

Clinical Governance Hazard Analysis.

Using STAMP to Detect Knowledge Flow Hazards in a Major Health Care Organisation.

Wal Grimmett

Medical Advisor, Clinical Governance

June 2022

Clinical Governance

ACCOUNTABILITY

Any member within the system can give an account of their actions at any time backed up by a documented record of those actions

TRANSPARENCY

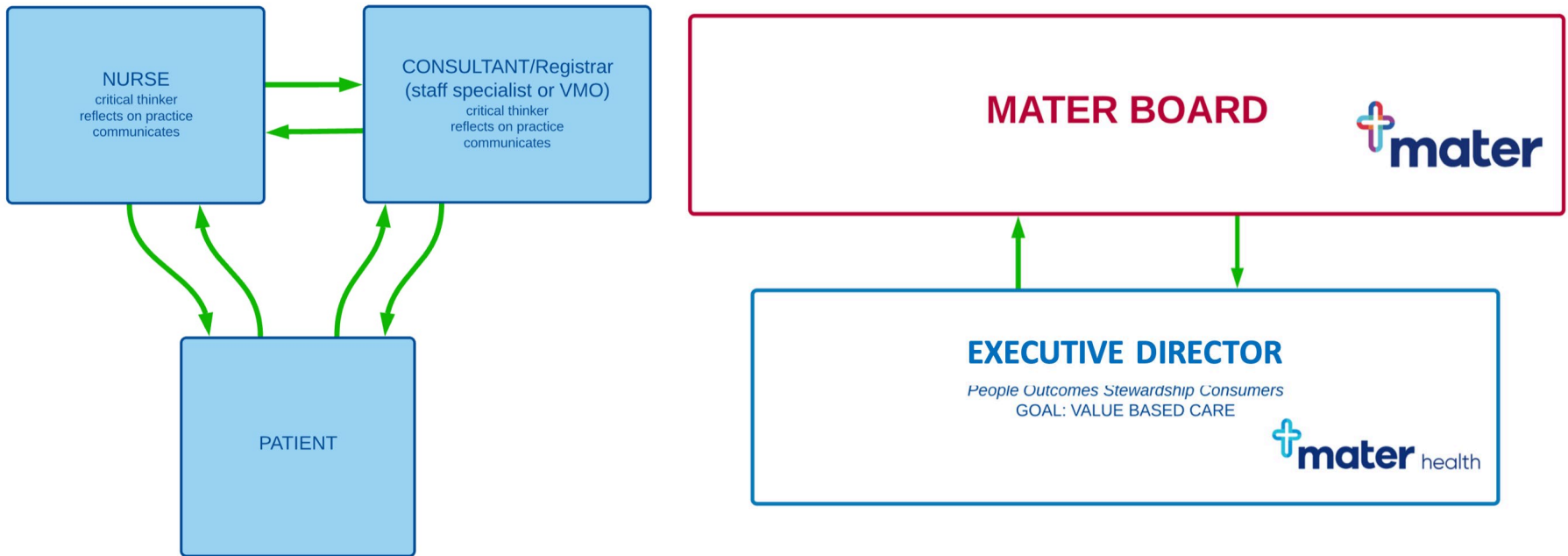
An outside observer with appropriate background expertise can get a clear understanding of how the system functions.

FIRST INSIGHTS INTO CLINICAL GOVERNANCE AT THE MATER

You don't get a FULL understanding of how an organisation functions by looking at the organisational structure.

Begs the Question, how do find out how your organisation works?

Does STPA have a role in answering that question?



FEEDBACK / CONTROL ACTIONS

PRESENT
CORRECT
CORRECTLY TIMED
CORRECT DURATION

“KNOWLEDGE” as a hazard

Knowledge is a critical component of an operators process model.

- Correct knowledge is required to correctly interpret inputs.
- Correct knowledge is required for correct control actions.

THIS IS REQUIRED AT EVERY LEVEL OF THE ORGANISATION

So, in terms of *function* of an organisation;

- We need to know where the knowledge lies
- How is that knowledge/information feed backs through the organisation.
- How that knowledge is used to affect control actions

Note; we've made terms knowledge/information/data synonymous for ease of operation of the model

- SAFETY 1 EMPHASIS**
Continuously monitoring for errors and fixing the system as problems occur
- SAFETY 2 EMPHASIS**
Examining what goes well and working on system resilience so good results occur more often
- SAFETY 3**
1 + 2 = 3

MATER BOARD 

DANIELE DOYLE
President, Queensland Health, Queensland
LOCAL VALUE BASED CARE 

CLINICAL GOVERNANCE
FOR QALD
2018

English Clinical Governance Team



MORTALITY & MORBIDITY
Mortality and morbidity data is used to monitor and improve patient outcomes and identify areas for improvement.

PREM's & PROM's
Patient Reported Experience Measures (PREM's) and Patient Reported Outcome Measures (PROM's) are used to measure patient satisfaction and health-related quality of life.

- QUESTLINK
- Doctor/Patient Co-views
- Patient Co-views
- AMPH (Ambulance)
- EMU (Emergency)
- Central

ADVICE
Advice from clinical governance team

PMAC
Patient Medication Adherence Checklist

LEARNERED MEDICINE

QUALITY & SAFETY INDICATORS
Specific quality and safety indicators (e.g. HCAHP, NPSF, NPSA)

ENCOURAGEMENT

Power BI (Power BI) can't work without this

SLIP
Standardized Learning Improvement Process

CONSENSUS
Consensus on clinical governance

PATIENT

CLINICAL REGISTRIES
Clinical registries for surgery and obstetrics



EVIDENCE BASED MEDICINE

POLICY & PROCEDURES

EDUCATION MEETINGS/CONFERENCES

Quality & Research Initiatives

JOURNAL CLUB



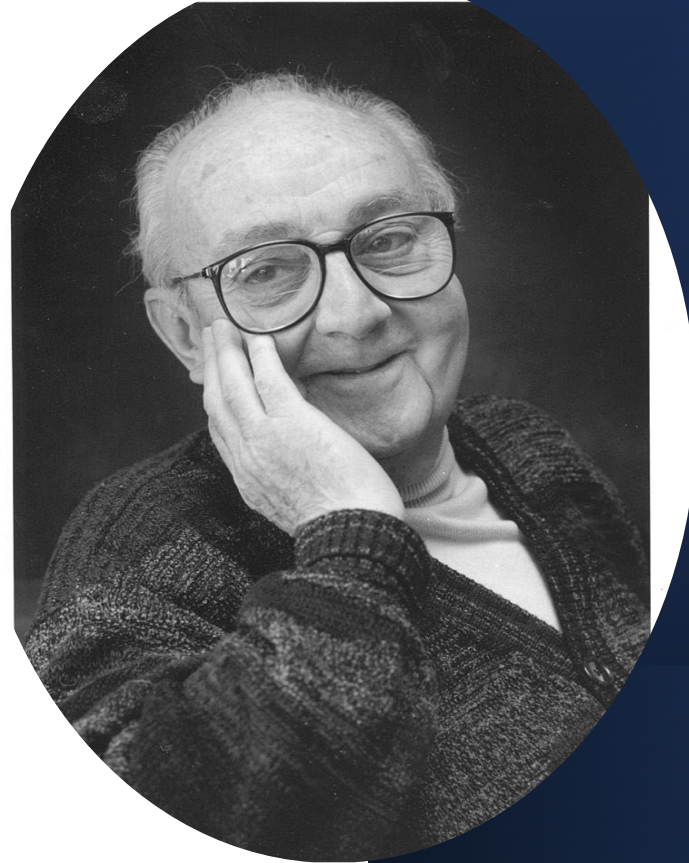
MATER HOSPITALS

CLINICAL PRACTICE IMPROVEMENT
Clinical practice improvement (CPI) is a systematic approach to identifying and addressing gaps in clinical practice.



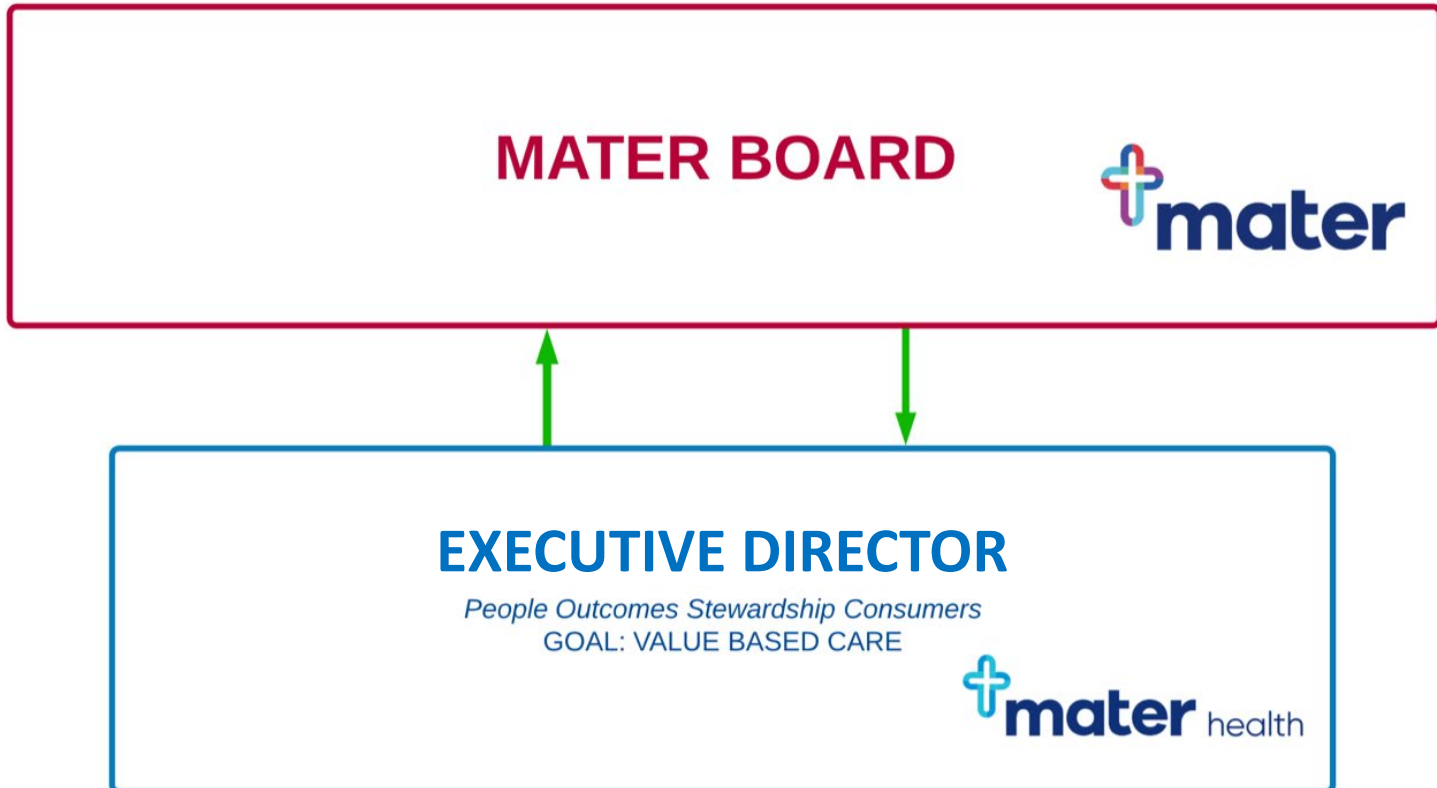
*“All models are
wrong, some are
useful”*

*George E. Box
(statistician)*



Leveson, N. (2004). "A new accident model for engineering safer systems." Safety Science **42**(4): 237-270.

Examples at the Top-end



EXECUTIVE DIRECTOR'S GOALS

- MATER's people.
- Stewardship
- Consumers/Patients
- Value Based Care

DOES THE MODEL HAVE UTILITY?

LOOKING AFTER PEOPLE

No way of knowing if the staff are in pain until it was too late. (Rescue plans were in place, CONTROL ACTION INCORRECT TIMING)

BUT,

- We did have ERIC (Incident reports) data; about 6000 reports a month.
- Information is PRESENT, FEEDBACK LOOP IS ABSENT.
- We need to create a feed back loop.
- Solution in this case was LEXIMANCER study in collaboration with University of Queensland
- SAFETY 3 in action (PROACTIVE SAFETY)

VALUE BASED HEALTHCARE

Value based care (VBC) is MATER health's operational goal. Of course part of any organisations implementation process is to explore both how to implement the goal and *hazards* that may impede MATER's progress to VBC.



**AN ONLINE PLATFORM BRINGING
TOGETHER THE VALUE-BASED
HEALTHCARE COMMUNITY**

JOIN NOW

CORONARY ARTERY DISEASE

COMPLETED & HARMONIZED

The ICHOM Set of Patient-Centered Outcome Measures for Coronary Artery Disease is the result of hard work by a group of leading physicians, measurement experts and patients. It is our recommendation of the outcomes that matter most to patients with coronary artery disease. We urge all providers around the world to start measuring these outcomes to better understand how to improve the lives of their patients.

1. Includes occurrence of strokes, acute renal failure, prolonged ventilation, deep sternal wound infection, and other causes of reoperations.
2. Includes occurrence of strokes, acute renal failure, significant dissection, perforation, vascular complications requiring intervention, bleeding event within 72 hours, and emergent CABG for failed PCI.
3. Tracked via the Seattle Angina Questionnaire (SAQ-7)
4. Tracked via the Rose Dyspnea Scale
5. Tracked via the Patient Health Questionnaire (PHQ-2)

REQUEST IMPLEMENTATION SUPPORT

RECEIVE UPDATES



HIP & KNEE OSTEOARTHRITIS

COMPLETED & HARMONIZED

The ICHOM Set of Patient-Centered Outcome Measures for Hip & Knee Osteoarthritis is the result of hard work by a group of leading physicians, measurement experts and patients. It is our recommendation of the outcomes that matter most to patients with Hip & Knee Osteoarthritis. We urge all providers around the world to start measuring these outcomes to better understand how to improve the lives of their patients.

1. Recommended to track via the Numeric Pain Rating Scale
2. Recommended to track via the Knee Injury and Osteoarthritis Outcome Score – Physical Function Shortform (KOOS-PS) and the Hip Disability and Osteoarthritis Outcome Score – Physical Function Shortform (HOOS-PS)
3. Recommended to track via the EQ-5D-3L or the SF-12.



SAFETY 3

$$1 + 2 = 3$$

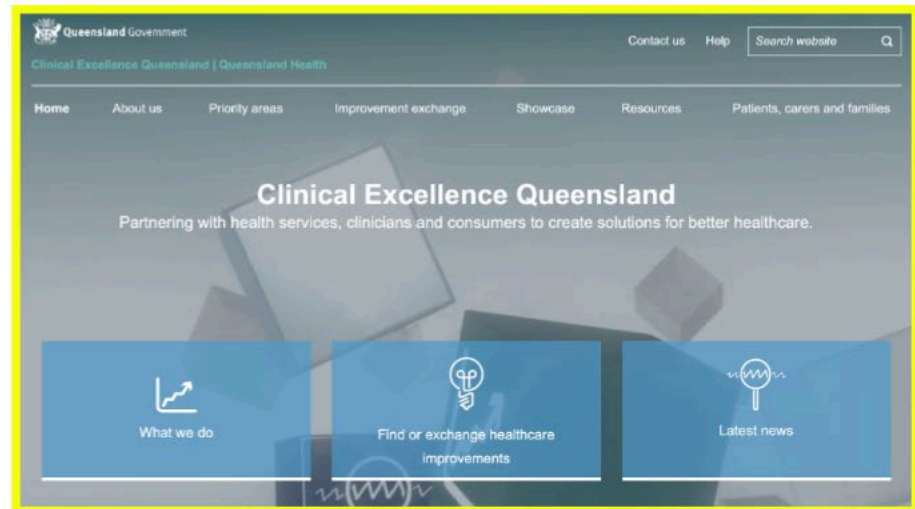
Power BI; (*value based care can't work without this*)

LEXIMANCER RESEARCH

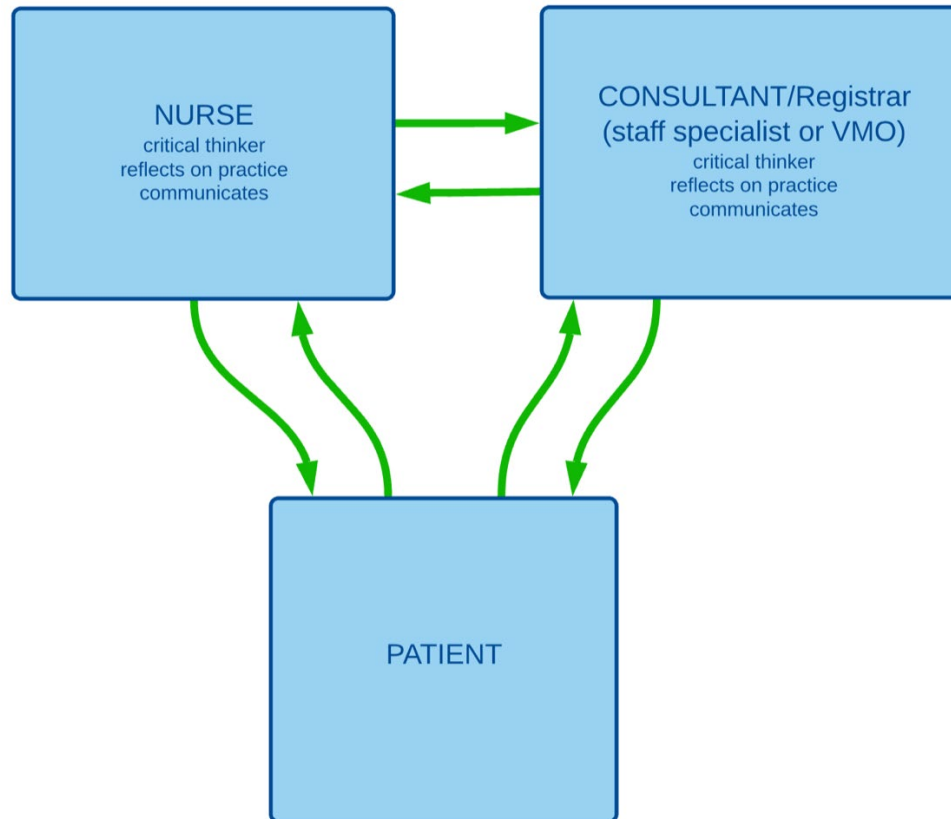
Significant potential to increase speed of control actions of system

ASURE project

grouped incidence analysis
institutional collaboration
inadvertant effect is speed of response to system demands



UTILITY AT THE COAL-FACE?



2 quick examples;

WHO CHECKLIST FAIL

- Change of DBS Battery.
- WHO checklist done (reasonably well). Patient said battery was on the right side of the chest, Surgeon, Anaesthesiologist, Scrub Nurse concurred.
- BUT, Pacemaker box was on the right! How does this happen & *more importantly*, what system changes to make.

(you can argue semantics, this was a CAST analysis, of knowledge flow)

Second Example

HIDDEN PULMONARY ARTERY PRESSURE

- Booked parathyroid operation (neck operation)
- Endocrinologist review
- Surgical Review
- Cardiology review (twice)
- Anaesthesiology Registrar review 1 hour prior
- Anaesthesiology Consultant review (with Registrar) 15 minutes prior.
- Buried on page 30 in the notes; pulmonary artery pressure 100mmHg

AND THAT IS THE CRITICAL PIECE OF KNOWLEDGE THAT DETERMINES THE PATIENT OUTCOME

SUMMARY

- We need to know medical organisations function not how they are organised.
- Knowledge is a critical part of everyone's process model at every level of that organisation.
- Treating “Knowledge” as a hazard can provide important insights into functional system improvements for that organisation.



**KEEP
CALM**

the presentation is over

**ANY
QUESTIONS???**