# Commonwealth of Virginia Performance Measurement Workshop
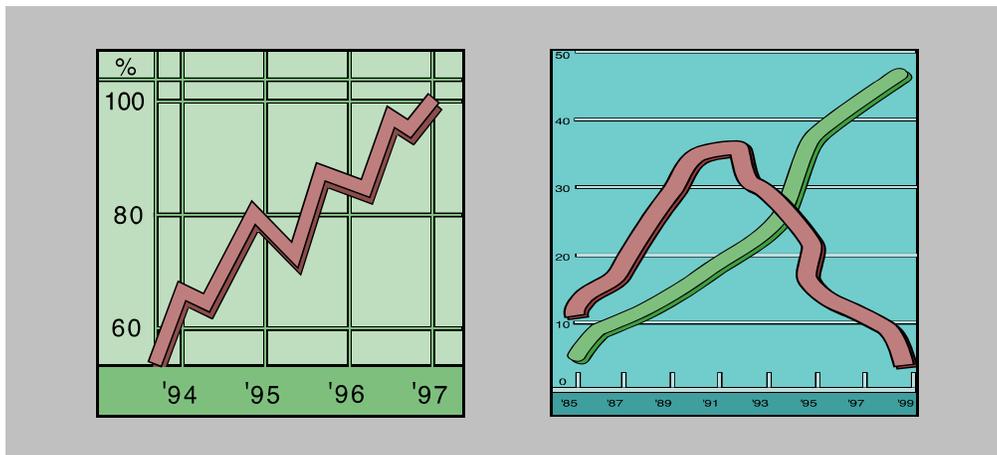


## *Refining Agency Measures*

**Virginia**
**Department of Planning & Budget**

**COUNCIL ON**
**VIRGINIA'S FUTURE**

*Welcome…………………*

**Workshop Purpose**

The overall purpose of this workshop is to provide training in the identification, critique and formulation of performance measures in order to:

- Adopt some best practices – and a common language – for performance measurement
- Improve the quality of agency performance measures, where needed
- Develop a consistent approach for performance measurement

**Learning Objectives**

By the end of the session, you should be able to:

- Contrast measures with goals, objectives, strategies and targets
- Explain the criteria for an effective performance measure
- Distinguish among various types of measures
- Demonstrate how to critique and refine a performance measure
- Set appropriate performance targets
- Describe how to address additional requirements for measures in your strategic and service area plans

**Agenda**

- Introduction
- Performance Accountability
    - Model
    - Strategic and Service Area Planning Structure
    - Planning Timeline
- Terminology Refresher
- Activities #1 & #2:  Is it a measure?
- Guidelines for Developing a Performance Measure & Activity #3:  Reformatting Measures
- Importance and Use of Performance Measures
- Types of Measures
- Effective Measures
- Activity #4:  Refining Measures
- Additional Measurement Requirements:  Overview and Activity #5
- Measuring Projects and Initiatives
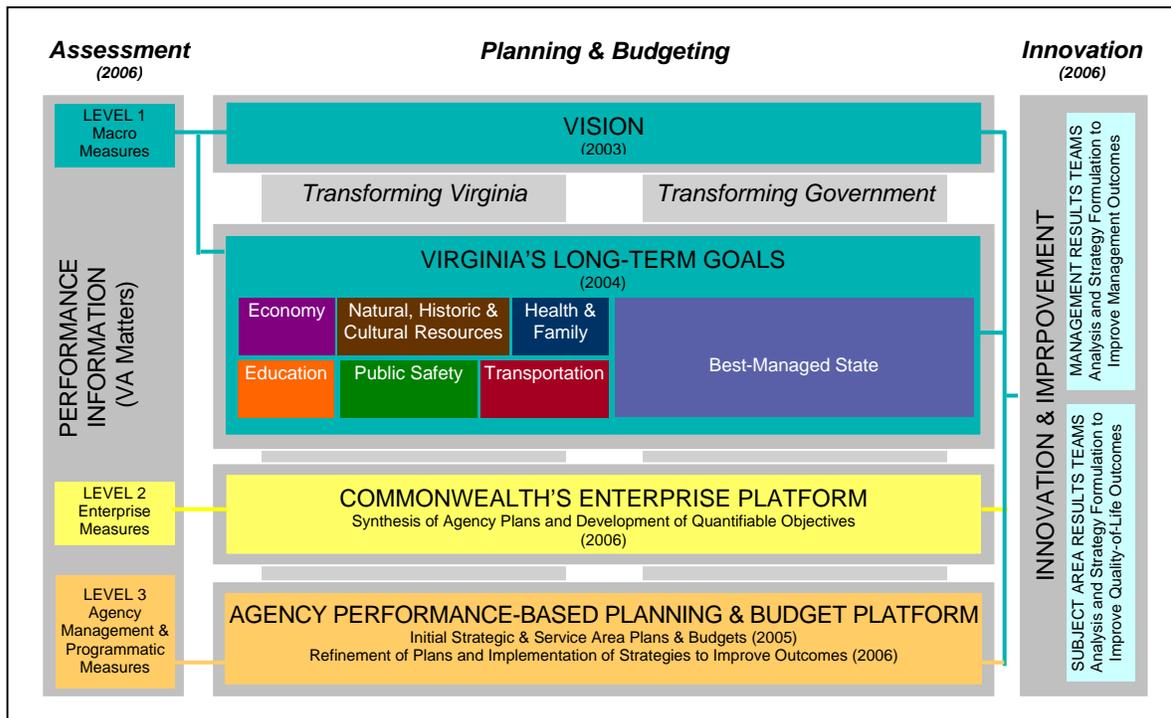- Effective Measurement Systems
- Recap and Next Steps

## Performance Accountability

One of the responsibilities of the Council on Virginia's Future is to provide advice on the implementation of a performance management system across state government. To facilitate the next phase of work on the system, the Council has established a performance accountability model (shown below) as a framework.

The model consists of three components: assessment, planning and innovation. Within the three components are six catalysts for change, as follows.

- Vision
- Virginia's Long-Term Goals
- Commonwealth's Enterprise Performance Platform
- Agency Performance-Based Planning and Budget Platform
- Performance Information
- Innovation and Improvement



Today's workshop is designed to strengthen the work agencies do as part of planning and budgeting, and to set the stage for effective performance reporting.

**Agency Strategic and Service Area Plan Structure – Review**

AGENCY STRATEGIC PLAN STRUCTURE

Mission
Vision
Values (optional)

Executive Progress Report
- Current service performance
- Productivity
- Major initiatives & related progress
- Virginia ranking & trends
- Customer trends & coverage
- Future direction, expectations & priorities
- Impediments

Background Information
- Statutory authority
- Customers:  customer base; anticipated changes in base
- Partners (optional)
- Products & services:  current products and services, factors impacting products and services, anticipated changes to products and services
- Resources:  financial summary, human resource summary, information technology summary, capital investments summary

Goals
- Goal:  goal summary and alignment
- Objectives, measures & strategies (optional)
- **Measurement information:  measure, measure type, measure frequency, data source & calculation, baseline, target \***
- Strategies

Appendices
A.  Information technology
B.  Additional statutory authority information (optional)
C.  Organizational structure (optional)

SERVICE AREA PLAN STRUCTURE

Background Information
- Service area description
- Alignment to mission
- Statutory authority
- Customers:  customer base; anticipated changes in base
- Partners (optional)
- Products & services:  current products and services, factors impacting products and services, anticipated changes to products and services
- Resources:  financial summary, human resource summary (optional)

Objectives & Measures
- Description
- Alignment
- Priority
- *Measurement information: \**
    - *Measure*
    - *Measure type*
    - *Measure frequency*
    - *Data source & calculation*
    - *Baseline*
    - *Target*
- Strategies

Appendices
A.  Additional statutory authority information (optional)
B.  Service area structure (optional)

\*Covered in this workshop.

**Timeline of Planning & Budgeting Activities**

Today's workshop is designed to facilitate activities highlighted in bold in the table below.

| Timeframe | Activity |
|---|---|
| April | Update program structure descriptions for submission to Department of Accounts. |
| Mid-April | Begin performance measure training with deputy secretaries and DPB. |
| Mid-April | Begin test phase with selected agencies on the Virginia Results replacement system. |
| May 1 | **Complete secretarial review of agency strategic and service area plans.** |
| May – Early June | **DPB, in concert with the secretaries, conducts an in-depth, final review of agency performance measures to ensure validity and reliability.** Additional training will be provided, as needed. |
| June 1 | Agencies incorporate comments from the Governor's Office into plans. |
| June 15 | Agency submission of updated plans is due in DPB. |
| July 1 | • Agencies post their updated plans onto their websites.<br>• **Agencies begin ongoing reporting of performance data for service area measures.**<br>• **Agencies begin work on entering historical data on measures that are not new, but not previously reported in Virginia Results** |
| September - November | Agencies submit updates to strategic plans to reflect budget decision packages. |
| On or before December 20 | Strategic plans are submitted to the General Assembly. |

**What is a Measure?**

Various terms with various definitions are in use.
- Measure
- Metric
- Indicator

It's not a matter of what's right and what's wrong.  Instead, it's about speaking the same language across agencies.

**Measure Defined**
- A meaningful indicator used to determine performance
- A criterion or value used to determine the magnitude or degree of something

In essence, a measure is simply a tool used by management and other members of an organization to determine the impact of their actions (e.g., strategies, programs, initiatives, and activities) on the achievement of a goal or objective.

**Other Planning Terms**

- Goal - a broad statement of the long-term results needed to accomplish the organization's mission and achieve its vision

- Input – the amount of resources used to conduct an activity, produce an output (i.e., product or provide a service)

- Measure - a meaningful indicator used to determine performance; a criterion or value used to determine the magnitude or degree of something

- Objective - a description of the results that, when achieved, move an organization toward its stated goals

- Output – product or service; work completed

- Outcome – a result achieved by activity or set of activities; the extent to which a service or activity has impacted its intended audience

- Strategy - actions that support the accomplishment of the strategic plan and deliver the results needed to accomplish goals and objectives

- Target - the specific level of performance the organization is striving to achieve (as reflected in the measure)

**How They Work Together**

- Goals and objectives tell us what we want to accomplish in a broad sense.

- Targets provide specific (and, generally, numeric) descriptions of the desired performance to be achieved in a given time period.

- Strategies convey what we're going to do to accomplish the goals and objectives.

- Measures tell us whether we're making progress toward accomplishing the goals/objectives.

Example

| Goal | To enhance the independence, well-being and personal responsibility of clients. |
|------|-----|
| Objective | Promote self-sufficiency. |
| Measure | Initial employment income of XYZ clients. |
| Target | Three percent increase each year for the next two years, from the current position of $12,000 per year. |
| Strategies | 1. Develop public/private partnerships to increase employment.<br>2. Identify the array of resources needed to increase employability and earning potential and partner with the providers.<br>3. Package and market employer incentives through public/private partnerships.<br>4. |

**The Story They Tell**

To "Enhance the independence, well-being and personal responsibility of clients" one of the desired results will be to "Promote self-sufficiency." To be able to measure the level of self-sufficiency, the organization will monitor the "Initial employment income of XYZ clients" and will be looking for a three percent increase each year for the next two years, from its current position of $12,000 dollar per year. To stimulate the rise in income, the organization will implement three strategies. 1) Develop public/private partnerships to increase employment, 2) Identify the array of resources needed to increase employability and earning potential and partner with the providers, and 3) Package and market employer incentives through public/private partnerships.

**Activity #1 – Is it a Measure?**

The federal government's Housing and Urban Development agency has published a strategic plan that is available on its website.

- One of HUD"s strategic goals is to "Increase homeownership opportunities."
- Some of their associated measures are listed below.
- Are they truly measures or are they something else?

1. An additional 5.5 million minority households will become homeowners by 2010.


2. The average closing cost of FHA-insured single-family mortgages will decrease by FY 2006.


3. The share of FHA-insured home-purchase mortgages for first-time homebuyers remains above 80 percent in each year through 2008.


4. Between FY 2004 and FY 2008, approximately 400,000 claims will be submitted under the Loss Mitigation Program.


5. Implement regulatory changes to combat predatory lending.


6. Implementation of RESPA regulatory changes will reduce consumer confusion with the mortgage financing process.

**Activity #2 – Examples of Agency Measures**

| What is it? | Measures, as Stated in Service Area Plans |
|---|---|
| | 1. Number of eligible consumers in state-operated facilities enrolled in training or educational programs |
| | 2. Increase the state geriatric centers' patient and family satisfaction survey response rates |
| | 3. Percentage of juveniles convicted of a new misdemeanor or felony within a year of being released from a juvenile correctional facility. |
| | 4. Rate of hospitalizations per 10,000 with a primary diagnosis of asthma for children under age five years |
| | 5. Reduce alcohol-related accidents/fatalities by providing federal funding to implement statewide DUI checkpoint campaigns and media campaigns |

**Guidelines for Formatting a Measure**

- Separate the measure from the target. Targets are likely to change more frequently than measures.

  Do this:
  - Measure: # of alcohol-related accidents/year
  - Target: 10% reduction/year from 2006 through 2010

  Don't do this: # of alcohol-related accidents/year decreases by 10% in each of the next five years

- Avoid writing measures that start with a verb phrase (e.g., to improve, reduce). It makes them sound like goals, objectives and targets.

- Verify that the measure is written properly by asking the following question: *What data will I monitor to determine whether I'm making progress on this objective?* Your answer is likely to be:
  - The number of….
  - The percentage of…
  - The rate of…
  - The degree to which…

- Don't confuse them with strategies, which tell you what you'll be doing to achieve an objective. Strategies will be things like programs, initiatives, studies and projects. The effects of the strategies will be reflected in the measures.

**Activity #3 – Refine Your Measures**
1. Review your list of measures.
2. Identify measures that do not fit the definition of a measure.
3. Revise the measures.
4. Prepare some "before and after" examples to share with the entire group.


**Types of Measures Used in Our Plans**

Virginia's Approach
- <u>Input</u> measures describe the amount of resources used to produce a product or provide a service.

    Examples:  number of teachers employed, number of police cars in the fleet

- <u>Output</u> measures describe the amount of work completed, the amount of product produced, or the amount of services provided.

    Example:  number of training sessions held for emergency medical technicians

- <u>Outcome</u> measures describe the results achieved compared to the intended purpose, or progress toward achieving an objective; the extent to which a service or activity has impacted its intended audience.  Outcome measures describe effectiveness and often focus on things such as quality, timeliness, productivity, or the degree to which something has been deployed throughout an organization or client population (i.e., penetration).

    Example:  percentage of juveniles convicted of a new misdemeanor or felony within a year of being placed on probation

    From Harry Hatry:
    "Outcome information is used to describe the percent of clients who did, said, or achieved something.  They can examine the amount of change and the condition of the client after services have been completed."  Examples from Hatry:
    - % of clients who reduced their weekly alcohol consumption by at least X drinks
    - % of clients who had not smoked in the past 30 days

**Discussion:  Effective Measures**
- What are measures used for?
- What could they be used for?
- Given these uses, let's brainstorm criteria for an effective measure

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**Perspective from the Auditor of Public Accounts**

Source: Auditor of Public Accounts:  Review of Performance Measures – Report on Audit for Year Ended June 2004

Criteria for an Effective Measure
- <u>Accuracy</u> - determine if the documentation about the measure was adequate and if calculations were mathematically correct, reasonable, and consistent.  Inaccuracy = mathematical errors, data entry errors, or a lack of understanding of the measure.

- <u>Appropriateness</u> - could see a connection between the programs/services of the agency and the nature of the measure.

- <u>Understandability</u> – whether an average user could easily understand the measure as written. Ensure target information, when present, is reasonable in comparison to the data. Use of jargon and terms not adequately defined should be avoided.

Common Measurement Mistakes
- Wording of the measure in terms of a goal or objective instead of a measure.

- Lack of understanding by the agency on what they were reporting. For example, stating as a percentage, but reporting something different (e.g., a number).

- Lack of consistency in reporting periods or the use of estimates with no subsequent updating.

- Unclear narrative explanations that accompany performance measures. Some of this is due to the inconsistency in writing styles as well as in the nature of the information provided.

**Guidelines for Writing a Measure**

The selection of a measure depends on the goal/objective you are striving to achieve. To determine what measure(s) should be used to monitor progress in achieving a goal/objective, consider the following:

- Review the goal/objective.

- What is the desired result conveyed in the goal/objective?

- Is a particular measure required/mandated? If so, is it adequate or should it be supplemented with additional measures?

- Review the types of measures: input, output, or outcome. For outcome measures, consider the possible types of outcomes, e.g., quality, effectiveness, productivity, timeliness, behavior change, penetration.

- Is the goal/objective about producing a certain quantity of something (i.e., output--how much work was done), is it about operating efficiently (i.e., output/input), is it about how well something was done (i.e., outcome--quality, timeliness, etc.), is it about providing a service to a certain percentage of a given population (i.e., outcome--penetration), or is it about changing behavior (i.e., outcome)?

- Discuss how the measure will be used in addition to monitoring progress, e.g., to compare Virginia to other states or a national standard, to compare regions within Virginia, to demonstrate compliance with a mandate?

- Who will use the measure?

- Ask: What information do I need to have to know whether we are making progress toward or have achieved the goal/objective? Brainstorm ideas for measures that will satisfy the information need.

- Research what other states or organizations that provide similar services use as measures.


**Activity #4 – Refining Measures**

Part 1 - Small Group Activity
Select five measures from your list. For each measure, follow steps 1-6.
1. If it's not a measure, turn it into one.
2. Compare the measure against the criteria for an effective measure.
3. If it meets the criteria, be prepared to explain how the criteria have been met.
4. If it falls short, determine how it could be changed to be a better measure.
5. Verify that the measure is classified correctly (i.e., input, output, outcome).
6. Do a reality check (e.g., if I get data for this measure, will the data tell a performance story that relates to the objective?).

Part 2 - Large Group Review
1. Report your "before and after" measures to the entire group.
2. Group provides feedback on whether they seem to be effective measures.

**Other Required Measurement Information in Strategic & Service Area Plans**

- Baseline - A baseline is a measure of the current state. It is the starting point from which an organization improves.

  It includes the data value (e.g., 94%, 2,500) and the time period for the baseline (e.g., July 2006, December 2003). Example: 94% as of July 2006.

- Target - A target is the specific level of performance you are striving to achieve; desired level of performance of an objective which can be measured within a specific point in time, usually expressed as a number or percentage.

  Includes the data value (e.g., 96%, 2,900) and the time period for achieving the target (e.g., July 2008, December 2008). Example: 96% as of July 2008.

  o You may have long-term targets that you include in your plans. If so, you should also set interim targets that relate to the budget biennium. For the next biennium, your interim targets should fall between July 1, 2006 and June 30, 2008.

  o If you are working with a target established by the federal government or other organization, compare that target to your current performance. If your performance is better than the federal/other target, you will need to set an internal target that is better than your current performance or that maintains your current performance.

  o Ensure the targets are challenging, but realistic and achievable.

- Measure Frequency - Measurement can occur in different cycles: daily, weekly, monthly, quarterly, annually, etc. You are asked to identify the frequency of the measure in your plan. Frequency depends on:
  o How often the data are available (e.g., high school graduation rates may be available just once a year)
  o How often you need the data for managing your operations

  *Note: It is important to update data for your measures according to the frequency selected. Measurement data that are not kept current reflect poorly on the agency, especially when the data are reported on a website or elsewhere for public consumption.*

- Data Source & Calculation - Identify the source of the measurement data that will be used and give a description of the calculations used in measure.

  o Source: List the source of your data. For example: U.S. Census Bureau, Virginia local school district reports on high school graduation, internal document, report or database (list the name or number), survey. Be specific.

  o Calculation: Explain how the data values reported in the measure are derived. Be specific. Example: The number of adults with diabetes engaged in a diabetes management practice divided by the number of respondents with diabetes.

**Activity #5:  Review the Measurement Information**

1. Examine the measurement information for the five measures you refined as part of the last activity (page 11).

2. Make any necessary changes to baselines, targets, frequency, data source and calculation method.

**Measuring Projects & Initiatives**

For initiatives and projects that have a definitive ending date, the most common types of measures used to track progress and success are as follows:
- Cost – on budget or on budget +/- X%
- Timeliness – was the project finished on time, as scheduled in the project plan; were project milestones completed on time
- Client Satisfaction – are customers satisfied with the result
- Requirement Satisfaction – did the result meet the requirements (both from a client perspective and an industry or internal perspective)
- Outcomes – were the desired outcomes achieved; is someone better off now that he/she was before; is some thing (e.g., river, in terms of pollution) better off now than it was before

While cost, timeliness and satisfaction can be measured throughout and at the end of the project or initiative, it may take several weeks, months or longer to determine whether the initiative had an impact on the outcome you were trying to achieve.

**Effective Measurement Systems**

What the experts say about having an effective measurement system

(Source: Serving the American Public:  Best Practices in Performance
Measurement (June 1997 Benchmarking Study Report)

- Narrowly focus your measures to a critical few; don't measure everything.

- Measure the right thing (e.g., measures central to the success of a given process).

- The measure should be a means, not an end.  They should be used to gauge achievement.

- Judge performance against the goals of the program and whether the desired outcomes have been achieved.

- Continually assess whether current measures are sufficient or excessive, are proving to be useful in managing the business, and are driving the organization to the right result.

**Discussion:  Putting Measures to Use**

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**Final Thoughts**

"World-class organizations know where they're headed through effective customer-driven strategic planning.  They know where they are by measuring performance against corporate goals and objectives."

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(Source:  Serving the American Public:  Best Practices in
Performance Measurement (June 1997 Benchmarking
Study Report, page 13)

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- We can't effectively manage performance of critical operations and programs if we don't measure performance.

  *If we <u>want</u> to do it, we should do it well.*

- Mandated by Code

  HB 2097 (2003):  Government Performance and Results Act
  "Each agency shall develop and maintain a strategic plan for its operations.  The plan shall include…….input, output, and outcome measures."

  *If we <u>have</u> to do it, we should do it well.*

**Resources for Measurement**

Virginia State Government
- Strategic Planning User Guide – DPB website

Things to Google
- The Urban Institute
- Harry Hatry
- Serving the American Public:  Best Practices in Performance Measurement (June 1997 Benchmarking Study Report)

Books
- *Measures for Strategic Planning:  A Public Sector Handbook* by Kathleen E. Monahan
- *Trying Hard is Not Good Enough* by Mark Friedman

  Note:  Appendix G in this book has a 5-step method for identifying performance measures for any program in 45 minutes.  Appendix H in this book has examples of performance measures.

# Commonwealth of Virginia
## Quick Reference Guide on Performance Measurement

**Guidelines for Developing a Measure**

The selection of a measure depends on the goal/objective you are striving to achieve. To determine what measure(s) should be used to monitor progress in achieving a goal/objective, consider the following:

- Review the goal/objective. What is the desired result conveyed in the goal/objective?
- Is a particular measure required/mandated? If so, is it adequate or should it be supplemented with additional measures?
- Review the types of measures: input, output, or outcome. Is the goal/objective about producing a certain quantity of something (i.e., output--how much work was done), is it about operating efficiently (i.e., output/input), is it about how well something was done (i.e., outcome--quality, timeliness, etc.), is it about providing a service to a certain percentage of a given population (i.e., outcome--penetration), or is it about changing behavior (i.e., outcome)?
- Discuss how will the measure be used in addition to monitoring progress, e.g., to compare Virginia to other states or a national standard, to compare regions within Virginia, to demonstrate compliance with a mandate?
- Who will use the measure?
- Ask: What information do I need to have to know whether we are making progress toward or have achieved the goal/objective? Brainstorm ideas for measures that will satisfy the information need.
- Research what other states or organizations that provide similar services use as measures.

**Guidelines for Formatting a Measure**

- Separate the measure from the target. Targets are likely to change more frequently than measures.

> DO THIS
> - Measure: # of alcohol-related accidents/year
> - Target: - 10% by July 2007
>
> DON'T DO THIS
> - # of alcohol-related accidents/year decreases by 10% in each of the next five years

- Avoid writing measures that start with a verb phrase (e.g., to improve, reduce). It makes them sound like goals, objectives and targets.

> DO THIS
> - Measure: # of alcohol-related accidents/year
>
> DON'T DO THIS
> - To decrease the number of alcohol-related accidents/year decreases by 10% in each of the next five years

- Verify that the measure is written properly by asking the following question: *What data will I monitor to determine whether I'm making progress on this objective?* Your answer is likely to be:
    - The number of….          The percentage of…
    - The rate of…             The degree to which…

- Don't confuse them with strategies, which tell you what you'll be doing to achieve an objective. Strategies will be things like programs, initiatives, studies and projects. The effects of the strategies will be reflected in the measures.

**Criteria for an Effective Measure**

| | |
|---|---|
| Accuracy | Determine if the documentation about the measure was adequate and if calculations were mathematically correct, reasonable, and consistent. Inaccuracy = mathematical errors, data entry errors, or a lack of understanding of the measure. |
| Appropriateness | Could see a connection between the programs/services of the agency and the nature of the measure. |
| Understandability | Whether an average user could easily understand the measure as written. Ensure target information, when present, is reasonable in comparison to the data. Use of jargon and terms not adequately defined should be avoided. |
| Validity | Measures what you intended to measure; produces an accurate outcome |
| Reliability | Measures something the same way every time |
| Cost-effectiveness | The cost of collecting, analyzing and reporting the data is not prohibitive. |
| Timeliness | The data are available when need for decision making. |
| *And...* | *They don't result in dysfunctional behavior.* |

# Commonwealth of Virginia
## Quick Reference Guide on Performance Measurement

**Terminology**

| Term | Definition | Example |
|------|-----------|---------|
| Goal | A broad statement of the long-term results needed to accomplish the organization's mission and achieve its vision | To enhance the independence, well-being and personal responsibility of customers. |
| Objective | A description of the results that, when achieved, move an organization toward its stated goals | Promote self-sufficiency. |
| Measure | A meaningful indicator used to determine performance; a criterion or value used to determine the magnitude or degree of something | Initial employment income of XYZ clients. |
| Target | The specific level of performance the organization is striving to achieve | +3% by July 1 2007 |
| Strategies | Actions that support the accomplishment of the strategic plan and deliver the results needed to accomplish goals and objectives | Package and market employer incentives through public/private partnerships. |

**Elements Required for Each Measure in Your Plan**

| Element | Definition | Example |
|---------|-----------|---------|
| Measure type | Input measures describe the amount of resources used to produce a product or provide a service. | Number of teachers employed, number of police cars in the fleet |
| | Output measures describe the amount of work completed, the amount of product produced, or the amount of services provided. | Number of training sessions held for emergency medical technicians |
| | Outcome measures describe the results achieved compared to the intended purpose, or progress toward achieving an objective; the extent to which a service or activity has impacted its intended audience. Outcome measures describe effectiveness and often focus on things such as quality, timeliness, productivity, or the degree to which something has been deployed throughout an organization or client population (i.e., penetration). | Percentage of juveniles convicted of a new misdemeanor or felony within a year of being placed on probation |
| Measure frequency | Measurement can occur in different cycles. You are asked to identify the frequency of the measure in your plan. Frequency depends on:<br>• How often the data are available (e.g., high school graduation rates may be available just once a year)<br>• How often you need the data for managing your operations | Daily<br>Weekly<br>Monthly<br>Quarterly<br>Semi-Annually<br>Annually |
| Data source & calculation | Source: List the source of your data; where you obtain the data reflected in the measure. Be specific. | U.S. Census Bureau, Report No. XYZ (2004) |
| | Calculation: Explain how the data values reported in the measure are derived. Be specific. | The number of adults with diabetes engaged in a diabetes management practice divided by the number of respondents with diabetes |
| Baseline | A baseline is a measure of the current state. It is the starting point from which an organization improves. It includes the data value and the time period for the baseline. | • 94% as of July 2006<br>• 2,500 as of December 2003 |
| Target | A target is the specific level of performance you are striving to achieve; the desired level of performance of an objective which can be measured within a specific point in time, usually expressed as a number or percentage. It includes the data value and the time period for achieving the target. If you have longer-term targets (beyond two years), set interim targets that correspond to the budget biennium. | • 96% by July 2008<br>• 3,000 by December 2008 |