



**A Quality Management Approach  
for your MMIS Project  
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Jarred Clark

Director, Western Region  
jarred.clark@foxsys.com



# I Love Lucy

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**“I think we’re fighting a losing game”**



# Quality Management

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- What is Quality Management?
  - Quality Planning
  - Quality Assurance
  - Quality Control/Independent Verification & Validation
  
- Quality Approaches Used By States
  - A Look At State Approaches: FOX Observations
  
- Considerations & Summary



# What is Quality Management?

- Quality Management processes include all the activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken.

*(PM-BOK Guide) Third Edition*

Quality Management Consist of:

Quality Planning
<b>Inputs</b> <ul style="list-style-type: none"><li>Quality Policy</li><li>Scope Statement</li><li>Product Description</li><li>Standards &amp; Regulations</li></ul>
<b>Tools &amp; Techniques</b> <ul style="list-style-type: none"><li>Cost/Benefit Analysis</li><li>Benchmarking</li><li>Flow-charting</li><li>Cost of Quality</li></ul>
<b>Outputs</b> <ul style="list-style-type: none"><li>Quality Management Plan</li><li>Operational Definitions</li><li>Checklists</li></ul>

Quality Assurance
<b>Inputs</b> <ul style="list-style-type: none"><li>Quality Management Plan</li><li>Results of Quality Control</li><li>Measurements</li><li>Operational Definitions</li></ul>
<b>Tools &amp; Techniques</b> <ul style="list-style-type: none"><li>Quality Assessments</li><li>Quality Audits</li></ul>
<b>Outputs</b> <ul style="list-style-type: none"><li>QA Status Reports</li><li>Quality Improvement</li></ul>

Quality Control
<b>Inputs</b> <ul style="list-style-type: none"><li>Work Results</li><li>Quality Management Plan</li><li>Operational Definitions</li><li>Checklists</li></ul>
<b>Tools &amp; Techniques</b> <ul style="list-style-type: none"><li>Inspection/Reviews</li><li>IV&amp;V</li><li>Trend Analysis</li></ul>
<b>Outputs</b> <ul style="list-style-type: none"><li>Quality Improvement</li><li>Acceptance Decisions</li><li>Rework/Adjustment</li><li>Completed Checklists</li></ul>



# What is Quality Management?

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- An effective Quality Management Approach is one that is compatible with the following methodologies and standards:
  - Project Management Body of Knowledge (PM-BOK)
  - Institute of Electrical and Electronics Engineers (IEEE)
  - International Organization for Standardization (ISO)
  - Six Sigma
  - Total Quality Management (TQM)
  - Continuous Improvement
  - CMM and CMMI



# What is Quality Management?

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- An Effective Quality Management Approach will complement Project Management and both place emphasis on:
  - **Customer Satisfaction:** Understanding, evaluating, defining requirements and managing expectations.
  - **Prevention Over Inspection:** Cost of prevention is generally much less than the cost of correction.
  - **Management Responsibility:** Participation is key and it is the responsibility of management to provide resources needed for success.
  - **Continuous Improvement:** The plan-do-check-act cycle is the basis for quality improvement.

*“Not having a common understanding of quality puts more pain into an organization than anything else I have ever known.”*

Philip Crosby



# Quality Planning

- Quality Planning is the process of identifying which quality standards are relevant to the project and determining how to satisfy them.

*(PM-BOK Guide) Third Edition*

## Quality Planning

### Inputs

Quality Policy  
Scope Statement  
Product Description  
Standards & Regulations

### Tools & Techniques

Cost/Benefit Analysis  
Benchmarking  
Flow-charting  
Cost of Quality

### Outputs

Quality Management Plan  
Operational Definitions  
Checklists

- Quality Management Plan
  - Task and Deliverable Definition
  - Structure, processes, procedures and schedule
  - Resources, Roles & Responsibilities
- Quality Standards
  - IEEE, ISO, NIST, etc.
- Quality Checklists
  - Measurable Quality Specifications and requirements



# Quality Assurance

- Quality Assurance is the application of planned, systematic quality activities to ensure that the project will employ all processes needed to meet requirements.

*(PM-BOK Guide) Third Edition*

## Quality Assurance

### Inputs

- Quality Management Plan
- Results of Quality Control Measurements
- Operational Definitions

### Tools & Techniques

- Quality Assessments
- Quality Audits

### Outputs

- QA Status Reports
- Quality Improvement

- **Quality Assurance Status Reports**
  - Periodic measurement against quality standards
  - Communicated at highest level of project
- **Quality Improvement**
  - Identification of areas of poor quality
  - Recommendations for quality improvement
  - Monitoring of areas needing quality improvement

*“Quality is everyone’s responsibility.”* Edward W. Deming



# Quality Control

- Quality Control involves monitoring specific project results to determine if they comply with relevant quality standards, and identifying ways to eliminate causes of unsatisfactory results.

(PM-BOK Guide) Third Edition

## Quality Control

### Inputs

Work Results  
Quality Management Plan  
Operational Definitions  
Checklists

### Tools & Techniques

Inspection/Reviews  
IV&V  
Trend Analysis

### Outputs

Quality Improvement  
Acceptance Decisions  
Rework/Adjustment  
Completed Checklists

- Quality Prevention
  - Establishing quality processes
  - Utilizing an “Open Book” Philosophy
- Quality Inspection
  - Deliverable reviews – 3 C’s & T  
Correctness, Completeness, Consistency & Testability
  - (IV&V) : Are we building the right system?  
Are we building the system right?
- Quality Improvement
  - Completed checklists
  - Acceptance Decisions



# State Approaches

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- How Are States Approaching Quality Management?
- FOX Observations:
  - States have differing quality management approaches.
  - Quality approach is driven by organizational policies and procedures, executive or external oversight agencies and occasionally legislative requirements.
  - Quality typically focuses on the DDI Phase with an emphasis on IV&V.
  - Quality Control or IV&V vendors are contracted in the DDI phase.
  - Levels of State, DDI vendor and Quality Management vendor collaboration varies.
  - Quality vendor role varies in terms of leading Quality Control reviews or supporting state team quality control reviews.



# Quality Management Trends

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- FOX Observations:
  - Beginning to see more comprehensive Quality Management Approach in RFP's.
  - Quality methodologies are more integrated with Project Management.
  - Alignment with accepted industry standards such as ISO – 9000, IEEE and Six Sigma.
  - Greater reliance on quality management tools such as quality checklists, scorecards and dashboards.
  - Incorporation of MITA self-assessment and planning products as inputs into the quality process.



# Considerations

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- Talk with other states who are currently implementing or have recently implemented MMIS projects within the last three years.
- Implement Quality Management Approach as part of your planning phase. Communicate and obtain buy-in.
- Develop your project's MMIS Quality Management Plan to maximize state staff participation and achieve alignment with internal quality policies and procedures.
- Utilize industry accepted quality standards and methodologies to help guide your quality management approach.
- Seek external independent vendor with MMIS implementation project experience to support your Quality Management approach.



# Summary

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- What is Quality Management?:
  - An essential component of effective Project Management
  - Compatible with Industry quality methodologies (PM-BOK, ISO-9000, IEEE and Six Sigma)
  - Consists of Quality Planning, Quality Assurance and Quality Control
  - Is focused on customer satisfaction, prevention over inspection, management responsibility, quality improvement
  
- Considerations:
  - Talk with other states about their Quality Management approach
  - Look to use standards based quality control and IV&V tools
  - Use external Vendors to provide MMIS and Quality expertise



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*“Quality is never an accident;  
it is always the result of high intention,  
sincere effort, intelligent direction and skillful execution;  
it represents the wise choice of many alternatives.”*

William A. Foster