

# National Mental Health Benchmarking Project Manual

## PART 2

- Basic concepts to guide indicator development
- Desirable attributes of performance measurement systems

*This section of the manual has been included because it provides a useful background to key concepts in key performance indicators. It contains two brief papers, both extracted from 'Key Performance Indicators for New Zealand's Mental Health Services - Background paper prepared for the New Zealand Ministry of Health June 2004' prepared by Buckingham & Associates Pty Ltd.*



# 1. Basic concepts to guide indicator development

*Developmental work on performance indicators that involves stakeholders from varying backgrounds often flounders when basic concepts are misunderstood or are not given sufficient attention at the beginning of the exercise. This section describes six key issues upon which a shared understanding is needed and which are central to the design of any performance measurement framework within the health care industry.*

## 1.1 Performance indicators for different purposes

In general, performance indicators for health services are aimed at informing whether a program or service does what it is intended to do and whether it does it well. This represents the common ground between users of indicators but, beyond this, there are important differences in how indicators are applied across the health industry.

Performance indicators may be used at three levels within the health system.

- At the *policy level*, indicators are used for monitoring how effectively and efficiently public resources are used to meet community needs.
- At the *service management level*, indicators give feedback on local program strategy.
- At the *clinical or service delivery level*, indicators are used to judge the degree to which services are meeting the needs of consumers of the service.

Each level has equally legitimate needs for information but puts that information to quite different purposes.

At the policy level, indicators have been driven primarily by accountability requirements that are concerned with making judgements about value for money and justifying to government the maintenance or expansion of existing expenditures. These are essential activities for the overall system as they are aimed at building confidence in government about its policies. Indicators designed for policy purposes usually comprise a small number of high level summary measures designed to convey the core messages needed about system performance.

By contrast, at the service management and clinical levels, performance measurement is driven by the desire to improve service quality. Indicators developed at this level are typically detailed, providing insights to the organisation's operations and supporting a range of local activities as diverse as quality assurance, rostering practices, caseload management and so forth. From this vantage point, indicators valued at the policy level are often regarded as superficial or may arouse mistrust because they are seen as potential tools for justifying budget cuts or other punitive action.

The different needs of the three levels and the extent to which they are compatible are the source of much debate, albeit much of this is confined to the academic literature. No clear conclusions emerge from the literature as to whether health service indicators can serve the different and potentially incompatible purposes, that is to judge, justify and improve. The main implication is that any system developed for mental health needs to have the purpose clearly stated.

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Most government sponsored mental health indicator initiatives underway internationally recognise the pragmatic reality that any investment of this scale needs to serve a number of purposes and users. Data collection and the process of building indicators is costly. As such, the approach generally being taken is to ensure that the cost of indicators developed for funding bodies also translates into useful information for performance measurement and quality improvement at the local service level. Shared information pools are needed that inevitably must be generated from 'bottom up' and which conform with an agreed framework. The needs of different groups can be met by 'slicing' (aggregating, disaggregating and partitioning) the information in different ways to meet the varied purposes.

It is worth noting that the move toward indicators for multiple purposes is underpinned by a convergence between funding bodies and service providers in each other's historical interests. As is occurring in Australia and New Zealand, funders elsewhere are moving away from their traditional focus on basic input and output accountability indicators to a greater appreciation of the need to address the issues concerning the quality of health care. Simultaneously, clinical service providers are showing greater interest and appreciation of health costs and efficiency, realising that attention to these areas is essential to ensure equity of service delivery in a world where the health dollar is finite. Blending the requirements of the policy, service management and service provider levels is easier said than done.

## **1.2 Goals, indicators and targets**

The performance indicator literature is characterised by inconsistent use of terminology and application of concepts. There are many nuances, most of which serve to distract from the central task. As a result, a common experience for participants involved in performance indicator development is to find themselves talking at cross purposes because they have not first established a common language.

Based on the author's experience, clarity on the distinction and relationship between three core concepts – goals, indicators and targets – is fundamental for communication between individuals involved in performance indicator development.

*Goals* (or 'aims') represent the starting point for all indicator development because these specify the results that are expected from the service or organisation whose performance is to be the subject of performance measurement. In the absence of well defined goals, it is unclear what 'success' means and thus not possible to design measures of performance.

Organisational goals are usually defined in high level, aspirational terms (e.g., 'to provide optimal mental health services based on best practice principles') and typically need to be broken down into more discrete, measurable objectives that define specific end results.

*Performance indicator* is defined variously in the literature but the core element is that it refers to the means by which an objective can be judged to have been achieved or not achieved. Indicators are therefore tied to goals and objectives and serve simply as 'yardsticks' by which to measure the degree of success in goal achievement. Performance indicators are quantitative tools and are usually expressed as a rate, ratio or percentage.

*Target* (or benchmark) refers to the desired standard of performance to be achieved on the indicator. Targets may be set on the basis of objective evidence, expert consensus, values or simple averages.

In simple terms, indicators are measures to gauge the extent to which a goal is met while targets represent a 'mark' on the indicator that defines acceptable performance.

The difference between these three concepts may seem self-evident to those working in the indicator field but it is surprising how often they are confused in the literature, and particularly in discussions by groups who are involved in indicator development. Frequently, debates about indicators are in fact debates about objectives, specifications of indicators are in fact specifications of targets and so forth.

Three implications may be drawn that are relevant to the current exercise:

- First, it is not sensible to begin talking about specific indicators until the goals and objectives against which we want to monitor progress are clearly defined.
- Second, indicators are neutral as to desirable performance levels. Agreeing on an indicator does not imply agreement on specific targets.
- Third, indicators can be defined without setting targets. This is often the best approach when there is insufficient evidence or consensus as to where to 'draw the line' for defining acceptable performance levels. Targets can be set subsequently based on experience.

### **1.3 The mental health performance measurement matrix**

The concept of the health performance measurement matrix gives a useful model for participants involved in performance indicator development because it simplifies the complexity inherent to the mental health system. Based on the work of Thornicroft and Tansella<sup>1</sup>, the model conceptualises health performance measurement as a two-dimensional matrix which brings together the *level at which performance is being measured* with the *type of information* used for measurement (Figure 1).

The first dimension concerns the level of the health care system that is to be the subject of performance measurement. Indicators may be targeted at a low level (e.g., individual practitioner, team) or aggregated to higher levels such as program (e.g., Child & Adolescent program vs Adult program), organisation (e.g., mental health service organisation), region/area (e.g., South East Queensland vs North Queensland), state or the national, overall system level.

The second dimension concerns the various types of information that are used to construct the indicators. Based on Donabedian's distinction between structure, process and outcomes<sup>2</sup>, the model identifies four categories of information upon which indicators are based.

- *Inputs* refers to resources put into mental health care (dollars, staff, beds, capital assets, human values etc) and thereby relate to the structural or organisational characteristics of a system or setting.
- *Processes* refers to key activities of a service or system in the provision of care to persons with mental illness. Because processes are concerned with the activities that go on within and between practitioners and consumers, their measurement provides a basis to monitor whether the way in which services are provided conforms with expectations. Defined technically, processes are the activities by which inputs are converted to outputs.

- *Outputs* refers to the 'products' of mental health care, usually measured in quantitative terms such as number of consumers treated, contacts, bed days, or episodes of care.
- *Outcomes* refer to the results achieved and concern the extent to which a service or system achieves its objectives. Outcomes may be measured for the individual consumer (e.g., improvements in health status) or for whole population level (e.g., reduction in suicide rates). Outcomes may be short, intermediate or long term and measured from various perspectives (e.g., clinician, consumer, carer views).

Inputs, processes, outputs and outcomes are the building blocks for performance indicators. They comprehensively embrace the concerns about quality in mental health care and are the focus of management activity.

**Figure 1: Mental health performance measurement matrix<sup>a</sup>**

LEVEL OF THE MENTAL HEALTH SYSTEM	TYPE OF INFORMATION			
	<i>Input</i>	<i>Process</i>	<i>Output<sup>b</sup></i>	<i>Outcome</i>
• Individual practitioner				
• Team				
• Program				
• Organisation				
• Region/Area				
• State				
• National				

Performance indicators can be defined for each of the cells represented in the matrix shown in Figure 1. This is not to imply that such an approach should be undertaken. Instead, the utility of the matrix is that it gives focus to two key issues:

- It forces consideration of the question 'whose performance are we measuring?'. This is fundamental because the level at which performance is measured determines the type and specificity of performance indicators.
- It invites consideration of the extent to which indicators will be developed to provide a balance across the input-process-output-outcome spectrum.

#### **1.4 Measuring mental health service performance across multiple domains**

A common trap in indicator development initiatives is to begin with debate about specific indicators without first resolving the domains across which performance must be measured. The concept of domain refers to those aspects of a health service organisation's performance that need to be understood to make judgements about the overall quality of care provided by the organisation. Each

<sup>a</sup> Adapted from McEwan & Goldner (2001).

<sup>b</sup> The concept of outputs is often incorporated under 'Processes', as per Donabedian's original model. However, there is heuristic value in distinguishing the two concepts for the purpose of developing a conceptual framework of mental health service performance.

domain represents a broad area of concern, such as access to services, service responsiveness, efficiency and outcomes.

Understanding the performance of any mental health service organisation or system requires multiple domains to be monitored. This is where the real complexity arises, for at least two reasons.

- First, different stakeholders have different views as to which domains are critical for monitoring mental health organisation performance. Management staff have historically emphasised efficiency and related financial concerns, while the emphasis of clinicians is usually about the need to focus on the processes and outcomes of care. The emerging consumer voice in mental health has added new dimensions to the potential performance mix, emphasising concepts of consumer responsiveness, personhood and recovery. A comprehensive approach to performance measurement in mental health needs to incorporate all of these concerns.
- Second, no single domain holds the clue to judging an organisation, nor is any combination of domains pre-eminent. For example, one health service may achieve better than average results on access (e.g., better response to emergencies, shorter waiting times for non urgent cases, greater coverage of the district population) and be rated by consumers as being more responsive to their needs (e.g., higher consumer satisfaction). Compare this with a second, comparable organisation that performs less well on these measures but is more efficient (e.g., lower episode costs) and demonstrates stronger continuity of care (e.g., higher rates of community follow up post discharge). How do we judge which of the two organisations is the 'better' in terms of quality of care? While some attempts have been made to develop composite measures that integrate indicators across several domains to generate a single performance 'score'<sup>3,4</sup>, there is no simple answer or consensus about how to sum up such complex information, or differentially weight the indicator domains.

Regardless of this, there is broad agreement in the literature that to adequately capture the complexity involved in mental health service delivery, performance must be measured across multiple domains that reflect the varying concerns of stakeholder groups. Any attempt to reduce the complexity by focusing only on one or two domains risks credibility of the overall performance measurement system.

Domains selected for mental health service performance should have several important attributes. Individually and collectively, they should:

- measure things that matter to stakeholders;
- be applicable across all the services that make up the mental health system;
- align with strategic policy and program goals as defined in the National Mental Health Strategy; and
- have clear boundaries and definitions.

Domains specified for mental health performance indicator development vary both between and within countries. A comprehensive Canadian review of indicator development for mental health care concluded that there is no 'gold standard' framework and observed that comparisons between systems are made difficult because different terminology is used to describe similar concepts.<sup>5</sup> A

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recent review in Australia of frameworks for measuring quality and safety in health care concluded similarly that the search for the definitive template for measurement and reporting health indicators was the 'holy grail' of most health jurisdictions and bureaucracies.<sup>6</sup>

For current purposes, it is suffice to note that there is considerable overlap in the areas of concern that are targeted for performance measurement, but varying emphases in the way concepts are 'packaged'.

Two issues should be noted at this stage:

- An early task in indicator development for mental health services is to identify a suitable framework that defines the priority areas of concern and that collectively provides a view of what is being achieved and what can be improved. Each domain then sets the stage for performance indicator development.
- Multiple stakeholders need to be involved in determining the performance domains.

### **1.5 Criteria for selecting indicators**

Once performance domains are settled, generating potential indicators is usually not a difficult task. The real challenge is selecting from the potential list a subset of measures that most directly reflect the underlying concept.

Indicators need to be assessed against a number of criteria in order to establish their ability to meet the intended purpose. The experience of those involved in indicator development strongly suggest that defining the criteria to be applied should be resolved before any candidate indicators are considered.

Many selection criteria are promoted in the literature within which a core group of attributes regularly appear. Table 1 summarises the criteria that are most frequently cited as desirable attributes to be met by any single indicator.

The criteria are best regarded as questions to ask of any candidate indicator rather than absolute tests. In fact, a number of indicators in international use would fully meet all criteria if they were rigorously applied. The criteria have most value when used to provide guidance in the development and ongoing improvement of indicators.

It is worth noting here that technical problems such as lack of data or unreliability of source information frequently limit the extent to which performance concepts can be translated to practice. In many areas, the final performance measures selected represent a trade-off between the desirable and the possible.

**Table 1: Common criteria used for individual indicator selection<sup>c</sup>**

<b>Criterion</b>	<b>Description</b>
1. Worth measuring	The indicator represents an important and salient aspect of the performance of the mental health system, is relevant to policy and practice.
2. Measurable for diverse populations	The indicator is valid and reliable for the general population and diverse populations (i.e. indigenous people, migrant groups, rural/urban, socioeconomic etc).
3. Meaningful to people who need to act	People who need to act on their own behalf or on that of others should be able to readily interpret the indicator in terms of what can or needs to be done to improve mental health services.
4. Power to influence	Performance on the indicator can be influenced by the actions of those held responsible for performance.
5. Measurement over time will reflect results of actions	The indicator is sensitive to change such that, if action is taken, tangible results will be seen indicating improvements.
6. Feasible to collect and report	The information required for the indicator can be obtained at reasonable cost in relation to its value and can be collected, analysed and reported on in an appropriate time frame.
7. Demonstrable variation with potential for improvement	The indicator measures an aspect of performance for which there is a reasonable expectation of wide variation and where is significant potential for improvement.
8. Technically sound	The indicator can be clearly defined and quantified, is based on reliable source data and meets basic validity criteria (i.e. measures what is intended).
9. Minimises unintended consequences	Is the indicator likely to create positive or perverse incentives for mental health service providers? Is it 'abuse proof'?

In addition to criteria for selecting individual indicators, the overall set of chosen indicators should be assessed to determine their suitability for the intended purpose. Criteria for reviewing the indicators as a group are outlined in Table 2.

**Table 2: Criteria for assessing the overall performance indicator set**

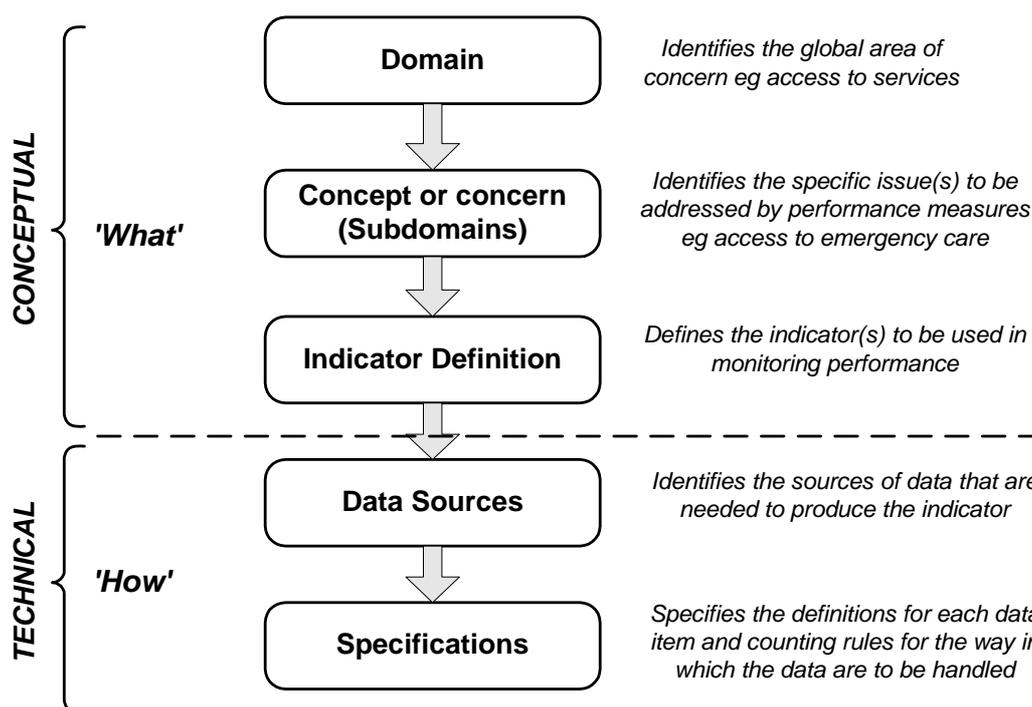
<b>Criterion</b>	<b>Description</b>
1. Capable of leading change	The indicators have the required strategic value in driving change towards desired policy goals.
2. Cover the spectrum of mental health performance issues of concern	The indicators cover the range of aspects of mental health organisation performance.
3. Suitable for benchmarking	The indicators will facilitate the use of data by mental health organisations for benchmarking purposes.

<sup>c</sup> Derived from multiple sources including Australian National Health Performance Committee, USA Leading Health Indicators, American College of Administrators.

## 1.6 The hierarchy of performance measurement

The concept of the performance measurement hierarchy brings together several of the ideas discussed in this section and is included here because it provides a useful tool in organising the tasks that need to be completed. Using a concept developed by the American College of Mental Health Administration<sup>7</sup>, developing performance indicators can be construed as requiring a set of hierarchically arranged tasks as summarised in Figure 2.

**Figure 2: The hierarchy of performance measurement**



Within the hierarchy, identification of performance domains and related concerns (sub domains) are represented as the first tasks to be completed, followed by indicator definition. Together, these make up the conceptual stage of the work and are concerned with *what to measure*. Detailed technical work needs to follow that focuses on *how to measure*. This involves identifying the data sources required to build each indicator and developing detailed specifications for data items and any special counting rules for how the data are to be handled when the indicators are constructed.

All elements of the measurement hierarchy need to be completed for a performance indicator development exercise to be successful. However, it emphasises that the work needs to be progressed sequentially and that the important conceptual tasks should not get bogged down by technical debates about data specifications. The technical issues are fundamental to resolve for indicators to be feasible but are subordinate to the more policy-related tasks of deciding what to measure.

## **2. Desirable attributes of performance measurement systems**

*This section summarises the attributes of performance measurement systems described in the literature as important to success. They emphasise that an effective performance measurement approach does not come easily and requires careful planning.*

### **2.1 Design indicators as tools for quality improvement not punishment**

The strongest message emerging from recent health performance literature is that an effective, accepted, and respected performance measurement system is one that is used for quality improvement, not for punishment.<sup>8</sup> This is not to deny the absolute need of government and its administrative entities to be informed about the workings of funded organisations. Rather, it emphasises that clarification is required at the outset about how indicators are to be used.

The experience of most health organisations implementing a new performance measurement initiative is that this is often met with misunderstanding, suspicion and overt resistance on the part of many stakeholders. In the absence of unambiguous communication of intent, people frequently conclude that performance measurement will be used to reduce jobs, cut funds or publicly 'name, blame and shame' if the results were to show that a program was not meeting its objectives.

Writing from a different perspective based on the United Kingdom's experience in the education field, Goldstein and Myers argue for a 'code of ethics' for performance indicators that aim to prevent abuse of information. They argue that many adverse, unintended consequences arise when information that is developmental in nature with significant uncertainties is promoted as absolute truth.<sup>9</sup>

These cautions hold particular relevance for the mental health field because of the extensive knowledge gaps about causality between treatment programs and outcomes, under-developed practice protocols and multiple influences outside of the control of the service provider that impact on the mental health status of consumers. The experience of other countries shows that there are no simple roadmap for 'getting it right' and that caution is required.

Successful initiatives are described as those that aim to help organisations learn about what works. The key is to use performance information to promote a culture of inquiry and learning in which indicators are seen as just tools to aid in unravelling the complexity. Because they require information derived from the clinical interface, effort is required to enlist clinician collaboration in the endeavour.

There are important messages here for funders who are seeking performance information to guide their allocations. Alternative, incentive-based funding systems rather than systems based on sanctions, need to be considered as the best funding approaches for supporting quality improvement.

### **2.2 Involve stakeholders from the beginning, balance their varied interests**

A second and equally strong message coming from the mental health performance literature is that all stakeholder groups need to be involved from the outset in the design and implementation of any new performance measurement system. Effective performance measurement systems are described as those that incorporate and balance the interests of all stakeholders and perspectives. For example,

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the audit of Washington's performance indicators concluded that *'Different people bring different interests to the table. Consumers and other external stakeholders are more interested in health outcomes ... At the same time, public mental health program staff want to know how well some of the processes they use to purchase and manage services are working, in addition to their more recent focus on understanding the outcomes associated with their work.'*<sup>10</sup>

The general medical literature offers numerous examples of failures that have followed when clinicians are isolated from the process.<sup>11, 12</sup> Recent initiatives have emphasised the powerful contribution that consumers and carers make to the values underpinning the design of performance measurement in mental health. Incorporating each of these groups along with other stakeholders in an exercise that builds the indicator set from bottom up is not the typical path taken by bureaucracies when developing performance reporting arrangements but is necessary to ensure credibility in the mental health field.

### **2.3 Balanced emphasis on inputs, processes, outputs and outcomes**

Measures of inputs, processes, outputs and outcomes are all required to gain a full understanding of the performance of a mental health service organisation. Debates about the pre-eminence of outcome measures, or arguments that its 'time to move on from input measures', ignore the fact that each type of information serves a unique purposes.

Measures of input are necessary to understand the capabilities and structural characteristics of the organisation (e.g., staff skills, quality of facilities). Measures of process are needed to determine whether people receive care that is evidenced-based or conforms with consensus expectations about quality (e.g., treatment with dignity, appropriate care). Concern about processes is particularly important in the mental health field because they reflect the values of the care system. Output measures are needed to understand the quantities of services provided and develop efficiency indicators (e.g., cost per contact). And finally, outcome measures are the basis for understanding whether consumers are improving in their clinical status and well being.

The concept of the 'balanced scorecard', developed by the Harvard Business School, is based on the recognition that mental health service planners and managers need to balance a range of considerations when improving the quality of care.<sup>13</sup> The delivery of care across the input-process-outcome spectrum needs to be measured at each step because each step relates to the other. Improvement in inputs may be needed to improve processes, which in turn can lead to better outcomes and prevent adverse events. Improved efficiency can enhance cost effectiveness. Continuous quality improvement activities are specifically premised on these linkages and seek to make changes in the structural and process components of care with the goal of positively influencing outcomes.

### **2.4 Keep it simple, manageable and able to evolve with experience**

Experienced indicator practitioners argue that any performance measurement system start out as simple and easy-to-use as possible. Organisations should begin with achievable measurement goals and processes and let the system evolve as experience is gained and resources become available. The aim should be to choose carefully what to measure and then make it important to people who can

make a difference. A common mistake is to include too much information in the early stages which distracts decision makers from acting on the important information.<sup>14</sup>

One author summed this up as follows: *"Our experience is that too fast a start with too large a bite can be destructive. My usual advice is that facilities not take on 'world peace' in the beginning of the quality journey."*<sup>15</sup>

Keeping performance measurement simple is easier said than done, given the need for a balanced scorecard approach that covers multiple domains. Nevertheless, it is a principle that needs to constantly guide the early development work.

## **2.5 Promote benchmarking and learning opportunities**

Publication of indicators alone is not sufficient to stimulate a culture of quality improvement and benchmarking throughout the mental health industry. The introduction of performance measurement systems requires attention not only to the technical issues, but also the process of building interest, capacity and leadership within service organisations to use them creatively.

A recent Australian report reviewed the status of benchmarking in mental health and concluded that much work was needed to make this a reality: *"The challenge for the mental health sector is clear. The use of performance indicators and the movement towards benchmarking is becoming routine in the Australian health care system. The challenge for the mental health sector is to develop a set of meaningful performance measures and to develop the culture and the processes so that benchmarking becomes the norm"*<sup>16</sup>

Lessons from the acute health sector have shown the benefits of applying roundtable and related methods to the health field. The engagement of organisations in learning about their performance through comparison with peer organisations grounds performance measurement in practice and provides the means for the vision to be realised. When the information provided by the system matters to the stakeholders, then they will actively contribute to its development over time through a process of trial, feedback and enhancement

## **2.6 Maintain control of data integrity**

Indicators are only as useful as the data from which they are built and the validity of the assumptions used for their production. A key challenge in achieving an effective performance measurement system is to ensure the integrity and comparability of data. Without this, organisations lose trust in the process and are unwilling to take action on the basis of results that are regarded as dubious.

How this is done will depend on the administrative arrangements within each jurisdiction. The most common approach is to centralise data management and indicator production functions so that organisations can be confident in the impartiality of the process. Centralised data management and reporting functions also have the advantage of creating economies of scale and expertise.

## **2.7 Resource the technical work**

One clear lesson from performance measurement practice arising from performance measurement in the health field is that the processes involved in indicator production and development are typically

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more complex and costly than anticipated. Developing good indicators requires a commitment of resources – in data infrastructure and particularly in time and personnel.

On a related issue, it is important to ensure that appropriate technical expertise is included early in the work. Many indicator development projects have failed because they have not given adequate consideration to issues concerning technical feasibility and produced sets of non achievable indicators.

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