



Institute On Governance

Policy Brief

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*Means... Ends... Indicators:
Performance Measurement
in the Public Sector*

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Background

Public sector performance has often been measured in terms of what the government has done (e.g. amount of funding provided, number of kilometers of road paved, number of new hospital beds). Such measures focus on how “busy” the government has been rather than on what it has achieved. They highlight means rather than ends.

This is not to say that keeping track of means (as opposed to ends) isn’t important. Governments need to measure how much they spend and “do”. But when performance measurement focuses too heavily or exclusively on how much is spent – “inputs” – or done – “outputs” -- as opposed to impact on society -- “outcomes” -- the result is often that public sector organizations lose sight of why they were created in the first place. Public organizations may be very “busy” but be accomplishing little from society’s perspective. Imagine a Department of Transport somewhere building thousands of kilometers of roads to places where no one goes.

Governments have been wrestling for decades with measurement of ends rather than means in public programs. Canada, a leader in this area, has in the last five years renewed its efforts to design and implement a “results accountability model” that would “measure the real impact of government activities on society” and would motivate public servants to look at public programs and activities “through the eyes of citizens.”¹

That measurement systems in the public sector often focus on inputs rather than outcomes is no accident. It reflects the fact that performance measurement in the public sector is a difficult business.

Performance measurement works best when there is clarity about what is being measured and why. Consider the private sector, where the “bottom line” is clear. Companies exist in order to sell

goods and services profitably and to create wealth for their owners.

The public sector is different. It exists to improve people’s lives in ways that can’t often (or easily) be measured in dollars and cents. Public servants face ambiguity over what the “bottom line” is in the first place. Hence the room for disagreement over appropriate performance measures is much greater in the public sector than in the private sector.

Despite the obvious difficulties, the struggle to implement good performance measurement systems in government organizations continues – as it should. This *Policy Brief* attempts to shed light on a few basic concepts related to performance measurement in government organizations.

Inputs, Outputs, Outcomes and Indicators

Public sector programs are *instruments* for achieving social goals; they are means to an end. A complete performance measurement system tracks both the “instruments” themselves *and* provides evidence of their impact (or lack of it!) on society. Public sector organizations therefore must not only develop indicators that measure resources used (“inputs”) and activities completed (“outputs”), but also need indicators that provide information on the state of the world outside of the organization (“outcomes”). A measurement system must also monitor the efficiency with which resources are used, i.e. the transformation of inputs into outputs, and (much more difficult to observe and to measure) of outputs into outcomes.

Broadly, then, it is useful to think in terms of four types of performance measures.

Input measures indicate the resources allocated to programs and organizations. They may be measured in terms of items such as funding, person-days, equipment, supplies.

Output measures indicate implementation of government programs and activities, e.g. services provided, research completed, kilometers of road

¹ *Accounting for Results 1997* (Annual Report to Parliament), President of the Treasury Board of Canada.

paved, number of schools constructed, conferences held, publications produced, external organizations supported, etc. Although they do not directly indicate achievement of broader social goals, they provide a basis for judging whether the organization in question is contributing to desired social changes.

Efficiency measures are based on the two preceding measures. They track the efficiency with which inputs are transformed into outputs. They may be expressed in terms of dollar costs or units of labor per unit of output – e.g. cost per hospital bed, cost per kilometer of paved road, cost per university graduate, etc.

Outcome measures indicate the state of society in areas where the government is trying to bring about change. They focus on the desired results of government actions (e.g. a healthier population,

a more literate population, a safer urban environment, etc.) Unlike measures of inputs, outputs and efficiency, outcome measures refer to the world *outside* the government organization. A focus on outcomes is a constant reminder of *why* a program is being delivered. Imagine a childhood vaccination program that was exceeding its output targets for numbers of children vaccinated, but was having little or no effect on incidence of the targeted disease. A narrow focus on outputs might suggest that the program was a success! On the other hand, an outcomes perspective would give reason to ask fundamental critical questions about the program.

An overview of the four types of indicators is shown in Figure 1. Table 1 provides examples of each type of indicator in the context of a child vaccination program.

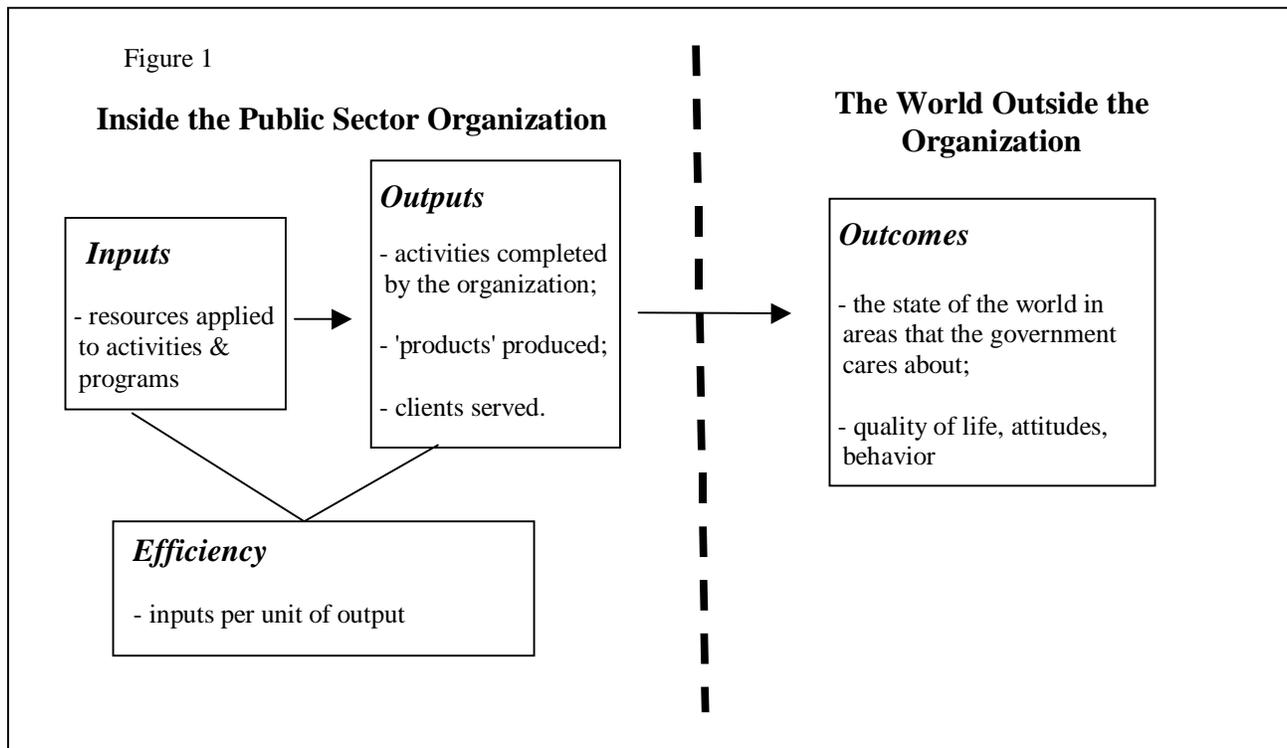


Table 1

Inputs, Outputs, Efficiency, Outcomes – Example of a Child Vaccination Program			
<i>Inputs</i>	<i>Outputs</i>	<i>Efficiency</i>	<i>Outcomes</i>
vaccine, syringes, person-hours, vehicles, gasoline	number of children vaccinated, quantity of informational material distributed	cost per vaccination, cost per percentage reduction in morbidity/mortality rates	reduction in morbidity/mortality rates among target group

The Importance of Getting it Right

Performance measurement is powerful because people in organizations tailor their behavior to the standards by which performance is evaluated. When outputs and particularly outcomes are difficult to grasp – often the case in the public sector -- a performance measurement system can quickly instill a sense of direction and purpose. This is good if the performance measurement system is well designed. But it can be harmful when ill-chosen performance measures drive public servants to perform in ways that have little to do with their organization’s true social objectives. As one academic study bluntly put it, “installation of specific goals may focus effort but may send the bureaucrats marching in the wrong direction.”²

Take the health care system. How would you measure its performance? Overall health of citizens? Geographic distribution of health facilities and personnel? Waiting time in emergency rooms or to get an appointment with a doctor? Efficiency of hospital bed management? Frequency of malpractice? Each measure reflects an aspect of what people expect from the system.

² “Assessing the Performance of Performance Standards in Public Bureaucracies,” by James Heckman, Carolyn Heinrich and Jeffrey Smith. *American Economics Association Papers and Proceedings*, May 1997, p. 394. See also “Measuring Government Performance: Lessons from a Federal Job-Training Program,” by Pascal Courty and Gerald Marschke. *Ibid.*, p. 388.

The danger lies in a measurement system that unduly emphasizes one aspect to the detriment of others. If hospital performance was judged mainly on the basis of rapid turnover of beds the likely result would be that too many patients would be sent home too early – an example of over-emphasis on efficiency trampling broader health outcomes.

Some Generic Challenges

Efforts throughout the world to design and implement performance measurement systems in the public sector face common challenges. Three of the more significant ones relate to trade-offs between:

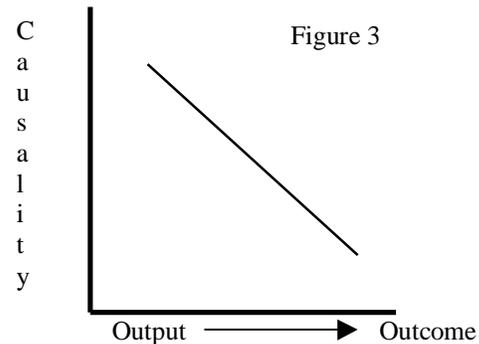
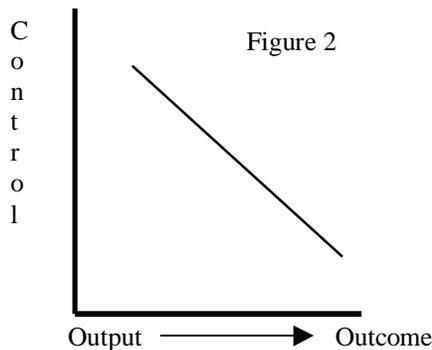
- *outcomes* and *control* (Figure 2);
- *outcomes* and *causality* (Figure 3);
- the *need for visible results* and the *pace of change*;

Outcomes vs. Control. An organization has a high degree of control over its immediate outputs, and so will be tempted to use them as the basis for its performance indicators. But because a public sector organization’s ultimate goal is to generate positive social outcomes rather than produce outputs, output-based indicators will miss what is most important about the organization’s activity. Consider the following chain of events:

- Agency X produces a document on best practices in childhood nutrition programs (*output*);

- external organization reads Agency X’s publication (*intermediate outcome*);
- external organization implements a best practice from Agency X’s publication (*intermediate outcome*);
- external organization’s activity has positive impact on childhood health (*final outcome*).

frequently occurring signs that the organization’s activities are “making a difference”. This poses problems when the time lag is long between program outputs and societal outcomes. (Think about public education programs aimed at raising awareness about the health hazards of cigarette smoking.) It is often easiest to capture the attention of senior officials and politicians by



From a performance measurement perspective, Agency X is in a bind. It cares most about the final outcome – the health of children. But in the chain of events listed above, it is the thing over which it has least control. Choosing outcome-linked indicators may mean that its performance will be judged on the basis of factors well beyond its control.

Outcomes vs. Causality. This is closely related to the “outcomes vs. control” tradeoff.

Organizations like to be judged on the basis of results for which they can take credit. But the causal link between what an organization does and subsequent results becomes weaker as one moves from outputs through intermediate outcomes to final outcomes. Agency X can take full credit for producing its publication, but how much credit can it take for outcomes at the level of childhood health? This logic would drive Agency X to prefer outputs indicators (which are of least consequence from a societal perspective).

Need for Visible Results vs. Pace of Change. For a combination of political and administrative reasons, public sector organizations want to be able to demonstrate visible results -- clear and

pointing to immediate program outputs (as if these were ends in themselves). The need for regular, visible results pushes organizations away from tracking the truly meaningful final outcomes that shape the organization’s mission.

Dealing with the Challenges. A common – and reasonable – response to all three challenges is to strike a compromise between the easy, but socially questionable, strategy of focusing on outputs and the socially desirable, but very difficult strategy of emphasizing final outcomes. In many situations, the best course is to focus on the intermediate steps toward achieving desired outcomes. **Intermediate outcomes** relate to the short or medium term, and indicate milestones along the way to generating longer-term outcomes. They have the advantage of being more oriented to results in society than do outputs, easier to observe and measure, having a shorter cycle time than final outcomes, and easier to attribute to organizational activities.

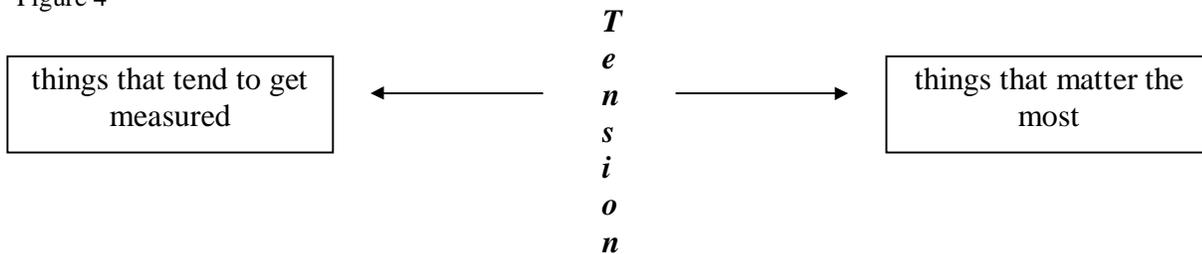
Returning to the example above, Agency X would be reluctant to have its performance measured according to overall improvements in childhood health, even though this is the final outcome to

which it is contributing. Too many other factors, apart from its own activity, affect the state of childhood health; and in any case, changing trends in childhood health are only observed over long periods of time. But instead of retreating to measuring only outputs, Agency X might consider tracking an intermediate outcome such as the number of external agencies that adopt “best practices” described in Agency X’s publications. This indicator provides evidence that outside organizations believe that Agency X is making a valuable contribution to child nutrition.

Conclusion

Judicious selection of performance indicators requires managing the tension between what people instinctively like to measure (i.e. things over which the organization has control, can claim credit for, and can easily use to demonstrate results) and measuring things that matter from the perspective of the organization’s purpose in society (Figure 4). If a performance measurement system is to be regarded by the organization’s staff, management, clients and political masters as being both meaningful and operational, it will have to contain a range of indicators combining short-term organizational imperatives and long-term societal considerations.

Figure 4



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The Institute On Governance (IOG) is a non-profit organization founded in 1990 to promote effective governance. From our perspective, governance comprises the traditions, institutions and processes that determine how power is exercised, how citizens are given a voice, and how decisions are made on issues of public concern.

Our current activities fall within four broad themes: citizen participation, Aboriginal governance, building policy capacity, and accountability and performance measurement.

In pursuing these themes, we work in Canada and internationally. We provide advice to public organizations on governance matters. We bring people together in a variety of settings, events and professional development activities to promote learning and dialogue on governance issues. We undertake policy-relevant research, and publish results in the form of policy briefs and research papers.

You will find additional information on our themes and current activities on our website, at www.igvn.ca.

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