

The Application of Lean Management Practices to Improve Service Delivery in the OPD Process at a Semi-rural District Hospital

Kgwadikgolo Mahosi – FPD
Anton Grütter - LIA
QI Summit
28 October 2013



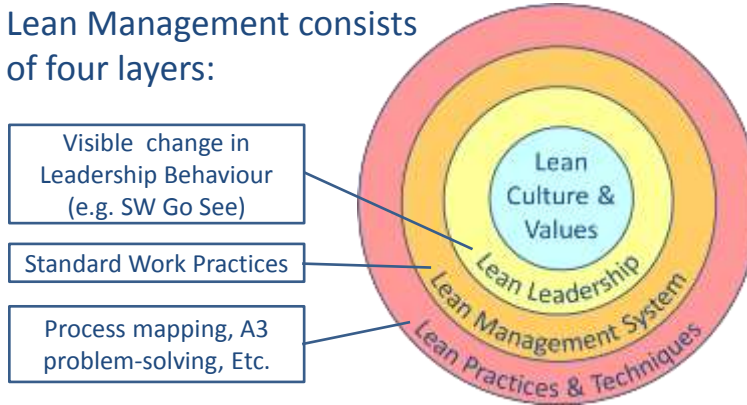
What was Implemented at the Hospital?

- Focused on the four main sections in the OPD process:
 - ♦ Admissions
 - ♦ Casualty
 - ♦ OPD
 - ♦ Dispensary
- Main objective was reduction of patient waiting time
- Trained 3 cohorts of 16 participants over 1 year:
 - ♦ 5-day Rapid Process Improvement (RPI) workshop
 - ♦ 5 x 2-day Standard Work (SW) training
- Provided technical support to implement SW



What was Implemented at the Hospital?

- The improvement projects were one element of a Lean Management (LM) system to institutionalize the SW practices that sustain performance improvement
- Lean Management consists of four layers:



Standard Work Practices required to Sustain Performance Improvements

- SW checklist used to monitor use of the following bundle of basic lean practices:

For team:

- Visual performance measurement
- Standard operating procedures
- Daily teamwork
- Process improvement
- 5S housekeeping

For unit managers

- Lean management

Standard Work Checklist for Visual Performance Measurement

Criteria for Assessment		Score
VPM1 Definition	No performance measurement defined	= 0
	First performance measurement defined and on display	= 1
	At least one process and one output measurement defined and on display	= 2
	At least one of each input, process & output measurements defined	= 3
	Measurements of at least quality, delivery, cost, safety & morale defined	= 4
We helped another team to define input, process & output measurements	= 5	
VPM2 Updates	No daily updates of measurements	= 0
	Not more than one daily update missing in last week	= 1
	Not more than one daily update missing in last month	= 2
	Not more than one daily update missing in last 3 months	= 3
	Not more than one daily update missing in last 6 months	= 4
We helped another team to achieve level 3 daily updates this year	= 5	

Effective Lean Management requires Behaviour Change

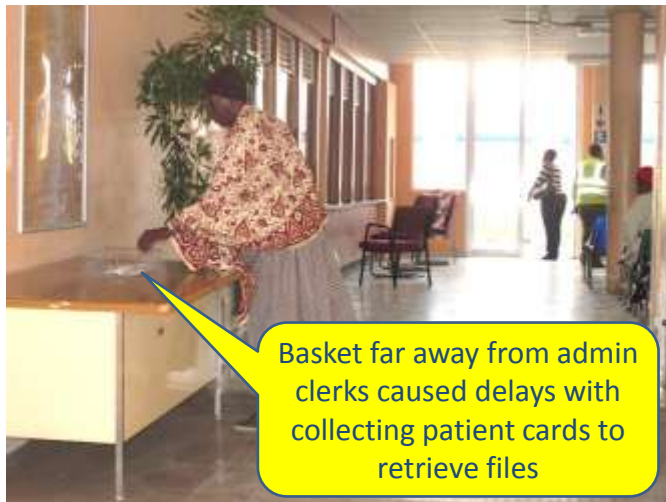


Managers need to regularly “Go See” real-world operational performance & support staff to improve



Some Improvements Implemented

Before

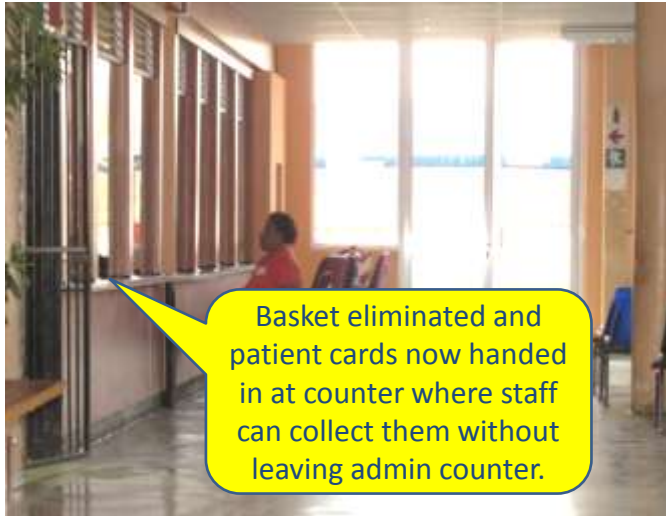


Basket far away from admin clerks caused delays with collecting patient cards to retrieve files



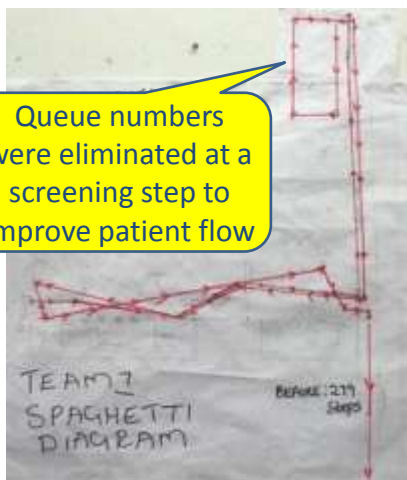
Some Improvements Implemented

After



Some Improvements Implemented

Queue numbers were eliminated at a screening step to improve patient flow



Before



After



Some Improvements Implemented



Before



Files sorted & new shelving in file store

After

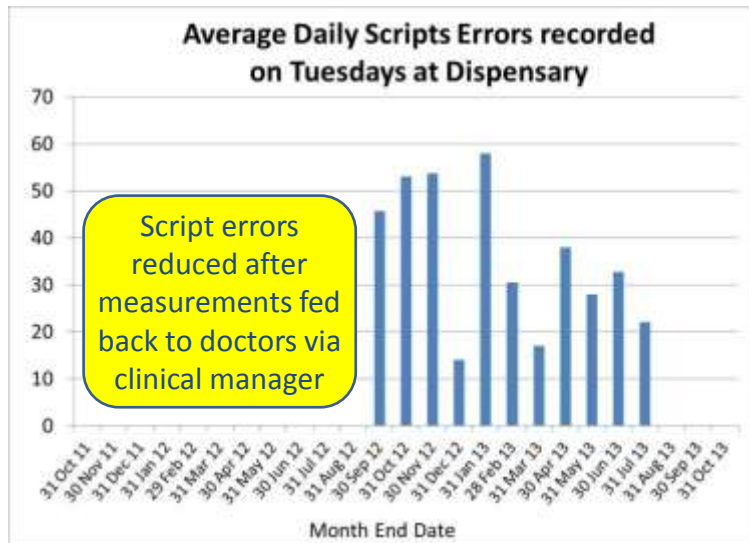


Institutionalization of SW Practices

Recording of performance measurements and other SW practices started



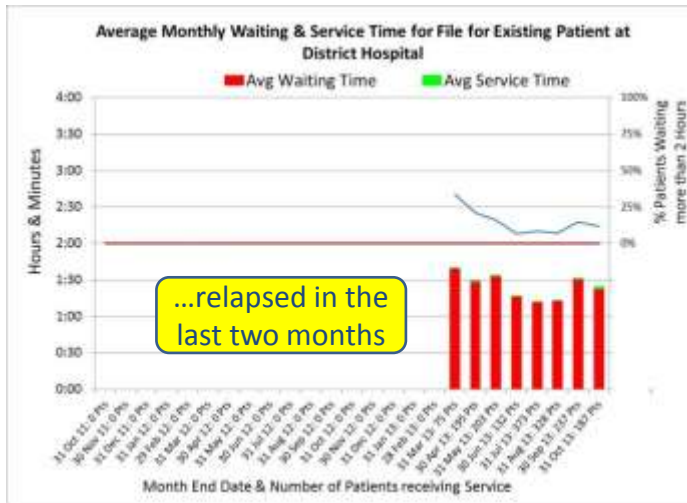
Some Results



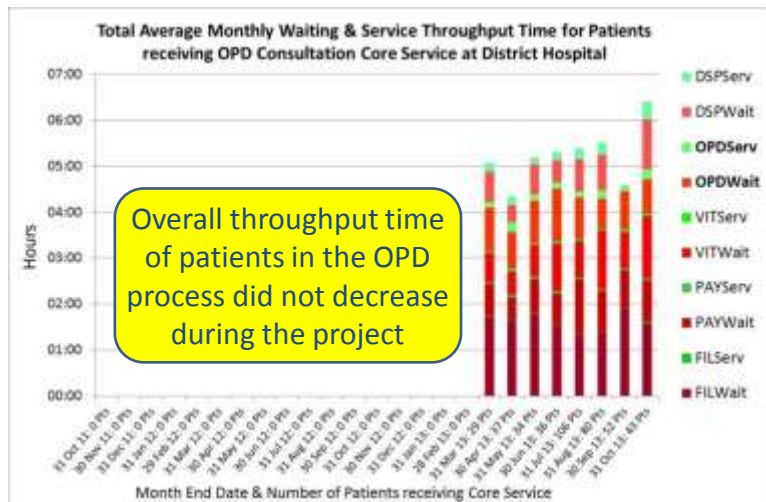
Some Results



Some Results



Overall Result

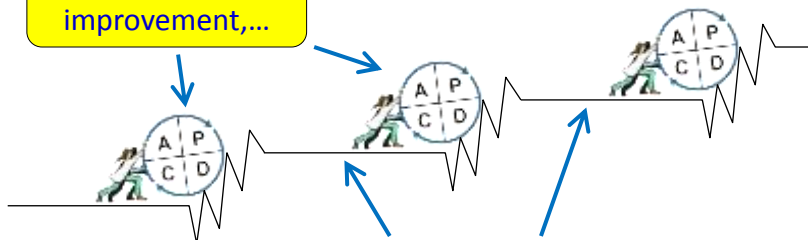


WHY?



Standard work necessary to sustain performance

Most lean initiatives
focus on process
improvement,...

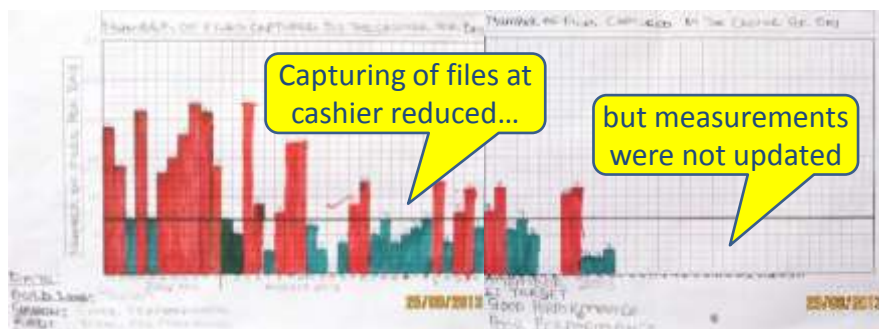


Requires disciplined
use of standard
work practices

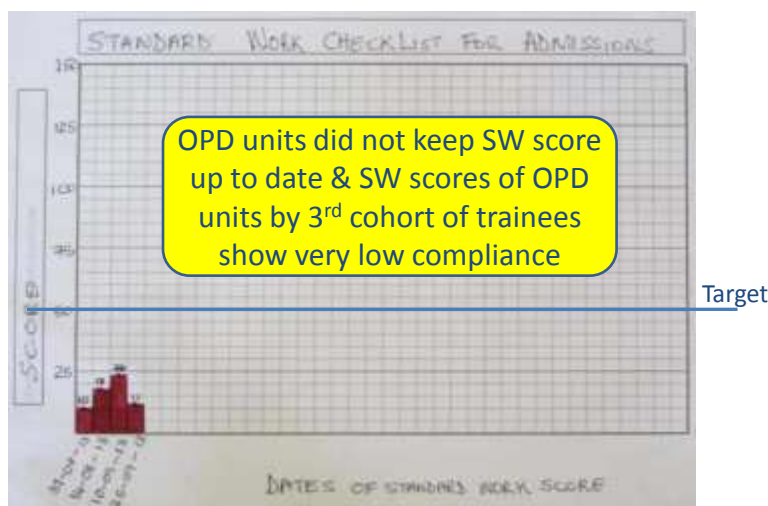
...but maintaining standard
work in between is
equally important



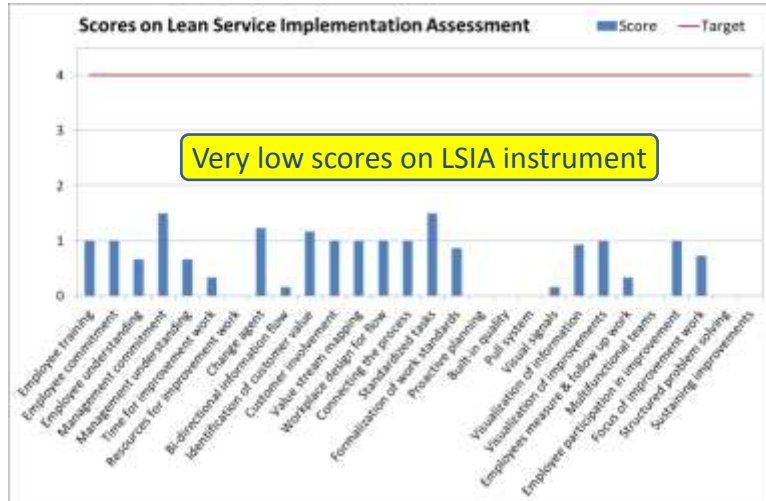
Institutionalization of SW Practices was not achieved



Institutionalization of SW Practices was not achieved



Lean Service Implementation Assessment



Malmbrandt & Ahlstrom, "An Instrument for Assessing Lean Service Adoption", IJOPM, V33 N9, 2013



WHY?

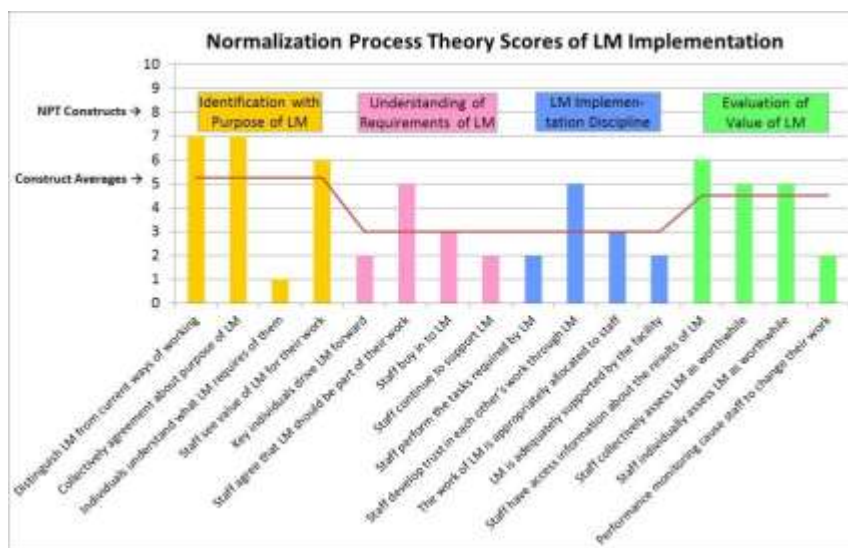


Most Important Challenges Experienced

- Staff & management in chronic fire-fighting mindset & therefore revert back to traditional management
- Implementation structures (eg lean committee & lean champion) did not function effectively
- Systemic problems outside scope of LM project not addressed fast enough or decisively
- Senior management distracted by other DoH projects and visits from provincial task teams
- Facility embedded in an unsupportive organizational context



Normalization Process Theory Assessment



Finch et al, Improving the normalization of complex interventions: measure development based on normalization process theory (NoMAD): study protocol, Implm Science, V8 N43, 2013



Revised Working Hypotheses

- In addition to the standard LM interventions such as:
 - ♦ Securing buy-in from management & staff
 - ♦ Training & follow-up coaching to implement SW practices
 - ♦ Technical support on performance measurement, etc.
 - ♦ Monitoring & evaluation
- Future LM interventions will include:
 - ♦ Extended engagement with district & facility senior management prior to deployment at facility level
 - ♦ Intensive initial SW coaching to achieve minimum compliance
 - ♦ Rigorous monitoring of LM practice compliance
 - ♦ Rapid decisions with senior management to address major obstacles during implementation process

