



# Earned Value Management

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- **Earned Value Management (EVM)** is a project management technique used for measuring project progress in an objective manner.
  - EVM combines measurements of
    - technical performance (i.e., accomplishment of planned work),
    - schedule performance (i.e., behind/ahead of schedule)
    - cost performance (i.e., under/over budget)
  - When properly applied, EVM provides an early warning of performance problems.
  - EVM promises to improve the definition of project scope, prevent scope creep, communicate objective progress to stakeholders, and keep the project team focused on achieving progress.



- HHS Acquisition Regulation 352.234 (Notice of Earned Value Management System) cites compliance with ANSI-748 EVM Guidelines and that the contractor has to obtain validation and acceptance of its EVM system by the Cognizant Federal Agency .
- BARDA follows HHSAR EVM Regulation for all IT projects and construction contracts
- Biomedical projects may not meet “major systems investment” requirement
- BARDA implementing “7 Principles of EVM” requirements in place of ANSI-748 EVM Guidelines
  - Provides flexibility to BARDA and contractors
  - Removes requirement for contractor to be compliant with ANSI
  - Implemented a Tiered Approach to EVM



- Tier 1
  - HHSAR requirement of full EVM requirement ANSI 748 compliant (334.2 and Full EVM-Contracts greater than or equal to \$25M and must be a major systems investment (facility or IT).
- Tier 2
  - Contracts greater than or equal to \$25M and/or TRL less than 6, 7 Principles Tier 2 Implementation
- Tier 3
  - Contracts greater than or equal to \$10M but less than \$25M and/or TRL less than 6, 7 Principles Tier 2 Implementation with reduced requirements.



- Since implementing Earned Value Management at BARDA in 2009 we currently have 26 projects with EVM requirements.
  - Tier 1
    - 3 (Flu Division)
  - Tier 2
    - 16 (16 CBRN, 3 Flu)
  - Tier 3
    - 7 (CBRN Division)



# BARDA's Approach to EVM and Contractors



- We view the relationship as collaborative
- Support is always available
  - Tools support
  - Process support
  - Report templates and examples
- Belief in utilizing “EVM Lean” as an effective program management tool
- EVM should not be cost prohibitive and a “chore”
  - Studies indicate that cost of EVM should be no greater than 1-1.5% of total program cost
  - Misunderstanding of true EVM requirement can lead to unnecessary rigor where the time and cost can outweigh the benefits
- We are here to help!



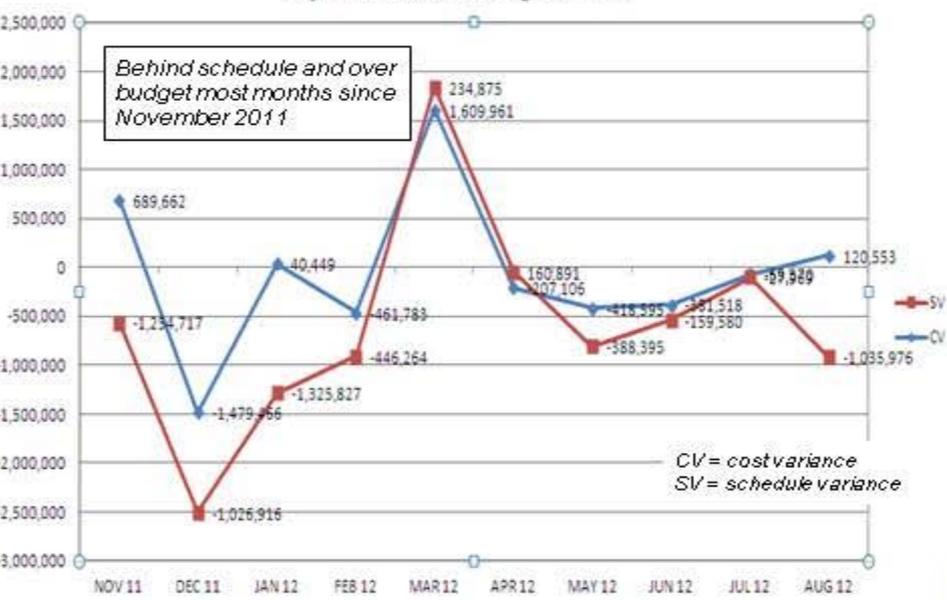
# Why does BARDA use EVM?



- To ensure that contractors use effective, disciplined management control systems and procedures which provides data that:
  - Properly relate cost, schedule and technical performance
  - Are valid, timely and auditable
- Confidence in contractor's internal management system translate to BARDA receiving
  - Objective (rather than subjective) contract performance information
  - Cost and schedule impact of technical problems
  - Capability to trace problems to source (hardware, software, etc.) and responsible organization
  - Narrative analysis of problem identification, impact to the program and corrective action
  - Assist BARDA in identifying and managing risks

# Example of BARDA Internal EVM Data Reporting

CV/SV Chart thru August 2012

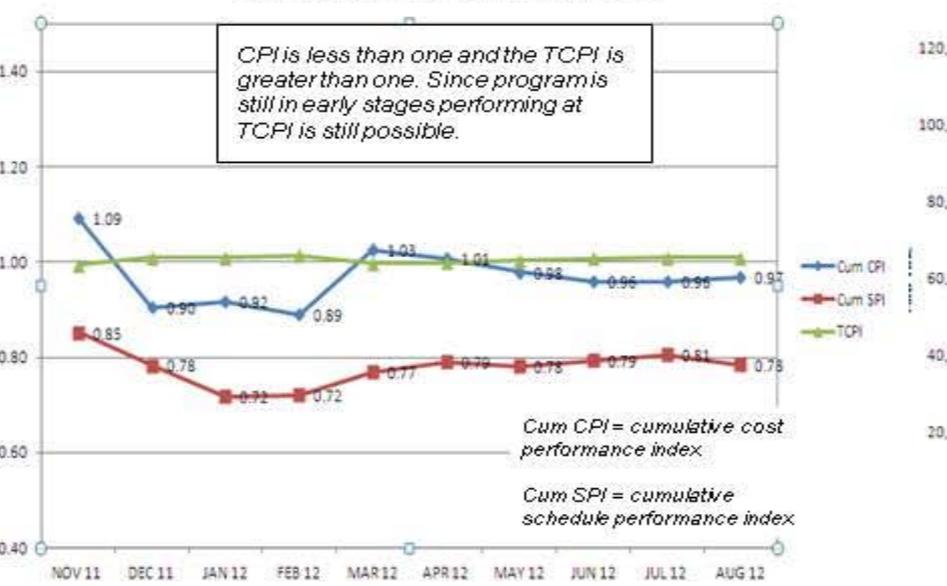


## Contractor Dashboard Earned Value Management Through August 2012

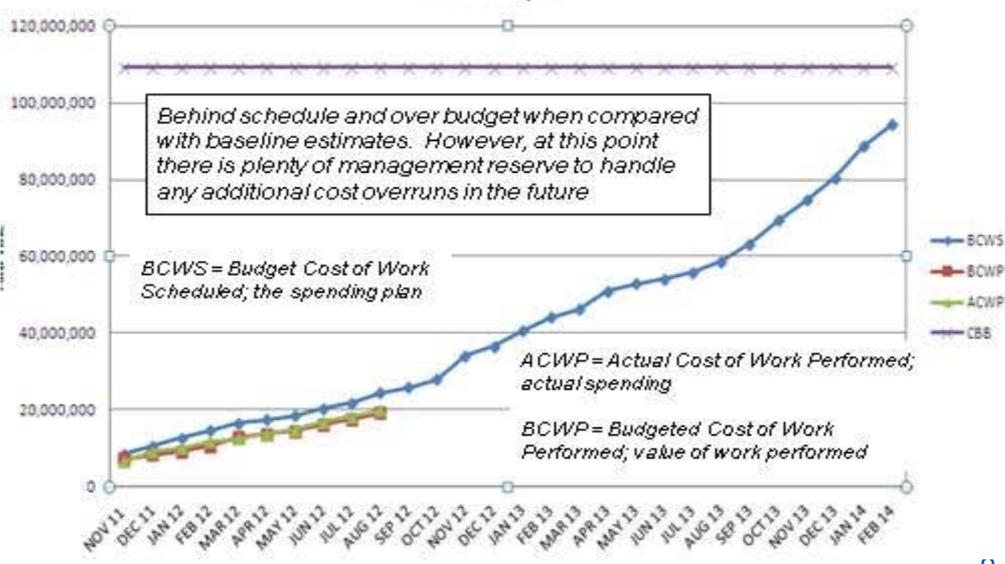
- Through August 2012, Contractor has a negative schedule variance of \$5.65M (negative change of \$1.036M in August) and a \$432K negative cost variance (positive change of \$121K in August).
- 21% (-\$1.016M) of the cumulative negative schedule variance is WBS 1.6.3. The delay in the development impacted the start of the manufacturing campaign by 3-4 months. However, by selecting a single format for the candidates based on previous data, has allowed the Contractor to pull the projected start of the phase 1 clinical study (WBS 1.4.1) forward to offset any delays in the start of manufacturing
- 20% (-\$1M) of the cumulative negative schedule variance is in WBS 1.3.1. Variance is due to delays in the development program and team's decision to advance candidate first for manufacturing.

## Performance Assessment = Yellow

Cum CPI/SPI Chart thru August 2012



SPA Graph





# Questions?