

Priority rating for community care

Tara L Stevermuer, Alan Owen, Kathryn Williams and Malcolm Masso

Abstract

This paper, which is an additional nosokinetics paper to accompany those presented in *Aust Health Rev* 31(1), reports on priority rating through a standardised community care assessment system, based on screening for functional abilities and incorporating additional indicators of need and risk. Routinely collected measures used to generate a priority rating have proven useful in clinical decision making and active demand management at the service entry point. Priority rating is a step towards a more equitable and efficient assessment system.

Three examples of priority rating systems are described. The first is a generalist application now implemented in routine practice across multiple service types in the Queensland community care and community health system. The second, narrower in scope, was designed for the NSW Home Care Service, and is also being routinely collected. The third was pilot tested in a state-wide program to supply aids and appliances to disabled people and introduced the additional concept of “capacity to benefit”. The case studies show how a technical and data-driven approach can be useful in guiding policy in a complex health care sector.

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Tara L Stevermuer, MAppStat, Research Fellow
Alan Owen, BSc(Hons), Senior Research Fellow
Kathryn Williams, BA(Hons), Research Fellow
Malcolm Masso, MNA, MPH, RN, Senior Research Fellow
Centre for Health Service Development, University of Wollongong, Wollongong, NSW.

Correspondence: Tara L Stevermuer, Centre for Health Service Development, University of Wollongong, Building 29, University of Wollongong, Wollongong, NSW 2522.
stevermuer@uow.edu.au

What is known about the topic?

Priority rating enables clients to be screened consistently for their needs and risks, with the intention that those with greater needs and risks will get priority of access to services. In the community sector, a variety of priority rating tools are being used for intake and assessment, for decision support in clinical practice and for active demand management.

What does this paper add?

This paper reports on decision support tools in community health and community care, which can generate a priority rating as a derived data item. Specific examples of three related projects illustrate how each project can build on previous work, can improve the management of demand and waiting lists, and challenge untested policy assumptions. Standardisation is achieved by using consistently collected functional dependency measures, with priority for services based on the concepts of need, risk and capacity to benefit.

What are the implications for practitioners?

The generic priority rating approach and its variations is acceptable as a decision support tool across programs and for a broad range of service types. It has practical and policy relevance for community care agencies wanting to improve their intake and assessment systems.

IN RECENT YEARS the number of home-based services and programs has grown within the community care, residential aged care and sub-acute and post-acute health care sectors. At the same time, there has been increased demand for services resulting from new technologies, alternatives to residential care and shorter hospital stays.¹ Yet a lack of empirical research has left program-level policy in a relatively underdeveloped state.

The Centre for Health Service Development at the University of Wollongong (CHSD) has undertaken a series of linked studies using data from functional dependency measures to develop decision support and demand management tools in community care.² Continuity

between the studies has been provided by the Centre's core research themes, its focus on sub- and non-acute care, and research that is practical and applied.³ The resulting tools and applications are accessible through CHSD's website and are being widely applied.²

In this paper we present three case studies in which screening tools were developed and used to generate a priority rating. The first is a generic approach in Queensland using the Ongoing Needs Identification (ONI) tool. The second is an application in the NSW Home Care Service, and the third is a pilot test of allocating equipment in the NSW Program of Appliances for Disabled People. These three studies were conducted between 2002 and 2005 and grew out of a national study of sub-acute and non-acute care leading to casemix classifications that are used in clinical practice, for example, in the case type of palliative care.⁴ Other sources of the work were coordinated care trials⁵ and the development of a national measure of function for the Home and Community Care Program.^{6,7}

Assumptions in priority rating — being explicit and improving fairness

For several decades in the health sector, program managers have realised there is no choice but to make choices. No matter how efficient a service becomes there will never be enough resources (money, staff time, equipment) to help everyone in need of support to maintain their functioning in the community. Without weakening the ties of responsibility between an individual client and their service provider, there is "an additional responsibility that arises . . . to appraise critically the use and allocation of resources in the system as a whole".⁸ This has presented considerable challenges to program managers to look beyond the boundaries of their programs.

It is more ethical to make the choices explicit. The basis of service-related decisions should be both transparent and based on evidence. This assumption echoes the conclusion reached in 1971 by Cochrane, the founder of the "evidence-based" approach to medicine, when

describing his "slow acceptance of the fact that the process was being done every year unconsciously and inaccurately, and that the process must be better if done consciously."⁹ (p. 77) Assessment tools and priority rating systems, as described in this paper, are designed from evidence and data, and are explicit means of assisting in the decisions and choices that must be made.

The limitations of the approach to rating priority in community care should be acknowledged. Priority rating in community care is designed primarily for a screening level of investigation at program entry points or at reassessment. It is designed to reliably prompt a more complete assessment in circumstances of high demand where resources for assessment are limited. While the screening level may be adequate for some clients and some programs, it does not necessarily contain the best scales and measures to reliably predict the outcomes of interventions or costs.

There is a body of evidence demonstrating that linear models (multiple factor, additive systems) outperform unaided clinical judgement on a wide variety of diagnostic and predictive tasks.¹⁰⁻¹² The priority rating approach assumes that clearly structured value judgements are preferable to opaque decisions, particularly within a sector that has limited experience using data to design systems and guide resource allocation. It was 35 years ago that Cochrane said: "Many people have a reasonable dislike of quantifying value judgements, but I am now convinced it is necessary."⁹ (p. 77) The approach described here relies on summary questions and quantifying complex assessor judgements at crucial points, and systematically combining characteristics of the person and their context.

Research and development in screening, assessment and priority rating

Screening, assessment and priority rating tools are based on clinically useful and routinely collected data items.¹³ Screening tools are

designed to be administered relatively quickly to a wide range of consumers to determine eligibility for services or provide a limited assessment of need for either a specific service or a range of service types. They can often be completed over the phone and may contain triggers for assessments in specific areas of need. Assessment tools provide greater detail about need. They usually require a longer time to administer and are typically completed face to face. Priority rating tools are generally built into the screen and/or assessment tool with priority for each client derived from their scores on the items in the tool based on the underlying key idea that *priority for service can be determined by client needs and risks*.

The aim of these tools is to assign a priority rating to an individual client or program applicant, either for more detailed assessment or for provision of services. Assigning a priority rating category for community care clients can be based on assessment in several key areas: physical and cognitive function, risks to independence, carer support and the potential to benefit from the programs' interventions. In addition, information about problem complexity and urgency can assist decisions about the type, level and timeliness of intervention required.

In order to target services to people with the highest "need", it is vital to have a valid measure of "need" that is independent of demand for (or supply of) services. The lack of such a measure creates difficulties for policy makers, as it is impossible to test assumptions about the level or type of intervention that can achieve desirable outcomes. The case studies represent a program of applied research designed to develop a standardised data item bank and common assessment tools to capture key client characteristics in routine practice.

Most assessment tools used in community care settings are based on measures of functional dependency. Functional dependency measures identify where a person requires assistance with their activities of daily living (ADL) and quantify the extent to which that person has to rely on someone else to help them carry out activities in their home and community.

Research on how function is related to need and the demonstrable hierarchical relationship between core and instrumental ADL has been well understood since the 1960s.¹⁴ ADLs are generally acquired in the early years of life in a predictable order (eg, toileting is acquired before learning to use the telephone) and "lost" in latter years in the reverse order, so if a client is independent in "early-loss" ADLs, then it is safe to assume the same for "late-loss" ADLs. This means that functional dependency measures in the community can be built into the design of screening tools. The level of function in self-care and domestic activities of daily living of an individual is also known to be an indicator of their cognitive decline and the need for services.¹⁵ In each of the case studies function has been measured using well validated tools and then the results summed to derive an overall measure of need for each client.

Ongoing Needs Identification tools

The Ongoing Needs Identification (ONI) tools developed by the CHSD grew out of a study to measure functional dependency that reviewed the available literature for relevance, scope, and indicators of technical performance such as sensitivity and specificity.¹⁶ From this body of work a nine-item functional dependency screen was developed for routine collection, and the screen has since been included in the nationally collected Home and Community Care Minimum Data Set (HACC MDS Version 2).¹⁶ The nine-item tool is designed to measure key areas in which a person requires assistance with activities of daily living. The nine items are housework, outdoor mobility, shopping, medication use, handling finances, walking and showering, each measured on a scale of 0 (unable to do) to 2 (able to do unaided), and two items on the presence (score 0) or absence (score 2) of memory and behavioural problems. The items became a core element in the design of the ONI screening tools that prompt assessment in specific domains of need and risk, indicate referral pathways and further needs identification, and provide decision support for

I Seven types of assessments in current practice*

	Scope/purpose
	1 Determine eligibility
Tier 1: Screening	2 Shallow and narrow (one domain such as function, continence, depression) assessment of need
	3 Shallow and broad (more than one domain) assessment of need
	4 Deep (in depth interview, usually face to face) and broad (more than one domain) assessment of need
Tier 2: Assessment	5 Deep (in depth interview, usually face to face) and narrow (one domain) assessment of need
	6 Assessment of need for a specific service
Priority	7 Determine the relative priority of consumer need(s)

*Most assessments in the field consist of a combination of these different assessment types (eg, 1, 3 and 7 or 1, 2 and 6)

active demand management in community care.

The development and field testing of recommended measures was completed in 2001¹⁷ and resulted in data items adapted from a widely used tool to screen community care clients in the functional domains of self-care, domestic, cognitive and behavioural attributes.¹⁸ The longer program of research involved continuous review of the international literature and current routine practices, and included extensive and independent field testing of the recommended items. It was in this context that the research was adapted to include systems of comprehensive assessment with a priority rating approach to active demand management. Applications of this work by Victorian, South Australian, New South Wales and Queensland community care program administrators from 2001 to 2005 led to the refinement of the hierarchical relationships between data items.

In the design of the data collection tools for each case study presented in this paper, field testing in routine practice was used to develop and refine the algorithms that derive the priority rating.¹⁹⁻²² The CHSD worked closely with the end users of the tools to refine the data item pool and adapt it for use in primary health care

settings such as community health services, community care services and general medical practice.

Towards a common assessment language

A common state and territory and Australian Government approach to assessment in community care has been proposed to avoid duplicating effort and to improve integration across programs.¹ In 2005, the CHSD undertook national surveys and consultations on different types of assessments in projects under the national community care reform agenda.^{23,24} These highlighted that although terminology differs between the various jurisdictions, sectors and services, there are common ideas and purposes.

It is essential to agree on a common language, data transmission standards and standardised datasets for electronic exchange of information among agencies. A shared language allows comparisons and descriptions of common purposes to be made.²⁵ To move in this direction, current practices were described and a typology of assessments created (Box 1). These assessment types are not mutually exclusive: each of these seven assessment types can map to jurisdictions' own

2 Ongoing Needs Identification priority rating tool matrix

RISK	NEED			
	Low function	Medium function		Good function but health, psychosocial or other problems
		with significant psychosocial or other problems	with no significant psychosocial or other problems	
No carer able to provide necessary care	1	1	2	5
Carer arrangements exist but are unsustainable without additional resources	3	3	4	7
Carer arrangements suitable and sustainable or carer not required	6	6	8	9

terms to provide a common language and a framework for national purposes.

The concepts of depth and breadth were used to arrange the typology into a logical sequence. “Deep” as opposed to “shallow” implies further investigation into the reasons why a need exists. “Broad” as opposed to “narrow” implies that the scope of investigation is wider. The case studies describe screening tools that are types 2 and 3 (tier 1 screening) and capable of deriving a priority rating (type 7). They are all designed to be administered quickly and are suitable for initial telephone contact.

Case Study 1: Generic priority rating in Queensland primary care services

The purpose of the project was to standardise access to a range of community health and support services and include a simple method to give those in greater need a higher priority. This was translated into objectives for state-wide service planning,²⁶ using the ONI tool to improve the quality of the community care intake and assessment process in Queensland.

The ONI priority rating tool (OPR) was adapted for Queensland from earlier versions of the tool developed in Victoria, South Australia and NSW,^{19,20,27,28} to provide a way of determining an individual client's priority for community care, based on their needs, carer burden

and other risks. The nine-item functional dependency screen was used to prompt deeper (tier two) functional assessment, improving the quality of the assessment process.²⁹ Scores on the functional dependency screen fed into a priority rating which enabled intake staff to determine explicitly the relative priority of referrals and decisions about whether the client should proceed to assessment and services.

The ONI tool comprises six profiles: functional dependency, living arrangements, carer characteristics, health conditions, psychosocial problems and health behaviours. The first part of the tool consists of screening questions that prompt more comprehensive assessment for those that require it. This design implies a two-tier assessment system where the aim of the first tier is to prompt a range of deeper assessments. Priority rating scores are derived from functional scores, carer profile items and selected items on other client problems representing risks.

Clients are assigned to one of nine priority categories based on information collected in the course of completing the ONI. While need and risk are measured using the proxies of functional ability and carer availability, the decision about a client's priority for services involves structured judgements using selected items that are combinations of need and risk indicators.

3 NSW Home Care Service data entry screen

Home Care Screening and Prioritisation Tool					
Screen ID (auto) [AutoNumber]		Referrer		1 Self	
Client unique ID		Surname		2 Family/Significant other/Friend	
Date screened		Suburb		3 Service provider	
DOMESTIC ITEMS					
Item 1: Housework		Item 2: Travel		Item 3: Shopping	
2 Without help		2 Without help		2 Without help	
1 With help		1 With help		1 With help	
0 Completely unable		0 Completely unable		0 Completely unable	
Item 4: Medicine		Item 5: Money			
2 Without help		2 Without help			
1 With help		1 With help			
0 Completely unable		0 Completely unable			
SELF CARE ITEMS					
Item 6: Walking			Item 7: Bathing		
2 Without help			2 Without help		
1 With help			1 With help		
0 Completely unable			0 Completely unable		
RISK ITEMS					
Item 8: Cognition			Item 9: Behaviour		
0 Yes			0 Yes		
2 No			2 No		
CARER ITEMS					
Item 10: Have carer			Item 11: Carer sustainable		
1 Yes, has a carer			1 No, have already broken down		
2 No, has no carer			2 Yes, but only weeks		
3 NA, no carer required			3 Yes, for months		
4 NA, client is a carer			4 Yes, for years		
Please refer to definition for "has no carer"			5 Don't know		
			8 NA, no carer		
Home Care service type required					
Domestic assistance		Personal care		Respite care	
0 No		0 No		0 No	
1 Yes		1 Yes		1 Yes	
CALCULATE					
Recommended for assessment		0 No		1 Yes-Phone	
		2 Yes-Field			
Go to first screen entered		Go to previous screen		Go to next screen	
Go to last screen entered		Add new screen		EXIT	
Search for screen: by SURNAME + SUBURB		by CLIENT ID + DATE		Count screens	
				Delete screen	

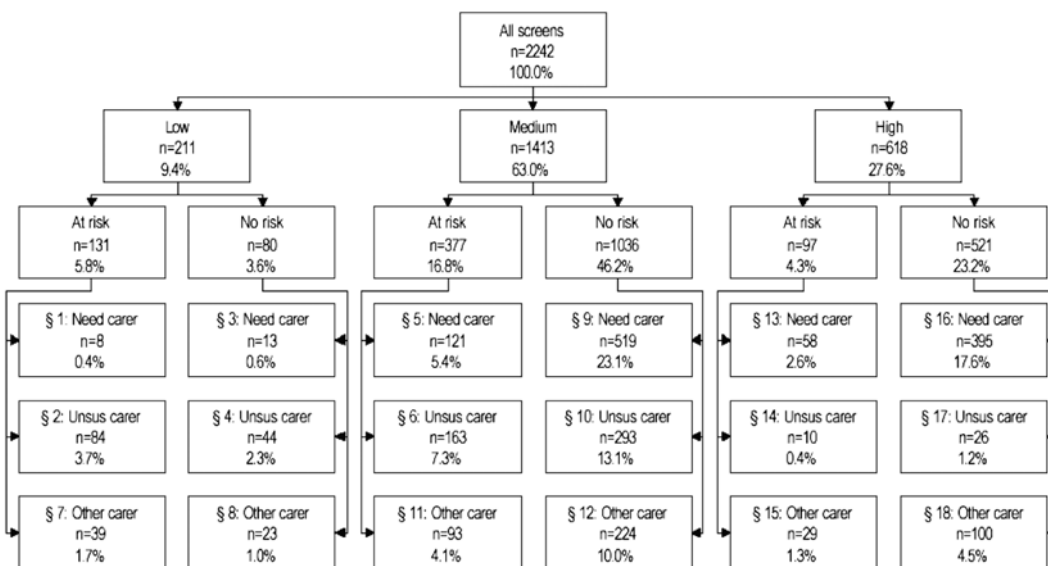
The literature on priority rating suggests that point-count scoring systems seem to be the most appropriate way to determine a consumer's priority. They have been developed in New Zealand and applied in a range of specialties in Canada,¹¹ offer high face validity because they are developed to make clinical sense, and are practical for implementation and use in clinical settings.¹²

The Queensland priority rating tool can be represented as a matrix (Box 2). Alternatively, the tool can be considered as a decision tree where the first level of decision making uses the functional score to assign the client to high, medium or low function; the second level takes into account psychosocial or other problems; and the final level takes into account the carer factors of whether a carer is needed and the sustainability of current arrangements.³⁰

Those with unsustainable care arrangements are considered to have a high risk and therefore a higher priority than those who are more stable, while those with low functional ability are considered to have high need and therefore a higher priority than those with high function.

Advantages of the OPR are that it is relatively simple and transparent. It can therefore become part of a shared dialogue about relative need when used routinely in the field, and it can be automated in an electronic environment.³⁰ The OPR was independently evaluated as part of the transition from 20 demonstration sites to state-wide implementation and was shown to be acceptable to staff in the field to manage demand and waiting lists.^{31,32} The OPR model summarises screening information with the key idea being "priority for services = need × risk".

4 Home Care Service priority rating tool decision tree



Unsus = unsustainable.

Case study 2: NSW Home Care Service screening and prioritisation tool

The aim was to improve the agency's intake and assessment process to better manage demand. A tool developed in-house was compared with the functional screening tool which had been mandated by the Home and Community Care (HACC) Program for routine collection, to determine which had better capacity to predict the assessment type received by the potential client. The priority rating in the functional screening tool used similar combinations of need and risk to those in the Queensland ONI survey. The key difference to the Queensland work was that the priority rating could be refined during the course of the project on the basis of the evidence from the agency's own data.

NSW Home Care Service provides domestic assistance, personal care and respite care services across the whole of NSW. Intake staff screen on average 85 calls a day from potential clients, family members or service providers. The single-agency setting of NSW Home Care Service was narrower in scope than the services in Queens-

land. Within this limited range of service types, the intake workers conduct a broad and shallow screening assessment (type 3) on all requests. The outcome of each call is that the client is either not accepted for service, or is recommended for either phone or field assessments, which are more comprehensive type 4 or type 5 assessments.

A simplified version of the Queensland OPR was used, as the range of service types was limited. The collection of data was through electronic data entry into an Access (Microsoft Corporation, Redmond, Wash, USA) database developed specifically for this study (Box 3). Eleven data items were collected: the HACC 9-item functional screen includes two risk items ("cognition" and "behaviour", which are indicators of more complex problems) and two carer items ("have carer" and "carer sustainable").

Over three data collection periods, analysis of the Home Care Service data identified what should trigger more in-depth assessments of domestic and self-care functioning, cognition and behaviour. The data collection built up to 3290 screens, which were used to refine the priority

5 PAPD priority rating tool matrix tested in the field trial

Consumer need	Expected benefits		
	High (>26)	Medium (18–26)	Low (<18)
Low function (self care score without the requested item/s is 20 or less)	1	2	3
Medium function (self care score without the requested item/s is 21 or more AND domestic score without the requested item/s is 15 or less)	2	4	4
High function (self care score without the requested item/s is 21 or more AND domestic score without the requested item/s is 16 or more)	3	4	5

rating approach, especially in relation to the numbers of assessments being triggered.

The final priority rating model for the NSW Home Care Service has 18 priority categories, compared with nine in the Queensland OPR (Box 4), and uses a decision tree based on functional score, psychosocial or other problems and carer factors. Those with unsustainable care arrangements, and psychosocial or other problems, and low functional ability are considered to have the highest priority, category 1, than those who are more stable or with high function.

A priority rating category is allocated within the Access database based on the decision tree, and this serves as a prompt to the assessor, who has the option to override the tool's recommendations, based on all the available information from the conversation with the client. The order of the priority categories is not iron clad, but can be reviewed as demand for the different service types varies and to accommodate factors that emerge from data analysis. It also enabled the agency to accommodate the flexibility required by the program-level policy context, which mandates the

provision of a proportion of the services to be offered to those with lower-level needs.³³

The routinely collected screening tool data collection can also be used to complete the HACC MDS reporting as a by-product, thereby reducing the program reporting burden.

Case Study 3: Assessment and priority for aids and appliances in NSW

The Program of Appliances for Disabled People (PADP) assists eligible residents of NSW who have a long-term disability by the provision of appropriate equipment, aids and appliances. Though relatively small in the context of the overall health budget, the program can make a significant impact on the quality of life of individuals receiving assistance, and on the wellbeing of carers and family members.

The aim of this study was to improve the equity and consistency of PADP resource allocation across NSW through the provision of standardised assessment tools that were acceptable to key stakeholders, based on evidence and consistent with current policy. The study also tested the feasibility of establishing a priority rating tool.

The study was undertaken in three stages: review and consultation, development and pilot testing of a suite of tools, and field testing in four sites. The assessment tools developed were person-centred, rather than equipment-centred, and introduced the concept of "capacity to benefit". This was assessed by estimating the client's level of functioning with and without the requested item and including questions about the impact of providing equipment on the hours of care and assistance provided to the applicant, the sustainability of current care arrangements, the impact on carers (time providing support, physical effort, emotional wellbeing, independence and quality of life) and expected benefits to the applicant (likelihood of remaining in the community, quality of life, participation in social and/or community activities).

Assessment and priority rating tools were developed for adults and children. Similar to the Home Care Service study, an Access database was developed for the study, enabling electronic data entry.

Priority was based on a combination of “need” and “capacity to benefit” (Box 5). Assessment of need was determined by the use of a self-care functional assessment based on the 50-point modified Barthel Index³⁴ and a domestic functioning assessment based on the 30 point Lawton Instrumental Activities of Daily Living (IADL) scale.³⁵

The assessment and priority rating tools were designed to act as a decision support tool to assist PADP managers and PADP committees to explicitly determine the relative priority of applications. The results of the study generally supported the use of “need” and “capacity to benefit” to assign priority. However, the message from field testing was that formal assessment and priority rating tools cannot wholly replace narrative reports and that some combination of the two approaches may be the best way to proceed.

Despite support for using the tools to assess applications, the study concluded that the priority tool could not be finalised without undertaking further work with a much larger dataset than the one generated by field testing. The study confirmed the anticipated difficulties of achieving a uniform approach, reflecting the complex decision making that is currently undertaken by PADP managers and PADP committees when approving applications.

Discussion

The case studies illustrate how one research centre has addressed the challenges of demand management and priority setting in community care. Each study has used function as a proxy for need, in combination with other measures of risk and capacity to benefit, to develop priority rating tools to guide decision making. These tools were tested in field trials for their acceptability and usability. Use of simple scales (the lower the score, the greater the need) should be treated with caution as in any assessment system. The tools are more appropriately seen as decision support tools rather than a complete substitute for professional judgement.

In these case studies the priority rating tools aimed to reliably separate clients into groups

based on previously agreed parameters such as needs, risks and capacity to benefit. The methods aim to achieve the optimal number of groups that are meaningful and different from each other in terms of the client’s (or carer’s) need for service. Although the measures used in each setting were similar, the way priorities were assigned was strongly influenced by the unique focus of each setting and program.

Examining linkages to outcomes is one area of great potential opened up by the routine collection of reliable data on client needs in community care. Another important variable that has not been examined in relation to need is cost. Priority ratings differ from casemix systems because there is no information about the costs of providing the necessary services at different priority levels. A problem for community care programs is that there is no defined standard of care at an agreed cost that can be provided to a person at a given priority level.

Incorporating cost information would add to the ability to form objective judgements about the benefits of providing services at different need levels. In practice, the actual service provided depends on the policy that guides the program and the resources available to the program in different settings or geographic areas, which is not equitable.

Evidence from independent evaluations in South Australia and Queensland indicate that priority rating systems can improve equity of access and actively manage demand at the threshold of service provision.^{19,31} They do not address outcomes or costs and are not sufficiently detailed or in-depth to generate a care plan with the most cost-effective interventions. The system is arguably better (more equitable) than one based on individual advocacy, but it cannot address relative geographic or regional disadvantage due to inequitable resource allocation.

Conclusion

Priority rating in community care is not a classification in the formal sense. Measures have been selected on criteria of evidence for their validity in

screening for community care needs and have been tested in the field. While not having the technical properties of casemix methods, the case studies in this paper show that pragmatic solutions can work in the field and can move the community care sector in the direction of more systematic routine practice.

Despite its limitations, priority rating is useful in planning the provision of services. It is also illustrative of research that contributes to the development of a more primary care-based system.³⁶ Future research and development work needs to clearly separate the concepts of demand, need, and the supply of resources by obtaining longitudinal data on changes in function, need and priority level for individual clients of different services of known cost.

The tools developed have produced a generic priority rating either for service provision or for equipment. Further adaptation of priority rating tools to make them more useful in the short term (pending the development of a community care classification) is to include multiple priorities of one client for different service types.

Routine collection of standardised measures to capture the functional status of community care clients is a crucial first step in determining the need for services and relating that need to the use of resources. Functional capacity is important in driving the need for community care services, but it is not the only measure of need or the only client-related cost driver. Other important client-related variables also need to be captured routinely to gain a comprehensive picture, such as age, medical conditions and diagnoses, carer needs and relationships, psychosocial problems and risks, type and nature of the accommodation or care setting. Most of these will be common across a range of programs.

The main limitations are not technical but relate to the cultural and organisational barriers in working across jurisdictions, sectors and programs. There are a finite number of common data items that can be incorporated into different electronic information systems, rather than a single common information system. Once these are agreed, what is needed is training in their use

and further adaptations that support culture change at both the service and policy levels.

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Competing interests

The authors declare that they have no competing interests.

Note

Electronic copies of the reports produced by CHSD, together with additional material such as tools and survey instruments can be found on the CHSD website at: <http://chsd.uow.edu.au>

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