### Promoting Usability In Health Organizations Using A Healthcare Usability Maturity Model

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Today’s Presentation

✓ Discuss the value of usability to health organizations
✓ Present a new 5-phase model
✓ Provide initial steps to improve the user experience in health organizations
✓ Contrast two organizations with differing levels of usability maturity using the model
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Usability Definition and Goals

Usability is “the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use.” (ISO 9241-11)
The Value of Usability to Health Organizations

Value of Usability

- Increased Organizational Efficiencies
  - Increased Individual Effectiveness, Efficiencies
    - Decreased User Errors / Decrease User Errors
      - Decreased User Errors / Decrease Errors
      - Decreased User Errors / Increased Safety
    - Improved Cognitive Support
      - Decreased Development Time / Decreased Development Time
      - Decreased Development Time / Decreased Costs
      - Increased User Productivity / Efficiency
    - Decreased Maintenance Costs
      - Decreased Maintenance Costs
      - Decreased Customer and Individual Training and Support Costs
      - Decreased User Errors / Increased Safety
      - Improved patient, provider, organizational outcomes
# Usability Maturity Phases

<table>
<thead>
<tr>
<th>Phase</th>
<th>Title</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Unrecognized</td>
<td>Lack of awareness of usability. No practices, policies or resources</td>
</tr>
<tr>
<td>2</td>
<td>Preliminary</td>
<td>Sporadic inclusion of usability. Very limited resources</td>
</tr>
<tr>
<td>3</td>
<td>Implemented</td>
<td>Recognized value of usability. Small team doing usability</td>
</tr>
<tr>
<td>4</td>
<td>Integrated</td>
<td>All benchmarks of usability implemented including a dedicated user experience team</td>
</tr>
<tr>
<td>5</td>
<td>Strategic</td>
<td>Business benefit well understood, usability mandated, budget and people part of each year’s budget, results used strategically throughout the organization</td>
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Health Usability Maturity Model

Phase 1- Unrecognized
Phase 2- Preliminary
Phase 3- Implemented
Phase 4- Integrated
Phase 5- Strategic

Focus on Users
Management
Process & Infrastructure
Resources
Education
Typical Methods to Launch Usability in Organizations

- “Wake-Up Calls”
- Individual Infiltration Methods
- Finding Internal Champions
- Using External Experts as a Catalyst
Find a business/organization driver supporting need for usability

Look for and document usability wake-up calls

Compile evidence from usability assessments

Interview users to determine key usability issues

Include usability metrics on one project

Engage organizational leaders in usability

Educate about ROI related to usability

Create feedback loop from users to vendors

Include usability in contracts

Talk about tasks and workflows

Create feedback loop from users to vendors

Engage organizational leaders in usability

Educate about ROI related to usability

Include usability metrics on one project

Interview users to determine key usability issues

Compile evidence from usability assessments

Look for and document usability wake-up calls

Find a business/organization driver supporting need for usability

Initial Steps to Improve the User Experience
Contrasting Case Studies

- U.S. Military Health System
  - AHLTA ambulatory system
  - Recently entered phase 2

- University Health Network, Toronto, CA
  - The user experience is part of all product purchases, cooperation with vendors in design, research on the user experience
  - Phase 4
Next Steps

- Develop an interactive tool for organizations to
  - Diagnose their current phase
  - Make recommendations for improving the user experience

- In process now
- Longer term
  - Assess the user experience in health organizations using the tool
Maturity Model Resources

✓ HIMSS usability maturity model white paper:
   http://www.himss.org/ASP/topics_FocusDynamic.asp?faid=358

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