

# HCD Design

## Introduction:

- What is HCD?
- Use of this Guide
- Considerations:
  - Continuous participation
  - Patient perspective
  - Virtual design
  - Measurement and Data Quality
  - Spread and scale

## Pre-Project Data Gathering:

Intro documentation from stakeholders-

- Logo, mission statement, basic health center/patient data, roles/titles/contact info (Sarah)

Technology capacity: EHR and HIT system info (Raymonde)

## Phase 1: Setting the Stage-- HCD document (Sarah)

Pre-Work:

1. Stakeholder identification (look at the example stakeholders and roles)
  - Contact List
  - Roles
  - Leadership Buy-In
    - Resources
1. Environmental Scan
  - a. Materials of interest, Policies and Procedures/SOP, Evidence/Research, Tools and Manuals, Existing Measures
2. Needs/Gap analysis
  - a. Each stakeholder should bring a list-- ideally done with their partner stakeholders they represent in a brainstorming session
  - b. Facilitator can ideally do some collation of major issues
  - c. Bring no more than top 2-3 to the group for discussion
3. Goals, Scope, Outcomes
  - a. Each stakeholder should define or describe a goal: can be a combination of values/vision and goal statement
  - b. In Scope: what the scope start and end is, who is involved
  - c. Out of Scope: what cannot be controlled by the team, beyond the start or end of the scope
  - d. Outcomes: measures of success (AND failure)
    - i. Clinical
    - ii. Experience (patient and care team)
    - iii. Financial (payment, equipment, facilities, staffing)
    - iv. Process (time, materials, waiting, etc)

Design Meeting:

1. Introduction:
  - a. Roles, rules and responsibilities
  - b. Review background materials: summary of environmental scan, stakeholders and gaps

## Continuous Improvement (throughout):

1. Decision Log
2. Lessons Learned Document
3. Timeline/Milestones -- (Gantt if available)
4. Swim Lanes (for partners-- should incorporate timeline/milestones)
5. Project Principles and Rules of the Road--Norms/Guidelines

## Phase 2: Understanding the Context (Ray/Julia)

1. Personas -- examples, guidance
2. Use Cases -- examples, guidance
3. Metrics-- Definitions: quality measures, operational measures, patient and care team experience, resources, clinical outcomes
4. Data Categories

5. Workflow--slides, journal article, examples -- with description of relationship to dataflow (Raymonde)

## Phase 3: Understanding the Data (Pedro)

1. Dataflow
2. Data Validation Plan
  - Feasibility/workflow/extraction evaluation
  - Data QA
1. Data Dictionary
2. Baseline Measures
  - Baseline Data

## Phase 4: Designing a Solution

1. Intervention Brainstorming
2. Technical Plan
  - Standards
  - Terminology content
  - Data model/element specifications
  - API or data extraction
  - Conformance Testing
  - Site Architecture
  - Interoperability Planning
  - Site Integration
1. Implementation Plan
  - Integration Considerations
  - Timeline
  - Implementation Scope
  - User Requirements and User Data
  - Training
  - Implementation Package
  - Evaluation Package-- metrics
  - Testing Plan
  - Feedback to Users
  - Feedback from Users
  - Change Plans
  - Technical Assistance Plan
1. Dashboards and Feedback
2. Project Outcomes and Modifications
3. Training Package
  - Local training materials

## Phase 5: Implement and Evaluate

1. Build solutions
2. Test
3. Improve and finalize initial stage
4. Implement pilot
5. Evaluate
6. Plan for scale
7. Implementation Guide

## Phase 6: Scale and Maintain

1. Rollout plan
2. Evaluation plan
3. Feedback from users
4. Maintenance

## **Curriculum Materials:**

1. HCD 2 pager--> convert to 1 pager
2. HCD graphic
3. Gantt chart
4. Powerpoint
5. Data Dictionary Template
6. Data Reference Document
7. HCD User Guide
8. Branding Materials

## **Technical Plan:**

Standardized content across implementation sites-- describes HIT standards, terminology requirements, transport and data standards, validation and testing requirements, data dictionary, measure specifications, generic flows

## **Implementation Plan:**

Individual site/system level specifications for the technical plan and local requirements