



PATHFINDER

Guidance on Outcome Focused Management

Building Block 2 : Outcome Indicators

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This document provides guidance for agencies integrating outcome information into their decision-making processes. The document was produced by New Zealand's Pathfinder Project. More Pathfinder guidance documents are available on <http://io.ssc.govt.nz/pathfinder>.

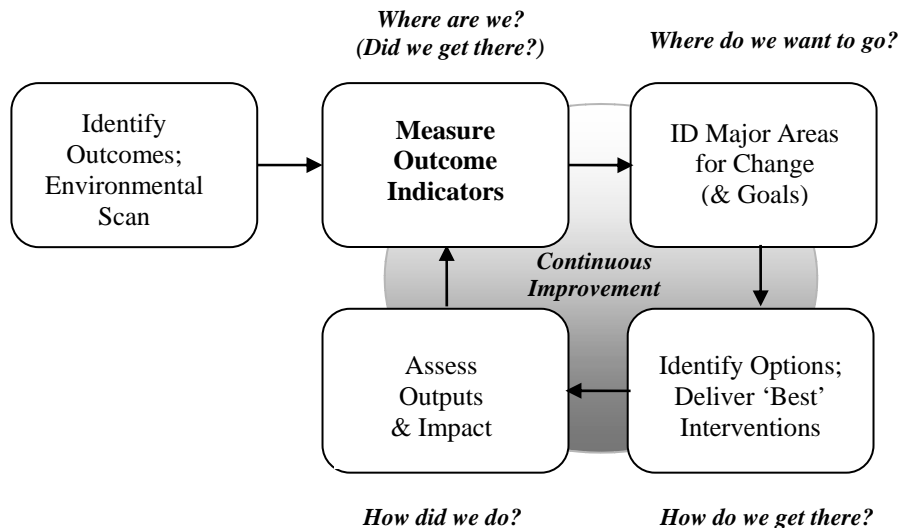
We hope other outcome-based initiatives continue to develop the material presented in this suite.

Building Block 2 : Outcome Indicators

Purpose Statement

1 This Building Block outlines management uses of outcome indicators, describes a process for selecting and measuring indicators, and shows how indicator information is used to set performance goals. The paper addresses the second and third steps of the continuous improvement cycle (below).

2 The paper is written for agencies implementing outcome indicator measurement systems. The principles and practices can also be used to improve existing indicator measurement systems.



Management Overview

3 Outcome indicators are used in a range of management applications including environmental scans, planning and reporting, prioritising the agency's activities, benchmarking performance and setting performance goal. Indicators can be measured in qualitative or quantitative terms.

4 Outcome indicators show the situation prevailing in the geographic areas or population groups of interest to the agency. Outcome indicators are used to identify where problems persist, to monitor trends, show where change is desirable, and to set outcome targets.

5 The process of building an outcome indicator measurement system has seven phases:

- planning;
- learning from others;
- designing the system to inform decision-making;
- defining the agency's outcome indicator measures;
- building the outcome indicator measurement system;
- validating the measurement system; and
- reporting.

6 Performance management systems must be built and improved continuously in response to changes in outputs, performance and the external environment¹. The work is not done when indicator measurement systems are in place. Performance goals must be set, intervention logic used to identify potentially useful outputs, and the effectiveness (impact) of those outputs must be assessed.

Making Outcome Indicators Work

Management applications

7 The purpose of building an outcome indicator reporting framework is to ensure timely measures are available for all of the 'vital few' outcomes, for key groups and service areas. Many agencies have indicator information for some outcomes, and some groups and service areas, at different times. Agencies should move towards measuring indicators for critical outcomes and groups at regular intervals. Significant results and trends should be routinely reported to senior managers.

8 Outcome indicators are used in a range of management applications including environmental scans, planning and reporting, prioritising the agency's activities, benchmarking performance and setting performance goals. Indicators often relate to a group receiving services and are always time dependent. Outcome indicators reflect the net result of government action and external factors – they do not show government actions were effective. Indicators simply report the prevailing situation.

9 Simply reporting indicators will not provide all the information decision-makers need. Agencies must understand how government actions and external factors affect their indicators. This helps explain changes in indicators, and shape an appropriate management response. Agencies must understand how their actions affect the indicators themselves, and contribute to the Government's high-level outcomes.

Success Factors for Management

10 An outcome indicator measurement system includes:

- the outcomes to be measured;
- how they will be measured;
- the groups for which measures will be produced; and
- how measures will be used in decision-making.

11 The system must be documented clearly to communicate its purpose to users and to encourage feedback on how it can be enhanced. It needs to be supported by the Minister, chief executive, managers and staff throughout the agency, and external stakeholders.

12 Outcome indicator systems are not built in a simple, linear fashion. Iterative development occurs as information constraints and problems are resolved, and users recognise the value of outcome information through increased demand. Management challenges vary, but typically relate to:

- developing ownership of, and confidence in, indicator information across different business units, management functions and oversight agencies;
- managing expectations of the organisation and external agencies;
- managing tensions caused by unexpected outcome information;
- continuously improving, and adding to, the indicators and groups measured;
- improving the quality of data used to calculate outcomes and categorise measurement groups;

¹ *Implementing Results-Based Management: Lessons from the Literature*. Office of the Auditor General of Canada, 2001.

- minimising measurement costs, cleansing data and eliminating redundant information; and
- documenting the system for general users, business analysts and information technology staff.

13 Significant work will also be needed to modify existing decision-making processes so that outcome information is used throughout the organisation, and to ensure consistency in external documents such as *Statements of Intent* and *Annual Reports*.

14 Building a successful outcome indicator measurement system requires:

- leadership from the chief executive and senior management team;
- effective project management, including clear accountabilities and resourcing;
- agreement on the ‘vital few’ outcomes;
- agreement on the groups for which outcomes must be reported;
- analysis of the links between the agency’s activities and its outcomes; and
- an iterative process with ongoing development.

15 The experience of agencies that have developed indicator systems highlights a range of organisational issues that need to be worked through. These include:

- ownership of and confidence in the system;
- involving affected business units and stakeholders;
- improving data and information quality;
- reducing information costs;
- managing internal and external stakeholders’ expectations; and
- documenting the system.

Defining Good Outcome Indicators

Over the past few years, the Canadian Government has consulted with parliamentarians and with Canadians from all walks of life on the list of indicators and the approach used in this report. Its advice regarding useful indicators has been consistent. Information must be:

1. **Relevant:** indicators must reflect Canadian values.
2. **Temporal:** data must highlight trends over time and show progress toward goals.
3. **Available:** data must be easily accessible.
4. **Comparable:** it must be possible to compare with data from other countries.
5. **Understandable:** data must be easily grasped by various audiences.

After: *Canada’s Performance 2001*. Treasury Board of Canada Secretariat

Generic Attributes of Good Outcome Indicators

16 Good outcomes and indicators together reflect the community’s interests (see Exhibit 3). Management can enhance linkages between the community’s interests and their organisation’s actions by ensuring their ‘vital few’ outcomes:

- are well aligned with the agency’s or business unit’s mission or purpose;
- are linked to services, outputs and inputs (the things agencies manage and influence);
- collectively measure major outcomes from or across all dominant output classes;

- measure the benefits experienced by clients or entities the agency manages; and
- support critical business decisions, including resource decisions.

17 To ensure robust decision-making, individual outcome indicators will ideally be:

- clearly and unambiguously defined;
- comparable across services designed to promote 'like' outcomes - and over time;
- measurable without undue delay after service delivery;
- accompanied by statistics on measurement errors;
- based on reliable data, obtainable at reasonable cost;
- difficult to distort (or conspicuous when manipulated); and
- designed to avoid perverse incentives on staff and managerial behaviours.

18 Timely decision-making is important. Excessive delays between service delivery and outcome reporting may indicate that agencies should measure near-term results or intermediate outcomes, and use them as proxy measures until end outcomes are known.

Different Types of Outcome Measures

19 Because an agency wants to know where outcomes are being achieved, as well as how interventions can be used to improve poor outcomes, multiple measures will typically be needed for each of the 'vital few' outcomes. These include outcome indicators and impact measures.

20 *Outcome indicators* show the situations prevailing in the geographic areas or population groups of interest to the agency. Outcome indicators are used to identify where problems persist, monitor trends, identify where change is desirable, and set and track performance goals. Useful outcome measures are specific to particular groups, areas or entities we are trying to improve.

21 Agencies trying to measure outcome indicators generally work through several steps (Exhibit 2, Building Block 1). An agency often starts with generalised concepts of the outcomes it exists to change, and has to translate general concepts into precise outcome definitions that tie the outcomes more tightly to results expected from the agency's core services. Outcome definitions help ensure consistent measures are produced, and help you identify the data required to compute measures.

22 Armed with a clear outcome definition, a 'one-off' opportunity exists to review whether existing services have a good fit to the outcomes sought, and to reduce services with a poor fit. But agencies that measure outcomes can get greater improvements. Agencies that produce outcome indicators have ongoing opportunities to gauge where outcomes are good and poor, and to re-orientate services to improve outcomes in priority areas. Outcome indicators can also be used to infer (but cannot prove) the agency has been successful in enhancing the 'vital few' outcomes.

23 *Impact measures* are used to determine whether the agency was successful in inducing the change desired. Agencies that produce impact measures have the biggest opportunity to improve performance. Impact assessment shows which outputs enhance outcomes, allowing good programmes to be protected and grown. Impact measures are used to assess the costs and benefits of services, and to identify where funding can be used to best effect. When impact can be assessed on an ongoing basis, decision makers can use the results to drive continuous improvement in the agency's strategy, intervention approach and output mix.

Choosing Outcome Indicators

24 The first step in selecting an outcome indicator involves moving from a values-based statement of outcomes that often mean different things to different users, to a tight ‘outcome definition’ that has the same meaning to different users (see Rows 1 and 2, Exhibit 2, Building Block 1).

25 For example, the Department of Corrections expanded its mission of ‘reducing re-offending’ into a precise, measurable definition of a re-offending rate that drew on data in its electronic information system. For prison inmates, re-offending was counted as ‘conviction for an offence committed within 12 months of release, resulting in a sentence administered by the Department’.²

26 The definition shows attributes of a good outcome definition. It limits measurements to³:

- significant events (e.g. using imprisonment as a proxy for seriousness of offence);
- events happening in a set period after services were received (e.g. 12 months);
- events that services could conceivably influence (historical offences are excluded);
- clients who had received services from the agency (linking the outcome to outputs);
- clients receiving services within a set time period (typically, releases in a given year); and
- available information (using sentence data available from Departmental records).

27 The second step involves moving from the definition to producing measures for decision-making. Most agencies need to monitor a range of outcome indicators for multiple demographic groups, geographic areas and business units. Exhibit 1 illustrates some outcome indicators monitored by the Ministry of Health. When many outcomes are measured for many groups, a long and complex report results. Good reporting focuses on outcomes for groups of special interest to decision-makers.

Exhibit 1. Outcome indicators for the Health Sector

The Ministry of Health collects outcome indicators on the longevity and quality of life, and on key factors linked to avoidable death, disease and injury for major socio-demographic and disease groups. Outcome indicators include: life expectancy at birth, independent life expectancy, rates of dependent disability, and rates and impacts of diseases causing significant loss of life. The Social Report 2002 used some of these indicators to describe life in New Zealand.

Acceptance Testing of Outcome Indicators

28 The ultimate metric of success is how well an agency uses outcome indicators to inform decisions. Managers should confirm they understand how the proposed measures inform decisions, and the feasibility of implementing the proposed system given likely information, human resource and funding constraints. To be used, measures must also be accepted by staff.

29 Government agencies in the United Kingdom have together developed useful checklists for evaluating performance monitoring and management systems. Agencies may like to use the UK FABRIC criteria (see Exhibit 3, Building Block 1) to test their proposed measurement systems. Individual outcome indicators should meet the SMART criteria. That is, they should be Specific, Measurable, Achievable (i.e. deliverable in a reasonable timeframe), Relevant to the agency and its outputs, and Time-bound (i.e. referenced to a particular measurement interval).

² Department of Corrections, *2001 Annual Report*.

³ For pragmatic reasons (e.g. the availability, accessibility and cost of information) some re-offending is ignored.

Measure the Right Outcomes, for the Right Group

The evidence suggests that customised results-based management systems are critical for success. Even individual components such as indicators and data collection systems should be developed with specific users in mind.

Implementing Results-Based Management: Lessons from the Literature. Office of the Auditor General of Canada, 2001

30 Outcome indicators are always specific to a particular group and timeframe. The groups monitored will depend on the design of specific management applications, and the major choices that confront an agency about the distribution of resources and service quality.

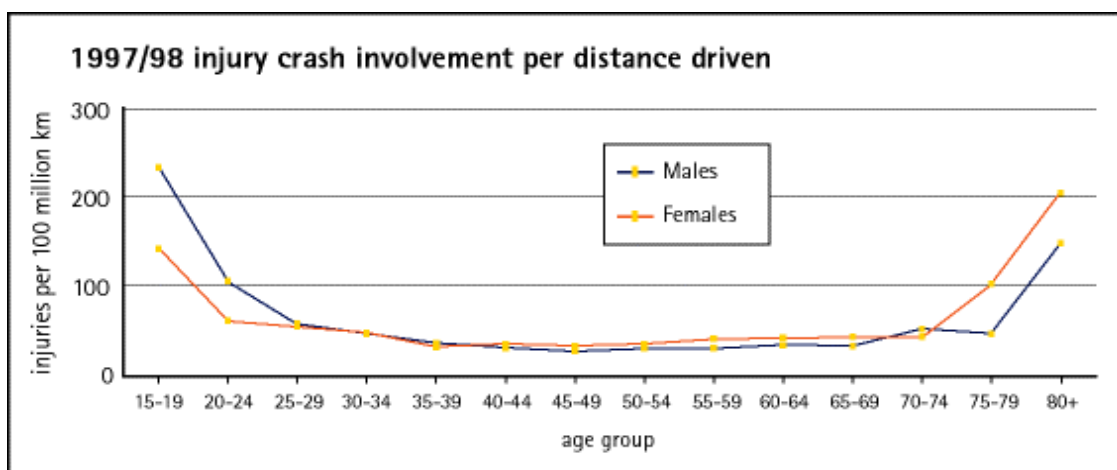
31 Indicators are commonly reported for:

- groups that are potential or actual service recipients. They may be groups of people
- (e.g. demographic or service groups), areas (e.g. regions or ecosystems) or legal entities; and
- a time period in which services were delivered or outcomes were observed.

32 Even simple comparisons of outcomes across groups can provide compelling information about where the Government could intervene, and provide a starting point for goal setting.

33 For example, in managing road safety the young and the old contribute disproportionately to road injury per kilometre travelled (see Exhibit 2). Given that the young drive further per year than the old, and young males have the highest accident rates, young males are a particularly interesting targeting opportunity. However, decisions on whether the Government should intervene are driven by analysis of different intervention models and options, the impacts and cost-effectiveness, and equity considerations.

Exhibit 2. Road Injury Risk by Age and Gender



Source: *New Zealand Travel Survey Report*, Land Transport Safety Authority, 1999

Setting Outcome Indicator Targets or Goals

34 Targets are typically used where outcome indicators suggest disparities exist between groups, or to promote general improvement across a population. Pathfinder believes targets should be used to guide learning and to encourage performance improvement, rather than as a means to measure performance for accountability purposes. If you use targets for accountability purposes, remember that psychological studies show targets work best if partial success is treated as success, not failure.

35 As an example of the use of targets, the *New Zealand Road Safety Strategy 2010* sets out the government's longer-term plan for road safety and includes explicit goals and targets, such as:

- no more than 300 fatalities and 4500 hospitalisations per year by 2010; and
- specific regional and road user group targets for 2004

Government agencies that contribute to road safety (Police, Land Transport Safety Authority, Transit New Zealand, ACC, Ministry of Transport) will report against these road safety targets.

36 There are a number of factors to bear in mind when setting targets:⁴

- a target does not have to be an absolute value; ranges and rates are acceptable;
- previous performance should be considered;
- targets must be challenging, but achievable and credible;
- targets must be cost-effective to achieve. Alternatives must be analysed, and should be discussed with interested parties so everyone is aware of their cost and benefits;
- targets should be backed by measurement systems. There should be ongoing monitoring;
- allow for statistical variation; and
- allow for extraneous factors, legislative change, or possible effects of cyclic factors and directional trends, which may affect achievement of the target.

37 Targets are best used where you have experience in measuring an outcome, and the data needed to set targets and allow for changes outside the control of the agency.⁵ If an agency lacks experience in measuring an outcome or lacks data, then targets should be clearly identified as a “work in progress”.

38 Care also needs to be taken in deciding on out-year targets. Delays of several years can occur between intervention and measurable impact. Implementation and measurement delays must be taken into account. Where delays are substantial you could start off by using measures of efficiency, coverage, near-term results and intermediate outcomes

Outcome indicators: The Next Steps

39 The vital few outcome indicators are not the end of the process. Each agency then needs to use their outcome indicators to support their Intervention Logic (Building Block 3), use outcome indicator feedback to learn about the effectiveness of their services and activities in improving their vital few outcomes. This learning phase is described in Building Block 5.

⁴ After, Hatry, *Performance Measurement*, p.129-130; and National Road Safety Committee, *Road Safety Strategy 2010*, pp.27-41.

⁵ See also, *Safety Directions Working Paper 4: Setting road safety targets*. This paper presents a method for setting safety targets and estimating funds needed to achieve them. Available from: <http://www.ltsa.govt.nz/publications/docs/SDWP4.pdf>

Appendix 1: Building an Outcome Indicator System

Building an Outcome Indicator Measurement System

1 The process of building an outcome indicator measurement system has seven phases:

- planning;
- learning from others;
- designing the system to inform decision-making;
- defining the agency's outcome indicator measures;
- building the outcome indicator measurement system;
- validating the measurement system; and
- reporting.

2 Agencies can often avoid later work by identifying their intervention logic and impact measures (Building Blocks 3 and 4) while building an outcome indicator measurement system. Several Pathfinder agencies emphasise the value of intervention logic in defining indicators. Impact measures are often aligned with outcome indicators, and calculated using common elements of source data. While impact measures are more challenging to produce, the same phases of work are required.

Phase 1 - Planning

3 As with any complex project, planning the outcome indicator measurement system requires a good project planning: outlining work objectives, deliverables, responsibilities, timelines, issues to be covered, and consultation requirements.

4 Suggested management approach: the project should be owned by the chief executive, who appoints a member of the senior management team to engage with the Working Group. The Working Group is typically led by a senior manager, who acts as project manager. This person should be numerically skilled (or supported by numerically skilled staff), and strongly focused on ensuring that outcome indicators add value to the quality of business decisions.

5 The Working Group should be limited to approximately four members – ideally a manager and business analyst representing end users' needs, a data specialist and a programmer or statistician. Many business units have a strong interest in producing and using robust outcome information (e.g. those with strategy, planning, policy, purchasing, audit and information responsibilities). Operational managers also have special interests. The Working Group and sponsor should ensure ongoing consultation with interested staff across the range of affected business areas.

Phase 2 - Learn From Others

6 Arguably the most challenging part of 'managing for outcomes' is identifying the outcomes to be measured, and specifying them in terms that are both measurable and relevant to business decisions. Risk, delay and cost can be minimised by talking to staff and looking at agencies doing similar tasks, identifying the outcomes they emphasise and how they measure indicators. Indicators are widely reported on the Internet, in formal reports and in research publications. A useful starting point is to examine outcome information produced by the agency and sector, and examine how related organisations in other countries report and use outcome information (see Exhibit 3 for an example).

7 Learning from good international practices allows agencies to adopt indicators known to work elsewhere. It can also provide benchmarking partners when differences in measurement methods are known and compensated for. It captures the experience of experts in the sector, provides ideas when problems arise, and provides ‘real’ examples of reporting and management applications for discussion with senior management. However, it is important to be prepared to adapt overseas practice and innovate where necessary; it is rare to find overseas examples meeting all an agency’s needs.

Exhibit 3. Potential Sources of Outcome indicators in ‘State of the Territory’ Reporting

‘State of the Territory’ reporting of outcome indicators is common in national, regional and local government. It reports on indicators spanning the breadth of government, providing accountability to the public and important contributions to priority setting and policy formulation.

‘State’ reports focus on outcomes considered crucial to citizens (the ‘vital few’), and can provide excellent models for outcome reporting. Useful examples include the *Canada’s Performance* series, Oregon State’s *Oregon Shines II* report, Tasmania’s *Tasmania Together* report, and the New Zealand Ministry of Social Development’s *The Social Report 2002*.

Phase 3 - Informing Decision-Making

8 The project must be clear on how outcome indicators will be used in management decision-making. Indicators may be defined slightly differently according to the decisions they are designed to inform. Indicator measures can be required to:

- gauge the operating environment (strategy, priority setting and coordination decisions⁶);
- measure trends and changes in the agency’s outcomes over time, including before and after introducing major new services or management systems (e.g. strategy, priority setting);
- measure the equity of outcomes between groups⁷ (e.g. for priority setting decisions); and
- track performance against goals⁸ by aligning some Indicator groups to major services and business units (performance management and benchmarking applications).

Phase 4 – Defining the Outcome Indicator Measures Required

9 Robust indicators help focus management attention on core results, reflect the results sought by the Government, and highlight any disparities in outcomes between groups. There are five main ways to identify suitable outcome indicators:

- top-down: Build on the agency’s mission or purpose;
- bottom-up: Build on the impacts sought by the agency’s main services or outputs;
- cross-agency: Use outcomes sought by multiple agencies (e.g. maritime security);
- literature review: Use national or international best practice; and
- stakeholder consultation: Use contributions from stakeholders.

10 Having identified what *should* be measured, practical issues must determine what *can* be measured, and how constraints can be overcome. These include:

- the timeliness of outcome indicator information;

⁶ A core function of agencies with sectoral or cross-agency coordination responsibilities.

⁷ Consultation may be required with population agencies on which demographic groups should be measured.

⁸ These may be specific (e.g. 80% literacy by the age of eight years) or directional (e.g. improving literacy at the age of eight).

- the current availability and cost of input data; and
- the feasibility of enhancing input data and lowering costs in future.

11 In identifying outcome indicators, agencies should identify both the measures that can be generated in the short term, and the medium-term improvements to underlying data and measures. In both instances, agencies need to progress from values-based outcome statements to an outcome definition (Exhibit 3, Building Block 1) that defines how the outcome will be measured, and the date required.

Exhibit 4. Typical Steps in Defining Outcome indicators

- Identify the outcome information and decision-making needs of the Minister, external stakeholders, and decision-makers and staff within the agency.
- Identify the crucial outcomes sought from the agency’s (or business unit’s) mission.
- Identify good practice via literature sources and knowledge of other agencies.
- Specify how dominant activities (outputs) are intended to influence outcomes⁹.
- Specify indicators in measurable terms against each outcome¹⁰.
- Specify the groups for which indicators will be reported.
- Define how statistical error will be measured and used to interpret results.
- Optionally, draft a project specification for building the business analysis system required to compute indicators from case management information¹¹.
- Get Ministerial endorsement of the outcomes and measurement system¹², and senior management approval to access the resources needed to measure indicators.

12 Having defined the outcomes and groups of interest, the process of building a measurement system starts by identifying the input variables required to calculate indicators and the classification variables needed to identify the groups or entities indicators will be reported to.

Exhibit 5. Disaggregation of Indicators into Groups

Proportion of school leavers with higher qualifications, by ethnic group and date					
	European/ Pakeha	Maori	Pacific Island	Other	Total
6th Form Certificate or higher					
1991	na	37.4	52.2	na	66.3
1996	68.9	37.4	53.7	77.3	62.7
1999	71.3	43.0	53.8	82.1	66.0
Bursary or higher					
1991	na	5.1	7.4	na	22.3
1996	45.3	4.1	5.8	40.0	19.9
1999	48.6	4.5	4.2	41.1	19.8

Source: Ministry of Education data cited in *The Social Report 2002*
 Note: Bursary or higher includes A or B Bursary or Scholarship to 1989, and National Certificate Level 3 or above from 1996

⁹ A fully developed intervention logic will be required to support some management decisions.

¹⁰ i.e. ensuring definitions are specific, measurable, attributable, relevant to activities and time bound, and that the likely benefits of measurement outweigh the costs of measurement.

¹¹ The statistical validity and computational feasibility of the system should be checked by a statistician.

¹² It may be useful to create a mock report to help decision-makers visualise the product, and how they could use it.

Phase 5 – Building the Outcome Indicator Measurement System

14 How agencies build their outcome indicator measurement systems depends on the indicators and measurement groups chosen, and access to outcome data and classification variables. Indicators could be produced in-house, by another agency in a sector, or contracted out.

15 An important intermediate product is a list of the input data required to establish the measurement groups and calculate the outcomes. This allows agencies to review the availability and quality of the data; any marked deficiencies in data may trigger changes in the outcome indicator definitions, the alteration or elimination of measurement groups, or caveats identifying the deficiencies. It may also be useful to ‘mock up’ a sample report to work out how results will be presented.

16 Agencies then need to write a technical specification of the measurement system to:

- gain management approval to commit resources;
- get agreement between business units on responsibilities and commitments; and
- guide information technology staff and business analysts who will build and run the system.

17 The technical specification also provides the basis for renegotiating resource needs as data issues arise, and for additional functionality (if it is required) later in the development process. The specification should cover how outcomes and measurement errors will be calculated.

Exhibit 6. Selected Albertan Outcome indicators – Examples of Summary Reporting

No.	Goals	Measures	Changes	Results
1	Albertans will be healthy.	Life Expectancy at Birth	—	In 1999, life expectancy for Alberta females ranked 13 th among countries at 81.8 years (2 nd in 1998 at 82 years) while Alberta males ranked 3 rd with Australia at 76.8 years (3 rd in 1998 at 76.3 years).
		Health Status	—	In 2000, the percentage of Albertans aged 18-64 years who rated their health as “very good” or “excellent” and the percentage of Albertans aged 65 years and over who rated their health as “good”, “very good” or “excellent” has not changed significantly from the previous year.
2	Our children will be well cared for, safe, successful at learning and healthy.	Well-Being of Children	—	In 1997, based on preliminary data, Alberta had the highest percentage of children (91%) living in families with incomes above the Market Basket Measure (MBM) low income threshold, compared to other provinces. Actual MBM data will be released by Statistics Canada in Fall 2002.
3	Alberta students will excel.	Educational Attainment	—	In 2000, 89.7% of Albertans aged 25-34 had completed high school and 56.1% had completed post-secondary, up from 87.5% and 55.4% respectively.
4	Albertans will be independent.	Literacy and Numeracy Levels	—	In 2000, 90% achieved the language arts standard and 74% achieved the mathematics standard, up from 88% and 72% respectively.
		Family Income Distribution	—	In 1998, the percentage of Alberta families with incomes less than \$20,000 decreased by 1.6 percentage points to 7.4%. Data for 1999 was unavailable at time of publication.
5	Albertans unable to provide for their basic needs will receive help.	Economic Status of Albertans	New	In 1997, based on preliminary data, Alberta had the highest percentage of people (92%) living with incomes above the Market Basket Measure (MBM) low income threshold, compared to other provinces. Actual MBM data will be released by Statistics Canada in Fall 2002.

Source: *Measuring Up. 2000-2001 Annual Report*, Government of Alberta, Canada

18 End users must be engaged in designing, building and testing the measurement system. Users and technical staff must work together to ensure that each element of the system works as designed.

Phase 6 - Validating the Measurement System

19 Undertaking structured tests of indicator information will confirm that the calculations have been completed as designed, and that results are reasonable and accurate. However, all complex calculations are prone to human error, and agencies should be vigilant for low-quality or missing classification data. It is important to test indicator results and confirm that sample sizes are as expected (see Exhibit 7).

20 Indicator results should only be reported and used in decision-making after the measurement system has been carefully validated and documented to a standard able to withstand checks by internal and external auditors. The results and analysis of validation checks should be filed.

Exhibit 7. Proving that a Set of Outcome Indicator measures is Robust

Having written an outcome indicator measurement program, the Department of Corrections tested the validity of its re-offending rate measurements in many different ways. Results were filed, anticipating the Comptroller and Auditor General would audit results. Structured tests and spot checks included:

- manual checks for anomalies in outcome indicators and classification data;
- running test data with known answers and errors through the program;
- comparing individual measures with point data from historical reports;
- comparing the Department's results with measures from the Ministry of Justice;
- confirming key results by manually interrogating the underlying data set; and
- Internal and external peer review of results and computational algorithms.

Phase 7 - Reporting

21 A variety of reports are likely to include outcome indicators at different levels of aggregation and disaggregation (see Exhibit 5). By anticipating the needs of different users when designing the Indicator system, the costs of reworking information for different audiences can be kept to a minimum.

22 Indicator information should be updated regularly and included in documents such as *Strategic Plans, Statements of Intent* and *Annual Reports*. Internal audiences are likely to require more detailed reporting. Agencies will also need to consider how indicator measures will be reported for internal business planning, to promote interagency cooperation, for public information purposes, and to meet reporting obligations to international agencies.

23 In all reporting, it is important to focus on outcome indicators for groups of most interest to the intended audience. This means subsets of the same Indicator measures are likely to be reproduced in many documents and reports.

24 Issues to be considered in reporting Outcome Indicator information to different users¹³ include:

- *Aggregation and disaggregation* (e.g. national, regional, business unit, demographic group, risk or need category, service received, time period).
- *Comparisons* (e.g. with other jurisdictions, between business units and client or service groups, and with performance benchmarks, targets or historical performance).
- *Comparability and compatibility*. Indicator information should be measured using a single method wherever feasible. For external benchmarking, measures must be comparable with those reported by benchmarking partners or agencies.
- *Explanations*. Reports should include a succinct description of differences, trends and causal influences, allowing for the influence of measurement error.
- *Limitations*. Reports should clearly identify underlying assumptions and data constraints, and variations in measurement method (e.g. between jurisdictions); and
- *Clear presentation*. Reports (particularly for external audiences) should focus on a modest number of indicators likely to be of most interest. They should include effective visual and verbal summaries of the information.

¹³ After Hatry, 1999. Exhibit 11 illustrates some aspects of good reporting.

25 It is important to consult stakeholders on the content and format of reports. Ministers and Select Committees; population and sector ministries; chief executives and senior management; managers and staff; citizens and residents; audit and central agencies; and overseas agencies. Agencies need stakeholder buy-in to their reporting frameworks.