

CDC Coffee Break: What is Performance Management?



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Welcome to today's Coffee Break presented by the Evaluation and Program Effectiveness Team in the Division for Heart Disease and Stroke Prevention at the Centers for Disease Control and Prevention.

*Note: Screen magnification settings may affect document appearance.

Disclaimer: The information presented here is for training purposes and reflects the views of the presenter. It does not necessarily represent the official position of the Centers for Disease Control and Prevention.

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Session Outline

- ❑ **Why performance management?**
- ❑ **Definitions and distinctions**
- ❑ **Real-world example and discussion**

Today, I'll be talking about Performance management and will touch on relevant definitions, important distinctions between performance management, performance measurement, and evaluation, AND conclude with an example of a performance management system used in a program supported by the Division of Cancer Prevention and Control where I work.

Why Performance Management?

- ❑ **Government can transform itself to become more efficient**
- ❑ **Poor performance of government has consequences in terms of fiscal health and public trust in government**
- ❑ **Government can and should make more rational decisions**
- ❑ **Performance information will improve decisions and can be used to foster accountability**

Moynihan, D.P. *The Dynamics of Performance Management: constructing Information and Reform*, p.27, 2008. Washington D.C.: Georgetown University Press

As most of you probably know, there has been a big emphasis on the use of performance management in government over the past 15 years or more – largely, this most recent performance management “movement” has been spurred by an emphasis on increasing government efficiency along with transparency through the use of performance data to improve decision making and strengthen accountability.

What is Performance Management?

*Systematic, continuous
process of:*

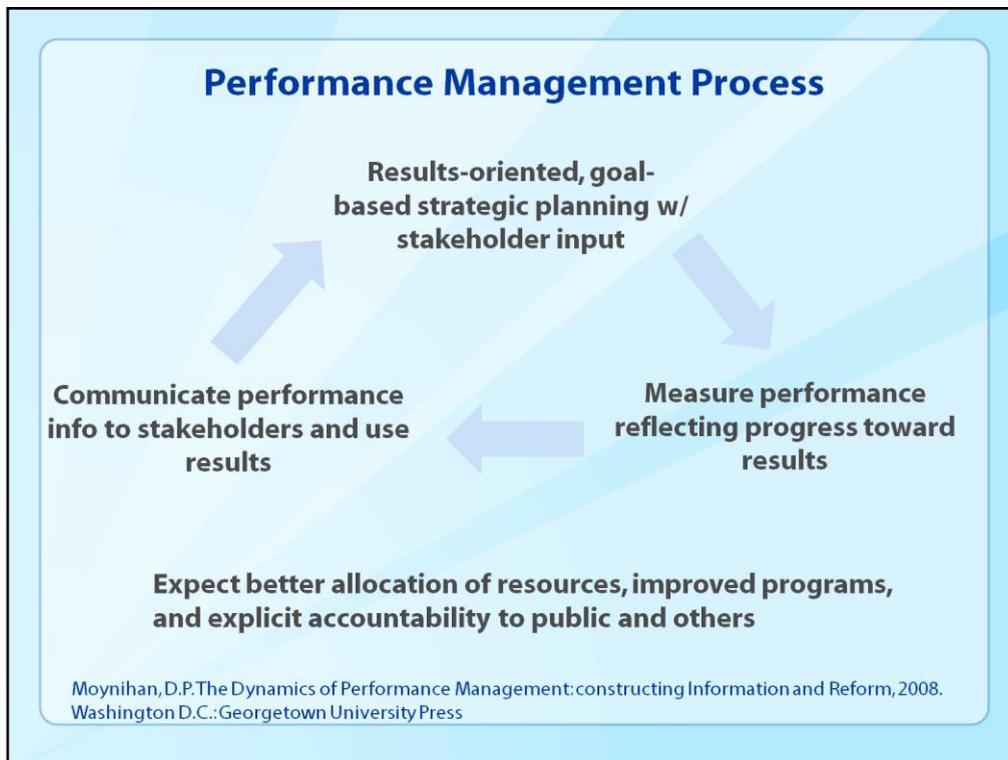
- ❑ **Results-oriented, strategic planning**
- ❑ **Performance measurement to reflect progress toward results**
- ❑ **USE of performance information**

In order to:

- ❑ **Strengthen accountability**
- ❑ **Improve program effectiveness**
- ❑ **Inform decision making (including budgeting)**

Moynihan, D.P. *The Dynamics of Performance Management: constructing Information and Reform*, 2008. Washington D.C.: Georgetown University Press

What exactly is performance management? Performance management involves the on-going practice of several independent processes related to planning, measurement, analysis, and data use with the intention to strengthen accountability, improve program effectiveness, and support policy- and program-related decision making.¹



Here's a pretty basic diagram of the idea. As you can see, the process is circular reflecting the continuous nature of performance management. Results-oriented strategic planning with clear goals is the driver. Performance measurement comes in next and involves the development of realistic, meaningful indicators that reflect progress toward your program goals or results. Performance measurement can be resource intensive because it demands not just good measures but high quality data collection and reporting systems along with the expertise to assure strong analysis. Finally, performance management is predicated on the use of results for varied purposes that we noted earlier such as program improvement, or budgeting. Overall, performance management is expected to lead to improved programs and allocation of resources as well as supporting greater accountability to stakeholders.

What is Performance Measurement?

- ❑ **Performance measurement is the process of defining, monitoring, and using objective (usually quantitative) indicators of the performance of programs on a regular basis**
- ❑ **Logic of performance measurement**
 - ❑ **“What gets measured gets done”**
 - ❑ **Serves as an incentive**
 - ❑ **Increases competition**

Poister, TH. *Measuring Performance in Public and Nonprofit Organizations*. San Francisco: Jossey-Bass, 2003.

As noted in the previous slide, performance measurement is an important component of performance management. Here is a straightforward definition of performance measurement from a text by Ted Poister. I've included this reference on a final slide because this text is a good how-to for performance measurement. I am not going to get into any detail about actually developing performance measures or a measurement system today. Performance measurement is the process of defining, monitoring, and using objective indicators of programs on a regular basis. These are typically quantitative. Basically, the logic behind performance measurement is to communicate program priorities to implementers. Often targets or benchmarks are set for the indicators serving as an incentive for program improvement. Measures can also be used to spur friendly competition between programs when results are made transparent and shared with others.

Strengths of Performance Measurement as a Management Tool

- ❑ **Provides indicators of performance**
- ❑ **Serves as real-time monitoring system**
- ❑ **Identifies potential problems early**
- ❑ **Provides point of comparison**
- ❑ **Identifies areas for evaluation**

In sum, then, performance measurement is a component of a broader performance management system and provides indicators of performance that are used in real-time to monitor program progress toward strategic goals. For performance measures to benefit programs, you need indicators that can be assessed fairly frequently to help you identify potential problems early and make needed mid-course corrections. In addition, measures can be used to compare performance to established targets and/or to other programs. Finally, performance measurement can help to identify areas for more in-depth evaluation. For instance, you may be struggling to meet a given indicator but not understand why – this might prompt you to design a qualitative evaluation to investigate that problem. Consequently, performance measurement is a monitoring strategy that goes hand in hand with program evaluation.

The National Breast and Cervical Cancer Early Detection Program Since 1991



- ❑ **20 years of service**
- ❑ **>4 million women screened**
- ❑ **>10 million breast and/or cervical cancer screening examinations completed**
- ❑ **>53,000 breast cancers detected**
- ❑ **2,856 invasive cervical cancers detected**

Next, I am going to describe a performance management system used by the Division of Cancer Prevention and Control for its National Breast and Cervical Cancer Early Detection Program. The B/C program involves the delivery of clinical services - breast and cervical cancer screening – to low income, under- and un-insured women. CDC funds 67 state, tribal, and territorial grantees to implement the NBCCEDP. The program has been in place over 20 years, and has screened millions of women and diagnosed thousands of cancers. It also has a robust performance management system.

NBCCEDP Performance Management System Components

- ❑ **Planning: Strategic program goals set (e.g., cancers to be detected)**
- ❑ **Measurement and Analysis: Standardized data set to collect demographic and clinical information on all women screened**
 - ❑ **Established set of core performance measures with set targets**
 - ❑ **Semi-annual data submission and review process**
 - ❑ **Data system algorithm to support provider-level review**
- ❑ **Data Use:**
 - ❑ **Semi-annual management review**
 - ❑ **Technical assistance from program consultants**
 - ❑ **Performance-based budgeting process**

The Performance management system for the B/C program reflects the three main components of the diagram shown earlier. First, CDC managers set program goals such as the number of cancers to be detected.

Next, all grantees collect and report standardized data on every woman screened through the program. These data are submitted to CDC semi-annually, the data are cleaned and a set of reports is produced for each grantee, including one report that summarizes a set of 11 core performance indicators with set targets. Next, the data reports are reviewed and areas of concern are documented – these may reflect issues of data quality or program implementation. A conference call is then conducted between a team at CDC and grantee staff to review all the reports and discuss those issues of concern. Grantees provide a written response to any outstanding issues with their next data submission. Another important feature of the performance measurement component is that grantees have been given an algorithm for their data systems that allow them to assess the core performance indicators on a provider basis within their state or tribe. Where we at CDC are looking at those core indicators at an aggregate level for each grantee, individual grantees run those data to see how each provider group in their state performed in order to identify those that may need technical assistance. This is a critical aspect of the system.

Core Indicators		
Type	Indicator	Target
Screening Priority Population	Mammography screening age 50 and older	≥75%
	Women rarely/never screened for cervical cancer	≥20%
Timely and complete Diagnostic follow-up of abnormal screening results	Breast diagnosis completed	≥ 90%
	Breast diagnosis completed within 60 days	≥75%
	Cervical diagnosis completed	≥ 90%
	Cervical diagnosis completed within 90 days	≥ 75%
Timely and complete Treatment initiated for cancers diagnosed	Breast treatment initiated	≥90%
	Breast treatment initiated within 60 days	≥80%
	Cervical treatment initiated	≥90%
	Cervical treatment initiated within 60 days (Invasive)	≥ 80%
	Cervical treatment initiated within 90 days (CIN2/3)	≥80%

These are the 11 core performance indicators for the B&C program. There are two measures that promote certain priority populations for screening. For instance, because breast cancer risk increases with age, CDC wants 75% of the women screened through the program to be over the age of 50. There are also measures meant to support timely and complete diagnostic follow-up of abnormal screening results AND measures to support that women diagnosed with cancer get into cancer treatment within a specified number of days.

Feedback Reports Assess Data Quality and Service Quality

❑ ***Raw Data Reports***

(For initial quality review)

- ✓ Frequencies
- ✓ Edit **program results**

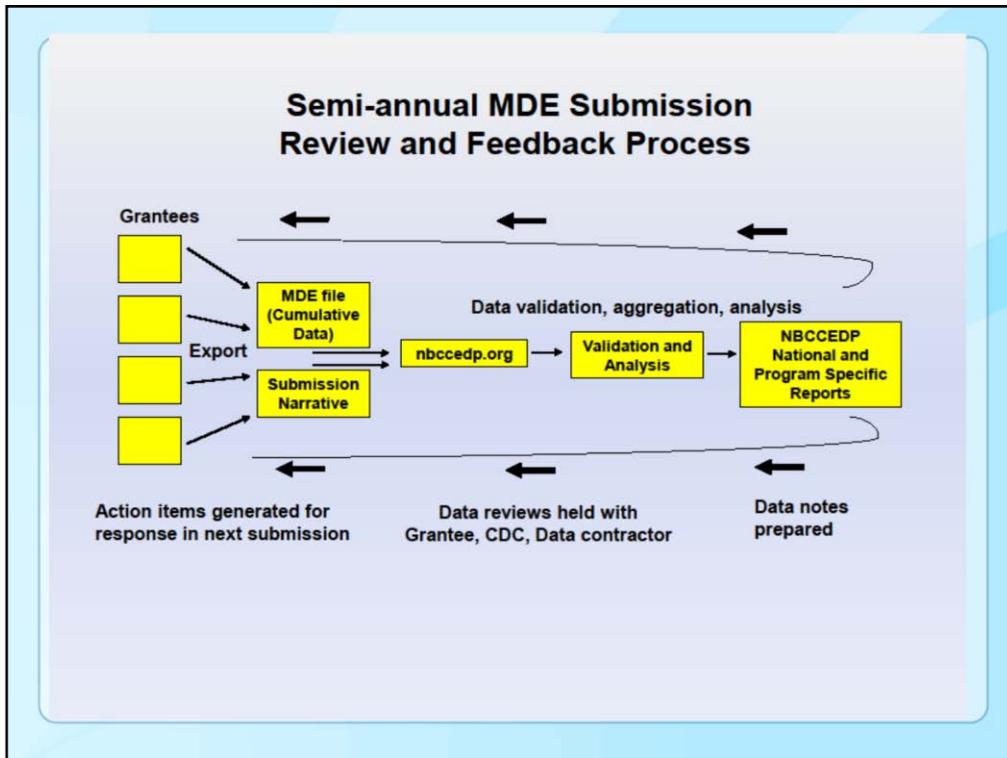
❑ ***Analysis Reports***

- ✓ Management Reports
- ✓ Audit Reports
- ✓ Graphs/Plots
- ✓ Data Quality Indicator Guide (DQIG)
- ✓ Core Performance Indicator Report
- ✓ Histograms

I mentioned that that CDC produces a set of reports following each data submission – Here is a listing of those reports - the Core Performance Indicator Report is in the second column and is just one of many.

Grantee Feedback Report: Core Indicators		RESULTS			
		Grantee		NBCCEDP Aggregate	
		CDC Standard	Percentage	Standard Met? *	Percentage
Initial Program Pap Tests; Rarely or Never Screened	≥ 20%	21.6% (625/2,897)	YES	21.9% (42,448/193,478)	YES
Screening Mammograms Provided to Women ≥ 50 Years of Age	≥ 75%	71.9% (4,323/6,013)	NO	71.6% (289,049/403,961)	NO
Abnormal Screening Results with Complete Follow-Up	≥ 90%	92.6% (75/81)	YES	87.2% (4,855/5,566)	NO
Abnormal Screening Results; Time from Screening to Diagnosis > 60 Days	≤ 25%	40.0% (28/70)	NO	37.2% (1,756/4,721)	NO
Treatment Started for Diagnosis of HSIL, CIN II, CIN III, CIS, Invasive	≥ 90%	91.4% (53/58)	YES	89.9% (3,836/4,269)	YES
HSIL, CIN II, CIN III, CIS; Time from Diagnosis to Treatment > 90 Days	≤ 20%	11.8% (6/51)	YES	9.0% (326/3,617)	YES
Invasive Carcinoma; Time from Diagnosis to Treatment > 60 Days	≤ 20%	0.0% (0/2)	Small #	11.1% (23/207)	YES
Abnormal Screening Results with Complete Follow-Up	≥ 90%	89.3% (1,366/1,530)	YES	88.6% (88,738/100,141)	NO
Abnormal Screening Results; Time from Screening to Diagnosis > 60 Days	≤ 25%	18.3% (250/1,365)	YES	18.3% (16,537/88,884)	YES
Treatment Started for Breast Cancer	≥ 90%	90.0% (63/70)	YES	90.3% (4,136/4,578)	YES
Breast Cancer; Time from Diagnosis to Treatment > 60 Days	≤ 20%	4.8% (3/62)	YES	6.4% (254/4,100)	YES

Here's a template of the actual core performance report that grantees receive. Grantees can compare their performance to that of the overall NBCCEDP aggregate. The report specifies both the actual percentage for a given performance measure along with whether the standard was Met.



In summary, the performance measurement system for the B&C looks like this. This also includes how we actually are using the data. Reading left to right, grantees submit a cumulative data file semi-annually and also provide a narrative summary addressing any outstanding concerns from their past data submission. CDC conducts data validation, aggregation, and analysis, producing a set of grantee-specific and national reports. Technical consultants at CDC review the reports for each grantee and prepare a listing of concerns we call “data notes,” and these are sent to grantees prior to having a conference call to discuss the data. Those calls, or data reviews, are conducted with each grantee as I described earlier. At the end of the call, any outstanding issues are documented by CDC, and we call these “action items.” Grantees prepare a written narrative response to each item, and this is included with their next data submission. And this cycle just goes on and on. It’s a continuous quality improvement approach.

Study of the NBCCEDP Performance Management System Research Questions

- ❑ **Q1: Is the NBCCEDP performance management system effective in improving program performance?**
- ❑ **Q2: What characteristics of the system might explain why the system is, or is not, effective?**

Does this system make a difference? Recently, we have conducted a couple different studies to try and understand if our performance management system actually improves program performance. In one mixed methods study, we addressed these two questions. One, is the B&C performance management system effective in improving program performance? And two, what characteristics of the system might explain why it is, or is not, effective? Generalized estimating equation models were used to assess change in program performance after the implementation of the performance management system which occurred in 2005 and 2006. Qualitative case study data that included observations, interviews, and documents were also analyzed to explore that second question. I don't have time to go into detail regarding the study, but I want to share our main findings.

Considering Quantitative and Qualitative Results Together

- ❑ **Quantitative results suggest that, overall, NBCCEDP performance management system is effective.**
 - ❑ **Statistically significant improvement in performance on 5 of 7 indicators**
- ❑ **Qualitative results help identify important characteristics of system.**
 - ❑ **Measures viewed as meaningful and fair by grantees and DCPC**
 - ❑ **High data quality**
 - ❑ **Investment in performance management system**
 - ❑ **Institutionalized use of performance measurement data**

DeGroff A., Royalty J., Howe W., Buckman D.W., Gardner J., Poister, T., Hayes, N. (2010). When Performance Management Works: A Study of the National Breast and Cervical Cancer Early Detection Program. Accepted by *Cancer*, pending publication.

Our quantitative results showed that there was a statistically significant improvement in performance after the B&C performance management system was implemented. Our qualitative results revealed some characteristics of the system that help to explain why it's effective.

First, the measures are viewed as both meaningful and fair by the grantees and CDC. This is an important point to remember when you develop measures for your own programs. Secondly, the data are of very high quality, therefore the data are seen as valid and reliable—people believe the data. Third, CDC made a significant resource investment in its performance management system to ensure both high quality data and data use. I can talk more about that in the Q&A portion if you are interested. And finally, CDC has institutionalized the use of that performance measurement data through not only its semi-annual review process, but for other management purposes as well, including using a subset of the core performance measures in a performance-based budgeting process. These results are all meant as take-away messages for those of you considering developing a performance management system.

Resources

Poister, Theodore H. 2003. *Measuring performance in public and nonprofit organizations*. San Francisco: Jossey-Bass.

DeGroff A, Schooley M, Chapel T, Poister T. Challenges and Strategies in Applying Performance Measurement to Federal Public Health Programs. *Evaluation and Program Planning*. 2010;33, 365-372.

In closing - Here are two resources for you – One is the text by Poister that I mentioned earlier. And second is a paper that I authored with two other CDC colleagues that talks about some important challenges to developing indicators for public health programs and proposes some ways to address those.

Thank You

If you have questions, please contact:
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