



AMHOCN

Australian Mental Health Outcomes and Classification Network

‘Sharing Information to Improve Outcomes’

An Australian Government funded initiative

Stakeholder Consultations 2004

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Executive Summary

Background

Australia's National Mental Health Strategy has emphasised the development of sound information to support service planning and delivery and, consequently, there has been considerable investment in information development over the last 10 years.

State/Territory Governments and the Australian Government are collaborating in a coherent national approach. All States/Territories have signed Information Development Agreements that require them to submit certain data to the Australian Government, namely de-identified, patient-level outcomes and casemix data (referred to as the National Outcomes and Casemix Collection, or NOCC) and admitted and non-admitted activity data (consistent with the National Minimum Data Set – Mental Health Care). The Australian Government has established three Expert Groups (Adult, Child and Adolescent, and Older Persons) to advise on the implementation and use of outcomes and casemix information in mental health services. In addition, it has provided resources to support the training of the mental health workforce in the use of outcomes and casemix measures, and setting up arrangements to receive, process, analyse and report on the NOCC and NMDS data submitted by States/Territories.

The Australian Mental Health Outcomes and Classification Network (AMHOCN)

The latter arrangements have been established by the Australian Government, under the banner 'Australian Mental Health Outcomes and Classification Network' (AMHOCN). AMHOCN is a consortium of three groups, and has been funded to provide national leadership in the development of outcomes and casemix concepts in mental health. It will undertake a work program with three components, each of which is the remit of one of the consortium members: a data management component (Strategic Data Pty Ltd, Victoria); an analysis and reporting component (The University of Queensland, Queensland); and a training and service development component (Institute of Psychiatry, New South Wales). The three components of AMHOCN were each contracted in late 2003, and first came together as a consortium in December of that year.

Stakeholder consultations: Purpose and method

An immediate concern for AMHOCN was determining States/Territories' current status and future needs/plans with respect to NOCC and NMDS implementation, in order to develop its overall workplan. With this purpose in mind, each State/Territory was invited to participate in a consultation with members of AMHOCN.

The consultations took place between 19 March and 30 April 2004, and elicited answers to eight sets of questions from stakeholders in all States/Territories. The consultations were attended by 123 stakeholders, representing a mix of policy-makers and technical personnel from central mental health units and mainstream health information sections, service managers, clinicians and individuals responsible for supporting the NOCC and NMDS collections at a site level, members of the Expert Groups, consumers and carers.

Stakeholder consultations: Key findings and implications for AMHOCN

There is considerable variability between States/Territories regarding the implementation of the NOCC and NMDS collections, in terms of systems, infrastructure, training, coverage, and analysis and reporting, all of which have implications for AMHOCN.

States/Territories differ in terms of the number of systems that are involved in the collection of NOCC and NMDS data, with some relying on as many as four statewide systems (sometimes with further degrees of complexity within the State/Territory). Some States/Territories have been

able to expand existing systems to incorporate the NOCC data, whereas others have had to establish separate systems (some of which are not yet fully implemented). Linking NOCC and admitted and non-admitted NMDS datasets is impeded in most States/Territories by the lack of a unique identifier. With one exception, linkage is only possible for parts of the data (usually NOCC and non-admitted NMDS data) and/or by conducting quite complex record linkage tasks. Many States/Territories have plans to reconcile their identifier systems, but this will not occur in the near future. This has implications for AMHOCN, in terms of the potential to link outcome data and activity data for the same episode of care.

States/Territories have differing levels of infrastructure to support the NOCC and NMDS collections. Human resources vary, with some States/Territories having a number of personnel deployed to train and support clinicians and managers, and others relying on one or two core individuals. Physical resources also vary, with some States/Territories having sophisticated data collection systems with on-line data entry, and others depending on batch entry of paper-based forms.

All States/Territories have conducted extensive training in the use of outcome measures (and many in the use of data collection systems that support routine outcome measurement), some using a direct approach, others using a train-the-trainer approach, and still others using a combination of the two, building skills in training as well as the ability to train in NOCC. Many are now beginning to consider issues of ongoing training and support. In particular, they are recognising the need for a second phase of training that goes beyond how to use the outcome measures, and focuses more on how to interpret and reflect upon profiles of particular measures (at individual and aggregate levels). Consideration is also being given to the accreditation of trainers. The support of AMHOCN is seen as crucial here, in terms of providing training expertise, developing and disseminating resources, and sharing lessons between jurisdictions.

Having put in place appropriate systems and trained a significant proportion of the mental health workforce, States/Territories are now implementing routine outcome measurement. They vary in terms of their progress with implementation, and, consequently, in terms of coverage. Some will be reporting NOCC data for the first time in 2003-04, others have been reporting for several years. Within States/Territories, there is variability by setting (with community services generally having higher coverage than inpatient services) and by outcome measure (with clinician-rated measures being completed to a greater extent than consumer-rated measures). This has implications for AMHOCN, in terms of its ability to report on the national data.

States/Territories have made different degrees of progress in terms of analysis and reporting of data. Some have not yet reached the point where they have produced reports at any level. Others are generating individual-level reports that allow clinicians to consider given consumers' scores on particular outcome measures, either at a single point in time or over time. Others are generating aggregate-level reports about compliance. A few have started producing some rudimentary, aggregate-level reports that provide information about groups of consumers under the care of a given clinician, team or service. Clinicians and managers are keen for timely feedback at all levels. There is a recognition that, without this, the momentum and goodwill that has been achieved to date will not be sustained. States/Territories are looking to AMHOCN for guidance about the structure of these reports, and for benchmarking and normative data. In addition, AMHOCN can support efforts to encourage reflection on these reports (e.g., training, awareness raising, and other forms of engagement), to increase the likelihood of their being used.

Recommendations

1. As a priority, AMHOCN should specify a framework for providing feedback to States/Territories in a manner that maximises its clinical and management utility. Specifically, feedback should take the form of reports that are relevant and useful at a range of levels (e.g., individual, team, service, and jurisdiction). The precise nature of the reports should be

informed by an iterative process, where data are provided back to States/Territories for comments, and subsequent reports are modified accordingly.

2. Reports from AMHOCN should provide reference points that allow individual scores to be compared with normative data, and service profiles to be benchmarked against those of their peers. For this to occur, the process of identifying peer groups of services must be given priority.
3. AMHOCN should begin providing feedback to States/Territories as soon as possible, recognising that the data are imperfect but that their quality and comprehensiveness will only improve if clinicians and managers find the feedback useful. The frequency of the feedback loop should be increased over time, to maximise the clinical and management utility of the data.
4. For now, AMHOCN's reports back to States/Territories should be based on NOCC data alone, in recognition of the difficulties in linking NOCC and NMDS data, and delays in receipt of NMDS data by Strategic Data from the Australian Institute of Health and Welfare. This has implications for defining episodes of care, and limits the extent to which immediate progress can be made on casemix classification refinement. It still provides scope, however, for much to be done regarding reporting outcome data in a manner that has clinical and management utility.
5. In parallel with the reporting of NOCC data, AMHOCN should focus its attention on the issue of linkages between NOCC and NMDS datasets – first broadly regarding unique identifiers, and then more specifically regarding what needs to occur at a State/Territory level for linkable data to be submitted.
6. AMHOCN should consolidate the existing State/Territory training efforts aimed at equipping the mental health workforce to complete routine outcome measures. Specifically, AMHOCN should develop and disseminate resources that fill particular gaps (e.g., information related to given outcome measures, such as the SDQ), and help States/Territories to streamline their training and re-training packages in a way that balances national consistency against the unique requirements of the local context.
7. AMHOCN should focus its training and service development efforts on developing the 'information literacy' of the mental health field. Specifically, it should foster the skills and knowledge required for interpreting and reflecting upon the meaning of outcome data (and later casemix data), at a range of levels. This will require a multi-faceted approach, tailored to the needs of particular groups, and might include national and local forums, face-to-face visits to explain reports, and the development and dissemination of relevant resources.
8. AMHOCN should foster information-sharing at a range of levels. In particular, it should take advantage of its 'bird's eye view', identifying good ideas and approaches in given States/Territories and promoting them in other jurisdictions. It should also disseminate relevant materials, acting as a clearing house for resources and information.
9. AMHOCN should explore processes for accrediting trainers, ensuring that national accreditation is consistent with and complementary to any existing accreditation efforts at a jurisdictional level.
10. AMHOCN should engage, nurture and support clinical leaders (particularly psychiatrists), champions and innovators.

Chapter 1: Setting the context

Background

Since Australian Health Ministers agreed to the National Mental Health Policy and the first National Mental Health Plan in 1992, the continued improvement of the quality and effectiveness of the treatment of people with a mental illness has been one of the major objectives of the National Mental Health Strategy. The Strategy recognises that this objective can only be achieved through the development of sound information to support service planning and delivery.

Under the Second National Mental Health Plan, there was a recognition that information development in the mental health sector had lagged behind that of the mainstream health sector, and that substantial work was required to obtain the data needed to inform service planning and delivery. As a consequence, the systematic implementation of routine outcome measurement in all public sector mental health services became a priority of the Second National Mental Health Plan.

Initially, implementation was impeded by difficulties in defining and measuring mental health outcomes. To accelerate the process, the Australian Health Ministers' Advisory Council (AHMAC) National Mental Health Working Group released a statement of *National Mental Health Information Priorities* in June 1999.[1] This outlined an ambitious plan to develop information infrastructure in all public mental health services to support and encourage good clinical practice, regularly inform about consumer outcomes, inform judgements about value for money, and produce national and State/Territory data as a by-product. Under the Australian Health Care Agreements (1998-2003), the (then) Commonwealth Government made \$38 million available to States/Territories to assist in achieving these objectives. All State/Territory jurisdictions prepared Information Development Plans and signed Information Development Agreements with the (then) Commonwealth Government to participate in the initiative.

The Information Development Agreements required States/Territories to provide the Commonwealth with de-identified, patient-level data for the 'outcomes dataset' and the 'casemix dataset', specified in the *National Mental Health Information Priorities* document. Together, these datasets are referred to as the National Outcomes and Casemix Collection (NOCC). The Information Development Agreements also required States/Territories to submit the patient-level components of the National Minimum Data Set (NMDS) – Mental Health Care, as described in the most current version of the National Health Data Dictionary.[2]

The new National Mental Health Plan (2003-2008) continues to provide a framework for the collection of outcomes and casemix data. Specifically, it supports the comprehensive implementation and further development of routine consumer outcome measures in mental health, and the reform of public sector funding models to better reflect need via continued development of mental health casemix classifications. The new Australian Health Care Agreements (2003-2008) support this ongoing policy direction, by providing \$9 million to embed the routine use of outcome measures in Australia's public sector mental health services.

The vision

It is expected that the above national investment in information development will achieve the following:

- The routine use of outcome measures (consumer- and clinician-rated) in all publicly funded or managed mental health services where such measures contribute both to improved practice and service management;

- An informed mental health sector in which benchmarking is the norm, with each service having access to regular reports on its performance relative to similar services that can be used in a quality improvement cycle;
- The informed use of casemix to understand the role of provider variation in differences between agencies in costs and outcomes; and
- A health services research culture within Australia's leading academic institutions that supports the industry with publications that reflect practice and contribute to debate about the next steps forward.

The Australian Mental Health Outcomes and Classification Network (AMHOCN)

The Information Development Plans are premised on collaboration between the Australian Government and the State/Territory Governments, with each party taking individual roles as well as working together to develop a coherent national approach. The Australian Government's key role is to establish the national infrastructure to support the introduction, application and ongoing development of outcomes and casemix data. This involves establishing three Expert Groups (Adult, Child and Adolescent, and Older Persons) to advise on the implementation and use of outcomes and casemix information in mental health services. It also involves providing resources to support the training of the mental health workforce in the use of outcomes and casemix measures, and setting up arrangements to receive, process, analyse and report on the NOCC and NMDS data submitted by States/Territories.

The latter arrangements have been established by the Australian Government, under the banner 'Australian Mental Health Outcomes and Classification Network' (AMHOCN). AMHOCN is a consortium of three groups, and has been funded to provide national leadership in the development of outcomes and casemix concepts in mental health. It will undertake a work program with three components, each of which is the remit of one of the consortium members:

- A data management component (Strategic Data Pty Ltd, Victoria), responsible for:
 - A process of receipt and acknowledgement of NOCC data submitted by States/Territories;
 - Development of a data warehouse to store and aggregate the data, including processes for incorporating annual updates and periodic revisions;
 - Preparation of data validation routines, running those routines and reporting back to States/Territories on data quality issues;
 - Working collaboratively and directly with States/Territories to resolve identified data quality problems;
 - Building the component files that will comprise the analysis datasets, in consultations with the analysis and reporting component; and
 - A process to return the episode-based datasets to States/Territories to enable local analysis.
- An analysis and reporting component (The University of Queensland, Queensland), responsible for:
 - Reports and recommendations on data quality from the perspective of outcomes and casemix measurement development;
 - Standard reports for jurisdictions prepared at the organisational level, and stratified by peer group, that provide comparative data for benchmarking purposes;
 - A series of periodic national publications that present aggregate data and address priority issues in outcome and casemix measurement;
 - Publication of normative data for use by mental health services in interpreting individual outcome measures and benchmarking exercises;

- Reports on the outcome and casemix measurement suite regarding the performance of individual measures, and contributing to the further development of those and other measures; and
 - Further development of a mental health casemix classification.
- A training and service development component (Institute of Psychiatry, New South Wales), responsible for:
 - Developing educational resources to support the work of States/Territories in building skills within the clinical workforce in the use of the various standardised measures that underpin the casemix and outcomes collection;
 - Increasing understanding about the application of outcome and casemix measures as tools that can both inform individual clinical practice and assist in quality improvement initiatives taken at the service level;
 - Stimulating service quality improvements (e.g., information sharing and peer group benchmarking);
 - Establishing mechanisms for skills development and transfer to support local analysis and application of NOCC data;
 - Organising workshops and forums to 'showcase' initiatives; and
 - Setting up and maintaining an Australian website on mental health outcome measurement.

The three components of AMHOCN were each contracted in late 2003, and first came together as a consortium in December of that year.

Stakeholder consultations

An immediate concern for AMHOCN was determining States/Territories' current status and future needs/plans with respect to NOCC and NMDS implementation. The specifics of the immediate workplans of the three components, and the overall workplan of AMHOCN as a whole, were dependent on this information.

With this purpose in mind, each State/Territory was invited to participate in a consultation with members of AMHOCN. The invitations were extended in December 2003, and the consultations took place in March and April 2004.

Structure of the current report

The remainder of this report describes the stakeholder consultations. Chapter 2 provides a description of the way in which the stakeholder consultations were conducted, and Chapter 3 outlines the findings that emerged from them. Chapter 4 makes recommendations for the future work of AMHOCN in the light of these findings.

Chapter 2: Conducting the stakeholder consultations

Purpose

The purpose of the stakeholder consultations was to develop a full understanding of the context within which AMHOCN will operate, in terms of the current status of NOCC implementation (including technical and other challenges regarding the capture and reporting of the NOCC data set) and in terms of expectations and plans regarding training and retraining of staff, the reporting and analysis of NOCC data (locally and nationally), and the application of these data.

To achieve this purpose, answers were sought to eight sets of questions, namely:

1. What is your current status with respect to the implementation of National Outcomes and Casemix Collection (NOCC) and the National Minimum Data Set (NMDS) (e.g., regarding coverage, infrastructure, training, strategies, consultation with stakeholders and perceived benefits and risks)? What are your future plans?
2. What systems do you currently have in place for the collection/capture/storage of NOCC and NMDS data? What are your future plans?
3. What unique identifier system do you use, and what is its capacity for enabling individuals to be tracked over time or across services? What processes do you undertake to de-identify NOCC and NMDS data? What are your future plans?
4. What systems do you have in place for training or retraining staff in the measures and data collection? What are your future plans?
5. What are your current plans for analysis and reporting in your jurisdiction? What are your future plans?
6. In what ways could the national data most beneficially be used to augment State/Territory-level data in your jurisdiction?
7. How could the national training and service development component of AMHOCN best support your jurisdiction?
8. How has your jurisdiction made use of the NOCC and NMDS information? Are there particular individuals or services within your jurisdiction that are innovators or champions in this area? What are your plans for the identification and support of innovators?

Organising the consultations

A letter introducing AMHOCN was sent from the Director of the Australian Government's Health Priorities and Suicide Prevention Branch to the Directors of Mental Health in each State/Territory on 12 December 2003. This was followed on 18 December 2003 by a letter from the Institute of Psychiatry, on behalf of AMHOCN, asking each Director of Mental Health to invite relevant parties to participate in a consultation in his/her State/Territory, and to nominate a contact person with whom AMHOCN could liaise to organise the consultation.

Arrangements regarding the agenda and the venue for the consultation in any given State/Territory were then made with the contact person.

The consultations took place between 19 March and 30 April 2004. Table 1 shows the date for each State/Territory.

Table 1: Stakeholder consultation dates

Date	State/Territory
19 March 2004	Queensland
29 March 2004	Victoria
30 March 2004	Tasmania
31 March 2004	South Australia
1-2 April 2004	Western Australia
15 April 2004	New South Wales
16 April 2004	Australian Capital Territory
30 April 2004	Northern Territory

Attendance at the consultations

As noted above, the intention was to consult with relevant stakeholders from each State/Territory. States/Territories were free to nominate whomever they wished, but some guidance was given in the original letter from AMHOCN, which advised that representation was sought from those in the best position to respond to the above questions. Specifically, the letter suggested that States/Territories might wish to include policy-makers and technical personnel from central mental health units and mainstream health information sections. It also advised that consumers and carer representation was desirable. Most States/Territories sent along representatives from all of these groups, and many also sent service managers, clinicians and individuals responsible for supporting the NOCC and NMDS collections at a site level, as well as members of the Expert Reference Groups.

In total, 123 individuals attended the stakeholder consultations. Table 2 provides a breakdown by State/Territory.

Table 2: Number of attendees at stakeholder consultations, by State/Territory

State/Territory	No. of Attendees
New South Wales	10
Victoria	21
Queensland	28
Western Australia	23
South Australia	17
Tasmania	6
Australian Capital Territory	6
Northern Territory	12

At least four, and sometimes five, members of the AMHOCN consortium were present at all consultations, providing representation from all three AMHOCN components.

Structure of the consultations

The majority of the consultations took place over a full day. The shortest consultation was half a day in length.

All of the consultations began with a brief presentation^a from the AMHOCN consortium, and elicited answers to the eight sets of questions. Within this overall structure, there was some variation, depending on the requirements of the given State/Territory. Some States/Territories chose to split the consultation in two, inviting policy makers, planners and clinicians to attend one

^a The presentation is available from the MH-NOCC website (www.mhnocc.org).

session and technical personnel to attend the other. Some States/Territories gave formal presentations responding to specific questions; others took a more informal approach. In some cases, the information presented at the consultations was supplemented by a written response to the questions.

Recording the consultations

The consultations were not taped, but were transcribed by a note-taker. The notes were combined with any other written material (e.g., formal responses and presentations), and written up as a draft response to the eight sets of questions by the given State/Territory. These responses were then sent back to the States/Territories for comment on their accuracy, and modified accordingly.

Data analysis

The formal responses were examined at a global level to identify major themes, within each question set. Individual responses were classified according to these themes.

Chapter 3: Key findings

1. What is your current status with respect to the implementation of the National Outcomes and Casemix Collection (NOCC) and the National Minimum Data Set (NMDS) (e.g., regarding coverage, infrastructure, training, strategies, consultation with stakeholders and perceived benefits and risks)? What are your future plans?

There is considerable variability between States/Territories regarding the implementation of the NOCC and NMDS collections. All States/Territories have recognised that the implementation process involves a number of strategies and approaches: developing appropriate data collection systems; establishing the infrastructure (i.e., the human and physical resources); training clinicians and managers in the use of outcome measures; embedding outcome measurement in routine practice, and providing ongoing support, training and feedback to maintain the commitment of staff. However, States/Territories have differed in the emphasis that they have given to these strategies and approaches, in how far they have progressed with overall implementation, and in the extent of coverage.

All States/Territories have developed appropriate data collection systems, or are in the final stages of doing so (see 2, below). In some cases, this has involved 'starting from scratch', and in others it has required modifications to be made to existing systems. For example, the systems used in Queensland to capture admitted and non-admitted NMDS information – the Hospital Based Corporate Information System (HBCIS) and Client Event Services Application (CESA), respectively – did not have the functionality to incorporate outcome measures, so the Outcomes Information System (OIS) was developed to do so. By contrast, in the Australian Capital Territory, the Mental Health Assessment Generation and Information Collection System (MHAGIC), which was used by all community teams to collect non-admitted NMDS data, was modified to collect outcome data and extended to inpatient services.

States/Territories have differing levels of infrastructure to support the NOCC and NMDS collections. Human resources vary, with some States/Territories having a number of personnel deployed to train and support clinicians and managers (usually at an area or regional level), and others relying on one or two core individuals. So, for example, Queensland has Zonal Outcomes Co-ordinators and Mental Health Information Support Officers providing 'on the ground' support, whereas Tasmania has a small, centrally-located team performing the same function. Physical resources also vary, with some States/Territories having sophisticated systems of online data entry (e.g., the Australian Capital Territory), others depending on batch entry of paper-based forms (e.g., Tasmania), and still others relying on a combination of the two (e.g., New South Wales and South Australia).

All States/Territories have conducted extensive training in the use of outcome measures (and many in the use of the data collection systems that support routine outcome measurement), some using a direct approach to training all staff, others using a train-the-trainer approach, whereby expert trainers trained key staff (e.g., within teams/units) who in turn trained others, and others using a combination of the two (see 4, below). Well over 7,000 clinicians and managers across Australia have received direct training; still more have received subsequent training under the train-the-trainer model. Several States/Territories are now moving on to a second wave of training (again, see 4, below).

Since training, most States/Territories have 'rolled out' routine outcome measurement. Some will be reporting NOCC data for the first time in 2003-04, others have been reporting for several years. Datasets have been made available to AMHOCN by most States/Territories. It should be noted that the available datasets are not necessarily complete, with many not covering the full year, all settings (with community services generally having higher coverage than inpatient services), or all outcome measures (with clinician-rated measures typically being completed to a

greater extent than consumer-rated measures). Table 3 provides an indication of the NOCC data that had been made available to AMHOCN by May 2004.

Table 3: NOCC data available to AMHOCN as at May 2004, by State/Territory and year

State/Territory	Year
New South Wales	2001-02, 2002-03
Victoria	2000-01, 2001-02, 2002-03
Queensland	2002-03 (last four months only)
Western Australia	2002-03
South Australia	-
Tasmania	2001-02
Australian Capital Territory	-
Northern Territory	2002-03 (last six months only)

Beyond initial training and rollout, some States/Territories have considered how to sustain routine outcome measurement. There is recognition by these (and other) States/Territories that unless routine outcome measurement becomes embedded in the process of clinical care, it will not be seen as a priority by clinicians and managers. So, for example, in New South Wales outcome measurement has been embedded in a standard protocol, which involves triage, assessment, review and discharge. Specifically, a suite of clinical modules has been developed that includes standard measures, so that at each point in the care pathway outcome measures are considered part of the process of care (e.g., the collaborative care planning module involves the clinician and consumer, and includes alignment between the problems identified by the clinician-rated HoNOS and the consumer-rated K-10). All New South Wales Area Mental Health Services will have the same modules and forms, produced in the form of standard medical record stationery that fits in clinical files. The process of embedding outcome measurement within the clinical process of care is enhanced by providing clinical interpretations of given scores on particular measures.

Some States/Territories have also begun to consider how best to provide feedback to staff (see 5, below). Again, there is recognition that unless staff begin to see outcome measurement bear fruit in terms of clinical and management utility, the goodwill and momentum that have been achieved to date will wane. Feedback in the form of reports is required at a variety of levels. Some States/Territories have developed individual-level reports that allow clinicians to profile an individual consumer's scores on a range of outcome measures, either at a single point in time or over time. For example, in the Australian Capital Territory, MHAGIC produces an electronic management plan, similar to the New South Wales module described above, which incorporates areas that the clinician and consumer might want to address, given the consumer's profile on the outcome measures. Similarly, in Western Australia, HoNOS scores of greater than 2 on Items 1 (Overactive, aggressive, disruptive or agitated behaviour) and 2 (Non-accidental self injury) trigger a risk assessment, and an alert is registered on PSOLIS.

Other States/Territories are generating aggregate-level reports about compliance. For instance, Western Australia generates statewide compliance reports that are distributed to mental health services every six weeks, and the Office of Mental Health works with services that are experiencing difficulties with compliance to review the systems in place for monitoring the NOCC collection.

A few States/Territories have started producing some rudimentary, aggregate-level reports that provide information about groups of consumers under the care of a given clinician, team or service. Tasmania, for example, has produced monthly reports for its Southern Region, which include aggregate-level data on average HoNOS scores at admission, review and discharge. Some States/Territories have begun to consider how best to provide these reports to areas and services. New South Wales, for example, has conducted a project involving workshops in all area health services, using their own data to demonstrate the clinical and management utility of the information. A similar process has been undertaken in Queensland.

In most States/Territories, routine outcome measurement has been associated with benefits and risks. In terms of benefits, there is broad acceptance that outcome measurement can guide clinical care, can promote dialogue between consumers, carers and clinicians, and can assist managers in making planning and resource allocation decisions. The key risk, or challenge, has been overcoming resistance by some clinicians and managers who do not view outcome measurement as a priority. The feedback described above will be crucial to bring these people 'on board', and to sustain the support of those who are currently committed to routine outcome measurement.

2. What systems do you currently have in place for the collection/capture/storage of NOCC and NMDS data? What are your future plans?

As noted at 1, above, all States/Territories have developed data collection systems for NOCC data, or modified existing systems to achieve this end. Some are part of existing systems, and others are stand-alone.

States/Territories differ in terms of the number of systems that are involved in the collection of NOCC and NMDS data. The simplest scenario is one where outcome measurement functionality has been added to an existing system for recording activity in community mental health settings. In most of these instances, the system has been extended to inpatient settings for the collection of outcome data, where it runs alongside a separate Patient Administration System (PAS) for the collection of inpatient activity data. This occurs in Victoria (via RAPID/CMI), Tasmania (via the Outcomes Assessment and Review System, or OARS), the Australian Capital Territory (via MHAGIC), and the Northern Territory (via the Community Care Information System, or CCIS). Other States rely on as many as four statewide systems to collect NOCC and NMDS information, sometimes with further degrees of complexity at an area level, or between metropolitan and country settings.

3. What unique identifier system do you use, and what is its capacity for enabling individuals to be tracked over time or across services? What processes do you undertake to de-identify NOCC and NMDS data? What are your future plans?

The Northern Territory is exceptional in being the only jurisdiction with a Client Master Index that allocates a given consumer a unique identifier that allows him/her to be 'tracked' across community and inpatient services, and over time. This means that the same identifier applies to NOCC data and non-admitted and admitted NMDS data. In all other States/Territories, linking NOCC and admitted and non-admitted NMDS datasets is impeded by the lack of a unique identifier across systems (and sometimes across metropolitan/country regions, areas or even services). At best, linkage is only possible for parts of the data (most commonly NOCC and non-admitted NMDS data) and/or by conducting quite complex record linkage exercises. Western Australia's PSOLIS system has a unique identifier that will allow episodes of care in different services and over time to be attributed to the correct individual, but its 'roll out' will not be completed until the end of 2004. Several other States/Territories have plans to reconcile their identifier systems (e.g., via the Client Directory Project in Queensland and the Client Data Linkage Project in New South Wales), but this will not occur in the near future.

The record linkage problem is further compounded by the fact that many States/Territories encrypt identifiers before they submit data to the Australian Government or the Australian Institute of Health and Welfare. The encrypted identifiers may not be the same from year to year.

4. What systems do you have in place for training or retraining staff in the measures and data collection? What are your future plans?

As noted at 1, above, all States/Territories have implemented comprehensive training programs and, as a consequence, have trained substantial proportions of their respective mental health workforces in routine outcome measurement. Some used a direct approach, bringing in experts to train all staff, others adopted a train-the-trainer approach, and others have combined the two. The direct approach is seen as having the benefit of consistency, while the train-the-trainer approach is seen as fostering capacity building and being less labour intensive. Some States/Territories have considered accrediting trainers, so that the advantages of both approaches can be combined. Managers are also more commonly being recruited as trainers, as part of a move to secure their commitment in leading the change process. South Australia has been innovative here, building capacity by training staff as trainers through the Certificate 4 in Workplace Training and Assessment, and investing in training in content knowledge around the NOCC collection. In this way, South Australia has addressed some of the difficulties inherent in more standard train-the-trainer approaches.

Many States/Territories are now beginning to consider issues of ongoing training and support. High levels of staff turnover in some States/Territories mean that there are new staff who have not been trained, and lags between training and implementation in some jurisdictions have resulted in skills being lost. In addition, many States/Territories are recognising the need for a second wave of training that goes beyond how to use the outcome measures and focuses more on how to interpret the results of specific measures (at individual and aggregate levels).

Some States/Territories have implemented ongoing training strategies. Western Australia, for example, has begun refresher training. Tasmania has implemented a second round of training, focusing on the outcome measures that were not covered in the original training (i.e., the LSP-16 and the BASIS-32). Queensland has put in place an ongoing training program that emphasises sustainability, clinical utility and building capacity, and involves its Zonal Outcomes Co-ordinators modeling for clinicians how outcome data can be used in clinical management. Most other jurisdictions have plans in place to implement a second wave of training that focuses on the clinical and management utility of outcome measurement.

Novel, clinician-focused approaches, such as the use of vignettes and interactive case studies in Victoria and Western Australia, have underpinned the initial and ongoing training in many States/Territories. Training has also typically involved the development of resources (e.g., guides and glossaries for specific measures, consumer and carer brochures), many of which are located on individual State/Territory websites.

5. What are your current plans for analysis and reporting in your jurisdiction? What are your future plans?

To date, analysis and reporting has been limited, as most States/Territories have concentrated their efforts on training staff and implementing routine outcome measurement (see 1, above). As noted, some States/Territories have generated individual-level reports, a smaller number have generated aggregate-level compliance reports, and a still smaller number have begun to generate aggregate-level, content-based reports that provide profiles of consumers grouped by clinician, team or service. Individuals and groups in many States/Territories are eagerly awaiting these developments, such as a network of MH-OAT and MHIDP coordinators in New South Wales, which meets regularly to discuss analysis and reporting issues.

A range of factors has hampered efforts at analysis and reporting. These include resource issues (e.g., lack of personnel and technological constraints), data quality, a lack of clarity about which reports will have greatest clinical and management utility, and the absence of relevant normative and/or benchmarking data.

There is acknowledgement that without appropriate and timely feedback in the form of relevant reports that shed light on clinical and management issues, the current momentum will falter and data quality and comprehensiveness will be jeopardised. The development of the specific content of given reports will need to be an iterative process, with clinicians and managers being given the opportunity to comment on early reports, and reports being modified accordingly, so that they become a valued part of clinical and management decision-making processes. There is also a recognition that clinicians and managers will require support to reflect on the meaning of reports.

6. In what ways could the national data most beneficially be used to augment State/Territory level data in your jurisdiction?

Universally, States/Territories see the national data as having the potential to assist the planning, resourcing and delivery of mental health services (e.g., answering questions about the cost-effectiveness of different services and treatment approaches, identifying areas of best practice, providing evidence on the burden of mental illness for particular population groups, and informing local safety and quality initiatives).

States/Territories are looking to AMHOCN to provide normative and benchmarking data (to allow comparisons between similar groups of consumers in peer groups of services, within and across jurisdictions) and key performance indicators. Such data would allow important clinical and management questions to be explored. Accurately defining peer groups of services is seen as crucial here, and the salient characteristics of given jurisdictions must be taken into account (e.g., size and remoteness). Timely dissemination of these referencing and contextualising data is vital. So too is the presentation by AMHOCN of messages that are consistent with those being provided at a jurisdictional level.

Some jurisdictions have also indicated that case complexity measures would be of considerable use. Specifically, the NOCC casemix data could be used to understand the role of provider variation in differences between services' costs and outcomes.

The episode-based dataset that AMHOCN will ideally create, which combines NOCC data and NMDS data, is seen as having immense value at a jurisdictional level by many States/Territories. Some have the capacity to integrate additional information (e.g., costing data) into this dataset once it is returned.

States/Territories are also keen to receive information on the psychometric properties of the outcome measures. For example, data on correlations between measures would be useful, particularly correlations describing the relationship between clinician-rated and consumer-rated measures.

Beyond these specific data needs, there is also a desire on the part of States/Territories to draw on the analysis and reporting expertise of AMHOCN. There are clearly economies of scale in sharing common reports, statistical syntax and approaches to study design (e.g., when making epidemiological use of the data).

7. How could the national training and service development component of AMHOCN best support your jurisdiction?

States/Territories are looking to AMHOCN for support in their ongoing training endeavours. Additional people to act as training resources would be helpful in some States/Territories; some suggested that it would be useful to be able to 'buy in' expert trainers from AMHOCN or other States/Territories. AMHOCN could also help by running national forums for trainers, and/or co-ordinate the attendance at train-the-trainer workshops in larger States/Territories by potential trainers from smaller jurisdictions. In addition, AMHOCN could take a lead role in developing national accreditation processes for trainers that complement related activities that are already underway in some States/Territories.

Many States/Territories have expressed the view that they would like to move towards 'best practice' training models. This has implications for AMHOCN in terms of working collaboratively with States/Territories to evaluate different approaches (e.g., direct versus train-the-trainer methods), and to develop standardised packages that could be modified to suit the local context. Many jurisdictions have called for a consistent set of resources to support training (e.g., manuals, vignettes, consistent information about protocols etc). Resources are accumulating across States/Territories, and some sharing is already occurring, but there are inconsistencies and gaps. The work of AMHOCN should go beyond assisting States/Territories to streamline their approach to training the existing workforce, and should involve the development of training curricula for the future mental health workforce (e.g., modules for graduate and post-graduate programs aimed at mental health professionals, including psychiatric registrars). AMHOCN also has a responsibility to support consumers and carers through training.

There is also a role for AMHOCN in disseminating reports and reference materials, promoting information-sharing between jurisdictions, and fostering debate about unresolved issues in routine outcome measurement. These activities might occur through national and local forums, networks, the MH-NOCC website etc.

In terms of content, AMHOCN could assist by providing information about the use of some specific outcome measures (e.g., information on the SDQ is currently lacking). However, a consistent message from States/Territories is that the content of resources and training needs to go beyond information on the administration of specific measures to include advice on how to interpret, reflect on and use the data. AMHOCN should contribute to training that emphasises reflective practice, in terms of interpreting outputs from given outcome measures and considering the clinical implications of given results (e.g., understanding what changes over time on given measures mean, what magnitude of change is clinically significant, what contributes to these changes, and what they suggest in terms of care planning). Awareness-raising and other forms of engagement in this regard will increase the commitment to routine outcome measurement on the part of clinicians and managers, and will promote its sustainability.

As with analysis and reporting, AMHOCN must ensure that its training endeavours reinforce the directions already being taken in given States/Territories. So, for example, any resources developed by AMHOCN's training and service development component should complement existing training materials, and should not conflict with them.

8. How has your jurisdiction made use of the NOCC and NMDS information? Are there particular individuals or services within your jurisdiction that are innovators or champions in the area? What are your plans for the identification and support of innovators?

As noted at 5, above, the use of NOCC and NMDS information is in its early stages in most States/Territories. However, some individuals and services within given jurisdictions have either put the data to particular use or are planning to do so, either in the context of one-off local projects or in more routinely-embedded ways. Victoria, New South Wales, Western Australia and Queensland have shown leadership in this regard. Examples include:

- Consideration of the tools themselves, both in terms of their appropriateness and in terms of their psychometric properties (e.g., validity, reliability, capacity to measure change);
- Consideration of participation, compliance and data quality issues (e.g., identification of anomalous episodes of care, examination of factors that improve participation with outcome measurement);
- Efforts to reference local data against relevant comparative data (e.g., comparisons with MH-CASC data and normative data);
- Use of outcome data in clinical processes (e.g., routinely using outcome data to inform treatment/management plans and review processes, tying scores on given outcome measures to risk assessments, and comparing scores on clinician-rated measures with

- scores on consumer-rated measures to generate discussions between clinicians and consumers about the implications of divergent scores);
- Use of outcome and case complexity data to inform service planning considerations:
 - Within-service evaluations that consider issues such as whether given programs are appropriate to consumer profiles, and whether services should be restructured or shift their focus or priorities;
 - Across-service evaluations (e.g., between psychiatric disability support services and clinical services) that consider the relative case complexity and consumer outcomes of each; and
 - Economic evaluations and cost-of-illness studies.

To a large extent, local champions or innovators have been responsible for these efforts. There is wide recognition by States/Territories that such champions and innovators must be identified to provide leadership at all levels (executive directors, middle managers, team leaders and individual clinicians), and that once identified they must be nurtured. Some States/Territories have already put in place mechanisms to do this, such as New South Wales, which has fostered a network of 'data junkies' and other interested parties, and Western Australia, which specifically targets senior staff to attend two days of training that equips them to 'lead the change'.

Chapter 4: Discussion and recommendations

Summary of key findings, and implications for AMHOCN

There is considerable variability between States/Territories regarding the implementation of the NOCC and NMDS collections, in terms of systems, infrastructure, training, coverage, and analysis and reporting, all of which have implications for AMHOCN.

States/Territories differ in terms of the number of systems that are involved in the collection of NOCC and NMDS data, with some relying on as many as four statewide systems (sometimes with further degrees of complexity within the State/Territory). Some States/Territories have been able to expand existing systems to incorporate the NOCC data, whereas others have had to establish separate systems (some of which are not yet fully implemented). Linking NOCC and admitted and non-admitted NMDS datasets is impeded in most States/Territories by the lack of a unique identifier. With one exception, linkage is only possible for parts of the data (usually NOCC and non-admitted NMDS data) and/or by conducting quite complex record linkage tasks. Many States/Territories have plans to reconcile their identifier systems, but this will not occur in the near future. This has implications for AMHOCN, in terms of the potential to link outcome data and activity data for the same episode of care.

States/Territories have differing levels of infrastructure to support the NOCC and NMDS collections. Human resources vary, with some States/Territories having a number of personnel deployed to train and support clinicians and managers, and others relying on one or two core individuals. Physical resources also vary, with some States/Territories having sophisticated data collection systems with on-line data entry, and others depending on batch entry of paper-based forms.

All States/Territories have conducted extensive training in the use of outcome measures (and many in the use of data collection systems that support routine outcome measurement), some using a direct approach, others using a train-the-trainer approach, and still others using a combination of the two, building skills in training as well as the ability to train in NOCC. Many are now beginning to consider issues of ongoing training and support. In particular, they are recognising the need for a second phase of training that goes beyond how to use the outcome measures, and focuses more on how to interpret and reflect upon profiles of particular measures (at individual and aggregate levels). Consideration is also being given to the accreditation of trainers. The support of AMHOCN is seen as crucial here, in terms of providing training expertise, developing and disseminating resources, and sharing lessons between jurisdictions.

Having put in place appropriate systems and trained a significant proportion of the mental health workforce, States/Territories are now implementing routine outcome measurement. They vary in terms of their progress with implementation, and, consequently, in terms of coverage. Some will be reporting NOCC data for the first time in 2003-04, others have been reporting for several years. Within States/Territories, there is variability by setting (with community services generally having higher coverage than inpatient services) and by outcome measure (with clinician-rated measures being completed to a greater extent than consumer-rated measures). This has implications for AMHOCN, in terms of its ability to report on the national data.

States/Territories have made different degrees of progress in terms of analysis and reporting of data. Some have not yet reached the point where they have produced reports at any level. Others are generating individual-level reports that allow clinicians to consider given consumers' scores on particular outcome measures, either at a single point in time or over time. Others are generating aggregate-level reports about compliance. A few have started producing some rudimentary, aggregate-level reports that provide information about groups of consumers under the care of a given clinician, team or service. Clinicians and managers are keen for timely feedback at all levels. There is a recognition that, without this, the momentum and goodwill that

has been achieved to date will not be sustained. States/Territories are looking to AMHOCN for guidance about the structure of these reports, and for benchmarking and normative data. In addition, AMHOCN can support efforts to encourage reflection on these reports (e.g., training, awareness raising, and other forms of engagement), to increase the likelihood of their being used.

Recommendations

The following recommendations are made in the light of the findings from the consultations, and are designed to inform the 2004-05 workplans of AMHOCN's three components. The recommendations are made in the context of three guiding principles. Specifically, the work of AMHOCN should: (a) align with existing efforts of States/Territories; (b) be about ensuring sustainability, through building capacity; and (c) be transparent.

1. As a priority, AMHOCN should specify a framework for providing feedback to States/Territories in a manner that maximises its clinical and management utility. Specifically, feedback should take the form of reports that are relevant and useful at a range of levels (e.g., individual, team, service, jurisdiction). The precise nature of the reports should be informed by an iterative process, where data are provided back to States/Territories for comments, and subsequent reports are modified accordingly.
2. Reports from AMHOCN should provide reference points that allow individual scores to be compared with normative data, and service profiles to be benchmarked against those of their peers. For this to occur, the process of identifying peer groups of services must be given priority.
3. AMHOCN should begin providing feedback to States/Territories as soon as possible, recognising that the data are imperfect but that their quality and comprehensiveness will only improve if clinicians and managers find the feedback useful. The frequency of the feedback loop should be increased over time, to maximise the clinical and management utility of the data.
4. For now, AMHOCN's reports back to States/Territories should be based on NOCC data alone, in recognition of the difficulties in linking NOCC and NMDS data, and delays in receipt of NMDS data by Strategic Data from the Australian Institute of Health and Welfare. This has implications for defining episodes of care, and limits the extent to which immediate progress can be made on casemix classification refinement. It still provides scope, however, for much to be done regarding reporting outcome data in a manner that has clinical and management utility.
5. In parallel with the reporting of NOCC data, AMHOCN should focus its attention on the issue of linkages between NOCC and NMDS datasets – first broadly regarding unique identifiers, and then more specifically regarding what needs to occur at a State/Territory level for linkable data to be submitted.
6. AMHOCN should consolidate the existing State/Territory training efforts aimed at equipping the mental health workforce to complete routine outcome measures. Specifically, AMHOCN should develop and disseminate resources that fill particular gaps (e.g., information related to given outcome measures, such as the SDQ), and help States/Territories to streamline their training and re-training packages in a way that balances national consistency against the unique requirements of the local context.
7. AMHOCN should focus its training and service development efforts on developing the 'information literacy' of the mental health field. Specifically, it should foster the skills and knowledge required for interpreting and reflecting upon the meaning of outcome data (and later casemix data), at a range of levels. This will require a multi-faceted approach, tailored to

the needs of particular groups, and might include national and local forums, face-to-face visits to explain reports, and the development and dissemination of relevant resources.

8. AMHOCN should foster information-sharing at a range of levels. In particular, it should take advantage of its 'bird's eye view', identifying good ideas and approaches in given States/Territories and promoting them in other jurisdictions. It should also disseminate relevant materials, acting as a clearing house for resources and information.
9. AMHOCN should explore processes for accrediting trainers, ensuring that national accreditation is consistent with and complementary to any existing accreditation efforts at a jurisdictional level.
10. AMHOCN should engage, nurture and support clinical leaders (particularly psychiatrists), champions and innovators.

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