Planning and Building a New Laboratory at a Busy Acute Care Site

Sherrie Warren
Operations Manager
Lower Mainland Laboratories
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Content

- Background
- How it all began - we’re going to do what?
- What do we need - how was that identified?
- Selecting the P3 partner and what does that mean?
- Working with all of the different players
- How are we going to do all of that work and run our very busy laboratory?
- Moving day
- Following up
Background

- Surrey Memorial Hospital - 450 bed 90,000 ED visits
- Surrey population \( \uparrow \) 27% 2003-2013
- >5,000 births per year
- Regional referral site
- Fraser Valley Cancer Centre on site
How it all began

- Master Site Planning - at a Director/Executive Director and VP/CEO level to understand needs of entire site - is undertaken.
- Each unit/department has to be prepared
- Functional plan - space requirements
- Indicative design
What do we need?

- CSDP - Clinical service delivery plan
- Work with Facilities Management department to compile requirements for Project Agreement (PA)
- Hard decisions to make - what is the footprint and what can we fit in
- Long range planning / or is it crystal ball gazing?
- New Technologies, innovations, new processes
- Go to every meeting, join in as much as possible to understand requirements of others
- How to deliver current service and enhanced service based on others needs
Selecting the P3 Partner

- What is a P3 partner?
- Someone from the Laboratory team to be included
- Take lots of notes
- Raise concerns but keep all proponents as possible outcomes and how that affects your plans
- Keep it real, don’t let it get personal
- Discuss, think, discuss some more, think some more - make decision as a group for best option for ALL involved
Who’s who in the zoo?

- **Major roles:**
  - Facilities management - clinical planner from HA and architect from P3 partner
  - Equipment lead - one for each - P3 partner and HA
  - Training lead
  - Fit up (logistics) lead
  - Move lead
  - Finance lead
  - IMIT lead
  - Operations engineers - process flow
  - Workforce planning
Our must haves, nice to have and can we get that???

- Technology
- Regional Laboratory resources - Laboratory Scientists and Pathologists
- IMIT resources
- Literature searches
- Experts on Laboratory layout
- Site visits
Identify volumes

- Difficult to pin down
- Workload units versus number of tests
- Laboratory Department workload specific to each ward - ICU, NICU, HAU, Medicine, FBU, CYS, Surgical, ED, etc
- Operational Engineers - life savers
- Population growth patterns, aging population
- ELOS versus ALOS versus predicted future LOS?????
Next step

- Know our needs, know our partners needs (new beds, new units), identified volume increases, new technologies, new processes, new lay out

- Now the work starts
  - Clinical planner + architect
  - Equipment purchase HA + P3 partner
  - Interior design
BFF on project

Best Friend/Closest Ally - The one person that has your back and makes sure everything gets done in the best way for you and your service

Project Manager/Change Manager

Keeps track of the entire project - liaises with other programs, project team, helps acquire resources, information, gives you ideas, help and most importantly is always upbeat, finds answers to issues and identifies issues you may not have thought of before they happen. I cannot express how important it is to have a PM that you can work with, trust and is a consistent presence for you throughout the entire project.
**Work plan - timeline - what keeps you up at night.**

<table>
<thead>
<tr>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Jan</strong></td>
<td><strong>Mar</strong></td>
<td><strong>May</strong></td>
</tr>
<tr>
<td><strong>Feb</strong></td>
<td><strong>Apr</strong></td>
<td><strong>Jun</strong></td>
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<td><strong>Jul</strong></td>
<td><strong>Aug</strong></td>
<td><strong>Sep</strong></td>
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<tr>
<td><strong>Oct</strong></td>
<td><strong>Nov</strong></td>
<td><strong>Dec</strong></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Staffing Requirements &amp; Recruitment</th>
<th>PPID (Positive Patient Identification)</th>
<th>Vocera (hands-free communications)</th>
<th>Equipment Evaluation</th>
<th>Orientations (to the Laboratory)</th>
<th>Training (in the Laboratory)</th>
<th>Logistics &amp; Commissioning (new Lab spaces)</th>
<th>Move to Tower Laboratory</th>
<th>DAP (Accreditation)</th>
<th>Decommissioning vacated Laboratory spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PPID Go Live Dec 11 For Campus</strong></td>
<td><strong>PPID Go Live Dec 18 For Emergency</strong></td>
<td><strong>Vocera Go Live Feb 15 For Campus</strong></td>
<td><strong>Majority of staff oriented March 4, 5, 10, 12, 13, 14</strong></td>
<td><strong>Majority of Lab staff training March 24 - May 15 (9 weeks)</strong></td>
<td><strong>Move into Tower May 21</strong></td>
<td><strong>DAP cribe Apr 21</strong></td>
<td><strong>Move into Tower May 21</strong></td>
<td><strong>DAP cribe Apr 21</strong></td>
<td><strong>Move into Tower May 21</strong></td>
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**Critical Care Tower Project Coordinated Events**
- 100 Day Countdown Event
- Sneak Preview Event
- Day in the Life Scenarios (Dry Runs)
- Critical Care Tower Opening Event

**Notes:**
- FS Partner Handover Feb 28
- Lab move into Tower May 21
- Tower open to patients June 1

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The table and diagram illustrate the key milestones and critical dates for the project timeline, including staffing requirements, equipment evaluations, and critical care tower project events. Each section highlights specific dates and activities crucial for the plan's execution.
SMH TOWER - this is what we built

8 - 36 bed Neurology/Medicine
7 - 36 bed Nephrology/Medicine
6 - 26 bed High Acuity Unit (HAU)
5 - 26 bed Intensive Care Unit (ICU)
4 - Laboratory
3 - Administration/UBC
2 - 48 ‘bed’ Neonatal Intensive Care (NICU)
1 - 126 bed/stretcher plus 40 chair Emergency Department

Basement - 120 seat lecture theatre / 450 parking spots
Graces layer cake
How do we get all the work done? Task team concept

- Task teams - formed 14 task teams
  - Budget, DAP, Workforce planning, Move, Equipment, Training, Orientation, Logistics, Decommissioning, IMIT, Change management
- Project team - keep it small, Director, Manger, PM and IMIT PM

- Who do we involve and at what point?
  - Regional Laboratory Scientists and Regional Medical Discipline Directors
  - Local Department Section Heads, Local Department Medical Leads
  - Front line workers
  - Vendors
Task teams

- Every team involved staff from each of the 5 disciplines moving into the tower
- Some of the teams we included the Pathology department and off-shift staff - Change Champions, Change Leaders, Budget, Workforce planning, DAP
- We utilized our Technical coordinators as leads for the task teams, the teams then consisted of front line workers - Medical Laboratory Technologists and Medical Laboratory Assistants
- To make sure we had as much involvement as we could - our task team membership was approximately 80 staff members - almost half of our staffing level at the time
## Day in the Life

<table>
<thead>
<tr>
<th><strong>MORNING</strong></th>
<th><strong>AFTERNOON</strong></th>
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</thead>
<tbody>
<tr>
<td>Registration</td>
<td>Registration</td>
</tr>
<tr>
<td>7:30-7:45a</td>
<td>12:00-12:15p</td>
</tr>
<tr>
<td>Welcome, Overview &amp;</td>
<td>Welcome, Overview &amp;</td>
</tr>
<tr>
<td>Instructions</td>
<td>Instructions</td>
</tr>
<tr>
<td>7:45a-8:15a</td>
<td>12:15-12:45p</td>
</tr>
<tr>
<td>Department checks</td>
<td>Department checks</td>
</tr>
<tr>
<td>8:15-9:00a</td>
<td>12:45-1:30p</td>
</tr>
<tr>
<td>Scenario #1 &amp; 2</td>
<td>Scenario #1 &amp; 2</td>
</tr>
<tr>
<td>Walkthrough</td>
<td>Walkthrough</td>
</tr>
<tr>
<td>9:00-11:00a</td>
<td>1:30-3:30p</td>
</tr>
<tr>
<td>Dept Huddle &amp; Issues</td>
<td>Dept Huddle &amp; Issues</td>
</tr>
<tr>
<td>Review</td>
<td>Review</td>
</tr>
<tr>
<td>11:00-11:15a</td>
<td>3:30-3:45p</td>
</tr>
<tr>
<td>Debrief &amp; Next Steps</td>
<td>Debrief &amp; Next Steps</td>
</tr>
<tr>
<td>11:15-11:45a</td>
<td>3:45-4:15p</td>
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Change management

**Awareness** of the need for change

**Desire** to participate to support the change

**Knowledge** on how to change

**Ability** to implement required skills and behaviours

**Reinforcement** to sustain the change
Positive Patient Identification - PPID

- With the use of wireless technology and hand held devices our collectors have the ability to scan a barcode on a patient wrist band to positively identify the patient.

- Real time information - in the lab we can see which specimens are collected if we are expecting a stat to arrive.

- SMH has not had one identification error in collection since we implemented PPID in December 2013.
Some innovations

Vocera

Sysmex Hematology

Roche Chemistry

Bruker MALDI-TOF

BD Innova

BD Max PCR
Moving Day

- Decision was made to open the Laboratory and Pediatric Pharmacy prior to moving in the patients
- Phased in or Big Bang?
- Engage people - they are the most important asset
- Hire a proven moving team
- Lay out the actions for the day(s)
- Never underestimate the amount of garbage
4 months later

- We are doing well, we have celebrated successes - VERY IMPORTANT
- We worked through adversity - not all equipment will work as it is promised to
- But we are doing very well, our TAT for CBCs for the ED has improved
- We are working on new procedures to make the TAT for ABG in ED even better with our new setup - PTS right beside ABG machines
- Expanded our Microbiology in June and added all of Fraser East Microbiology
Open concept - Hematology/Chemistry/PPA
Photos
Thank you - Any questions?