Public reporting of long-term care quality: the US experience

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Summary: Efforts to improve the quality of long-term care services traditionally focus on regulatory and enforcement systems, however, increasingly provider quality improvement efforts stimulated by public reporting of provider performance has been emphasised in the US in both institutional and community based long-term care. Over the past decade, in the US publicly reporting provider performance has been advanced as a means of introducing competition on the basis of quality into the long-term care sector, providing benchmarks against which providers can compare themselves and be compared. This paper briefly summarises the US experience over the last decade in these efforts and proceeds to discuss and document research regarding the advantages and pitfalls of quality measurement and the effects that public reporting has had. Since provider comparisons in the acute care sector are already underway in many European countries, it is likely that these efforts will be expanded in those countries that have a uniform data system in place which can be used for measurement.

Key words: Quality, long-term care, USA, public reporting, measurement, policy, Medicare, Medicaid

Most industrialised and industrialising countries are facing a crisis in the provision of health and social care for their rapidly ageing populations. Over the last half century formal care systems have emerged to meet the care needs of frail older people who no longer have the ability to manage independently and whose families are unable to provide the support necessary to enable them to live at home. Different countries have adopted very different strategies in developing services for the frail elderly, with some investing far more in residential care while others also have encouraged the establishment of home care services. While some countries have invested in the provision of home and community based services, according to the Organisation for Economic Cooperation and Development (OECD), only 30% of all public expenditures were devoted to home care; the bulk going to institutional services. Amongst OECD countries the number of long-term care beds per 1,000 people 65+ ranges from 88 in Sweden and 71 in Switzerland to under 20 in Italy, with the US, Australia and Japan around the OECD average of 41.

Given the historical emphasis on institutions, when policy makers seek to improve the quality of long-term care services, they tend to focus on institutional care which is widely believed not to live up to people’s expectations. Documented quality problems range from inadequate staffing to high rates of pressure ulcers, restraints and psychotropic drug use. Ultimately, there is a limit to how much long-term care can be shifted to home-based support and services, since the rapidly ageing populations of industrialised and industrialising countries has been accompanied by smaller family sizes, greater geographic mobility and increased female labour force participation, all of which undermine the ability of families to care for older members at home.

Efforts to improve the quality of long-term care services generally focus on improved regulatory and enforcement systems, internal quality improvement efforts and public reporting of provider performance in a manner designed to stimulate market forces. In the US, while most of the focus has been on institutional long-term care, efforts to assure quality of care in nursing homes and home health care through the use of publicly reported measures of quality based upon common data have been underway for over a decade and some research regarding the efficacy of these efforts has begun to appear.

The purpose of this paper is to summarise the US experience with public reporting as a means of improving the quality of long-term care services. Since public reporting requires that quality be measured, this article begins with a brief discussion of the conceptual and technical considerations in measuring quality and the clinical assessment systems, which are at the core of the quality measures used in these industries in the US.

Measuring quality in long-term care

In the US, federal subsidy of long-term care began once Medicare reimbursed for post-hospital nursing home and home care and once Medicaid began paying for nursing homes. The long-term care service sector represents a diverse group of institutional and community based providers.
but only Medicare/Medicaid certified nursing homes and home health agencies (HHA) are subject to uniform data reporting requirements, even though in some states assisted living facilities, state and privately funded home care agencies, serve many frail older people.

Shortly after Medicare and Medicaid nursing home benefits were instituted, scandals about nursing home quality arose frequently, instigating investigations and commissions. In 1984, the Institute of Medicine recommended various changes, most of which were translated into a law passed in 1987, including a mandate to comprehensively assess all nursing home residents. Systematic assessment serves to structure the clinical information necessary for care planning and provides the basis for a common lexicon. A resident assessment was nationally implemented in 1991, updated in 1997 and universally computatised in 1998.

Following considerable testing, the Minimum Data Set (MDS) for nursing home resident assessment (RAI) was found to be reliable and generally valid in population based research and the resulting data were found to be correlated with research quality instruments for cognition, depression and physical function. The RAI was soon used for policy applications such as case-mix reimbursement which pays facilities differentially for serving more impaired and sicker patients. Creating quality indicators to monitor provider performance both to guide quality improvement efforts in a single nursing home and to generate and publish quality indicators to monitor provider performance both to guide quality improvement efforts in a single nursing home and to monitor quality improvements across the entire industry. Since process quality measures summarise differences in what providers do rather than the outcomes patients’ experience, it is easier to assume that they are the direct result of provider choices. Thus, differences in the use of physical restraints among nursing home residents may reflect a style of care; however, even in this instance, the mix of residents treated may matter since, on average severely demented residents are more likely to manifest behaviours that call for restraints, although not all facilities apply physical restraints to these types of patients. A more precise definition of the population in the denominator, such as the percentage of cognitively impaired persons who are restrained, might obviate any possible concern about comparing homes with different rates of restraint use.

For both the MDS and the OASIS, however, it was a big step to switch from using the data to describe a change in a patient’s condition to aggregating the data to characterise the quality experience for the average patient served. This is what is necessary to construct provider (facility, agency or hospital) level measures of quality that summarise the proportion of patients with the positive (for example, improved in function) or negative (for example, acquired a pressure ulcer) quality indicator of interest. In constructing the measures now in use on the CMS ‘Compare’ sites, researchers and policy makers had several important conceptual and technical issues which designers of any indicator have to address. These issues are reviewed below, contrasting how the designers of the MDS and OASIS based measures chose to deal with them.

Conceptual and technical challenges in designing quality measures

Selecting what aspects of quality should be measured and incorporated into quality measurement metrics is perhaps the most important issue. In long-term care, there are clinical, functional, treatment-related, psychosocial and quality of life related aspects of quality, some of which are more readily measured than others. It is often the case that these aspects of quality that are most valued are most difficult to measure either because we do not trust the patients’ voice or because we do not know how to capture that voice. Inherent in selecting a quality measure for a particular health care field is a shared understanding of the importance of the particular aspect of quality.

Any comparison of one provider with another assumes that the providers are otherwise similar, serving similar patients, so that it is something about the way in which care is provided that results in the observed difference. That is, such comparisons lead us to ‘attribute’ the observed differences in quality to differences in care processes. Since process quality measures summarise differences in what providers do rather than the outcomes patients’ experience, it is easier to assume that they are the direct result of provider choices. Thus, differences in the use of physical restraints among nursing home residents may reflect a style of care; however, even in this instance, the mix of residents treated may matter since, on average severely demented residents are more likely to manifest behaviours that call for restraints, although not all facilities apply physical restraints to these types of patients. A more precise definition of the population in the denominator, such as the percentage of cognitively impaired persons who are restrained, might obviate any possible concern about comparing homes with different rates of restraint use. In general, process measures are more likely to be under the control of the provider, whereas ‘outcomes’ or changes in patients’ experience are much more dependent upon the mix of residents being measured.

Having ascertained the importance of a quality measure, there are host of technical issues that must be addressed before it can be applied in an unbiased manner. First, whether measuring a process or an outcome, the mix of patients served can influence the measure without necessarily reflecting the quality of care. The original quality indicators based upon the MDS and which pre-dated the CMS nursing home quality measures, were largely unadjusted and when an adjustment was applied it was only minimally stratified.

Research
suggests that even the CMS measures are inadequately risk adjusted.\textsuperscript{23} In contrast, the Home Health quality measures were extensively risk adjusted and this approach has been replicated in research studies.\textsuperscript{24}

Second, the minimum number of observations used in constructing a quality measure has to be considered since comparing providers is a statistical issue not readily understood by the public but very sensitive to sample size. The number of observations necessary to have a high degree of confidence is far greater than most facilities have and statistical modelling efforts often end up shrinking the size of observed differences.\textsuperscript{22}

Third, both ‘Nursing Home’ and ‘Home Health Compare’ sites update reported quality measures on a quarterly basis. This is done to allow for measures to be sensitive to changes in staffing and practices, etc., but can sometime result in a high degree of volatility, particularly in measures looking at changes over time. Much of the volatility comes from the small sample size discussed above, but the mix of patients that long-term care providers admit each quarter can differ in important ways, meaning that the lack of case mix adjustment could exacerbate this volatility. In particular, measures like hospitalisation of home health patients and the proportion of residents declining in Activities of Daily Living (ADL) in nursing homes are variable.

Fourth, it is often the case that providers’ quality measures are converted from rates to ranks, facilitating labelling of providers as the ‘best’, or as in the top or bottom ten percent. If, however, the underlying quality measure is very tightly bunched (for example, most providers only have a 5% decline in ADL), ranks create variation where there was little in the first place, giving consumers the false impression that there is a real difference between the median facility and the facility at the 60th percentile.\textsuperscript{22} This can be an issue regardless of how well designed and structured the quality measure.

Finally, it is often the case that consumers and policy makers would like to be able to clearly state which provider is the best and not qualify this by stating best in terms of one measure or another. This requires a composite score, one which integrates the information contained in all, or a subset, of specific measures. While desirable, to the extent that the components are not correlated, the composite will be very insensitive, since adding together unrelated elements means that providers with similar overall scores could be a mixture of very different quality profiles. Research reveals that most of the individual quality measures reported in both ‘Nursing Home’ and ‘Home Health Compare’ are minimally correlated, suggesting that the composite now in use in ‘Nursing Home Compare’ could be misleading.\textsuperscript{22}

**Effectiveness of public reporting**

Like most policy innovations, publicly reporting long-term care providers’ response has been examined by multiple researchers using very different strategies. Unfortunately, almost all the published literature and policy focus has been on nursing homes and not home health agencies.

With respect to nursing homes, several researchers have surveyed administrators, initially concluding that facilities were largely ignoring public reporting, but later finding that the administrators were clearly aware of their own publicly reported performance as well as that of their competitors, even though they did not believe that consumers sought out this information on the web.\textsuperscript{25,26} Results suggest that in the early years of the publicly reported nursing home measures, improvement in average scores was greater in more competitive markets. More recent analyses undertaken by investigators seeking to understand whether quality improved on both reported and unreported measures found that, adjusting for the changing mix of residents in US nursing home before and following the introduction of ‘Nursing Home Compare’, general improvement in quality was observed for both reported and unreported measures, although not across all measures.\textsuperscript{27} As importantly, researchers also have shown that both long stay and short stay rehabilitation nursing home patients appear to benefit from quality improvement efforts designed to improve quality.

**Conclusions**

In spite of known technical limitations of the measures, publicly reported data are now promulgated widely.\textsuperscript{26–29} Indeed, a pay for performance demonstration project that rewards facilities based upon their quality performance on the indicators, as well as reductions in acute hospitalisations, is now underway. Thus, the assessment instruments that underpin multiple policy applications designed to improve quality, including providing targets for quality improvement efforts and generating publicly reported indicators of quality performance which consumers and their advocates can use in selecting providers, have done their job. What began as a clinical assessment tool in nursing homes and as an outcome measurement tool in home care has converged precisely because of its universality. Uniform clinical data that is useful to clinicians can be useful for policy makers at all levels. While there are still numerous difficulties and complications that need to be ironed out, the US experience has overall been positive and other countries that are replicating it in various ways may be having similarly positive experiences.

**References**


Safeguarding good quality in long-term care: the Austrian approach

Birgit Trukeschitz

Summary: This paper provides an overview of quality regulation and initiatives to improve the quality of long-term care in Austria. It starts off describing the regulations public authorities have issued to assure good quality in long-term care. While most of these regulations focus on structure (and process) related aspects of quality, there are also initiatives to measure the quality of long-term care outcomes. Two of these promising approaches will be discussed in further detail. The first example deals with the Austrian national quality certificate for care homes (NQZ) that has recently been developed. The second example looks at a tool that aims to assure the quality of outcomes for informal and professional care provision for dependent people living at home.

Keywords: quality assurance, quality indicators, Austria, long-term care, outcomes

Approaches to improving quality of long-term care services

People depending on long-term care belong to the most vulnerable group in society. Some will need help, assistance and support for the rest of their lives. Yet, little is known and much has been conjectured about the extent to which long-term care (services) actually meet the needs of dependent people and support a self-determined life. The quality of long-term care is discussed primarily in the context of professional long-term care service provision. Although the majority of care work is provided by family members, informal care is often excluded from measurements of care quality.

There are many ways of ensuring good...