



Communities of Practice

Teaching Project Management to Healthcare Professionals: A Much Needed Skill!



**Healthcare Project
Management**

Kathy Schwalbe
and Dan Furlong

Kathy Schwalbe
September 18, 2013

About the Presenter

- Ph.D., PMP, and mother of 3!
- Professor, author, and publisher
- Beyonce copied my new do?!



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Questions About You

1. Do you currently teach project management?
2. Do you currently work on projects related to healthcare?
3. Do you plan to work on or teach about healthcare projects?
4. Do you want good resources to help you teach or apply good project management in a healthcare environment?

Webinar Objectives

- Describe the growing need for improving healthcare project management (PM)
- Discuss similarities and differences in managing projects in healthcare
- Explain sample outputs applied to a healthcare project
- Review teaching approaches and available resources

The Need*

- Healthcare spending was 17.9% of U.S. GDP in 2010, an average of \$8,402 per person
- The Centers for Medicare and Medicaid Services (CMS) estimates that healthcare spending will grow to about 19.8% of GDP by 2020
- Compared to other Organisation for Economic Co-operation and Development countries, the U.S. spends 48% more on healthcare compared to the next highest country, Switzerland

*The Henry J. Kaiser Family Foundation. Healthcare Costs: A Primer, Key Information on Healthcare Costs and Their Impact. 2012.

The Triple Aim*

Improving the U.S. healthcare system requires simultaneous pursuit of three aims:

1. Improving the experience of care
2. Improving the health of populations
3. Reducing per capita costs of health care

*Donald M. Berwick, Thomas W. Nolan, Whittington J. The Triple Aim: Care, Health, And Cost. HealthAffairs. 2008;27(3):759-69.

Patient Protection and Affordable Care Act (PPACA or ACA)

- This March 2010 Act resulted in incentives and enablers for the implementation of Electronic Medical Records (EMR), associated meaningful use, resultant procedural changes, and health information exchanges
- All of these initiatives coupled with movements to patient-centered care, evidence-based medicine, centers of excellence, and other forces have spawned a current climate of what may be an ***unsurpassed number of healthcare projects***

Education Can Help

Public health and healthcare leaders need to:

- Work on the right projects
- Get the most bang from every buck
- Make investments in IT, infrastructure, and quality improvements that will allow them to reduce costs

Good project management and educating PMs can definitely help!

Project Management Framework- Same for All Projects*

**Stakeholder
needs and
expectations**



Process groups

1. Initiating
2. Planning
3. Executing
4. Monitoring/
controlling
5. Closing

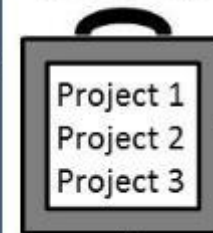
Knowledge areas

1. Integration
2. Scope
3. Time
4. Cost
5. Quality
6. Human resource
7. Communications
8. Risk
9. Procurement
10. Stakeholder
management

Tools and techniques



Project portfolio



*Kathy Schwalbe, *An Introduction to Project Management*, 2012 and *Healthcare Project Management*, 2013 (co-authored with Dan Furlong).

Process Groups Matching Game

Key Term	Definition or Characteristic
1. Initiating	A. Purpose is to guide execution
2. Planning	B. A project charter is created
3. Executing	C. Usually takes the most time and money
4. Monitoring and Controlling	D. Lessons learned and transition plans are created
5. Closing	E. Measure progress toward achieving project goals

Hint: The order of the correct answers spells a word, but incorrectly!

Similarities in Healthcare Projects

- Projects still include all 10 knowledge areas and 5 process groups
- Projects have the same attributes and constraints
- The same tools and techniques apply
- Consumers keep expecting more for less

SCARY THOUGHT #137:

THE NES CAME OUT OVER TWO DECADES AGO.
THOSE KIDS ARE ALL GROWN-UPS NOW.

HE'S GOING INTO
CARDIAC ARREST.
STAND BY FOR
DEFIBRILLATION.

WAIT. FIRST LET'S TRY
TAKING OUT THE HEART,
BLOWING INTO THE VENTRICLES,
AND PUTTING IT BACK IN.



Source: xkcd.com

What's Different About Healthcare Project Management?

- There are two “camps” of people: clinical/philanthropic vs. enterprise marketplace viability and sustainability folks
- Healthcare has a lot of unique terms/processes
- Projects often have separate phases – technical and clinical
- Project management is not as mature/practiced in healthcare
- Many projects affect workflow, and patient care must take priority

Findings from Recent Study*

- Healthcare workers **do not understand the differences between service work and project work**. They understand activities to provide better service to patients, but they have not been trained to make more radical, disruptive changes that challenge the status quo.
- Healthcare projects are done to create something that is delivered to the organization, unlike operational work which produces outcomes aimed at patients. **“In other words, it is only once the project’s outcome is implemented and becomes ‘the new way we work now’ that it starts exerting its impact on patients.”**

*Francois Chiocchio et al, “Stress and Performance in Health Care Project Teams,” Project Management Institute (2012).

Suggestions from Recent Study

- Train healthcare workers on PM, emphasizing collaborating on achieving project goals and understanding their roles on project teams, which may differ from their roles in their day-to-day work.
- Management needs to structure project teams by properly planning workers' time and payment to allow them to successfully engage in project work.

Healthcare PM Table of Contents

Chapter 1	An Introduction to Project, Program, and Portfolio Management in Healthcare
Chapter 2	Project, Program, and Portfolio Selection
Chapter 3	Initiating Projects
Chapter 4	Planning Projects, Part 1 (Project Integration and Scope Management)
Chapter 5	Planning Projects, Part 2 (Project Time and Cost Management)
Chapter 6	Planning Projects, Part 3 (Project Quality, Human Resource, Communications, Stakeholder, Risk, and Procurement Management)
Chapter 7	Executing Projects
Chapter 8	Monitoring and Controlling Projects
Chapter 9	Closing Projects
Chapter 10	Best Practices in Project Management
Appendix A	Brief Guide to Microsoft Project 2013
Appendix B	Resources

Approach

- Opening case
- Explain key concepts
- Provide real-world examples with references of what went right, what went wrong, best practices, media snapshots, healthcare perspectives, and video highlights
- Apply concepts with samples from running case on **Ventilator Associated Pneumonia Reduction (VAPR)**
- Closing case



Sample Outputs in New Book

- **Initiating:** business case, stakeholder analysis, charter
- **Planning:** project management plan, scope statement, requirements traceability matrix, WBS, project schedule, cost baseline, quality metrics, human resource plan, project dashboard, probability/impact matrix, risk register, supplier evaluation matrix, stakeholder management plan
- **Executing:** deliverables, milestone report, change requests, project communications, issue logs
- **Monitoring and controlling:** earned value chart, accepted deliverables, quality control charts, performance reports
- **Closing:** project completion form, final report, transition plan, lessons-learned report, contract closure notice

Business Case

- **Background**

- Ventilator Associated Pneumonia (VAP) has been identified by the IHI as a preventable condition
 - The IHI has developed a bundle of five care elements, that when followed in their entirety, has been proven in independent studies to reduce the incidence of VAP by at least 50%
- CMS has adopted the CDC's method for identifying patients with VAP and will no longer pay for the treatment of VAP, considering it a Hospital Acquired Condition (HAC)
 - Takes effect in 19 months
 - All major third party payers are expected to follow suite immediately thereafter
- AHS identified 212 cases of VAP last calendar year
- VAP rates have increased 8% over the past 5 years at AHS
- VAP, or complications as a result of VAP, can result in death
 - for 17% of VAP patients over 65
 - for 8% of VAP patients under the age of 2
- VAP is expensive to treat
 - The cost to treat VAP averages \$17,000 per patient
 - The reimbursed charges to treat VAP averages \$23,000 per patient
 - At 212 cases last year, we were paid \$4.9M by payers, incurred \$3.6M in costs, resulting in \$1.3M in profit
- If AHS has 212 cases again next year
 - 11 patients may die under our care (based on our patient demographic and the stated averages)
 - we will not receive \$4.9M in revenue
 - it will cost us \$3.6M in costs
 - it will result in AHS losing a total of \$8.5M (cost to treat plus lost reimbursement)
 - we may be exposed to litigation if we can't prove we are following the IHI ventilator best practices bundle

- **Solution**

- Implement a reporting system that will alert caregivers on the floor when the IHI best practices are not being followed
- Institute work flow changes that will hardwire the best practices into clinical care
- Hold clinicians accountable for adhering to the best practices
- Hold clinicians accountable for documenting adherence to the best practices

- **Cost**

- \$875,000 to \$980,000 year 1
- \$0 subsequent years (support absorbed by current labor)

- **Payback**

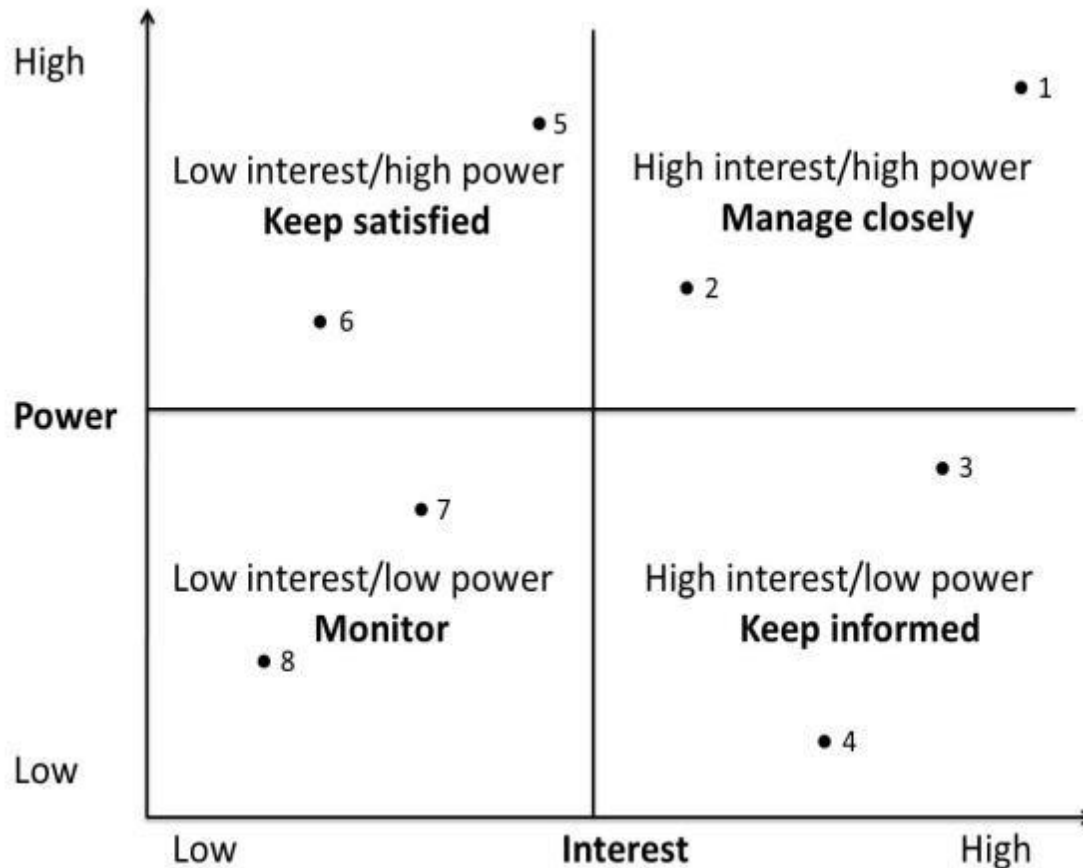
- Seven month payback period

- **Schedule**

- Implemented in all units in one year

Stakeholder Analysis

Power/Interest Grid



Project Charter

May 21

Project Charter

PROJECT TITLE

Ventilator Associated Pneumonia (VAP) Reduction – “VAPR”

PROJECT TIMELINE

Start: July 1 **Projected Finish Date:** June 30

PURPOSE

VAP costs AHS over \$3.6M per year in costs, and puts our patients at risk for severe and sometimes fatal consequences. VAP is considered preventable by CMS, having worked with the Institute for Healthcare Improvement to develop a set of best practices that, if followed, has been proven to reduce VAP by 50% in other healthcare facilities. AHS will implement a system to collect and report compliance with the best practices in order to better manage VAP in order to better serve our patients healthcare needs. Since VAP is considered preventable, it is no longer reimbursable by CMS or major payers as of July 1, which will also put a financial burden on our organizations.

BUDGET

The VAPR project is expected to cost \$980,000 over one year, with a total TCO of \$980,000 over three years.

PROJECT MANAGER

VAPR has been broken down into two phases. The first phase is a proof of concept and the data collection/reporting system and will be managed by Jeff Birdwell, PMP from the PMO's office. The second phase includes clinical process reengineering, training, and monitoring and will be managed by Pat Wager, RN, from the analytics department.

Project Charter

SUCCESS CRITERIA

This project will be considered successful if the sponsor rating is at least 8/10 upon project completion and VAP incidence rate drops by at least 50% within six months of implementation. Incidence rates will be determined based on the number of VAP events per 1000 ventilator days.

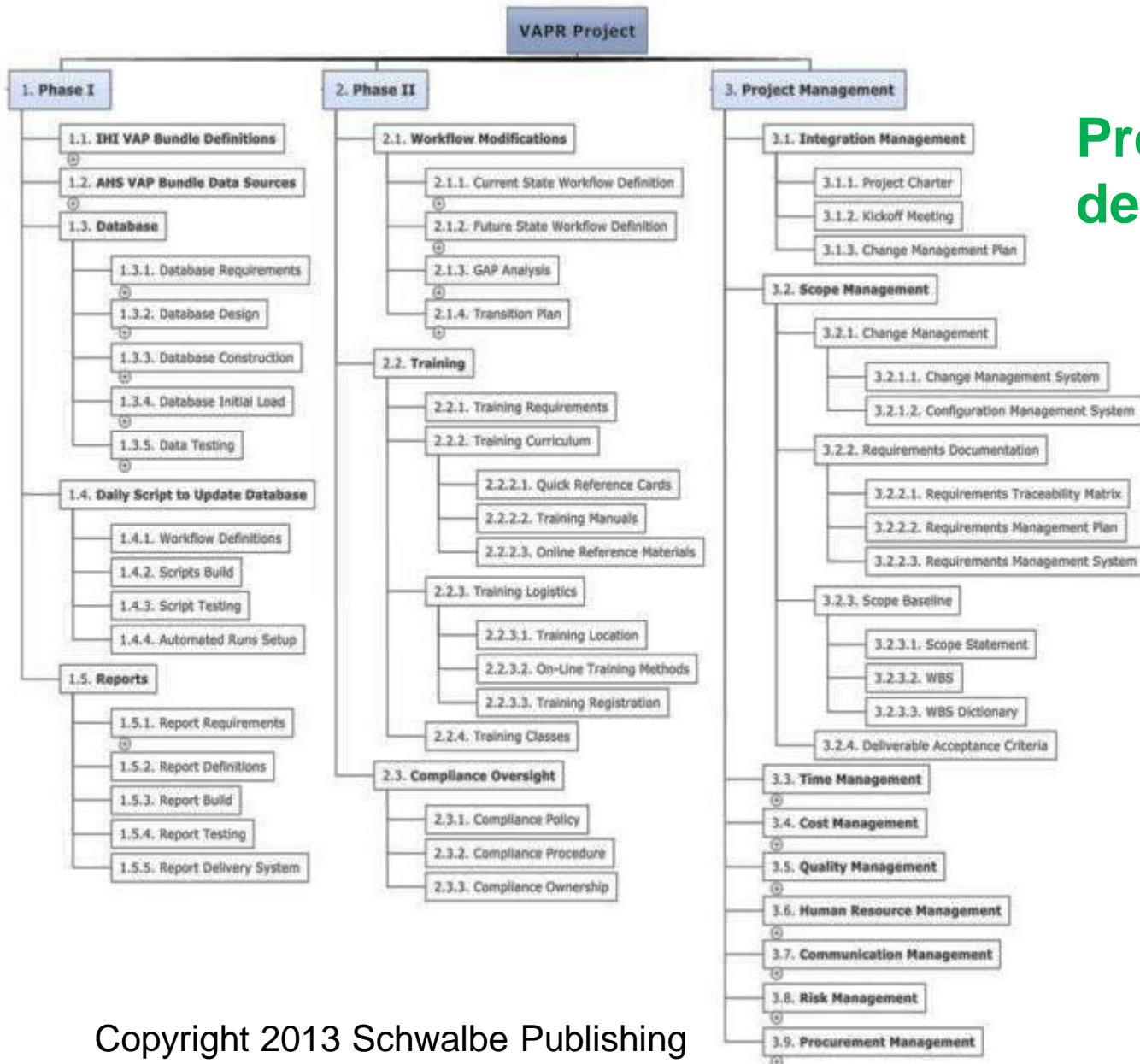
APPROACH

- All work to be completed by internal staffing, where possible.
- Project to be broken up into two major phases that will overlap their work, requiring the two project managers to work closely together throughout the project.
- Phase I, VAPRware, is concerned with the proof of concept, data collection and data reporting. It is primarily a technology project but will require the cooperation of and collaboration with analytics and nursing in order to identify the required data elements and their source systems.
- Phase II, VAPRflow, is concerned with clinical workflow reengineering, and is primarily a clinical project that will require working with the Nursing Documentation Committee and Medical Executive Committee in order to gain their input and support.
- Training to be developed and delivered by the Nurse Educator Team under the direction of the Phase II project manager. All training will be computer-based training (CBT) and will be included in annual training requirements for all clinicians.
- The cost of any work conducted on behalf of the project will be paid by the project budget, with the exception of the time nurses spend in training.

PROJECT LEADERSHIP (NAMES, ROLES, AND SIGN-OFF)

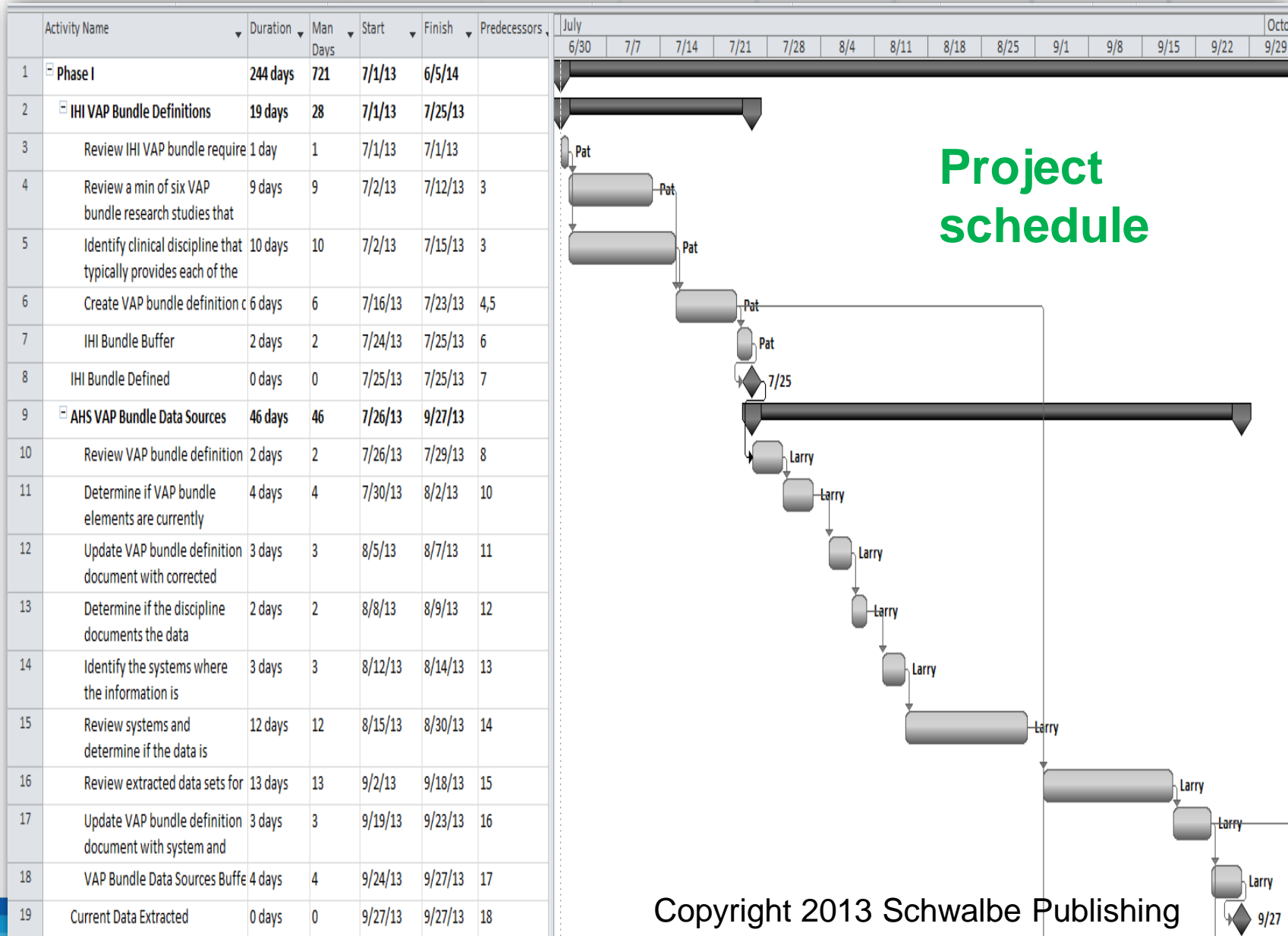


Work Breakdown Structure



Project scope/
deliverables

Gantt Chart



Probability Impact Matrix

	0-20%	21-40%	41-60%	61-80%	<80%
Failure	5	10	15	Risk 3 20	Risk 1 Risk 2 25
Severe	4	8	Risk 5 12	Risk 4 16	20
Moderate	Risk 7 3	6	Risk 6 9	12	15
Minimal	Risk 8 2	4	6	8	10
None	Risk 9 1	2	3	4	5
	Probability				

Impact

**Must identify
risks to
manage them**

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Project Dashboard

Metric	Description	Status	How Measured	Explanation
Scope	Meeting project goals	●	Earned value chart	On target
Time	Staying on schedule	●	Earned value chart	Slightly behind schedule
Cost	Staying on budget	●	Earned value chart	Under budget
VAP Bundle	Identify AHS systems with required elements	●	Percent of elements identified in AHS systems	All elements identified and available
VAP reduction	Reduce by 50% within six months	↔	Infection Control data	Cannot collect until after implementation
Percent of ICU staff trained	Train all ICU staff prior to go live	○	Training Management System test results	Learning management system down for four days causing a delay in training. We expect to catch up quickly.

Track metrics

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On Target



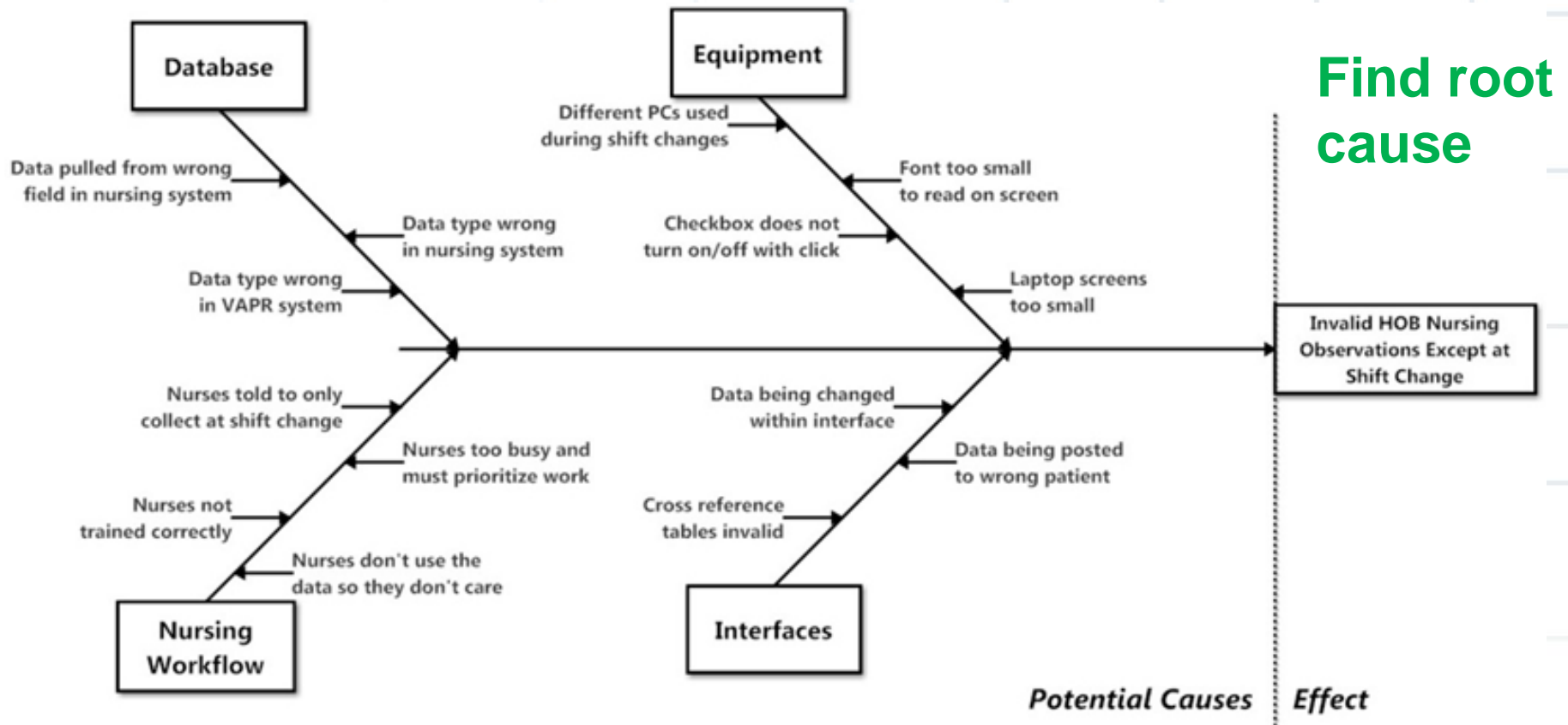
Slightly off target / caution area



Off Target / problem area

↔ Not able to collect data yet

Cause and Effect Diagram



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Progress Report

Progress Report

Project Name: Ventilator Associated Pneumonia Reduction (VAPR) Project

Project Manager Name: Pat Wager

Date: March 3

Reporting Period: February 1 – February 28

Work completed this reporting period:

- Identified and gained approval from a high VAP-incidence critical care unit to participate in the VAPR pilot program.
- Recommended and gained approval for the rollout order for remaining ICUs.
- Developed a formal workflow transition plan.
- Transition plan approved by Med Exec Committee and Quality Council.
- Awaiting transition plan approval by Clinical Workflow Council. Expected March 5.

Work to complete next reporting period:

- Review transition plan with each discipline.
- Determine training requirements for clinicians.

What's going well and why:

- Nurses and physical therapists have been engaged from the start due to the ongoing support by the CNO and CNIO.
- ICUs have been very cooperative regarding the pilot program.

Suggestions/Issues:

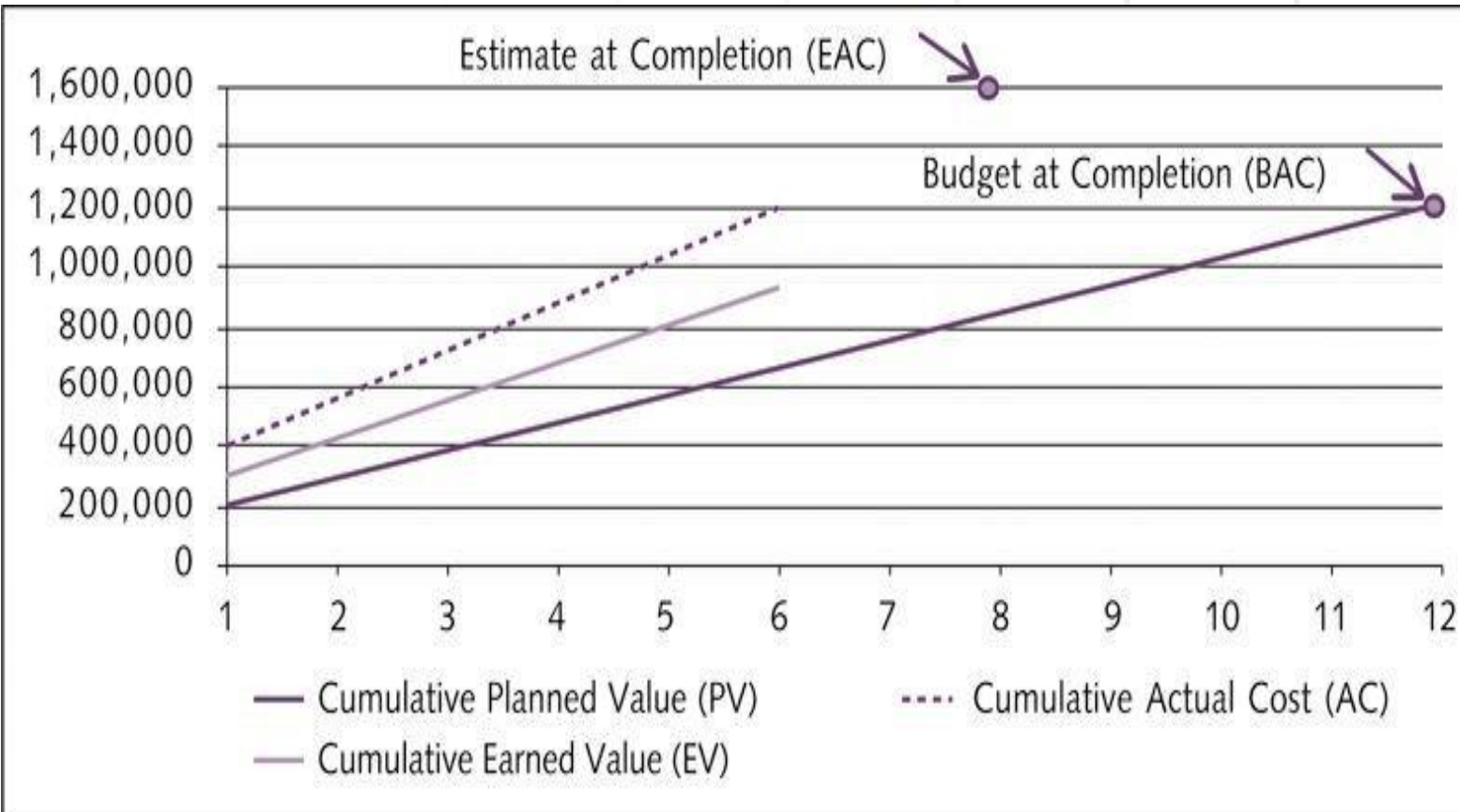
Engage the Executive Medical Director and Chief Medical Information Officer in order to help get the appropriate message to physicians about the benefits of VAPR. Our Phase II sponsor, Dr. Scheerer, is in the ideal position to work with these two physician leaders.

Project changes:

No major changes to report. The earned value chart in Attachment 1 shows planned value, actual cost, and earned value information to date. We are very close to our plans, running slightly ahead of schedule and a bit over budget. We expect to complete the project on budget and on time.

**Super tool
everyone
should use!**

Earned Value Chart



Assess progress in meeting scope, time, and cost goals

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Best Practice- Earned Value Management

- The Centers for Medicare & Medicaid Services (CMS) manages approximately twenty percent of the entire Federal budget, so it is important that they use the taxpayers' dollars as efficiently and effectively as possible.
- “Once an investment—with its individual projects—is approved for funding, it falls to the investment manager and the **project managers** to insure that the projects are implemented successfully. Earned value monitoring and management provides early warning when a project is straying from its baseline plan, and shows whether actions taken to correct the situation are effective. Health and Human Services (HHS) requires that certain investments track and report on cost and schedule status monthly.”*

*CMS Centers for Medicare & Medicaid Services, Division of Information Technology Investment Management Enterprise Architecture & Strategy Group Office of Information Services, “Earned Value Management Best Practices” (Nov 19, 2009).

Team Project Web Sites

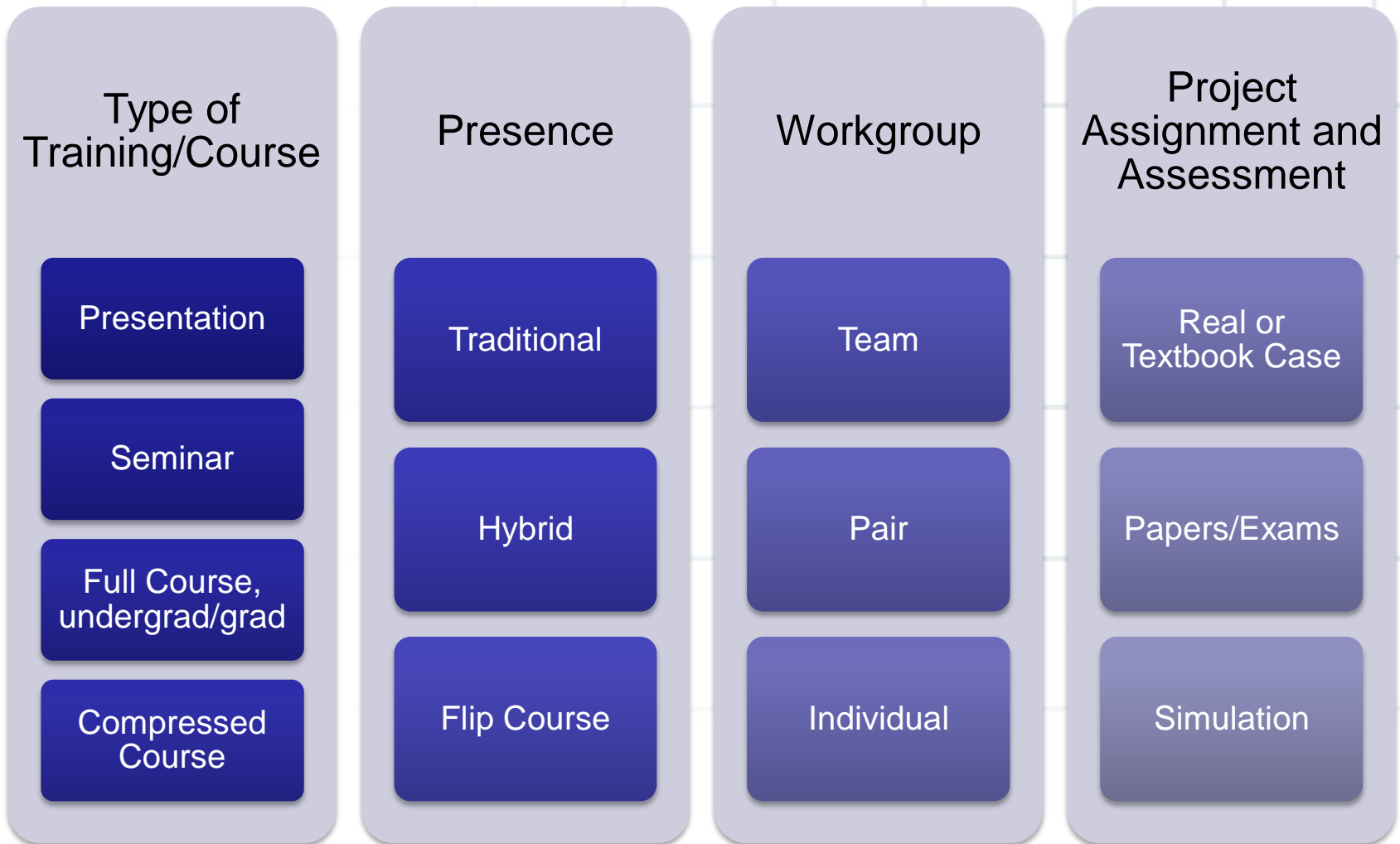
The screenshot shows a web browser displaying a team project website. The header features the title "Keeping Clean 2013" in a red, cursive font. Below the title is a search bar with the placeholder text "Search this site". A horizontal navigation menu contains links: Home, Scope Statement, Team Charter & Contract, Progress Report 1, Progress Report 2, Communications, Deliverables (highlighted), Sponsor Evaluation, Time Log, Final Project Report, and Sitemap. On the left side, a vertical sidebar lists the same navigation items. The main content area is titled "Deliverables" and contains a section for "Poster/Flyer:". The flyer has a red and blue design with the text "HAVE YOU CLEANED LATELY? SPRING CLEAN FOR KEEPING CLEAN!". It includes information about a donation drive at Augsburg College, listing dates and times for tabling (March 5th, 13th, 26th, and 27th, all from 11:20-3:30). It also provides a contact email: keepingcleanyardsale@gmail.com. A paragraph states that all donations will go to a yard sale on April 5th at Oren Gateway from 11am-8pm, with proceeds going toward scholarships for StepUP students. At the bottom of the flyer is a cartoon illustration of a yard sale setup with a sign that says "YARD SALE".

Great
communications
tool

Google site from a class project. Team used Google docs to estimate and track hours, prepare charter, progress reports, etc.

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Teaching Approaches



Challenges and Nuances



Resources

- **FREE** companion Web site for Healthcare Project Management includes
 - Over 60 template files
 - Links to great videos
 - Interactive quizzes, cases, PMP info, etc.
- Secure instructor site also available. Instructors should email me for access (and review/desk copies)

www.healthcarepm.com

Screen Shot of Resources

Healthcare Project Management

Improving healthcare one project at time.

[Home](#) [About the Authors](#) [Book Information](#) [FAQs](#) [Quizzes](#) [Resources](#) [Video Highlights](#)

Resources

Below are links to several resources and links to other sites.

- [Appendix B Resources](#) (Word file with cases and other info)
- [Sample syllabus](#) (more on the secure instructor site)
- [Instructions for creating your own Google site for a class project](#) and samples of past student projects
- [Templates](#) (zip file with over 60 template files)
- [Project-2013-files](#) (zip file for Appendix A)
- [Advice for the PMP exam and related certifications](#)
- [Managing a Project Using an Agile Approach and the PMBOK® Guide](#)
- [ResNetCaseStudy](#) mentioned in chapter 3

Screen Shot of Video Highlights

Video Highlights

Below are links to videos mentioned in the text, Healthcare Project Management, and here's my [YouTube Playlist](#) to quickly access them all, plus more.

Chapter 1 – Introduction to Project, Program, and Portfolio Management

[Mayo Clinic – Project Management](#) (4 minutes 59 seconds)

[History of Project Management](#) (music only) (5 minutes 26 seconds)

[The Future of US Healthcare by Barry Bittman, MD](#) (6 minutes 46 seconds)

Chapter 2 – Selecting Projects, Programs, and Portfolios

[Maximise the Power of Your Brain - Tony Buzan on mind mapping](#) (5 minutes 39 seconds)

Rooting Out Waste in Health Care by Taking Cue From Toyota (Video)

- When the Virginia Mason Medical Center in Seattle was losing money for the first time in its history, CEO Dr. Gary Kaplan, MD, turned to Toyota to learn how to root out waste.
- For example, they are trying to totally eliminate waiting rooms. If there are a lot of people in a waiting room, you know that the workflow is inefficient. They now has workflow managers who help minimize waste, including the waste of patients' time.
- Some of the tangible benefits of reducing waste include a reduction in liability costs by 60% since 2004 and improved patient care. Also, the amount of time nurses spend in direct contact with patients has increased from only 35% to 90%.

Sample Quiz

Healthcare PM Chapter 10 T/F

Total Questions : 10

Test your understanding of Dan Furlong and Kathy Schwalbe's Healthcare Project Management.

Time Remaining 09 min 41

Name

k s

Q.1) PMI's healthcare community of practice published a list of best practices in 2011.

A. ☐ True

B. ☐ False

Q.2) Companies with high maturity levels spend more money on project management.

A. ☐ True

B. ☐ False

Q.3) Most of the traits of the best project managers can be learned.

A. ☐ True

B. ☐ False

Q.4) The pharmaceutical industry was found to have the lowest organizational project management capability in a 2012 study by Crawford and Cook-Davies.

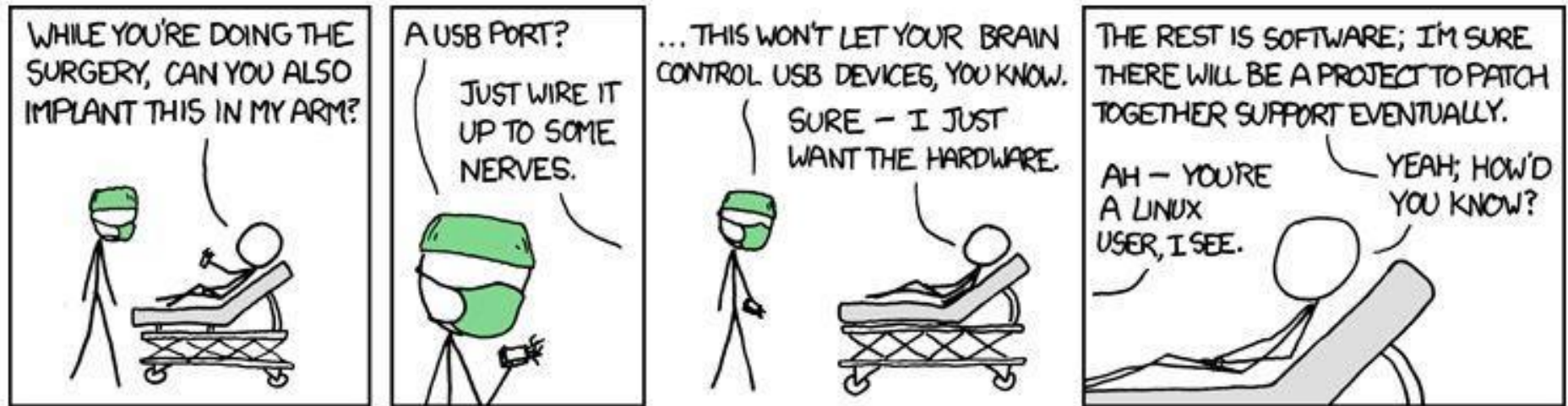
A. ☐ True

B. ☐ False

Conclusions

- The healthcare industry in general is behind most other industries in terms of project, program, and portfolio management.
- There's a huge need to educate people in managing the many healthcare-related projects.
- We can improve healthcare in this country – **one student, one course, and one project at a time!**

Too bad we can't implant software to make us all smarter – yet!



Source: xkcd.com

Questions/Comments?



www.healthcarepm.com

www.intropm.com

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