AMERICAN IMMUNIZATION REGISTRY ASSOCIATION

Immunization Information Systems for a New Era

ExIS Usability Best Practices Catalog Webinar

February 29, 2016

Introduction

Ulrica Andujar, CDC

Agenda

- Background

- Developing the ExIS Usability Best Practices Catalog (UBPC)

- A Look Through the Catalog

- User Centered Design

- What's Next?

Background

Objective

Document usability best practices for vaccine ordering, inventory management, and related functions

- Sample workflows

- Sample wireframes

- Design rationale

- Interaction details

- Policy considerations

- Rollout considerations

Audience

- Awardees considering new ordering and inventory tracking functions
- Awardees seeking to improve usability of existing functions

Inputs

- Design observations
- Available training
- Small group discussions

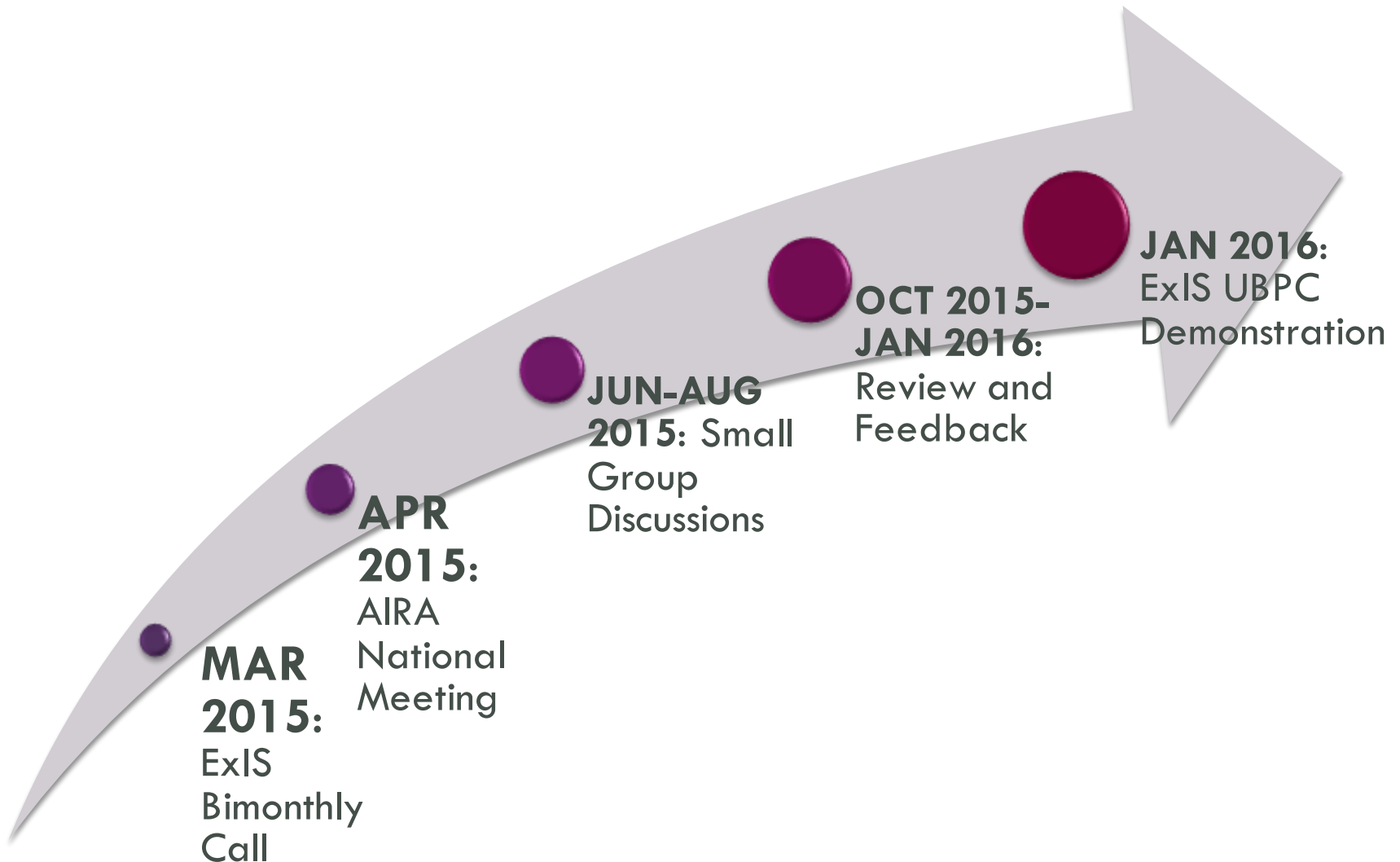# Why Develop the Catalog?

- Address a need to make vaccine ordering and inventory functions easier for IIS users, particularly providers

- Provide awardees a best practice resource to guide their efforts in building easy to use systems based on industry standard usability guidelines

- Consolidate existing vaccine ordering and inventory best practices into an accessible resource

Activity Timeline

MAR 2015: ExIS Bimonthly Call

APR 2015: AIRA National Meeting

JUN-AUG 2015: Small Group Discussions

OCT 2015-JAN 2016: Review and Feedback

JAN 2016: ExIS UBPC Demonstration

Question

Please share any pain points that your providers experience when using IIS vaccine ordering and inventory management functionality.

- Short answer

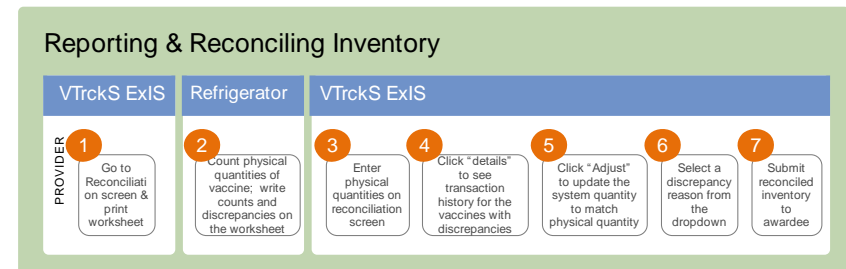# A Look Through the ExIS Usability Best Practices Catalog

Amy Stone

IHRC Subcontractor, Stone User Experience
Supporting the NCIRD
Centers for Disease Control & Prevention

ExIS Usability Best Practices Catalog, February 2016

- Tasks included:
  - Receiving Shipments into Inventory
  - Transferring Inventory to Another Location
  - Adjusting Vaccine Inventory
  - Reporting and Reconciling Inventory
  - Ordering Vaccine
  - Approving Vaccine Orders
  - Flu Prebooking

Sample workflows

Sample wireframes

Demonstration

- **ExIS Usability Best Practices Catalog**

    - Accessing the Catalog

    - Navigating through the Catalog

    - Receiving Shipments Workflow

User Centered Design

"User Centered Design (UCD) is an approach that supports the entire development process with user-centered activities, in order to create applications which are easy to use and are of added value to the intended users."   -- Usabilitynet.org

Plan

Develop

User Centered Design

Evaluate
User testing

Research
Understand Users, Task, Environment

Design
Stories, visualization, prototype
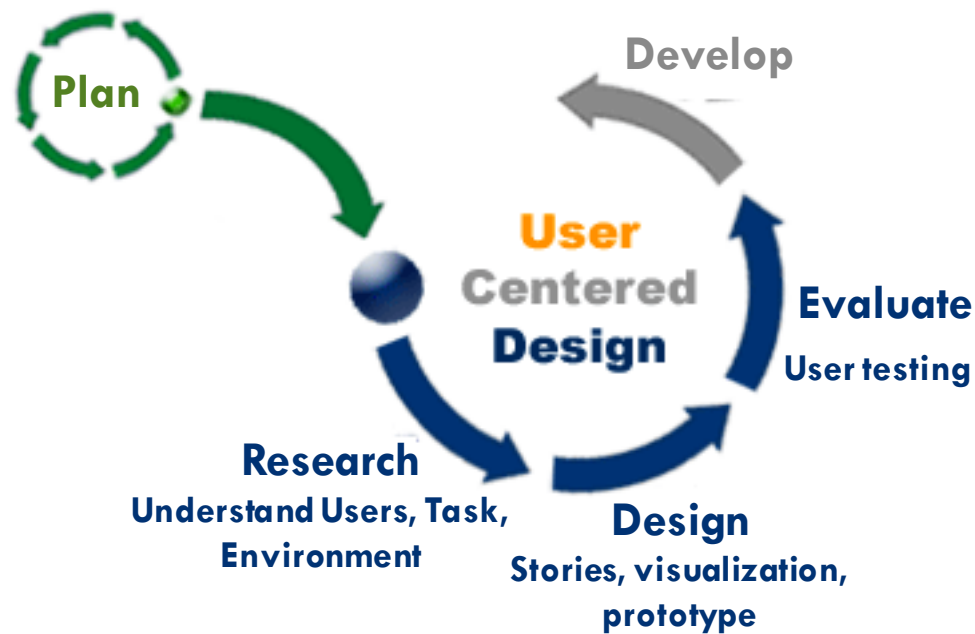
User Centered Design: Plan

Include people on team with user experience expertise. Plan time at the beginning to understand user need, prototype concepts, and evaluate designs prior to development. This has the effect of shortening the actual development, test, and deployment phases.

Does project team include:
- User Experience Researcher
- Interaction Designer
- Visual Designer

Does project plan include:
- Research phase
- Iterative design phase

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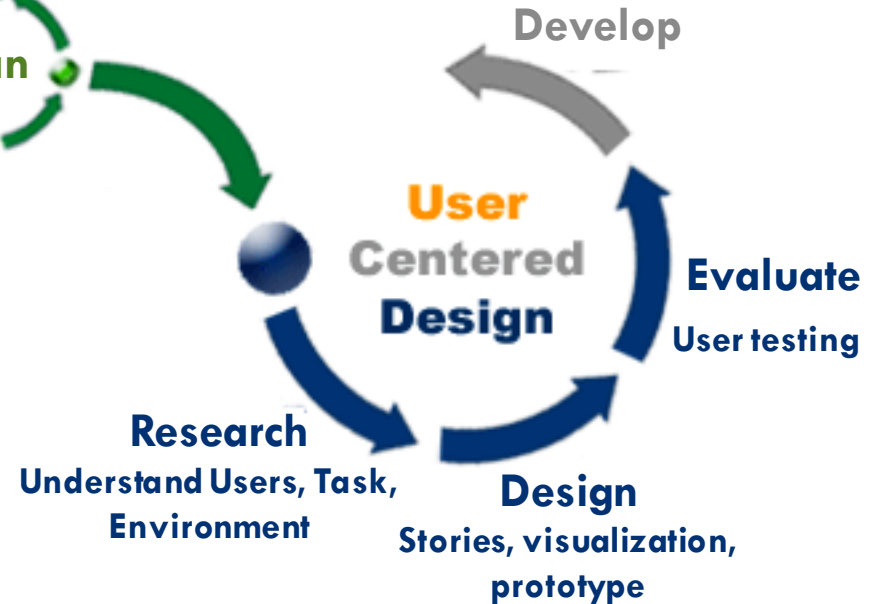
User Centered Design: Research

"Industry surveys have clearly shown that the majority of failed projects can be attributed to incomplete or inaccurate requirements. The biggest cost benefit that UCD can provide is by more accurately defining requirements."   -- Usabilitynet.org

Methods to consider:
- Contextual observation
- Tip sheets/checklists
- Help desk logs
- Office environment
- Staff responsibilities
- Turnover rates
- Training requirements

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Develop

User **Centered** **Design**

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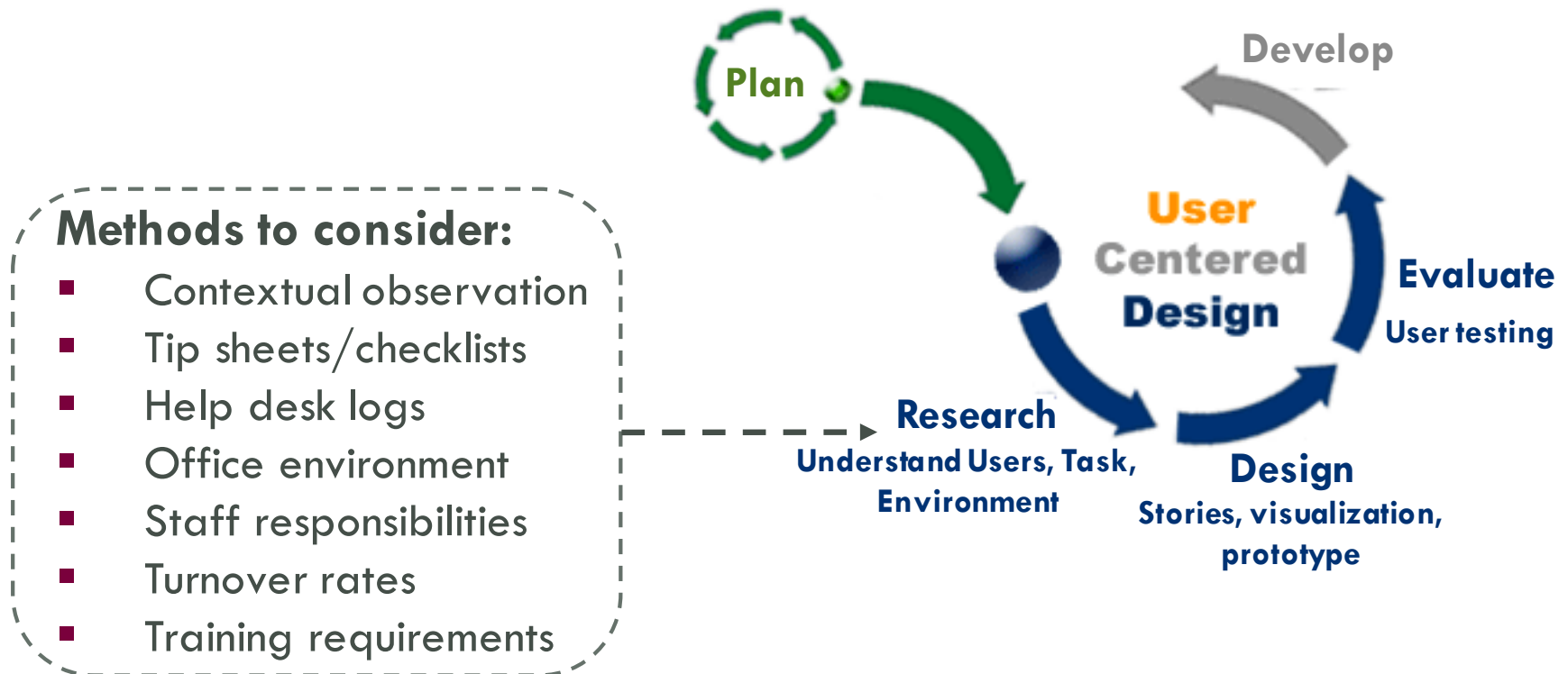
User Centered Design: Design

"The difference between UCD and other approaches is that UCD methods are used to develop simple models, mock-ups or prototypes on parts or all of the designs. "

–Usabilitynet.org
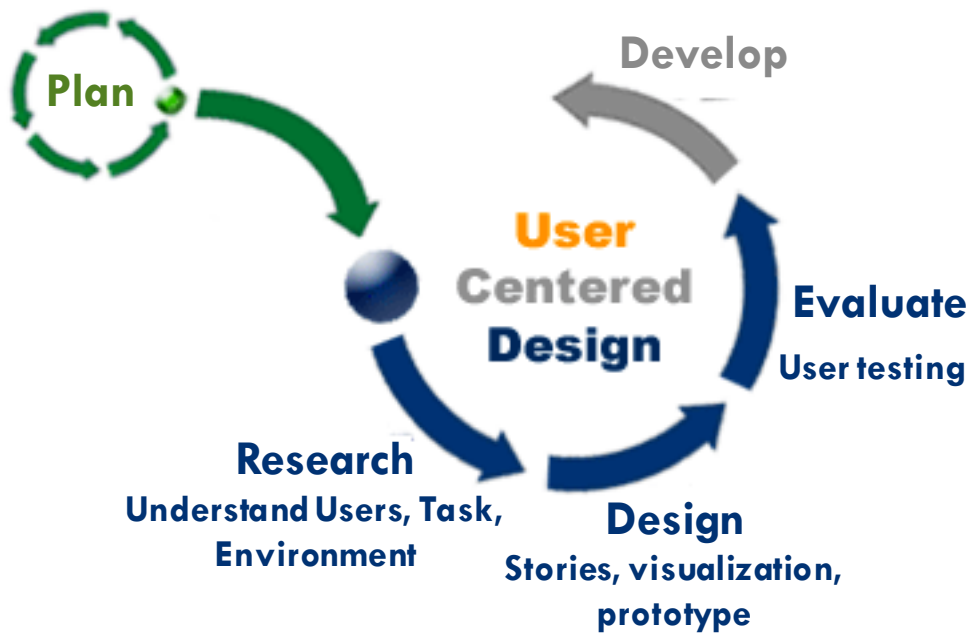
Develop

Plan

User Centered Design

Evaluate
User testing

Research
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Design
Stories, visualization, prototype

Create:
- Stories
- Wireframes
- Clickable prototypes
- Visual design
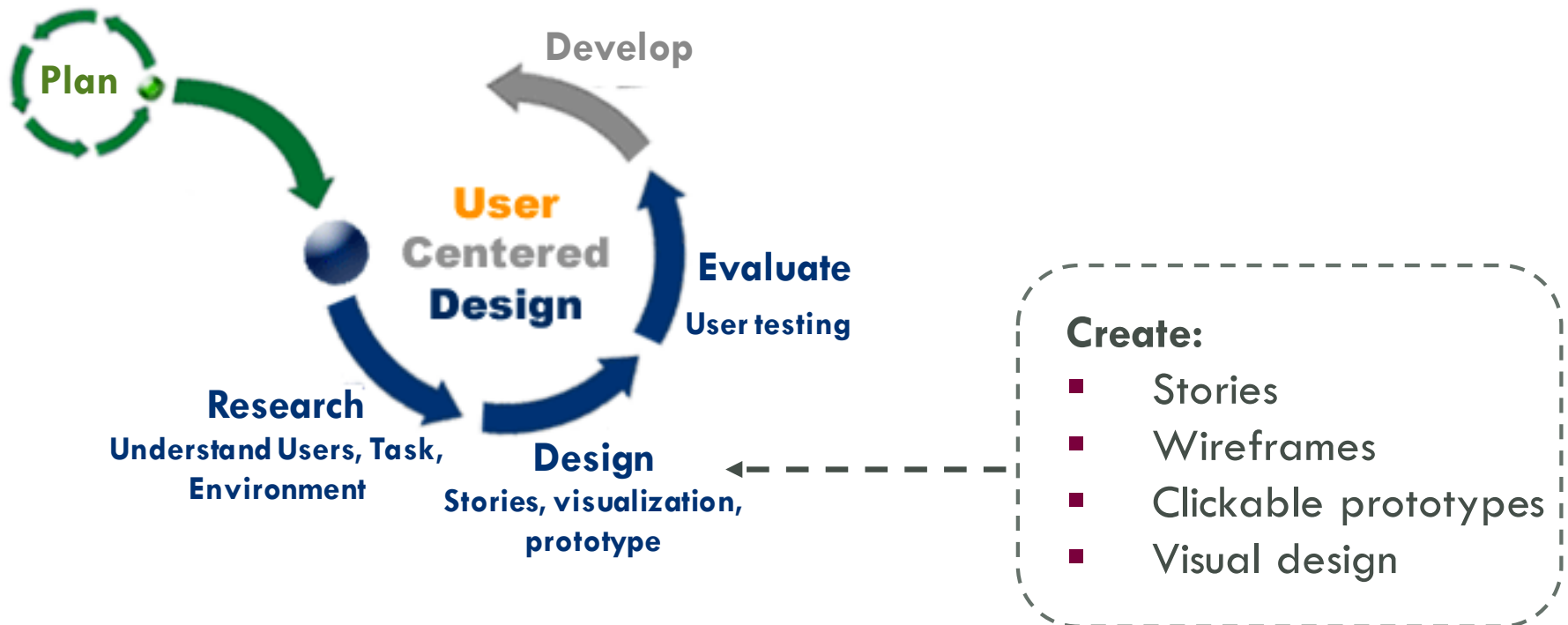
User Centered Design: Evaluate

"A design change made late in the design process will typically cost ten times more than if identified during requirements. Making changes to working systems will cost about one hundred times more." --Usabilitynet.org

Evaluate:
- Conduct usability tests with providers using the prototype

Decision Point:
- Data determines whether design changes are needed; if development can begin

Usability Testing vs. QA Testing

Usability Testing

- <u>Audience</u>: End users of the software do the testing (e.g., providers, program staff)

- <u>Answers the question</u>: How easy or difficult is it to use the software?

Quality Assurance (QA) Testing

- <u>Audience</u>: QA Specialists & development staff do the testing; end users are not involved

- <u>Answers the question</u>: Does the software do what it is supposed to do per specification?

Question

Do you plan to include usability testing as part of your development cycle?

- Yes

- No

- Maybe

What's Next?

Ulrica Andujar, CDC

Resources

- www.usability.gov

- VTrckS ExIS Community Site

  - ExIS Usability Best Practices Catalog

  - ExIS Community Discussions

Need VTrckS ExIS Community Access?

- ExIS Usability Best Practices Catalog is accessible via the VTrckS ExIS Community Site

- If you want to join and have not done so yet, send a request to VTrckSExIS@cdc.gov

Guided Assistance: Reconciliation & Approving Orders

- **Who?**
    - Awardees planning inventory reconciliation and ordering enhancements
- **What?**
    - Demonstration and small group discussion
- **When?**
    - March 7, 2016
    - 4:00pm – 5:00pm Eastern
- **Why?**
    - Forum for awardees interested in inventory and ordering best practices to ask questions and share perspectives
- **How?**
    - If interested, send an email to VTrckSExIS@cdc.gov

Call for Participation

- Usability best practices small group discussions planned Spring/Summer

- Topics:

  - Returns & Wastage

  - Notifications

- Small group participants will benefit by:

  - Discussing and sharing best practices

  - Previewing efficient and easy-to-use approaches for new task areas

- Results will be published in the ExIS Usability Best Practices Catalog

- For more information:

  - Email VTrckSExIS@cdc.gov

  - Attend the next ExIS Bimonthly Call, March 22, 2016 at 3:00pm EST

Questions?

- Contact Email: VTrckSExIS@cdc.gov

Thank You