Laundry Transportation 3P

October 1 – 5, 2012

3sHealth Imagination Space
Regina, Saskatchewan
3P – Production Preparation Process

- Lean tool that brings together a diverse team for a multi-day creative process to identify new ways to meet customer needs
- Leverages expertise and ideas from partners for collaborative solutions
- Leads to more improvement events
- Supported by provincial health sector Lean initiative
Laundry 3P Data Collection Team

This team helped plan, and gathered preliminary data for, the 3P event:

- Wanda Andreen and Hal Dogniez, North Sask Laundry
- Hidy Blommaert, Christina Denysek, and Ina Polowick, Sunrise Health Region
- Jackie Edwards and Irene Popowycz, Saskatoon Health Region
- Dominic Mancuso, Valley View Centre, Moose Jaw (Ministry of Social Services)
- Greg Schutte, Five Hills Health Region
- Giles Vanderlaan and Denni Wood, Hospital Laundry Services, Regina Qu’Appelle Health Region
- Shirley Wheeler, Sun Country Health Region
Project Goal

*Develop an efficient laundry transportation system from the dock of the laundry processing plant to inside the health care facility loading dock.*

Note: The project did not look at improvements to be made to laundry processing, or to laundry usage in the health care facilities.
Objectives

Optimal transportation systems for 6 given configurations for plant and depot locations, with a focus on:

- **Travel distances/routes** (based on plant capacity, customer demand, and truck capacity)
- **Worker safety** (OH&S standards for moving carts and lifting bags, gloves for handling soiled linen, etc.)
- **Infection prevention and control** (prevent contamination of clean linen from soiled linen and other goods)
- **Error reduction/improved quality and accuracy** (right product, right container, right location, right time)
Data Collection Prior to Event

The 3P Data Collection Team rode with truck drivers to document the delivery of clean linen and pickup of soiled linen, and then met to review the data and prepare “Current State” maps.
Current State

- Five central laundry processing plants (Regina, Prince Albert, Yorkton, Moose Jaw, and Weyburn)
  - Saskatoon wash/dry facility closed November 2011; currently operating a distribution centre with linen processed by K-Bro
- Outdated equipment and processes
- 23 million pounds of laundry processed a year
- Frequency of clean deliveries and soiled pickups varies from multiple times per day to weekly
- Trucking handled by internal and external providers
- Various sizes of trucks and carts
- Approximately 1.3 million km travelled every year
- Need for infection prevention and control standards
- Need for ergonomic improvements to carts
- Need for improved processes at loading docks
Opportunities for Improvement

The 3P Data Collection Team identified opportunities for improvement with a focus on safety, quality, and delivery.
Summary Data

- Regina, Saskatoon, and Prince Albert deliver 80% of annual usage of clean laundry in the province.
- 80% of our annual deliveries of clean laundry is consumed by 14% of our customer base.
The 3P Event – October 1-5, 2012

Over 40 representatives from 10 health regions, 3 unions, all 6 laundry processing operations, one transportation company and 3sHealth, including drivers, loaders, unloaders, housekeeping staff, porters, laundry processing staff, and directors of materials management participated.
Lean Facilitators

Brent Williams
John Black & Associates

Tyler Chiddenton and Lilyans Zelada
Ministry of Health’s Provincial Kaizen Promotion Office
Team Members Shared Fears

- Losing my job?
- Losing working hours in laundry
- Privatization
- Complex & overwhelming data/process
- Processes for rural-small regions
- Excited to be afraid!
- Some people don't speak up - some people don't have a voice
- Lack of work - lay off people if things change
- Future for M.J. workers?
- Losing laundry facility in Weyburn
- Excited!!
- Keeping safety for workers in mind!

→ not getting out on time!
→ Work that will come after 3P.
→ For staff → layoffs? change?
→ Concerns with reducing the plants to 1→2.
→ People hold back; don't express opinions.
→ Implementing changes - how will affect workers?
→ It's going to come back to cost - not necessarily efficiency.
→ Won't get carts fixed + change will not happen.
→ Will this new implementation be favorable to all staff?
→ Go through layoffs with laundry centralization.
→ How any of these solutions have personal affect on workers
...and Expectations

**Expectations**
- *Keep my job*
- *See how things can be more efficient/easier*
- *Reduce linen coming back*
- *Infection Prevention*
- *Do the job with the least physical effort possible*
- *What are provincial plans for laundry*
- *Open/honest 2-way comm.*
- *Learn a great deal!*
- *What direction are we going?*
- *Better safety practices*
- *Increase Inf. Cntl./Efficiency*
- *Learn more - open mind*
- *Achieve a solution and move forward*
- *Learn about 3P and how to improve the laundry sys.*
- *Perfect laundry system throughout the prov.*
- *New plan to move fwd*
- *“Wow” factor*
- *Excited to be involved - look for standards*
- *Good ideas / safety practices*
- *Learn about lean / prevent workplace incidents*
- *Stay grounded - work to*
What should our system look like?

Desired Attributes

- Minimal environmental impact
- Delivery frequency to meet customer demand
- Safe*
- Gold standard infection control*
- Versatile / flexible
- Schedule/routine*
- Cost-effective
- Quality*
- Contingency plan
- Standardised docking*

Safety*

- 0 injuries
- Proper use of PPE
- Establish standards - monitor/audit
- Safe work procedures for all equipment
- Engineer equipment for worker safety

Efficiency*

- Optimize resources
- Right vehicle with right volume to right customer at right time
- Max customers served - minimal highway usage

Quality

- 1-touch handling of linen*
- Separate soil linen carts*
What should our system look like? (Continued)

- Efficient*
- Unloading system
- Employee satisfaction
- Consistency*
- Right vehicle for load*
- What is required – when required
- Right amount of staff
- Knowledge for staff - OHS, Infection control
- Communication*
- Work within transportation standards (12hrs/5days)(fatigue) regulations*
- Dock at facility - deluxe package
- Safe and repeatable loading procedures
3sHealth Leadership

Project Sponsor
Andrew Will
3sHealth CEO

Process Owners
Mark Anderson
Vice President, Business Development

Team Lead
Jill Forrester
Director, Kaizen Operations

Jim Crawford
Director, Provincial Linen Services
3P Team Member Contract

Contract

To give full play to my team’s creativity

Creativity comes into existence by removing the hurdles in the way of creative thinking and idea generation.

Therefore, as one who tries to be creative, I do hereby promise to do the following to improve my creativity:

1) I will not judge (good or bad) another person’s idea.

2) I will make every effort to overcome the hurdles in my own thinking in order to generate useful ideas.

3) I will not think in limited ways but will make every effort to look at the problem from many angles and especially to get ideas from nature.

4) I will make every effort to express my ideas openly and not fear the laughter of others.

5) I will return to my 12 year old mindset and will use this style of thinking to generate useful ideas.
Infection Prevention and Control

Key Points

- Soiled linen needs to be kept separate from clean linen and other goods (either in a separate space, or using barriers)
- Regular handwashing is needed for all personnel who handle clean and/or soiled linen (e.g. drivers, loaders and porters)
- A standard for truck (including cab) and cart cleaning is needed
- Unused linen returned to the plant should not be considered clean
Key Points on Ergonomics

- Tasks should be within “strike zone”
- Larger casters roll over bumps more easily
- Pushing better than pulling
- Equipment and handles should be adjustable to fit different heights
- Avoid unnecessary lifting, pulling, repetitive motion, sustained and awkward postures, vibrations, and exposure to heat and cold
Understanding the Work

The 4Ms
Man, Materials, Methods and Machines

Fishbone diagrams outlined each step in the production process.
The Seven Teams

Teams created transportation solutions for 6 possible laundry plant scenarios:
1. 1 plant – Regina
2. 1 plant – Saskatoon
3. 2 plants – Regina & Saskatoon
4. 2 plants – Regina & Prince Albert
5. 3 plants – Regina, Saskatoon, Prince Albert
6. 5 plants – Regina, Saskatoon, Prince Albert, Yorkton & Weyburn

The 7th team worked on Linen Cart Design, with a focus on better ergonomics and increased infection prevention and control.
A Fresh Look

- Teams designed a new set of routes based on existing customer demand
- Options considered:
  - Drop off depots in different locations
  - No depots
  - Clean and soiled linen on separate trucks
  - Single day schedules for drivers
Creative Thinking

To generate creative ideas, teams were asked to find 7 new ways to design each set of routes
Common Findings

- Depots/cross docks are needed to cover the distances
- Standard infection prevention and control practices are needed in order to design final routes
- Effective scheduling and communication procedures are needed between drivers and staff who are responsible for receiving clean linen at facilities
- Laundry carts need to be re-designed to be ergonomically friendly for all users, and incorporate infection prevention and control mechanisms and other safety features (e.g. clear line of vision, brakes)
- Improved mechanisms (cart wheels and brakes, lifts, portable docks etc.) and techniques are needed to ensure safety during loading and unloading
Team 1 – Regina

Terry Zahorski, SEIU-West Representative, Saskatoon
Gayle Zielinski, Materials Management, Sunrise Health Region
Denni Wood, Production Coordinator, Hospital Laundry Services, Regina Qu’Appelle
Daniel Thomas, Driver, Five Hills Health Region/Valley View Laundry
Rick Leaderhouse (missing), Materials Management, Prince Albert Parkland Health Region
Team 2 – Saskatoon

Giles Vanderlaan, Manager, Hospital Laundry Services, Regina Qu’Appelle
Jody Hillier, Head Laundry Service Worker, Sunrise Health Region
Anita Labossiere, CUPE Representative, North Sask Laundry, Prince Albert
Fred Slobodzian, Materials Management, Kelsey Trail Health Region
Irene Popowycz (missing), Assistant Manager, Saskatoon Central Laundry & Linen Services
Team 3 – Regina & Saskatoon

Donna Walker, OH&S, Sunrise Health Region
Pam Russell, Supervisor, Regina Hospital Laundry
Jackie Edwards, Manager, Saskatoon Central Laundry & Linen Services
Suzanne Boudreau, Director, Materials Management Services, 3sHealth
Linda Bocian, CUPE Representative, Sun Country Health Region
Greg Schutte, Director, Housekeeping and Linen, Five Hills Health Region
Team 4 – Regina & Prince Albert

Emmanuel Baitiong, Housekeeping, Regina General Hospital
Dominic Mancuso, Coordinator – Laundry Services, Valley View Centre
Sandra Sandercock, Laundry, Heartland Health Region
Colin Karst, Director – Materials Management, Five Hills Health Region
Harvey Stewart, Owner – A&S Transport (Serves Sunrise Health Region)
Lori Dupuis, Manager, Housekeeping & Laundry, Battlefords Union Hospital, Prairie North Health Region
Team 5 – Regina, Saskatoon, PA

Lori Friars, CUPE Representative, Five Hills Health Region
Hidy Blommaert, Director, Operational Support Services, Sunrise Health Region
Janice Hill, Linen Receiving, Weyburn General Hospital, Sun Country Health Region
Hal Dogniez, General Manager, North Sask Laundry
Julie Maynes, Director, Materials Management, Regina Qu’Appelle Health Region
Kim Haluk, Driver, Regina Hospital Laundry Services
Team 6 – Regina, Saskatoon, Prince Albert, Yorkton and Weyburn

Ina Polowick, Laundry Manager, Sunrise Health Region
Shirley Wheeler, Regional Director Environmental Service, Sun Country Health Region
Nick Dunning, Supply Chain Manager, Battlefords, Prairie North Health Region
Rick Lowe, Director, Materials Management, Cypress Health Region
Terry Fjeld, Regional Director Environmental Services, Prince Albert Parkland Health Region
Patty Brockman, CUPE National Representative
Cart Design Team

Donna Krawetz, CUPE Representative, Sunrise Health Region
Vonnie Emperingham, Porter, Regina General Hospital
Carla Schatz, Ergonomics Specialist, Ministry of Labour and Workplace Safety
Gwen Cerkowniak, Provincial Infection Control Coordinator, Saskatoon Health Region
Grant Cooper, Driver, Sun Country Health Region
Derek Fuchs, RWDSU Representative, Hospital Laundry Services, Regina
Janet Stadler, Laundry Worker, Sun Country Health Region
Improvement Opportunities

Lean improvement events are now being planned in 2012 and 2013 to:

1. Standardize infection prevention and control procedures in linen processing, handling, and transportation; and

2. Standardize and improve linen usage in health care facilities
Other Improvement Ideas

Team members also suggested the following:

- Minimize handling of clean and soiled linen
- Improve hand washing processes for all linen handlers
- Line soiled linen bags with plastic to contain liquid
- Establish standard cart and truck cleaning schedules and procedures
- Investigate environmentally sensitive alternatives to plastic shrink wrap
- Ensure existing carts (including wheels) are in good repair
- Install bar codes on carts
- Improve flow inside the processing plants
- Improve delivery schedules (in partnership with health care facilities)
- Raise ergonomic and infection control issues at Occupational Health & Safety working groups
- Finalize provincial laundry manual
Action Items

- Look at routes - analyze schedules
  - talk to facilities that are receiving linen
  - order only what you need

- Infection Control
  - wash dirty tracks
  - Boxed linen bags - lined with plastic bags
  - Stop topping up linen carts - return linen to need to be washed
  - Strive for least amount of touches on linen

- Schedule to clean carts regularly
  - Check the carts - wheels, functioning properly

- Validate the data: drive carts, check numbers
  - Communicate with rural locations

- Standardized across province:
  - Infection control
  - Auditing
  - Wheels - OHS

- Webinars - share information on findings

- Standardization + usage:
  - Long-term care make-up
  - Types of linen
  - Acute care bed make-up
  - Terminology

- Barcode carts - track carts
- Infection control - cart wash station
- Flow - spaghetti diagrams
  - With in the plant
- Alternative to shrink-wrap environmental concerns
- Infection control - in-service education
  - Awareness to employees
- Develop policies around Accreditation Canada Requirements + IC
Lessons Learned

- Learned a lot of acronyms
- Complexity of transportation network of province - locations
- Great admiration for people working on delivering of laundry
- Distance we travel to deliver laundry
- Importance of wide scope of participants to do this 3P
- Huge opportunities for service improvements and lots of waste
- Opens up more opportunities to learn and improve
- Varies levels of fear but great anticipation to what we are able to complete
- Valuable to be involved in the beginning and share this information with staff
- More eyes on data "Light's on and you start to see more opportunities"
- Safer workplace - lots of opportunities
- Accomplish a lot in 4 days
- Brent is a slave driver
- Sad that this is the first time we have all gotten together, we have prided linen over 30 years.
- More collaboration and making stakeholders will strengthen the system
- Didn't think we had problems before this event
- Move away from top-down model used for women, unions and manage together to contribute to a solution in health care
- Grateful for people's time and patience for this week
- We don't know our clients' true inventory usage and needs. Hard to determine what
- Everyday we think we are doing it right!
What Participants Said

Gwen Cerkowniak
Provincial Infection Control Coordinator, Saskatoon Health Region
I’ll never look at a laundry cart again without thinking about this day!

Hidy Blommaert
Director, Operational Support Services, Sunrise Health Region
This is a good lesson. The more we collaborate and bring all the stakeholders together, the more we’ll be able to build a better system. I’m excited for the future.

Emmanuel Baitiong
Housekeeping Supervisor, Regina General Hospital
The standardization should be the main focus here because we have different methods of handling it... This has been a great opportunity and a great learning experience for me and I’m very grateful.
What Participants Said (Continued)

Terry Zahorski  
SEIU-West Representative, Saskatoon  
*It’s a new era, a new time. Health care needs something like this [3P event] to help us move forward together. We need workers, unions and managers to move forward together. It was good getting to know you!*

Nick Dunning  
Battlefords Supply Chain Manager, Prairie North Health Region  
*We have a responsibility to the patient to ensure that the laundry delivered to them is as clean as can be humanly possible. So I think any improvements that come out of this, whichever option we go for, I think the infection control will have been addressed and will improve the end result for the patient.*
What Participants Said (Continued)

Harvey Stewart
Owner, A&S Transport, Yorkton
There’s things that I’ve learned. A perfect example is a hand brake on the cart. Those carts have been around for 30 years and there’s engineers that have looked at those and they go down ramps and it’s hard to stop if it gets away on you. And a hand brake can fix it. That’s a great idea.

Linda Bocian
CUPE Representative, Sun Country Health Region
We always want the best for our patients, it doesn’t matter who you’re talking to in the system. I’m hoping that things turn out for the best, and that in the long run patients are better off, we’re not having shortages of laundry or those kinds of things.