



Where Are You on Performance Management?

Dash-boarding, Monitoring Progress, Baselines & EVM

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Overview

- What is Performance Management?
- How do you measure Performance?
- Who should measure Performance?
- Why measure Performance?



What is Performance Management?

- The **on-going process** of assessing progress toward achieving pre-determined goals and objectives
- Information on the **efficiency & effectiveness** with which resources are transformed into goods and services (outputs)
- The **quality** of those outputs
 - how well they are delivered to the client
 - the extent to which clients are satisfied
- The **effectiveness of operations** in terms of their specific contributions to the strategic goals & business objectives

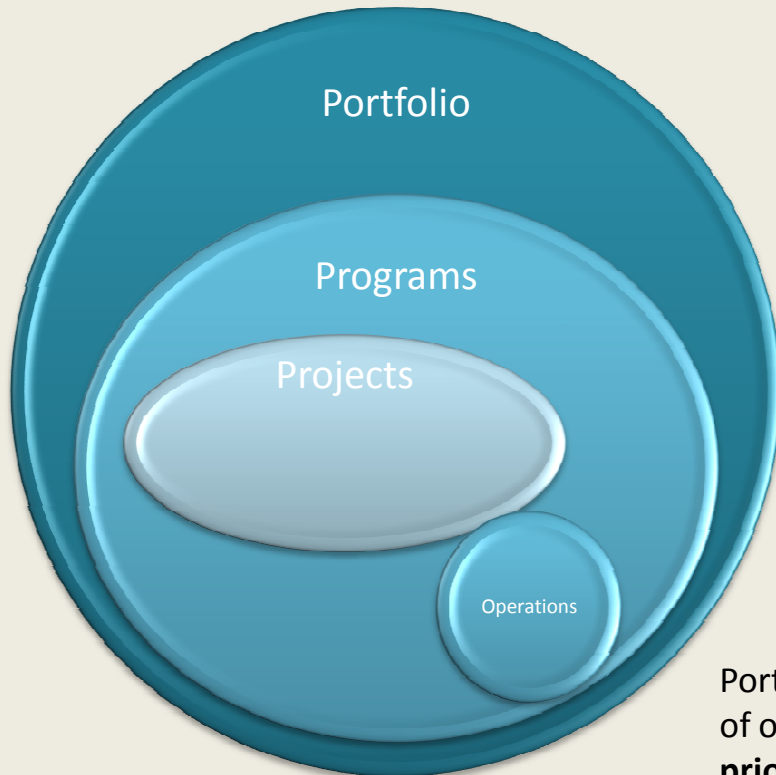


How do you Measure Performance?

- Portfolio Management
- Earned Value Management (EVM)
- Independent Verification and Validation (IV&V)
- Annual Operational Analysis (AOA)
- Integrated Baseline Review (IBR)



Portfolio Management



Portfolio: A **collection** of projects or investments and other work that are **grouped together to facilitate effective management** of that work to meet strategic business objectives. The projects or investments of the portfolio may not necessarily be interdependent or directly related.

Portfolio management: The coordination and management of one or more portfolios, which **includes identifying, prioritizing, authorizing, managing, and controlling projects, systems, and investments and other related work**, to achieve specific business objectives

Value of Portfolio Management

“It is a tool to direct optimal IT investments towards the objective and desired state of the enterprise, factoring in tolerance for risk, resource constraints and interdependencies between the investments.”

Source: Gartner, Inc., Planning for IT Portfolio Management. ID No G00208875. Publication Date: 10 Dec, 2010

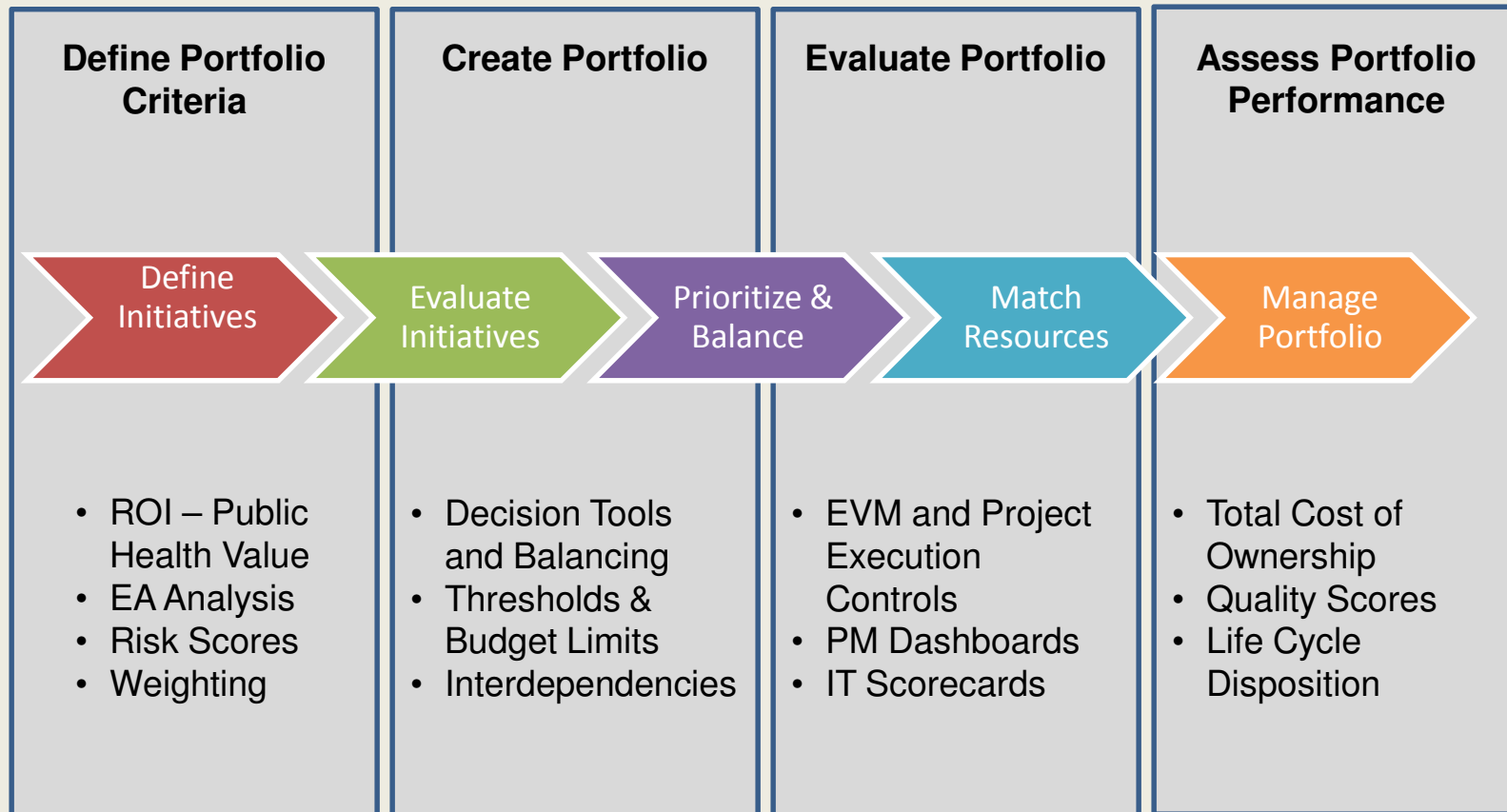


Portfolio Management Methods and Techniques

- Project selection methods
- Decision support tools and models
- Prioritization algorithms
- Project governance techniques
- Portfolio risk management tools



Informatics Portfolio Management



Adapted from Gartner, Inc. Using an IT Portfolio Decision-Making Approach 2008



Earned Value Management (EVM)

- Earned Value
 - The amount of “value” that is claimed, or earned, when a segment of work is accomplished
- Earned Value Analysis (EVA)
 - A consistent methodology for measuring and analyzing:
 - Project schedule performance
 - Project cost performance
 - Project progress
 - A set of metrics for making meaningful comparisons between planned and completed work



EVM is a “Tool”

- EVM is a more systematic and integrated method for measuring progress
 - It integrates project scope, cost and schedule
 - It enables small variances earlier in the project to be forecast to the end of the project
- EVM is used to monitor progress as project activities occur
 - It provides useful information about project progress, especially when a project is falling behind schedule and exceeding its budget



Using EVM data for Decision Making

- Behind Schedule
 - How critical is the schedule?
 - What is the impact of overtime on project cost?
 - Can some tasks be done concurrently?
 - Are the dependencies accurate?
 - Can process improvements increase speed?
 - Can tasks be re-organized to shorten critical path?
- Over Cost
 - Can activities and tasks be rescheduled?
 - Are less costly resources available?
 - Should some tasks be outsourced?
 - Are there tasks which do not add value that can be deleted?



Independent Verification & Validation (IV&V)

- Independent
 - Provides an outside, unbiased, view of the project
- Verification
 - Are we building the product right?
- Validation
 - Are we building the right product?



IV&V (Cont.)

- Completely **independent entity** evaluates the work products developed by the project team that is designing/executing a given project
- Monitoring and evaluation is done in **every aspect of the project** from inception to completion



Annual Operational Analysis (AOA)

- As defined in OMB Capital Planning Guide:
 - “Operational Analysis is a method of examining the ongoing performance of an operating asset investment and measuring that performance against an established set of cost, schedule, and performance goals.”
- An evaluation process that addresses how well an existing investment is meeting:
 - Strategic & business objectives
 - Financial goals
 - Customer needs
 - Performance goals



AOA (cont.)

- Project/investment specific
- Tailored to specific business mission
- Collaboration between the business (program) and the project team
- Mandatory for all projects after their implementation and are in operations and maintenance (O&M)
- Required a year after the O&M for newly developed systems and then at least once every year



Integrated Baseline Review (IBR)

- Culminating process of establishing a Performance Measurement Baseline
- Purpose:
 - To verify if the Performance Measurement Baseline is realistic and to ensure mutual understanding of project scope, schedule and risk
 - To verify that the technical baseline's budget and schedule are adequate for performing the work
- Critical link between the cost estimate and EVM



Why Conduct an IBR?

“An IBR’s purpose is to verify the technical content and realism of the interrelated performance budgets, resources, and schedules. It helps the auditor understand the inherent risks in offerors’ or contractors’ performance plans and the underlying management control systems, and it should contain a plan to handle these risks.”

Source: GAO Cost Assessment Guide (July 2007)



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

IBR Objectives

- The technical scope of work is fully included and is consistent with authorizing documents
- Key schedule milestones are identified and reflect a logical flow to accomplish technical work scope
- Resources are available and are adequate for the assigned tasks
- Tasks can be objectively measured and level of effort is minimized
- All rationale underlying the PMB is reasonable
- Managers have appropriately implemented required management processes
- **Outcome:** Can we execute the technical work scope given the available schedule and budget resources?



IBR Benefits

- Management insight into the planning assumptions and the resource constraints of the baseline
- Comparison of expectations so that any differences can be addressed early in the planning phase – helps align expectations
- Correction of baseline planning errors and omissions
- Improved understanding of developing performance variances and improved early warning of significant variances
- Targeting of resources to address challenges and mitigate risks
- Mutual commitment by the joint team to manage to the baseline
- Provides all stakeholders mutual understanding of risks

Source: DoD EVM Implementation guide, Oct 2006



Why Measure Performance?

- To demonstrate the results of project activities
- Show how these results support programmatic and organizational goals
- Determine what works and what doesn't
- Promote accountability and justify resource allocations
- Enhance managers' abilities to communicate with stakeholders
- Clinger Cohen Act
- Government Performance Results Act (GPRA)



Who should be involved?

- Project Managers
- Business & Technical Stewards
- Center Informatics/IT Lead
- Center & Division Leadership
- Center Governance Council
- CDC Information Resource Governance Council (IRGC)



Sample Performance Reports

- Monthly OID Portfolio Reports
 - By Center & Division
- EPLC Status Report
- HHS ProSight
- OMB Exhibit 53



OID Portfolio

Centers	Systems
NCIRD	43
NCZVED	31
NCHHSTP	46
NCEZID	52
OID Total	172
Extramural Only	
NCIRD Extramural	5
NCHHSTP Extramural	1
NCEZID Extramural	1
OID Total	7
GRAND TOTAL	179



OID Portfolio Report

OID Portfolio
January 31, 2011

Systems	FY10	FY11	FY12	FY10	FY11	FY12	FY10	FY11	FY12	TOTAL	% To Total	
	Total	Total	Total	DME	DME	DME	SS	SS	SS	ALL		
NCIRD	47	10.000	10.000	10.000	5.000	5.000	5.000	5.000	5.000	5.000	30.000	18.2%
NCHHSTP	55	20.000	20.000	20.000	10.000	10.000	10.000	10.000	10.000	10.000	60.000	36.4%
NCEZID	82	25.000	25.000	25.000	15.000	15.000	15.000	10.000	10.000	10.000	75.000	45.5%
OID Total	184	55.000	55.000	55.000	30.000	30.000	30.000	25.000	25.000	25.000	165.000	100.0%

Extramural Only Systems	FY10	FY11	FY12	FY10	FY11	FY12	FY10	FY11	FY12	TOTAL	% To Total	
	Total	Total	Total	DME	DME	DME	SS	SS	SS	ALL		
NCIRD Extramural	5	20.000	20.000	20.000	10.000	10.000	10.000	10.000	10.000	10.000	60.000	50.0%
Extramural	1	10.000	10.000	10.000	5.000	5.000	5.000	5.000	5.000	5.000	30.000	25.0%
Extramural	1	10.000	10.000	10.000	5.000	5.000	5.000	5.000	5.000	5.000	30.000	25.0%
OID Total	7	40.000	40.000	40.000	20.000	20.000	20.000	20.000	20.000	20.000	120.000	100.0%

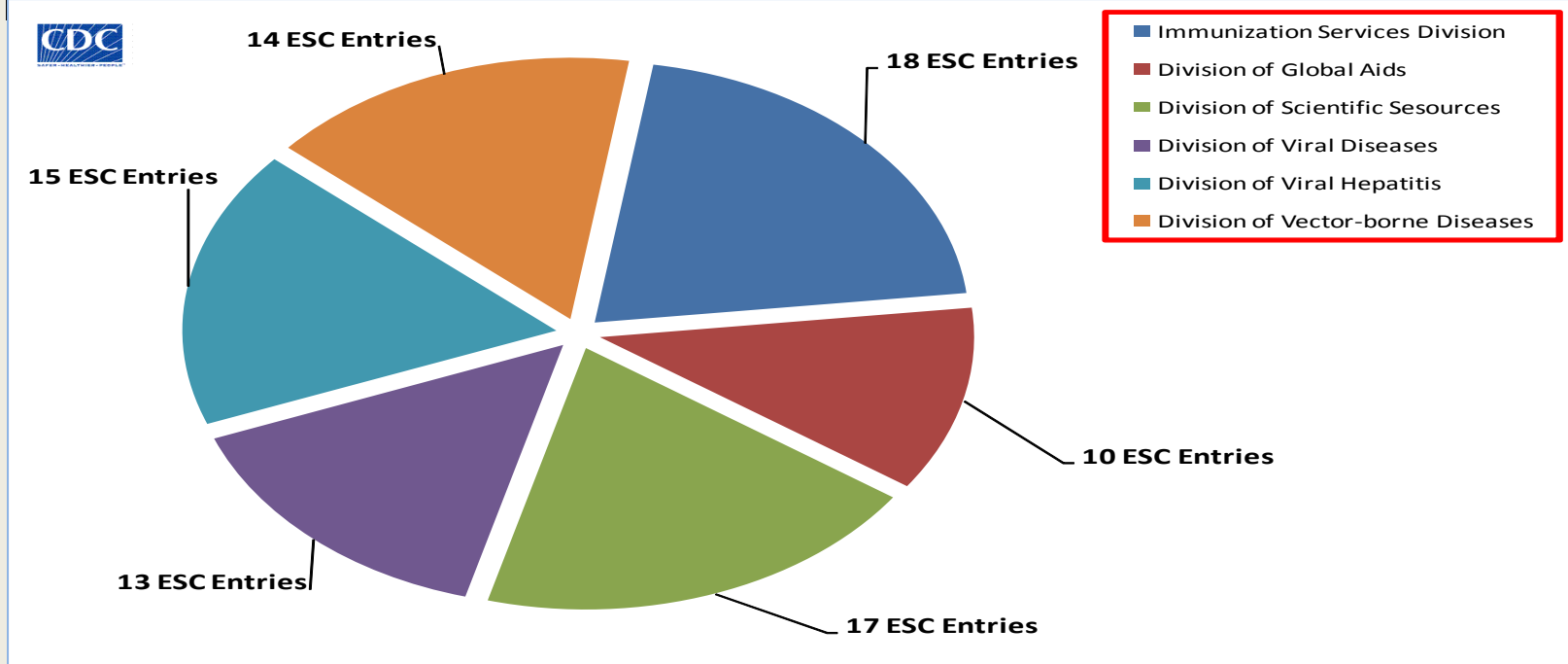
GRAND TOTAL	95.000	95.000	95.000	50.000	50.000	50.000	45.000	45.000	45.000	285.000
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* Sample Data



“Center” IT Portfolio by Division (FY10)

Divisions	# of Projects	% of Total
Immunization Services Division	18	20.7%
Division of Global Aids	10	11.5%
Division of Scientific Sesources	17	19.5%
Division of Viral Diseases	13	14.9%
Division of Viral Hepatitis	15	17.2%
Division of Vector-borne Diseases	14	16.1%
Total	87	



* Sample Data

“Center” Divisional Analysis (\$M)

“Center” Division	Systems	FY10	FY11	FY12
		Total	Total	Total
Division of Bacterial Diseases	4	0.100	0.125	0.150
Division of Viral Diseases	8	0.150	0.175	0.200
Global Immunization Division	3	0.200	0.225	0.250
Immunization Services Division	11	1.000	1.100	1.200
Influenza Division	12	0.250	0.275	0.300
Office of the Director	9	0.300	0.350	0.400
“Center” Total w/o Extramurals	47	2.000	2.250	2.500
Extramural Only				
CDC Immunization Registries	1	10.000	10.500	11.000
CDC OID Extramural Grants		-	-	-
New Vaccine Surveillance Network		0.100	0.200	0.300
Pertussis		0.200	0.300	0.400
Varicella Active Surveillance System		0.300	0.400	0.500
“Center” Total Extramural	1	10.600	11.400	12.200
GRAND TOTAL “Center”	48	12.600	13.650	14.700

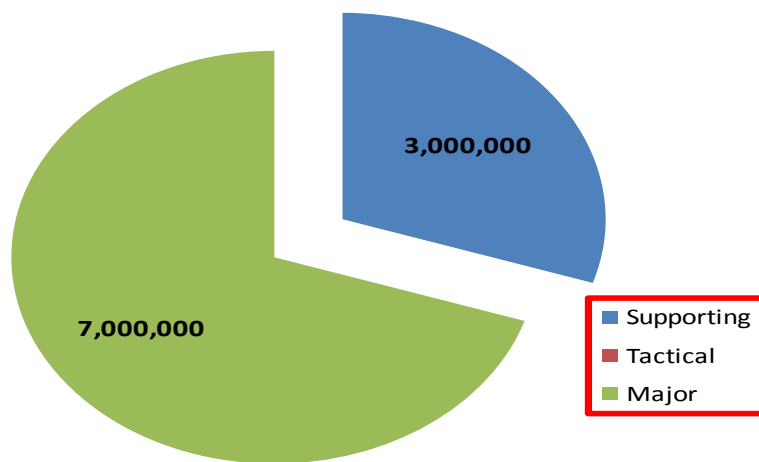
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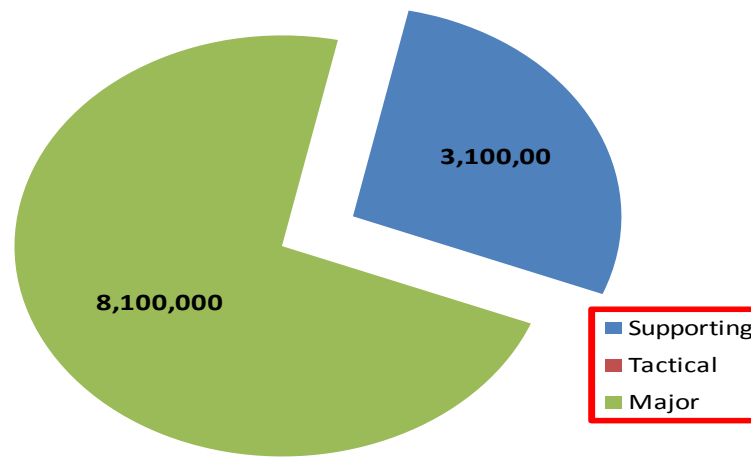
“Center” Divisional Analysis – Total Division

Division	Number of Investments **	Projects % To Total	Fiscal Year - \$\$\$			\$\$\$ % To Total
			2011	2012	TOTAL	
CENTER						
Supporting	46	97.87%	3,000,000	3,100,000	6,100,000	28.77%
Tactical	-	0.00%	-	-	-	0.00%
Major	1	2.13%	7,000,000	8,100,000	15,100,000	71.23%
TOTAL	47	100.0%	10,000,000	11,200,000	21,200,000	100.0%
GRAND TOTAL	47	100.0%	10,000,000	11,200,000	21,200,000	100.0%

Office of Infectious Diseases (OID)
"CENTER" - FY 11 By Total \$\$\$



Office of Infectious Diseases (OID)
"CENTER" - FY12 By Total \$\$\$



* Sample Data

Monthly Report by ProSight Entry

ProSight Investment (ESC ID)	System (ESC ID)	ESC Lifecycle Phase	Stage Gate Review Date	EPLC Stage Gate Status	FY10	FY11	FY12	FY10	FY11	FY12	FY10	FY11	FY12
					Total	Total	Total	DME	DME	DME	SS	SS	SS
OID Grants Information Systems for Immunization Rollup System	Program Annual Progress Assessment (1036)	Operations & Maintenance	08/19/2010	O&M (I)	1.000	2.000	3.000	0.500	1.000	1.500	0.500	1.000	1.500
OID Grants Information Systems for Immunization Rollup System	eGrants Application Tracking Information System (1370)	Operations & Maintenance	09/01/2010	O&M (I)	1.000	2.000	3.000	0.500	1.000	1.500	0.500	1.000	1.500
Subtotal - OID Grants Information Systems for Immunization					2.000	4.000	6.000	1.000	2.000	3.000	1.000	2.000	3.000
OID Administrative Support Rollup System	GID Travel and Consultancy Web Application (1365)	Operations & Maintenance	08/19/2010	O&M (I)	1.000	2.000	3.000	0.500	1.000	1.500	0.500	1.000	1.500
OID Administrative Support Rollup System	NIP Project Profile System (1270)	Operations & Maintenance	09/30/2010	O&M (I)	1.000	2.000	3.000	0.500	1.000	1.500	0.500	1.000	1.500
OID Administrative Support Rollup System	Conference Room Scheduling System (1364)	Operations & Maintenance	08/20/2010	O&M (I)	1.000	2.000	3.000	0.500	1.000	1.500	0.500	1.000	1.500
OID Administrative Support Rollup System	MOSS-I-Site Collection (System ID: 1856)	Mixed Life Cycle	Exempt	O&M (I)	1.000	2.000	3.000	0.500	1.000	1.500	0.500	1.000	1.500
OID Administrative Support Rollup System	Epidemiology and Prevention Branch Dashboard (1916)	Planning	Exempt	Planning (C)	1.000	2.000	3.000	0.500	1.000	1.500	0.500	1.000	1.500
Subtotal - OID Administrative Support Systems					5.000	10.000	15.000	2.500	5.000	7.500	2.500	5.000	7.500

* Sample Data



Stage Gate Status as of 02/11/2010

Stage Gate	Stage Gate Completed	Stage Gate Not Completed	Stage Gate Remain	Total Projects
Project Selection Reivew	1	4	10	15
Project Baseline Review	10	5	10	25
Preliminary Design Review	2	5	5	12
Operational Readiness Review	1	2	10	16
Total	14	16	35	68

* Sample Data



Exhibit 53

Items	Category	TOTAL			Development/Modernization/ Enhancement			Operations & Maintenance/ Steady State		
		2010	2011	2012	2010	2011	2012	2010	2011	2012
CDC OID Comm for Immunization and Respiratory Diseases	Supporting	\$0.200	\$0.400	\$0.600	\$0.100	\$0.200	\$0.300	\$0.100	\$0.200	\$0.300
CDC OID Monitoring for Immunization and Respiratory Diseases	Supporting	\$0.200	\$0.400	\$0.600	\$0.100	\$0.200	\$0.300	\$0.100	\$0.200	\$0.300
CDC OID Services for Immunization and Respiratory Diseases	Supporting	\$0.200	\$0.400	\$0.600	\$0.100	\$0.200	\$0.300	\$0.100	\$0.200	\$0.300
CDC OID Vaccine Tracking System (VTrckS)	Major	\$5.000	\$5.500	\$6.000	\$4.000	\$4.500	\$5.000	\$1.000	\$1.000	\$1.000
CDC OID Vaccine Management System (VACMAN)	Supporting	\$0.200	\$0.400	\$0.600	\$0.100	\$0.200	\$0.300	\$0.100	\$0.200	\$0.300
CDC OID Administrative Support	Supporting	\$0.200	\$0.400	\$0.600	\$0.100	\$0.200	\$0.300	\$0.100	\$0.200	\$0.300
CDC OID Grants Information Systems for Immunization	Supporting	\$0.200	\$0.400	\$0.600	\$0.100	\$0.200	\$0.300	\$0.100	\$0.200	\$0.300
CDC OID Extramural Grants	Supporting	\$1.000	\$1.000	\$1.000	\$0.000	\$0.000	\$0.000	\$1.000	\$1.000	\$1.000
CDC OID Immunization Registries (Extramural)	Supporting	\$10.000	\$10.500	\$11.000	5.000	\$5.250	\$5.500	\$5.000	\$5.250	\$5.500

* Sample data



EVM Status Report - Aug-Oct 2010

Items	HHS Classification	FY \$Budget	August Submission CV%	August Submission SV%	August CAP	ProSight Updated	September Submission DME CV%	September Submission DME SV%	September CAP	ProSight Updated	October Submission DME CV%	October Submission DME SV%	October CAP	ProSight Updated
CDC CCID Vaccine eXchange Network formerly (VODS)	Major	13.297	2.46	-0.1		7/31/2010	0.236	-2.99		8/31/2010	5.03	0.3		9/30/2010
CDC CCID DHAP: Electronic HIV/AIDS Reporting System (eHARS)	Supporting	2.15	-0.32	-0.073		7/31/2010	0.56	-1.03		8/31/2010	0.82	-2.55		9/30/2010
CDC CCID Infectious Diseases StarLIMS	Supporting	1.9	-31.42	-1.84	Yes	7/31/2010	-31.46	-1.84	Yes	8/31/2010	18.31	-2.68	Yes	9/30/2010
CDC CCID National Healthcare Safety Network	Supporting	1.872	-0.24	-0.08		7/31/2010	0.41	-0.08		8/31/2010	-0.41	0.49		9/31/2010
CDC CCID PH Comm for HIV/AIDS, STD & TB Prevention	Supporting	0.764	-0.048	-2.35		7/31/2010	3.48	-0.12		8/31/2010	4.94	0.17		9/30/2010
CDC CCID PH Monitoring for Zoonotic, Vector-Borne and Enteric Diseases	Supporting	1.168	-6.07				-0.5	-0.51		8/31/2010	-0.05	-1.04		9/31/2010
		21.151												
Variance > +/- 10%														
Variance 5% - 10%														

*Sample Data



Closing

- There are established standards for portfolio performance evaluation in federal sector
- CDC has robust informatics governance structure established which includes the portfolio performance evaluation
- The CDC Unified Process has portfolio/project management and performance evaluation processes, guides and templates
<http://www2a.cdc.gov/cdcup/default.htm>



Question & Answers



Break (15 min.)

Agenda for Remainder of Event

(The remaining presentations will take place in Aud. A)

- Putting it Together: Customizing Your PM Approach and Tailoring
- Experiencing Stage-Gate Reviews
- EPLC and Project Management Group Learning Exercise

Housekeeping Tidbits:

- Remember to sign-in at each session you attend to receive credit towards PDUs.
- Please provide us your feedback by filling out a survey.

