions and has space for comments.

• A Resident's Representative Survey Tool designed for use by other people acting on behalf of a resident.

• A Key Points Survey Tool that is a short form version of the Resident's Survey Tool.

(See **http://www.ageing.health.gov.au/publicat/resviews.htm** for details).

It might be argued that consumer satisfaction could be a proxy for staff satisfaction in that it is unlikely residents and families would be satisfied in an environment of high staff turnover and staff dissatisfaction. On the other hand, given the issues surrounding staff 'shortages' in RACS this may be an area worthy of its own QI. Should staff 'satisfaction' be used as an indicator for similar reasons it would make sense to develop and use a staff experience approach along the line of that recommended for residents. Chou et al. (2002) suggest that staff and resident satisfaction are linked and that this

> *implies a need for a holistic approach to organisational evaluation and intervention to improve service quality, including the regular monitoring of both resident and staff satisfaction* (p.49)

7. Outcomes of Formulation of Recommendations

7.1 Methodology for the final selection of Victorian public sector RACS QIs

The general epistemological philosophy underpinning this Project is that of triangulation. Triangulation involves the systematic collection of information concerning the same matters from a variety of different viewpoints. In the present Project, information concerning appropriate QIs for public RACS was collected from the following sources:

• The published literature including an analysis of existing indicators

• Public sector RACS industry stakeholder forums

• Consumer issues focus group

• Interviews with experts in the area of clinical/quality indicators and aged care

Each of these sources resulted in somewhat different list of indicators with a fair degree of overlap. It was necessary to integrate these disparate lists into a final list of valid, reliable, relevant and practical indicators that may then be applied to do the job for which they are intended.

Frequently such selection decisions and recommendations are devised solely on the basis of an unexplained process of formation of professional judgments on the part of the consultants. The approach taken by the Project Team was to explicate the process of final selection of indicators using a formal selection process, in order that the users of this work can see how recommendations were arrived at.

Indicators identified by the project activities were rated by the Project Team using the specified evaluation criteria outlined in Table 5.

Quality indicators, like all measurement tools, need to have four intrinsic properties. These are:

• Reliability

• Validity

• Applicability

• Practicability

Traditionally, reliability and validity have been the most studied properties of measurement tools. However, there is growing recognition of the importance of applicability and practicability as criteria for the evaluation of measurement tools and protocols.

Reliability refers to the need for a test or measure to give the same result consistently. There are several different ways of measuring reliability including test retest reliability (where the results of a test are compared on repeated applications), inter-rater reliability (where different raters or judges use the same test contemporaneously and the results compared) and internal consistency (where the results of items within the test battery are compared for consistency). These

properties are measured by correlation measures including Pearson, Spearman and Cronbach's indices. Consistency of measurement outcome is a necessary but not sufficient condition for tool validity.

Validity refers to the accuracy of the indicator result. There are various varieties including face or content validity (where a judgment is made concerning the extent to which the test content captures the desired content), predictive validity (where the test results are used to predict a future event), concurrent or criterion related validity (where the test results are compared with the results of other, perhaps gold standard, tests). In clinical contexts, validity is frequently measured by specificity and sensitivity, referring to a test's capacity to correctly detect those with the target attribute and to correctly filter out those who do not have it. In evaluation contexts validity may refer to whether activity data are accurate or whether the client's outcome has been accurately captured.

Applicability refers to the ability of the indicator to be applied to the particular target group. For example, an indicator for general clinical contexts or American aged care facilities may not be suitable for Victorian RACS. The development sample for a test may introduce properties within it that mean it works less well with other populations. Applicability may also be affected by cultural factors. An example from the literature found that US prescribing indicators were not applicable to the UK, because they referred to drugs rarely prescribed in the UK (Oborne et al. 2003). A continence test that taps into different intervention practices that are unused in one jurisdiction or another may also have applicability issues. Applicability ensures credibility and usefulness in the local context. Applicability is generally determined by the application of expert and stakeholder judgments.

Practicability refers to the ability of the indicator to be practically applied in given contexts. Practicability may be enhanced by the incorporation of already routinely collected data into key performance indicators. If "new" (currently uncollected) data has now to be collected to construct the indicators, this is less practical than using existing data. The amount of effort involved in capturing data needs to be weighed up in practicability considerations. It may be that data are already being collected but they may not be electronically recorded. The fact that the data are available somewhere in a set of paper records is cold comfort as the effort involved in consulting the records may be very high. Tool length (i.e. how many indicators are to be collected) is also a key consideration in practicability considerations. Once basic content validity criteria are met (i.e. the tool must contain the content that is required) it is highly desirable that a tool is as short as possible and includes data that are easy to collect. Brevity is not only a virtue from an operational viewpoint in implementing an indicator set. There is also the issue of simply conveying the outcomes of an assessment of performance on QIs to the field and staff and managers to drive performance improvement. If the indicators are complex and technical it is difficult to construct coherent and practical feedback to drive improvements. To implement quality improvements, it is necessary to understand

Table 5: Evaluation criteria used by the Project Team in rating the suitability of QIs to be included in the Public Sector RACS set.

Evaluation Criteria	Scoring system
Current use within RACS	1 = not widely used in Australian and international settings 2 = some use in Australian and international settings 3 = wide use in Australian and international settings
Ease of collection of data	1 = difficult to collect within current resources 2 = medium difficulty to collect within current resources 3 = easy to collect within current resources
Reliability evidence available	1 = no or little published evidence identified 2 = evidence suggests moderate reliability 3 = evidence suggests good reliability
Validity evidence available	1 = no published validity evidence identified 2 = evidence suggests moderate validity 3 = evidence suggests good validity
Acceptability to key informants	1 = the indicator has been nominated by no or a small minority of key informants 2 = the indicator has been nominated by some of the key informants 3 = the indicator has been nominated by the majority of the key informants
Impact upon resident population	1= affects a small minority of residents and/ or has minor impact 2 = affects up to half of the residents and/or has moderate impact 3 = affects the majority of residents and/or has serious impact

what the required changes are. Highly technical and complex indicators may not be as easy to improve as simpler ones.

In assessing the suitability of indicators for Victorian public sector RACS, the Project Team considered *all four* attributes of reliability, validity, applicability and practicability.

Justification of the selection criteria

Current use within RACS (applicability and practicability)
Indicators that are currently used within RACS are likely to have benchmark data available and to be applicable to the current task. The availability of benchmark data is important in the interpretation of the performance of services in a wider context and enhances the credibility of the indicators.

Ease of collection of data (practicability)
It is desirable that proposed indicators can be collected within existing resources without significant extra expense.

Reliability evidence available (reliability)

The availability of reliability evidence means that the proposed indicator satisfies basic psychometric criteria. This is important for the credibility of the selected indicators.

Validity evidence available (validity)

The availability of validity evidence means that the proposed indicator satisfies basic psychometric criteria. This is important for the credibility of the selected indicators.

Acceptability to key informants (applicability and practicability)

Acceptability to the key informants means that the recommendations are likely to be widely endorsed and effectively implemented.

Impact upon resident population (practicability)

This criterion assessed the extent to which the indicator impacts upon the resident population – it would score higher if it impacted on a significant proportion of the population and/or its impact results in significant cost either financial or human.

Rating outcomes

The above criteria were applied to the top ten indicators nominated within each of the review and consultation activities conducted for the Project. The numbers of nominations were limited to ten for each source as this provided a wide range of indicators to be assessed as well as ensuring that at least minimum levels of commonality of nomination were achieved. The indicators that were subjected to rating were identified through the previously described nomination process.

Table 6: Summary of identification sources of quality indicators

Indicator	Source			
	Identified through literature review	Identified through consultations with industry	Identified stakeholders through consultations with experts in quality/ clinical	Identified indicators through consultations with consumer representatives
Incidence of new fractures	✓		✓	
Prevalence of falls	✓	✓	✓	
Prevalence of behavioural symptoms	✓	✓	✓	
Prevalence of symptoms of depression	✓	✓		
Prevalence of symptoms of diagnosed depression and no therapy	✓			
Prevalence of residents using nine or more different medications	✓	✓		

Table 6: Summary of identification sources of quality indicators, continued

Indicator	Source			
	Identified through literature review	Identified through consultations with industry	Identified stakeholders through consultations with experts in quality/ clinical	Identified indicators through consultations with consumer representatives
Prevalence of incontinence without a continence management plan	✓			
Prevalence of indwelling catheters	✓			
Prevalence of faecal impaction	✓			
Prevalence of urinary tract infections	✓	✓		
Prevalence of weight change	✓	✓		
Prevalence of dehydration	✓	✓		
Prevalence of bedfast residents	✓			
Incidence of decline in late loss ADLs	✓			
Incidence of decline in range of motion (ROM)	✓			
Prevalence of inappropriate antipsychotic use	✓			
Prevalence of anti-anxiety/ hypnotic use	✓			
Prevalence of hypnotic use more than two times in the last week	✓			
Prevalence of daily physical restraints	✓	✓		
Prevalence of little or no activity	✓			
Prevalence of stage 1–4 pressure ulcers	✓	✓		
Resident experiences of care	✓	✓	✓	✓
Quality of life of residents	✓	✓	✓	✓
Staff experiences of care	✓	✓		

 All of the indicators listed in the above table were rated by the Project Team using the specified rating criteria. Members of the Project Team (Professor Rhonda Nay, Professor Shane Thomas, Dr Susan Koch, Ms Jacinda Wilson and Associate Professor Sally Garratt) met to deliberate the ratings.

Table 7: Rank ordering of the Project Team ratings of the current use, ease of collection, reliability, validity, acceptability and impact upon residents of identified quality indicators

Quality indicator	Current Use	Ease of Collection	Reliability	Validity	Acceptability	Impact upon residents	Total
1. Prevalence of stage 1–4 pressure ulcers	3	3	3	3	3	3	18
1. Incidence of new fractures	3	3	2	2	3	3	16
2. Prevalence of daily physical restraints	3	3	2	2	3	3	16
3. Prevalence of behavioural symptoms	3	2	2	2	3	3	15
4. Prevalence of residents using nine or more different medications	2	3	2	2	3	3	15
5. Prevalence of incontinence without a continence management plan	3	3	2	2	2	3	15
6. Prevalence of significant weight change	3	2	3	3	2	2	15
7. Resident experiences of care	1	2	3	3	3	3	15
8. Prevalence of symptoms of depression	1	2	3	3	1	3	13
9. QOL of residents	1	1	3	3	2	3	13
10. Prevalence of falls	3	1	2	2	3	1	12
11. Staff experiences of care	1	1	2	2	3	3	12
12. Prevalence of urinary tract infections	3	1	2	2	1	2	11
13. Prevalence of dehydration	1	1	2	2	2	3	11
14. Prevalence of inappropriate antipsychotic use	1	2	2	2	1	3	11
15. Prevalence of anti-anxiety/hypnotic use	1	2	2	2	1	3	11
16. Prevalence of hypnotic usemore than two times in the last week	1	2	2	2	1	3	11
17. Prevalence of symptoms of diagnosed depression and no therapy	1	1	2	2	1	3	10
18. Prevalence of faecal impaction	1	2	2	2	1	2	10
19. Incidence of decline in late loss ADLs	1	1	2	2	1	2	9
20. Prevalence of indwelling catheters	1	1	1	1	2	2	8
21. Incidence of decline in range of motion	1	1	2	2	1	1	8
22. Prevalence of bedfast residents	1	1	1	1	1	1	6
23. Prevalence of little or no activity	1	1	1	1	1	1	6

The point at which one could argue that a rating and the Project Team's associated ranking is insufficient to be included in the final indicator set is somewhat arbitrary. It should be remembered that each of the indicators rated by the Project Team has been derived from a short-listing process using each of the information sources included in this Project. Thus each indicator was:

- Identified through literature analysis and/or

- Identified through consultations with industry stakeholders and/or

- Identified through consultations with experts in clinical/quality indicators and/or

- Identified through consultations with consumer representatives

8. Recommendations

8.1 Recommended procedure for risk adjustment

What is risk adjustment and why is it necessary?

"Risk adjustment" is the statistical adjustment of raw QI outcomes for RACS. The raw scores are "adjusted" to new values using an adjustment procedure. It should be noted that the exact nature of the risk adjustment procedure cannot be specified a priori without knowing the characteristics of the distributions of the indicator scores. That is, the exact formula for adjustment and the coefficients contained with the formula need to be constructed **once a data collection has occurred**. This is so that the adjustments reflect the reality of the actual distributions which, as in the present case involving the application of new indicators to new study populations, is an empirical question that can only be answered by the collection of actual data. That said it certainly is possible to specify in advance what variables are going to be included in the risk adjustment formulae for the indicators, as these are conceptual rather than empirical issues. The rationale for risk adjustment is the knowledge that certain characteristics of the RACS residents are likely to be systematically related to the obtained outcomes on the QI set. Risk adjustment is a statistical adjustment that tries to compensate for the different characteristics of the RACS when comparing and interpreting QI outcomes so that in a statistical sense apples are compared with apples.

The following example (Table 8) shows two RACS which have residents with the following age distributions:

Table 8: Sample age distributors in two RACS (A and B)

RACS	Number of clients in each age group			
	51–60	61–70	71–80	81+
RACS A	100	100	100	100
RACS B	50	50	150	150

For the purposes of this example, assume that each RACS has had the same number of falls within its resident group in the last year, 10 in RACS A and 10 in RACS B. From analysis of indicator data across a wide range of RACS, the risk of having a fall is related to age (see Table 9).

Table 9: Sample fall risk distribution by age for RACS

	Risk of a resident having a fall by age group			
	51–60	61–70	71–80	81+
Risk	1 in 100	2 in 100	3 in 100	4 in 100

In RACS A, given that there are 100 residents in each age group, it is expected that the number of falls in RACS A would be 1 (for the 51–60 group) + 2 (for the 61–70 group) + 3 (for the 71 – 80 group) + 4 (for the 81+ group) = 10, which is what was actually obtained.

For RACS B, it would be expected that the number of falls would be 0.5 (because there are 50 residents in the 51–60 age group and the rate of falls in that group is 1 in 100) + 1 (for the 61–70 group) + 4.5 (for the 71–80 group) + 6 (for the 81+ group) = 12. However, if RACS B actually had 10 falls, when adjustments for the risk of a fall by age group were conducted, although RACS B had the same number of falls as RACS A, they did better in risk adjusted terms.

The consultations with forum participants identified the following suggestions for risk adjustment variables:

- Resident mix – especially rate of dementia
- RACS size/configuration
- Access to appropriately skilled staff
- Access to training for staff
- Family dynamics
- Resident background
- Buildings/design of RACS
- RACS culture
- Geographical location – rural/metropolitan

Suggested responses to each of these suggestions appear below:

Resident mix – especially rate of dementia

The use of resident mix variables is appropriate and justified and it is suggested that the distribution of Resident Classification Scale (RCS) classifications is used to risk adjust the QI outcomes. The RCS classifications are likely to be systematically related to the scores on most indicators. Risk adjustment means that RACS with RCS distributions unlike others will not be penalised nor rewarded for these differences.

RACS size/configuration

This variable should be used to risk adjust, as such factors, if they influence the outcomes on the QIs, represent naturally occurring advantages that provide benefits to clients. These benefits should not be hidden by statistical adjustment. If it is the case that large or small RACS score systematically better or worse on the relevant indicators then the residents in these RACS should not be disadvantaged by poorer standards of care and outcomes simply because they happen to have ended up in such a RACS.

Access to appropriately skilled staff

While it is recognised that the recruitment of staff is a problem for some rural services, to risk adjust would mean that this potential natural disadvantage would be hidden in the indicator results. It would be difficult and complex to measure this factor and it would involve complex analysis of labour force trends on a widely

dispersed spatial basis. Experience of the Project Team in the development of small area measures of wellbeing suggests that even if it were agreed that this was a desirable risk adjustment factor, it is most unlikely that the required data to implement it would be available.

Access to training for staff

While it is recognised that this is a problem for some rural services, as with the previous indicator to risk adjust would mean that this natural disadvantage would be hidden. As with the previous suggested risk adjustment consideration it would be difficult and complex to measure this factor.

Family dynamics

This was not a widely accepted suggestion and would be very difficult to measure. In any event this is not a factor that is under the purview of the RACS.

Resident background

Indicators are used to interpret RACS level performance. This variable should form part of the research program into resident outcomes, not a key component of the indicator risk adjustment process.

Buildings/design of RACS

It is not considered that this variable should be used to risk adjust. Such factors, if they influence the outcomes on the QIs, represent naturally occurring advantages that provide benefits to residents. These benefits should not be hidden by statistical adjustment. Further, the measurement of this factor would be time consuming and costly.

RACS culture

This was not a widely accepted suggestion and would be difficult and complex to measure.

Geographical location – rural/metropolitan

It is considered that the analysis of such differences should be routinely conducted and reported in the form of benchmarks for RACS within each category. However, it should not form part of the risk adjustment variable set. For this risk adjustment consideration, it is recommended that adjustment occur at the reporting (benchmark) level, rather than at the indicator level.

General form of the risk adjustment procedure

As outlined above the exact coefficients to be used in the risk adjustment procedure will need to be derived from the first data collection and adjusted as more data is collected. However the general form of the proposed risk adjustment procedure is as follows:

$$
\begin{aligned}
\text{QI score}_{\text{adjusted}} = \quad &\text{For all RCS categories (x)} \\
&\text{Sum (QI score}_{\text{raw for RCS category}} \text{ X – Mean QI score }_{\text{(for RCS category}} \\
&_{\text{X for all RACS)}}\text{) multiplied by (}n_x \text{ / N)} \\
&\text{where } n_x \text{ is the number of residents in RCS category x for this} \\
&\text{RACS and N is the total number of residents in this RACS}
\end{aligned}
$$

Conclusions

Risk adjustment should be conducted for resident RCS mix, but not for other RACS or resident characteristics. Some RACS and researchers have invested considerable effort into the development of risk adjustment procedures to ensure that RACS performances on the QIs are not particularly advantaged or disadvantaged. While it is accepted that risk adjustment for key resident characteristics may be desirable, there is also a risk that a 'lowest common denominator' orientation can creep into the interpretation of RACS data. It may be that all RACS in a specific jurisdiction may have very poor performance on selected indicators; however a slightly better than average performance in a very poor field must not be interpreted as acceptable. Complex risk adjustment can have the effect of masking and attenuating poor performance and rendering the indicator scores to be uninterpretable.

8.2 Recommended quality indicator set

The Project Team recommended the top 12 ranked indicators for inclusion in the Victorian public sector RACS set. These were:

- Incidence of stage 1–4 pressure ulcers
- Incidence of new fractures
- Prevalence of daily physical restraints
- Prevalence of behavioural symptoms
- Prevalence of residents using nine or more different medications
- Prevalence of incontinence without a continence management plan
- Incidence of weight change (i.e. significant increase or decrease from the norm)
- Resident experiences of care
- Prevalence of symptoms of depression
- Quality of life of residents
- Prevalence of falls
- Staff experience of care

On 5th April 2004, the Project Advisory Group and Project Team convened to discuss the 12 QIs recommended by the Project Team. Each QI was discussed in turn. The general consensus of the Project Advisory Group was that some of the QIs are more ready to be implemented as part of a pilot program at this stage than

others. One QI – Prevalence of incontinence without a continence management plan – was not recommended for implementation at all and was removed from the list. This was related to concerns that some RACS may be tempted to over-report the number of residents with continence management plans, in order to maximise benefits received under the Resident Classification Scale (RCS). Another QI – Prevalence of falls – was collapsed with the Incidence of new fractures QI. As it is the severity of injury caused by a fall that causes concern, it was felt that an indicator which reported simply the prevalence of falls was less relevant than falls related fractures. As such, the denominator for the incidence of new fractures QI was changed from being the total number of residents, to the total number of falls. The six QIs seen to be most ready for implementation in a piloting program are:

• Incidence of stage 1–4 pressure ulcers

• Incidence of new fractures as a proportion of falls

• Incidence of daily physical restraints

• Incidence of residents using nine or more different medications

• Incidence of weight change (i.e. a significant increase or decrease from the norm)

• Prevalence of symptoms of depression

Four other QIs were seen by the Project Advisory Group as important to implement, however require further refinement before being rolled out. Reasons for deferment relate to definitional and instrument availability issues. These QIs are:

• Incidence of behavioural symptoms

• Resident experiences of care

• Health related QOL of residents

• Staff experiences of care

A QI relating to the incidence of behavioural symptoms was strongly favoured, however was not deemed ready for implementation in a pilot phase at this stage, because of the need to establish an agreed definition of behaviours and a data collection tool.

Resident experiences of care was highly supported by participants in the consumer issues focus group and the Australian and international literature. However, at present it appears that further work regarding definitional and measurement issues is needed before resident experiences of care can be represented by a QI. For example, the Key Points Survey and Resident's Representative Survey Tool requires further investigation in relation to its validity, reliability and practicability.

A QI for resident health related QOL was also strongly favoured by participants in the consumer issues focus group, forums and international literature. Again however, there are definitional and measurement decisions to be made before development of such a QI can be finalised.

A QI relating to staff experiences was highly supported by forum participants and indicated in the international literature as being an area of future development. However, in Australia further work is needed to decide what aspect(s) of staffing experiences should be represented in a QI, and what would be an appropriate measurement strategy.

It was agreed that the QIs should be piloted in a small number of RACS and that a small reference group (probably of the pilot site DONS and DHS) would work on refining the QIs and facilitating implementation. The QIs recommended for piloting initially are all outcome QIs. Structure and process indicators, while not necessarily reflecting outcome, are important in assisting RACS to improve outcomes. For example, education of staff to improve competencies will not improve outcomes if the problem lies with a lack of assessment tools, management support and/or documentation procedures. To some extent structure and process indicators will be built into resident and staff experiences. In addition the audit tools used by RACS should include an in-house assessment of structure and process criteria related to the QIs.

Table 10: Summary of recommendations made by Project Advisory Group regarding QIs suggested by the Project Team

Quality Indicator	Project Advisory Group recommendation
Prevalence of stage 1–4 pressure ulcers	Ready to pilot
Incidence of new fractures	Ready to pilot. Combined with Prevalence of falls: i.e. no. of fractures no. of falls
Prevalence of daily physical restraints	Ready to pilot
Prevalence of residents using nine or more different medications	Ready to pilot
Prevalence of incontinence without a continence management plan	Not recommended
Incidence of weight change (i.e. significant increase or decrease from the norm)	Ready to pilot
Resident experiences of care	More development work needed
Prevalence of symptoms of depression	Ready to pilot
Health-related QOL of residents	More developmental work needed
Prevalence of falls	Collapsed into Incidence of new fractures: i.e. no. of fractures no. of falls
Staff experience of care	More developmental work needed

Summaries of quality indicators for Victorian RACS as recommended by the Project Team and accepted by Project Advisory Group

1

Indicator: Incidence of stage 1–4 pressure ulcers

Objective: To record the number of pressure ulcers, at each pressure ulcer stage, on any part of the body.

Quality Domain: Clinical

Relevant accreditation outcome:
2.11 Skin care   Residents' skin integrity is consistent with their general health

Calculation formula (numerator and denominator):
Numerator: Number of residents with stage 1–4 pressure ulcers on day of audit
Denominator: Total number of residents

Anticipated benefit: Reduction in the incidence of pressure ulcers
Reduction in the incidence of higher stage pressure ulcers (stages 3–4)

Definition of key data elements: A pressure ulcer can be defined as

any lesion caused by pressure, resulting in damage to underlying tissues. Alternate terms include bed sore and decubitus ulcers. Pressure ulcers range in severity from mild (minor skin reddening) to severe (deep craters down to muscle and bone)

Source: Centers for Medicare and Medicaid, Department of Health and Human Services USA. *Revised Long-Term Care Resident Assessment Instrument User's Manual*. Version 2.0. December 2002

Stage 1 Pressure Ulcer:

Observable pressure related alteration of intact skin whose indicators as compared to the adjacent or opposite area of the body may include changes in one or more of the following: skin temperature (warmth or coolness), tissue consistency (firm or boggy feel) and/or sensation (pain, itching). The ulcer appears as a defined area of persistent redness in lightly pigmented skins, whereas in darker skin tones, the ulcer may appear with persistent red, blue or purple hues.

Stage 2 Pressure Ulcer:

Partial thickness skin loss involving epidermis and/or dermis. The ulcer is superficial and presents clinically as an abrasion, blister or shallow crater.

Stage 3 Pressure Ulcer:

Full thickness skin involving damage or necrosis of subcutaneous tissue that may extend down to but not through underlying fascia. The ulcer presents clinically as a deep crater with or without undermining of adjacent tissue.

Stage 4 Pressure Ulcer:

Full thickness skin loss with extensive destruction, tissue necrosis or damage to muscle, bone, or supporting structures (for example, tendon or joint capsule). Undermining and sinus tracts may also be associated with Stage 4 pressure ulcers.

Source: National Pressure Ulcer Advisory Panel (NPUAP) Pressure Ulcer Staging System, Victoria Quality Council.

Data source – potential or actual:
Full body assessment of resident to determine the stage and number of ulcers present
Nursing and medical records
Consultation with the primary caregiver

Data collection – methods and timing:
Assessment tools – Norton's Risk Assessment Scale (see Appendix 11.10)
Suggested collection timing: Quarterly snapshot

Exclusions:
Residents admitted from other health care facilities with a pressure ulcer since the previous audit.
Limitations:
Inaccurate recording of data

Support from literature and consultations:
Centers for Medicare and Medicaid, Department of Health and Human Services USA, Long-term care resident assessment instrument user's manual, version 2.0, December 2002.
Zimmerman et al. (1995)
Kaplan (2002)
Courtney & Spencer (2000)
Rantz et al. (2004)
Madsen & Leonard (1997)
Most forum participants (65.6%) believed the incidence of stage 1–4 pressure ulcers to be a critical indicator of quality. Some participants were from RACS which had been involved in the Pressure Ulcer Point Prevalence Study (PUPPS).

2

Indicator: Incidence of new fractures as a proportion of falls

Objective: To record the number of new falls-related fractures on any part of the body acquired since the last audit date.

Quality Domain: Clinical

Relevant accreditation outcome:

2.4 Clinical care	Residents receive appropriate clinical care
2.5 Specialised nursing care needs	esidents' specialised nursing care needs are identified and met by appropriately qualified nursing staff
2.6 Other health and related services	Residents are referred to appropriate health specialists in accordance with the resident's needs and preferences

Calculation formula (numerator and denominator):

Numerator: Number of residents with new fractures since previous audit
Denominator: Total number of falls since previous audit

Anticipated benefit: Reduction in the number of new fractures

Definition of key data elements: Fracture:

traumatic injury to a bone in which the continuity of the bone tissue is broken. Classified by the bone involved, the part of that bone and the nature of the break (e.g. comminuted fracture of the head of the tibia)

Source: Mosby's Medical Nursing & Allied Health Dictionary (6th edition) 2002

Falls include:

Episodes when a resident lost his/her balance and would have fallen if not for staff intervention – i.e. an intercepted fall is counted as a fall… If a resident is found on the floor, unless there is evidence suggesting otherwise the most logical conclusion is that a fall has occurred – i.e. assume in such instances that a fall has occurred.

Source: Centers for Medicare and Medicaid, Department of Health and Human Services USA. *Revised Long-Term Care Resident Assessment Instrument User's Manual.* Version 2.0. December 2002

Data source – potential or actual: Incident forms
                                                                      Resident records

Data collection – methods and timing:
Review of data sources to determine the number of falls and new fractures since previous audit.
Suggested collection timing: Quarterly snapshot

Exclusions: Nil

Limitations: Inaccurate recording of data
                               Missed fractures

Support from literature and consultations:
Centers for Medicare and Medicaid, Department of Health and Human Services USA, Long-term care resident assessment instrument user's manual, version 2.0, December 2002.
Zimmerman et al. (1995)
Participants at the stakeholder forums felt that it would not be enough to simply record the number of falls, rather the severity of a fall should be reported.

3

Indicator: Incidence of daily physical restraints

Objective: To record the number of residents physically restrained at any time during the day or night.

Quality Domain: Preservation of resident rights

Relevant accreditation outcome:

4.4 Living environment   Management of the residential care service is actively working to provide a safe and comfortable environment consistent with residents' care needs

Calculation formula (numerator and denominator):

Numerator: Number of residents physically restrained on the day of audit
Denominator: Total number of residents

Anticipated benefit: Reduction in the use of restraint – In their systematic literature review, the Joanna Briggs Institute (JBI 2002) concluded that restraint use has caused injuries such as nerve damage, ischaemic injury to hands and limb dislocation, as well as death, typically due to strangulation.

Definition of key data elements:

Physical restraints are defined as any manual method or physical or mechanical device, material, or equipment attached or adjacent to the resident's body that the individual cannot remove easily which restricts freedom of movement or normal access to one's body.

Types of physical restraints include but are not restricted to bed rails, trunk restraint, limb restraint and chairs and tables used to prevent freedom of movement.

Source: Centers for Medicare and Medicaid, Department of Health and Human Services USA. *Revised Long-Term Care Resident Assessment Instrument User's Manual*. Version 2.0. December 2002 (P3-198)

Data source – potential or actual: Resident records (every incidence of restraint use should already be documented in resident records, along with documentation that the pros and cons of restraint has been explained to the resident/guardian/family member)
Observation of residents
Incident reports

Data collection – methods and timing:
Review of patient records, for incidences of restraint use
Observation
Suggested collection timing: Quarterly snapshot

Exclusions: Items that are typically used in the provision of medical care (eg catheters, drainage tubes, casts, traction, braces, abdominal binder and bandages that are serving their usual medical needs

Source: Centers for Medicare and Medicaid, Department of Health and Human Services USA. *Revised Long-Term Care Resident Assessment Instrument User's Manual*. Version 2.0. December 2002 (P3-199)

Limitations:

Inaccurate recording of data – Restraint use not being documented in patient records
Dependent on the assessors' interpretation of what constitutes physical restraint

Support from literature and consultations:

Centers for Medicare and Medicaid, Department of Health and Human Services USA, Long-term care resident assessment instrument user's manual, version 2.0, December 2002. |
Zimmerman et al. (1995)
QIs relating to restraint use were suggested at all four forums and by 50% of consumer representatives.

4

Indicator: Incidence of unmet need behaviours

Objective: To identify the frequency of behavioural symptoms that cause distress to the resident or are distressing and disruptive to facility, residents or staff members.

Quality Domain: Functional

Relevant accreditation outcome:

2.13 Behavioural management · · · · · · The needs of residents with challenging [sic] behaviours are managed effectively

Calculation formula (numerator and denominator):
Numerator: · · · · · · Number of residents exhibiting unmet need (challenging) behaviours since the previous audit.
Denominator: · · · · · · Total number of residents

Anticipated benefit: Decreased numbers of residents exhibiting behavioural symptoms

Definition of key data elements: Unmet need behaviours are those behaviours where their frequency and duration;
- appear to be taxing to the resident and health professionals (Kopecky & Yodofsky 1999),
- require repeated limit setting (Kopecky & Yodofsky 1999),
- interfere with activities of daily living (Kopecky & Yodofsky 1999),
- require multiple pharmacological interventions (Kopecky & Yodofsky 1999)
- endanger residents or others (Beck et al. 1997)
- disrupt clinical care (e.g. pulling out IV), and
- reduce the quality of life for the resident (e.g. distress/anxiety /frustration/social isolation)

Data source – potential or actual:
Behavioural assessment documents
Incident forms
Medical and nursing records

Data collection – methods and timing:
Review of documentation including behaviour charts
Suggested collection timing: Quarterly snapshot

Exclusions: Residents whose admission is less than 30 days during the audit period

Limitations:
Inaccurate recording of data
Staff perceptions of behavioural symptoms

Support from literature and consultations:
Centers for Medicare and Medicaid, Department of Health and Human Services USA, Long-term care resident assessment instrument user's manual, version 2.0, December 2002.
Zimmerman et al. (1995)
Participants at all four forums suggested QIs relating to behaviours (e.g. aggression towards staff and/or other residents, assault of staff and/or other residents, absconding, withdrawal) as important, as did 100% of consumer representatives.

5

Indicator: Incidence of residents using nine or more different medications

Objective: To identify residents at risk of polypharmacy

Quality Domain: Clinical/medical

Relevant accreditation outcome:

2.7 Medication management   Residents' medication is managed safely and correctly

Calculation formula (numerator and denominator):

Numerator: Number of residents with nine or more medications (including prescribed, over the counter and prn) during the audit period.

Denominator: Total number of residents

Anticipated benefit: Will flag potential risk and need for review and so assist staff in identifying potential problems related to polypharmacy, drug reactions and interactions.

Definition of key data elements: A general definition of polypharmacy is:

the use of a number of different drugs by a patient who may have one or several health problems

Source: Mosby's Medical Nursing & Allied Health Dictionary (6th edition) 2002

Data source – potential or actual: Medication charts

Data collection – methods and timing: Review of documentation to count the number of different medications (not the number of doses and different dosages), administered by any of the following routes: oral, intramuscular, intravenously, subcutaneously, rectally and vaginally to each resident.

Suggested collection timing: Quarterly snapshot

Exclusions: Topical medications

                Lotions/creams/ointments used in wound care

                Eye drops

                Do not include dietary supplements that contain vitamins

Limitations: Inaccurate recording of data

                There will be times when multiple medications are clinically justified, however this indicator assists risk management.

Support from literature and consultations:

Centers for Medicare and Medicaid, Department of Health and Human Services USA, Long-term care resident assessment instrument user's manual, version 2.0, December 2002.

Zimmerman et al. (1995)

Kaplan (2002)

Rantz et al. (2004)

The QI "Incidence of residents using nine or more different medications" was strongly perceived to be an indicator of quality of care by those who participated in consultations. All four consumer representatives and 54.1% of the forum participants perceived this indicator to be a critical QI.

6

Indicator: Incidence of weight change (i.e. significant increase or decrease from the norm)

Objective: To monitor stability of weight over time

Quality Domain: Clinical

Relevant accreditation outcome:

2.10 Nutrition and hydration	Residents receive adequate nourishment and hydration

Calculation formula (numerator and denominator):

Numerator:	Number of residents who have weight changes outside the norm as defined by the Body Mass Index (BMI) since last audit.
Denominator:	Total number of residents

Anticipated benefit: The measurement of weight is a guide in determining nutritional status and assist staff in identifying potential problems related to nutritional status
Reduce the risk of co-morbidities (e.g. dehydration, compromised skin integrity)

Definition of key data elements:
Body Mass Index (BMI): WEIGHT (kg) / HEIGHT (m)^2 (Weight in kilograms divided by the square of height in metres).

- <18 kg/m^2 – underweight
- 18–<25 kg/m^2 – healthy weight
- 25–30 kg/m^2 – overweight
- >30 kg/m^2 – obese

Source: World Health Organisation

Data source – potential or actual: Medical and Nursing records
Transfer forms
BMI

Data collection – methods and timing: For new admission, measure height (in centimetres) with shoes off
Check the clinical records of current residents, if last height recorded is more than 12 months re measure height with shoes off.
Measure weight consistently over time (eg after voiding, before meals)
Check clinical records, if the last recorded weight is more than one month or previous weight is not available, weigh resident.

Source: Centers for Medicare and Medicaid, Department of Health and Human Services USA. *Revised Long-Term Care Resident Assessment Instrument User's Manual*. Version 2.0. December 2002

Calculate BMI using height and weight readings.
Suggested collection timing: Quarterly snapshot

Exclusions: Residents unable to be weighed due to medical or physical conditions (eg extreme pain, immobility or risk of pathological fractures)

Source: Centers for Medicare and Medicaid, Department of Health and Human Services USA. Revised Long-Term Care Resident Assessment Instrument User's Manual. Version 2.0. December 2002 (P3-198)

Limitations: Inaccurate recording of data
Inconsistent measurement of height
Inconsistent measurement of weight
Incorrect BMI calculation
Circumstances when resident cannot be weighed (eg extreme pain, immobility or risk of
pathological fractures)

Support from literature and consultations:
Centers for Medicare and Medicaid, Department of Health and Human Services USA, Long-term care resident assessment instrument user's manual, version 2.0, December 2002.
Zimmerman et al. (1995)
Feilmann (2000)
Participants at three out of the four forums and 75% of consumer representatives suggested QIs relating to weight change and/or nutritional status.

7

Indicator: Resident experiences of care

Objective: To record the resident's experiences of care

Quality Domain: Psychosocial/ Preservation of human rights

Relevant accreditation outcome:

1.4 Comments and complaints   Each resident (or his or her representative) and other interested parties have
                                    access to internal and external complaints mechanisms

3.9 Choice and decision-making   Each resident (or his or her representative) participates in decisions about the
                                    services the resident receives, and is enabled to exercise choice and control over
                                    his or her lifestyle while not infringing on the rights of other people

Calculation formula (numerator and denominator): The indicator would include a frequency analysis of the numbers of respondents who rate each of the key point questions affirmatively. NB: 6 is the number of questions in the Key Points Survey (see later in this summary).

Numerator: Sum of the number of residents/6 who rate the questions affirmatively since previous audit.

Denominator: Total number of residents

Anticipated benefit: Consumer involvement in quality indicator process

Definition of key data elements: Resident experiences of care as defined by the Key Points Survey Tool or the Resident's Representative Survey Tool.

Data source – potential or actual: Key Points Survey Tool (short form version of the Resident's Survey Tool)

Data collection – methods and timing:
Application of the Key Points Survey Tool to residents who are able to respond to the following 6 questions:

Creating a Home-Like Environment
1. Do you feel at home, comfortable and safe in your room? Yes/No
Is there anything that would improve the comfort of your room?

Building Design and Access to Facilities
2. Are you able to use all areas of your aged care home? Yes/No
Would you like to suggest any improvements to the building?

Enjoying Life
3. Does the variety of activities offered include your particular interests? Yes/No
Do you have any comments or suggestions about the activities offered?

Relationships
4. Do you receive support and encouragement to maintain your relationships with other people, including friends and family? Yes/No
Is there anything staff could do to help you maintain your relationships?

Receiving Good Quality Service

5. Are you satisfied with the standard of service regarding your meals, personal care and nursing care? Yes/No

Is there anything we could do to improve the quality of service you receive?

Making Choices and Having Your Say

6. Do you have the opportunity to suggest changes or improvements to how your aged care home operates? Yes/No

Please comment.

Suggested collection timing: Quarterly snapshot

Exclusions: Cognitively compromised residents will require the use of the alternate representative/carer version of the tool (Resident's Representative Survey Tool – designed for use by other people acting on behalf of a resident.)

Limitations:
Inaccurate recording of data
Additional data collection required – however, the Australian Government is likely to promote national use of this tool in all RACS, pending validation and reliability testing.

Support from literature and consultations:
Yeh et al. (2003)
Marquis (2002)
Kane (2003)

Resident experience of care was a focus of participants in the consumer representative group, as well as being consistently identified throughout the forums held with stakeholders.

8

Indicator: Prevalence of symptoms of depression

Objective: To determine the number of residents with symptoms of depression

Quality Domain: Functional

Relevant accreditation outcome:

2.4 Clinical care	Residents receive appropriate clinical care
2.5 Specialised nursing care needs	Residents' specialised nursing care needs are identified and met by appropriately qualified nursing staff
2.6 Other health and related services	Residents are referred to appropriate health specialists in accordance with the resident's needs and preferences

Calculation formula (numerator and denominator):

Numerator:	Number of residents with symptoms of depression since previous audit.
Denominator:	Total number of residents

Anticipated benefit: Identification of symptoms of depression, so appropriate treatment can be administered

Definition of key data elements: Depression as defined by either the Geriatric Depression Scale (GDS) or the Cornell Scale for Depression in Dementia.

Data source – potential or actual:
Resident medical and nursing records
Geriatric Depression Scale (GDS) – to be used with residents without cognitive impairment (see Appendix 11.11)
Cornell Scale for Depression in Dementia – to be used with residents with cognitive impairment (see Appendix 11.12)

Data collection – methods and timing:
Review of resident medical and nursing records.
Review of depression assessment outcomes
Suggested collection timing: Quarterly snapshot

Exclusions: Nil

Limitations: Inaccurate recording of data
                    Staff would require training in use of tools.

Support from literature and consultations:
Centers for Medicare and Medicaid, Department of Health and Human Services USA, Long-term care resident assessment instrument user's manual, version 2.0, December 2002.
Zimmerman et al. (1995)
Rantz et al. (2004)
Participants at two of the four forums and 75% of consumer representatives perceived QIs related to depression to be critical indicators of quality of care.

9

Indicator: Health related quality of life of residents

Objective: This indicator is concerned with the outcomes of the quality of care components as measured by the health related quality of life achieved by residents.

Quality Domain: Psychosocial/ Preservation of human rights

Relevant accreditation outcome:

Standard 2   Health and personal care

Principle: Residents' physical and mental health will be promoted and achieved at the optimum level in partnership between each resident (or his or her representative) and the health care team.

Calculation formula (numerator and denominator):

Numerator: Number of residents achieving SF-36 scores above the average for Australian Residents of Aged Care Services as measured in the Australian published review (or agreed tool) since previous audit. (**http://www.uow.edu.au/commerce/ahoc/ sf36review.html**)

Denominator: Total number of residents

Anticipated benefit: The achievement of well being of residents is a paramount goal in Australian and international standards.

Definition of key data elements:

Medical Outcomes Study Short-Form 36-Item Health Survey (SF-36) scores.

The SF-36 includes one multi-item scale measuring each of eight health concepts:
1. physical functioning;
2. role limitations because of physical health problems;
3. bodily pain;
4. social functioning;

5. general mental health (psychological distress and psychological well-being);
6. role limitations because of emotional problems;

7. vitality (energy/fatigue); and
8. general health perceptions.

The SF-36 also includes a single-item measure of health transition or change. The SF-36 can also be divided into two aggregate summary measures the Physical Component Summary (PCS) and the Mental Component Summary (MCS). (In the standard version of the SF-36 all scale questions refer to a 4 week period.)

Source: **http://www.uow.edu.au/commerce/ahoc/sf36review**

Data source – potential or actual: Survey of sample of residents

Data collection – methods and timing: This will need to be developed in consultation with RACS. This will need to conform with the timing of the collection and reporting of the indicators.

Exclusions: Cognitively compromised clients (as evidenced by a score of 23 or less on the Mini Mental Status Examination (MMSE)) will not be able to participate directly will require proxies.

Limitations:
Not currently in use and would involve implementation issues eg training.
Not immediately appropriate to RACS would require modification

Support from literature and consultations:
See **http://www.uow.edu.au/commerce/ahoc/sf36review**
Kane et al. (2003)
Kane (2003)
Casarett et al. (2002)
Participants at all four forums suggested QIs relating to resident QOL or satisfaction.

10

Indicator: Staff experiences of care

Objective: To record factors that impact on staff experience in RACS.

Quality Domain: Psychosocial/ Preservation of human rights

Relevant accreditation outcome:

Standard 1: Management systems, staffing and organisational development

Principle: Within the philosophy and level of care offered in the residential care service, management systems are responsive to the needs of residents, their representatives, staff and stakeholders, and the changing environment in which the service operates.

Calculation formula (numerator and denominator):

Numerator: Staff experience questionnaire data

Denominator: Total number of care delivery staff

Anticipated benefit:

Where staff experiences are positive, higher quality care can be expected.

Definition of key data elements: *To be developed but may include:*

Staff retention/turnover/sick leave

Education and career pathways

Staff autonomy and decision making

Flexible rosters

Data source – potential or actual:

Staff experience questionnaire

Data collection – methods and timing:

To be determined

Exclusions: Nil

Limitations:

Inaccurate recording of data

Additional data collection required

Support from literature and consultations:

Chou et al. (2002)

Bowers et al. (2000)

Schirm et al. (1999)

At all four forums, participants identified many possible areas to focus on relating to staff at RACS.

8.3 Recommendations for implementation of Victorian public sector RACS QI indicator set

The purpose of the development of the QIs is to devise a system that will enable RACS to monitor their performance against the indicators and to provide useful and credible data that will, in turn, facilitate maximum quality improvement. A key facet and driver of quality improvement is the Quality Improvement Plans (QIPs) devised by RACS. QIPs are generally annually presented and devised with ongoing activity through the year designed to drive quality improvement. The indicators and the collection, reporting and quality improvement activities need, therefore, to dovetail well.

Taking account of feedback from the consultations, a number of questions relating to implementation must be addressed. These include:

1. How often should the indicators be collected and reported?

2. How should data quality/validation considerations be handled?

3. How should the indicator results be disseminated?

4. What processes should be used for implementation?

Frequency and timing of data collection and reporting issues

In relation to the issues of how often and when data should be collected, the relationship to useful impact upon QIPs is pivotal. On the basis of consultancy feedback, quarterly reporting should be implemented, meaning there be would four cycles of indicator data available for each QIP and it is suggested that six monthly cycles should be the minimum considered. Six monthly requires less effort by RACS, however does not provide as fine detail to enable tracking and timely intervention for quality improvement.

The Project Team consider that close joint consideration of this issue should be made by the DHS and the relevant RACS. If it is agreed that quarterly reporting is feasible and desirable than this should be implemented, however it may be that this decision is not made until after a pilot roll-out. Inevitably the first implementation will be more effortful than subsequent ones, however this experience would provide very useful information to inform the decision. If six monthly reporting is contemplated then the data collection cycle should align with this i.e. occur on a six monthly basis.

It should be noted that the current practices for collection of the existing indicators vary from indicator to indicator. Most current clinical indicators are collected on a continuous basis either because of individual RACS decisions to do so or because of formal accreditation requirement. Thus these indicators will not need significant change from current practice to fit into a new QI reporting system. Some RACS already internally report on these indicators on a frequent and routine basis. In the case of some indicators, most notably the proposed resident experience, staff experience and resident health-related QOL indicators, few RACS currently collect such data and new data collection activity will be required. Unlike the clinical

indicators where a census approach is currently implemented (i.e. data is collected about all pertinent residents), a sampling strategy will be required for these new indicators. From a statistical viewpoint, there is no need to perform census studies of these indicators in most RACS. It should nevertheless be noted that in the case of small RACS, because of the very small number of residents, it is likely that some may require the collection of data from *all* residents and/or carers.

The exact sample frame for each RACS will need a detailed consideration of the current size and throughput of each RACS. There will be a suitable balance between data collection effort and the need for data validity and statistical accuracy. Once again there will need to be consultation between the DHS and the RACS to formulate an agreed sampling strategy that adequately balances effort and outcomes.

Data validation issues

The second substantive issue is the issue of data validation and quality. The accreditation standards generally require some degree of validation of the data reported by RACS in their accreditation submissions. The Project Team does not suggest that an onerous validation regimen should or needs to be constructed. However residents and their families and the Victorian and provider communities need to have confidence in the fact that data reported by RACS are credible and accurate. This can be achieved in various ways. The first is through clear and unambiguous data collection protocols so that variations in data quality do not arise through misunderstandings of the data collection processes and protocol variations. The second is by a process of direct validation of data by people outside the employ of the specific RACS. Once again the Project Team does not consider that a census approach should be employed. There are several different ways that this could be implemented. One way might be to devise a validation cycle where each RACS is guaranteed that a data validation exercise will occur once over a three-year cycle but that the timing will be randomly determined. For example, with 120 RACS and a six monthly cycle, this suggests that at each cycle 20 RACS would undergo a validation exercise at each data collection. For quarterly data collection this suggests a rate of 10 RACS at each data collection. Another way might be to not have a specific requirement that all RACS will have a data validation exercise over a particular period, but rather have a random selection procedure with the proviso that no RACS will have a validation exercise repeated over a specified period (e.g. three years). This decision needs to be made on the basis of the balance between resources and data quality requirements. The over three year census approach is more comprehensive but it is more resource intensive. It is recommended that the decision involve detailed consultation between the DHS and RACS.

Dissemination of indicator results

The third substantive issue is how the indicator results should be disseminated. An important driver in quality improvement activities is the use of benchmark data where services/facilities compare their performance on common data and indicators with each other. Benchmarking provides vital data concerning the performances of RACS and enables their valid interpretation. In order to accrue the full benefits of the QIs, the Project Team recommends open disclosure, however it is to be expected that most RACS will want to be satisfied with the reliability and validity of the data and processes before publishing their QI data. Central to agreement on dissemination will be a collaborative approach between DHS and RACS alongside timely feedback.

Cultural background and indicators

In any credible indicator set consideration needs to be given to factors that may alter the pertinence of the indicators for different groups of residents affected by them. In the present context, the Project Team has attempted to make the indicators gender and culturally neutral. That is, they are designed so that they do not require different interpretations according to the people to whom they are being applied. Thus for clinical indicators such as incidence of new fractures the indicators have equal application across the different groups. Similarly, a fall is a fall, no matter the gender or culture of the resident involved.

People from different cultures have similar requirements of high QOL and positive care experiences in RACS. The measures to be used of these domains will need to be culturally appropriate. The outcomes of a current project using the Commonwealth Resident Experience Tools in association with the Partners in Culturally Appropriate Care Victoria (PICVIC) to assess the suitability of these Tools, will be potentially useful to the future validation of the Resident Experience Tools for the developments suggested in the current Project.

Proposed piloting of QIs in RACS

The proposed implementation strategy for the QIs takes account of the barriers and strategies identified by the consultations and better practice in change management. Gaining support from the RACS generally will be facilitated by testing the QIs initially in a small number of RACS to identify and address any implementation issues. The following steps are suggested in implementing the pilot phase in RACS:

1. Publish final report on DHS (Aged Care) website;

2. Identify RACS to be involved in the pilot of QIs;

3. Use an action research approach to implementation and evaluation;

4. Provide education of staff at pilot RACS;

5. Establish action groups/liaison persons at each pilot RACS to assist implementation and clarify any matters related to the QIs;

6. Implement through 2 to 3 cycles, and

7. On the basis of feedback from pilot RACS, finalise/modify the QI collection and implementation strategy for roll out to the remaining Victorian public sector RACS.

1. Publication of Final Report

Making available the Project Report will enable all stakeholders to become familiar with the QIs and related issues.
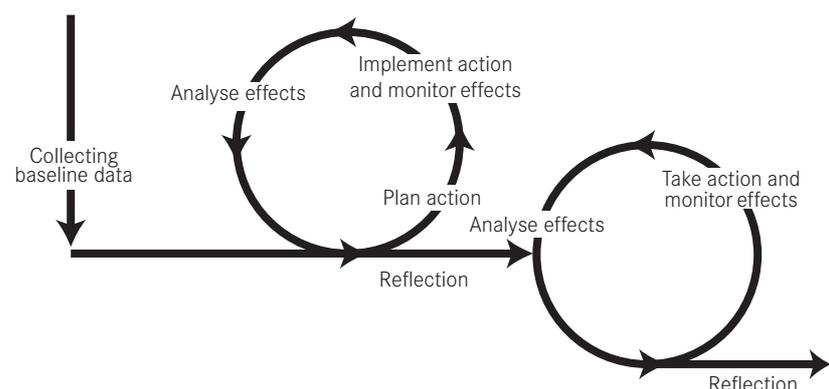
2. Identification of RACS for pilot of QIs

It was agreed at the Project Advisory Group meeting that RACS represented on the Project Advisory Group would offer good pilot sites, as understanding of the QIs is already high. It was also anticipated that other RACS would self-nominate to participate in the piloting phase of this Project. DONs (or nominees) of these sites would meet with DHS to finalise the details of the QI collection process. It is envisaged that this group will develop more detailed audit tools potentially including structure and process criteria related to each outcome. This group would continue to meet regularly throughout the implementation phase to lead the action process.

3. Use an action research approach to implementation and evaluation

Using an action research approach increases the likelihood that staff will 'own' the outcomes and that change will be embedded in practice. The advantage of this approach is that stakeholders participate in the identification of problems, the implementation of change, and the subsequent evaluation of outcomes (Birkett 1995). The action research process is cyclical, consisting of goal setting, planning, data collection, implementation of strategies, and evaluation. The process is repeated until the desired improvement is achieved. It is effective in achieving incremental change which is likely to be sustainable, because there is ongoing analysis and critical reflection.

Figure 2: Action Research Structure (Street 1999)

Collecting baseline data

Analyse effects

Implement action and monitor effects

Plan action

Reflection

Analyse effects

Take action and monitor effects

Reflection

4. Education of staff at pilot RACS

Once the pilot RACS have been determined, staff at all levels will need to undergo training and education about QIs in general, as well as about the specific QIs to be piloted. Staff education was recommended throughout the forums and interviews as vital. Topics that could be covered in information sessions include:

- QIs and how they relate to accreditation and CQI;
- Using QIs to improve quality of care – e.g. through own performance and through benchmarking against other RACS;
- Specific information regarding the selected QIs;
- The proposed implementation strategy.

If knowledge/skill gaps are identified through the action research process, further education could then be initiated to support staff development. Such education, in responding to an identified need, may be perceived as more obviously relevant and thus attractive to staff.

5. Establishment of action group/liaison person at each RACS

Change management requires good leadership and facilitation skills. The change literature demonstrates the need for participation and ownership if change is to be successfully implemented and embedded (Goleman 2002; Mant 1997). Therefore the RACS selected for the pilot should have leaders who are committed to the QIs and who can generate enthusiasm/support for their implementation. In addition, an action team constituted of staff that will assist with developing context specific strategies for implementation at their site and provide feed-back to the group as part of the action cycle will further enable the process. Thus there would be an overall steering group made up of the DONs and DHS supported by action teams at each site.

6. Implementation through 2 to 3 cycles

It is envisaged that two to three cycles of QI data collection and reporting will be required to pilot the QIs and it is recommended that the duration of a cycle be 3 months. Regular meetings and feedback from the action teams will assist the refinement of the QIs and further implementation strategy.

7. Use feedback from pilot RACS to finalise/modify the QI collection and implementation strategy for roll out to the remaining Victorian public sector RACS.

This would include addressing any risk adjustment considerations. Coefficients to be used in the risk adjustment formula are to be derived from data collected in the pilot phase. It is recommended that risk adjustment should not occur at the indicator level, but at the reporting (benchmark) level.

9. Conclusion

This Project, conducted for the Aged Care Branch of the DHS (Victoria), has identified and made recommendations for a set of QIs for Victorian public sector RACS. The recommended QIs were identified through a literature review and consultations with residential aged care stakeholders, experts in clinical/quality indicator development and a consumer issues focus group, in addition to input and guidance from the Project Advisory Group.

It is recommended that six QIs are currently ready to be implemented in a pilot phase. These are:

• Incidence of stage 1–4 pressure ulcers

• Incidence of new fractures as a proportion of falls

• Incidence of daily physical restraints

• Incidence of residents using nine or more different medications

• Incidence of weight change (i.e. a significant increase or decrease from the norm)

• Prevalence of symptoms of depression

Four other QIs, whilst no less important, require further refinement before their implementation. These are:

• Incidence of behavioural symptoms

• Resident experiences of care

• Health related QOL of residents

• Staff experiences of care

A piloting phase is suggested and it is clear that the implementation process should include a strong educative element. This would include information about what QIs are and their role in the accreditation process and should be provided to all levels of staff. There will also need to be a process for the subsequent development of the indicators recommended in the three new domains of resident experience, staff experience and resident health-related QOL, as well as the indicator relating to behaviours. It is suggested that the development of these new indicators be conducted in parallel with the roll out of the currently collected indicators and be added to the set perhaps at the time of the second data collection cycle. This will allow the timely introduction of the indicator system without having to wait for the full development of the new indicators.

A key feature of further activity is engagement between RACS and the DHS to finalise the indicators and their implementation. The implementation of the recommended Victorian public sector RACS QI set should take a participatory approach based on the principles of action research and contemporary change management. As expressed during the consultations, it is important that there is a partnership between DHS and RACS and that RACS receive timely feedback from the DHS. In addition, involvement of staff at all levels within each RACS will support implementation. Finally, while monitoring QIs will illuminate poor practice, a punitive approach will only result in low compliance and inaccurate recording. For the QIs to positively impact upon care for older people in Victorian public sector RACS, the emphasis must be on highlighting and sharing practice improvements.

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11. Appendices

APPENDIX 11.1

Table 1: Quality indicators for RACS used in the MDS 2.0 Version 6.3

Domain	Quality Indicator	Process/ Outcome
Accidents	Incidence of new fractures Numerator: Residents with new fractures on most recent assessment Denominator: Residents who did not have fractures on the previous assessment	Outcome
	Prevalence of falls Numerator: Residents who had falls on most recent assessment Denominator: All residents on most recent assessment	Outcome
Behavioural/ Emotional Patterns	Prevalence of behavioural symptoms affecting others (verbally abusive, physically abusive, or socially inappropriate/ disruptive behaviour Numerator: Residents with behavioural symptoms affecting others on most recent assessment Denominator: All residents on most recent assessment	Outcome
	Prevalence of symptoms of depression (sad mood plus at least two of following: resident made negative statements, agitation or withdrawal, wakes with unpleasant mood, suicidal or has recurrent thoughts of death, weight loss. Numerator: Residents with symptoms of depression on most recent assessment Denominator: All residents on most recent assessment	Outcome
	Prevalence of symptoms of depression and no antidepressant therapy Numerator: Residents with symptoms of depression on most recent assessment and no antidepressant therapy Denominator: All residents on most recent assessment	Both
Clinical Management	Prevalence of residents using nine or more different medications Numerator: Residents who received 9 or more different medications on most recent assessment Denominator: All residents on most recent assessment	Process
Cognitive Patterns	Incidence of cognitive impairment Numerator: Residents who were newly cognitively impaired on most recent assessment Denominator: Residents who were not cognitively impaired on previous assessment	Outcome
Elimination/ Incontinence	Prevalence of bladder or bowel incontinence Numerator: Residents who were frequently incontinent or incontinent on most recent assessment Denominator: All residents, except as noted in exclusion	Outcome

Domain	Quality Indicator	Process/ Outcome
	Prevalence of occasional bladder or bowel incontinence without a toileting plan Numerator: Residents without toileting plan on most recent assessment Denominator: Residents with frequent incontinence or occasionally incontinent in either bladder or bowel on most recent assessment.	Both
	Prevalence of indwelling catheters Numerator: Indwelling catheter on most recent assessment Denominator: All residents on most recent assessment	Process
	Prevalence of faecal impaction Numerator: Residents with faecal impaction on most recent assessment Denominator: All residents on most recent assessment	Outcome
Infection Control	Prevalence of urinary tract infections Numerator: Residents with urinary tract infections on most recent assessment Denominator: All residents on most recent assessment	Outcome
Nutrition/ Eating	Prevalence of weight loss Numerator: Proportion of residents with weight loss of 5% or more in the last 30 days or 10% or more in the last 6 months on most recent assessment Denominator: All residents on most recent assessment	Outcome
	Prevalence of tube feeding Numerator: Residents with tube feeding on most recent assessment Denominator: All residents on most recent assessment	Process
	Prevalence of dehydration Numerator: Residents with dehydration Denominator: All residents on most recent assessment	Outcome
Physical Functioning	Prevalence of bedfast residents Numerator: Residents who are bedfast on most recent assessment Denominator: All residents on most recent assessment	Outcome
	Incidence of decline in late loss ADLs Numerator: Residents showing ADL decline in self-performance between previous and most recent assessment. Denominator: All residents who have most recent and previous assessments (Excluding those who cannot decline because they are already totally dependent or who are comatose on the previous assessment)	Outcome

Domain	Quality Indicator	Process/Outcome
	Incidence of decline in range of motion (ROM) Numerator: Residents with increases in functional limitation in ROM between previous and most recent assessments Denominator: All residents with previous and most recent assessments, with the exclusion noted (i.e. residents with maximal loss of ROM at previous assessment)	Outcome
Psychotropic Drug Use	Prevalence of antipsychotic use in the absence of psychotic and related conditions Numerator: Residents receiving anti-psychotics on most recent assessment Denominator: All residents on most recent assessment, except those with psychotic or related conditions	Process
	Prevalence of antianxiety/hypnotic use Numerator: Residents who received antianxiety or hypnotics on most recent assessment Denominator: All residents on most recent assessment, except those with psychotic or related conditions.	Process
	Prevalence of hypnotic use more than two times in the last week Numerator: Residents who received hypnotics more than 2 times in last week on most recent assessment Denominator: All residents on most recent assessment	Process
Quality Of Life	Prevalence of daily physical restraints Numerator: Residents who were physically restrained daily on most recent assessment Denominator: All residents on most recent assessment	Process
	Prevalence of little or no activity Numerator: Residents with little or no activity on most recent assessment Denominator: All residents (excluding comatose) on most recent assessment	Either
Skin Care	Prevalence of stage 1–4 pressure ulcers Numerator: Residents with pressure ulcers (Stage 1–4) on most recent assessment Denominator: All residents on most recent assessment	Outcome

Source: Table modified from CHRSA (www.chrsa..wisc.edu) and Zimmerman (2003).

APPENDIX 11.2

Indicators of quality of care identified by Grant et al. (1996)

Fourteen major indicators of quality of care (see following) and many sub-indicators (not replicated here) were identified:

- Nature of the facility

- Nature of relationships (e.g. caring, shared experience)

- Acknowledgement of the personhood of the resident (e.g. involvement in meaningful activities, recognition of personal property, protection of privacy)

- Nature of communication with residents (e.g. content of conversation, commitment of time for conversation, manner or tone of the communication)

- Disposition of decision making (e.g. offering of choice, disposition of power)

- Judgements about assistance required

- Degree and nature of surveillance

- Presence of planning and judgement about care (e.g. discuss care with resident, Assessment)

- Nature of communication with the health care team (e.g. communication among the members of the nursing staff, team conferences)

- Do or assist with activities of living which residents cannot do for themselves

- Do or assist with therapeutic activities which residents cannot do for themselves

- Manner in which activities of living and therapeutic activities are carried out (e.g. correctness, thoroughness, perserverance, pace, reliability)

- Nature of interaction with significant others (e.g. recognition of significant others as providers of personal supplies, significant others as advocates)

- Provision of use and attributes of resources (e.g. nursing staff, time, provision of equipment and supplies).

APPENDIX 11.3

Table 2: Long term care quality indicators used by International Quality Indicator Project

Indicator 1:	Unplanned Weight Change Unplanned weight loss Unplanned weight gain
Indicator 2:	Pressure Ulcers Pressure Ulcer Point Prevalence Stage I Pressure Ulcer Point Prevalence Stage II Pressure Ulcer Point Prevalence Stage III Pressure Ulcer Point Prevalence Stage IV Pressure Ulcer Point Prevalence
Indicator 3:	Documented Falls Documented falls Falls due to resident/patient health status Falls due to response to treatment, medication or anaesthesia Falls due to environmental hazard Falls due to other causes Falls that resulted in injury Falls that resulted in injury with Severity Score 1 Falls that resulted in injury with Severity Score 2 Falls that resulted in injury with Severity Score 3 Residents/patients experiencing falls
Indicator 4:	Unscheduled Transfers/Discharges to Inpatient Acute Care Unscheduled transfers/discharges to inpatient acute care within 72 hours of LTC admission Total unscheduled transfers/discharges to inpatient acute care Unscheduled transfers/discharges to inpatient acute care for cardiovascular decompensation Unscheduled transfers/discharges to inpatient acute care for evaluation or treatment of fractures Unscheduled transfers/discharges to inpatient acute care for gastrointestinal bleeding Unscheduled transfers/discharges to inpatient acute care for infection Unscheduled transfers/discharges to inpatient acute care for all other medical/surgical reasons

Indicator 5: Nosocomial Infections Lower respiratory tract infections treated
Resident/patient days in which lower respiratory tract infections were treated
Symptomatic urinary tract infections treated
Symptomatic urinary tract infections treated in residents/patients with indwelling catheters
Symptomatic urinary tract infections treated in residents/patients without indwelling catheters
Residents/patients treated for one or more symptomatic urinary tract infections
Residents/patients with indwelling catheters treated for one or more symptomatic urinary tract infections
Residents/patients without indwelling catheters treated for one or more symptomatic urinary tract infections

Indicator 6: Physical Restraint Events
Physical restraint events
Physical restraint events <1 hour
Physical restraint events >1 hour but < 4 hours
Physical restraint events >4 hour but < 8 hours
Physical restraint events >8 hour but < 16 hours
Physical restraint events >16 hour but < 24 hours
Physical restraint events >24 hours
Physical restraint events due to cognitive disorder
Physical restraint events due to risk of falling
Physical restraint events due to disruptive behaviour
Physical restraint events to facilitate treatment
Physical restraint events for all other reasons
Physical restraint events initiated between 7:00am and 2.59pm
Physical restraint events initiated between 3:00pm and 10:59pm
Physical restraint events initiated between 11:00pm and 6:59pm
Residents/patients experiencing physical restraint
Residents/patients with multiple restraint events

Source: **http://www.qiproject.org/Brochure/IndLTC.pdf**

APPENDIX 11.4

Table 3: QIs identified by Saliba & Schnelle (2002) to measure nursing home residential care process

Preferences
1. IF a vulnerable older person is admitted to a nursing home (NH) THEN within two weeks, the resident's preferences for daily life activities in all of the following areas should be assessed and documented in the record: sleep schedule, meals, roommates, telephone access, participation in activities, spirituality and privacy. 2. IF a NH resident can provide stable and realistic preference information about daily life activities that are related to quality of life THEN the degree to which these preferences are being met should be monitored at least quarterly after admission.

Assistance
3. IF the MDS documents a resident's self-performance of transfers as level 1, 2, 3 or 4 THEN the resident should be offered assistance with transfer at least three times a day.

4. IF the MDS documents a resident's self-performance of dressing or hygiene as level 1, 2, 3 or 4 THEN the resident should be offered assistance with dressing or hygiene at least twice a day.

5. IF the MDS documents a resident's self-performance of eating as level 1 , 2, 3 or 4 THEN the resident should be offered assistance with eating

6. IF the MDS documents a resident's self-performance of toileting as level 1, 2, 3 or 4 THEN the resident should be offered assistance with toileting:
Every two hours while awake
Using a schedule based on formal need assessment (24 hour voiding record or pad test), or
Whenever requested

7. IF the MDS documents a resident's self-performance of any activity of daily living (ADL) as level 1, 2, 3 or 4 or the resident or proxy reports needing assistance with an ADL THEN the NH staff should promote increased independence and self-performance (eg. graduated promoting protocols matched to resident need)

8. IF the MDS documents a resident's self-performance of any ADL as level 1, 2, 3 or 4 or the resident or proxy reports needing assistance with an ADL THEN the resident should report that she/he receives verbal notification or cueing before the assistance is given, is not rushed to complete the task, and is not afraid to request assistance when needed

9. IF the MDS documents that a resident requires assistance with any personal care activity (dressing/personal hygiene, bathing or continence) or the resident or proxy reports needing assistance with any personal care activity THEN the resident/proxy should report that privacy is respected (eg. closing curtains, closing door, not changing in public place) when personal care assistance is provided.

10. IF the NH resident or proxy reports requesting assistance with any ADL THEN the resident should report that he/she is satisfied with the timeliness of staff response to their request.

11. ALL NH residents with ADL limitations should be monitored within the NH by a system that documents the frequency, timeliness and quality of assistance provided by staff to residents using:
Direct observation by human observer
Resident, family or advocate interview (after resident or proxy consent) or,
Direct observation aided by monitoring systems such as movement sensors or video cameras
Daily Exercise

12. IF a NH resident is physically inactive, THEN she/he should be provided with assisted exercise daily unless the resident clearly refuses. Access to Activity

13. IF a NH resident is capable of participating in a structured activity program (alert, able to understand visual or verbal cues, not restricted to bed rest) THEN she/he should have access to, and be prompted to participate in, varied structured activities (beyond that of group meal times) at least four days per week. Access to Assistive Devices

14. IF a NH resident uses an assistive device such as corrective lenses, large-print reading materials, hearing aid, amplifiers, dentures or mobility devices THEN the devices should be usable and readily accessible Care Planning

15. IF a vulnerable older person is admitted to a NH THEN the chart should document, or NH resident/surrogate should report, a discussion to establish goals of care. If neither resident nor family participates in planning goals of care, then the reason should be clearly documented.

16. IF a NH resident has a significant deterioration in physical or mental condition that requires a new evaluation, new medication or other therapeutic intervention THEN the NH resident or surrogate should be provided sufficient information (prognosis, diagnosis, options and expected outcomes) to allow participation in diagnostic and treatment decisions, unless a surrogate cannot be contacted.

17. IF a NH resident has diabetes mellitus, hypertension or ischemic heart disease and the condition is not tightly controlled (e.g. glycosylated haemoglobin >10, blood pressure >160/90) THEN the goals of care for these conditions should be clearly identified in the record Access to primary care provider

18. IF the NH staff attempts to contact the primary care provider to discuss a significant deterioration in resident status, and the primary care provider does not respond to NH notification in 1 hour THEN the NH staff should repeat the contact attempt within 20 minutes and if no response call the medical director Communication

19. IF a NH resident is deaf or does not speak English THEN an interpreter and other written or visual materials should be employed to facilitate communication between the resident and NH staff (unless NH staff speak the language of the resident)

Source: Modified from Saliba and Schnelle (2002).
NH = nursing home, MDS = Minimum Data Set, Level 1 = supervision, Level 2 = limited assistance, Level 3 = extensive assistance, Level 4 = total dependence. Activities of Daily Living (ADL) = mobility, transfer, dressing, eating, toileting, personal hygiene

APPENDIX 11.5

Table 4: Number of industry stakeholder forum attendees and their position designations

	Benalla (n = 9)	Geelong (n = 22)	Melbourne (n = 31)	Total N = 62
Acting CE (actually DON)	1			1
Acting DON			1	1
Activities Person			1	1
ADON		1	1	2
Age Care Coordinator	1			1
CEO/QIC		1		1
Charge Nurse			2	2
CNC			1	1
Divisional Nursing Director		1		1
DON	1	4	3	8
DON/CEO		1	1	2
DON/Manager	1	1	1	3
General Manager			1	1
Health Information Manager		1		1
Improvement Coordinator (RN Div 1)		1		1
Manager Aged Care			1	1
Manager Residential Care Services		1		1
Manager/RN		1		1
NUM	4	2	5	11
Nursing Home Manager			1	1
Principal Carer			1	1
Program Manager			1	1
Project Officer		1		1
QI Coordinator		2		2
Quality Coordinator			3	3
Quality Coordinator (RN Div 1)		1		1
Quality Manager		1	1	2
Quality Manager – Physiotherapist		1		1
Quality Manager/ADON			1	1
RCS Quality			1	1
Rec. Worker			1	1
Residential Care Coordinator (RN Div 1)		1		1
RN Div 1 ACN			1	1
RN Division 1	1		1	2
RN Division 2			1	1

1 Forum participants provided their own designations and these have been replicated here.

ADON = Associate Director of Nursing, ACN = Associate Charge Nurse, CNC = Clinical Nurse Consultant, DON = Director of Nursing, NUM = Nurse Unit Manager, RN = Registered Nurse

APPENDIX 11.6

Names of attendees at the forums held with industry stakeholders

Steve Demeye	Elizabeth Wilson
Tineka Carr	Karen James
Christine Mitchell	Michelle Gurry
Mary Bruce	Carita Potts
Dorothy Rogers	Donna Watmuff
Leanne Hilburn	Noleen Wales
Ross Waddington	Kate Taylor
Jan Hutchinson	Marlene Connaughton
Ronalda Coucher	Lisa Hee
Gayle Dougherty	Hazel Saligari
Enid Smith	Gabrielle Nagle
Kene Marshall	Deborah Sykes
Mary Swift	Louise Arthur
Mary-Jane White	Rosemary Hogan
Jan Bennett	Libby Reeves
Terrona Ramsey	Gael Traa
Janice Preston	Denise Matheson
Jill Peterkin	Kally Kannan
Fiona McKinnon	Maria Mc Intosh
Heath Richardson	Annie Carr
Rosemary Lardner	Helen Pini
Fiona Stevens	Jan Webb
Donna Broughton	Mary Stapleton
Michael	Sharon Godleman
Debra Hitchcock	Sue McLaurin
Moira Hecker	Geraldine Calder
Christine Koch	Jennifer
Geraldine Fernandes	Gaye Jackson
Joan Murphy	Irene Perry
Sandra Parker	Tony Tuohey
Gwen Carll	Jill Roberts
Jan McEgan	Maree Townsend
Meredith Hare	Jan Fisher
Rosemary Rees	

APPENDIX 11.7

Letter of invitation

3rd October 2003

Invitation to a forum – Quality Care Performance Indicators

Dear

The Department of Human Services in Victoria has funded our team at La Trobe University/Bundoora Extended Care Centre to undertake a project which aims to identify and assess a set of appropriate performance indicators and related recommendations to assist in monitoring and improving the quality of care provided to residents by Victoria's public sector residential aged care services. It is anticipated that the proposed set of indicators would include the major aspects of quality of care that can be measured at an organisational level.

The project involves reviewing the literature and consultations with industry stakeholders. These consultations will include public forums and possibly interviews with a small number of key stakeholders to explore issues raised in the forums in more depth. The consultations will provide an opportunity for stakeholders to comment on quality indicators currently in use, propose other indicators for consideration and to identify barriers to, or strategies to assist, implementation of quality indicators in aged care.

Forums will be held on:

> Monday 3rd November 2003
> Venue: Dept. of Human Services
> 26 Church Street
> Benalla
> Time: 10.30am – 1.00 pm approx.
> RSVP: 03 9495 3330, by 27 October 2003 (Numbers limited)

> Thursday 6th November 2003
> Venue: Dept. of Human Services
> Cnr. Fenwick & Lt. Malop Streets
> Geelong
> Time: 10.30 – 1.00 pm approx.
> RSVP: 03 9495 3330, by 30 October 2003 (Numbers limited)

> Monday 10th November 2003
> Venue: La Trobe University
> 215 Franklin Street
> Melbourne
> Time: 10.30 – 1.00 pm approx.
> RSVP: 03 9495 3330, by 30 October 2003 (Numbers limited)

These Forums will be taped and all participants will be invited to sign a form indicating whether or not they wish to have their participation noted in the Final Report. While information from the forums and possibly direct quotes will be included in publications related to this project no individual will be identified in relation to the ideas/quotes. Further information sheets will be available to participants at each forum.

If you have any queries please contact: Professor Rhonda Nay 03 9495 3141 or Jacinda Wilson 03 9495 3330.

Written Submissions are welcomed and should be emailed to Jacinda Wilson **jacinda.wilson@latrobe.edu.au**

Your submissions should address:

• Quality Indicators currently in use (Indicators may, for example, be falls, restraint etc.);

• Other indicators you wish to recommend and why;

• Potential barriers that you perceive may impede the use of specific indicators or indicators generally; and

• Strategies that you have experienced, or believe would, work in facilitating implementation of quality indicators.

PLEASE INDICATE IF YOU WISH YOUR NAME TO BE LISTED IN THE FINAL REPORT AS A CONTRIBUTOR.

Details of this project are available from **www.latrobe.edu.au/nursing/bundoora/gerontic/quality.htm**. I encourage you to participate in this essential work.

Yours sincerely,

Rhonda Nay
Professor Gerontic Nursing
Gerontic Nursing Clinical School
La Trobe University

APPENDIX 11.8

Clinical/Quality Indicator Experts Interviewed

Stephen Midson	Consulting Director, Moving ON Audits
Dr Joe Ibrahim	Clinical Service Director for Aged Care, Williamstown Hospital, Western Health, and Consultant Forensic Physician, Clinical Liaison Service State Coroners Office and Victorian Institute for Forensic Medicine
Professor Mary Courtney	Professor of Nursing, Director of Research, School of Nursing, University of Queensland
Professor Len Gray	Professor in Geriatric Medicine, University of Queensland
Nandana Devi Ranasinghe	PhD candidate, Total Quality Management Training Services, Mt Waverley
Professor Gary Andrews	Professor of Ageing, Division of Health Sciences University of South Australia

APPENDIX 11.9

Consumer Issues Focus Group participants

Janet Wood   Ministerial Advisory Council of Senior Victorians
Bronwyn Williams   Department of Veteran Affairs
Ljubica Petrov   Partners in Culturally Appropriate Care – Victoria (PICVIC)
Gillean Glazenbrook   Alzheimer's Australia

APPENDIX 11.10

Norton's Risk Assessment Scale

A total score of 14 indicates the onset of risk and a total score of 12 or below indicates that a patient is at a high risk of developing a pressure ulcer.

Physical Condition	Mental Condition	Activity level	Mobility status	Incontinent
Good 4	Alert 4	Ambulant 4	Full 4	Not 4
Fair 3	Apathetic 3	Walks with help 3	Slightly limited 3	Occasional 3
Poor 2	Confused 2	Chair bound 2	Very limited 2	Usually urine 2
Very bad 1	Stupor 1	Bed bound 1	Immobile 1	Doubly 1

APPENDIX 11.11

Geriatric Depression Scale

"I would like to ask you some questions about how you have been feeling in the past week. Please answer YES or NO to each question". If client does not answer YES or NO, say *"Please answer YES or NO"* and then ask the question again to a maximum of three times.

Are you basically satisfied with your life?	**Yes – NO**
Do you feel that your life is empty?	**YES – No**
Are you afraid that something bad is going to happen to you?	**YES– No**
Do you feel happy most of the time?	**Yes – NO**
Do you often get bored?	YES – No
Are you in good spirits most of the time?	Yes – NO
Have you dropped many of your activities or interests?	YES – No
Do you prefer to stay at home, rather than going out and doing new things?	YES – No
Do you feel that you have more problems with memory than most?	YES – No
Do you think it is wonderful to be alive now?	Yes – NO
Do you feel pretty worthless the way you are now?	YES – No
Do you feel full of energy?	Yes – NO
Do you feel that your situation is hopeless?	YES – No
Do you think that most people are better off than you are?	YES – No

Client's Score

Score 1 for answer in capitals: 0–5 not depressed, 6–15 depressed
In 4 item version, score of 0: not depressed.

For additional information on administration and scoring refer to the following:

Shekh, J.I., & Yesavage, J.A (1986). Geriatric Depression Scale: Recent Evidence and Development of a Shorter Version, *Clinical Gerontology* 5,165–72.

Yesavage, J.A., Brink, T.L., Rose. T.L, et al. (1983). Development and Validation of a Geriatric Depression Rating Scale: A Preliminary Report. *Journal of Psychiatric Research*, 17–27.

APPENDIX 11.12

Cornell Scale for Depression in Dementia

Scoring (based on symptoms/signs occurring during the week prior to testing): a = unable to evaluate; 0 = absent; 1 = mild or intermittent; 2 = severe. Cornell Scale for Depression in Dementia

Patient's name: _____

Date: _____

Location: _____

A. Mood-related signs

1. Anxiety (anxious expression, ruminations, worrying)	a	0	1	2
2. Sadness (sad expression, sad voice, tearfulness)	a	0	1	2
3. Lack of reactivity to pleasant events	a	0	1	2
4. Irritability (easily annoyed, short tempered)	a	0	1	2

B. Behavioral disturbances

5. Agitation (restlessness, hand-wringing, hair-pulling)	a	0	1	2
6. Retardation (slow movements, slow speech, slow reactions)	a	0	1	2
7. Multiple physical complaints (score 0 if gastrointestinal symptoms only)	a	0	1	2
8 Loss of interest, less involved in usual activities (score only if change occurred acutely–in less than 1 month)	a	0	1	2

C. Physical signs

9. Appetite loss (eating less than usual)	a	0	1	2
10. Weight loss (score 2 if greater than 5 lb in one month)	a	0	1	2
11. Lack of energy (fatigues easily, unable to sustain activities) (score only if change occurred acutely–in less than one month)	a	0	1	2

D. Cyclic functions

12. Diurnal variation on mood (symptoms worse in the morning)	a	0	1	2
13. Difficulty falling asleep (later than usual for this person)	a	0	1	2
14. Multiple awakenings during sleep	a	0	1	2
15. Early morning awakening (earlier than usual for this person)	a	0	1	2

E. Ideational disturbances

16. Suicide (feels life is not worth living, has suicidal wishes,
   or makes suicidal attempt)   a   0   1   2

17. Poor self-esteem (self-blame, self-deprecation, feelings of failure) a   0   1   2

18. Pessimism (anticipation of the worst)   a   0   1   2

19. Mood-congruent delusions (delusions of poverty, illness, or loss) a   0   1   2

Total score:*

–Not diagnostic of depression, but higher scores indicate greater need for further evaluation.

For further information: Alexopoulos, G.S., Abrams, R.C. & Shamoian C.A. (1998). Cornell Scale for Depression in Dementia. *Biol Psychiatry*, 23(3), 271–84.