

The logo for HIMSS 18, featuring the word 'Himss' in a lowercase, sans-serif font and '18' in a large, bold, blue font.

The leading health information and technology conference

WHERE **THE WORLD** CONNECTS FOR HEALTH

Conference & Exhibition | March 5–9, 2018

Las Vegas | Venetian – Palazzo – Sands Expo Center

DigitalHealth in and with LTPAC Settings: Analysis & Design

Session LT2, March 5, 2018

Robin Wileman, VP Enterprise Architecture & Analytics, Kindred Healthcare

Larry Wolf, Chief Transformation Officer, MatrixCare



COMMITMENT

www.himssconference.org



DISCLAIMER: The views and opinions expressed in this presentation are those of the author and do not necessarily represent official policy or position of HIMSS.

Conflict of Interest

Robin Wileman

Has no real or apparent conflicts of interest to report.

Larry Wolf

Has no real or apparent conflicts of interest to report.

Agenda



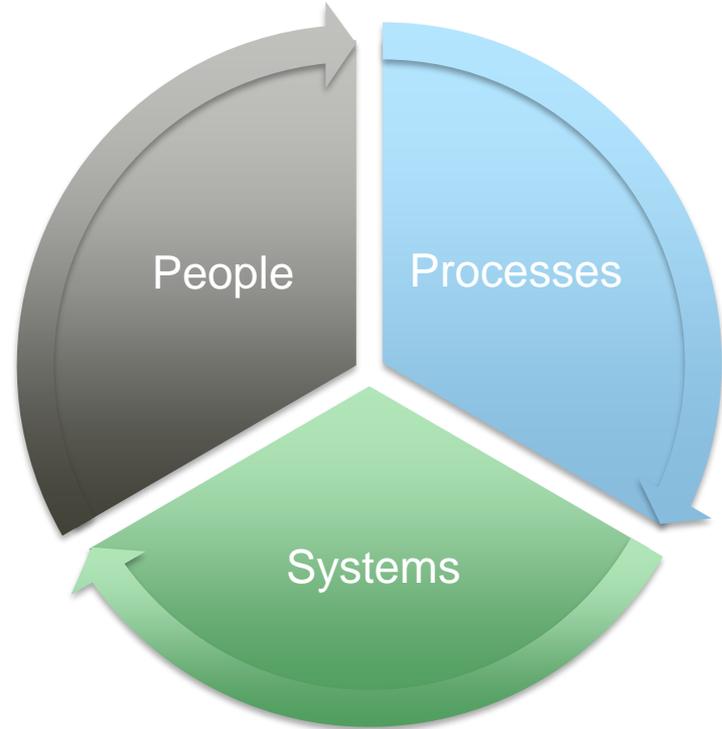
- System Analysis
- System Development Life Cycle
- Stakeholder Analysis
- Personas
- Problem Analysis
- Requirements Analysis
- Information Exchange
- Privacy and Security
- Alternatives Analysis
- Cost benefits Analysis
- Proposal Approval
- Project Management

Learning Objectives

- Identify CAHIMS Analysis and Design competencies LTPAC provider organizations should most closely watch
- Identify the major components of systems analysis
- Describe how to clearly define the problem to be solved
- Explain how the current and future state analysis are used
- Describe the multiple ways of assessing value (cost benefit analysis, return on investment, tangible and intangible benefit)
- Identify the stages of project management and product lifecycle, and how they relate to each other

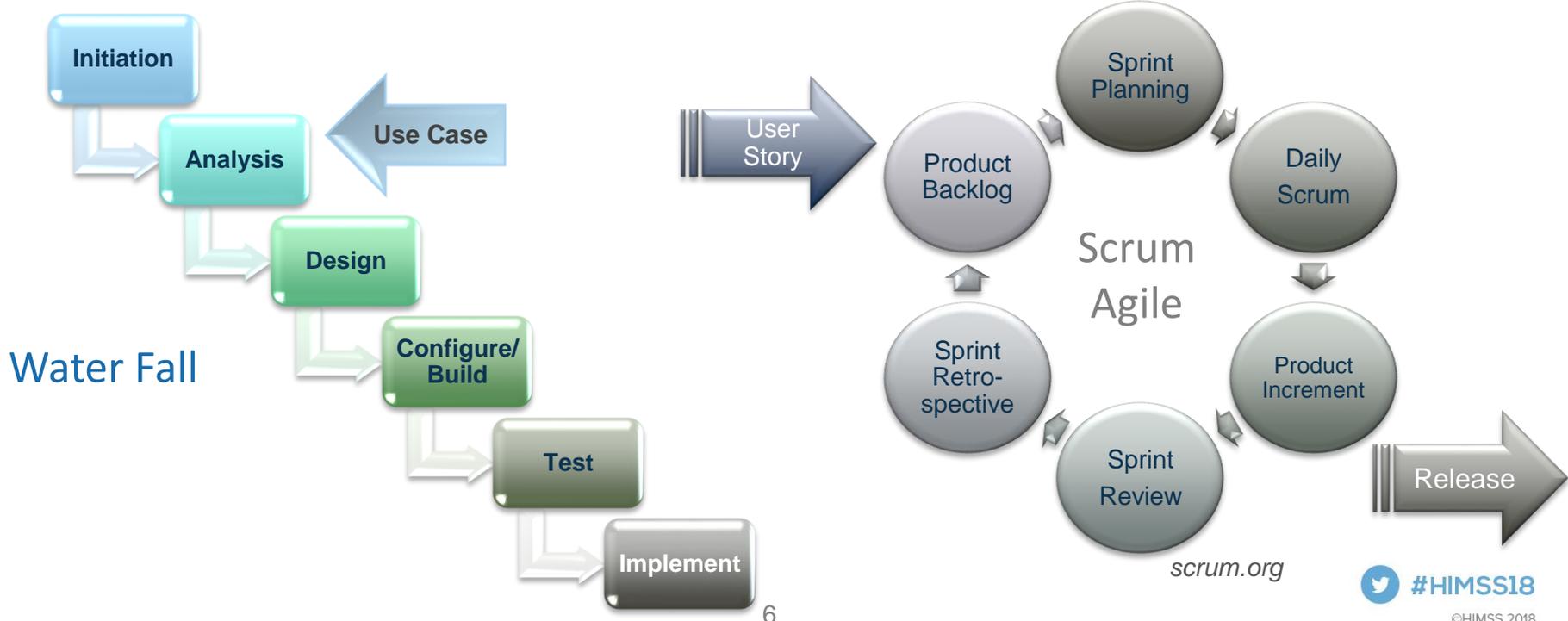
System Analysis

- Understand the process that the system will support.
- Don't automate a poor process, fix it first.
- Identify the people who will interact with and maintain the system.
- Determine how you will measure success.
- Select and implement systems that meets the process and user requirements.



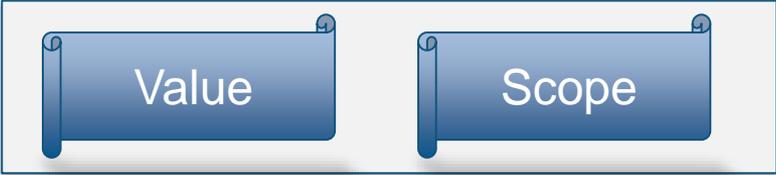
System Development Life Cycle (SDLC)

Standard processes to build a product



Why?

- What is the problem you are experiencing?
- What is the opportunity you want to take advantage of?
- How will these deliver value to you and your organization?
- Who are the people?
- What motivates them?



Value

Scope

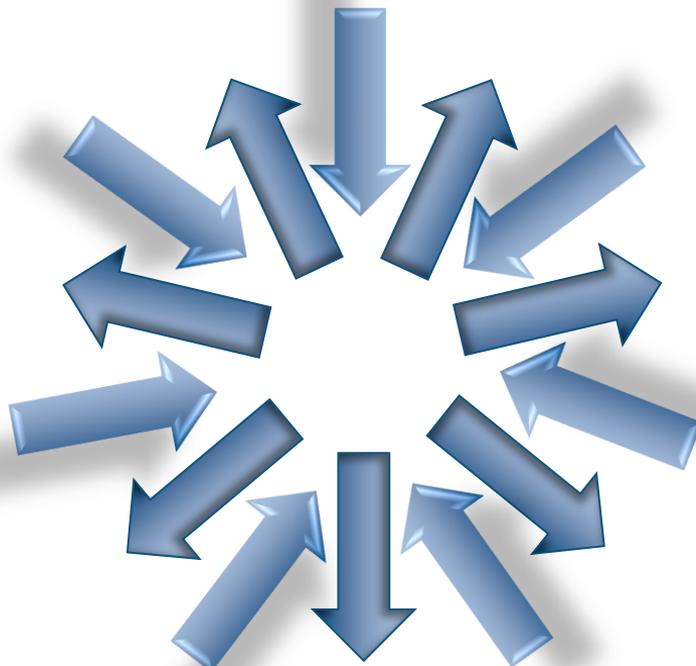
Constraints

- What are the boundaries?
- Are there external drivers?
- Are there business imperatives?
- Legal & Regulatory
- Market Forces

360° View – All the Stakeholders

Inside the Project

- Sponsor
- Funder
- Experts
- Clinical
- IT
- Patient



Outside the Project

- Green Light
- Red Light

Persona



- Specific individuals representing each of the different types of people or roles
- Create a biography
- Give them a face
- Identify their motivations
- Choose ONE that will be your measure of success
- What will give that person a “7 Star” experience?



A Systems SOAP Note

What is the problem?

Subjective

- What are we experiencing?

Objective

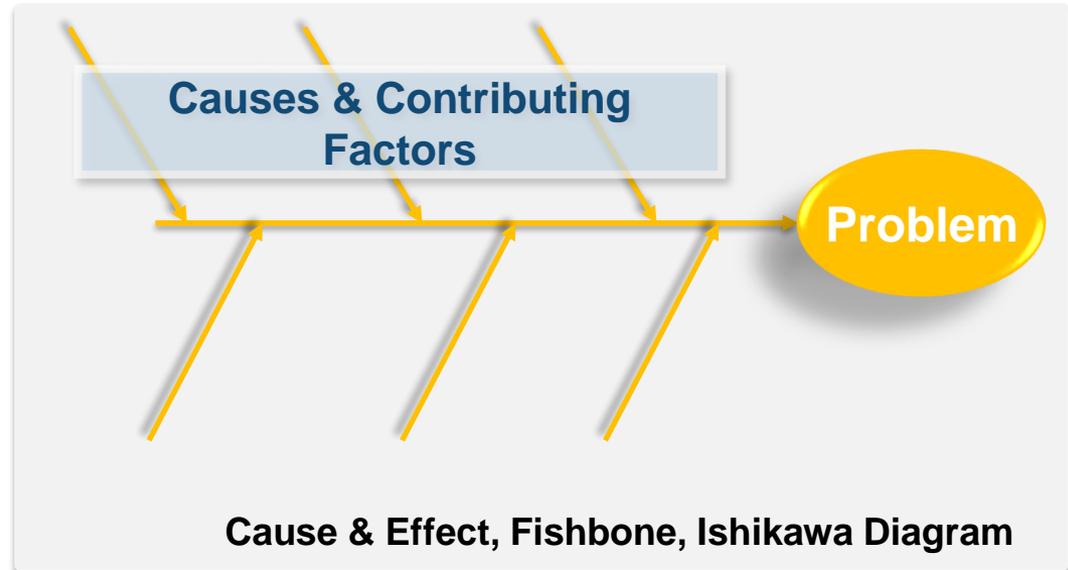
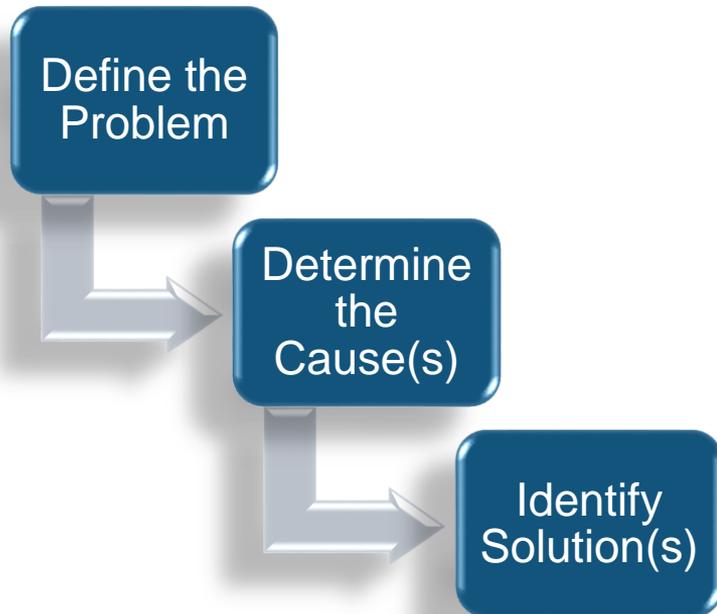
- What can we measure?

Assessment

- How bad is it?

Plan

Problem Analysis



Business Context

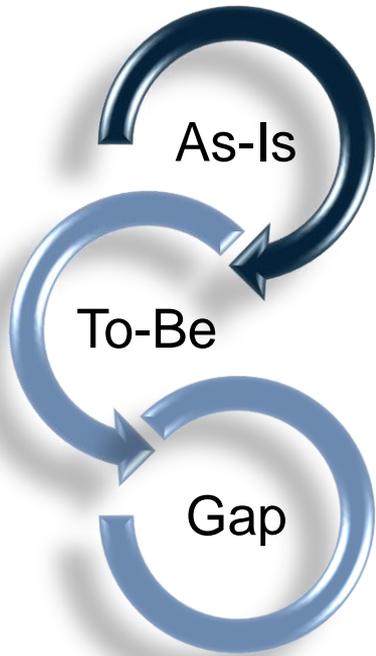
What are the costs associated with the problem?

What is the business perception of the impact of the problem?

Is there a sense of urgency?

What is the anticipated timeframe for solving the problem?

Steps in Requirements Analysis



Current State Analysis

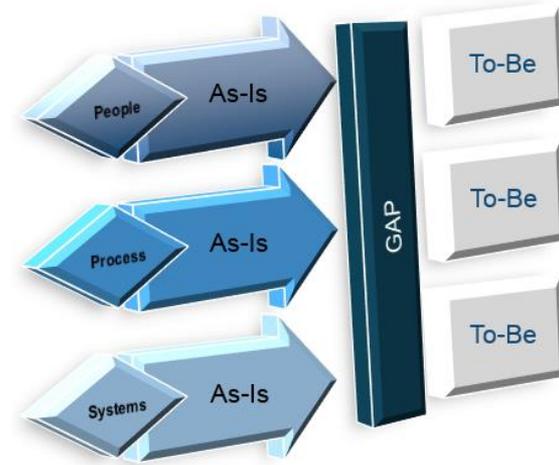
- People like to skip, but foundational
- Workflows, artifacts and requirement

Future State Analysis

- Not change for change sake
- Efficiency, productivity, quality

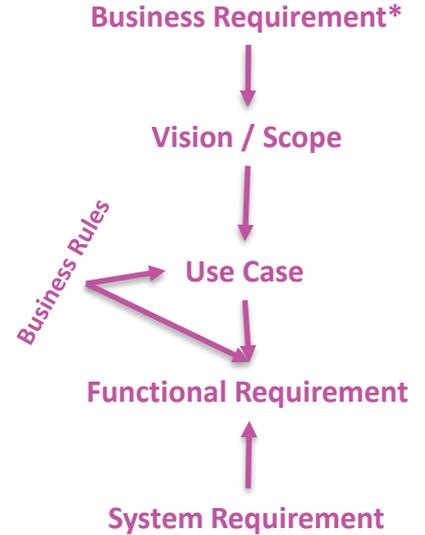
Gap Analysis

- Evaluation of valued feature/ function missing in current state



Capturing Requirements

- Focus on the user perspective or system interaction to achieve a goal
- Use context diagrams to provide visual pictures of a user requirement



Use Case*

Description: <use case goal >

Primary Actor <person or System>

Trigger <action performed by Primary Actor>

Condition <system state before & after>

Main Success Scenario <happy path flow>

Extensions <alternate, exception, error flows>

User Story

As a <type user>

I want <some goal>

So that <some reason>

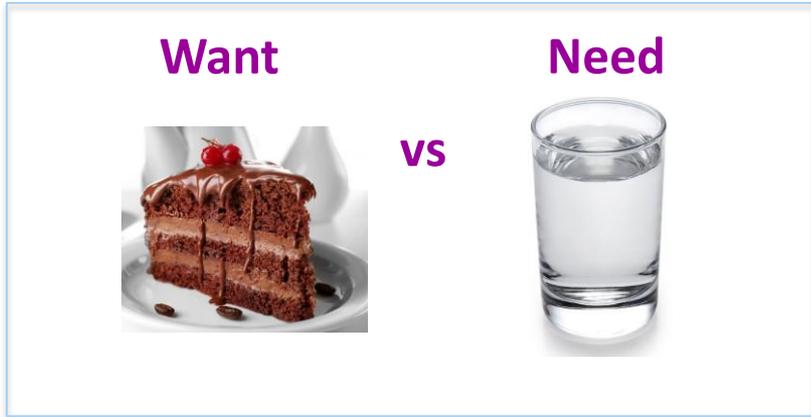
- Story
- Epic
- Theme

scrum.org

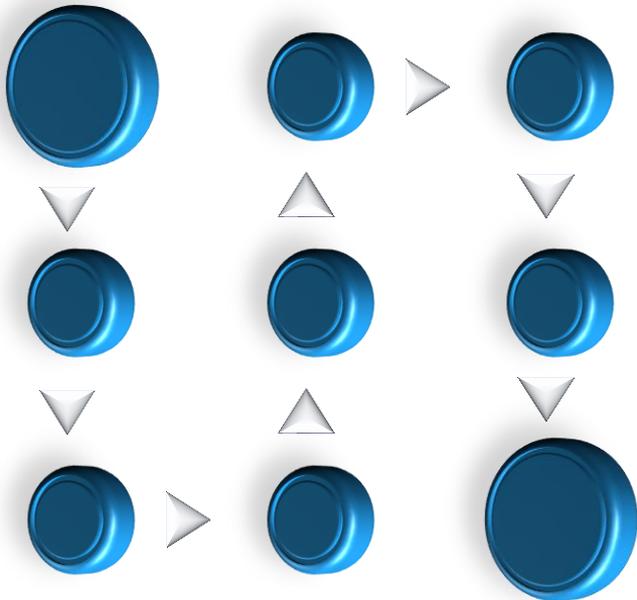
* Software Requirements Karl E. Wiegiers 2nd ed.

“The best system is an installed system”

- Minimum Viable Product (MVP)
- Iterative Delivery vs Big Bang



Value Chain, Data Flow, Information Exchange



- Identify the process steps
- Identify the value added at each step
- Identify the information needed at each step
- Identify where information flows to and from processes outside the scope of the project (aka information exchange)
- Identify steps that add little or no value, introduce errors or slow down the work. These may be areas for redesign *before* implementing new technology

Privacy and Security

- Enablers?
- Risks?



- What sensitive information is handled?
- What are the current agreements that address the use of this information?
- Does this project change the needs for identity management, authorization or access?
- Are new partnerships part of the project?
- Are current safeguards sufficient?

Analysis of Alternatives

- More than one way to solve a problem
- Be wary of falling in love with the first solution
- Test your assumptions
- Research how other industries approach similar problems
- Is this an opportunity to take on a bigger change?
- Would it be wise to reduce the scope and address only the most critical elements?

Hold Stakeholders Accountable / Compare Alternatives

Tangible Cost & Benefit



Return on Investment (ROI)



Intangible Cost & Benefit



Cost Benefit Analysis (CBA)



Formal Approval

- Present the recommendations
- Approval
 - Understanding?
 - Commitment?

Not going forward is a valid recommendation

Project Management

- A project is **temporary** in that it has a defined beginning and end in time, and therefore **defined scope** and resources.
- A project is **unique** in that it is not a routine operation, but a specific set of operations designed to accomplish a singular goal.

PMI.Org



★ Charter

★ Work Breakdown Structure

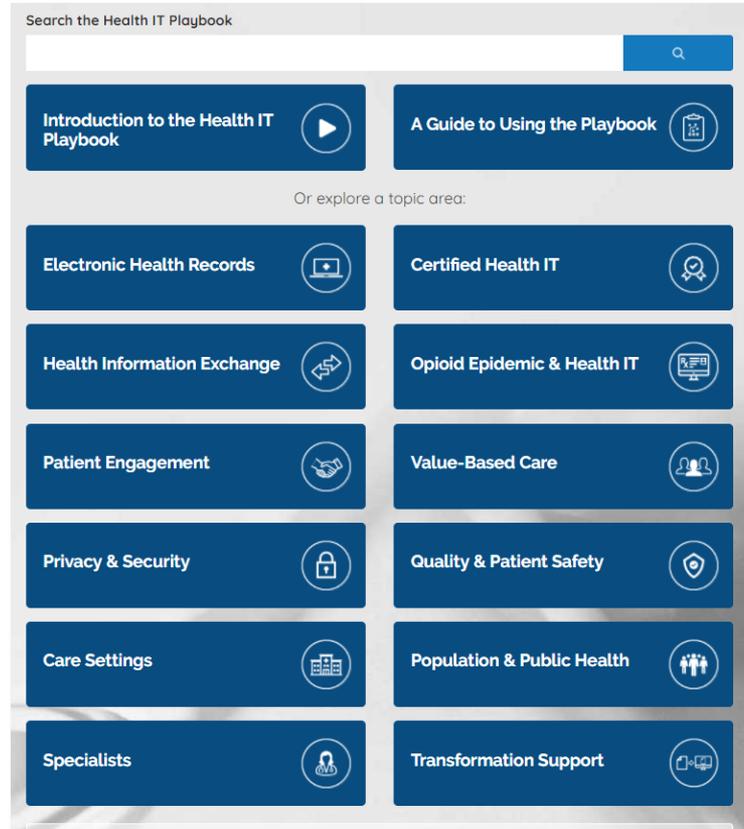


It is not your project. It belongs to your sponsor and your stakeholders

ONC Health IT Playbook

In depth guides for selecting and implementing health IT.

<https://www.healthit.gov/playbook/>



Summary



- Identify the stakeholders who will influence your project and develop strategies to manage them.
- Use personas to help develop problem statements. Concisely defined problem statements result in better scope definition and higher value delivery to the organization.
- User centric requirements focused on people and process are key to drive technology decisions.

Summary



- Gap analysis helps determine the roadmap to move an organization from the current state to the future vision.
- Cost benefits analysis and return on investment are tools that provide a way to assess the value of solution alternatives.
- Project management practices such as developing charters, defining project scope and conduction work break down structure improve the chances of project success.

Questions



Robin Wileman, VP Enterprise Architecture & Analytics,
Kindred Healthcare robin.wileman@kindred.com

Larry Wolf, Chief Transformation Officer,
MatrixCare larry.wolf@matrixcare.com

Please complete the online session evaluation