

Notre Dame Laundry Hang-ups

**Quality Improvement Project
Report Out**

July 17, 2013

Define

What process did we look at?

The Notre Dame Foyer Laundry department provides laundry services to the clients of the Notre Dame Foyer (60 beds), Notre Dame Hospital (9 beds), Lorne Memorial Hospital (18 beds) and the Manitou Health Centre (26 beds). The Laundry department has noted continued increases in laundry poundage. The customer, staff and clients of the Notre Dame Foyer have noted that they frequently have a shortage of supplies (towels, facecloths, peries and bibs). The shortage tends to be more prevalent on Sundays and the early part of Monday. The processing of laundry varies day-to-day as well as employee-to-employee.

The Lean project looked at the laundry process and the wastes .

Define

During the define and measure day, we determined the laundry process as it is received by the laundry department, reprocessed and returned to the customer (more specifically at the Notre Dame Foyer). We also reviewed the various points of use by the customers.

What were the main perceived problems with the process?

- *Lack of quality assurance*
- *Incongruent Supply and demand*
- *Inadequate Human Resources*
- *Lack of priority processes*

Our Team Members



Our team was interdisciplinary.
It comprised of laundry/housekeeping staff,
a health care aid, and supervisory staff.

Our Measurements

We measured:

- Overall poundage

- How much laundry do we wash on a daily basis and for which facility?

- To determine the volume of laundry poundage to be washed and to determine if the volume are constant or variable. Also used to identify the volumes received from different facilities in the overall picture.*

- Sorting time

- How much time does it take to sort laundry?

- To determine how much time is spent sorting the laundry.*

Measure - continued

•Washing

–How much and of what do we wash in a wash cycle?

To determine what types of linen we are washing and to determine whether or not we are maximizing the washer size / capabilities.

–How long does it take for a washer load to complete a wash cycle?

To determine how long it takes to wash the laundry and whether or not we have enough staffing capacity to meet the needs of the customer.

•Drying

–How much laundry do we dry in a dryer at one time?

To determine how much and whether or not we are maximizing dryer capacity.

–How long does it take for a dryer load to dry?

To determine how long it takes to dry the laundry and whether or not we have enough staffing and dryer capacity to meet the needs.

The washing and drying measurements also indicate the push & pull.

Measure - continued

- Defects

- When and of what linen supplies are other departments short of?

- To understand when and what are the demands from the other departments. To determine the “pull”*

- When and why are there interruptions in the laundry department?

- To understand the interruptions that are preventing the laundry staff to focus their attention to completing their tasks.*

- Supplies Needed by Nursing / Dietary (Foyer only)

- To identify the volume of supplies needed that have been reported to be of short demand. (bibs, peries, facecloths, handtowels, towels).

- To be able to quantify the supplies required in one day to meet the customers' needs. To be used in the improve phase.*

Analyze

What story did our measures tell us about our system?

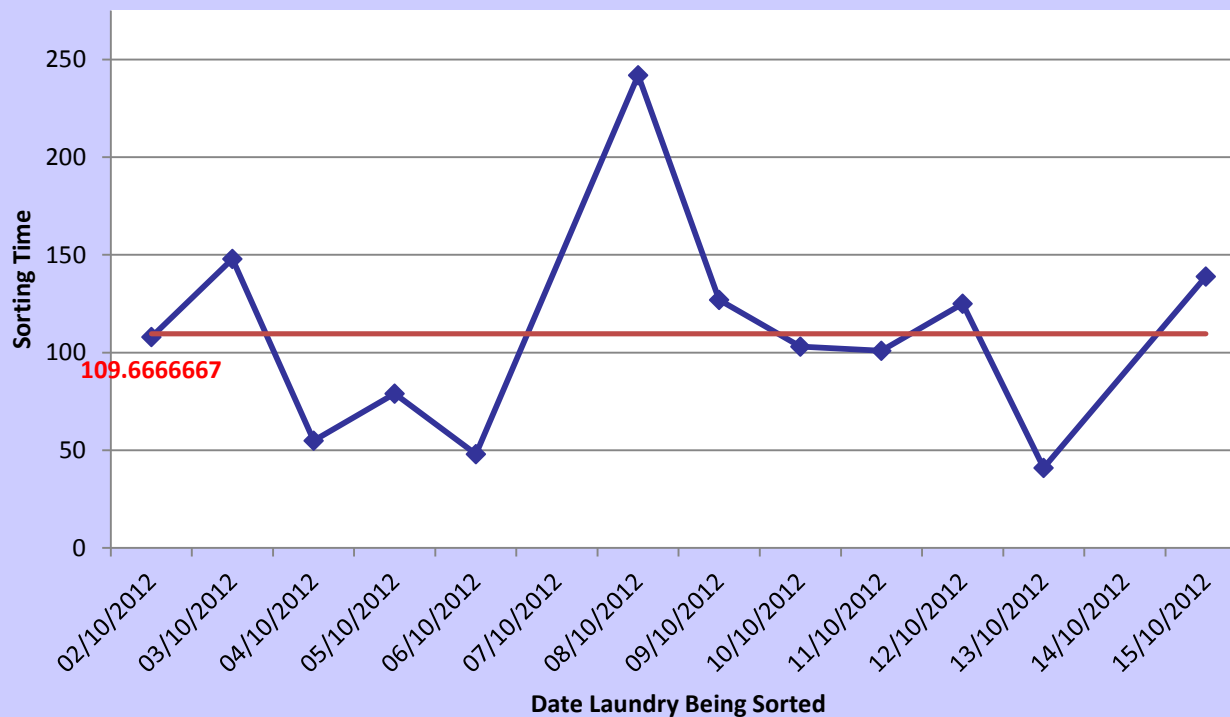
Did the measures validate what we initially thought the problem was?

Let's see what the data tells us?



Analyze

**Notre Dame Laundry Hang-Ups
Sorting Time with mean line
October 2, 2012 - October 15, 2012**

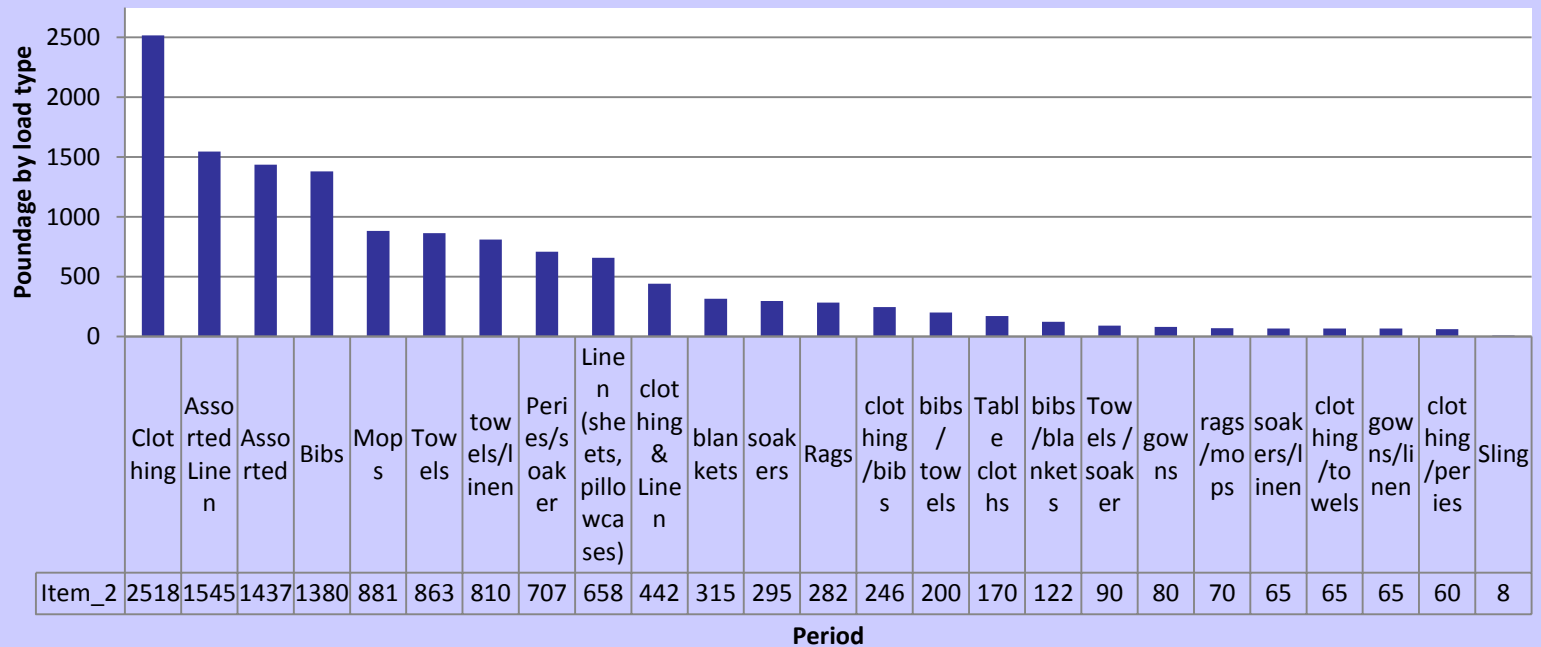


Time spent sorting laundry had significant variation. The sorting time did not correspond to the laundry poundage / day.

Analyze

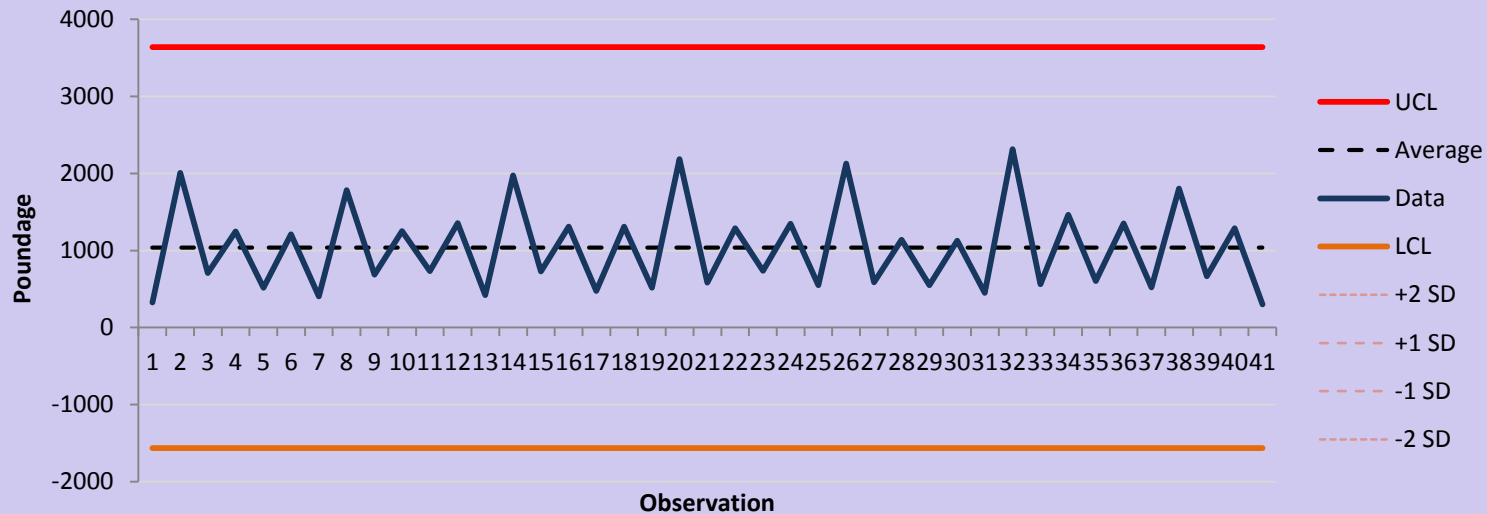
Laundry was sorted in a variety of manners.

**Notre Dame Laundry Hang-ups
Poundage / Load Type
October 2 - 15, 2012**



Analyze

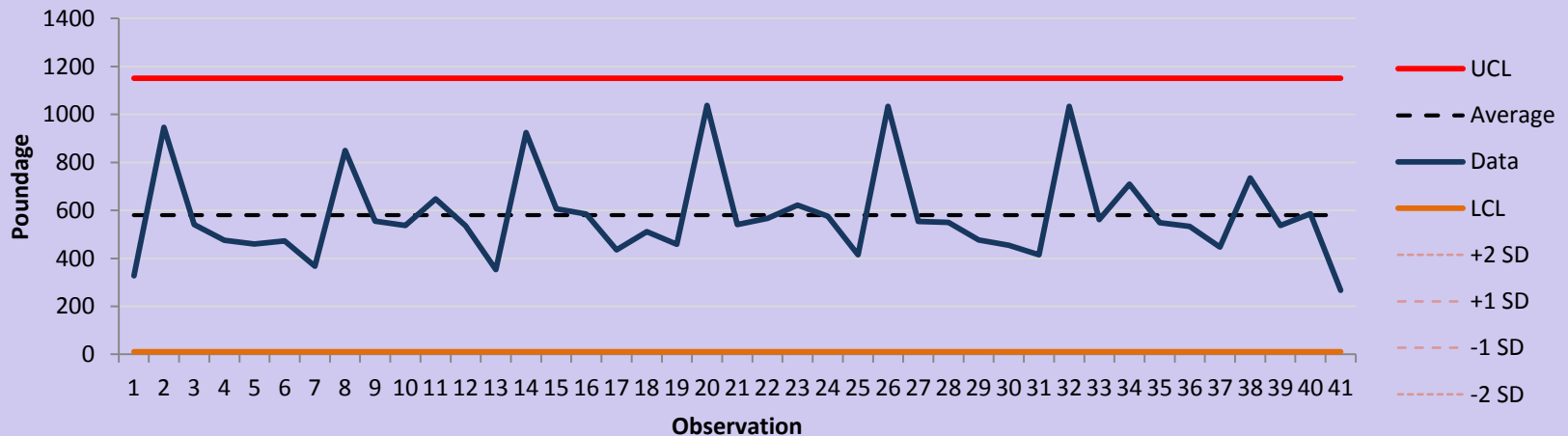
Notre Dame Laundry Hang-ups
X-Chart - All laundry poundage - All days-All sites
September 1 - October 18, 2012



There is variation in the laundry poundage processed and there is a pattern that repeats. There is three different processes happening.

Analyze

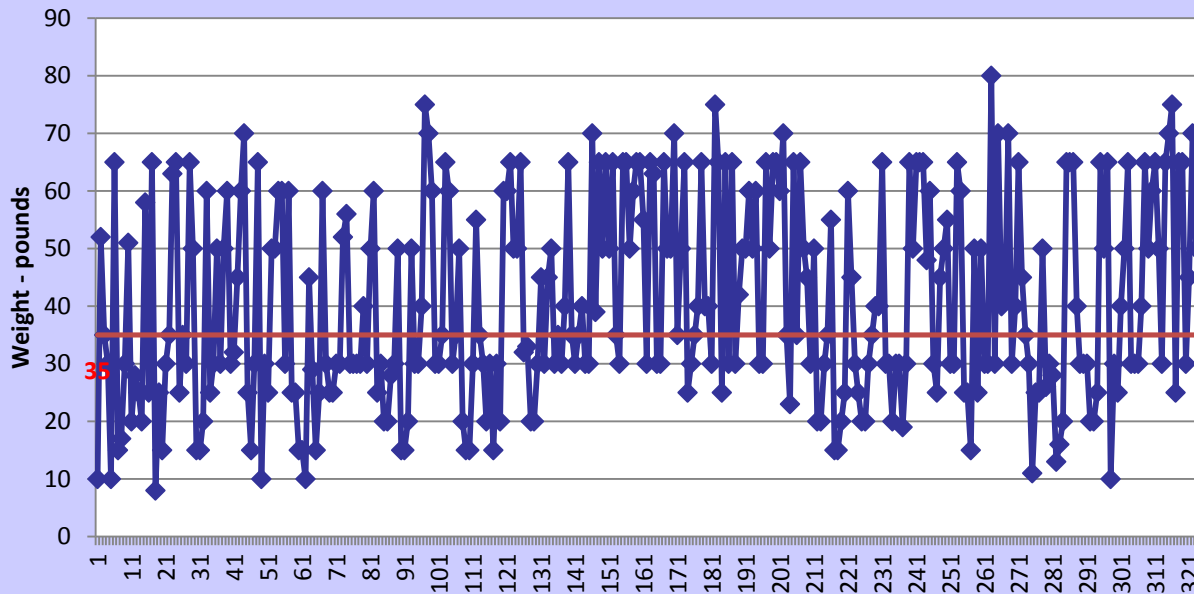
**Notre Dame Laundry Hang-ups
X-Chart - All laundry poundage - All days-Foyer
September 1 - October 18, 2012**



The laundry being process for the Foyer varies from day to day thus demonstrating an imbalance in the supplies available to the customer.

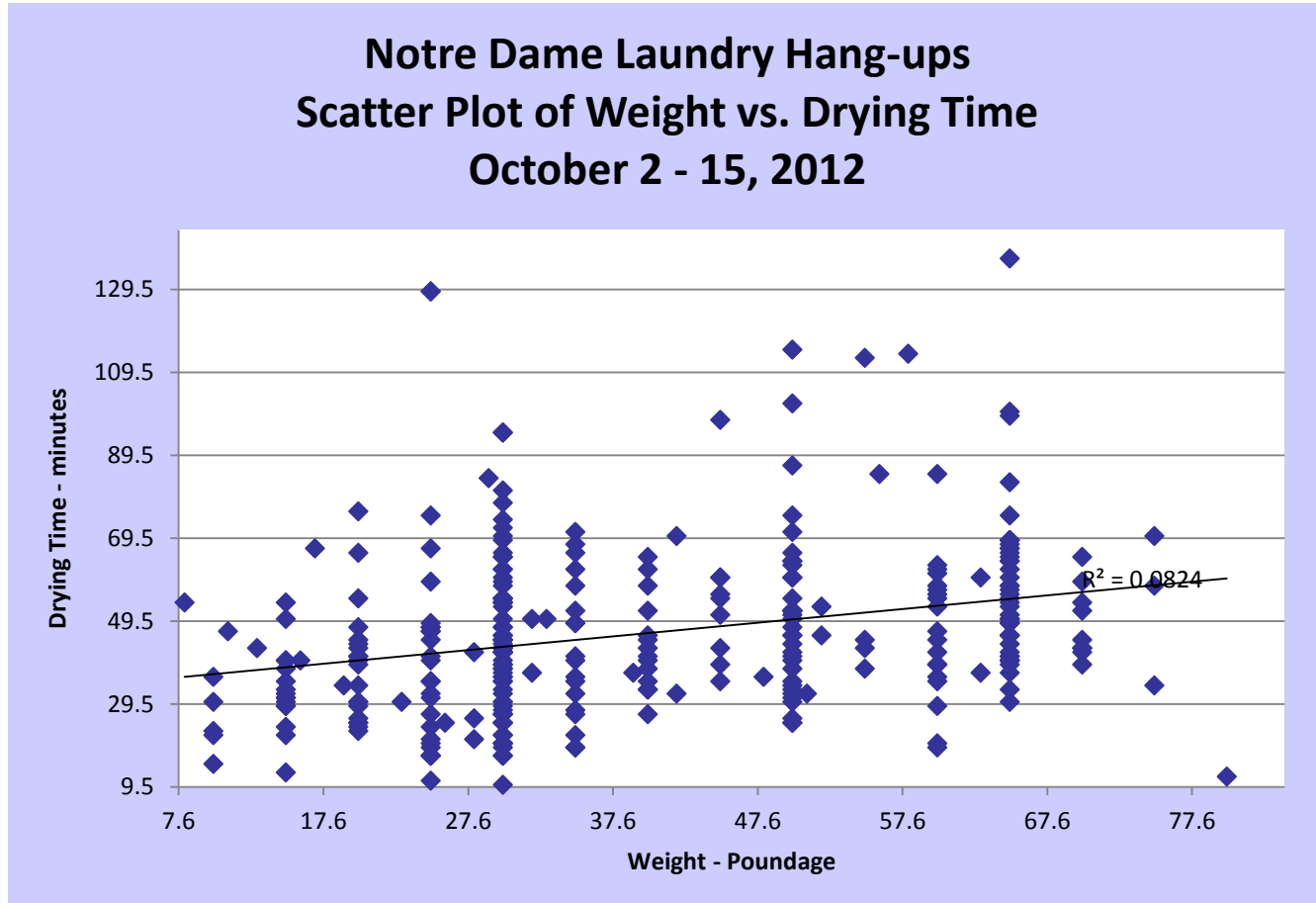
Analyze

**Notre Dame Laundry Hang-ups
Laundry poundage - Drying - All
Trend Chart with Median Line
October 2 - 15, 2012**



The dryers have all the same capacity. The dryer loads have a capacity of 75 lbs. The dryer operated under capacity in most situations.

Analyze



There is significant differences in the amount of drying time.
There is no consistency of drying time compared to poundage.
Drying smaller loads does not result in decreased drying time.

ing To See



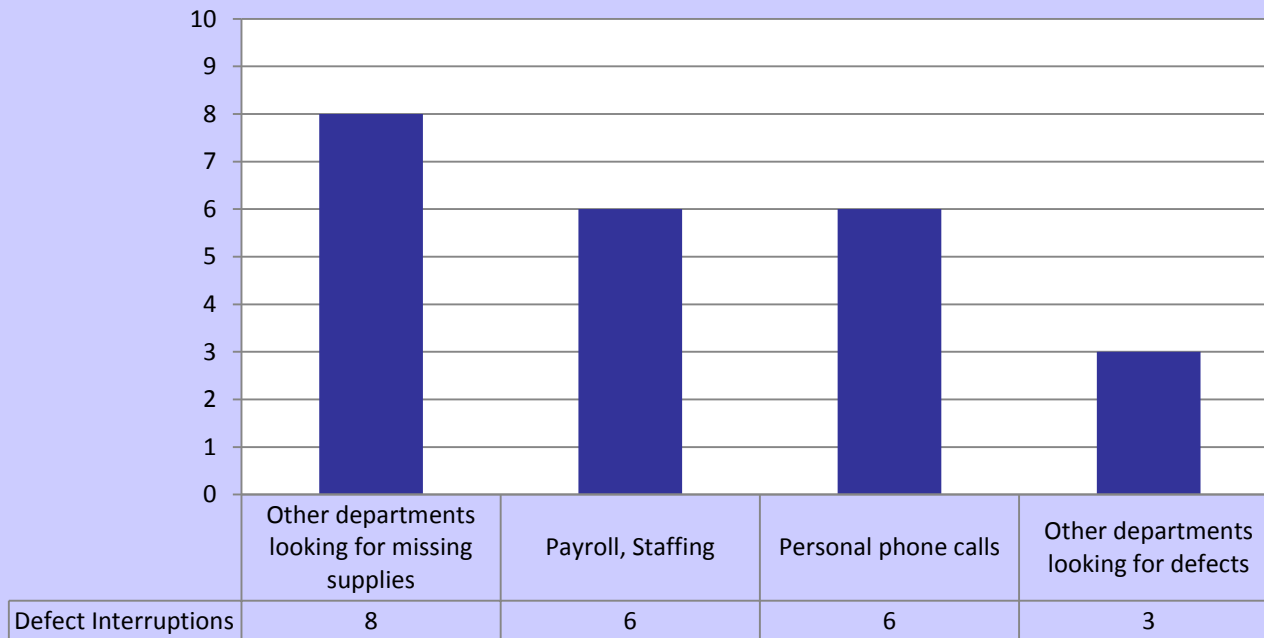
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Analyze - Drying Time

- There is significant differences in the amount of drying time.
- There is no consistency in drying time compared to size of dryer load (weight).
- Drying smaller loads does not result in decreased drying time.

Analyze

Notre Dame Laundry Hang-ups Defects: Interruptions in Laundry Department

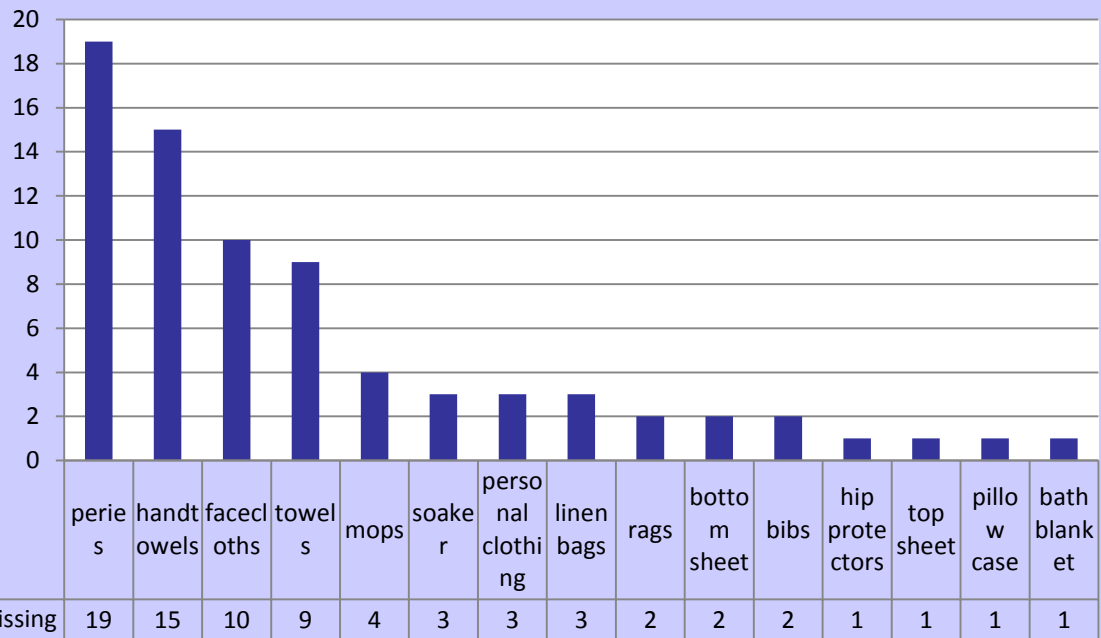


For the period of October 2 - 15, 2012

Other departments looking for missing supplies was the primary reason for interruptions in the laundry department. There were several departments looking for supplies not just one.

Analyze

Notre Dame Hang-ups Defects: Missing Items on Units October 2 - 16, 2012



The frequently missing items were missing regularly.
It was not solely on Mondays.

Next steps....Improve



Our Aim

The improved process which includes the prioritization of sorting, washing, drying processes and improved delivery of linen to ensure our customers have the supplies they require 100% of the time.

Improve

Lots of improvement ideas

- Change sorting process
- Stagger lunch breaks
- Decrease interruptions
- Stock once a day
- Weigh laundry as / after laundry is being sorted
- Different weighing system
- Ensure cycles (cards) for washing are appropriate
- Check what cycle mops should be washed
- Improved stocking areas
- Have sensed dryers that monitor humidity
- Do not fold bibs
- Change how we fold bibs, towels, peries
- Establish standardized sorting that also meets infection control guidelines
- Change the delivery of linen to units and departments to ensure that they have the linens they require.
- Balance the drying loads / temperature controls. Eg. Have 2 heavy loads and one light
- Change start and end of staff work hours to reflect need
- Adjust inventory to reflect use / need Maximize dryer loads
- Have volunteer work / volunteer two half days vs a full day
- Determine how long to set dryers based for different type of loads and different weights
- Make sure that washers are running over the lunch break
- Chose appropriate washer cycle and washer based on load type
- Create listing of priority loads
- All staff have consistent work practice
- Maximize washer loads
- Change who folds peries and bibs
- Stop folding rags
- Have tubs that indicate size / weight

PDSA # 1

“Customer’s have access to supplies”

The current process and organization of stock linen in the nursing units is not in the appropriate locations and the quantities are not stocked in the appropriate location. The nursing staff , housekeeping staff and dietary staff will have the appropriate linen supplies in the appropriate location when they are required.

Our goals were:

- Bibs were available when needed.
- Appropriate linen supplies were available in the appropriate units when required.
- Housekeeping staff had the rags and mops required when needed.
- Eliminate motion and transport of supplies in nursing units.

PDSA # 1

“Customer’s have access to supplies”

What did we do:

- Bibs were available in the right locations for all meals.
We ensured a process on Monday mornings to have bibs washed, dried, folded and delivered to the appropriate units prior to 0700 hrs.
 - Outcome: Improvement
Bibs were available in all dining rooms 100% of the time.
- Housekeeping staff had the required mops and rags to do their jobs when required.
We developed a process where a basket of mops and rags was sent from the laundry department every morning for the housekeeping.
 - Outcome: 83 % Improvement.

PDSA # 1

“Customer’s have access to supplies”

- Nursing staff had the linen supplies they required in the right location when required.

We changed the process to stock the linen cupboards where we reduced motion/transport. This was accomplished by the Laundry staff putting the linen away in the appropriate linen cupboard; eliminating the need for nursing staff to restock the linen cupboard from one area to the next.

We 5’Sed the linen supply rooms in the Parkview and Promenade wings to ensure they had the appropriate supply needed to meet the resident needs. We also used visual cues for staff to know where and quantity of required linen supplies

PDSA # 1

“Customer’s have access to supplies”

Challenges we faced:

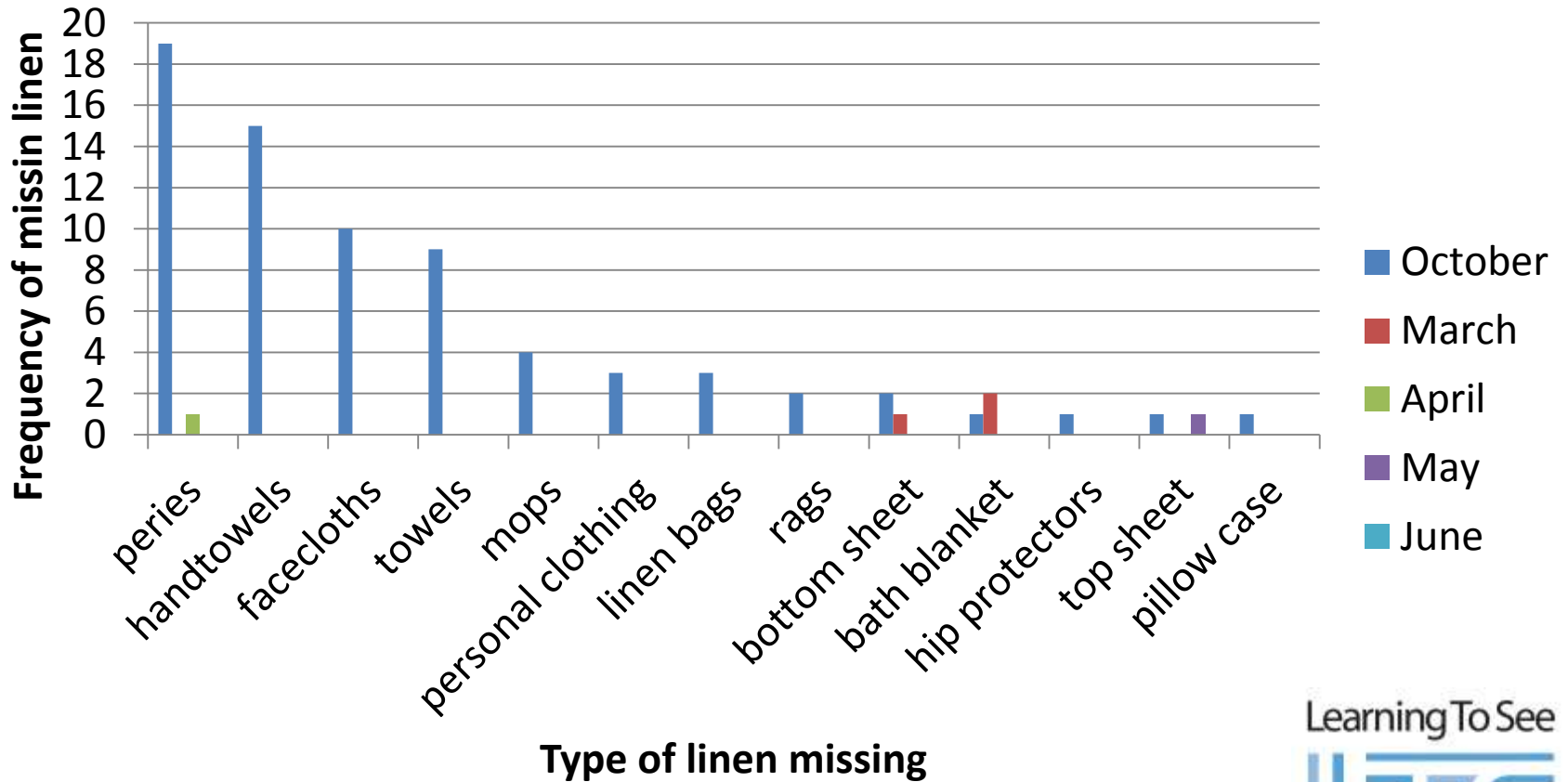
- *Initially, we did not have enough stock to meet demand.*
- *Space constraints*
- *Laundry staff stated they were having difficulty having access to Parkview tubroom to put linen supplies away due to the tubroom being in use.*

Achievements

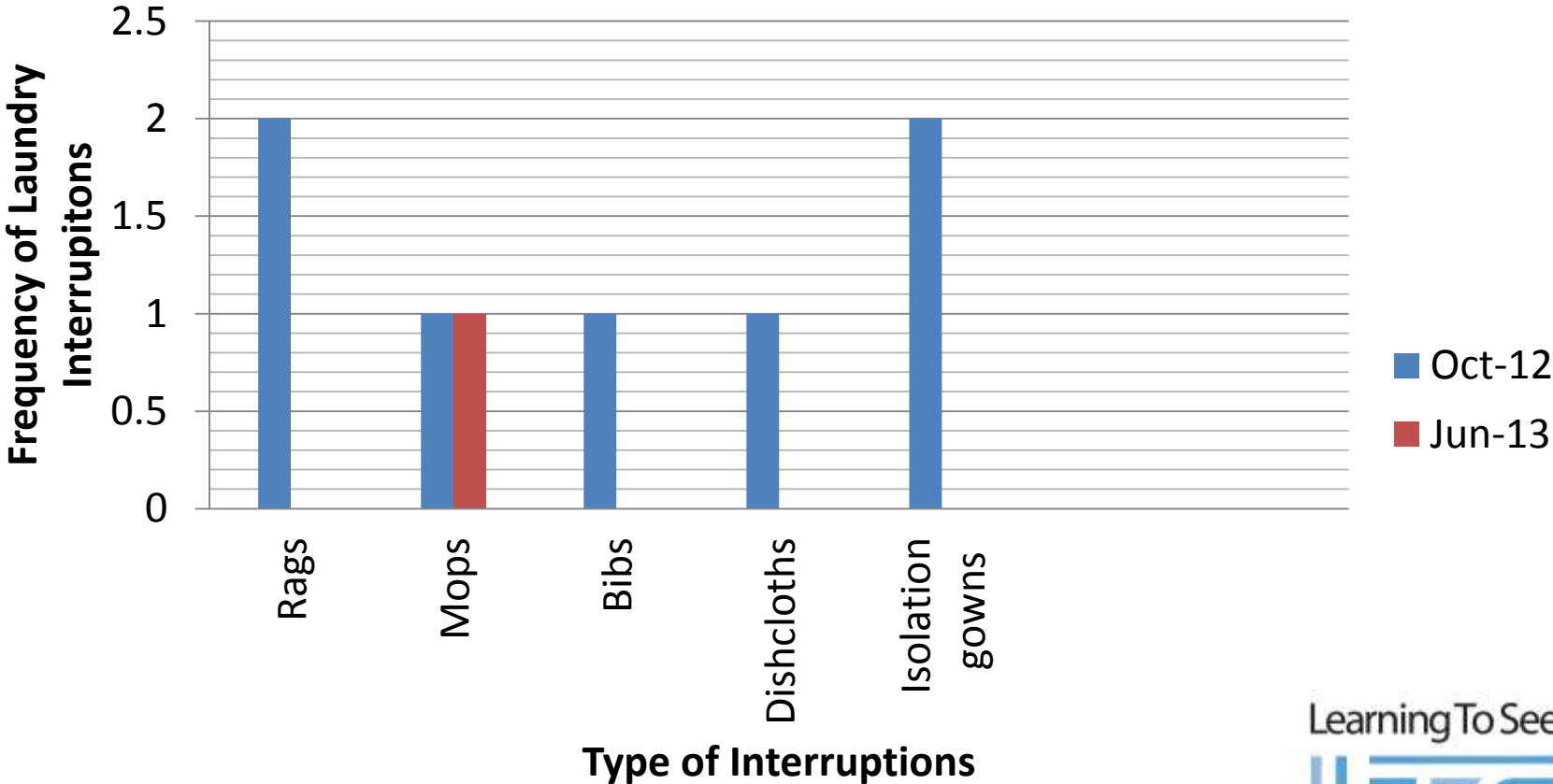
- *Nursing staff have stated they are happy to have the supplies they require to do their jobs.*
- *Laundry staff did not received any calls from Nursing staff for linen supplies. This is 100% improvement.*
- *During the same period, Nursing staff did not note any shortages of linen which is a 100% improvement.*

Notre Dame Foyer

Linen Not Available On Units When Needed



Laundry Interruptions for linen / rags / mops





PDSA # 2 Sorting

- The current process of sorting laundry is not consistent nor is it according to Infection control guidelines.

Our goals were:

- Staff will be consistent in the manner that laundry is being sorted.
- Staff will know what goes in which laundry type.
- Laundry will be processed in according to laundry standards and infection control practices.
- Laundry will be weighed after it was sorted to ensure we were have appropriate load sizes.

PDSA #2 Sorting



What did we do:

- Establish sorting / load types.
Achieved
- Have visual cues in sorting area to identify appropriate laundry types / bins.
Achieved
- 5 S sorting area.
Completed
- Have visual cues are in place regarding management of soiled laundry.
Achieved
- Determine process where load sizes would be maximized.
Achieved

PDSA #2 - Sorting

Challenges:

- Due to the current set-up and space in the laundry department, weighing laundry after it was sorted was not feasible. As such we developed a manner to identify load sizes based on visual cues.

Achievements:

- Consistent manner of sorting.
- Reduce the laundry load types from 25 different load types to 10 different load types.

PDSA #3 Washing

The current process of washing laundry is not consistent when prioritizing wash loads, maximizing wash cycles and using the most appropriate washer.

Our goals were:

- Staff will be consistent in the manner that laundry is being washed.
- There will be a consistently manner in which laundry machine is being used for which type of laundry type.
- The wash loads will be maximized to reduce the number of wash cycles required.

PDSA #3 Washing

What did we do:

- Established priority washing loads.
 - Process map outlining the type of wash loads to be done in what order and what washing machine on a daily basis.
- Ensured that wash loads were maximized.
 - We improved the number of washer loads which were at capacity.

PDSA # 4 – Drying process

- The current process of drying laundry is not consistent and has significant variation.

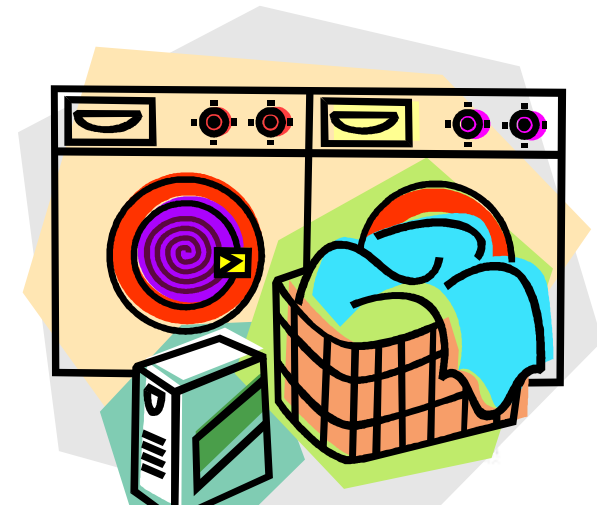
Our goal was to be:

Staff will be consistent in the manner that laundry is being dried. The drying loads will be maximized to reduce the number of drying cycles required. Standardized drying times will be implemented to reduce the amount of over drying

PDSA # 4 – Drying process

In the planning processes, it was noted that drying times was influenced by:

- Older dryers that did not have the temperature sensor and the reverse tumbling feature which impacted drying time.
- Dryers were running longer than required to ensure the quality (no wrinkling) of the linens and clothing when folded.
- The time spent on folding items delayed items coming out of the dryer sooner.
- Variations in staff processes.



PDSA # 4 – Drying Process

Due to our additional findings, the team felt that additional changes to influence drying time would be difficult.

- We were maximizing dryer loads as much as possible with the changes that we had previously implemented in sorting and washing processes.
- What we did do is standardize the process for drying for all staff. We were able to provide consistency in the process.
- The need for an additional PDSA to look at reducing folding time was sought.

Upcoming changes in infrastructure (planned new hospital) although not imminent will allow for newer and better equipment which in turn improve both quality and reduce variation in drying time.

PDSA #5

Changes in Folding Processes

Our current process in folding results in overdrying of our laundry.

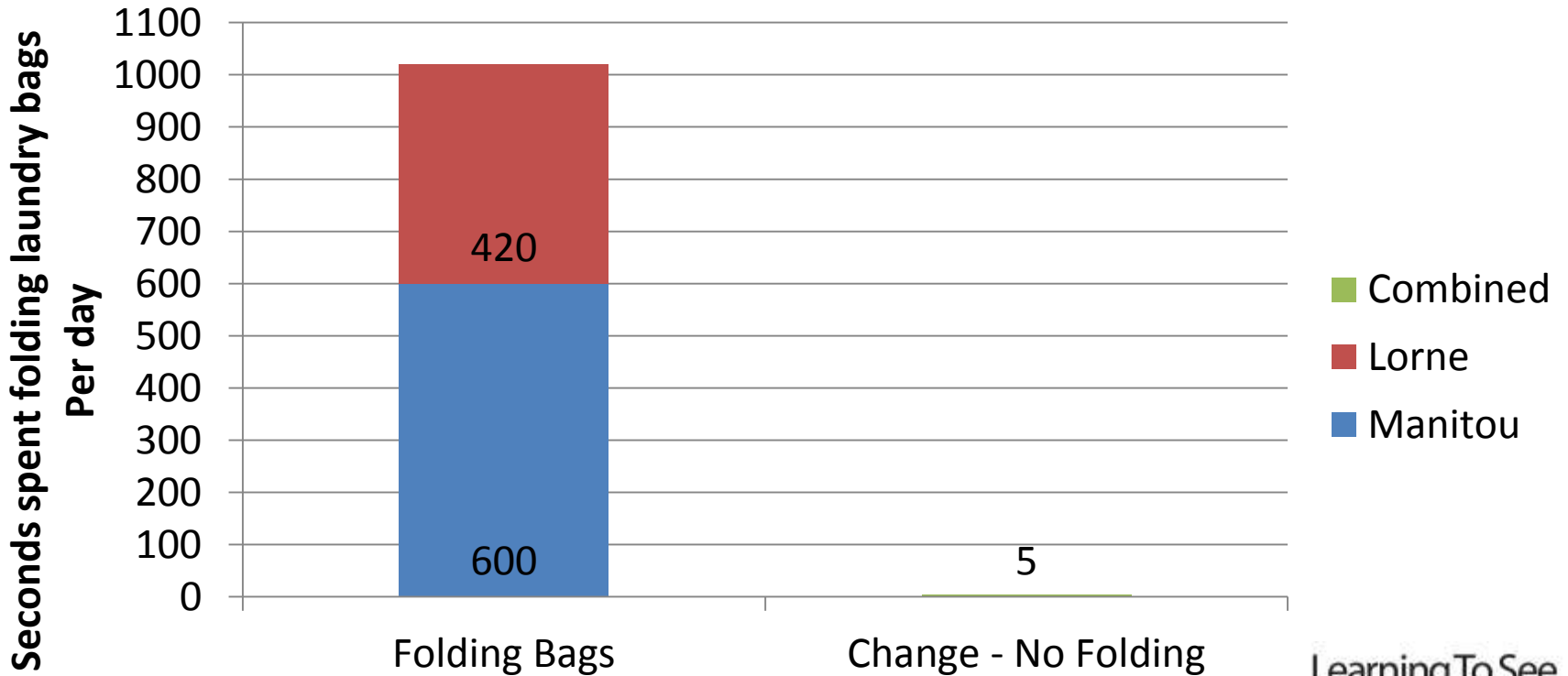
Goal: Reduce the amount of time folding to reduce the amount of overdrying of linens.

Ideas to reduce time spent on folding were:

- Stop folding rags
- Stop folding laundry bags for Lorne Memorial Hospital and Manitou Health Centre. (This was no longer being done at the Foyer.
- Stack bibs flat rather than folding them.

Notre Dame Foyer Laundry Hang-ups

Change in Folding laundry bags



Time Savings

Stop folding laundry bags

- The time we spent folding laundry bags for Manitou and Lorne Memorial Hospital was
 - 17 minutes / day 3 days per week.
- No longer folding laundry bags saved us:
 - Per week 50 minutes 45 seconds

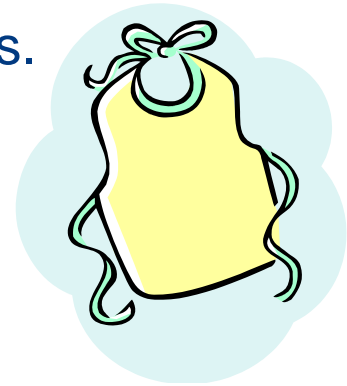


Stop folding rags

- We reviewed the time we spent folding rags for the Notre Dame Hospital, Centre Albert Galliot and the Foyer. Time spent folding rags was:
 - Per day: We spent 8 minutes per day folding rags. (Monday to Friday)
 - Per week: We spent 40 minutes per week folding rags
- The change was to no longer fold rags but rather bag them. We saved:
 - Per day: 7 minutes 55 seconds
 - Per week: 39 minutes 35 seconds
 - Per month: 3 hours 57 minutes 30 seconds
 - Per year: 48 hours 9 minutes 35 seconds

Change how we fold bibs

- We reviewed the opportunities to change how we fold bibs.
- Current practise is we fold bibs into 3 folds.
- We looked to have bibs lay flat rather than be folded.
- Our current time spent folding bibs/ day is:
 - Mondays 4 hours 46 minutes 18 seconds
 - Tuesday/Wednesday/Thursday/ Friday
2 hours 14 minutes 10 seconds
 - Saturday 1 hour 45 minutes
 - Total time spend weekly folding bibs 15 hours 26 minutes 58 seconds.
- Barriers to changing current process:
 - Storage of the bibs – current space does not allow for bibs to lay flat.
 - How we would be able to meet the needs of the nursing and dietary staff and the clients at meal time for distribution and placement.



Control

What controls have we put in place to ensure that performance does not lapse?

- We will continue to monitor the linen items that are not available to the various departments when needed on the tracking form.
- We will continue to monitor the frequency of times laundry staff are unable to put the linen away in the appropriate location.
- We will conduct spot checks regarding the sorting and washing processes.
 - Frequency: monthly x3, then quarterly
 - Who will conduct: Laundry Lead will conduct audits and review with Environmental Services Manager & myself

Lessons Learned

What were some of the key things we learned about quality improvement while doing this project?

- Our team was comprised of a cross-section of different departments as well as managerial. This was key to ensure the needs and the processes of our “customers” in order to ensure we met our objectives.
- Data and understanding process are power.
- Communication is key in moving the change forward both within the team and other.
- Follow-up is very important in ensuring the change has been completed and to assess whether or not we have achieved the desired outcomes.

Next Steps

I encourage the team to continue to seek improvements.

- I encourage you to look at ways to reduce the amount of time spent folding bibs.

Currently the region is reviewing:

- How we incorporate the learnings from the various Lean projects to other sites / programs.
- How we move forward with Lean projects / initiatives across the region.

For a site perspective, the team members need to look at things with their new pair of glasses and challenge others to try them too.

Thank you!

A thank you goes to all the team members who participated on the project.

A thank you goes to the staff of all departments who embarked on the project initiatives along the way.

Thank you to our project sponsors.