

Effective Project Management for Public Health IT Initiatives

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Effective Project Management



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Agenda

➔ Challenges of Public Health IT Projects

- Project Management Tips
- Recommendations
- Q&A
- Reference Material



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Public Health IT Challenges

- Sense of **urgency**
- High **visibility**
- Federal regulations
- Limited budgets & resources
- Risks include:
 - Limited architectural standards
 - Cross agency communications
 - Use of IT in new areas of technology
 - Loosely defined requirements

(PHIN Conf. helps address these)



Agenda

- Unique Characteristics of Public Health IT Projects
- ➔ **Project Management Tips**
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Tip 1: Understand Business Vision

- IT PM must be more than a technologist
- Understand stakeholder's **business**
 - **Formal stakeholder interviews**
 - Goals, challenges, future direction
 - Fundamental to earning trust
 - How project will impact other organizations
- Articulate technology solution in business terms
- Assist stakeholders **prioritize** scope
- Communicate business impacts to developers
- If project doesn't meet strategic goals, **it is at risk**



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Tip 2: Manage by Influence

- **Proactive** leadership
 - See a need
 - Take initiative to meet that need (stick your neck out)
 - Confidence to be the 1st to meet the need
- Adapt to rapidly changing situations
 - ➔ Ability to **persuade** others to join you
 - ➔ Not dependant on **authority** given
 - ➔ This ability is **fundamental** to all PM success



Tip 3: Manage the Triple Constraints

- *Constraint*: “**External** factor required for project success”
- Educate customers **early**
- *Process*:
 - Customer fixes any **two**
 - PM controls third
- *Quality*: “Meeting agreed to, **documented** requirements for scope, time, cost”



Tip 4: Plan for the Unknowns

- Risk Mgmt Goal: to “**limit**” the impact of surprises
 - Decrease probability and/or impact of uncertainties
- “**Armageddon**” approach: solve problems while **small**
- Risk Mgmt Process
 1. Identify potential risks (to schedule, scope, costs, etc.)
 2. Qualify / analyze / prioritize risks
 3. Plan risk response (avoid, **mitigate**, accept, transfer)
 4. Monitor risks during project
- Maintain Risk Log
- Biggest problem: **failing to plan** for risks



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Tip 5: Manage Changes to Scope & Requirements

- Customer requirements *will change*, so plan for it
- Have a **formal** process for managing scope
- **Change Management Plan**
 - Who can submit Change Requests (CRs)
 - How CRs are processed
 - How the Change Control Board (CCB) operates
 - Change Control Escalations
- PM must “**sell**” this process to the stakeholders



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Tip 6: Plan the Work, Work the Plan

- Plan the work
 - “Without a plan, any path will do”
 - Fundamental to project success
 - Project plan **not** = project schedule
 - Team **collaborates** on **WBS** + task estimates
 - Provides focus and accountability
- Work the plan
 - Capture **actuals** (work progress data)
 - Respond quickly to reality to not miss milestones
 - (Rarely done)



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Project Plan (or RUP Iteration Plan)

- Documents *what's* to be done, by *whom*, by *when*
- **Contents:**
 - Scope
 - » Purpose, deliverables, **risks**, assumptions, constraints, relationships to other systems / projects
 - Time Table
 - » SDLC approach, milestones, major external dependencies, **1st cut project schedule**
 - Resources
 - » Staffing, team organization, equipment & facilities
 - Evaluation / **acceptance** criteria



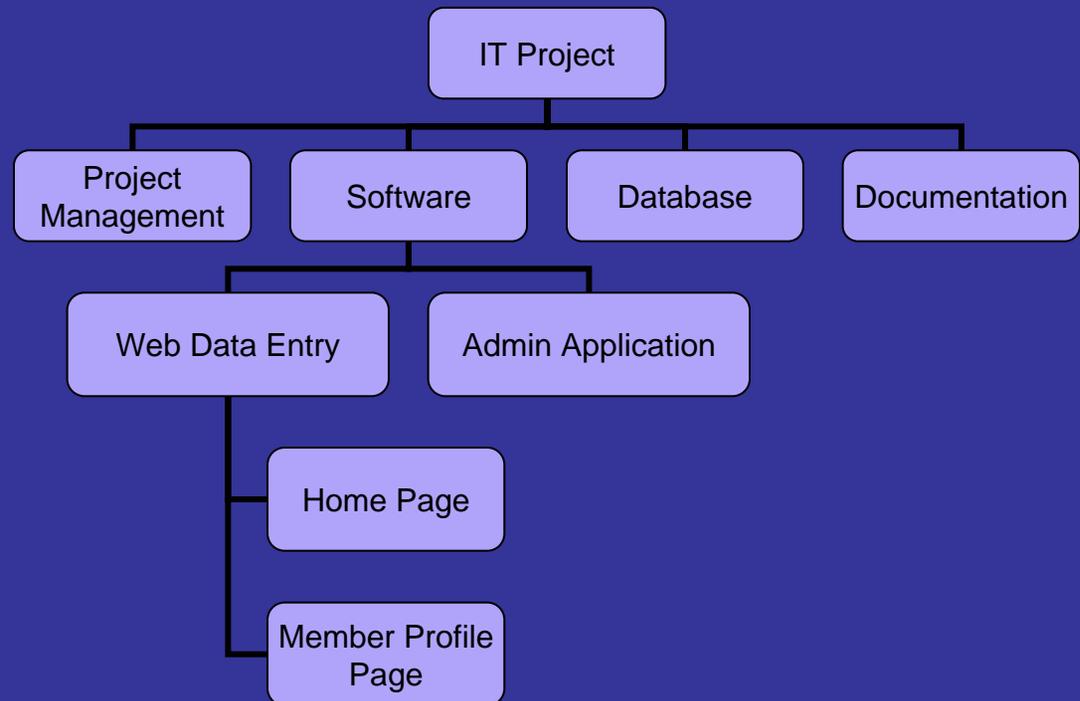
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Work Breakdown Structure

- Hierarchical ordering of project **deliverables** into “work packages”
- Entire **scope** is represented in WBS
- **Value**: provides **basis** for scheduling, costing, risk planning, scope mgmt, resource planning



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Tip 7: Iterate Product Releases

- What
 - Deliver a product in several 2-3 month releases
 - Vs. one long-term “elephant” (big bang) release
- Benefits
 - More **responsive** to rapidly changing business needs
 - Provides some functionality **sooner** to stakeholders
 - Helps shape future requirements
 - Reduces technology risks
- How
 - Help stakeholders **prioritize** new functionality
 - Use an **iterative** SDLC (like RUP)

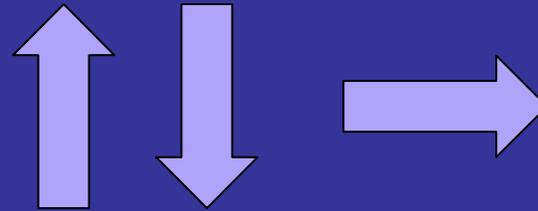


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Tip 8: Communication



- Up, down, sideways
- Manage customer expectations
 - Communicate early, often, **focus on end product**
 - Yes, status reports can be effective!
 - Value: helps assure customer **accepts** solution
- Documentation goals
 - “**Nothing** is decided until it is written down”
 - Focus on documents that **save** development time
 - » Errors found earlier **cost less** to fix



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Tip 9: Teamwork

- A group is **not** = team
- Team “**ownership**” of deliverables (**collaboration**)
- Critical: **dedicated** vs. part-time resources
- **Human** factors
 - Recognize individual accomplishments
 - Be aware of & utilize strengths
 - Be aware of weaknesses, add members to compliment
 - Understand members’ personal **goals**
 - Fit “stretch” assignments to goals
 - Deal with **conflicts**
 - Humor & celebration



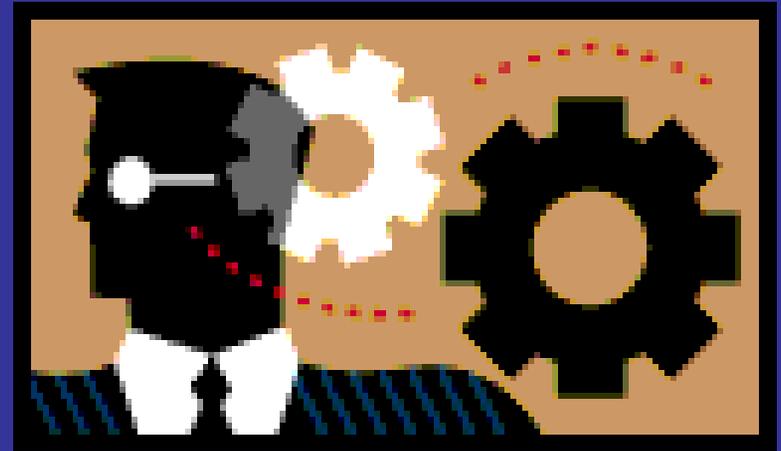
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Tip 10: Good PM Tools

- WBS
- Risk Log, Issues Log
- The “One Page” status report
- **Microsoft Project Server 2002+**
 - Easy **team entry** of actuals
 - Status reporting
 - Emails reminders to team members
- **Non-Status** Team meetings
- 7x24 Product Support Plan



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Use Experienced PMs

The Standish Group 2003 Chaos Report

34% of projects succeed (100% improvement over 1994)

15% of projects fail (down from 31% in 1994)

Why the improvement?

“People have gotten a lot more savvy in project management”

- Jim Johnson, Standish Chair



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Invest in PM Training

- Mistake: “promoting” technical persons to PMs
- Quality skills require **investment** + time to develop
- Suggested “Required” Training
 - **Apprenticing** around good role models
(example: PMI mentoring)
 - Classes
 1. Project Management Workshop (the basics)
 2. Building quality into software development
 3. Managing projects using scheduling tool (M/S Project)
 4. Team Building (leadership, mgmt & communication)



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Use A “Lean” Approach to PM

- Each PM Tip is one arrow
- Kill the **biggest** dragon first
- PM Principles are the **same**
- How and order of use varies depending on challenges
- This is KEY to effective PM



Summary

- Form work into projects
- Understand the business
- Manage by influence
- Use “Armageddon” risk management
- Collaborate
- Kill the biggest dragon - one arrow at a time



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Questions & Answers

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Reference Material



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Good Books for Project Managers

<i>Dynamic Scheduling with M/S Project 2002</i>	Eric Uyttewall, PMP
<i>The Rational Unified Process, an Intro</i>	Philippe Kruchten
<i>The Complete Idiot's Guide to Project Management</i>	Sunny and Kim Baker
<i>Software Project Survival Guide</i>	Steve McConnell
<i>Rapid Development</i>	Steve McConnell
<i>Project Management Body of Knowledge</i>	Project Mgmt. Institute
<i>Project & Program Risk Management</i>	Project Mgmt. Institute
<i>The Heart of Change</i>	John Cotter
<i>Dealing with Conflict Instrument</i>	Alexander Hiam



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PM Web Sites

- www.pmi.org
- www.construx.com/survivalguide
- www.method123.com
- www.spottydog.u-net.com/PM_Q&A.html



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Manage Customer Expectations

1. Set initially in documented “proposal”
2. Reinforce in project plan at “start of project”
3. Remind/correct in status reports and meetings
4. Prepare customer for “bad news” carefully and early
5. Modify through agreed upon, documented Change Requests
6. Evaluate achievement in post-project debriefing



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Dealing with Conflict

by Alexander Hiam

- Conflict-handling **styles**

Avoid	I Lose, You Lose
Accommodate	I Lose, You Win
Compete	I Win, You Lose
Compromise	We Both Win, We Both Lose
Collaborate	I Win, You Win

- Each is appropriate at some time depending on:
 - Importance of **relationship**
 - Importance of **outcome**
- Obtain from www.hrdpress.com



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IT Related Federal Regulations

- **Security**
 - FIPS PUB 199
 - NIST SP 800-60, Vol. I and II
 - NIST SP 800-53
- **Privacy Rules**
 - E-Government Act of 2002
 - » Sept. 29, 2003 OMB Memorandum
 - Personally Identifiable Information
 - Protected Health Information
- PMs need to consider these in their projects



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Use Iterative SDLC

- Establish, tailor, maintain the “road map” - SDLC
- “Iterative” Software Development Life Cycle:
 1. Determine objectives
 2. Identify and resolve risks
 3. Evaluate alternatives
 4. Develop & verify iteration deliverables
 5. Plan next iteration
- **No one “perfect” SDLC**
 - Have one, use it consistently -- **not rigidly**
 - **Critical** success factors: change control, quality



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Use Iterative SDLC

- Key benefits of iterative approach (vs. waterfall):
 - Provides some functionality sooner to stakeholders
 - **As costs increase, risks decrease**
 - Handles “emerging” technologies better
 - Better management of changing requirements
 - Better management of software quality
- CDC/IRMO using Rational Unified Process (RUP)
 - **Customize** to needs of an organization
 - Good tools support (Requisite Pro, Rose, CQ, CC)
 - RUP Training available



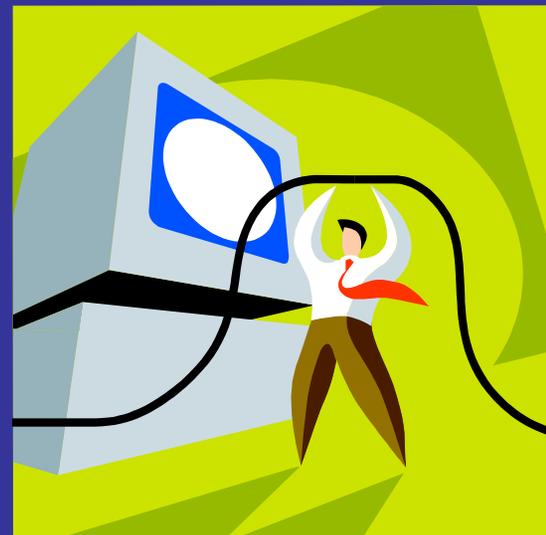
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“Team” Problem Solving

- Technical problems are complex
 - **Cross-disciplinary** boundaries
 - Security, permissions, network infrastructure
 - Long time to troubleshoot / resolve
 - Technology “nightmares”
- Joint **real-time** troubleshooting
 - Get everyone in same room (& **cubicle**)
 - Identify causes
 - Identify quick-fix & long-term solution



Product Support Plan

- Reduces down time in 7x24 HA environments
- Data center staff can make more decisions
- Suggested contents
 - Functional overview
 - System architecture
 - Platform environment
 - Restoration suggestions
 - Troubleshooting matrix
 - Support contacts
 - Emergency change guidelines



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