



Overview of “LEAN” Initiatives in British Columbia’s Health Authorities

Presenting at:



BC Financial Healthcare
PROFESSIONALS SOCIETY

Changing the Landscape of Financial Health Care
Conference October 5-6 2009



Contents

- Overview of “Lean” Theory
- Lean Positioning in Each of BC’s HA’s
- Wrap Up
- Questions and Answers



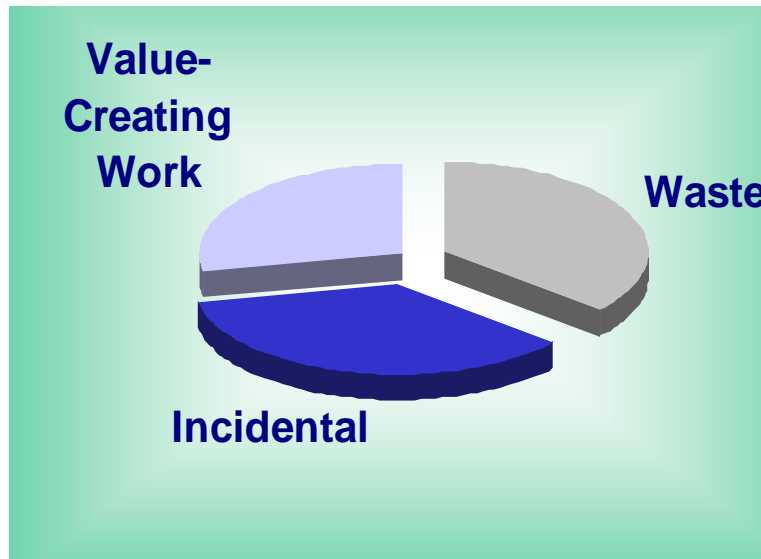
“LEAN” Methodology in Healthcare

- Toyota Production System – ‘Lean’
- Removal of waste and variability from workflow
- Waste
- Variability
- Culture/mindset shift by empowering staff in the redesign



“LEAN” Methodology in Healthcare

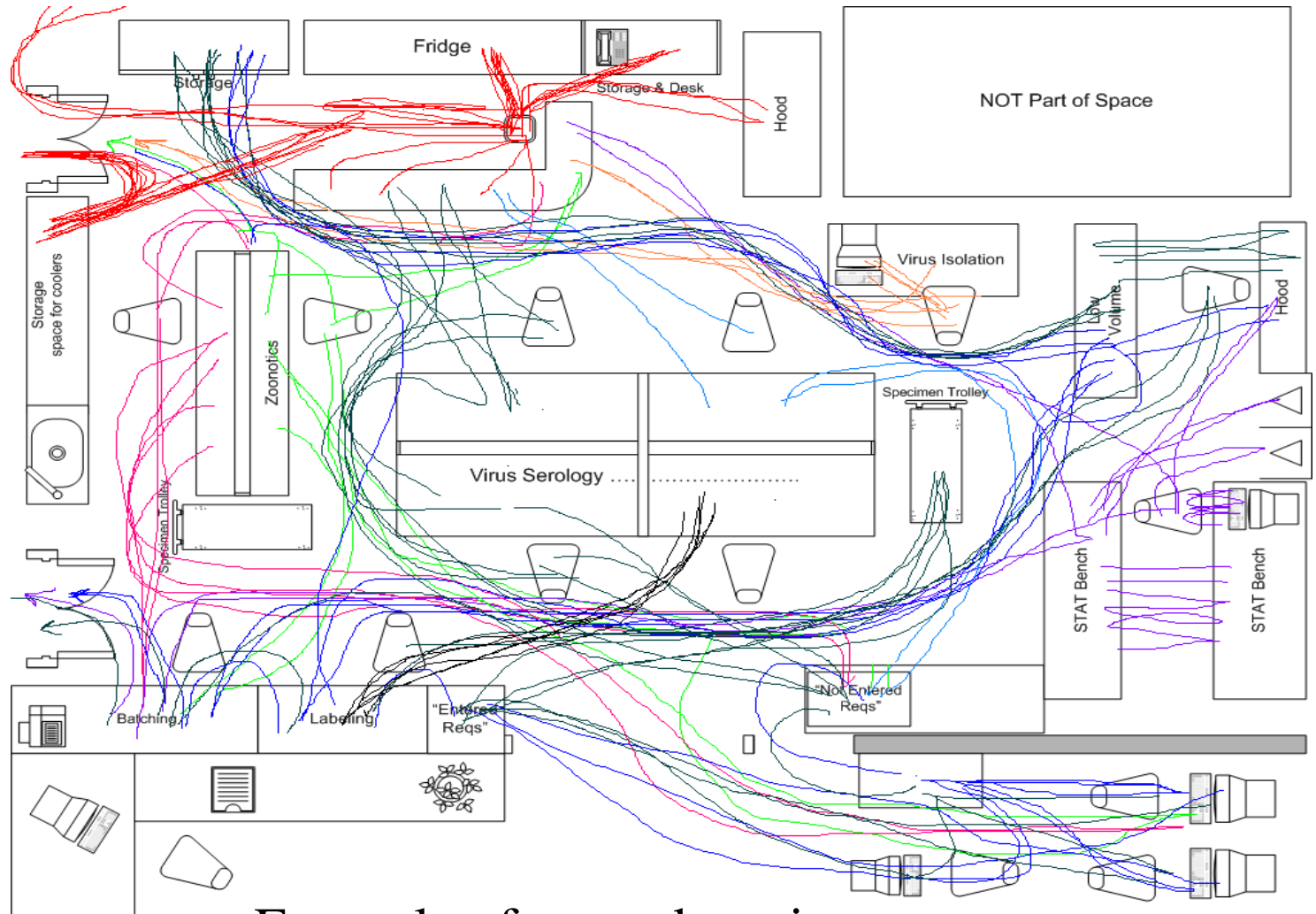
- Not All Work Creates Value;
- In fact most organizations waste *70%-90%* of their available resources



Types of Waste:

Waiting
Overproduction
Repair/Rework
Motion
Processing
Inventory
Intellect
Transportation

"LEAN" Methodology in Healthcare



Example of wasted motion





“LEAN” Methodology in Healthcare

Lean is NOT:

- a short term, one-time fix-it solution
- a set of tools
- something that can be delegated completely down or completely up

It is:

- long-term, core organizational strategy
- broad scale cultural change
- requires leaders to commit and lead and employees to engage, learn and strive for continuous improvement



“LEAN” Methodology in Healthcare

Lean is a Strategy,
not just a Tool



“LEAN” Positioning in British Columbia’s Health Authorities



Strategic Approach

1. Embed Healthcare Engineering Skills:

- Tactical Planning: Development and re-development projects – ensure projects incorporate LEAN principles
- Technical planning: Strategic
- Process Redesign: Linking with all senior operations leaders to inform approach to remove operational waste

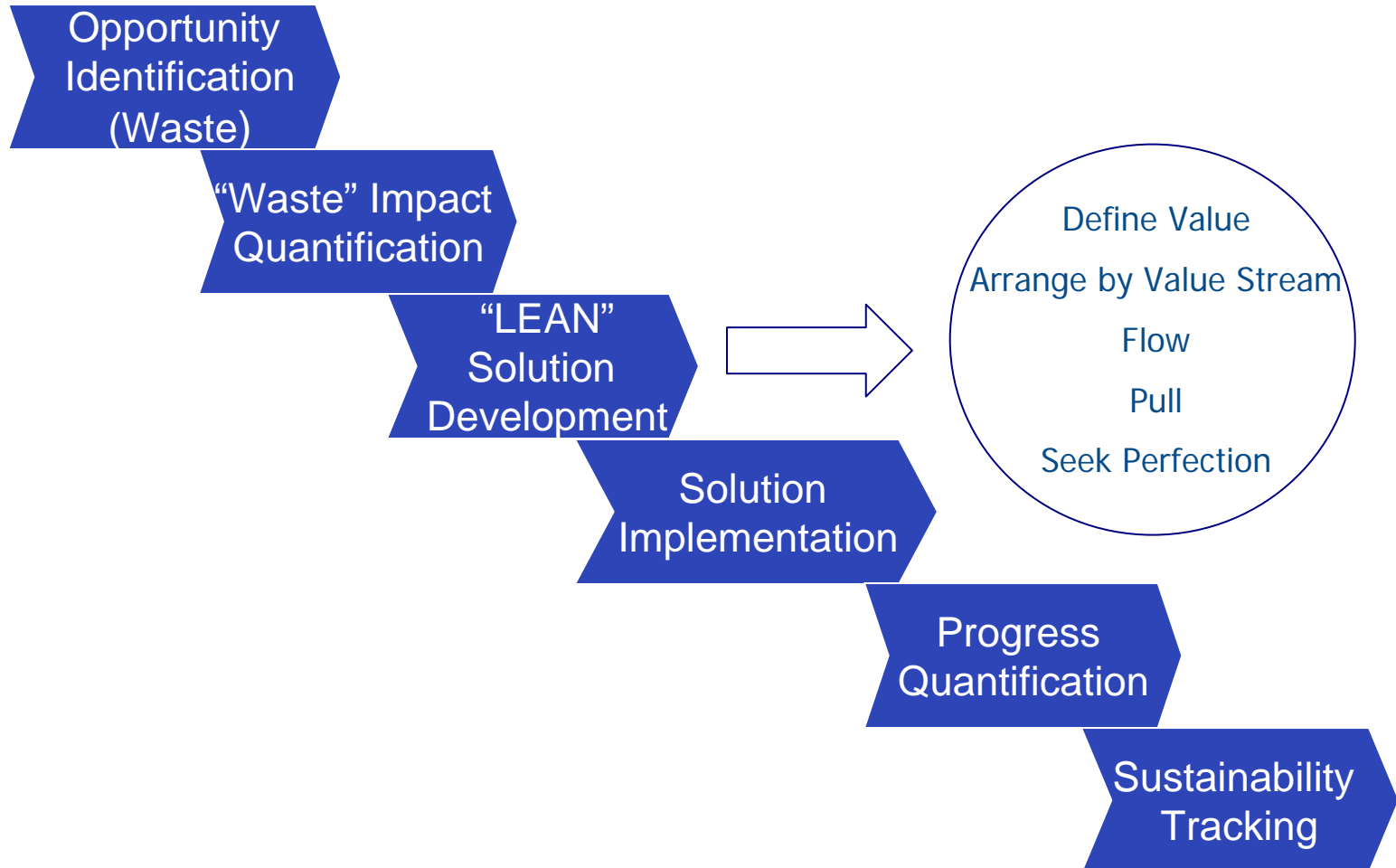
2. Educate: Educate leaders regarding business and operational tools available to “remove waste”

3. Advance Performance Indicators/Analytics Tools: Lead evolution/incorporation of relevant real time indicators/dashboards and analytical tools.



How Applied "LEAN" Methodology

Six Stage Process



Samples of “LEAN” Initiatives

- iCare: Removing waste in inefficiencies in Interprofessional Team Communications – 12 Acute sites
 - Outcomes: Dramatic reduction in patient LOS, Saving .5-1hr professional time daily
- Bed Turn Around Time: Removing Waste of Time in Acute Care Bed Turn Around Time; Implemented 12 acute sites
 - Outcome: BTAT reduced across network from 3.5 hrs to 2hrs
- Medical Imaging, Critical To Flow: Removing waste of overproduction.
 - Outcomes: Reduced barriers to flow dt MI





“LEAN” Positioning in British Columbia’s Health Authorities

Interior Health Authority



Interior Health

Lean Past 2006-08

- Consultant led projects in Lab services, Pharmacy, Food services
- Some internal knowledge transfer
- Projects did raise awareness and allowed us to begin the lean journey





Lean Present 2008/09

- IH wide 'Lean Education and Planning' project
 - Trained 6 internal 'Lean Leaders'
 - Held 4 focused Kaizen events
 - Held an internal Lean Forum for 200+ IH managers, directors and senior executives (Lean Healthcare speakers from across N. America)
 - Evaluation showed 90% wanted to see more of Lean! Momentum is strong...



Lean Future

- Senior Executive approved May 09, a 'Lean Learning Journey'. We are all learning what this is and how it applies to our healthcare environment
- CHRO Executive Sponsor
- We will focus lean activity on our major new build initiatives in Kelowna and Vernon
- Leadership led application vs. projects.
- Who's on board to help out?? Evaluation team, HR/OD, Finance, Ops Research...



“LEAN” Positioning in British Columbia’s Health Authorities

Northern Health Authority



Alignment with Strategic Plan

- Integrated Accessible Health Services
- Focus on Our People
- A Population Health Approach
- High Quality Services



Journey to Date

- Transformation Fund provided initial funding for Resource Implementation Team
- Explored quality improvement approaches including LEAN and AMI
- Trainees selected as cross section of sectors, occupation and geographic locations
- Education and project support for 14 Lean projects
- Development of internal capacity to provide in house training

Projects 2009/2010

- ED Waiting Time PGRH
- Health Records
- Overtime Authorization Process
- Infection Control
- ALC Patient Journey
- Ambulatory Care Clinic PGRH



Future Directions

- The Fort St. John Hospital and Residential Care project is actively engaged in Lean exercises to build for the future state of our new facility
- LEAN initiative is part of a broader quality and process improvement framework under development which aligns with NH Strategic Plan
- Development of QI Toolkit (includes Lean Tools, website and internal consultant support)



“LEAN” Positioning in British Columbia’s Health Authorities



Provincial Health Services Authority

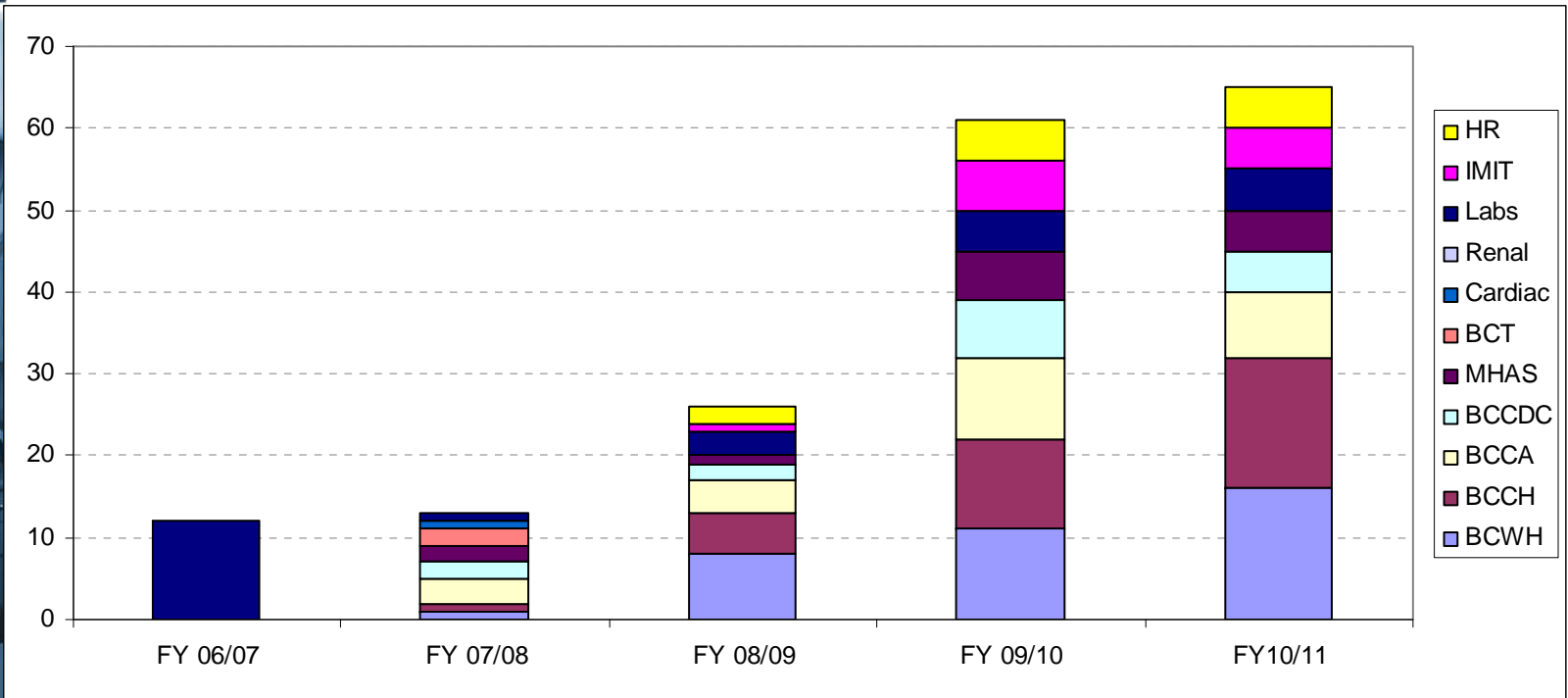
**Province-wide solutions.
Better health.**

Journey to Date

- 2006/7 – Sporadic projects (tinkering)
- 2007/8 – Innovation Fund
- 2008/9 – Transformational Fund
- 2009/10 – PHSA Budget
 - Evaluating the impact of PHSA Lean Healthcare through an independent evaluation program in partnership with UBC & VP of Research



Rapid Process Improvement Workshops – Activity By Year



This year: 9 Clinic areas targeted & 2 Non-Clinical
 Completed over 90 lean events to date

Lean Healthcare Leaders – “Getting back to the floor”



The leaders of the area to be improved, lead the workshops.

By the end of 2009 there will be over 110 fully trained Lean Leaders within PHSA

Every 4 weeks, 2 Japanese Sensei's coach the Lean Leaders through the process of rapid waste removal and simplification

Future Lean Projects



Use Lean to design the new BC Children's Hospital, ensuring minimized waste and maximized patient experience





“LEAN” Positioning in British Columbia’s Health Authorities

Vancouver Coastal Health Authority

Organizational Approach

- Began Workflow Improvement in 2007
 - Nursing Innovation Fund
 - January – March 2007
 - 3 clinical units
 - Ministry of Health Innovation Funding
 - September 2007 to March 2008
 - 11 units in 2 health areas engaged in several processes/unit
 - Ministry of Health Process Redesign/Transformation Fund
 - September 2008 – March 2009
 - 4 health areas engaged
 - Often several settings per health area
 - Each clinical setting reviewed several processes
- Focused on areas that were interested



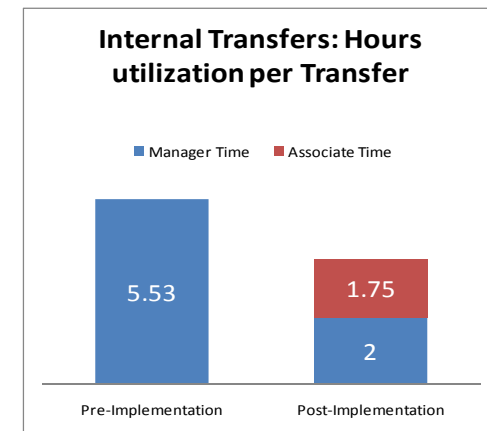
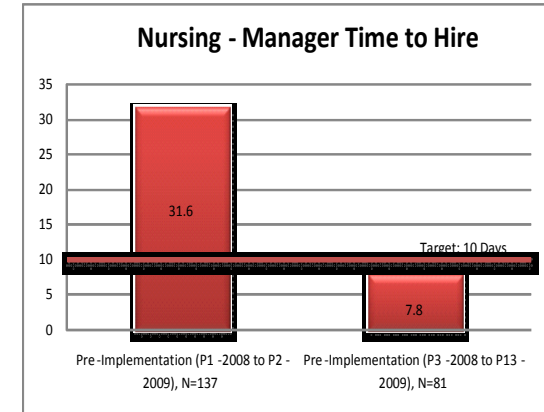


Types of Projects

- Business Process Reviews
 - Time to Hire
 - Grievances
- Clinical Process Reviews
 - Transfers to TCU
 - Intake and Scheduling
- Facilities Planning and Design
 - Hospital Expansion
 - Clinics integrating clinical and research

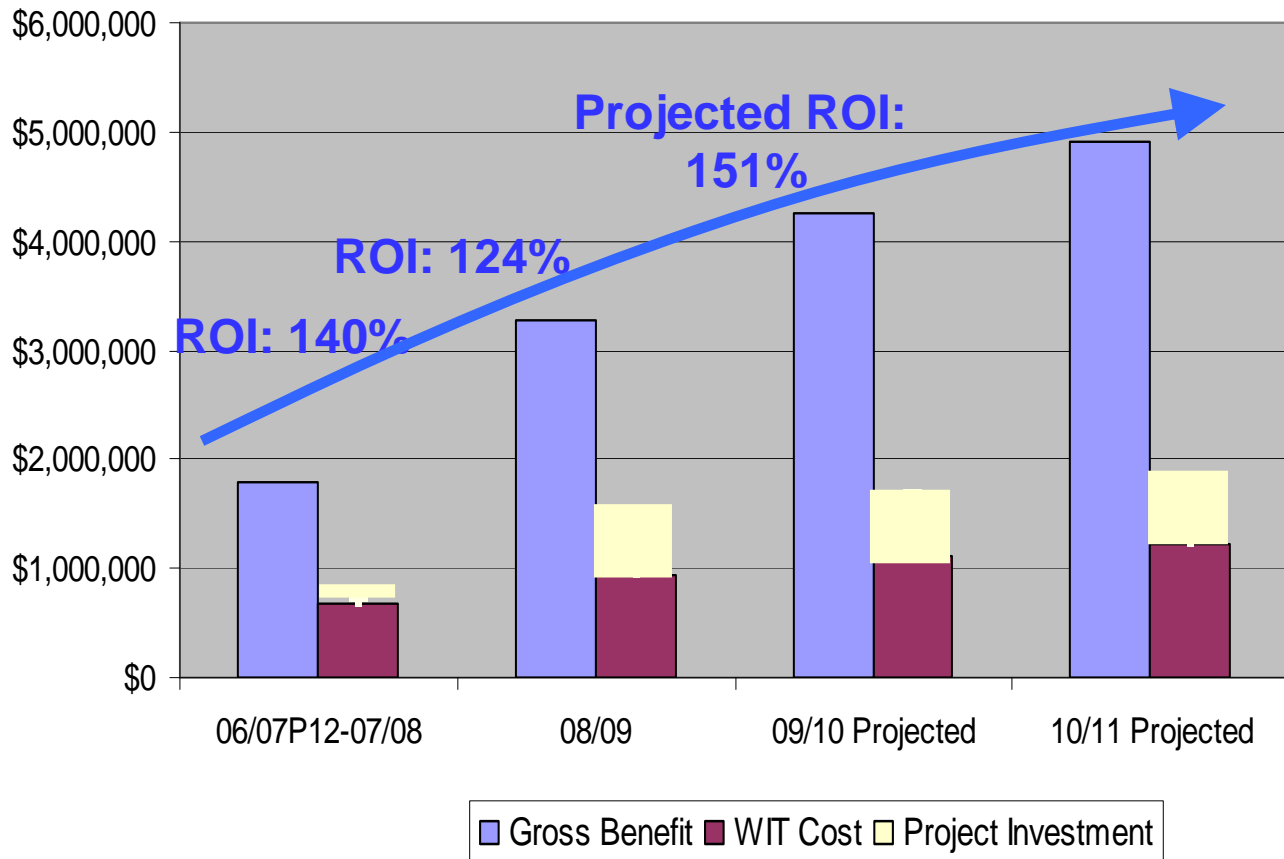
Efficiencies from “Lean” Initiatives

- Time to Hire:
 - Decreased process time:
 - 36% and 24% reduction in time
 - Decreased cost of process:
 - \$125 per transfer
 - Decreased overtime:
 - Vacant positions filled sooner
 - 24.13% of OT hours due to vacancy
- Efficiency Costs: \$176,516
- Overtime Costs: \$ 99,452
- Total: \$275,968



WT Return on Investment with Projected Increase

Total Cost vs. Total Benefit with Increase



Lean Future

- Priorities being set by HSDA leaders
 - Move from users identifying area of focus
- Some priorities being set by VCH Executive
 - Focused on high cost
 - Bottom line savings
 - Balance no layoffs approach
- Move from reactive facilities planning to proactive planning using Lean principles
- Move from external grant funding to potential return on investment.



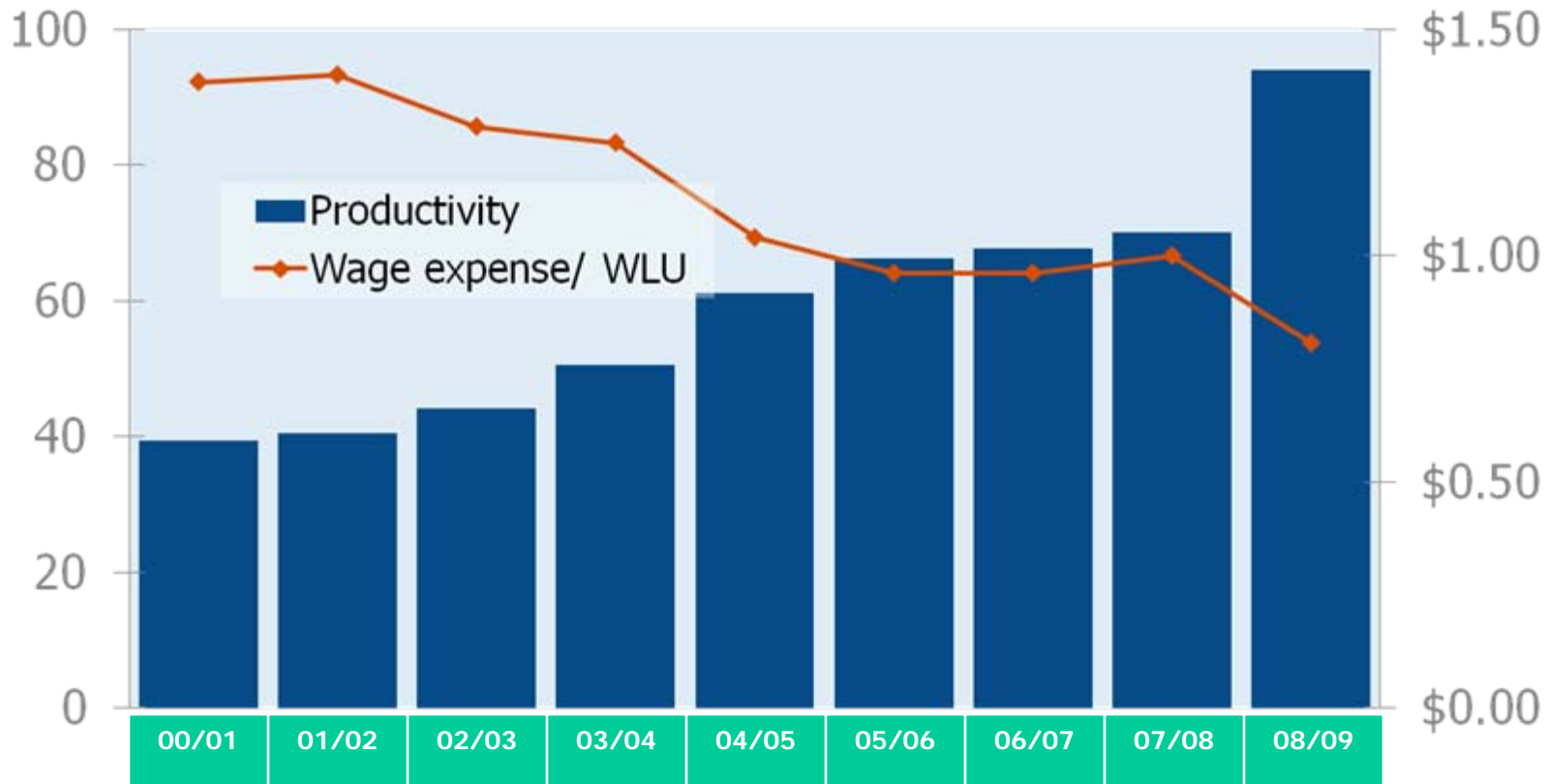


“LEAN” Positioning in British Columbia’s Health Authorities



Proven Methodology

RJH Core Lab Productivity vs. Wage Expense per Workload Unit



Approach

- Operational Excellence
- Hub and Spoke Model
- Strategic
- Tactical

Operational Excellence



Strategic



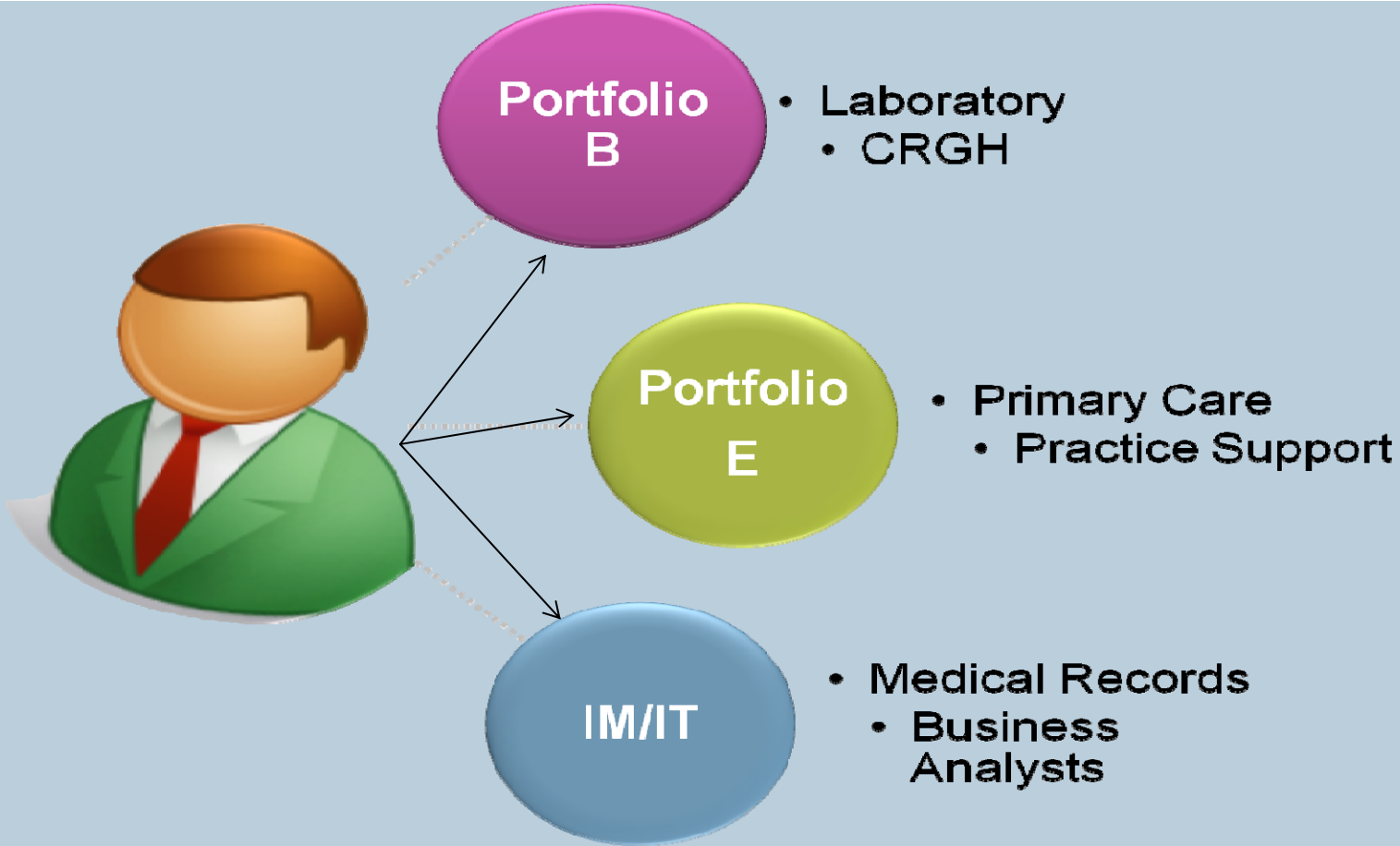
**Care
Delivery
Model
Redesign**

**Alternate
Level of
Care**

**Infection
Prevention
& Control**

**Staff
Safety &
Injury
Prevention**

Tactical



“LEAN” and You

- How can Financial Healthcare Professionals be
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