THE EVERETT CLINIC SMOKEY POINT MEDICAL CENTER
Navigating Lean: Design that Enhances Flexibility & Patient Centered Care
Learning Objectives

1. Navigate strategies to develop Lean solutions that provide efficient and cost effective solutions while pursuing enhanced environmental facilities.

2. Understand Lean processes and tools used in pre-event planning, and how to implement assessment for healthcare events based on scope of the work.

3. Establish expectations about team dynamic, focusing on how to drive team interaction based on project data and objectives.

4. Identify how to balance Lean design and flexible design objectives.
Develop a flexible world class lean facility for patients and staff.
Everett, Washington
The Everett Clinic

Overview

Largest independent medical group (WA)
8 satellite locations throughout Sno. Co.
- #9 is Smokey Point (opening in 2012)
- 8 Walk-in clinics (160K visits/year)
Fifth largest private employer in Sno. Co.
- 1,700 employees
- 415 healthcare providers
  - 315 physicians (45 hospitalists)
  - 100 advanced clinical practitioners

100 Best Places to Work in Healthcare
Strategic Imperative for Smokey Point

North Snohomish County Market share for The Everett Clinic is high and we need to preserve that

Current facilities serving that market are overtaxed and aging

Competition for Skagit county is entering the market in an expansive fashion

North Snohomish County has a high population growth rate and we want to serve those new residents.

Smokey Point will offer multi-specialty ‘hub’ to north county patients (closer to home)
The Everett Clinic Smokey Point Medical Center

Vision
Physician directed (they design the care)
Patient centered (voice of patient)
Professionally managed (DMS)
Integrated health care delivery system
(seamless care, flow, value stream, teams, record access, perspective of providers, flexibility, e-visits)

Values
Do what is right for each patient
Enriching and supportive work environment
Provide value: quality, cost, service
Goals to Strive For

Operational

- Patient satisfaction > 90th percentile
- Up to date measure > 60%
- Access (3rd available appt.)
  - *Primary care < 2 days (or best in market)
  - *Specialty < 7 days (or best in market)
- Reduction in patient lead times by 25%
- Average wait times in WIC below 30 min
- >60% of our patients on MyChart
- Achieve Operating margin > 25% by Yr. 3

Facilities

- $24.6 M total project budget
- Building Costs (Const./Design/WSST) < $250/SF for Needs vs. Wants
- Energy utilization 30% lower than baseline ASHRAE 90.1 and achieve Energy Star Rating
- 30% reduction of non-patient care space compared to other TEC Facilities
- 24 month goal for Design and Construction
- Increase room flexibility to decrease operational downtime for future room/department renovations
- Build to accommodate future growth possibilities
Charter and Core Team

Management Guidance Team
- TEC Executive Team
- Physician Board Members
- TEC Operational PM, RE-PM, GC and Architect

Core Team
- Department Leadership for Primary and Specialty Care
- Clinical Support Staff
- Patient Representatives
- Project Design and Construction Team
- Ongoing support from TEC Facilities, IT, Finance, Materials Management

Stakeholders
- Physician Shareholders
- Primary and Specialty Care Physicians, Staff and Leaders

We’ve had multiple mock-up tours and walk throughs to gain feedback and improvements
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Schedule

Conceptual ➔ Functional ➔ Detailed

IDE 1
November 2010

IDE 2
December 2010

IDE 3
December 2010

IDE 4
February 2011

IDE 5
February 2011

IDE 6
March 2011

IDE 7
April 2011

IDE 8
May 2011
Site Plan Adjacencies

Maximize Building Footprint
Optimize Parking
Clear Wayfinding
Convenient Patient Parking
Front Door Clearly Visible
Separate Staff Parking & Entries
View & Landscape Potential
Service and Ambulance
Neighborly Buffer
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Smokey Point’s “DNA”
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Recipe to Lean Design Healthcare

Key Process Elements

Driven from leadership uses a charter ‘bumpers’
Preparation / look at current state
Planning workshops to meet project goals
The Work: integration to find value for customer, focus on improving current state
Process development / homework / accountability / continuous work

Keys to Success

Structure & Support via leadership / charter / bumpers
Data analysis, cross-functional walk throughs, flow optimization
Identifying roles and setting to do right takes time up front, choreograph decisions and key design drivers, agendas focused on desired outcomes, investment
“Future State” move people beyond easy solutions, remove waste (frustrations in current state), invest, stakeholders, the people who do the work owning the workshop from ideas, testing to report out

DOCUMENT AS YOU GO

De-silo departments to solve, flow and simulate
Owner part of process for design improvement, leadership (owner) hands on
## Project Overview of IDE Events

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Type</th>
<th>Description</th>
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<tr>
<td>Oct. 14</td>
<td>IDE Session</td>
<td>Governance</td>
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<td>Nov. 10-12</td>
<td>IDE Event 1</td>
<td>Conceptual Design – Process and Flow</td>
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<td>Dec. 1-3</td>
<td>IDE Event 2</td>
<td>Conceptual Design – Rough Space Planning and Adjacencies</td>
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<tr>
<td>Dec. 20-22</td>
<td>IDE Event 3</td>
<td>Functional Design – Macro Mockups</td>
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<td>Jan. 31 –  Feb. 2</td>
<td>IDE Event 4</td>
<td>Schematic Design – Macro Mockups and Functional Testing</td>
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<td>Feb. 14-16</td>
<td>IDE Event 5</td>
<td>Schematic Design</td>
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<td>Apr. 6-8</td>
<td>IDE Event 6</td>
<td>Detailed Design</td>
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<td>Apr. 20-22</td>
<td>IDE Event 7</td>
<td>Detailed Design</td>
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<td>May 4-6</td>
<td>IDE Event 8</td>
<td>Detailed Design</td>
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<td>+</td>
<td>Live testing of key ‘future state’ work flows in current operations,</td>
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<td>documentation of standard work, hire/orient/train to prepare the providers and staff</td>
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Schedule

Conceptual  →  Functional  →  Detailed

IDE 1  IDE 2  IDE 3  IDE 4  IDE 5  IDE 6  IDE 7  IDE 8


26 Total Days dedicated to IDE Events
Design outcomes rely on answering questions. Lean Design asks different questions. How can we improve our patient’s experience throughout this process? How can we work differently? Where can we remove non-valuable activity, “waste”? 
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Goals: Vision and Flow

Tools: Volumes, Providers, Hours of Operation, and Services Assumptions, Table Top Plans, Case Studies
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**Goals:** Concepts and Program

**Tools:** Data, Site, Tour, Table Top Plans
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**Goals:** Macro Design

**Tools:** Data, Mock up, Tour Feedback and Survey (from Patients, Physicians, Nurses, Management, Care Team) Table Top Plans, Site Visit

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**Reduced Team Space by 5 ft in Mock-up**

24 ft to 19 ft
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Goals: Macro Design Text

Tools: Data, Mock up, Table Top Plans, Spaghetti Diagrams
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Goals: Macro Design Finalized

Tools: Data, Mock up, Table Top Plans, Spaghetti Diagrams, Patient Tour, Feedback

Identified need for entry point in WIC Pod for ease of access, reduced travel from high volume Pod for both patients and staff

Mapped Flows:
- POC Testing
- Lab Phlebotomy
- Lab Only
- Water-strider
- Ancillary
- Courier

10% of patients sent from Pod to Lab after clinic visit

Patient Entry “On-Stage”

Team Area “Off-Stage”
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**Goals:** Finalize Schematic Design, Room Size, Location, Verify Clinical Flows

**Tools:** Plans, Mockups, Spaghetti Diagrams

- Standard 2-bin supply design
- Color code bins
- Can hang items
- Can store specialized tray and/or totes for kits; i.e. laceration, ear wash, etc.
- Can use bins to store equipment

Flexibility is important.
Visual Indicators for Patients and Staff
**Goals:** Design Function, Begin Looking at Amenity in Rooms: Equipment, Casework, Plumbing, Furniture Locations

**Tools:** Mockups, Drawings, Case Study Photos
Goals: Finalize Function and Amenity, Locate Items from IDE 7, Plus Lighting, Outlets, Devices

Tools: Mockups, Drawings, Case Study Photos
Attendees

120+ patients and staff reviewed mock-ups throughout the process
Outcomes
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Exam Rooms

Reduced need of 80 rooms to 62 rooms

Standardized (universal) rooms (that can support multiple specialties)

Easy access and collaborative areas for Care Team communication

57 universal rooms with 5 specialization rooms

Room capacity utilization at 80% vs. typical around 40-60%

Universal maintenance, placement of utilities in the exact same place in every room
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Patient Areas

Minimize travel - clinical services that are high-users of Lab/Rad are closest to Lab / Rad.

The lowest patient volume has the furthest distance to walk at only 250ft.

The highest patient volume has the shortest distance to walk at only 100ft.
Patient Flow

Minimized the need for patients to leave the exam room = the value-add experience and space for patients.

- Patient Pause Area
- Led to an Exam Pod
- If testing or labs are needed
- Led to specialist
- Check-in at desk or kiosks

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Wayfinding

Pause areas – color coded, all are visible from front desk and security.

Interior of Pod – see all exam rooms, fritted glass allows light in.

Lab/Rad – visibility to front desk, pause, and both lab and rad operations.
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Care Team

No physician offices, instead multiple spaces provided for “Off Stage” and team activities

- Lounge with kitchenette
- Conference areas
- Bathrooms
- Private work areas
- Provider Green Room

Patient Entrance
Care Team Entrance

RETREAT SPACE
Overall Program Flow

- Caregiver Team Areas
- Patient Flow Areas
- Exam Pods
- Specialization Rooms
- Greeting Areas
- Kiosk Check-in

Patient Entrance

Care Team Entrance
Patient and Staff Walk Through
Patient Experience - ARRIVAL
Patient Experience – CHECK-IN
Patient Experience – AUTO-BAHN
Patient Experience – PATIENT ROOM
Lessons Learned

New space = new opportunities to shape and improve culture and work flow

Politics cannot be ignored

Adaptable central check-in to new technologies

Simulation and Testing / Simulation and Testing / Simulation and Testing

Always balance time and effort needed to pre-determined final decisions (focus time and efforts on high volume, high opportunity and high risk areas)

Lean Process is harder in the beginning making a smoother ending for decision making
Goals

Operational

Patient satisfaction > 90th percentile
Up to date measure > 60%
Access (3rd available appt.)
  *Primary care < 2 days (or best in market)
  *Specialty < 7 days (or best in market)
Reduction in patient lead times by 25%
Average wait times in WIC below 30 min
>60% of our patients on MyChart
Achieve Operating margin > 25% by Yr. 3

Outcomes

These are Yr. 3 operating goals

Patients have been involved throughout design emphasizing the value-add

We are designing and testing the standard work that drives performance to achieve these goals at start up

- Separate routine vs. non-routine work at front desk
- Standard signaling and sequencing of key work steps
- Services come to patients
- Reduction in travel and search for patients and staff through distinct space separation of clinical operations and patient flow
## Goals

### Facilities

- $24.6$ M total project budget
- Building Costs (Const./Design/WSST) $< $250/SF for Needs vs. Wants
- Energy utilization $30\%$ lower than baseline ASHRAE 90.1 and achieve Energy Star Rating
- $30\%$ reduction of non-patient care space compared to other TEC Facilities
- 24 month goal for Design and Construction
- Increase room flexibility to decrease operational downtime for future room/department renovations
- Build to accommodate future growth possibilities

## Outcomes

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<td>$24.6$ M total budget achieved with recent owner request to increase budget</td>
<td>Built for $269/SF for occupied space, and $239/SF for total building for Needs</td>
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<tr>
<td>We beat ASHRAE 90.1 by $24%$ and will achieve Energy Star Rating</td>
<td>Achieved $23%$ reduction of non-patient care space yielding a $2.1M savings</td>
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<td>Achieved a 20-month start to TCO</td>
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<td>Created 62 same/right sized exam/procedure rooms with $92%$ flexibility</td>
<td>Maximized building square footage on-site and incorporated growth for 2 more pods for $33%$ increased capacity</td>
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Daily Management System
First Four Days of Operation

900 new patients

15% using electronic kiosk for check in (Goal 20%)

3-5 minutes from check-in to blood drawn in exam room (goal was 12 min.)

Virtually no wait time

Daily feedback from staff/providers implemented pre-opening and on-going Daily Management Improvement System
Questions?
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