1 Approach to performance reporting

CONTENTS

1.1	Aims of the Review and this Report	1.1
1.2	The role of government in delivering services	1.3
1.3	Reasons for measuring comparative performance	1.4
1.4	Scope	1.5
1.5	Approach	1.10
1.6	Using the data in RoGS	1.22
1.7	Developments in reporting	1.24
1.8	Key data issues	1.24
1.9	'Cross-cutting' issues	1.33
1.10	Related Review performance measurement reporting	1.34
1.11	References	1.35

1.1 Aims of the Review and this Report

Heads of government (now the Council of Australian Governments or COAG) established the Review of Government Service Provision (the Review) in 1993, to provide information on the equity, efficiency and effectiveness of government services in Australia, through the publication of the annual Report on Government Services (RoGS).

A Steering Committee, comprising senior representatives from the central agencies of each of the Australian, State and Territory governments, and chaired by the

Chairman of the Productivity Commission, manages the Review, with the assistance of a Secretariat provided by the Productivity Commission.

RoGS, now in its nineteenth edition, is a tool for government (see terms of reference for RoGS, p. xxxiv). It has been used:

- for strategic budget and policy planning, for policy evaluation and to demonstrate government accountability
- to assess the resource needs and resource performance of government agencies
- to identify jurisdictions with which to share information on services.

The data in RoGS can also provide an incentive to improve the performance of government services, by:

- enhancing measurement approaches and techniques, such as activity based costing
- helping jurisdictions identify where there is scope for improvement
- promoting greater transparency and informed debate about comparative performance.

Review of RoGS

In 2009, a Senior Officials and Heads of Treasuries Working Group review of RoGS was endorsed by COAG. COAG recognised RoGS as 'the key tool to measure and report on the productive efficiency and cost effectiveness of government services'. The review noted the central role of RoGS in reporting comparative information on government performance and that RoGS' original role as a tool for government had been complemented by a public accountability function.

In 2010, COAG agreed to a new terms of reference and charter of operations for the Steering Committee, as well as a separate terms of reference for RoGS (www.pc.gov.au/gsp/review/tor; COAG 2010). The review of RoGS made a number of recommendations, which have been implemented by the Steering Committee, including triennial reporting to COAG on Steering Committee operations, streamlining performance indicators, development and application of formal scope of RoGS' selection criteria, alignment of indicators with National Agreements where relevant, extension of time series reporting and development of data quality information.

1.2 The role of government in delivering services

All services included in RoGS affect the community in significant ways. Some services form an important part of the nation's social welfare system (for example, public housing and other community services), some are provided to people with specific needs (for example, aged care and disability services), and others are typically used by each person in the community at some stage during their life (for example, education and training, health services, police services and emergency services).

The current focus of RoGS is on social services, such as child care, education and training, health, justice, emergency management, community services, and housing and homelessness which aim to improve the wellbeing of people and communities, by supporting people's ability to participate in social and economic activities. Services typically aim to provide intangible outcomes (such as health, education, safety), rather than the provision of physical products, general income support or the creation of capital assets (although physical products, targeted income support and capital assets may be associated with the delivery of some services).

Generally, the services that governments deliver are largely concerned with:

- providing 'public goods', 1 including:
 - creating a legal framework that determines the rules for ownership of property and the operation of markets (for example, enforcing property rights, checking abuses of power and upholding the rule of law) a framework that encompasses the work of the courts, police and corrective services agencies in maintaining law and order
 - managing adverse events, including the work of emergency services (such as fire and flood control) and some aspects of the health system (such as vaccinations)
- enabling higher levels, higher quality and/or more equitable consumption of services that governments consider to have particular merit or that generate beneficial spillover effects for the community.² Examples of such services

-

Public goods are those where one person's consumption does not reduce consumption by others, and where it is not possible to exclude individuals from access (for example, national defence). These goods tend not to be produced in private markets because people can consume the goods without paying for them.

² In private markets, the production of services that result in positive (or beneficial) spillover effects tends to be lower than is desirable for society as a whole, because producers cannot charge for the wider benefits to society.

include education, health services, ambulance services, child protection services, disability services, aged care services and social housing.

How governments deliver services

Governments use a mix of methods to deliver services to the community, including:

- delivering or providing the services directly (a 'delivery/provider' role)
- funding external providers through grants or the purchase of services (a 'purchaser' role)
- subsidising users (through vouchers or cash payments) to purchase services from external providers
- imposing community service obligations on public and private providers
- providing incentives to users and/or providers, such as reducing tax obligations in particular circumstances (known as 'tax expenditures').

1.3 Reasons for measuring comparative performance

Comparative information on the performance of government service delivery contributes to the wellbeing of all Australians, by encouraging improvements in those services. Public reports such as RoGS improve government accountability and create incentives for better performance. In turn, improving government service provision can lead to major social and economic benefits.

Traditionally, much of the effort to improve the effectiveness of government services has focused on increasing the level of resources devoted to them. Another way of improving services is finding better ways to use existing resources. Performance measurement provides one means of shifting the focus from the level of resources to the efficient and effective use of those resources. Performance measurement can:

- help clarify government objectives and responsibilities
- promote analysis of the relationships between agencies and between programs, enabling governments to coordinate policy within and across agencies
- make performance more transparent, and enhance accountability
- provide governments with indicators of their policy and program performance over time

- inform the wider community about government service performance
- encourage ongoing performance improvements in service delivery and effectiveness, by highlighting improvements and innovation.

The three main reasons for reporting *comparative* performance information across jurisdictions are:

- to verify high performance and identify agencies and service areas that are successful
- to enable agencies to learn from peers that are delivering higher quality and/or more cost effective services
- to generate additional incentives for agencies and services to improve performance.

Comparative data are particularly important for government services, given that limited information is available to those supplying, and receiving, services. Each jurisdiction has, for example, one police service and one child protection and support service. As a result, those responsible for delivering the services do not have access to the same level of information that is available to providers in competitive markets. Comparisons across jurisdictions also offer a level of accountability to consumers, who have little opportunity to express their preferences by accessing services elsewhere.

Although RoGS does not extend to recommendations on how best to provide government services, the information in RoGS assists governments to make such assessments. Reliable comparative performance information can help governments better understand the strengths and weaknesses of each approach, and the circumstances in which each can work best.

1.4 Scope

This RoGS contains performance information on 16 broad service areas (box 1.1). These government services have two important features:

- their key objectives are common or similar across jurisdictions (lending themselves to comparative performance reporting)
- they make an important contribution to the community and/or economy (meaning there are potentially significant gains from improved effectiveness or efficiency).

Box 1.1 Services included in the 2014 RoGS

Child care, education and training

Early childhood education and care (chapter 3) School education (chapter 4)

Vocational education and training (chapter 5)

Justice

Police services (chapter 6)

Courts (chapter 7)

Corrective services (chapter 8)

Emergency management

Fire and ambulance services (chapter 9)

Health

Public hospitals (chapter 10)

Primary and community health (chapter 11)

Mental health management (chapter 12)

Community services

Aged care services (chapter 13)

Services for people with disability (chapter 14)

Child protection services (chapter 15)

Youth justice services (chapter 16)

Housing and homelessness

Housing (chapter 17)

Homelessness services (chapter 18)

The Steering Committee has developed a set of formal criteria to determine whether RoGS should include particular service sectors and to consider the inclusion of significant services that are jurisdiction-specific. The criteria were endorsed by Senior Officials at their meeting on 17 February 2012 (summarised in box 1.2). In a formal assessment during 2013, all current service areas were found to meet the criteria.

Box 1.2 Criteria for selecting service provision sectors

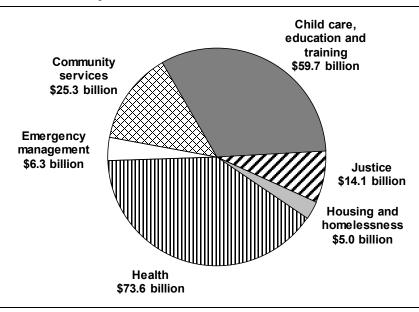
The Steering Committee will apply the following criteria to ensure that new services included in RoGS offer the greatest potential return for the resources invested in performance reporting. Services already included in RoGS will be reviewed from time to time to ensure that they continue to satisfy the criteria for inclusion.

- 1. RoGS' focus will be the effectiveness and efficiency of services provided directly to the community by or on behalf of government. Information on targeted income support or subsidies may be reported where it provides contextual information relevant to service performance or influences the achievement of service objectives.
- 2. Services included in RoGS should either:
- have common or similar objectives across jurisdictions, lending themselves to comparative performance reporting; or if jurisdiction-specific
 - be of such community or economic significance to the national context in its own right that time series analysis in RoGS is appropriate
 - make a significant contribution to the outcomes of services provided by other governments
 - be part of a suite of services delivered across government.
- or make an important contribution to the community and/or economy, such that there is a significant public interest in the effectiveness and efficiency of service provision.
 - Significance to the community may be indicated by the recognition of a service as a COAG priority or other measures of national public importance, recognising that priorities change over time. Significance to the economy may be indicated by the level of government expenditure or by the direct or indirect economic impact of a service.
- 3. In making a decision about including new services in RoGS, the Steering Committee will consider:
- the scope to rationalise or reduce reporting in other areas of the Report (particularly when Review resourcing costs are likely to be significant)
- whether proposed reporting will add sufficient value to other existing reporting exercises to offset the reporting burden
- whether relevant data collections to enable reporting according to the Steering Committee's guiding principles exist
- the benefits and costs of establishing any new reporting requirements.
 - Relevant benefits of establishing new data collections include those to potential users of RoGS, and other users of the data, such as service clients, service providers, government purchasers of services, policy makers and researchers.
 - Relevant costs of establishing new data collections include those to jurisdictions, service providers, data providers and the Productivity Commission in resourcing the Review Secretariat.

Source: SCRGSP (2012).

The services reported in RoGS involve a significant level of government expenditure. While not all data relate to the same time period, the services in the 2014 RoGS accounted for approximately \$184 billion in government recurrent expenditure (figure 1.1), representing around 68.6 per cent of total government recurrent expenditure, the same as the proportion for general government final consumption expenditure in 2012-13. This expenditure is equivalent to about 12.1 per cent of gross domestic product (Secretariat calculations based on data from ABS 2013a and 2013b).

Figure 1.1 Estimated government recurrent expenditure on services covered by the 2014 RoGSa, b



^a Data for 2012-13 were not available for all services. Expenditure reported is for the most recent year available.
^b Scope of expenditure reported is identified in each service-specific chapter.
^c Emergency management data in this RoGS includes State and Territory Emergency Services' data of around \$2 million, the equivalent of which were not included in total expenditure for the 2013 RoGS.

Source: Secretariat calculations based on general government final consumption expenditure and gross domestic product data from ABS 2013a, Australian National Accounts: National Income, Expenditure and Product, Australian National Accounts, June 2013, Cat. no. 5206.0, Canberra; Sector overviews B–G; Chapters 3–18.

Funding from government may not meet the full cost of delivering a service to the community. Users of services and not-for-profit organisations can also contribute funding and other resources. However, the scope of RoGS is confined to the cost to government, for reasons explained in box 1.3.

Box 1.3 Cost to government and total cost

RoGS provides information about the cost to government of providing services. Governments aim to maximise the benefit to the community from the use of government funds. It may be argued that RoGS should also account for the costs where non-government groups such as charities, not-for-profit organisations, private providers and users of services contribute resources for the services. Although the contributions of these other groups are not negligible, the purpose of RoGS is to provide information to assist governments in making decisions about the effectiveness and efficiency of government expenditure.

If a government provides services directly, then it is accountable for all resources used. In such circumstances, RoGS aims to include the full costs of providing the service, including the cost of capital. This approach allows governments to compare the internal management of their services with that of counterparts in other jurisdictions.

RoGS also includes information on the cost to government of services delivered in other ways, including the purchase of services from government and non-government providers. This information can assist governments in assessing their purchase decisions.

Sometimes, a private organisation will offer to deliver a service at a lower cost to government than the cost of government providing that service directly, even though the private organisation may use at least as many resources as the government provider. This situation can arise for not-for-profit organisations such as charities, which may be able to charge less because they operate the service as an adjunct to another activity or because they have access to resources that are not costed at market rates (such as donations, church buildings and volunteers).

RoGS does not seek to facilitate comparisons between the internal management of government providers and the internal management of non-government providers, and there would be difficulties in collecting data to make such comparisons. As a result, there is no attempt to compare the full cost of delivery by non-government organisations with the full cost of delivery by government service providers.

The focus of RoGS is on the effectiveness and efficiency of government purchase or supply of specific services, rather than on general government income support. That is, RoGS covers aged care but not the aged pension, disability services but not disability pensions, and children's services but not family payments (although descriptive information on income support is provided in some cases). The impact of child care subsidies on the affordability of child care services is reported (chapter 3), and some information on Commonwealth Rent Assistance is reported, on the basis that it is a targeted payment to assist in the purchase of housing services, and is not general income support (sector overview G).

1.5 Approach

RoGS uses a common method for reporting comparative performance for a range of services. Adopting a common method has several benefits:

- a convenient and useful resource for people interested in multiple service areas
- insights into approaches to performance assessment across services
- progress in performance reporting in one service area can demonstrate what is possible and encourage improved reporting by other services
- a capacity to address issues that arise across service areas (for example, how to measure timeliness and other aspects of quality)
- an opportunity to address issues that have an impact on (or are affected by) multiple service areas.

A number of the services covered by RoGS are also subject to other performance measurement exercises. Distinguishing features of the approach taken in RoGS are:

- a focus on non-technical information, making it accessible to non-specialists
- regular publication, allowing monitoring of performance over time
- inclusion of much otherwise unpublished data to present comprehensive performance information
- the compilation of performance reporting across a number of service areas in a single report, facilitating the sharing of insights across service areas.

Guiding principles

The primary aim of RoGS is to provide objective performance information, in order to facilitate informed policy judgments. The guiding principles in box 1.4 are drawn from extensive Steering Committee experience, the review of RoGS, the terms of reference and charter of operations, and performance reporting criteria set out in the Intergovernmental Agreement on Federal Financial Relations.

Box 1.4 Guiding principles of RoGS

RoGS' primary purpose is to provide comparative information to governments about the equity, effectiveness and efficiency of government services. An important, but secondary purpose is to promote public accountability.

The Steering Committee will use its influence to encourage working groups, parallel exercises and technical experts to develop collections, definitions, counting rules and measurement standards to implement the following guiding principles.

Comprehensiveness — performance indicator frameworks should be comprehensive, assessing performance against all important objectives.

Streamlined reporting — performance indicator frameworks aim to provide a concise set of information about performance against the identified objectives of a sector or service. Annual strategic plans will review performance indicator frameworks to identify redundant or unnecessary indicators, or gaps in reporting.

A focus on outcomes — high level performance indicators should focus on outcomes, reflecting whether service objectives have been met.

Hierarchical — where a greater level of sector specific detail is required, high-level outcome indicators should be underpinned by lower level output indicators (such as those reported in chapters) and additional disaggregated data (such as information in attachment tables).

Meaningful — reported data must measure what it claims to measure. Proxy indicators will be clearly identified as such and the Steering Committee will encourage the development of more meaningful indicators to replace proxy indicators where practicable.

Comparability — the ultimate aim is data that are comparable — across jurisdictions and over time. However, comparability may be affected by progressive data availability. Where data are not yet comparable across jurisdictions, time series analysis within jurisdictions is particularly important. Sometimes, there will be a trade-off between continuing a time series and reporting performance indicators that change when improved or more appropriate performance indicators are developed.

Progressive data availability — progress may vary across jurisdictions and data are generally presented for those jurisdictions that can report (not waiting until data are available for all).

Timeliness — to be relevant and enhance accountability, the data published will be the most recent possible — incremental reporting when data become available, and then updating all relevant data over recent years, is preferable to waiting until all data are available. Sometimes, there will be a trade-off between the degree of precision of data and its timely availability, because more recent data has had less time for validation.

(continued on next page)

Box 1.4 (continued)

Use acceptable (albeit imperfect) performance indicators — use relevant performance indicators that are already in use in other national reporting arrangements wherever appropriate. Adopting existing indicators can ensure consistency with other, relevant reports where this adds value, lowers the costs of data collection and avoids delays in reporting.

Understandable — to improve public accountability, data must be reported in a way that is meaningful to a broad audience, many of whom will not have technical or statistical expertise. Reported data will be accessible, clear and unambiguous so that the community can come to its own judgements on the performance of governments in delivering services.

Accurate — data published will be of sufficient accuracy to provide confidence in analysis based on information in RoGS.

Source: Steering Committee for the Review of GSP (unpublished); Ministerial Council for FFR (2009).

Benchmarking

The terms 'comparative performance reporting' and 'benchmarking' are sometimes used interchangeably. However, 'benchmarking' can have a particular connotation of measuring performance against a predetermined standard (box 1.5). Using the terms in box 1.5, RoGS can be considered as a form of results or process benchmarking, but RoGS does not generally establish best practice benchmarks. However, governments can use the information in RoGS to identify appropriate benchmarks.

Box 1.5 **Benchmarking**

Benchmarking is a systematic process of searching for and encouraging the introduction of best practice. The three main forms of benchmarking are: (1) results benchmarking (comparing performance within and between organisations using performance indicators of effectiveness and efficiency); (2) process benchmarking (analysing systems, activities and tasks that turn inputs and outputs into outcomes); and (3) setting best practice standards (establishing goals and standards to which organisations can aspire).

Benchmarking typically involves a number of steps. Whatever the chosen approach or focus, the steps usually include:

- deciding why, when, and what to benchmark
- analysing plans and performance (reviewing objectives and identifying performance indicators and own performance)
- establishing benchmarking partners
- obtaining performance data and analysing differences in performance
- identifying best practice and the most useful improvements
- implementing improvements in practice
- assessing improvements and re-benchmarking (MAB/MIAC 1996).

The performance information in RoGS can contribute to many of the above steps in a results benchmarking cycle, and assist governments to implement best practice.

The general performance indicator framework

RoGS' general performance indicator framework is set out in figure 1.2. The framework depicts the Review's focus on outcomes, consistent with demand by governments for outcome oriented performance information. This outcome information is supplemented by information on outputs, grouped under 'equity', 'effectiveness' and 'efficiency' headings.

In response to review of RoGS recommendations, an Independent Reference Group (IRG) reviewed RoGS' general performance indicator framework, and the Steering Committee endorsed the IRG's report in September 2010 (Steering Committee 2010). An extensive literature review and case studies of other performance reporting exercises confirmed that RoGS possesses a robust performance indicator framework (consistent with the findings of the COAG review of RoGS) (COAG 2009).

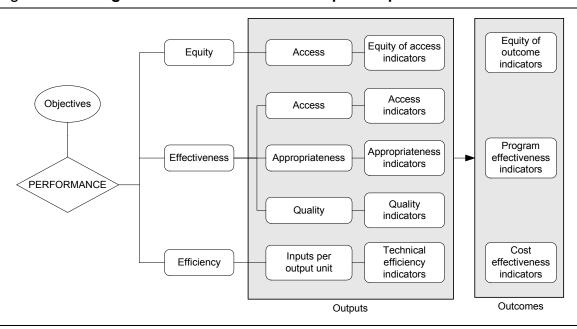


Figure 1.2 A general framework and examples of performance indicators

A more detailed comparability and completeness categorisation of indicators in service-specific performance indicator frameworks and indicator interpretation boxes was introduced in this RoGS to improve the identification of comparability and completeness status of indicators where data are reported.

The service process

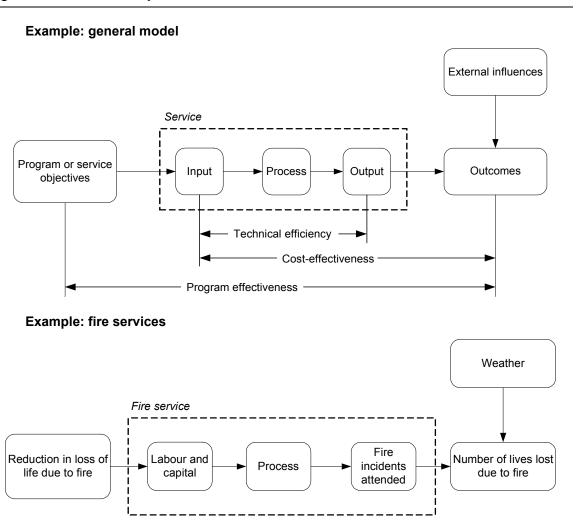
The general framework reflects the service process through which service providers transform inputs into outputs and outcomes in order to achieve desired policy and program objectives.

For each service, governments have a number of objectives that relate to desired outcomes for the community. To achieve these objectives, governments provide services and/or fund service providers. Service providers transform resources (inputs) into services (outputs). The rate at which resources are used to make this transformation is known as 'technical efficiency'.

The impact of these outputs on individuals, groups and the community are the outcomes of the service. In RoGS, the rate at which inputs are used to generate outcomes is referred to as 'cost effectiveness'. Often, outcomes (and to a lesser extent, outputs) are influenced by factors external to the service. Figure 1.3 distinguishes between technical efficiency (the ratio of inputs to outputs) and cost-effectiveness (the ratio of inputs to outcomes), and also recognises that other

influences affect overall program effectiveness (the extent to which outcomes achieve the objectives of the service).

Figure 1.3 Service process



Objectives

In each chapter, the objectives for the service are outlined, and performance indicators that measure the achievement of those objectives are reported.

The objectives (or desired outcomes) for each government funded service are similar across jurisdictions, although the priority that each jurisdiction gives to each objective may differ. The Steering Committee's approach to performance reporting is to focus on the extent to which each shared objective for a service has been met.

Distinguishing outcomes and outputs

Outcome indicators provide information on the impact of a service on the status of an individual or a group. In contrast, outputs are the services delivered.

Outcomes may be short term (intermediate) or longer term (final). The approach in RoGS is to use both short term (or intermediate) and long term (or final) outcome indicators, as appropriate. In school education, for example, learning outcomes at years 3, 5, 7 and 9 may be considered intermediate outcomes, while completion of year 12 or school leaver destinations may be considered more final outcomes.

It is acknowledged that outcomes may be influenced by factors outside the control of governments or agencies delivering services. The approach in RoGS is to explain that government provided services are often only one contributing factor and, where possible, point to data on other factors, including different geographic and demographic characteristics across jurisdictions. (Chapter 2 contains detailed statistics and short profiles on each State and Territory, which may assist in interpreting the performance indicators presented in RoGS.)

While the aim of the Review is to focus on outcomes, they are often difficult to measure. RoGS therefore includes measures of outputs (which are often easier to measure), with an understanding that there is a relationship between those outputs and desired outcomes, and that the measures of outputs are, in part, proxies for measures of outcomes. Output information is also critical for efficient and effective management of government services, and is often the level of performance information that is of most interest to individuals who access services.

The indicator framework groups output indicators according to the desired characteristics of a service — for example, accessibility, appropriateness or quality (figure 1.2). By contrast, outcome indicators are not grouped according to desired characteristics, as outcomes typically depend on a number of service characteristics and are usually influenced by other service-sectors and extraneous factors.

Equity, effectiveness and efficiency

The Steering Committee takes a comprehensive view of performance reporting, and RoGS' framework gives equal prominence to equity, effectiveness and efficiency, as the three overarching dimensions of performance. There are inherent trade-offs in allocating resources and dangers in analysing only some aspects of a service. A unit of service may have a high cost but be more effective than a lower cost service, and

therefore be more cost effective. Improving outcomes for a group with special needs may lead to an increase in the average cost per unit of providing a service.

Equity

The term 'equity' has a number of interpretations, explained in box 1.6. Equity indicators in RoGS measure how well a service is meeting the needs of particular groups that have special needs or difficulties in accessing government services. While effectiveness indicators are generally absolute measures of performance, equity indicators focus on any gap in performance between special needs groups and the general population. Equity indicators may reflect:

- equity of access all Australians are expected to have appropriate access to services
- equity of outcome all Australians are expected to achieve appropriate outcomes from service use

Box 1.1 Equity

Equity is an important concept in economic literature, with two elements:

- horizontal equity the equal treatment of equals
- vertical equity the unequal but equitable ('fair') treatment of unequals.

In the context of this RoGS:

- *horizontal* equity is exhibited when services are equally accessible to everyone in the community with a similar level of need
- vertical equity is exhibited when services account for the special needs of particular groups in the community and may be needed where geographic, cultural or other reasons mean some members of the community have difficulty accessing a standard service.

Criteria are used to classify groups that may have special needs or difficulties in accessing government services. These include:

- language or literacy proficiency
- sex and age
- physical or mental capacity, including people with disability
- race or ethnicity
- geographic location.

Identifying those service recipients who belong to groups with special needs or access difficulties poses challenges, particularly when relying on client self-identification. If members of such groups are required to identify themselves, then the accuracy of the data will depend on how members of a group perceive the advantages (or disadvantages) of identification, and whether such perceptions change over time (see for example, SCRGSP 2011). Comparability problems also arise where different data collections and different jurisdictions do not use common definitions of special needs groups.

RoGS often uses the proportion of each target group in the broader community as a point of comparison when examining service delivery to special needs groups. This approach is suitable for services that are provided on a virtually universal basis (for example, school education), but must be treated with caution for other services, where service provision is based on the level of need, which may vary between groups (for example, disability services). Another option is to collect a more accurate profile of need (for example, the estimation of the 'potential population' of people with the potential to require specialist disability services at some time).

Where geographic location is used to identify groups with special needs, data are usually disaggregated according to a geographical classification system. Geographical classifications are generally based on population density and/or the distance that residents need to travel to access services. The geographic classification system used in each service area is outlined in chapter 2.

All geographic classification systems are imperfect indicators of the time and cost of reaching a service; for example, they do not consider the client's capacity to bear the cost of accessing the service (Griffith 1998). Moreover, for some services, classification systems based on distance or population are not useful indicators of access to services — for example, ambulances can sometimes respond more quickly in rural areas over longer distances than in metropolitan areas over shorter distances, because of differences in traffic congestion.

Effectiveness

Effectiveness indicators measure how well the outputs of a service reflect the stated objectives of that service. The reporting framework groups effectiveness indicators according to characteristics that are considered important to the service. For most chapters, these characteristics include access, appropriateness and/or quality.

Access

Access indicators measure how easily the community can obtain a service. In RoGS, access has two main dimensions:

- undue delay (timeliness) for example, waiting times for patients in public hospitals and for older people receiving aged care services
- undue cost (affordability) for example, the proportion of income spent on particular services, such as out-of-pocket expenses in children's services.

Appropriateness

Appropriateness indicators measure how well services meet client needs. In primary and community care, for example, a series of indicators measure whether patients with particular health conditions are receiving clinically endorsed treatments.

Appropriateness indicators also seek to identify the extent of any underservicing or overservicing (Renwick and Sadkowsky 1991). Some services have developed measurable standards of service need, against which levels of service can be assessed. The 'overcrowding' measure in housing, for example, measures the appropriateness of the size of the dwelling relative to the size and composition of the household. Other services have few measurable standards of service need; for example, the desirable number of medical treatments for particular populations is not known. However, data on differences in service levels can indicate where further work could identify possible underservicing or overservicing.

Quality

Quality indicators reflect the extent to which a service is suited to its purpose and conforms to specifications. Information about quality is particularly important when there is a strong emphasis on increasing efficiency (as indicated by lower unit costs). There is usually more than one way in which to deliver a service, and each alternative has different implications for both cost and quality. Information about quality is needed to ensure all relevant aspects of performance are considered.

The Steering Committee's approach is to identify and report on aspects of quality, particularly actual or implied competence:

• actual competence can be measured by the frequency of positive (or negative) events resulting from the actions of the service (for example, deaths resulting from health system errors such as an incorrect dose of drugs)

implied competence can be measured by proxy indicators, such as the extent to
which aspects of a service (such as inputs, processes and outputs) conform to
specifications — for example, the level of accreditation of public hospitals and
aged care facilities.

The reporting framework includes quality as one aspect of effectiveness, and distinguishes it from access and appropriateness (figure 1.2). This distinction is somewhat artificial because these other aspects of service provision also contribute to a meaningful picture of quality.

Efficiency

The IRG's review of RoGS' performance indicator framework (Steering Committee 2010) found that the inclusion of efficiency indicators was a distinguishing aspect of RoGS' framework. Very few performance reporting exercises explicitly assess the efficiency of government services, despite the key links between efficiency and the other aspects of performance.

The concept of efficiency has a number of dimensions. Overall economic efficiency requires satisfaction of technical, allocative and dynamic efficiency:

- technical efficiency requires that goods and services be produced at the lowest possible cost
- allocative efficiency requires the production of the set of goods and services that consumers value most, from a given set of resources
- dynamic efficiency means that, over time, consumers are offered new and better products, and existing products at lower cost.

RoGS focuses on technical (or productive) efficiency. Technical efficiency indicators measure how well services use their resources (inputs) to produce outputs for the purpose of achieving desired outcomes. Government funding per unit of output delivered is a typical indicator of technical efficiency — for example, cost per annual curriculum hour for vocational education and training.

Comparisons of the unit cost of a service should reflect the full cost to government. Problems can occur when some costs are not included or are treated inconsistently across jurisdictions (for example, superannuation, overheads or the user cost of capital). The Steering Committee's approach, where full cost information is not available in the short term, is that:

data should be calculated consistently across jurisdictions

data treatment should be fully transparent.

Where there are shortcomings in the data, other indicators of efficiency are used (including partial productivity measures such as staff levels per student in government schools, and administrative costs as a proportion of total expenditure in disability services).

Many factors outside the control of governments may affect the cost of providing services. The Commonwealth Grants Commission, when calculating relativities across states and territories to distribute Australian Government general purpose grants, accounts for influences beyond a jurisdiction's control (called 'disabilities') that affect the jurisdiction's cost of providing services and capacity to raise revenue. These 'disabilities' may include factors such as the size of the jurisdiction, the dispersed nature of the population and the socio-demographic distribution of the population (CGC 2013). RoGS does not make cost adjustments based on any of these factors, but chapter 2 provides a short statistical profile of each State and Territory, which may assist readers to interpret RoGS' performance indicators.

Cost-effectiveness

Cost-effectiveness indicators (the relationship of inputs to *outcomes*) measure how efficiently the outcomes of a service were achieved. Although no explicit cost-effectiveness indicators are currently reported in RoGS, a theoretical example would be government funding per life (or 'quality adjusted life year') saved through breast cancer screening. Implicit cost effectiveness reporting is achieved in RoGS through combinations of efficiency and effectiveness indicators, and combinations of efficiency and outcomes indicators, as distinct from through separate cost effectiveness indicators.

Variations to the general framework

In the health and emergency management areas of RoGS, the general framework has been adapted to align more closely with the specific objectives and functions of these services. These variations are explained in detail in the Health sector overview (sector overview E) and the Emergency management sector overview (sector overview D) and the Fire and ambulance services chapter (chapter 9).

1.6 Using the data in RoGS

The Steering Committee is progressively introducing data quality information for performance indicators in RoGS. The data quality information for each indicator addresses in detail many of the data issues discussed below.

Data comparability

For each service, the performance indicator framework and indicator interpretation boxes show which data are provided on a comparable basis and which are not directly comparable. Where data are not directly comparable, appropriate qualifying commentary is provided in the text or footnotes. Data may not be directly comparable if:

- definitions or counting rules differ or are so broad that they result in different interpretations (for example, depreciation rules)
- the scope of measurement varies (for example, waiting times for elective surgery)
- data are drawn from samples (such as surveys) and the sample size is too small for statistical reliability.

These issues do not always lead to material differences, and even where the differences are significant, relatively simple adjustments can resolve them in many cases. For example, payroll tax exemption has a material influence on the comparability of unit cost indicators, but cost data are adjusted in most chapters to account for payroll tax (SCRCSSP 1999).

Validation

Data contained in RoGS vary in the extent to which they have been reviewed or validated. A large proportion of reported data are supplied and verified by data collection agencies such as the ABS and the Australian Institute of Health and Welfare (AIHW). Some data are formally audited in fora external to the Review, such as auditing of agencies' financial statements. At a minimum, all data have been endorsed by the contributor and subjected to peer review by the Working Group for the relevant service area.

Timeliness and accuracy

Timeliness of data is an important consideration for policy makers. Sometimes, there is a trade-off between the precision of data and its timely availability — data that are provided in a timely manner have had less time to undergo rigorous validation.

The Steering Committee manages this trade-off between timeliness and precision by publishing available data with appropriate qualifications. Publication increases scrutiny of the data and encourages timely improvements in data quality.

Improving the timeliness and accuracy of the data requires a high level of cooperation between the Steering Committee, data custodians and participating agencies from all jurisdictions. Users of RoGS are also an important source of feedback on potential improvements to RoGS. The Steering Committee welcomes feedback, which can be forwarded to the Secretariat.

Effects of factors beyond the control of agencies

The different environments in which service agencies operate affect the outcomes achieved by the agencies. Any comparison of performance across jurisdictions should consider the potential impact of differences in clients, geography, available inputs and input prices. Relatively high unit costs, for example, can result from inefficient performance, or from a high proportion of special needs clients, geographic dispersal, or a combination of these and other factors. Similarly, a poor result for an effectiveness indicator may have more to do with client characteristics than service performance.

RoGS provides information on some of the differences that might affect service delivery, to assist readers to interpret performance indicator results. This information takes the form of profiles of each service area, footnotes to tables and figures, data quality information (being iteratively introduced for all indicators) and a statistical context chapter (chapter 2). The statistical context chapter provides a range of general descriptive information for each jurisdiction, including the age profile, spatial distribution, income levels and education levels of the population, the tenure of dwellings and cultural heritage (such as Indigenous and ethnic status).

RoGS does not attempt to adjust reported results for differences that can affect service delivery. Users of RoGS will often be better placed to make the necessary

judgments, perhaps with the benefit of additional information about the circumstances or priorities of specific jurisdictions.

1.7 Developments in reporting

Each year, the Steering Committee endeavours to build on developments of previous years. Major enhancements to RoGS are in four categories:

- the development of new performance indicators, measures and reporting against indicators and measures for the first time
- improvements to the concepts, meaningfulness and/or clarity of existing performance indicators and measures
- improvements to the data reported against existing performance indicators and measures, including:
 - improved comparability, timeliness and/or quality of data
 - expanded reporting for special needs groups (such as Indigenous Australians)
 - improved reporting of full costs to government.
- improvements to information reported about data quality.

Improvements to specific areas of RoGS are summarised in chapters 3–18.

1.8 Key data issues

Notwithstanding ongoing improvements in reporting, there remains scope to improve, both by addressing gaps in reporting, and by improving the timeliness, comparability, completeness and other quality aspects of reported data.

Gaps in reporting

The following major gaps in reporting, across service areas, have been identified:

- There are relatively few indicators of output quality, compared to the number of indicators for other output characteristics (effectiveness, access and appropriateness).
- There are no cost-effectiveness (that is, measures of cost per outcome achieved) indicators reported. The lack of cost-effectiveness measures reflects the

difficulty of collecting robust quantitative information on these types of outcomes. In the absence of explicit cost effectiveness indicators, cost effectiveness can be analysed by examining combinations of RoGS' efficiency and effectiveness indicators. Many other outcomes indicators are also reported.

The Steering Committee has also identified the following data issues that affect the quality of information in RoGS: timeliness of data and data availability; comparability of data; changes to administrative data collections; full costing of government services; and reporting of data for special needs groups.

Timeliness and data availability

Recent data are more useful for policy decision making, but there can be a trade-off between the accuracy of data and their timeliness. The Steering Committee's approach is, where data are fit for purpose, to publish imperfect data with caveats. This approach allows increased scrutiny of the data and reveals the gaps in critical information, providing the foundation for developing better data over time. Three particular timeliness issues are:

- Lagged data, where data are not available for the most recent year (financial or calendar). While there have been recent improvements in several collections, this remains an issue for several annual administrative collections.
- Infrequent data, where data are not available on an annual basis. This is most often an issue for data sourced from infrequent surveys or the Census. However, the Steering Committee acknowledges that the benefits of more frequent reporting must be balanced against the costs of more frequent collection.
- Inability to compare data across jurisdictions (or over time). Two particular issues arise:
 - lack of comparability where nationally agreed definitions have not been developed, where jurisdictional data do not comply with nationally agreed definitions or where data definitions do not accommodate different models of service delivery in different jurisdictions
 - large standard errors where survey data have large standard errors (often an issue for jurisdictions with smaller populations, or when data are disaggregated for reporting by special needs characteristics, such as Indigenous status, low socioeconomic status, disability and remoteness).
- Late provision of data, or resubmitted data. Notwithstanding the Steering Committee's flexibility in negotiating data deadlines to accommodate data

providers, data continue to be submitted outside agreed extended timeframes, which has the potential to compromise report production processes and report quality.

The timeliness of reported data is noted in relevant chapters and sector overviews.

Comparability of data

Data are generally considered to be directly comparable when definitions, counting rules and the scope of measurement are consistent (and if applicable, the sample size is large enough to be statistically reliable — explained in chapter 2).

Performance indicator framework (PIF) diagrams in each chapter are shaded to reflect *indicator* comparability. Of the 18 service area PIFs, 11 have over 50 per cent of indicators reported on a comparable basis.

Comparability of the *measures* that inform each indicator is reported in the indicator interpretation boxes in each service-specific chapter and sector overview.

Changes to administrative data collections

The discontinuation of data sets and the establishment of new data sets have implications for performance reporting. The scope, comparability and accuracy of data can be affected, with particular consequences for time series comparisons. The establishment of new data collections can involve implementation problems that affect data quality for several years.

Major data developments currently underway will improve the quality of RoGS reporting in the future. Details of these can be found in the service-specific chapters of this Report.

Costing of services

In addition to the Review objective that expenditure on services be measured and reported on a comparable basis, a further objective of the Review is that efficiency estimates reflect the full costs to government. The Review has identified three priority areas for improving the comparability of unit costs, and developed appropriate guidelines in each case:

• including superannuation on an accrual basis (SCRCSSP 1998a)

- accounting for differences in the treatment of payroll tax (SCRCSSP 1999a)
- including the full range of capital costs (SCRCSSP 2001).

Other issues influence the comparability of cost estimates. Where possible, the Review has sought to ensure consistency in:

- accounting for the goods and services tax (GST)
- reporting accrued benefits to employees (such as recreation and long service leave)
- apportioning applicable departmental overhead costs
- reporting non-government sourced revenue.

Treasury and finance accounting guidelines in most jurisdictions require government agencies to adopt accrual accounting. Accrual accounting is based on the principle that the agency recognises revenue and expenses when they are earned and incurred, respectively. Cash accounting, in contrast, recognises revenue and expenses when they are collected and paid, respectively. The majority of agencies and jurisdictions have adopted accrual accounting. Attachment tables to service-specific chapters show the Review's progress in reporting on an accrual basis, meeting the principle of reporting full cost to government (incorporating depreciation and the user cost of capital) and adjusting for differences in superannuation and payroll tax.

The Steering Committee's preference is to remove payroll tax from reported cost figures, where feasible, so cost differences between jurisdictions are not caused by differences in jurisdictions' payroll tax policies. In some chapters, however, it has not been possible to separately identify payroll tax, so a hypothetical amount is included in cost estimates for exempt services.

Capital costs

Under accrual accounting, the focus is on the capital used (or consumed) in a particular year, rather than on the cash expenditure incurred in its purchase (for example, the purchase costs of a new building). Capital costs comprise two distinct elements:

• depreciation — defined as the annual consumption of non-current physical assets used in delivering government services

• the user cost of capital — the opportunity cost of funds tied up in the capital used to deliver services (that is, the return that could have been generated if the funds were employed in their next best use).

To improve the comparability of unit costs, the Steering Committee decided that both depreciation and the user cost of capital should be included in unit cost calculations (with the user cost of capital for land to be reported separately). The Steering Committee also agreed that the user cost of capital rate should be applied to all non-current physical assets, less any capital charges and interest on borrowings already reported by the agency (to avoid double counting). The rate applied for the user cost of capital is based on a weighted average of rates nominated by jurisdictions (currently 8 per cent).

Differences in asset measurement techniques can have a major impact on reported capital costs (SCRCSSP 2001). However, the differences created by these asset measurement effects are generally relatively small in the context of total unit costs, because capital costs represent a relatively small proportion of total cost (except for housing). In housing, where the potential for asset measurement techniques to influence total unit costs is greater, the adoption under the Commonwealth/State Housing Agreement (replaced by the NAHA from 1 January 2009) of a uniform accounting framework has largely prevented this from occurring. The adoption of national uniform accounting standards across all service areas would be a desirable outcome for the Review.

Other costing issues

Other costing issues include accounting for the GST, the apportionment of costs shared across services (mainly overhead departmental costs) and the treatment of non-government sourced revenue.

- Government agencies are treated in the same manner as other businesses for GST. That is, government agencies are not exempt from GST on their purchases, and can claim input tax credits for the GST paid on inputs. Data reported in RoGS are net of GST paid and input tax credits received, unless otherwise specified. The GST appears to have little quantifiable impact on the performance indicators in RoGS.
- Full apportionment of departmental overheads is consistent with the concept of full cost recovery. The practice of apportioning overhead costs varies across the services in RoGS.

• The treatment of non-government sourced revenue varies across services in RoGS. Some services deduct such revenue from their estimates of unit costs. This is usually in cases where the amounts concerned are relatively small (for example, in police services and courts). The costs reported are therefore an estimate of net cost to government. However, where revenue from non-government sources is significant (such as with public hospitals, fire services and ambulance services), both the gross cost and the net cost to government are reported, in order to provide an adequate understanding of efficiency.

Reporting for special needs groups

Some chapters of RoGS focus on the performance of agencies in providing services to specific groups in society — for example, the chapters on aged care services, services to people with disability and children's services. Across RoGS, the Steering Committee also seeks to report on the performance of agencies providing services for three identified special needs groups: Indigenous Australians; people living in communities outside the capital cities (that is, people living in other metropolitan areas, or rural and remote communities); and people from a non-English speaking background. However, for many services, there is a paucity of data on outcomes for these groups.

Indigenous Australians

In this Report, the term 'Indigenous' is used to describe Aboriginal and/or Torres Strait Islander people in Australia. While the Steering Committee acknowledges the diversity of Australia's Indigenous peoples, most of the available data on Indigenous Australians are for Aboriginal and Torres Strait Islander people combined.

In May 1997, the (then) Prime Minister asked the Review to give particular attention to the performance of mainstream services in meeting the needs of Indigenous Australians. Since 2003, the Steering Committee has compiled all of RoGS' information on Indigenous Australians into a separate Indigenous compendium. The most recent compendium (of data from the 2013 RoGS) was released in April 2013 (SCRGSP 2013b). A compendium of Indigenous data from this edition will be released by mid-2014.

Data collection issues relating to Indigenous Australians

Many administrative data collections do not have accurate or complete identification of the Indigenous status of their clients. In some instances, the method and level of identification of Indigenous Australians appear to vary across jurisdictions. Further, while many surveys now include an Indigenous identifier, many do not include a sufficiently large sample to provide reliable results for the Indigenous population.

National work on improving Indigenous identification is ongoing. Under Schedule F of the *National Indigenous Reform Agreement* (NIRA), the ABS and AIHW are undertaking work on improving Indigenous identification across a range of data collections (COAG 2012). Activities by the ABS and AIHW (both under the NIRA and independently) include:

- an ongoing program to improve the identification of Indigenous status of clients in Australian, State and Territory governments' administrative systems. Priority is being given to the improvement of births and deaths statistics in all states and territories, as well as data for hospital separations, community services, education, housing and crime and justice
- work with other agencies to develop and support national Indigenous information plans, Indigenous performance indicators and Indigenous taskforces on a number of topics
- improving Indigenous enumeration in the five-yearly Census of Population and Housing, including data for small geographic areas
- an established cycle of Indigenous-specific surveys as part of the ABS Household Survey Program to provide Indigenous statistics on a three-yearly basis and an annual series of Indigenous labour force estimates
- producing publications related to improving methods for Indigenous statistics (for example, AIHW (2012) examines the identification of Aboriginal and Torres Strait Islander clients in a number of community services data collections and makes a number of recommendations for jurisdictions to improve Indigenous data collection).

The (then) Ministerial Council on Aboriginal and Torres Strait Islander Affairs (MCATSIA) commissioned work to identify methodological issues in Indigenous data collections, outline how these are being addressed and identify any remaining gaps. The findings are presented in *Population and Diversity: Policy Implications of Emerging Indigenous Demographic Trends*, released in mid-2006 by the Centre for

Aboriginal Economic Policy Research (CAEPR) (Taylor 2006). In mid-2007, MCATSIA commissioned further work on Indigenous population statistics from CAEPR, constructed around four projects:

- detailed regional analysis of change in Indigenous social indicators
- assessment of social and spatial mobility among Indigenous Australians in metropolitan areas
- development of conceptual and methodological approaches to the measurement of short term mobility
- case-study analyses of multiple disadvantage in select city neighbourhoods and regional centres.

Working Papers related to these projects are released as part of the CAEPR Working Paper Series (for example, CAEPR 2011) and the Indigenous Population Project Series: 2011 Census Papers (for example, CAEPR 2012).

In December 2007 and March 2008, COAG agreed to explicit targets for improving the lives of Indigenous people, and in November 2008 established the NIRA, which incorporates the COAG Closing the Gap targets and was last revised in November 2012 (COAG 2012). The NIRA provides an integrated framework for the task of Closing the Gap, setting out the policy principles, objectives and performance indicators underpinning Closing the Gap and the specific steps governments are taking to meet the targets. The Steering Committee is committed to aligning relevant indicators in this RoGS with the Working Group on Indigenous Reform (WGIR) framework.

The Coordinator-General for Remote Indigenous Services (CGRIS) provides a six monthly report to the Minister for Families Community Services and Indigenous Affairs. The first report was noted at COAG on 7 December 2009. COAG decided that the WGIR will provide a progress report to COAG on recommendations in the CGRS report. The first WGIR progress report was noted by COAG at its April 2010 meeting. COAG also committed to continuing its monitoring of progress of the National Partnership on Remote Service Delivery (COAG 2010). The eighth (and most recent) CGRIS report was released in November 2013 (CGRIS 2013).

People living in rural and remote areas

The Steering Committee selectively reports on the performance of governments in delivering services to people in communities outside the capital cities.

Reporting data on rural and remote communities is complicated by the number of classification systems that exist:

- the Rural, Remote and Metropolitan Areas (RRMA) classification system developed in 1994 by the Department of Primary Industries and Energy, and the then Department of Human Services and Health (now Australian Government Department of Health and Ageing), or a variant of RRMA
- the ABS' Australian Statistical Geography Standard (ASGS) (which replaced the Australian Standard Geographical Classification (ASGC) of remoteness areas (ABS 2009a) from July 2011)
 - five volumes of the new ASGS have been released: Main Structure and Greater Capital City Statistical Areas (ABS 2011a); Indigenous Structure (ABS 2011b); Non ABS Structures (ABS 2011c); and Significant Urban Areas, Urban Centres and Localities, Section of State (ABS 2012a); and Remoteness Structure (2013c)
 - the MCEECDYA (now SCSEEC) Geographic Location Classification, which draws on the RRMA classification and ABS's Accessibility and Remoteness Index of Australia (Jones 2000).

The chapters on early childhood education and care, VET, fire and ambulance services, aged care services, disability services and housing use the ABS Australian Standard Geographical Classification of remoteness areas.

A number of other services (public hospitals, primary and community health and protection and support services) use the Rural, Remote and Metropolitan Areas (RRMA) classification or a variant (DPIE and DHSH 1994). The chapter on school education uses the MCEECDYA (now SCSEEC) Geographic Location Classification

People from a non-English speaking background

A number of chapters in RoGS include data on the performance of governments in providing services to people from a non-English speaking background. Reporting data on people from a non-English speaking background is complicated by:

• undercounting. The ABS' Post Enumeration Survey conducted after the 2011 Census found that net undercount rates for country of birth were very high (around 1 million) for people born in non-English speaking countries (ABS 2012b). Problems with self-identification are likely to be apparent with collecting data on language background, which will adversely affect the quality

- of data even if all collections were to adopt an ABS' standard definition as an identifier
- the number of classification systems that exist. Various chapters of RoGS use different classification systems based on: people speaking a language other than English at home (reported for early childhood education and care, VET and breast cancer detection); people with a language background other than English (reported for school education); people born in a non-English speaking country (reported for aged care services, and services for people with disability); and people born in non-main English speaking countries (reported for homelessness services).

In conjunction with a multicultural policy (Australian Government 2011a), part of the Australian Government's response to the Australian Multicultural Advisory Council's recommendations (AMAC 2010) includes a plan to work with the Steering Committee to ensure that data collected by government agencies on client services can be disaggregated by cultural and linguistic diversity items to inform reporting in RoGS (Australian Government 2011b). In June 2012, an Access and Equity Inquiry Panel (DIAC 2012) recommended that the Australian, State and Territory governments explore using the RoGS' process to better understand access and equity performance in relation to culturally and linguistically diverse clients (DIAC 2012).

1.9 'Cross-cutting' issues

There is growing emphasis on the management of policy issues that cover more than one service-sector, service area or ministerial portfolio — for example, government policies aimed at specific client groups such as older people, females, children, Indigenous Australians, people in rural and remote areas and people from non-English speaking backgrounds. Improving the management of these issues can contribute to more effective and efficient service provision. Greater efficiency can come from more clearly defined priorities and from the elimination of duplicated or inconsistent programs. Improved outcomes can also result from a more holistic and client centred approach to service delivery.

Cross-cutting issues arise in several areas of RoGS. The frameworks in the sector overviews are one means of reporting outcomes for a range of different services working in combination. In other cases, the breadth of services covered by RoGS allows relevant information to be drawn from across the report (although current

data limitations constrain the ability to disaggregate information for particular target groups in some services).

For example, the mental health management chapter focuses on the performance of specialised mental health services, but people with a mental illness also access: primary and community health services (such as general practitioners, and drug and alcohol services) (chapter 11); aged care services (chapter 13); services for people with disability (chapter 14); housing (chapter 17); and, some people with a mental illness also enter corrective services (chapter 8). Other references in this RoGS to cross-cutting issues can be found in the sector overviews.

1.10 Related Review performance measurement reporting

The Review undertakes three other major exercises for COAG:

- annual reporting of performance information relating to six national agreements between the Australian Government and the states and territories to the COAG Reform Council, including the *National Indigenous Reform Agreement* and three national partnership agreements. National agreements include a mix of outcome measures and indicators of the performance of services
- a regular report on progress in overcoming Indigenous disadvantage. The *Overcoming Indigenous Disadvantage: Key Indicators* focuses on priority outcomes for Indigenous Australians. The reporting framework has two tiers of indicators 'COAG targets and headline indicators' for the longer term outcomes sought, and a second tier of 'strategic areas for change indicators' that are potentially responsive to government policies and programs in the shorter term. Five editions have been published (SCRGSP 2003, 2005, 2007, 2009 and 2011)
- a biennial report on expenditure related to Indigenous Australians. The *Indigenous Expenditure Report* estimates government expenditure on both Indigenous-specific and mainstream services related to Indigenous people. Two editions have been published (IERSC 2010, SCRGSP 2012). The report is aligned with the Overcoming Indigenous Disadvantage framework, potentially enabling expenditure to be linked to outcomes.

1.11 References

- ABS (Australian Bureau of Statistics) 2005, *National Information Development Plan for Crime and Justice Statistics 2005*, Cat. no. 4520.0, Canberra.
- 2008a, Discussion Paper: Assessment of Methods for Developing Life Tables for Aboriginal and Torres Strait Islander Australians, Australia, 2006, Cat. no. 3302.0.55.002, Canberra.
- —— 2008b, Information Paper: Census Data Enhancement Indigenous Mortality Quality Study, Australia, Cat. no. 4723.0, Canberra.
- —— 2009a, Australian Standard Geographical Classification, Cat. no. 1216.0, Canberra.
- —— 2011a, Australian Statistical Geography Standard (ASGS): Volume 1 Main Structure and Greater Capital City Statistical Areas, Cat. no. 1270.0.55.001, Canberra.
- —— 2011b, Australian Statistical Geography Standard (ASGS): Volume 2 Indigenous Structure, Cat. no. 1270.0.55.002, Canberra.
- —— 2011c, Australian Statistical Geography Standard (ASGS): Volume 3 Non ABS Structures, Cat. no. 1270.0.55.003, Canberra.
- 2012a, Australian Statistical Geography Standard (ASGS): Volume 4 Significant Urban Areas, Urban Centres and Localities, Section of State, Cat. no. 1270.0.55.004, Canberra.
- —— 2012b, Census of Population and Housing Details of Undercount, 2011, Cat. no. 2940.0, Canberra, www.abs.gov.au/ausstats/abs@.nsf/Products/2940.0-2011-Main+Features-Estimates+of+net+undercount (accessed on 21 June 2012).
- —— 2013a, Australian National Accounts: National Income, Expenditure and Product, Australian National Accounts, June 2013, Cat. no. 5206.0, Canberra.
- 2013b, Australian National Accounts: State Accounts, 2012-13, Cat. no. 5220.0, Canberra.
- —— 2013c, Australian Statistical Geography Standard (ASGS): Volume 5— Remoteness Structure, Cat. no. 1270.0.55.005, Canberra.
- AIHW (Australian Institute of Health and Welfare) 2011a, Comparing Life Expectancy of Indigenous People in Australia, New Zealand, Canada and the United States: Conceptual, Methodological and Data issues, May, Cat. no. IHW 47, www.aihw.gov.au/publication-detail/?id=10737418934 (accessed 30 November 2012).

- 2011b, Principles on the use of direct age-standardisation in administrative data collections: for measuring the gap between Indigenous and non-Indigenous Australians, October, Cat. no. CSI 12, www.aihw.gov.au/publication-detail/?id=10737420133 (accessed 30 November 2012).
- 2012, Aboriginal and Torres Strait Islander identification in community services data collections: an updated data quality report, Cat. no. IHW 80, Canberra.
- AIHW (Australian Institute of Health and Welfare) and AIFS (Australian Institute of Family Studies) 2011, *Closing the Gap Clearinghouse*, www.aihw.gov.au/closingthegap (accessed 29 May 2011).
- AMAC (Australian Multicultural Advisory Council) 2010, *The People of Australia:* The Australian Multicultural Advisory Council's statement on cultural diversity and recommendations to government, Commonwealth of Australia, Canberra.
- Australian Government 2011a, *The People of Australia: Australia's Multicultural Policy*, Commonwealth of Australia, Canberra, www.immi.gov.au/media/publications/multicultural/pdf_doc/people-of-australia -multicultural-policy-booklet.pdf (accessed 4 January 2013).
- 2011b, Response to the Recommendations of the AMAC in The People of Australia, Commonwealth of Australia, Canberra, www.immi.gov.au/media/publications/multicultural/pdf_doc/amac-response-to-recommendations.pdf (accessed 4 January 2013).
- CAEPR (Centre for Aboriginal Economic Policy Research) 2011, *Indigenous Population*, caepr.anu.edu.au/population/index (accessed 1 December 2011).
- 2012, *Population and age structure*, Paper 5, caepr.anu.edu.au/population/censuspapers (accessed 20 December 2012).
- CGC (Commonwealth Grants Commission) 2013, Report on GST Revenue Sharing Relativities, 2013 Update, Canberra, cgc.gov.au/attachments/article/146/2013%20Update%20Report.pdf (accessed 29 November 2013).
- CGRIS (Coordinator General for Remote Indigenous Services) 2013, *Six Monthly Report April 2013 October 2013*, Eighth edition, www.cgris.gov.au/userfiles/file/ocgris_8th_report.pdf (accessed 29 November 2013).
- COAG (Council of Australian Governments) 2008, COAG Communiqué 29 November 2008, Australian Government, www.coag.gov.au/coag_meeting_outcomes/2008-11-29/index.cfm (accessed 19 November 2009).

- —— 2010, *COAG Communiqué 20 April 2010*, Australian Government, www.coag.gov.au/coag_meeting_outcomes/2010-04-19/docs/communique_ 20_April_2010.rtf (accessed 21 July 2010).
- —— 2012, *National Indigenous Reform Agreement* (effective 2 November 2012), www.federalfinancialrelations.gov.au/content/npa/health_indigenous/indigenous-reform/national-agreement_sept_12.pdf (accessed 23 November 2012).
- DIAC (Department of Immigration and Citizenship) 2012, Access & Equity for a multicultural Australia, Inquiry into the responsiveness of Australian Government services to Australia's culturally & linguistically diverse population, Access and Equity Inquiry Panel June 2012, Commonwealth of Australia, Canberra, www.immi.gov.au/living-in-australia/a-multicultural-australia/government-approach/government-services/AandEreport.pdf (accessed 4 January 2013).
- DPIE and DHSH (Department of Primary Industries and Energy and Department of Human Services and Health) 1994, *Rural, Remote and Metropolitan Areas Classification*, 1991 Census edition, Australian Government Publishing Service (AGPS), Canberra.
- Equal and Donovan Research 2000, *National Satisfaction Survey of Clients of Disability Services*, Report prepared for the Steering Committee for the Review of Commonwealth/State Service Provision and the National Disability Administrators, Productivity Commission, Canberra.
- IERSC (Indigenous Expenditure Report Steering Committee) 2010, *Indigenous Expenditure Report 2010*, Steering Committee for the Review of Government Service Provision, Melbourne.
- IRG (Independent Reference Group) 2010, Review of the Report on Government Services' performance indicator framework, Report to the Steering Committee for the Review of Government Service Provision, September, Steering Committee for the Review of Government Service Provision, Melbourne.
- Jones, R. G. 2000, Development of a common definition of, and approach to collection on, the geographic location of students to be used for nationally comparable reporting of outcomes of schooling, report prepared for the Ministerial Council on Education, Employment, Training and Youth Affairs National Education Performance Monitoring Taskforce, Carlton, Victoria.
- MAB/MIAC (Management Advisory Board and its Management Improvement Advisory Committee) 1996, *Raising the Standard: Benchmarking for Better Government*, Report no. 21, Canberra.

- MCFFR (Ministerial Council on Federal Financial Relations) 2009. Federal Financial *Intergovernmental* Agreement on Relations www.federalfinancialrelations.gov.au/ (Intergovernmental Agreement). Default.aspx (accessed 3 January 2013).
- —, *Developing National Partnerships*, Federal Finances Circular no. 2010/1, Australian Government, Canberra.
- Parham, D. 2002, 'Microeconomic reform and the revival in Australia's growth in productivity and living standards', Paper presented at the Conference of Economists, Adelaide, 1 October.
- Renwick, M. and Sadkowsky, K. 1991, *Variations in Surgery Rates*, Australian Institute of Health and Welfare, Health Services Series no. 2, Canberra.
- SCRCSSP (Steering Committee for the Review of Commonwealth/State Service Provision) 1997, *Reforms in Government Service Provision 1997*, Productivity Commission, Canberra.
- —— 1997a, Data Envelopment Analysis: A Technique for Measuring the Efficiency of Government Service Delivery, Productivity Commission, Canberra.
- —— 1997b, Reforms in Government Service Provision 1997, AGPS, Canberra.
- —— 1998a, Superannuation in the Costing of Government Services, Productivity Commission, Canberra.
- —— 1998b, *Implementing Reforms in Government Services 1998*, Productivity Commission, Canberra.
- —— 1999a, *Payroll Tax in the Costing of Government Services*, Productivity Commission, Canberra.
- —— 1999b, *Linking Inputs and Outputs: Activity Measurement by Police Services*, Productivity Commission, Canberra.
- —— 2002 (and previous issues), Report on Government Service Provision 1995, 1997, 1998, 1999, 2000, 2001, 2002, Productivity Commission, Canberra.
- —— 2001, Asset Measurement in the Costing of Government Services, Productivity Commission, Canberra.
- 2003, Efficiency Measures for Child Protection and Support Pathways, Reforms in Government Service Provision, Productivity Commission, Canberra.
- SCRGSP (Steering Committee for the Review of Government Service Provision) 2005, Review of patient satisfaction and experience surveys conducted for public hospitals in Australia, Productivity Commission, Canberra.

- —— 2010, Review of the Report on Government Services' performance indicator framework, www.pc.gov.au/__data/assets/pdf_file/0006/102957/independent-reference-group-report.pdf (accessed 3 January 2013).
- —— 2011 (and previous issues), *Overcoming Indigenous Disadvantage: Key Indicators 2003*, 2005, 2007, 2009, 2011, Productivity Commission, Canberra.
- 2012, *Indigenous Expenditure Report 2012*, Productivity Commission, Canberra.
- 2012, Criteria for selecting service provision sectors for inclusion in the Report on Government Services, www.pc.gov.au/__data/assets/pdf file/0010/116587/rogs-inclusion-criteria (accessed 5 November 2012).
- —— 2013a (and previous issues), *Report on Government Services* 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012 Productivity Commission, Canberra.
- —— 2013b, Report on Government Services 2013: Indigenous Compendium, Productivity Commission, Canberra.
- Taylor, J. 2006, Population and Diversity: Policy Implications of Emerging Indigenous Demographic Trends, Discussion paper no. 283/2006, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Working Group on Indigenous Reform 2010, *Progress Status Report addressing the recommendations of the first six monthly report of the Coordinator-General for Remote Indigenous Services*, www.coag.gov.au/coag_meeting_outcomes/2010-04-19/docs/WGIR progress status report.pdf (accessed 21 July 2010).