Healthcare Excellence Canada
Excellence en santé Canada

Rewiring our Approach to Safety:

Measurement and Monitoring of Safety in Canada

Anne MacLaurin, Healthcare Excellence Canada
Maaike Asselbergs, Patient's for Patient Safety
Dr. G. Ross Baker, University of Toronto

Welcome!

Presenters

Maaike Asselbergs

Patient Partner
Patients for Patient Safety Canada

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Senior Program Lead
Healthcare Excellence Canada

Dr. G. Ross Baker

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OUR PURPOSE

To shape a future where everyone in Canada has safe and high-quality healthcare.

Healthcare Excellence Canada

About you: At your table

- What is your name
- Where are you from?
- What is your position/role?
- Give a special welcome to any patient partners at your table?
- What is one safety risk that keeps you awake at night?

PATIENTS FOR PATIENT SAFETY CANADA | PATIENTS POUR LA SÉCURITÉ DES PATIENTS DU CANADA

We believe that everyone should have safe and high-quality healthcare.

How safe is our care?

The Magnitude of Preventable Harm

2004 Canadian Adverse Events Study


The Canadian Adverse Events Study: the incidence of adverse events among hospital patients in Canada

Patient safety is receiving growing attention in Canada. Numerous legal cases and media stories have highlighted the consequences of unintended adverse events (AEs). In 2002 the Canadian government budgeted $50 million over 5 years for the creation of the

Methods

Chart review of

3745 patient charts

in 20 hospitals in 5 provinces using validated review methods

Overall AE rate of 7.5%, of which **37% judged preventable**

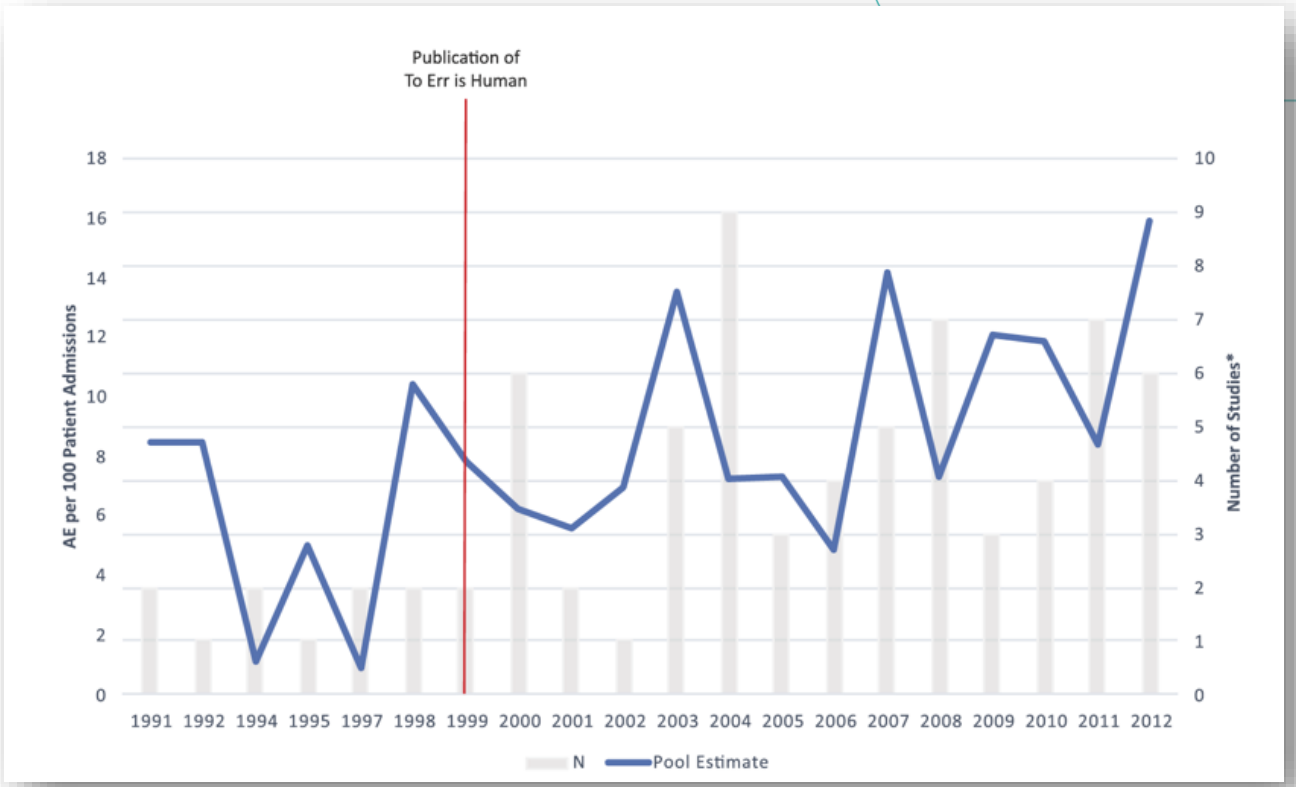
Translates to 185,000 events per year and

9250 to 23750 deaths

associated with AEs

Systematic Review of Adverse Events Studies

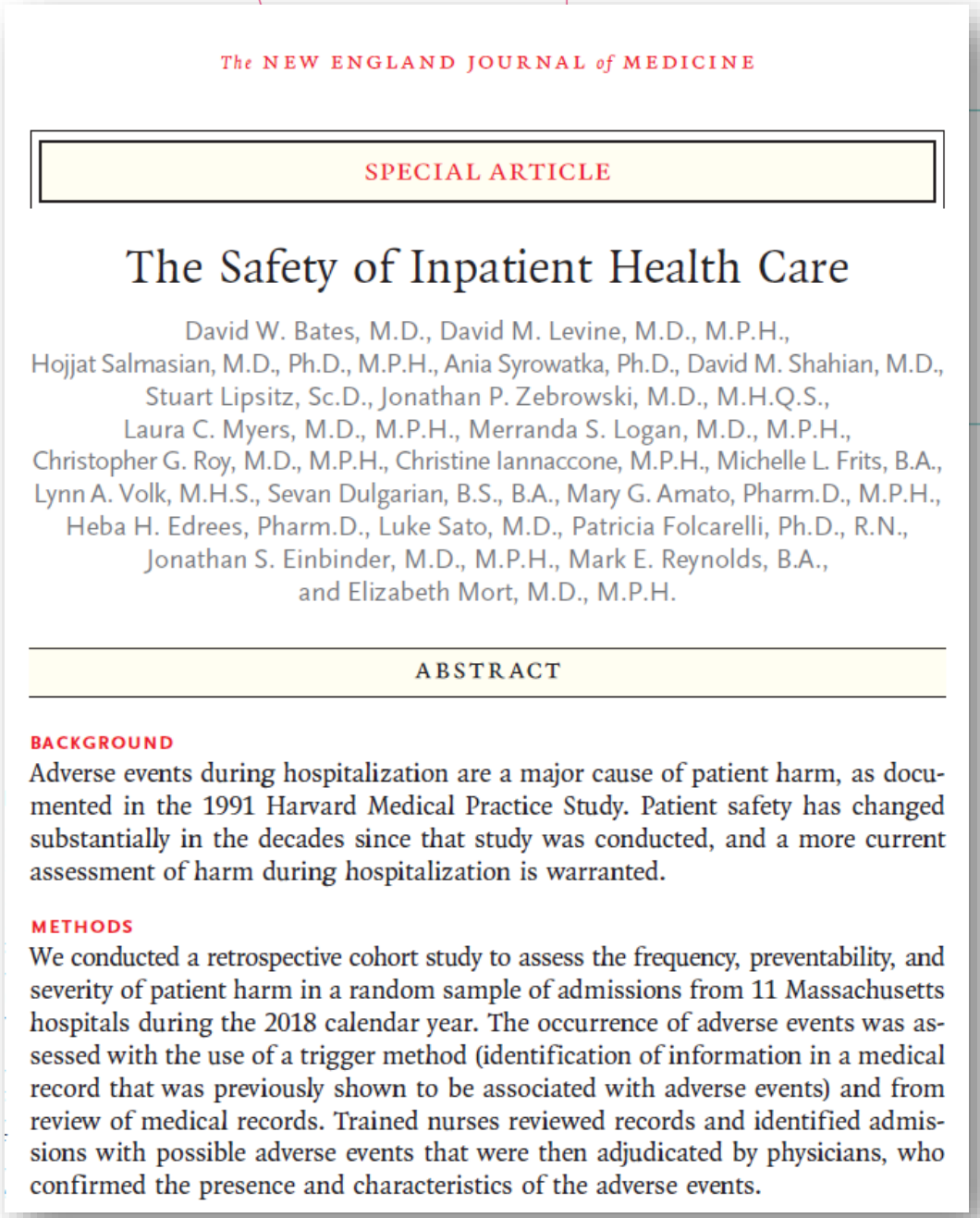
- **94 studies of hospital AEs**
  from 1961 to 2014
- Overall incidence
  8.6 AEs per 100 admissions
- **Reported rates of AEs have grown over time**



Sauro, et al., 2021

How Safe is Inpatient Health Care Now?

- Bates, et al. studied **adverse events in 11 Massachusetts hospitals in 2018**
- Adverse events were identified in nearly **one in four** admissions
- Approximately **one fourth of the events were preventable**.



The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

The Safety of Inpatient Health Care

David W. Bates, M.D., David M. Levine, M.D., M.P.H., Hojjat Salmasian, M.D., Ph.D., M.P.H., Ania Syrowatka, Ph.D., David M. Shahian, M.D., Stuart Lipsitz, Sc.D., Jonathan P. Zebrowski, M.D., M.H.Q.S., Laura C. Myers, M.D., M.P.H., Merranda S. Logan, M.D., M.P.H., Christopher G. Roy, M.D., M.P.H., Christine Iannaccone, M.P.H., Michelle L. Frits, B.A., Lynn A. Volk, M.H.S., Sevan Dulgarian, B.S., B.A., Mary G. Amato, Pharm.D., M.P.H., Heba H. Edrees, Pharm.D., Luke Sato, M.D., Patricia Folcarelli, Ph.D., R.N., Jonathan S. Einbinder, M.D., M.P.H., Mark E. Reynolds, B.A., and Elizabeth Mort, M.D., M.P.H.

ABSTRACT

BACKGROUND

Adverse events during hospitalization are a major cause of patient harm, as documented in the 1991 Harvard Medical Practice Study. Patient safety has changed substantially in the decades since that study was conducted, and a more current assessment of harm during hospitalization is warranted.

METHODS

We conducted a retrospective cohort study to assess the frequency, preventability, and severity of patient harm in a random sample of admissions from 11 Massachusetts hospitals during the 2018 calendar year. The occurrence of adverse events was assessed with the use of a trigger method (identification of information in a medical record that was previously shown to be associated with adverse events) and from review of medical records. Trained nurses reviewed records and identified admissions with possible adverse events that were then adjudicated by physicians, who confirmed the presence and characteristics of the adverse events.

The Magnitude of Unintended Patient Harm

Patient harm in Canadian hospitals? It does happen.

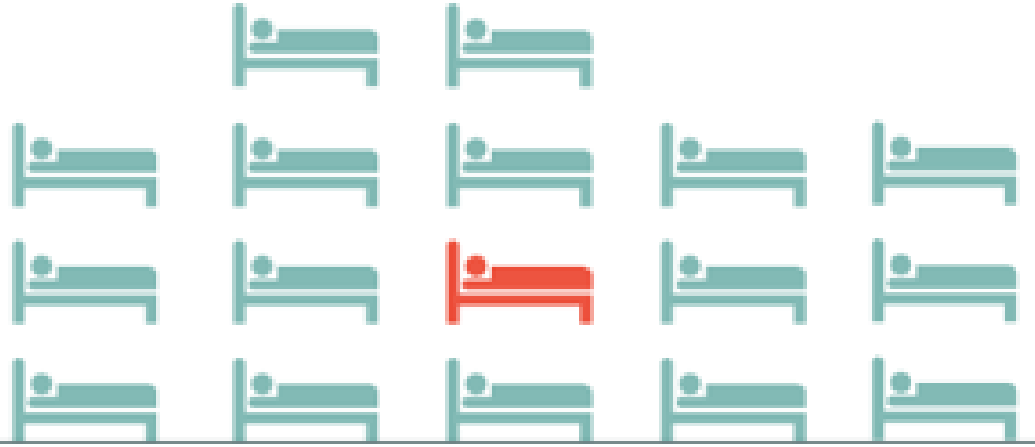
Hospitals are generally safe, but sometimes harmful events happen that affect patients. Many of these events are preventable.

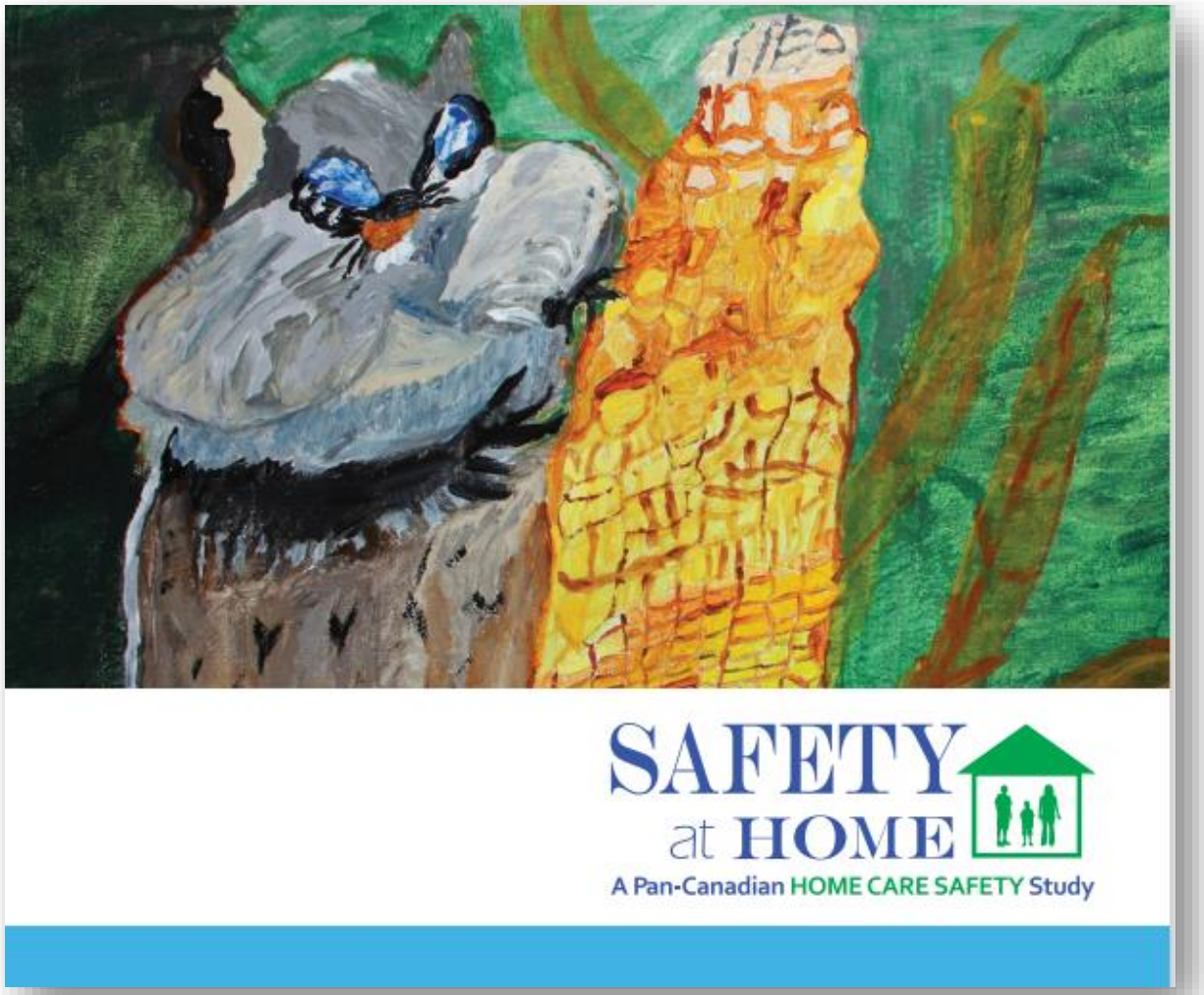
How often does it happen?

In 2021–2022,

1 in 17 hospital stays

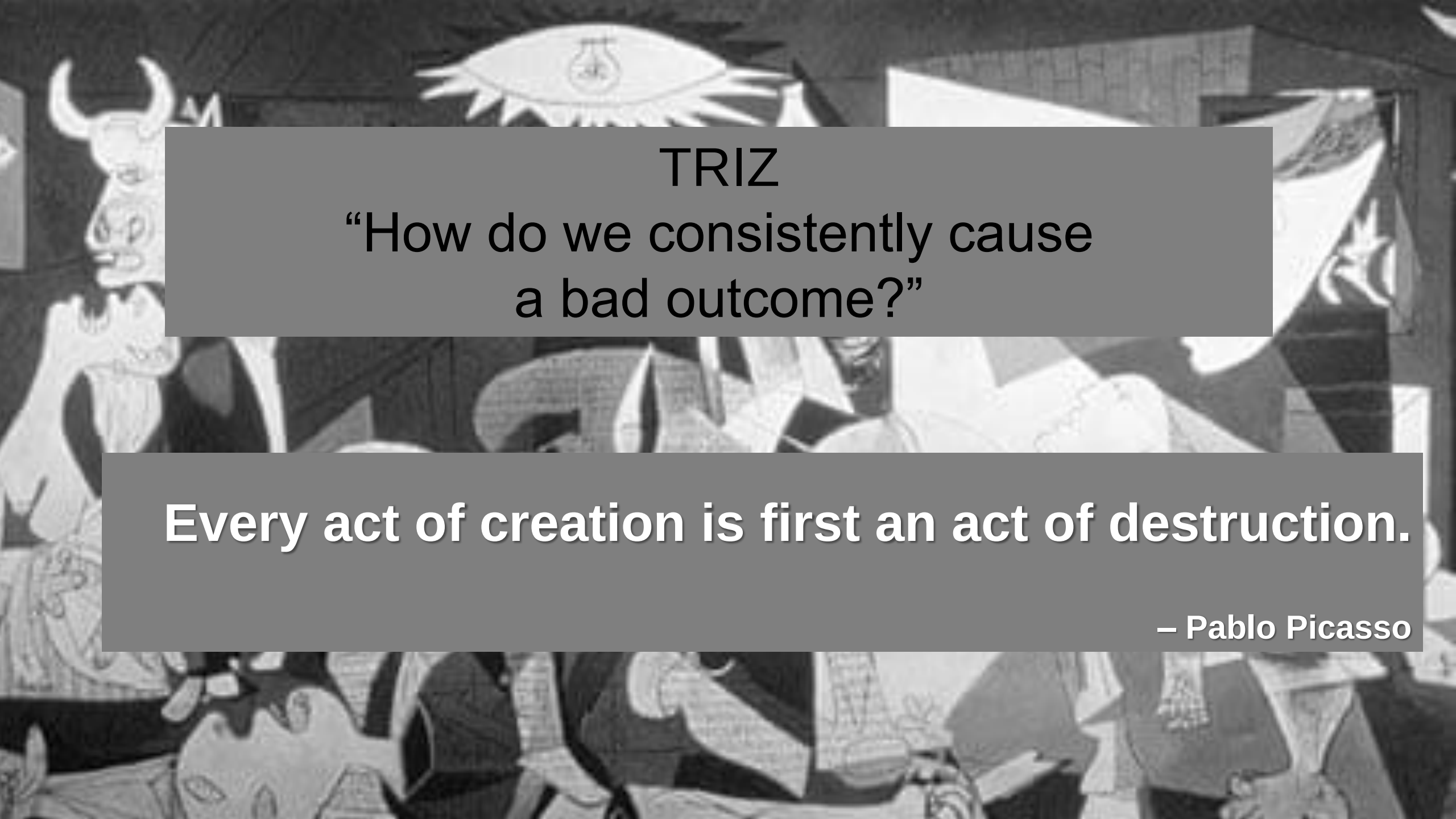
in Canada involved at least one harmful event (140,000 out of 2.4 million hospital stays).





Blais, Sears, Doran, Baker, et al., 2013

- 2008/2009 Review of Canadian home care charts indicates that **13% of home care clients experienced unintended harm**
- Delirium, sepsis and medication-related harms are associated with an **increased risk of client death**



TRIZ
"How do we consistently cause
a bad outcome?"

Every act of creation is first an act of destruction.

– Pablo Picasso

Theory of Inventive Problem Solving (TRIZ)

How would you design a patient safety strategy that causes bad outcomes?

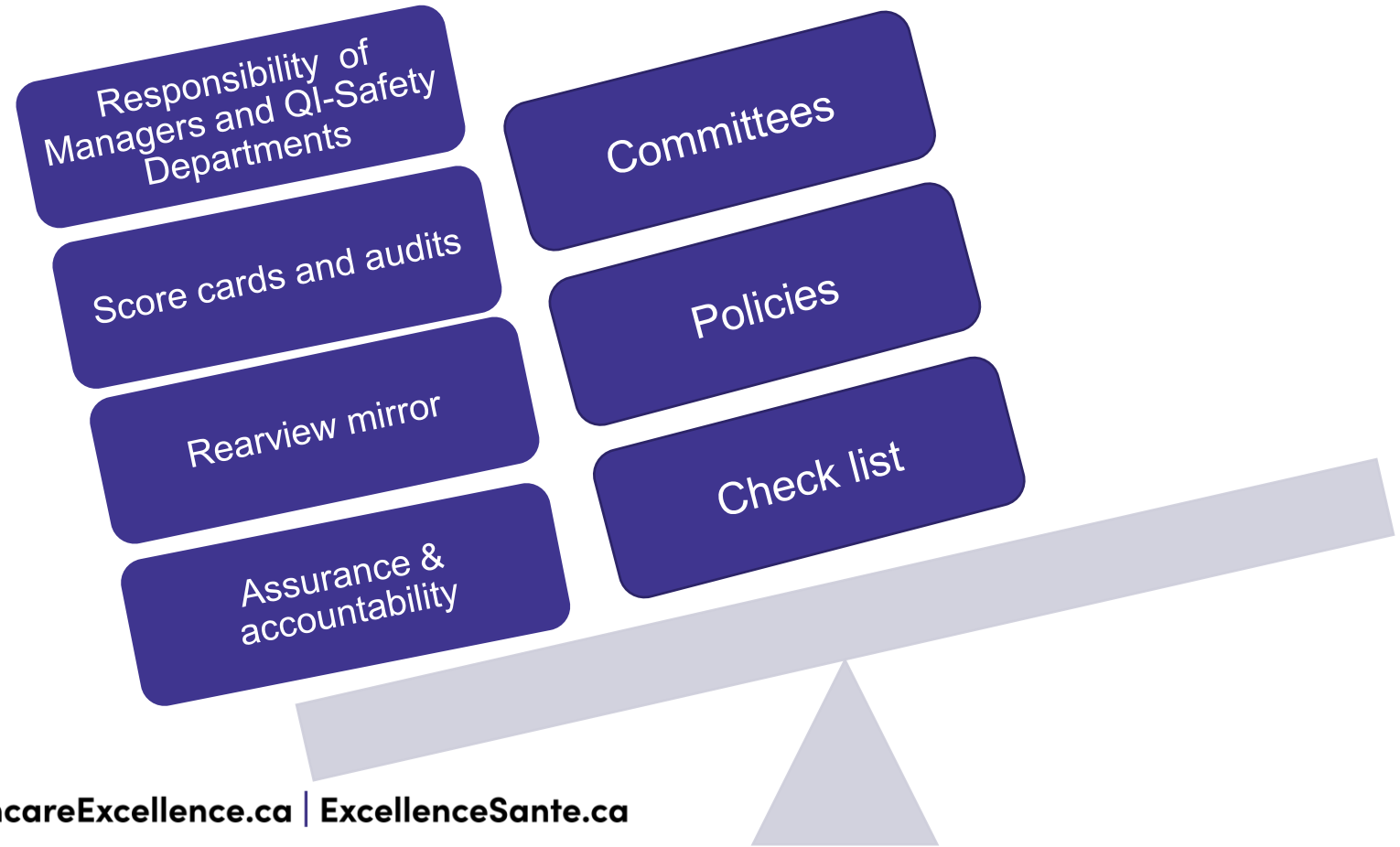
Typical Approaches to Preventing Harm

- Create new policies, guidelines and checklists
- Initiate new safety projects
- Posters and reminders
- Assure patients, residents, leaders and staff that 'our care is safe’
- Shame and blame those involved in incidents

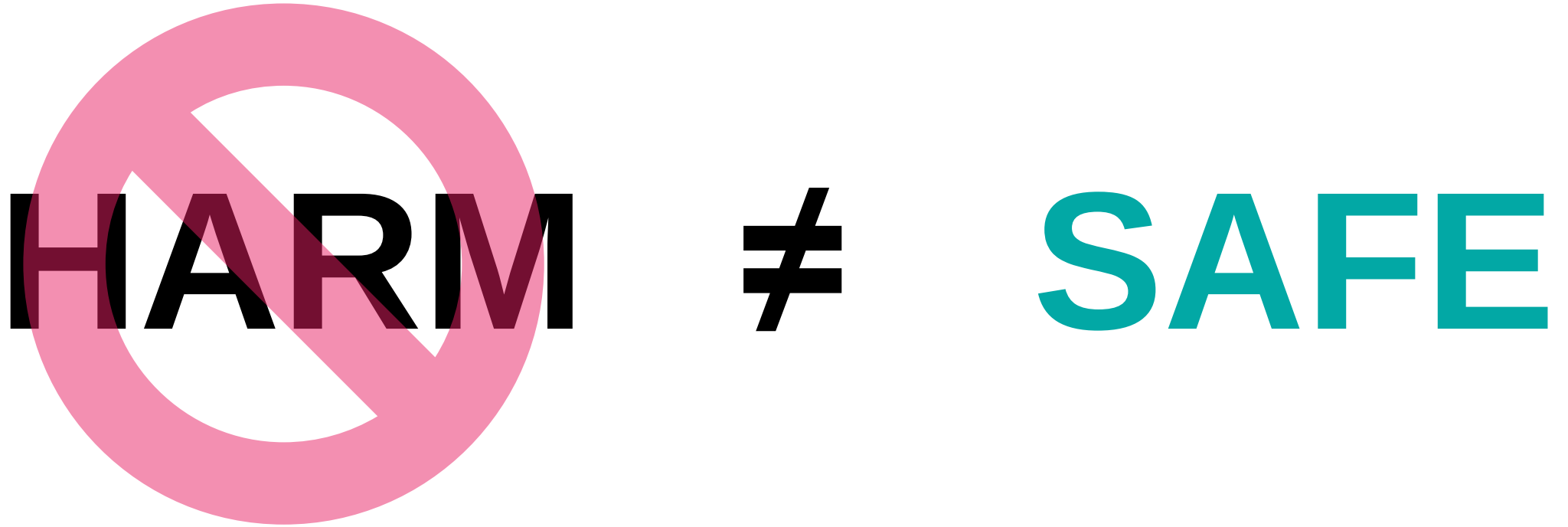
Do these approaches lead to a workforce that is

- Burned out
- Disempowered
- Disengaged
- Overwhelmed
- Overworked
- lack psychological safety?

Preventing Harm



The absence of harm is not the same as the presence of safety



Do measures of harm tell you how SAFE your care is or how LUCKY you have been?

An introduction to a new approach to safety!

Video

https://www.youtube.com/watch?v=8CmOjh7gqTY

The measurement and monitoring of safety framework

A short introduction by Professor Charles Vincent

Expanded and shared understanding of “what is safety”

Key learnings from the MMSF Collaborative in Canada

1

Changes the way we think about safety. The focus moves away from past harm to a more holistic and proactive view of safety. Provides a shared and consistent understanding of safety.

2

Moves us from assurance and accountability reporting to a “practice of inquiry”

3

Empowers everyone to take a proactive role in safety. Safety can be created.

4

Promotes the value that patients and care partners have in creating safety

Building capacity for patient safety in partnership with patients

What we learned:

1. Patients are an essential but all too often an underused defense in preventing patient harm.

2. Healthcare providers have a really hard time talking to patients and care partners about patient safety.

3. Healthcare providers and patients' perspectives about safety often differ.

Available on the HEC website under the Presence of Safety webpage.

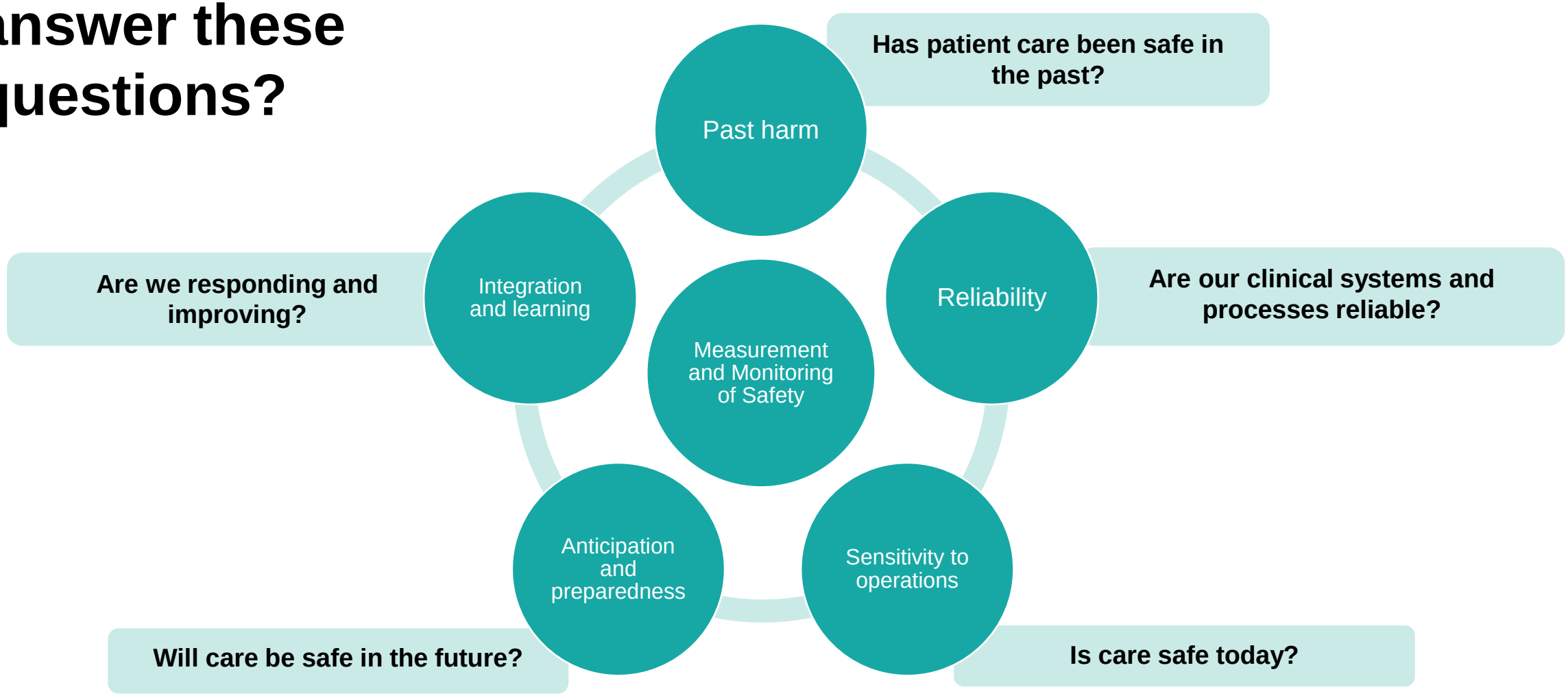
[How Safe is Your Care? (healthcareexcellence.ca)]

Drs. Lianne Jeffs, Kerry Kuluski, and G. Ross Baker, and Maaike Asselbergs, Anne MacLaurin and Virginia Flintoft

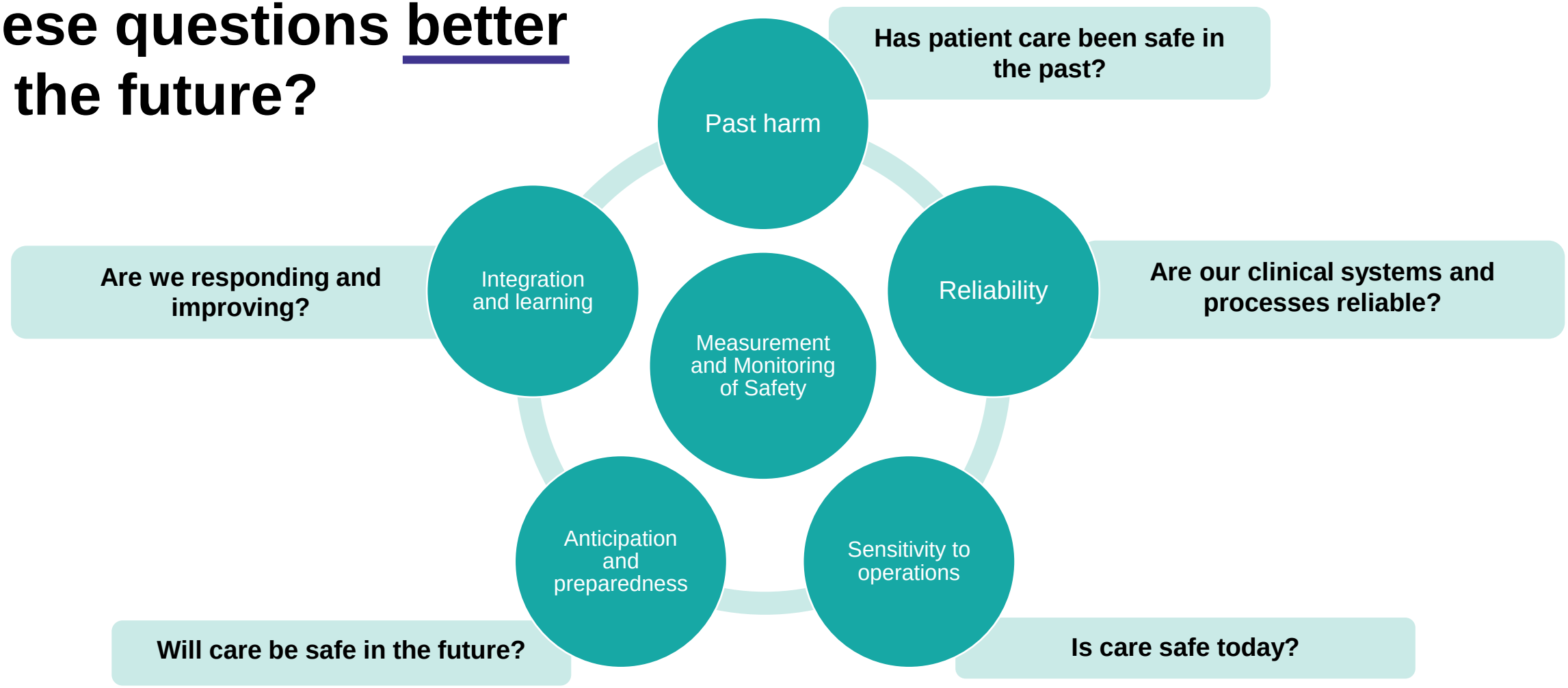
What patients told us about safety

The Measurement and Monitoring of Safety Framework

How do you currently answer these questions?



How could you answer these questions better in the future?




Past harm
Has patient care been safe in the past?
Integration & learning
Are we responding and improving?
Safety measurement & monitoring
Reliability
Are our clinical systems & processes reliable?
Anticipation & preparedness
Will care be safe in the future?
Sensitivity to operations
Is care safe today?

Past Harm -
Has care been safe in the past?

- Reporting and responding to harm.
- While this is very important, measures of harm on its own is not enough

Widening our view of harm

Physical harms
(treatment-specific & general harm)

Psychological harm

Harms in the transition of care

Over-treatment

Under-treatment

Delayed or inadequate diagnosis

Dehumanisation

What patients and care partners tell us about harm

Harm Card Sorting

- Provide examples of each type of harm
- Sort the cards starting with the type of harm that gets the most attention down to the type of harm that is most often overlooked.
- Discuss steps that can be taken to widen your view of harm?

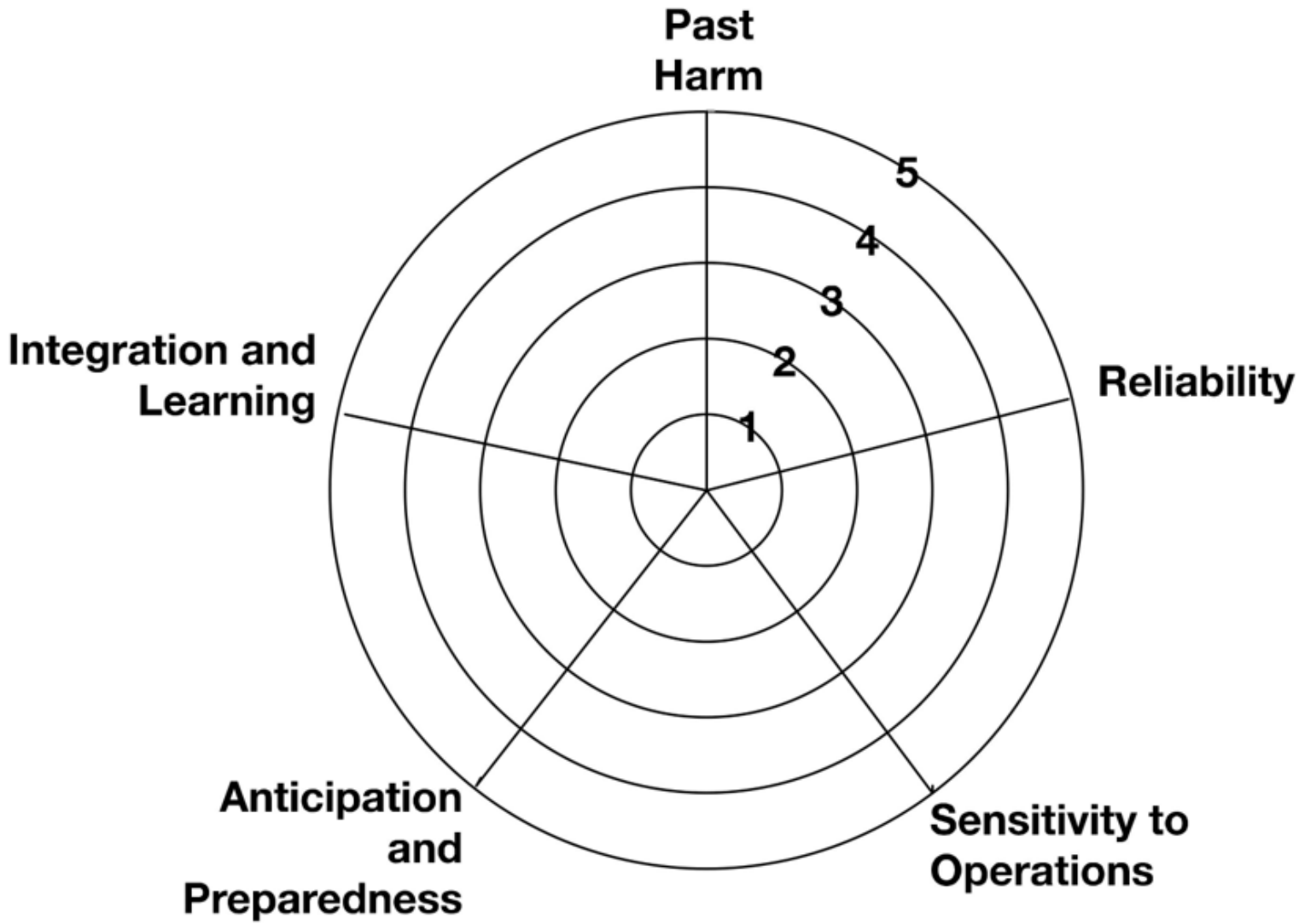
Safety Measurement and
Monitoring Maturity Matrix
(SaMMMM)

“The Maturity Matrix”

		LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
Past Harm	*Has patient care been safe in the past?*	Very few mechanisms exist to learn from past harm and those that do are not used: Under-reporting of incidents is the norm. Staff are reluctant to speak up and to report incidents. Monitoring of patient mortality rates is cursory. Incident investigations are not always carried out and when they are the focus is on individuals, not learning and improving. Patient experiences of past harm, (e.g. through patient stories, complaints), are not sought out. The organisation is unable to answer the question, 'Has patient care been safe in the past?'	The approach is very reactive: Lessons are only learnt from serious incidents when media or regulatory pressure forces the organisation to investigate thoroughly. Patient mortality data is not routinely monitored or there are gaps in existing monitoring processes: The organisation only becomes aware of patient mortality rates after regulatory or media pressure forces it to review the data. There is little or no participation in national audits or routine databases that assimilate past harm data from clinical specialties.	Improving patient safety is a tick box exercise: Activity focuses on regionally, provincially and nationally mandated measures: The approach is on proving to regulators that case review[1], mortality statistics, systematic record review[2], trigger tools[3], reporting systems[4], never event reporting[5], investigation methods, and other. Routinely reported data measures are in, place not on learning and improvement. The understanding of past harm focuses on the more traditional, treatment specific clinical harm areas. Patient stories are used in a tokenistic way.	A broad range of past harm measures are used. Specialty-specific harm metrics exist. Incident investigation is used to proactively identify what could go wrong in the future, not just to identify root causes. Reporting and Learning from near misses, good catches and 'what went well' is embedded. The measurement of harm, and associated safety indicators, result in inquiry, learning and improvement, rather than punishment and sanction. Feedback from patients and families, (e.g. patient stories, complaints, claims etc..), who have been harmed is acted on to improve. Measures have been mapped and formulated to ensure clarity of each measure's purpose and to ensure that together, a portfolio of measures provide a picture of system safety vulnerabilities. There is a proactive approach and recognition that past harm measures are always evolving.	The cultural norm is that safety measurement should constantly evolve, and that complacency needs to be avoided, even when safety performance is good. There is ongoing scrutiny of past harm measures and a mature understanding of the negative side effects of simply having volumes of past harm measures in place. Healthcare teams feel ownership of safety measures and are empowered to refine them. Collaborative innovation between staff, patients and families takes place to introduce and refine past harm measures. A broad definition of past harm has been agreed. It encompasses treatment specific harm, overtreatment, failure to provide treatment, delay or inadequate diagnosis, psychological harm and feeling unsafe. There is a shared awareness of the breadth of past harm. Past harm measurement crosses healthcare boundaries, so where measures need to be in place across community, mental health, and/or secondary care pathways, these have been implemented.
Reliability	*Are our clinical systems processes reliable?*	Unreliable clinical systems, processes and pathways are accepted as the norm. The culture is one of tolerating unreliable clinical systems. Process reliability is rarely measured. Where audits are carried out and problems are identified, no actions are taken to implement improvements. Assumptions exist that patient care is delivered as described in safety policies, procedures and in IT, and equipment specifications.	Measurement of clinical system, process and pathway reliability is externally driven: The only reliability measures in place are those set nationally or by provincial bodies (eg. Ministries, councils etc.). The culture is one of waiting for and accepting reliability measures that come down from national, provincial, or regional bodies. A process of rolling clinical audits exists but it just generates action plans. 'Action-plan-itis' exists; the cycle of audits is continuously repeated but action plans are not implemented. When reliability measurement data shows the world as it is envisaged in safety policies and procedures does not reflect reality, the response is to either question the data or blame 'staff non-compliance'.	Measurement of clinical system, process and pathway reliability takes place but the approach is bureaucratic: Activity focuses on 'ticking the boxes' and providing a 'paper-trail' of audit evidence to meet performance management goals and/or targets. There is some recognition that unreliable systems exsist but the focus is on collecting data, not improvement. There is also some recognition that 'Action-plan-itis' exists, but attempts to change the culture to one of enquiry and improvement are unsuccessful. Reliability measures are sometimes misapplied leading to false assurance when answering the question, 'Are our clinical systems and processes reliable?'	System, process, and pathway reliability data shapes the focus of improvement work. Safety policies, procedures, IT, and equipment specifications are proactively reviewed and continuously updated: There is a mature understanding that drifts or migrations from procedures provide valuable reliability data. Staff speak up to raise concerns about unreliable systems and processes: Their concerns are listened to and acted on. There is also a mature understanding of the strengths and weaknesses of reliability measures. Reliability measures are applied appropriately; where measures shape behaviour in unintended ways they are refined, or abandoned. Feedback on the levels of reliability achieved are tailored to specific audiences. The feedback is designed to support enquiry, learning and improvement.	Unreliable systems, processes and pathways are viewed as unacceptable: There is a broad programme of improvement activity which focusses on identifying and improving levels of reliability across ALL clinical and non-clinical areas. The responsibility for measuring reliability and reducing variation around standards is owned by professional groups. Innovation takes place to develop and implement measures of reliability that cross organisational boundaries; where measures need to be in place across community, mental health, and/or secondary care pathways, these have been implemented. Specifications for new IT systems, clinical pathways etc. are created through a process of co-production by multi-disciplinary teams who have current process, patient, and subject area knowledge. Approaches to identify and create reliable systems are harnessed from other industries: The culture is outward looking and innovative.
Sensitivity to Operations	*Is care safe today*	Little or no importance is attached to observing how care is delivered, or to listening or seeking feedback from healthcare teams, patients, or families. Safety walk-rounds have never been embedded: Senior managers' have assumptions about levels of safety because taking time to listen and observe how care is delivered is not a priority. Teams go through the motions of handing over or discussing patients but emerging safety risks are not recognised and acted on.	The culture is reactive: Information on how treatment has been delivered in the 'real world' is only sought out when a serious incident or when high profile patient harms occur. After something goes wrong informal safety intelligence is sought from patients and healthcare teams, but this activity is abandoned once investigations or reviews have been completed. Where there are formal and informal systems in place to maintain awareness of operations, these do not provide real-time information or the safety information they generate is inaccurate.	There is some effort to gather and use real time safety data. Safety walk-rounds, patient safety officers, operational meetings, briefings and debriefings, conversations with patients, families and healthcare staff are in place. However, opportunities to learn from less formal real time safety data are missed because safety metrics on dashboards are valued more. Safety huddles[6] or real-time patient monitoring systems have been implemented, but their content and format has been decided by managers, not clinical teams.	The culture is one where feedback from patients, families, healthcare teams is sought out every day. Informal safety intelligence gathered from observations and conversations, has an equal value to safety measurement data (e.g. safety metrics and audit findings). The proactive approach is organisation-wide, not restricted to a few teams or areas. The methods and approaches in place are sensitive enough to pick up subtle changes and disturbances, meaning the information gathered provides a meaningful answer to the question - 'Is care safe today?' Where safety huddles or real time patient information systems are implemented their design has been shaped by the healthcare teams who use them, who are empowered to lead safety improvement work.	There is a system of early, pre-emptive, identification of problems so that actions can be taken (today) before they cause harm to patients. Real-time information systems have been implemented which take the pulse of the organisation on a moment by moment basis: This involves acting on real-time patient, carer, and staff feedback systems, and intelligent data forecasting systems that predict patient flow and emerging safety threats. Feedback mechanisms are specific to different audiences and are constructed to ensure no ambiguity in response. Sources of informal safety intelligence go beyond the organisation's boundaries meaning soft safety intelligence from across a whole health economy or patient pathway, (including community, mental health, and secondary care providers), is routinely used.
Anticipation and Preparedness	*Will care be safe in the future?*	Few or no measures to anticipate future harm are used except the risk register and assurance framework. These are completed to meet monthly or quarterly data submission schedules with little or no attention being paid to the risks they identify and how to mitigate them. Data collection for the risk register and assurance framework is patchy because accountabilities are unclear.	The culture relies on the risk register and assurance framework to anticipate future harm. The risk register and assurance framework processes are embedded across the organisation. However, it is largely a data collection exercise; processes to monitor action plans to mitigate risks are weak. There is little awareness of other approaches, for example, safety culture surveys, using sickness absence data to anticipate burnout, systems safety assessment or Failure Modes and Effects Analysis etc..	Methods to anticipate future harm are in place but the focus is on demonstrating to external regulators and payors (eg. Ministries, regions, LHINs etc.) they are being used. There is no or little appreciation of their diagnostic value and they are not used to thwart emerging safety threats. Healthcare teams use risk assessments for falls, violence, and aggression, Hospital Acquired Pressure Injuries etc.., but these create a paperwork burden that prevents early identification and intervention to thwart emerging safety risks. Risk assessments are not monitored against outcomes; their completion is isolated from decision making about safety.	There is an evolving culture of curiosity, enquiry, and empowerment to lead which enables early identification of emerging safety threats and quick intervention. Questioning is encouraged even at times of stability and success. Teams across the organization use a range of internal intelligence to create future harm scenarios. Scenarios are created formally and informally. They are proactively discussed, rehearsed, and simulated to prepare for and negate potential sources of harm. Questioning is encouraged even at times of stability and success. Actions are taken without there being a previous incident to prompt reflection. A wide range of proactive safety measures and approaches are routinely used.	A culture of curiosity, enquiry and empowerment to thwart safety threats is fully embedded both within the organisation and throughout the whole health region. Emerging safety risks that cross oganisational boundaries are thwarted because measures that support anticipation provide real time data that is shared and quickly acted on. There is mature approach in which all types of safety data are viewed through the lens of answering the question - 'Will care be safe in the future?' When this question is asked, the conversations are not restricted to discussing safety threats within an organisation's boundaries. Rather recognition of the impact of other providers on future safety is recognised and collaboration occurs to resolve problems. A broad range of proactive safety methods are used in the design of new patient pathways and processes, such as safety cases[7], safety culture assessment[8] and human factors/reliability analysis[9].
Integration and Learning	*Are we responding and improving?*	Gaps in safety measurement and monitoring processes make integration and learning challenging. Opportunities to learn and improve are impeded by the tendency to blame individuals when things go wrong. Where data is available, discussions mainly focus on debating its usefulness and reliability. Feedback mechanisms to disseminate learning across healthcare teams are inadequate and inconsistent.	Safety data from past harm, reliability, sensitivity to operations and anticipation dimensions is only integrated after serious harm occurs or in response to requests from regulators. Feedback to healthcare teams on lessons learnt from safety measurement and monitoring activities is patchy. Integration is restricted to theming of past harm data: Themed data is only shared within divisions or clinical teams, as there is no recognition that lessons learnt may be relevant to other teams and divisions.	Some sharing of themed safety learning beyond departmental / local boundaries exists but there is a reliance on individual initiative rather than having robust feedback systems in place. Feedback and learning mechanisms look good on paper but sometimes do not work in practice. Safety dashboards are in place which meet regulatory requirements. There is little investment in employing experts with the skills to improve safety dashboards and integrate data from different sources.	Mature safety dashboards exist which integrate past harm, reliability, and anticipation metrics. Data analytic experts work alongside healthcare teams and patients to develop meaningful metrics. Feedback is timely and relevant: It is used to prompt open discussion and to inform safety improvement work. The importance of triangulating hard data from safety metrics with soft safety intelligence is understood. Lessons learnt reach frontline staff because robust feedback mechanisms are in place. There is a systematic approach for sharing learning across the organisation and a culture of thinking proactively about 'who else needs to learn from what happened here?'	Staff feel ownership of safety: There is an accurate understanding of safety performance, including how gaps in the wider health region's services impact on safety performance. Data analytic experts and healthcare teams have been successful in embedding real time information systems throughout the organisation. Useable, timely safety performance data is fed back and healthcare teams are empowered to refine metrics. Real-time safety data and lessons learnt are widely shared beyond organisational boundaries to partners in the local health region and others nationally can learn and improve. Equal emphasis is made to the rate of learning as to the rate of reporting of safety. Information is pulled in centrally and then shared back out in a timely and useable format.

This project is supported by the Health Foundation, an independent charity committed to bringing about better health and health care for people in the UK. Developed by Dr Jane Carthey and Nick Downham (wdid and OPM) (2017) Please cite as follows: Carthey J and Downham N (2017) Safety Measurement and Monitoring Maturity Matrix (SaMMMM). Adapted for use in Canada by G. Ross Baker and Virginia Flintoft at IHPME, University of Toronto (May, 2017)

Spider Diagram
Graphical analysis of your results:



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Past Harm

Level 1	Level 2	Level 3	Level 4	Level 5
Very few mechanisms exist to learn from past harm and those that do are not used: Under-reporting of incidents is the norm. Staff are reluctant to speak up and to report incidents. Monitoring of patient mortality rates is cursory. Incident investigations are not always carried out and when they are the focus is on individuals, not learning and improving. Patient experiences of past harm, (e.g. through patient stories, complaints), are not sought out. The organisation is unable to answer the question, 'Has patient care been safe in the past?'	The approach is very reactive: Lessons are only learnt from serious incidents when media or regulatory pressure forces the organisation to investigate thoroughly. Patient mortality data is not routinely monitored or there are gaps in existing monitoring processes: The organisation only becomes aware of patient mortality rates after regulatory or media pressure forces it to review the data. There is little or no participation in national audits or routine databases that assimilate past harm data from clinical specialties.	Improving patient safety is a tick box exercise: Activity focuses on regionally, provincially and nationally mandated measures: The approach is on proving to regulators that case review[1], mortality statistics, systematic record review[2], trigger tools[3], reporting systems[4], never event reporting[5,] investigation methods, and other. Routinely reported data measures are in, place not on learning and improvement. The understanding of past harm focuses on the more traditional, treatment specific clinical harm areas. Patient stories are used in a tokenistic way.	A broad range of past harm measures are used. Specialty-specific harm metrics exist. Incident investigation is used to proactively identify what could go wrong in the future, not just to identify root causes. Reporting and Learning from near misses, good catches and 'what went well' is embedded. The measurement of harm, and associated safety indicators, result in enquiry, learning and improvement, rather than punishment and sanction. Feedback from patients and families, (e.g. patient stories, complaints, claims etc.), who have been harmed is acted on to improve. Measures have been mapped and formulated to ensure clarity of each measure's purpose and to ensure that together, a portfolio of measures provide a picture of system safety vulnerabilities. There is a proactive approach and recognition that past harm measures are always evolving.	The cultural norm is that safety measurement should constantly evolve and that complacency needs to be avoided, even when safety performance is good. There is ongoing scrutiny of past harm measures and a mature understanding of the negative side effects of simply having volumes of past harm measures in place. Healthcare teams feel ownership of safety measures and are empowered to refine them. Collaborative innovation between staff, patients and families takes place to introduce and refine past harm measures. A broad definition of past harm has been agreed. It encompasses treatment specific harm, overtreatment, failure to provide treatment, delay or inadequate diagnosis, psychological harm and feeling unsafe. There is a shared awareness of the breadth of past harm. Past harm measurement crosses healthcare boundaries, so where measures need to be in place across community, mental health, and/or secondary care pathways, these have been implemented.

BREAK


Past harm
Has patient care been safe in the past?
Integration & learning
Are we responding and improving?
Safety measurement & monitoring
Reliability
Are our clinical systems & processes reliable?
Anticipation & preparedness
Will care be safe in the future?
Sensitivity to operations
Is care safe today?

What is reliability?

- “Failure-free operation over time” applies mostly in technology
- “Gauging the probability that a task, process, intervention, or pathway will be carried out or followed as specified.”
- In healthcare we must recognize that variation is necessary given differences in patients and in care environments; treatments are adapted to fit patient needs
- Sources of poor reliability include staff skills and experience and team factors, including poor communications, inadequate design of clinical environments and supports systems, and the view of clinical staff that systems are unreliable, and it is not their role to ensure reliability

Reliability: Examples

Clinical processes and systems

- hand hygiene,
- the timely administration of pre-operative antibiotics,
- the timely ordering of diagnostic tests,
- medication review and reconciliation
- surgical checklists
- availability of clinical information / patient records,
- prescribing for hospital in-patients,
- availability and efficient functioning of surgical equipment,
- administration of radiotherapy

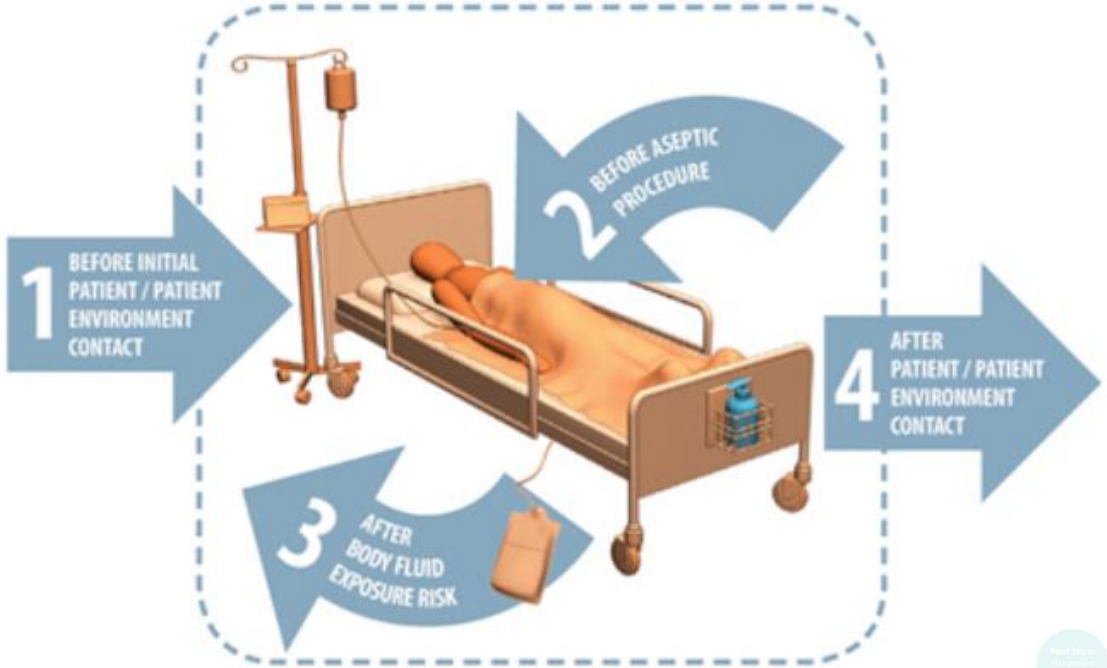
Medication Reconciliation requires reliability

- Adverse drug events are a major source of patient harm in all settings
- Transitions between settings create risks as medications are discontinued, started or changed
- Medication reconciliation provides an effective strategy for reducing these risks
- A designated level for the quality of the medication reconciliation process is a standard of reliability for hospitals and other healthcare organizations to meet

Infection Prevention and Control

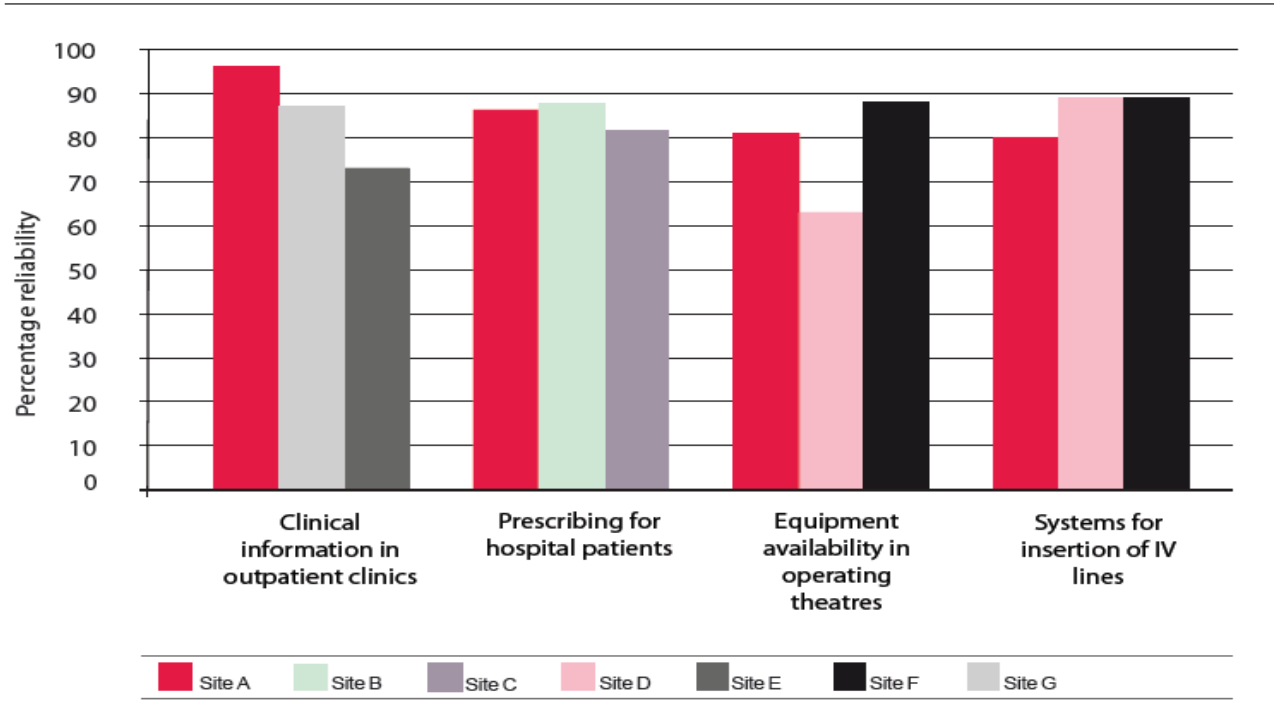
Elements of reliability for IPC could include:

- Screening
- Surveillance
- Hand hygiene
- PPE
- Isolation precautions
- Environmental cleaning
- Appropriate use of antibiotics



What Patients told us about Reliability

Are our clinical systems and processes reliable?



Reliability….'the probability of a component, or system, functioning correctly over a given period of time under a given set of operating conditions.' (Storey, 1997).

Measuring to Assess if our Clinical Systems and Processes are Reliable

"Gauging the probability that a task, process, intervention, or pathway will be carried out or followed as specified."

What would happen if we had a system of only measuring the number of people who fell through the ice rather than measuring the thickness of the ice?

Reliability Measures identified by Canadian MMSF Demonstration Project teams

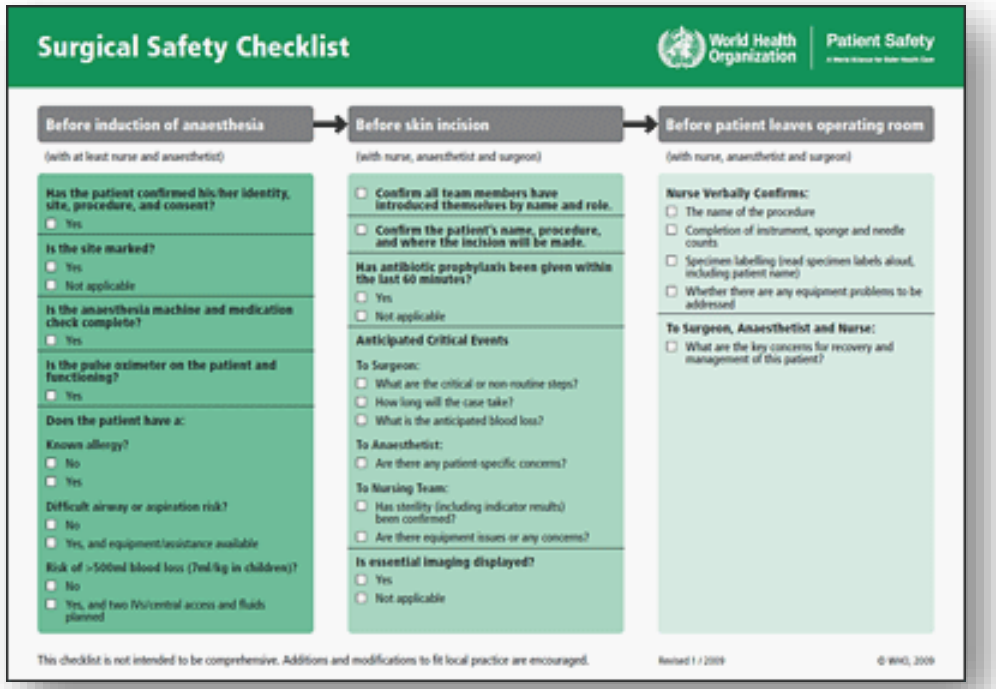
- Audits e.g., falls, pressure ulcers, Med Reconciliation, work place health
- Central Line bundle compliance
- Hand hygiene compliance
- Hospital-acquired urinary tract infection bundle compliance
- Safety Protocols, Standards and Policies – adherence to
- Standardized admission assessment tools - suicide, choking, falls, RAI, Med Rec – percentage completion
- Standard order sets (pre / intra / post procedure) compliance

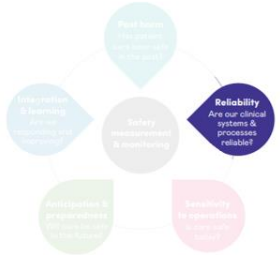
Unforeseen consequences of reliability measures

REFLECTIONS ON RELIABILITY

1. Some measures of reliability give us false assurance about safety
2. Auditing reliability sometimes creates ‘involuntary automaticity’

(Toft and Mascie, 2006)

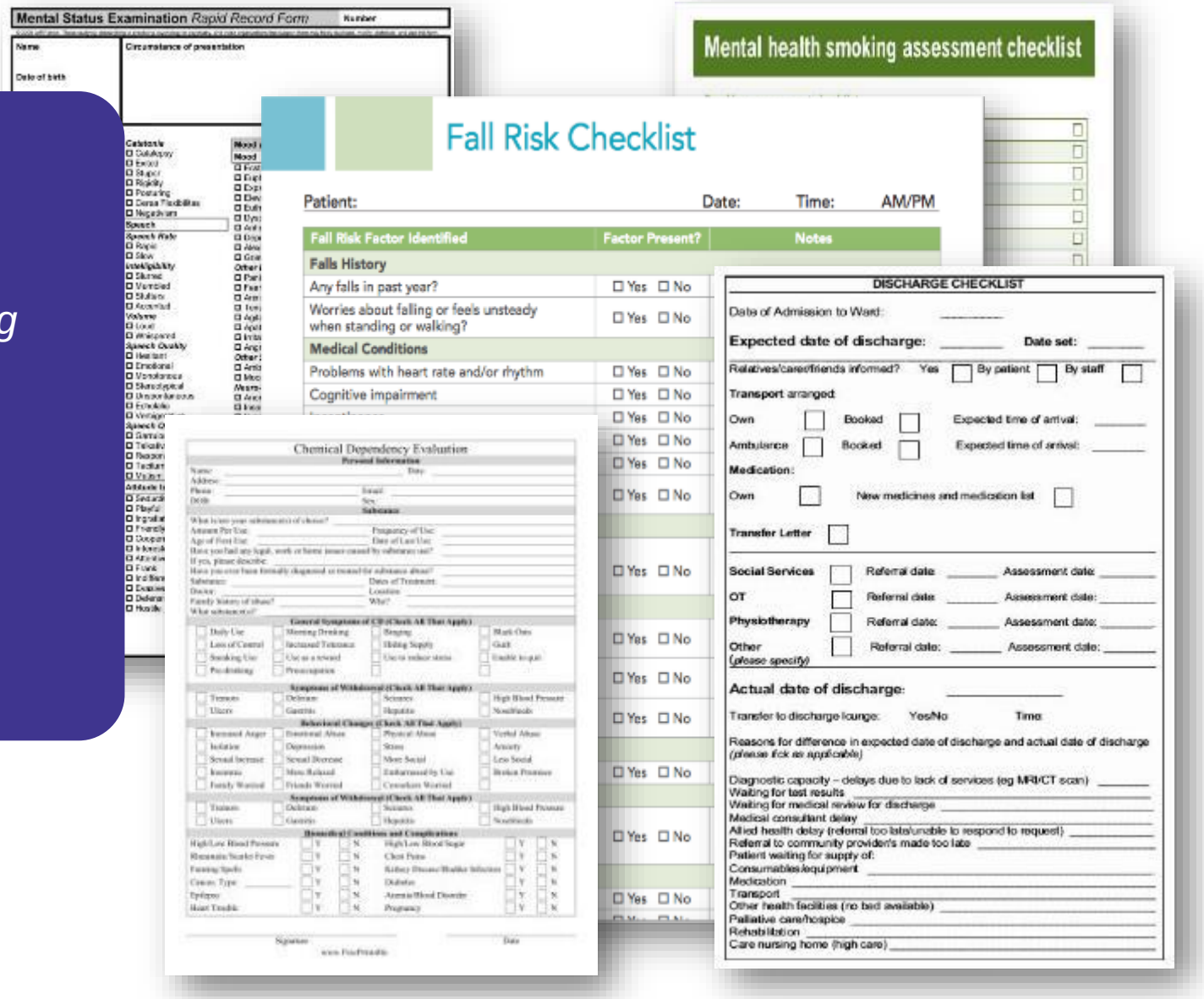




Undermining Reliability in Mental Health

'We have checklists for violence and aggression, self-harm, suicide, physical health, falls, risk of absconding, smoking assessment. Discharge. It goes on and on…and means we spend less time talking to and observing patients'

- Mental health nurse 1



A story of unforeseen consequences of reliability measures

Resident being closely monitored for her pressure injury, develops pneumonia and sepsis which went undetected…

Sometimes what gets measured causes us to miss the obvious…

ED DOCTOR: *'Oh yeah, this happens with patients in our long-term care homes. We see it quite a bit..'*

Activity: Unforeseen Consequences of Reliability Measures

- Reflect on the presentation about reliability and the 3 previous slides which suggest that “tick box measurement” may be insufficient and ineffective and possibly undermine attention to safety issues
- Consider your own reliability measures and identify examples of their **unforeseen consequences**
- (If possible)…Can you think of a better measure or approach that supports safety monitoring?

10 minutes to discuss and reflect

Reliability

Level 1	Level 2	Level 3	Level 4	Level 5
Unreliable clinical systems, processes and pathways are accepted as the norm. The culture is one of tolerating unreliable clinical systems. Process reliability is rarely measured. Where audits are carried out and problems are identified, no actions are taken to implement improvements. Assumptions exist that patient care is delivered as described in safety policies, procedures and in IT, and equipment specifications.	Measurement of clinical system, process and pathway reliability is externally driven: The only reliability measures in place are those set nationally or by provincial bodies (eg. Ministries, councils etc.). The culture is one of waiting for and accepting reliability measures that come down from national, provincial, or regional bodies. A process of rolling clinical audits exists but it just generates action plans. 'Action-plan-itis' exists; the cycle of audits is continuously repeated but action plans are not implemented. When reliability measurement data shows the world as it is envisaged in safety policies and procedures does not reflect reality, the response is to either question the data or blame 'staff non-compliance'.	Measurement of clinical system, process and pathway reliability takes place but the approach is bureaucratic: Activity focuses on 'ticking the boxes' and providing a 'paper-trail' of audit evidence to meet performance management goals and/or targets. There is some recognition that unreliable systems exist but the focus is on collecting data, not improvement. There is also some recognition that 'Action-plan-itis' exists, but attempts to change the culture to one of enquiry and improvement are unsuccessful. Reliability measures are sometimes misapplied leading to false assurance when answering the question, 'Are our clinical systems and processes reliable?'	System, process, and pathway reliability data shapes the focus of improvement work. Safety policies, procedures, IT, and equipment specifications are proactively reviewed and continuously updated: There is a mature understanding that drifts or migrations from procedures provide valuable reliability data. Staff speak up to raise concerns about unreliable systems and processes: Their concerns are listened to and acted on. There is also a mature understanding of the strengths and weaknesses of reliability measures. Reliability measures are applied appropriately; where measures shape behaviour in unintended ways they are refined, or abandoned. Feedback on the levels of reliability achieved are tailored to specific audiences. The feedback is designed to support enquiry, learning and improvement.	Unreliable systems, processes and pathways are viewed as unacceptable: There is a broad programme of improvement activity which focusses on identifying and improving levels of reliability across ALL clinical and non-clinical areas. The responsibility for measuring reliability and reducing variation around standards is owned by professional groups. Innovation takes place to develop and implement measures of reliability that cross organisational boundaries; where measures need to be in place across community, mental health, and/or secondary care pathways, these have been implemented. Specifications for new IT systems, clinical pathways etc. are created through a process of co-production by multi-disciplinary teams who have current process, patient, and subject area knowledge. Approaches to identify and create reliable systems are harnessed from other industries: The culture is outward looking and innovative.


Past harm
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Integration & learning
Are we responding and improving?
Safety measurement & monitoring
Reliability
Are our clinical systems & processes reliable?
Anticipation & preparedness
Will care be safe in the future?
Sensitivity to operations
Is care safe today?

Seeing

Hearing

Perceiving

… and Acting on the information gathered

Sensitivity to Operations: Is care safe today?

HealthcareExcellence.ca | ExcellenceSante.ca

Inquiry is critical to safety.

Ask questions. Listen. Act.

This is not about doing more, but about doing what you are already doing differently!

How do we know: Is care safe today?

Individual:

- Monitor patients, *watching for subtle signs of deterioration or improvement*

Team:

- Monitor teams for signs of discord, fatigue or lapses in standards.

Organisation:

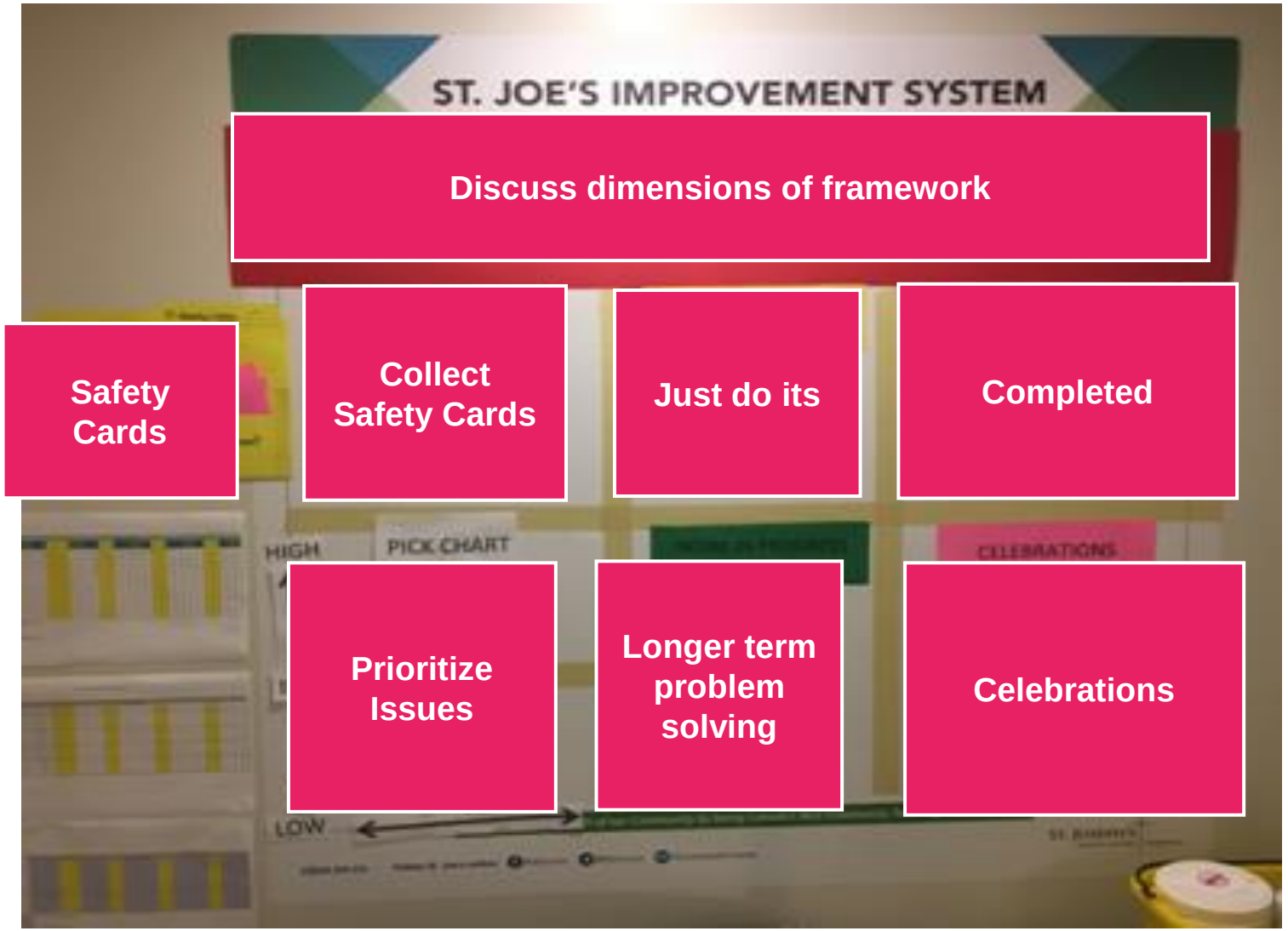
- Be alert to the impact of staff shortages, equipment breakdowns, sudden increases in patient flow and a host of other potential problems.

Respond and take ACTION

How Do We Build Sensitivity to Operations?

- Observation activity
- Safety walk rounds
- Operational meetings, structured handovers and rounds
- Briefings and debriefings
- Safety conversations with staff and patients
- Patient interviews
- Huddles
- Safety Tickets

How to host safety huddles



Discuss dimensions of framework

Safety Cards

Collect Safety Cards

Just do its

Completed

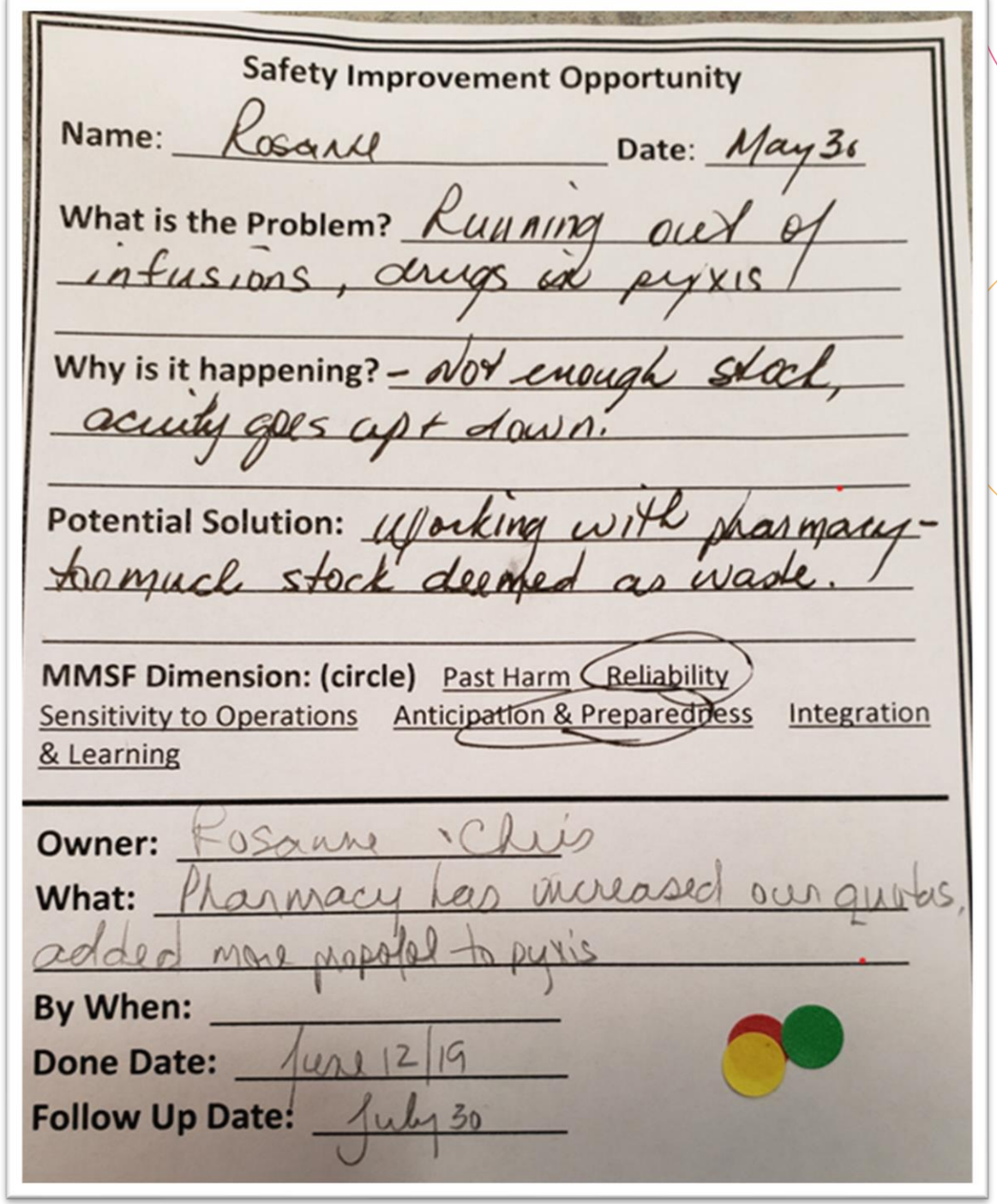
Prioritize Issues

Longer term problem solving

Celebrations

Safety Tickets

completed by staff to be discussed at the safety huddle



Safety Improvement Opportunity

Name: Rosanne Date: May 30

What is the Problem? Running out of infusions, drugs in pyxis

Why is it happening? – not enough stock, acuity goes up + down.

Potential Solution: Working with pharmacy- too much stock deemed as waste.

MMSF Dimension: (circle) Past Harm (Reliability) Sensitivity to Operations Anticipation & Preparedness Integration & Learning

Owner: Rosanne · Chris

What: Pharmacy has increased our quotas, added more propofol to pyxis

By When:

Done Date: June 12/19

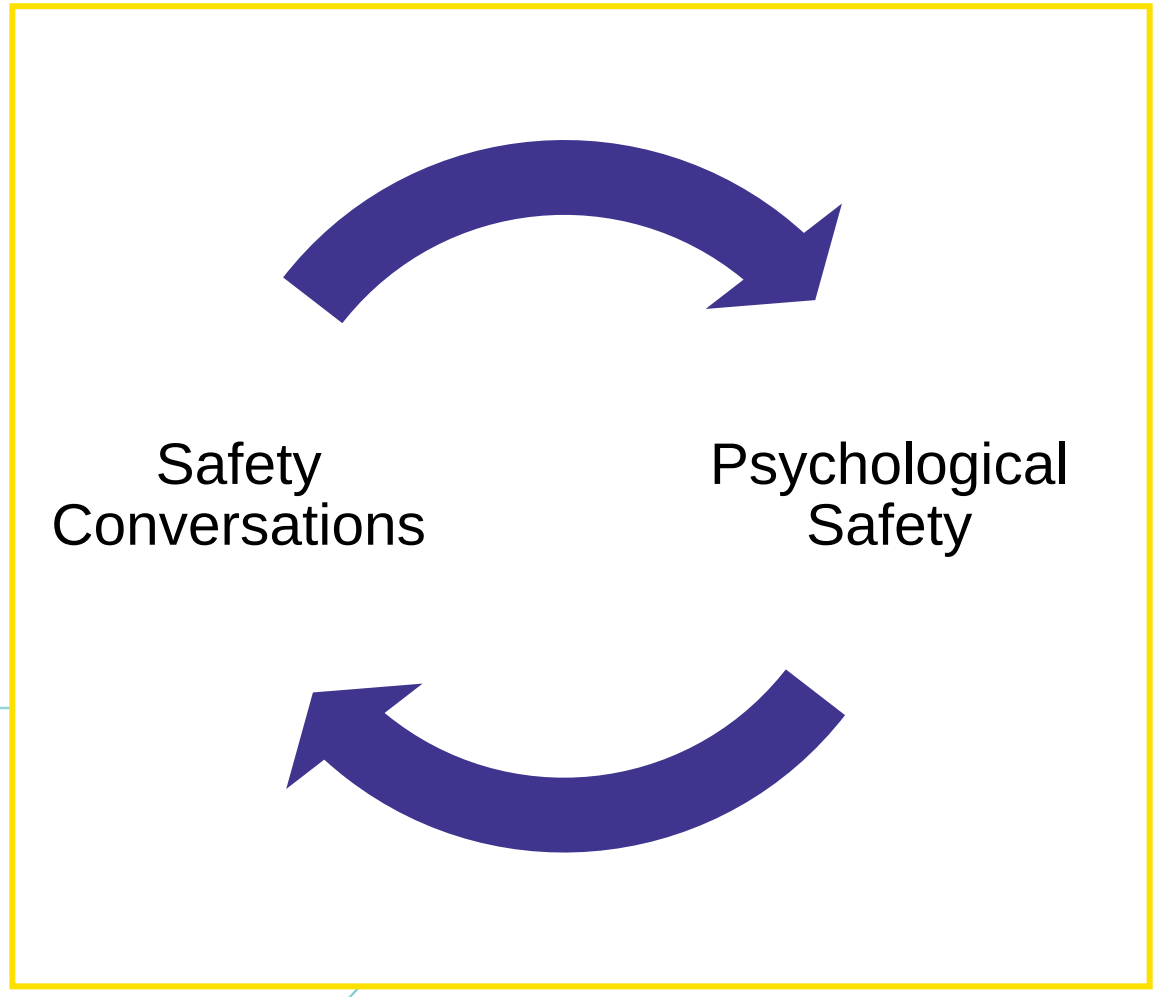
Follow Up Date: July 30

Power of Observation

Centre universitaire de santé McGill

McGill University Health Centre

Safety Conversations and Psychological Safety



What patients and care partners told us about sensitivity to operations

Activity: Sensitivity to Operations

Learning about Sensitivity to Operations through patient story

- Listen for the leading indicators of harm for Fervid
- If you were caring for Fervid, what questions would you ask of her healthcare team and her family?
- How can you encourage participation and contributions from your patient's and their care partners?

Sensitivity to Operations

Level 1	Level 2	Level 3	Level 4	Level 5
Little or no importance is attached to observing how care is delivered, or to listening or seeking feedback from healthcare teams, patients, or families. Safety walk-rounds have never been embedded: Senior managers' have assumptions about levels of safety because taking time to listen and observe how care is delivered is not a priority. Teams go through the motions of handing over or discussing patients but emerging safety risks are not recognised and acted on.	The culture is reactive: Information on how treatment has been delivered in the 'real world' is only sought out when a serious incident or when high profile patient harms occur. After something goes wrong informal safety intelligence is sought from patients and healthcare teams, but this activity is abandoned once investigations or reviews have been completed. Where there are formal and informal systems in place to maintain awareness of operations, these do not provide real-time information or the safety information they generate is inaccurate.	There is some effort to gather and use real time safety data. Safety walk-rounds, patient safety officers, operational meetings, briefings and debriefings, conversations with patients, families and healthcare staff are in place. However, opportunities to learn from less formal real time safety data are missed because safety metrics on dashboards are valued more. Safety huddles[6] or real-time patient monitoring systems have been implemented, but their content and format has been decided by managers, not clinical teams.	The culture is one where feedback from patients, families, healthcare teams is sought out every day. Informal safety intelligence gathered from observations and conversations, has an equal value to safety measurement data (e.g. safety metrics and audit findings). The proactive approach is organisation-wide, not restricted to a few teams or areas. The methods and approaches in place are sensitive enough to pick up subtle changes and disturbances, meaning the information gathered provides a meaningful answer to the question - 'Is care safe today?' Where safety huddles or real time patient information systems are implemented their design has been shaped by the healthcare teams who use them, who are empowered to lead safety improvement work.	There is a system of early, pre-emptive, identification of problems so that actions can be taken (today) before they cause harm to patients. Real-time information systems have been implemented which take the pulse of the organisation on a moment by moment basis: This involves acting on real-time patient, carer, and staff feedback systems, and intelligent data forecasting systems that predict patient flow and emerging safety threats. Feedback mechanisms are specific to different audiences and are constructed to ensure no ambiguity in response. Sources of informal safety intelligence go beyond the organisation's boundaries meaning soft safety intelligence from across a whole health economy or patient pathway, (including community, mental health, and secondary care providers), is routinely used.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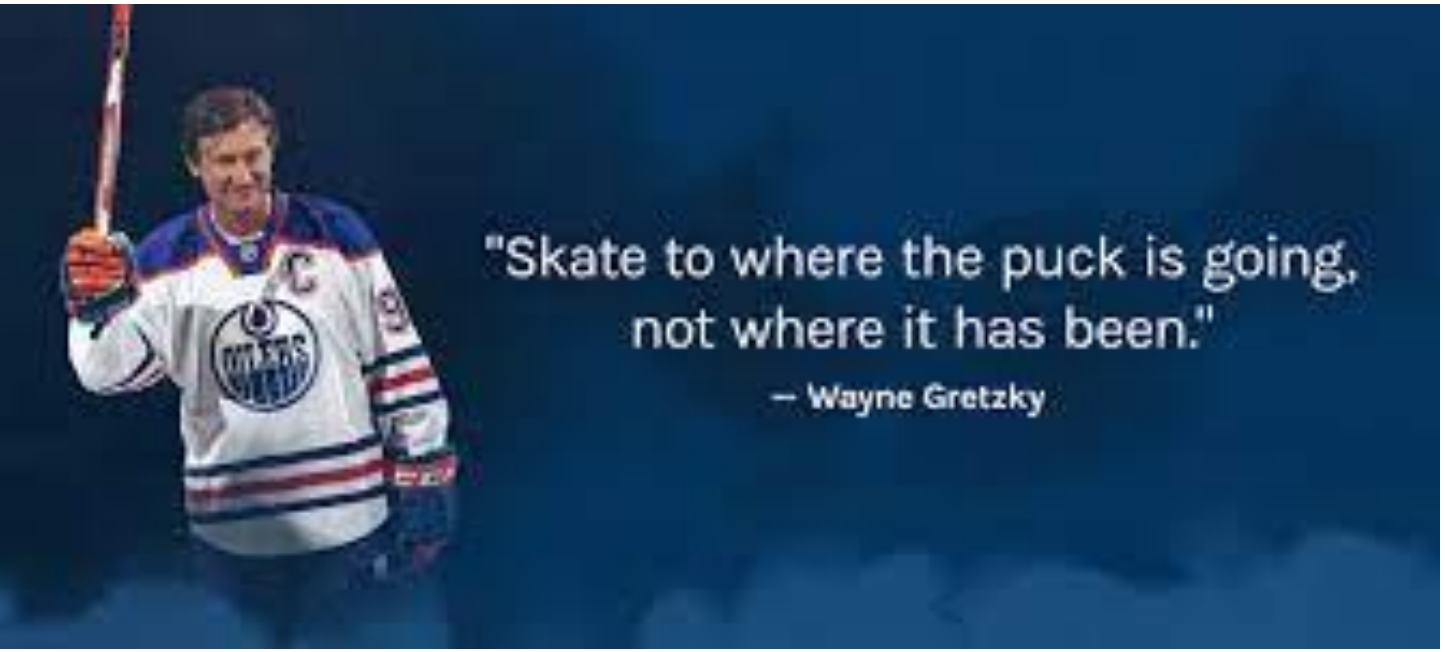
Anticipation & preparedness
Will care be safe in the future?
Sensitivity to operations
Is care safe today?

Anticipation and Preparedness - Will care be safe in the future?



- *Focus on identifying possible sources of future harm and working toward becoming more resilient to them."*
- *Don't wait for things to go wrong before trying to improve safety*

What Patients told us about Anticipation and preparedness

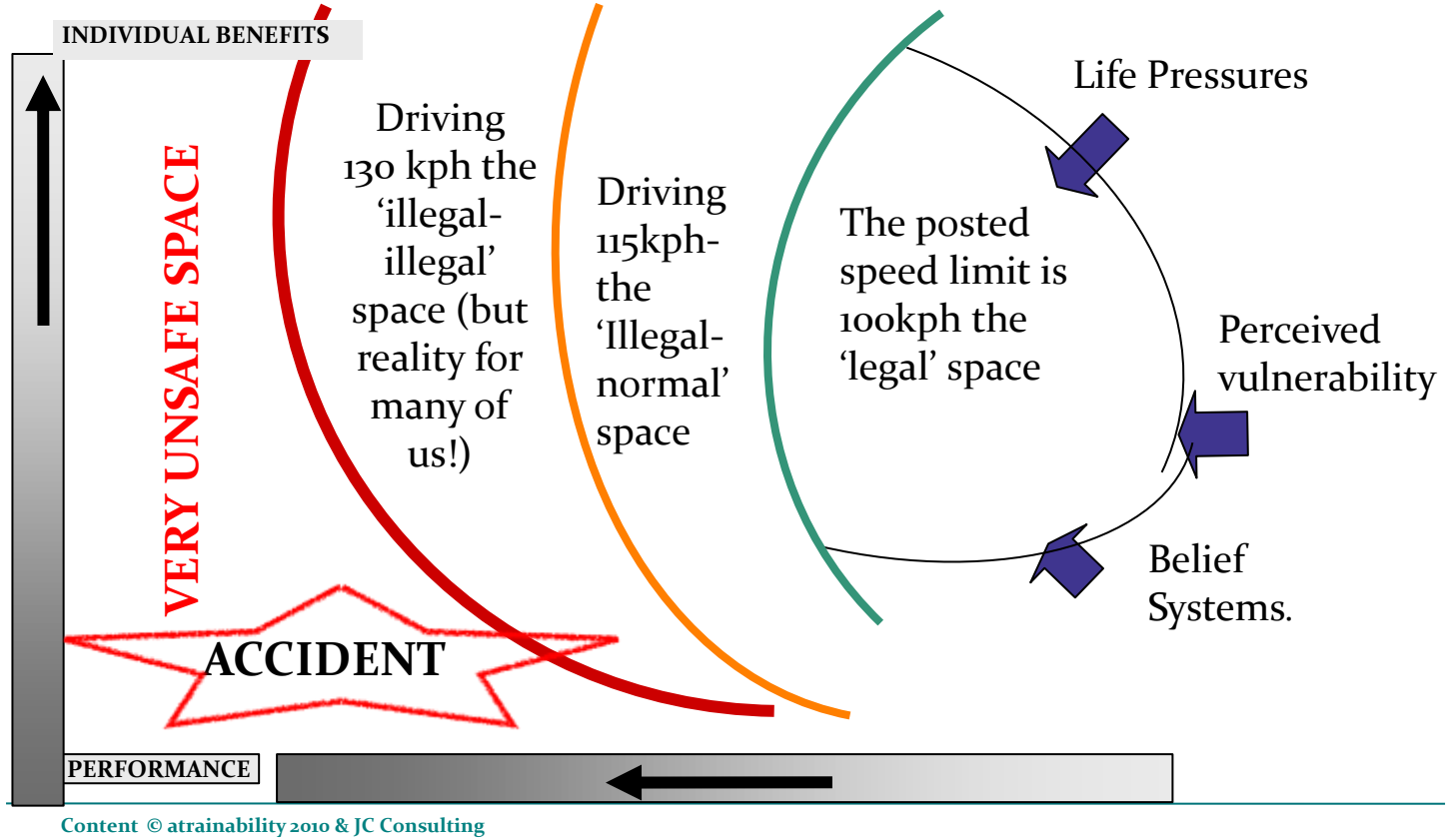
Mechanisms that support Anticipation and Preparedness

- Toolkits for identifying and monitoring risks
- Structured reflection on the safety culture
- Risk registers
- Human reliability analysis (HRA)
- Safety cases
- Safety culture assessment
- Manchester Patient Safety Framework (MaPSaF) risk dimension
- Staff indicators of safety

Value of Anticipation and Preparedness

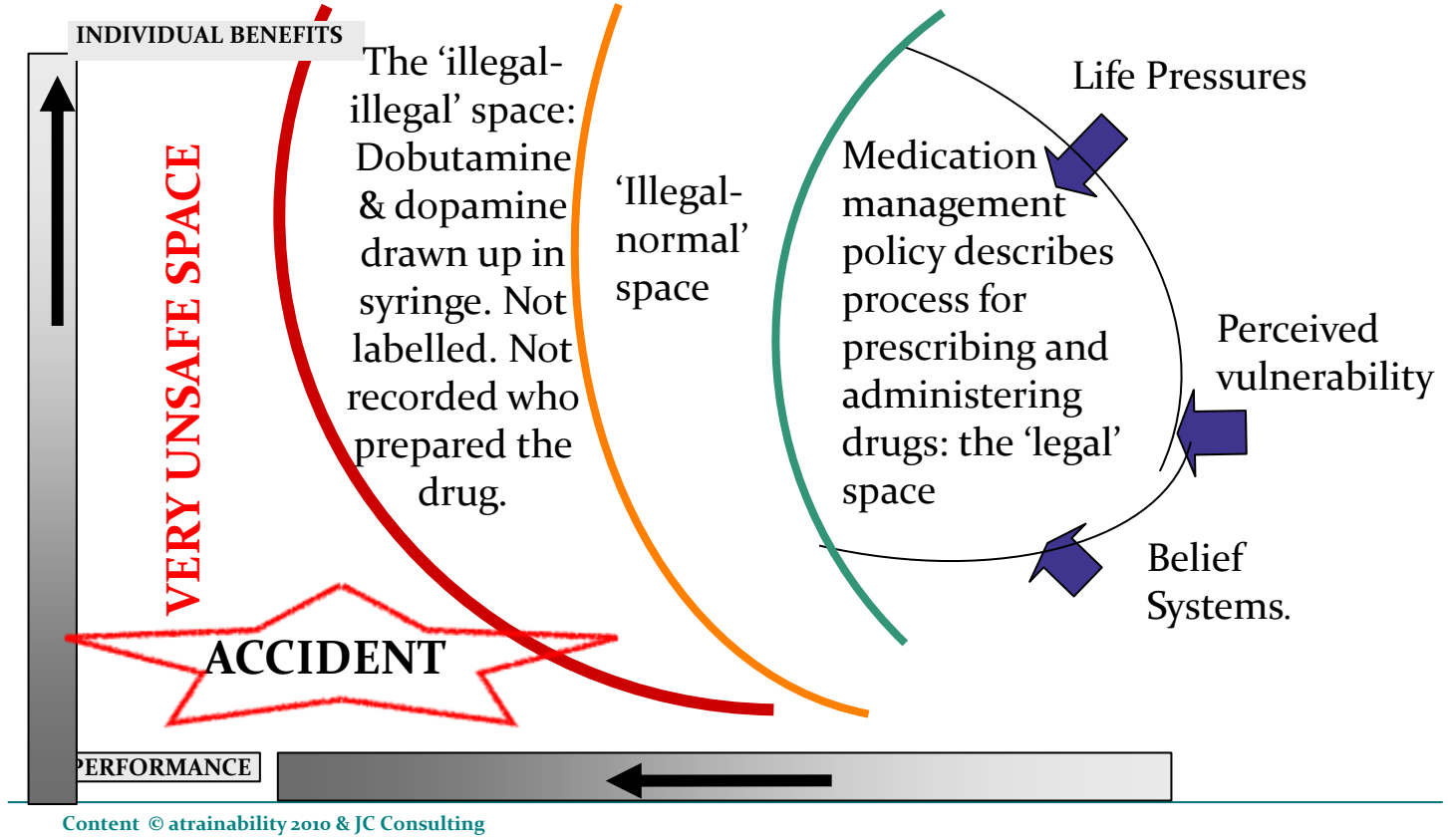
- **Safety monitoring is critical**
  - Anticipation and preparedness requires formal and informal methods to elicit safety information to understand how frontline healthcare services are delivered, followed by timely action and intervention to anticipate and mitigate risk.
- **Anticipation and proactive approaches and measures for safety**
  - Move away from using only lagging indicators to a mixed of both lagging and leading indicators. However, there are many fewer examples of ‘anticipation and preparedness’ metrics in healthcare studies than in the other four domains.

SYSTEMIC MIGRATION TO BOUNDARIES



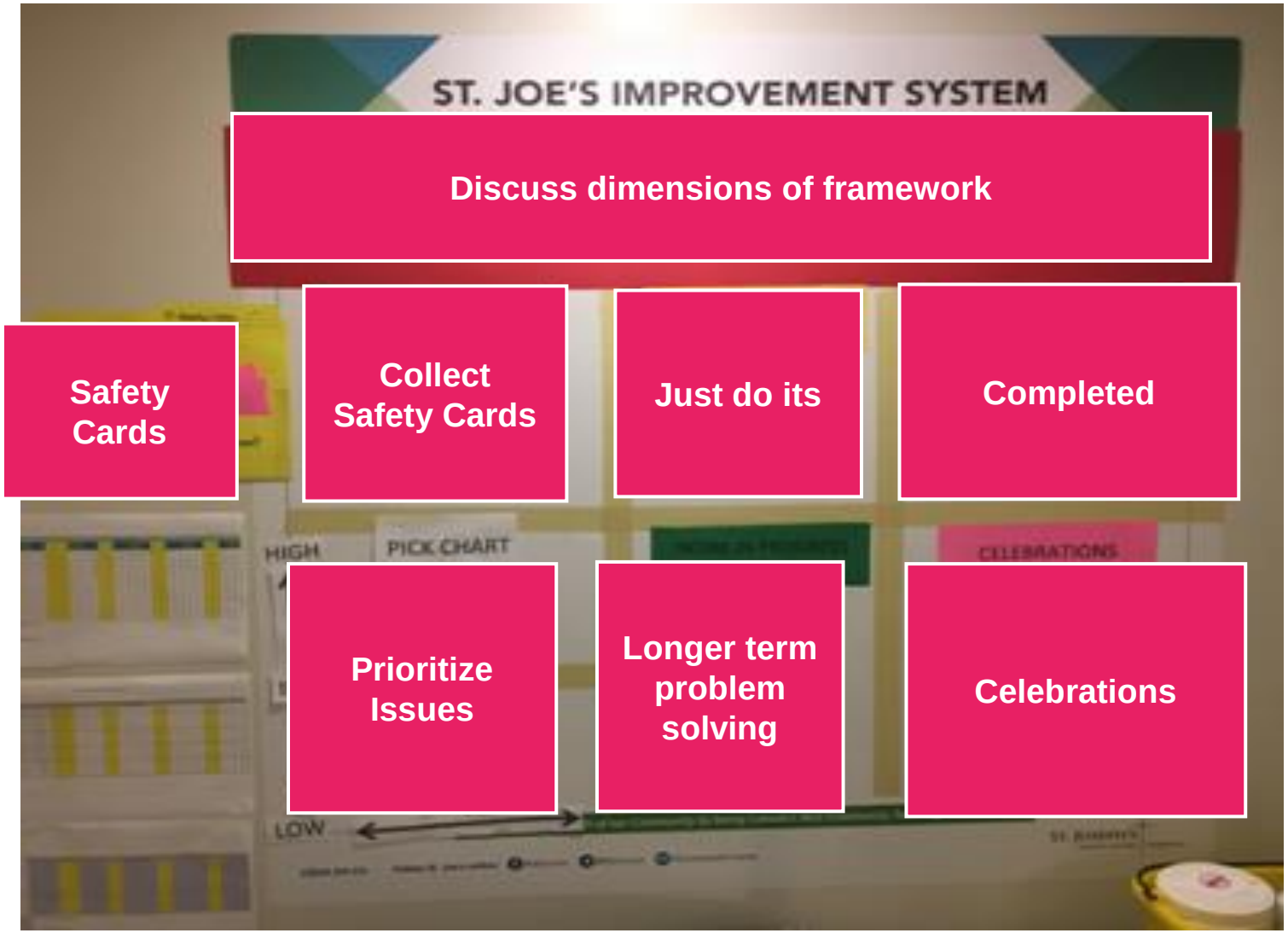
Amalberti et al., 2006

SYSTEMIC MIGRATION TO BOUNDARIES



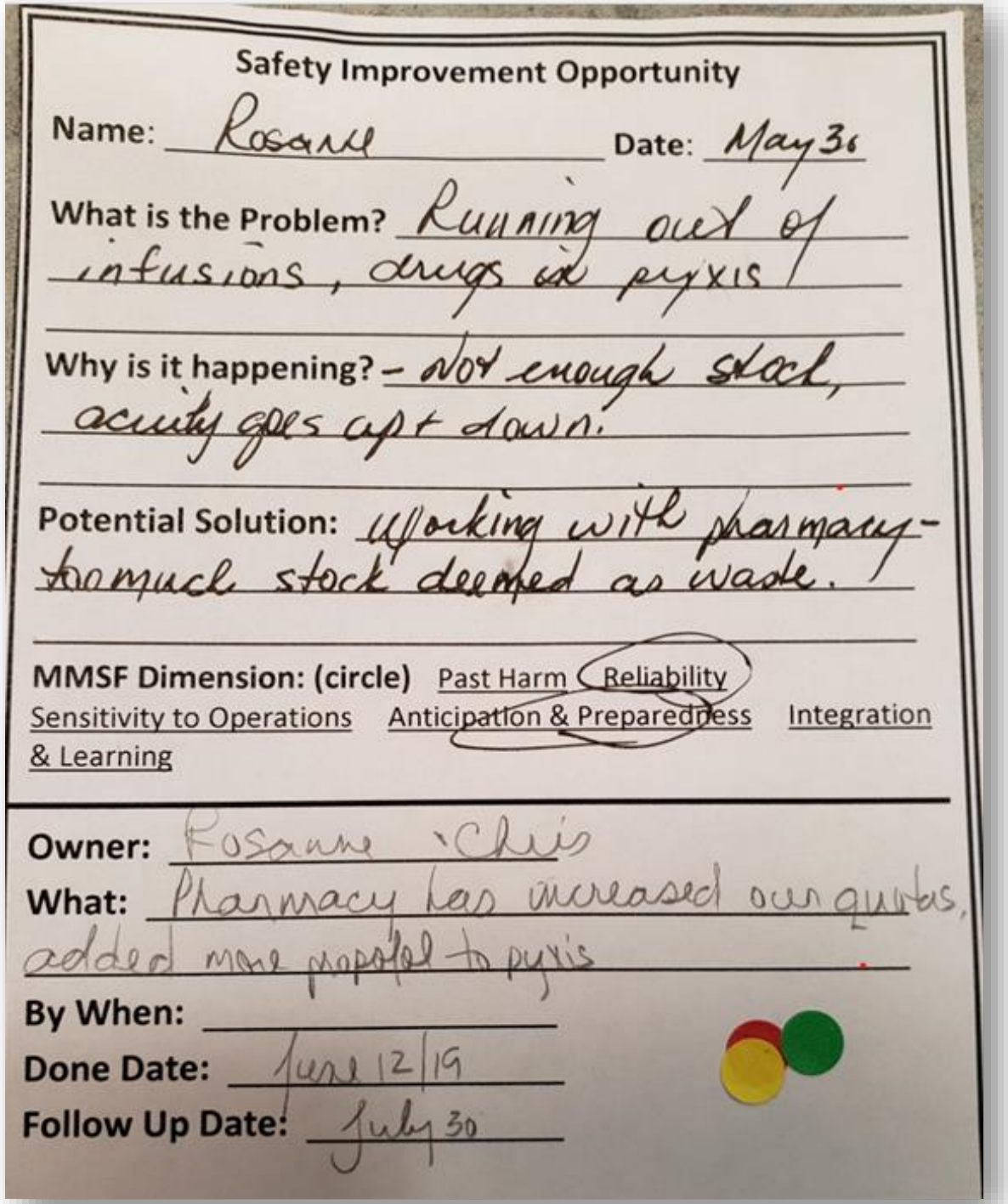
Amalberti et al., 2006

Invite your staff to safety huddles



Safety Tickets

completed by staff to be discussed at the safety huddle



Safety Improvement Opportunity

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Potential Solution: Working with pharmacy- too much stock deemed as waste.

MMSF Dimension: (circle) Past Harm (Reliability) Sensitivity to Operations Anticipation & Preparedness Integration & Learning

Owner: Rosanne · Chris

What: Pharmacy has increased our quotas, added more propofol to pyxis

By When:

Done Date: June 12/19

Follow Up Date: July 30

Activity: Anticipation and Preparedness

Activity
At your table discuss these questions:

- Questions:
  - What do you do to anticipate and prepare for safety issues?
  - How do you act on the safety information you gather?
  - Give an example of how you have thought ahead, prepared for and intervened to prevent harm or create safety.

- Time required: 10 minutes

Anticipation and Preparedness
Sharing with colleagues

Questions for group discussion:

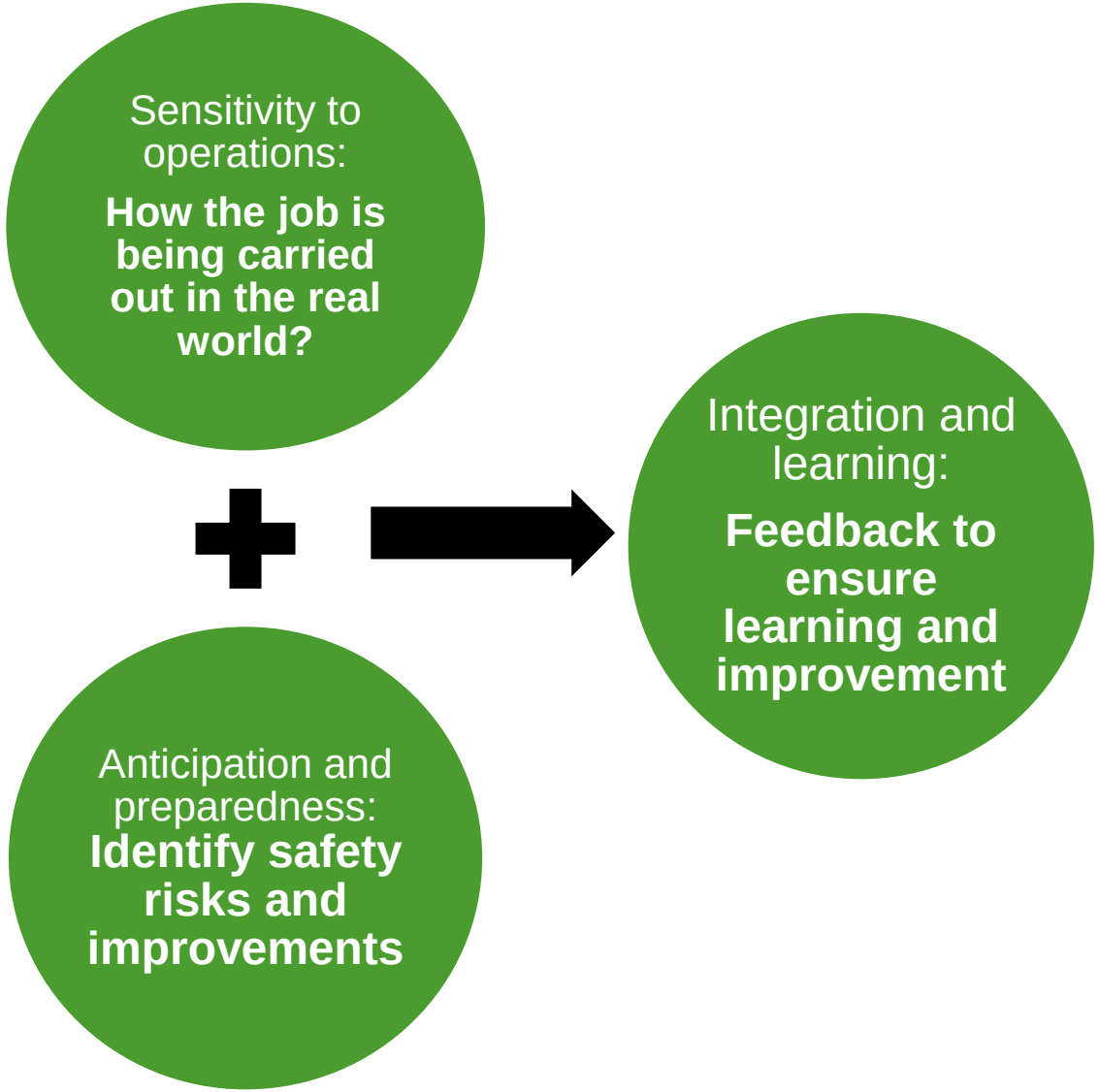
1. How do you answer the question, *"Will we be safe in the future?"*
2. What do you need to be paying greater attention to in order to anticipate and prepare at:
    1. Patient level
    2. Unit level
    3. Organizational level
2. How can you anticipate and prepare in order to mitigate safety issues that may arise in the future?
3. What structures and processes can be put in place in our work setting to support each other to be inquisitive, communicate and respond to safety issues.

Time required: 10-15 minutes

How to Have Safety Conversations: For Providers (healthcareexcellence.ca)

How to Have Safety Conversations: For Patients & Caregivers (healthcareexcellence.ca)

THE LINKS AND CONNECTIONS



Anticipation and Preparedness

Level 1	Level 2	Level 3	Level 4	Level 5
Few or no measures to anticipate future harm are used except the risk register and assurance framework. These are completed to meet monthly or quarterly data submission schedules with little or no attention being paid to the risks they identify and how to mitigate them. Data collection for the risk register and assurance framework is patchy because accountabilities are unclear.	The culture relies on the risk register and assurance framework to anticipate future harm. The risk register and assurance framework processes are embedded across the organisation. However, it is largely a data collection exercise; processes to monitor action plans to mitigate risks are weak. There is little awareness of other approaches, for example, safety culture surveys, using sickness absence data to anticipate burnout, systems safety assessment or Failure Modes and Effects Analysis etc..	Methods to anticipate future harm are in place but the focus is on demonstrating to external regulators and payors (eg. Ministries, regions, LHINs etc.) they are being used. There is no or little appreciation of their diagnostic value and they are not used to thwart emerging safety threats. Healthcare teams use risk assessments for falls, violence, and aggression, Hospital Acquired Pressure Injuries etc.., but these create a paperwork burden that prevents early identification and intervention to thwart emerging safety risks. Risk assessments are not monitored against outcomes; their completion is isolated from decision making about safety.	There is an evolving culture of curiosity, enquiry, and empowerment to lead which enables early identification of emerging safety threats and quick intervention. Questioning is encouraged even at times of stability and success. Teams across the organization use a range of internal intelligence to create future harm scenarios. Scenarios are created formally and informally. They are proactively discussed, rehearsed, and simulated to prepare for and negate potential sources of harm. Questioning is encouraged even at times of stability and success. Actions are taken without there being a previous incident to prompt reflection. A wide range of proactive safety measures and approaches are routinely used.	A culture of curiosity, enquiry and empowerment to thwart safety threats is fully embedded both within the organisation and throughout the whole health region. Emerging safety risks that cross organisational boundaries are thwarted because measures that support anticipation provide real time data that is shared and quickly acted on. There is mature approach in which all types of safety data are viewed through the lens of answering the question - 'Will care be safe in the future?' When this question is asked, the conversations are not restricted to discussing safety threats within an organisation's boundaries. Rather recognition of the impact of other providers on future safety is recognised and collaboration occurs to resolve problems. A broad range of proactive safety methods are used in the design of new patient pathways and processes, such as safety cases[7], safety culture assessment[8] and human factors/reliability analysis[9].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Will care be safe in the future?
Integration & learning
Are we responding and improving?
Safety measurement & monitoring

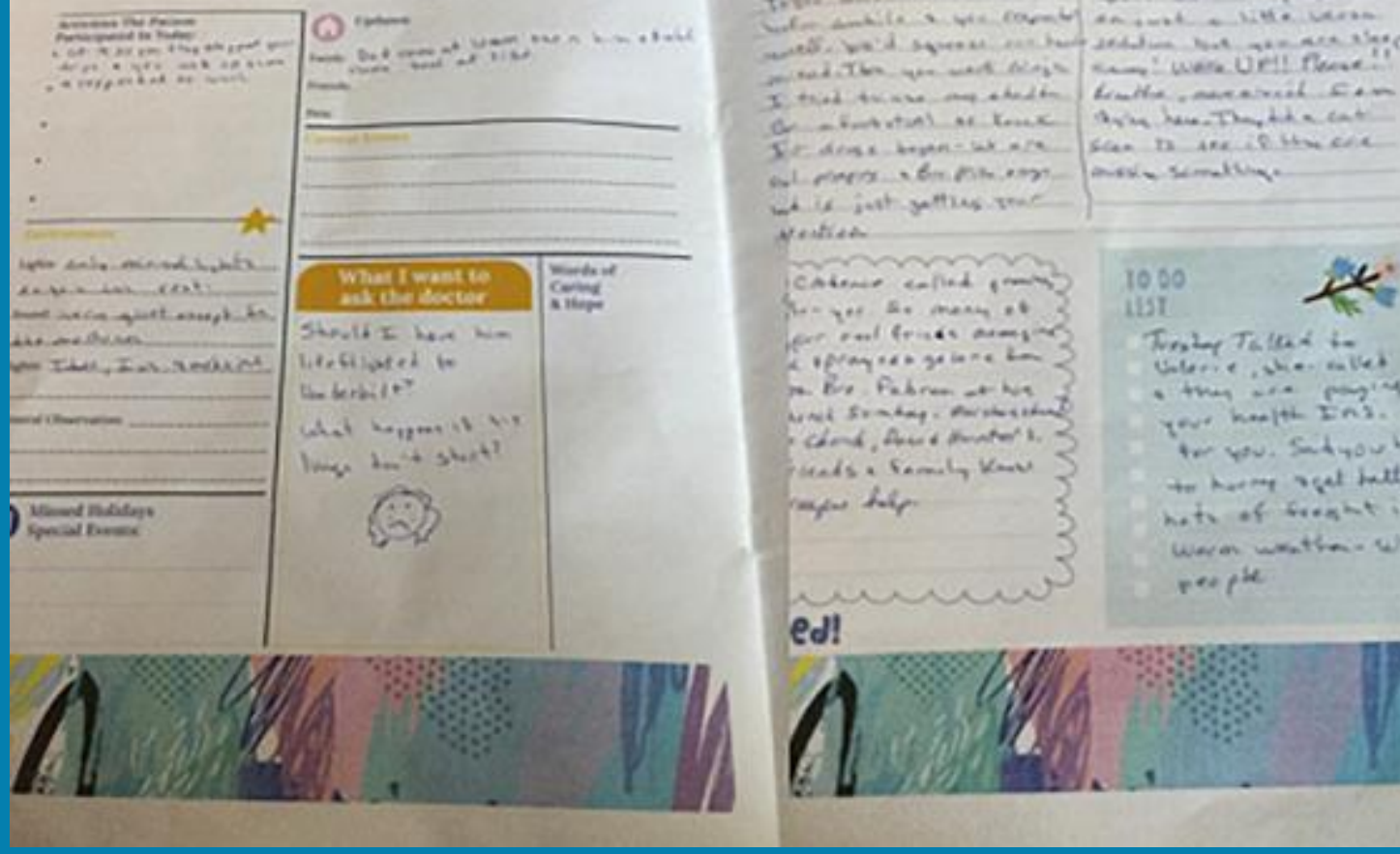
Integration and Learning: Are we responding and improving?

- The development of systems to promote a cycle of learning and sharing from safety incidents, multiple sources of safety intelligence and insights developed through the other domains.”

Please don’t let this become the lost piece of the puzzle.

A learning system is a safe system!

Expanded and shared understanding of “what is safety”



What patients and care partners told us about Integration and Learning

Integration and Learning

Level 1	Level 2	Level 3	Level 4	Level 5
Gaps in safety measurement and monitoring processes make integration and learning challenging. Opportunities to learn and improve are impeded by the tendency to blame individuals when things go wrong. Where data is available, discussions mainly focus on debating its usefulness and reliability. Feedback mechanisms to disseminate learning across healthcare teams are inadequate and inconsistent.	Safety data from past harm, reliability, sensitivity to operations and anticipation dimensions is only integrated after serious harm occurs or in response to requests from regulators. Feedback to healthcare teams on lessons learnt from safety measurement and monitoring activities is patchy. Integration is restricted to theming of past harm data: Themed data is only shared within divisions or clinical teams, as there is no recognition that lessons learnt may be relevant to other teams and divisions.	Some sharing of themed safety learning beyond departmental / local boundaries exists but there is a reliance on individual initiative rather than having robust feedback systems in place. Feedback and learning mechanisms look good on paper but sometimes do not work in practice. Safety dashboards are in place which meet regulatory requirements. There is little investment in employing experts with the skills to improve safety dashboards and integrate data from different sources.	Mature safety dashboards exist which integrate past harm, reliability, and anticipation metrics. Data analytic experts work alongside healthcare teams and patients to develop meaningful metrics. Feedback is timely and relevant: It is used to prompt open discussion and to inform safety improvement work. The importance of triangulating hard data from safety metrics with soft safety intelligence is understood. Lessons learnt reach frontline staff because robust feedback mechanisms are in place. There is a systematic approach for sharing learning across the organisation and a culture of thinking proactively about 'who else needs to learn from what happened here?'	Staff feel ownership of safety: There is an accurate understanding of safety performance, including how gaps in the wider health region's services impact on safety performance. Data analytic experts and healthcare teams have been successful in embedding real time information systems throughout the organisation. Useable, timely safety performance data is fed back and healthcare teams are empowered to refine metrics. Real-time safety data and lessons learnt are widely shared beyond organisational boundaries to partners in the local health region and others nationally can learn and improve. Equal emphasis is made to the rate of learning as to the rate of reporting of safety. Information is pulled in centrally and then shared back out in a timely and useable format.

Maturity Matrix: What does this mean?

- Think about where you are today and where you would like to be in the future.
- What actions can be taken to strengthen safety across all five dimensions?

Preventing Harm

Creating Safety

Patient safety projects

Audits

Responsibility of Managers and QI-Safety Departments

Score cards and numbers

Rearview mirror

Assurance & accountability

Everyone has a role

Listening, observing and perceiving

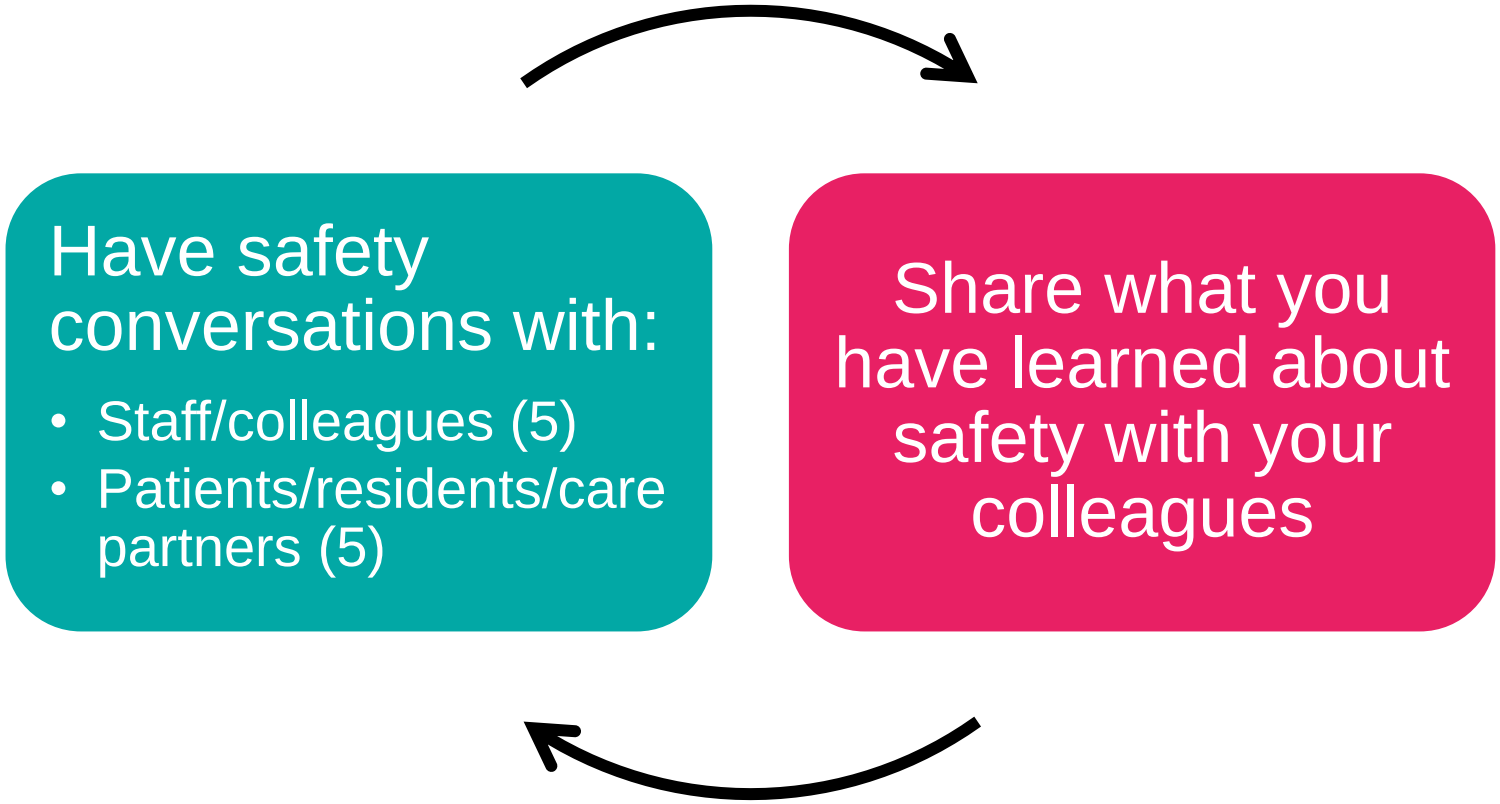
Proactive

Curiosity & Inquiry

A way of thinking, acting, responding

Coaching

Actioning what you learned today



Ask.
Listen.
Act.

What makes you feel safe?

What has made you feel unsafe in the past 24 hours (or since we last talked)?

What makes you feel unsafe?

What would make you feel safer?

Tell me about anything that alarmed or worried you in the past 24 hours?

What are your care preferences (for example, ‘what matters to you?’)?

[How to Have Safety Conversations: For Providers (healthcareexcellence.ca)]

[How to Have Safety Conversations: For Patients & Caregivers (healthcareexcellence.ca)]

[What makes you feel safe? (healthcareexcellence.ca)]

Rewiring your thinking on safety

“The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking.”

Albert Einstein

Questions

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Resources:

- Presence of Safety
  - Presence of Safety (healthcareexcellence.ca)
- Measurement and monitoring of safety through the eyes of patients and their care partners
  - https://www.healthcareexcellence.ca/media/dnrgw10m/20220525_howsafeisyourcare_final_en.pdf