

"Leading and LEANing" - an
Experiment
in
Process Improvement Training
at
Health Sciences Centre

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What's a process?

A series of actions that produce a change or development

A distinct subtask of a system that proceeds in parallel with other subtasks.



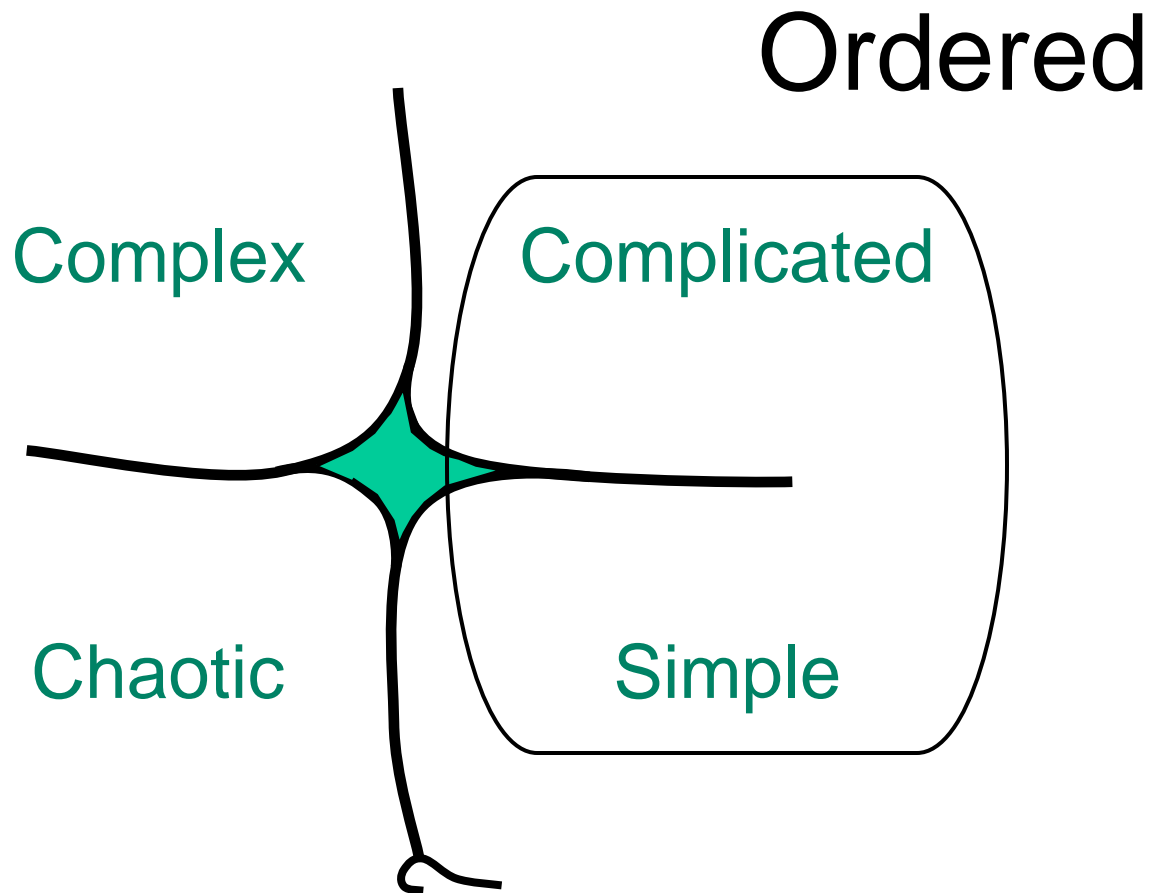
What's a system?

System = *human, technical, and environmental* aspects

Agent = anything that *acts in/on a system* (individual, group, idea, culture, object)

- ❖ **Ordered systems**
- ❖ **Chaotic systems**
- ❖ **Complex Adaptive systems**





Project Question (August 2008)

Can process changes that will improve value in the eyes of a patient and in the eyes of the staff, be achieved by minimal training, with minimal expenditure of additional resources, and in the course of everyday work?

Sub questions:

- ❖ Is there a conflict between value in the eyes of the patient and the staff?
- ❖ What is the nature of the training required for frontline staff to successfully implement small process improvements?
- ❖ Can value to the organization as a whole be demonstrated by multiple small improvement projects?
- ❖ What is the ideal role/ideal timing for a system user to have input into the process improvement project?



Lean and the Toyota Production System (TPS)

TPS (rules, tools and conventions) + Innovation in Corporate Culture = increased efficiencies.

Cultural innovations

Observing and influencing

Embracing contradictions – not simplifying

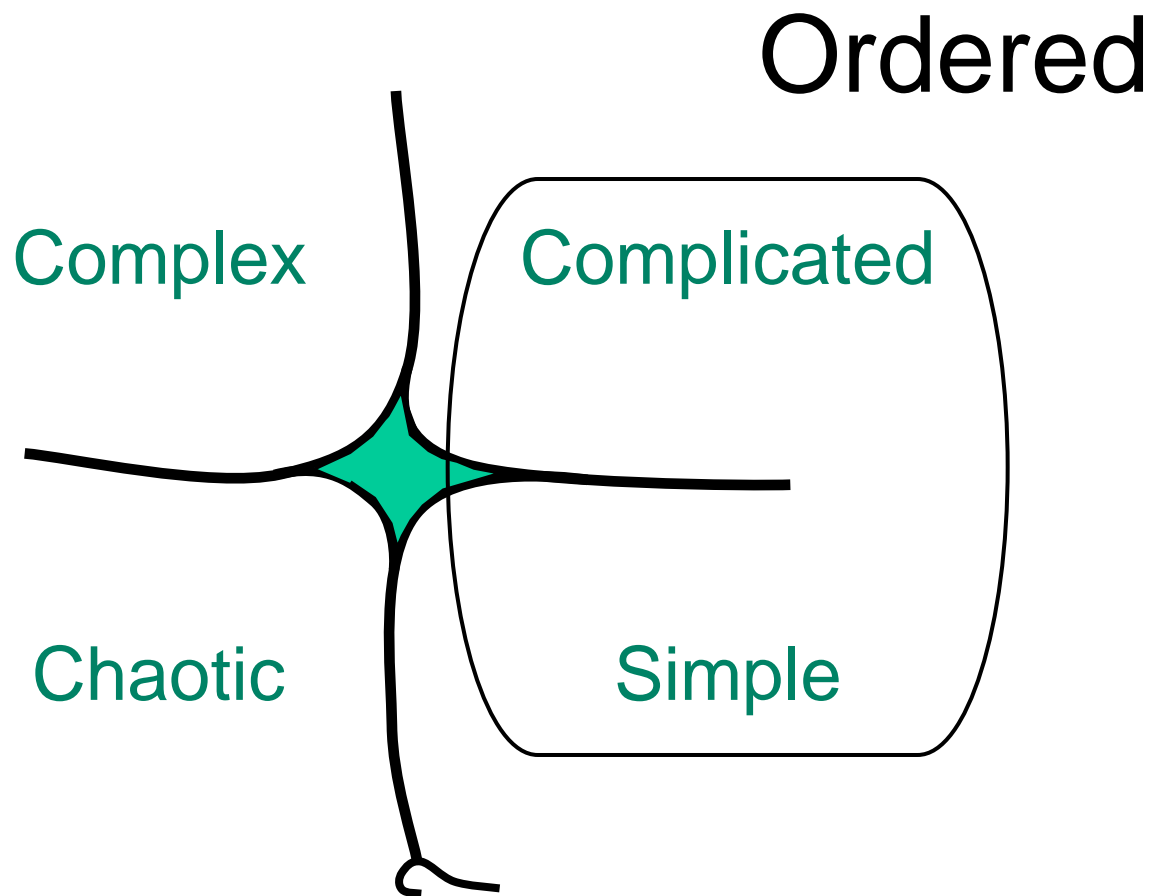
“transcend differences rather than resorting to compromise”

Experimenting/challenging status quo

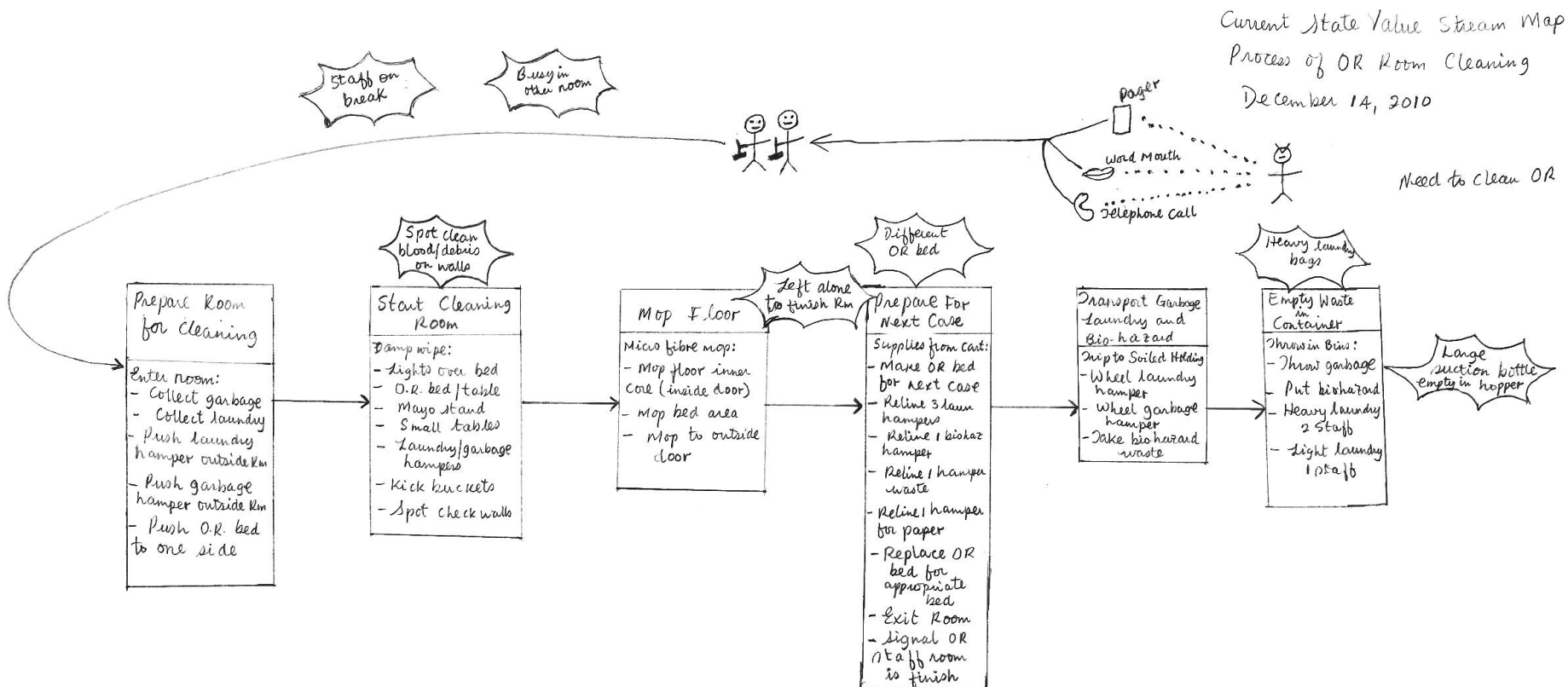
Strong values base

“Up and in” people management

Open communication and multiple connections



Lean tools - VSM

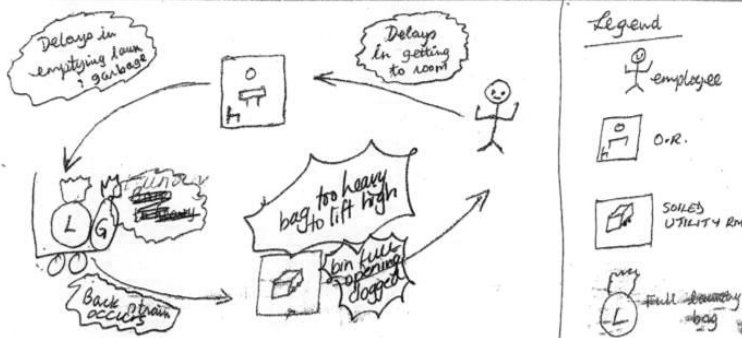


Lean tools – A3

ISSUE Housekeeping worker "A" at Red Deer Regional Hospital: Care Centre had a back strain on November 23, 2010. Worker "A" was emptying garbage and laundry into a bin in the Soiled Holding Area.

BACKGROUND Worker "A" makes 6-8 trips per 7.75hr shift to empty garbage and laundry. Worker "B" at R.D.R.H. on Oct 5/10 received a back strain and hurt knee while throwing garbage. Two instances in last 2 months

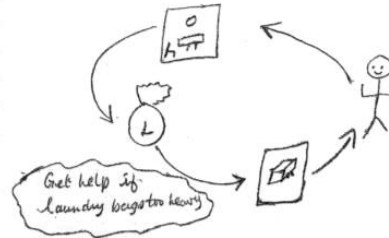
CURRENT CONDITION



Legend

- employee
- O.R.
- SOLUBS UTILITY RM
- full laundry bag

TARGET CONDITION



TITLE

BACK STRAINS

TO TERM
BY: D.T. & K.B.
DATE: November 30, 2010

COUNTER MEASURES

1. Two pages and staff work on different sides mean 7 bags in OR? OK?
2. Nursing not to fill bags completely full... getting smaller bags - don't fit bag
3. E.S. to get help ^{for} split full laundry bags into two bags using V.C. infection control
4. Procedure training PPE when handling soiled laundry.

IMPLEMENTATION PLAN

what	who	when	outcome
not to full bags	Nursing Manager	Dec 3/10	
getting help & full bags	E.S. staff	Nov 30/10	Staff is getting help ↓ injury rates?
3.			

PROBLEM ANALYSIS

1. Delays in getting to room
 - Why? Did not hear page
 - Why? Busy cleaning another room
 - Why? Room is dirty and needs cleaning
2. Delays in emptying laundry + garbage
 - Why? Left laundry + garbage outside room
 - Why? Call/paged to clean another room
 - Why? Need to setting-up clean room for next case
3. Bags too heavy
 - Why? Bags stuffed by nursing staff in OR
 - Why? Soiled linen from O.R. table
 - Why? Linen used for pt. by medical staff
4. Back strain
 - Why? Throwing heavy laundry/garbage into bin high
 - Why? Only means or disposal

COST of implementation $\$80.00$ cost of more help people cost of lift cost of WCB claim?

COST BENEFIT/WASTE RECOGNITION

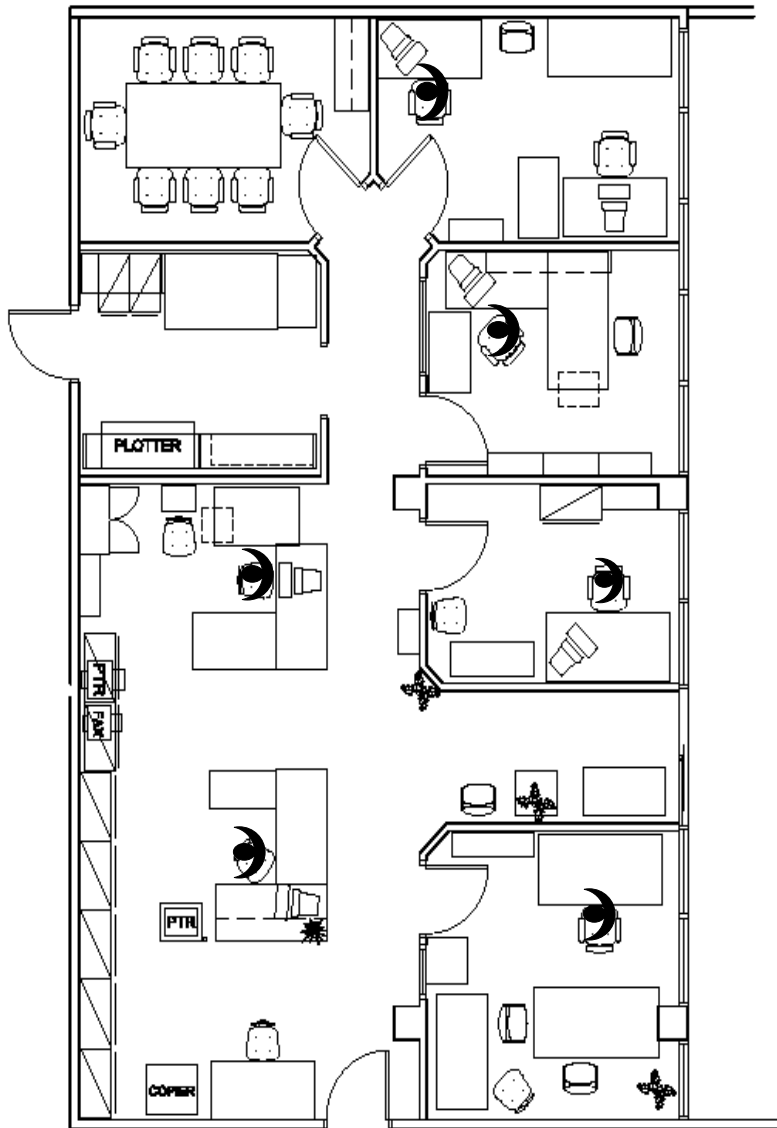
Cost per week to perform duties approx \$800-\$900 $\$18.20 \times 7.75 \times 5 \text{ day} \times 2.10\% \text{ benefit}$

Cost per week if employees on WCB greater than \$1100.00 (Replacing employees, evening premiums & WCB costs)

FOLLOW UP

NO reported back injuries since Nov 30/10. Follow-up to be done by Dec 31/10



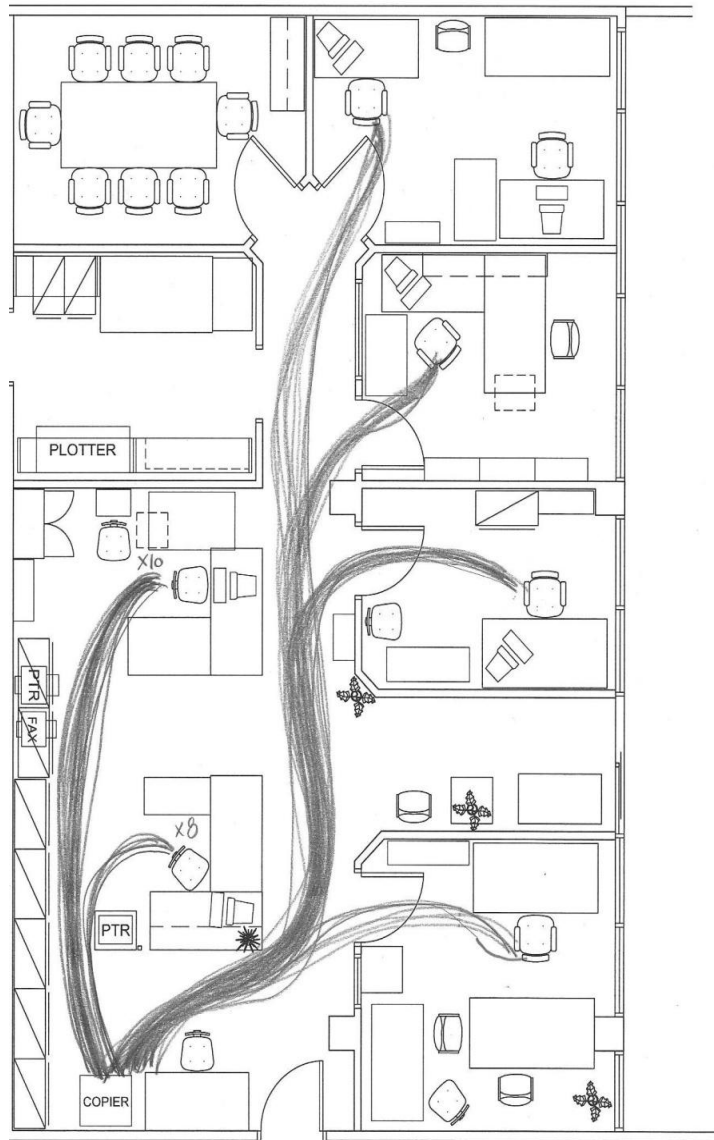


Walking to the printer ...

	Time (secs)	Trips per day
❖ Tara	8	8
❖ Bill	18	10
❖ Jill	19	10
❖ Ken	21	6
❖ Jung	8	10
❖ Tom	7	3
Total		
		661 sec/day
		- 55 min/week
		- 46.2 hrs/year



Hand drawn Spaghetti diagram



Crucial Conversations



Health Sciences Centre
Winnipeg



Winnipeg Regional
Health Authority
Caring for Health

Office régional de la
santé de Winnipeg
À l'écoute de notre santé

What we did...

- ❖ 2 days of training in Crucial Conversations

+

- ❖ 2 days of training in Lean for Healthcare

+

- ❖ 1 improvement project completed in 90 days

Project had to demonstrate improved value to the patient/customer

People who do the work had to be part of the project team

=

- ❖ “science fair” presentation of all the projects for the senior leadership





Health Sciences Centre
Winnipeg

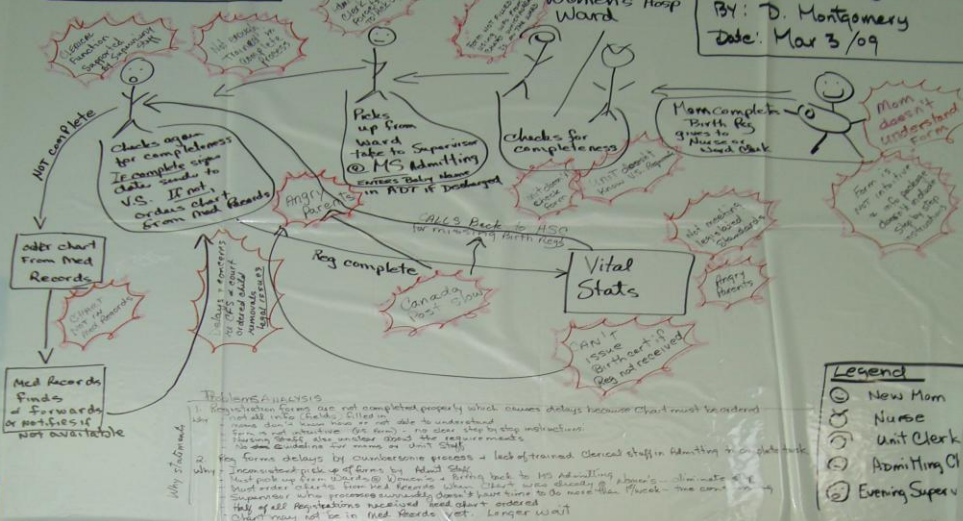


Winnipeg Regional
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Streamlining Birth Registration Process

Current State



Streamlining Birth Registration Process

Target Condition

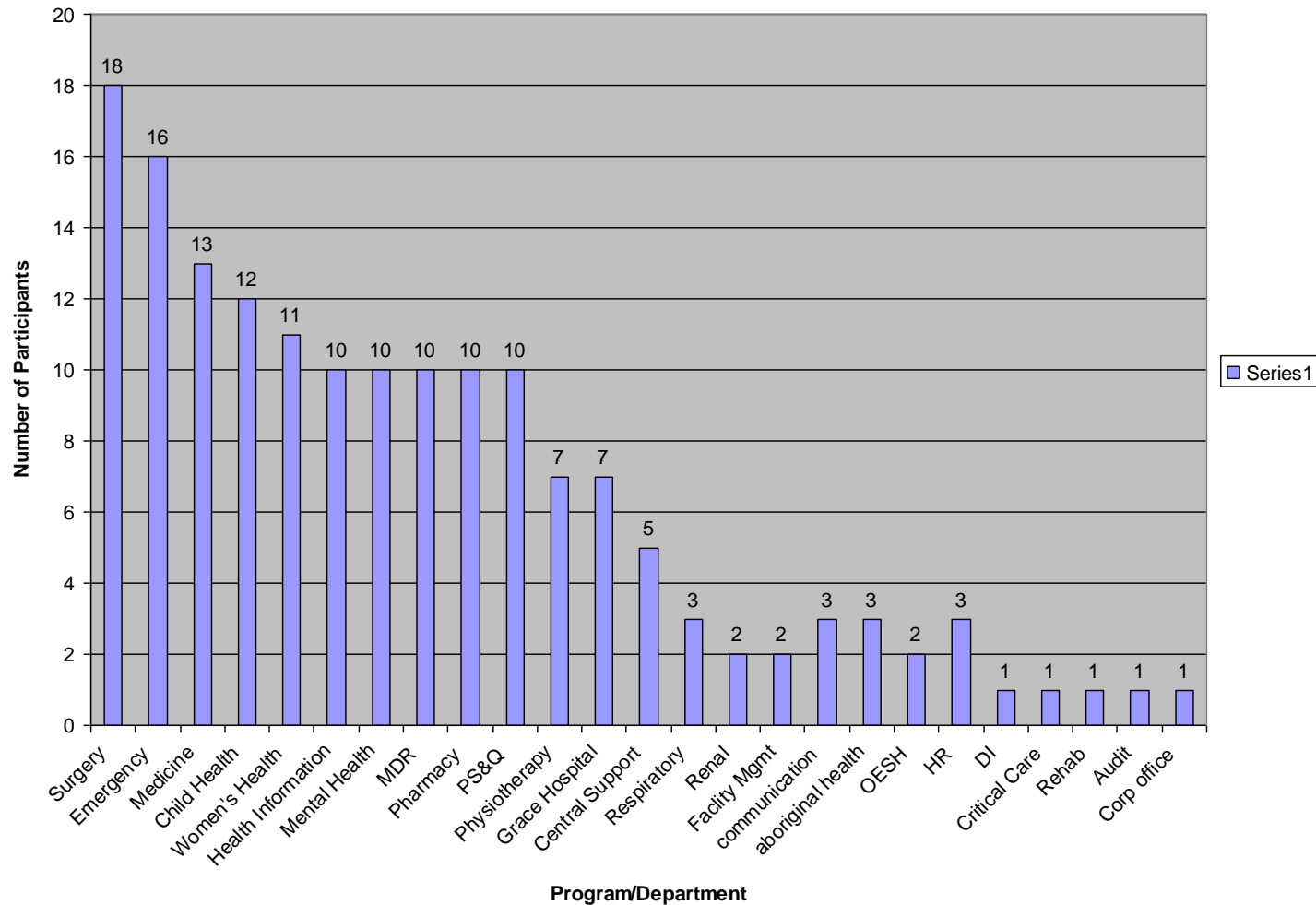


- COST + UPDATE Benefits**
- Shorter registration process - calls to Vital Stats / no calls to admitting regarding missing documents
 - Happier customer experience - easier to understand with new step by step instructions
 - Empowerment of staff / less stress because instructions - training answers questions - Records are being
 - Easier steps to process - saved travel time - paper materials to keep on what's progress @ always
 - Saves Supervisor time - no duplicate places - Charts are already @ (Grand misinterpreted)
 - Reduces # of charts ordered (duplication of Service) - Charts are already @ first point of contact
 - Women's - should be checked @ first point of contact
- Time/Motion Saved**
- **Process SIMPLIFICATION**
 - **Summary Questions**
 - **is Quick**

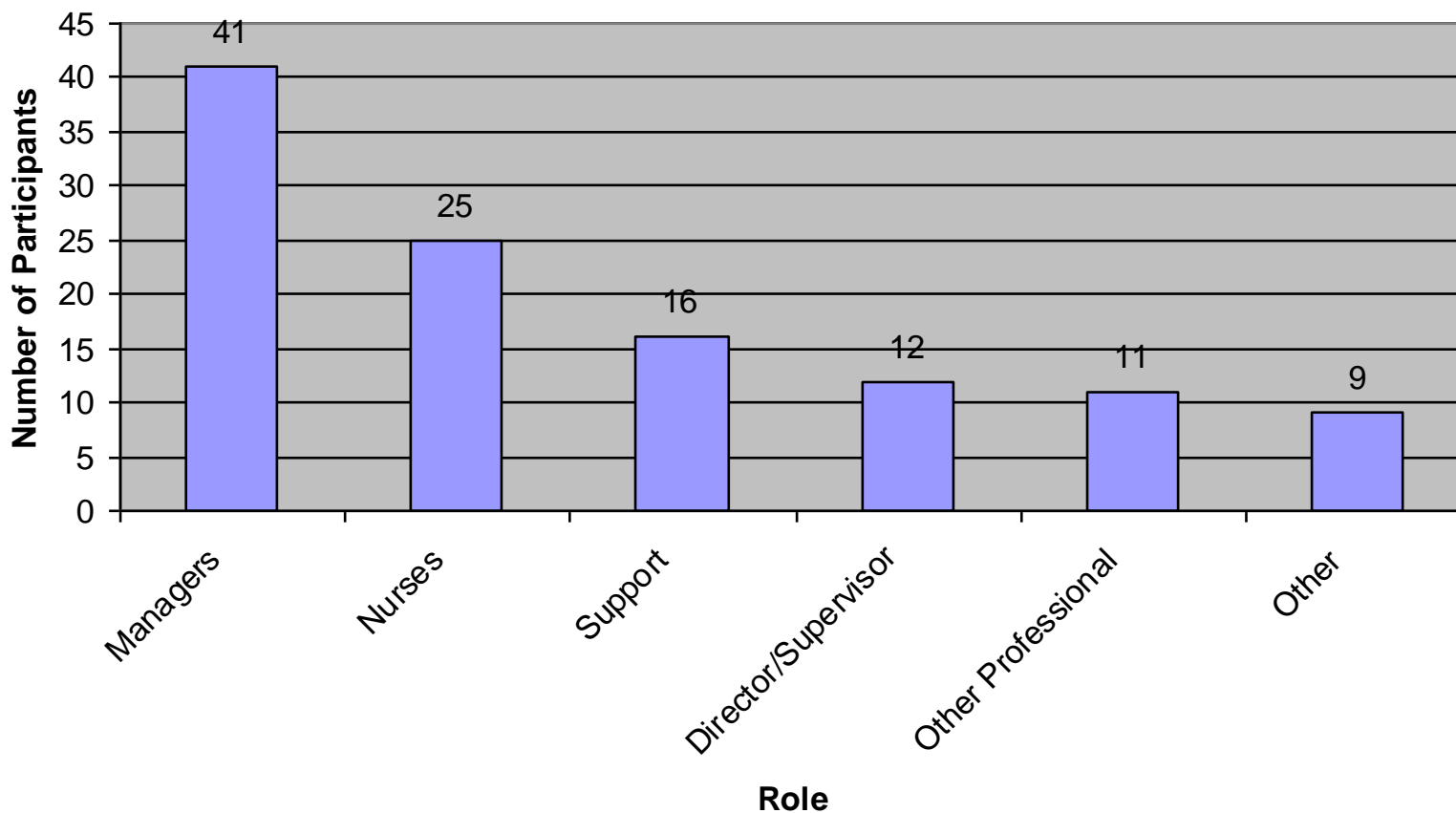


Who took the training?

Participants by Program/Department



Participants by Role



Projects chosen by participants (N=70)

- ❖ Production and Distribution of ADT reports
- ❖ Data collection on form for vital statistics
- ❖ Movement of patient information in the ED
- ❖ Tracking and communicating clinical lab results

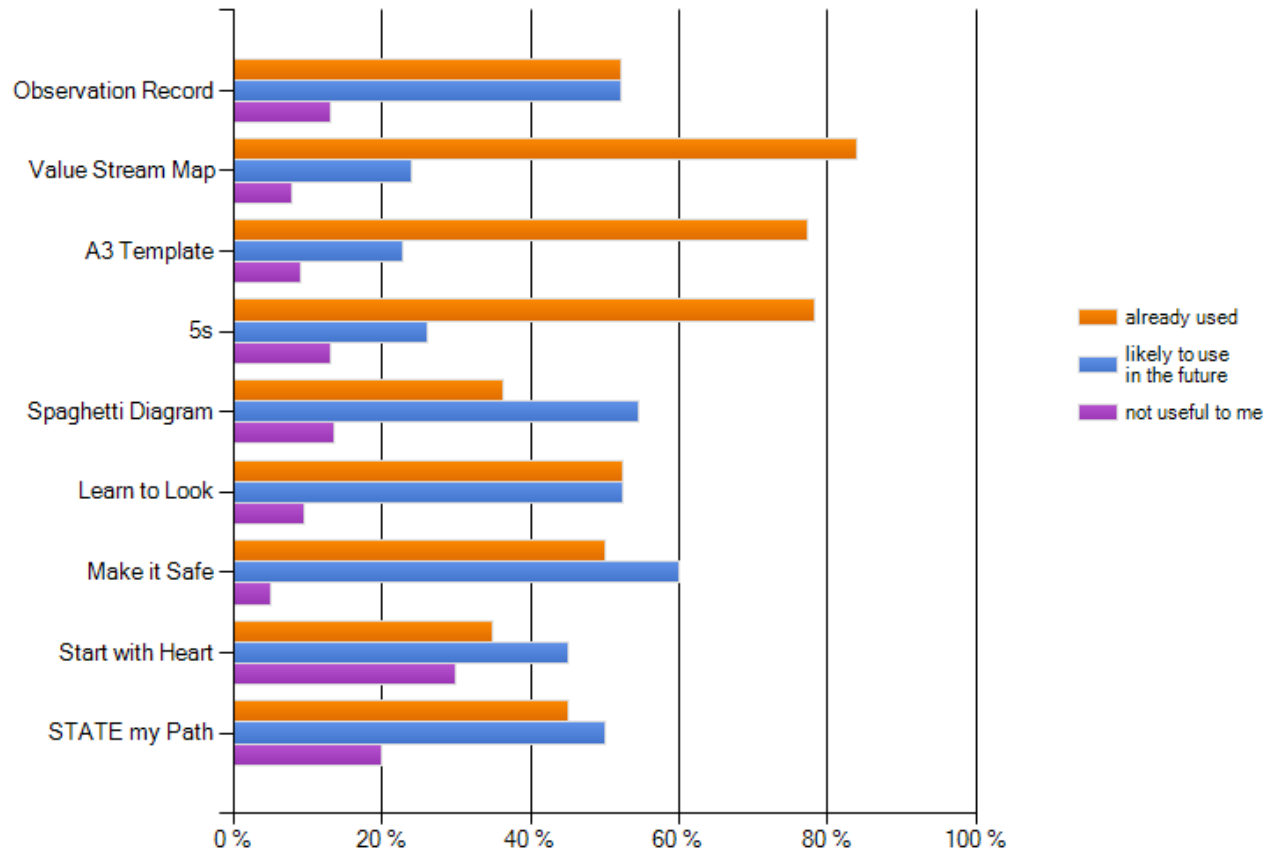
- ❖ Staff/patient/family/storage room
- ❖ Decreased coding errors in payroll system
- ❖ Improved flow from PACU
- ❖ Decreased time to analyze and report blood gas results

- ❖ Improved accessibility of oxygen tanks
- ❖ Co-locate care providers in outpatient clinic
- ❖ Moving from random to scheduled supply delivery
- ❖ PRO consultation with clinical experts
- ❖ No-show rate for outpatient clinic visits

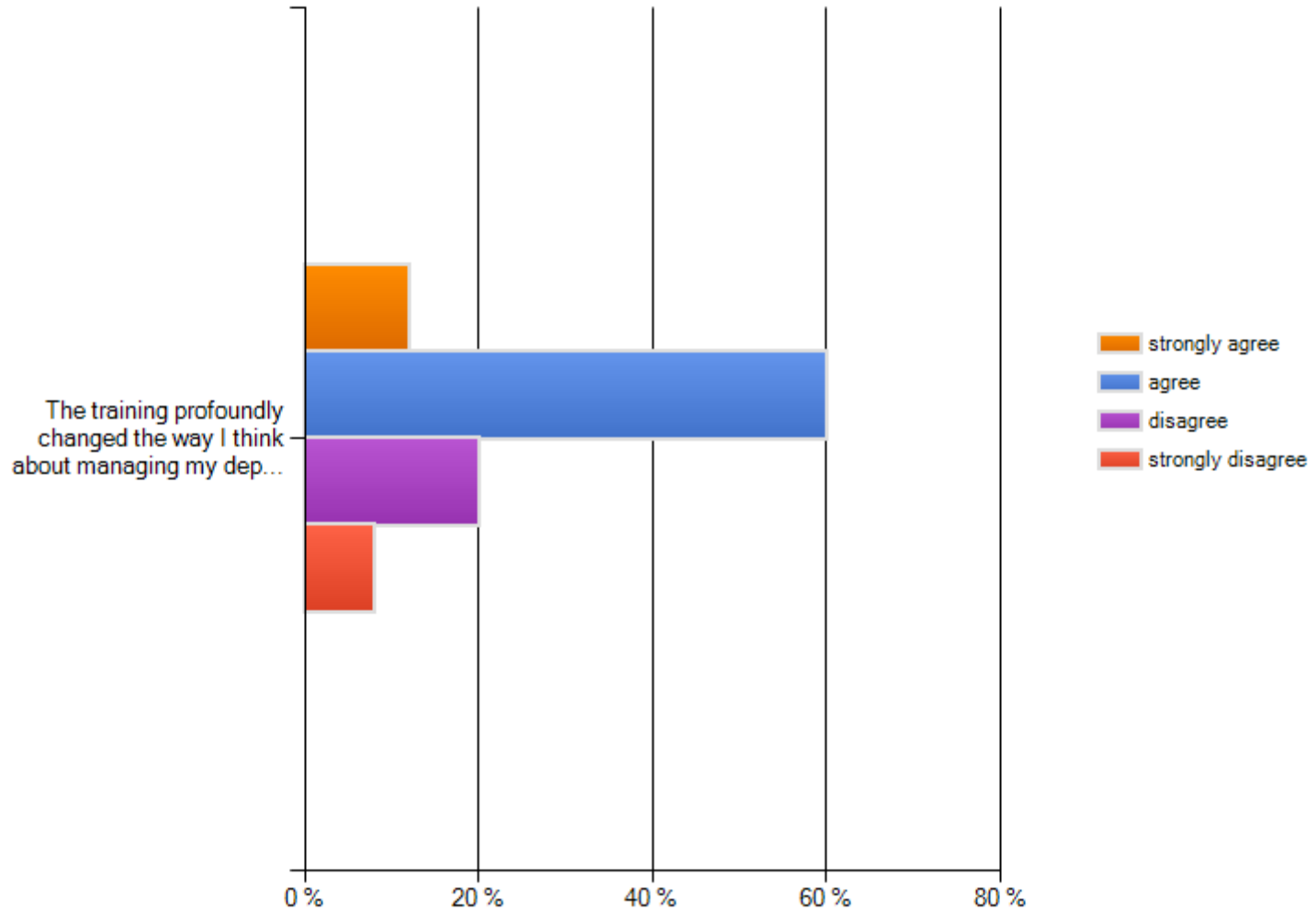


What we heard from participants

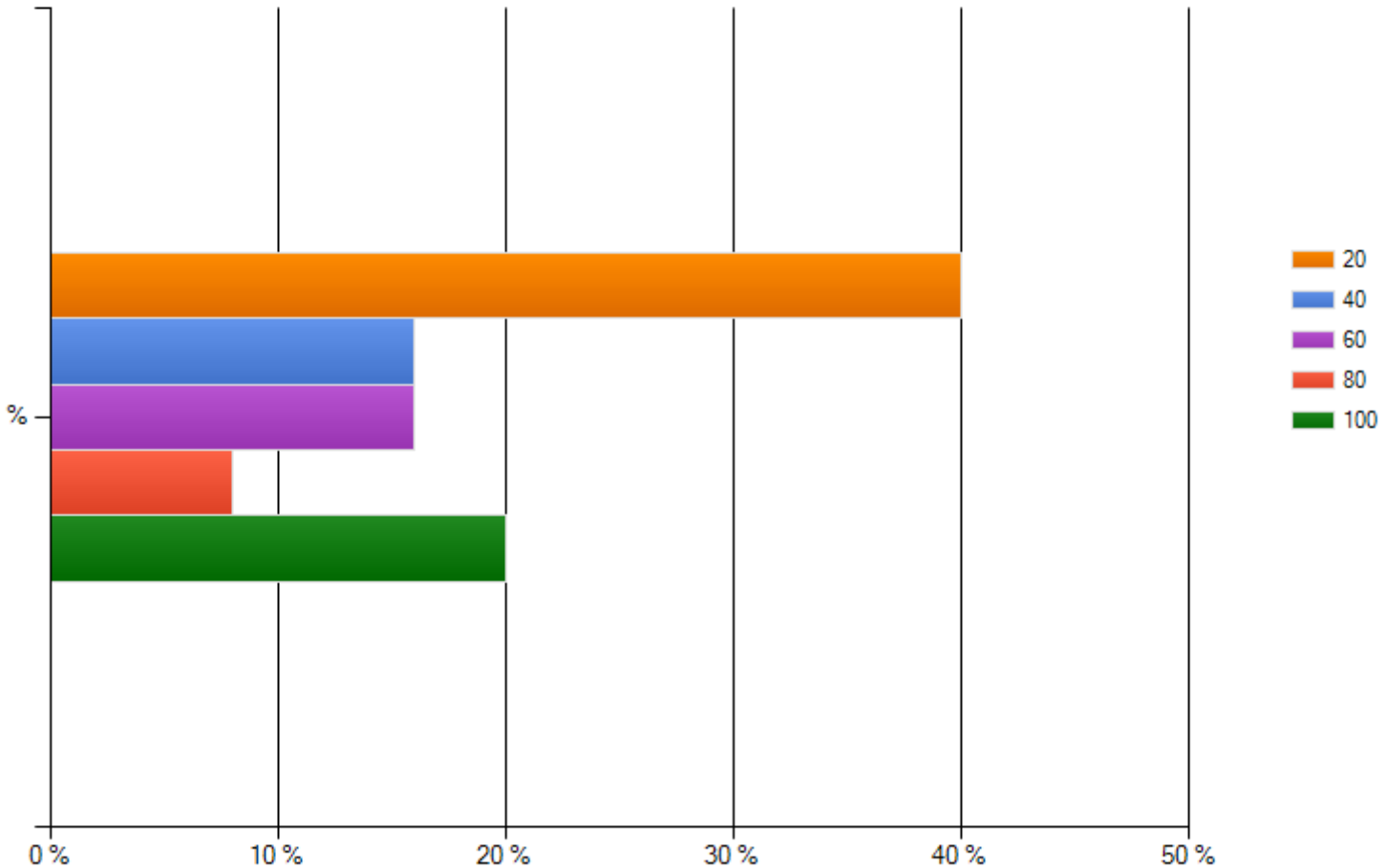
The following list contains the primary tools taught in the LEAN and Crucial Conversations training.a) which tools have you already used?b) which are you likely to use in the future?c) are there tools that are not useful to you?



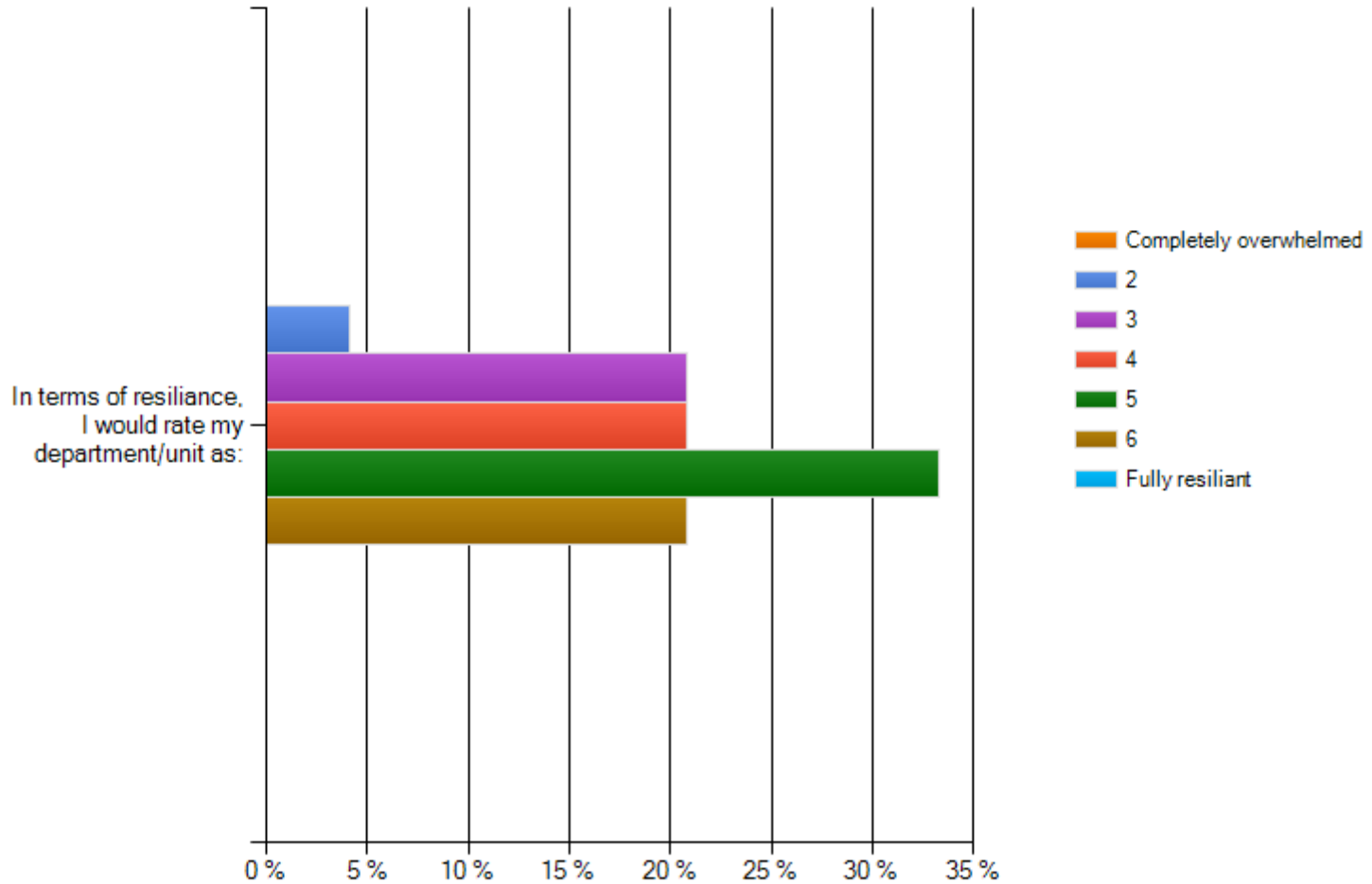
How do you think that the training influenced your work as a manager?



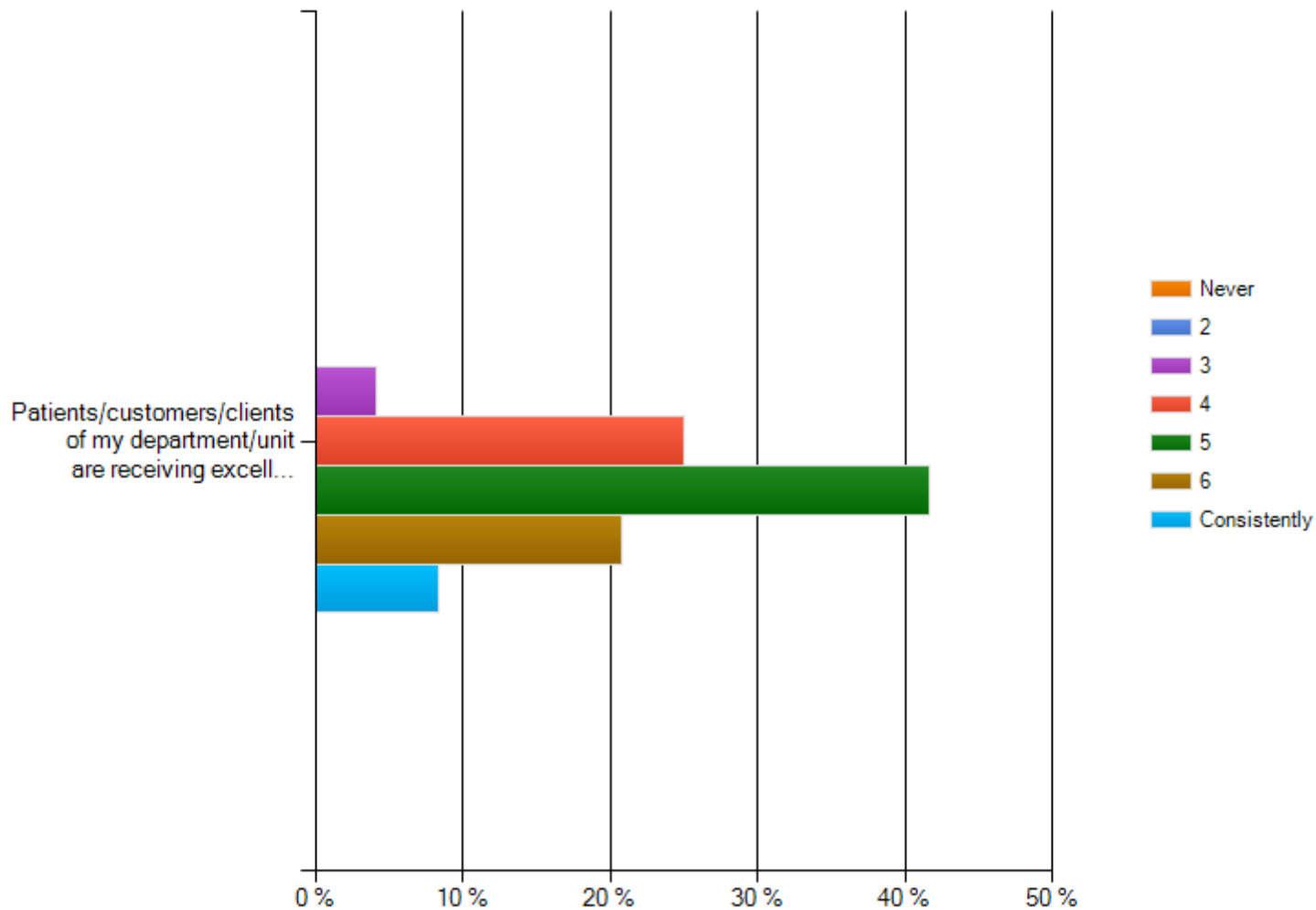
In most projects, the department staff have been involved as resident experts, or are experiencing changes in some aspects of their everyday work as a result of the project. In your estimation, what percentage of staff that work in your department/unit have been involved/affected by this training? I estimate that the percent of my staff who have been involved/affected by this training is:



Ongoing adaptive change is stressful for a department/unit, and requires a certain degree of resilience (defined as the ability to cope with day-to-day operations and have resources for reflection and adaptive change).



Please indicate to what extent you believe the following statement reflects your department/unit:



What we heard from participants

- ❖ *It "allowed" us the freedom to experiment and break down barriers of historical inertia, i.e. avoiding change of familiar and therefore comfortable processes because that's how it's always been done.*
- ❖ *People with previous training are supporting those just learning. Connections have been made with a different department to work on a project*
- ❖ *Though my department engages in ongoing PI work, the influential extent of the LEAN training is minimal.*
- ❖ *Encouraged to experiment, but censured for failures.*
- ❖ *As a new manager, I feel as if I have no room for "safe to fail" in my work... no reward for experimenting.*
- ❖ *Not fear of failure but no extra time...so no room for experimentation needs to work the first time*

What we heard from participants

- ❖ *We never let go of what isn't working*
- ❖ *The training helped assuage fear of approaching changes to big systems*
- ❖ *Tools are not as important as the changes in the way of thinking*
- ❖ *Leadership*
 - *Growth in leadership noted from both senior and junior staff*
 - *Increase in confidence; decrease in fear of approaching problems*
 - *Growth in curiosity – “is there a better way?”*



What have we learned?

Can process changes that will improve value in the eyes of a patient and in the eyes of the staff, be achieved by minimal training, with minimal expenditure of additional resources, and in the course of everyday work?

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