Human Factor in Healthcare and Patient Harm – Part 8

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Recap

- As is known, errors very frequently occur in health care setting.
  - ❖Health care organisations are very complex.
  - ❖In complex organisations, errors occur frequently putting the patients and families at risk of serious harm.
  - ❖But there are other complex and hazardous organisations like a nuclear power plant or flight deck operations of air craft carriers where errors are rare
  - ❖ The environment in which these organisations operate is also highly hazardous.

Recap

- ➢ In this environment, error, accident and adverse events are likely to occur, but they achieve very high record of safety.
  - ❖ This is not by chance but due to adoption of certain planned actions.
- Studies of these hazardous organisations have found some common features.
  - ❖ These features have been grouped into five principles and the organisations adopting these principles are the High Reliability Organisations (HRO).
  - ❖ These five HRO principles are: (1) Preoccupation with Failure (2) Reluctance to Simplify (3) Sensitivity to operations (4) Commitment to Resilience, and (5) Deference to environment.

Recap

- Effective leadership is the primary requirement for bringing in a change in culture for enabling the organisation to adopt the HRO principles.
  - ❖Leadership creates a culture of safety and adopts a learning culture.
  - ❖Also Leadership creates an environment of psychological safety.
  - ❖In this environment, employees feel safe and they can voice their concern without being afraid of intimidation, and disciplinary actions,
  - ❖The exception is:
    - ➢Investigation carried out by an unbiased and multidisciplinary knowledgeable team proved that the adverse event has occurred due to reckless behaviour by the employee.

Implementation Guide for HRO

- Framework for High Reliability Organisation
  - ❖The components and factors of the framework are:
    - ➢Leadership
    - ➢Transparency
    - ➢Reliability
    - ➢Improvement and Measurement
    - ➢Continuous learning
    - ➢Negotiation

A Framework for High Reliability Organisation

- Teamwork and Communication
- Accountability
- Psychological Safety

Common HRO implementation strategies

A Framework for High-Reliability Organizations in Health Care

- The HRO Framework for Implementation of HRO Principles[34]
  - ❖There is a constant endeavou and attention provided o improve health care
  - ❖But in spite of the focus on quality improvement, the skills needed to make measurable, sustainable improvements a in are not inherent in health care professionals
  - ❖In medical courses, learning of these skills are not given importance unlike development of other skills
  - ❖It is amply apparent that quality improvement is an essential requirement for the organisation

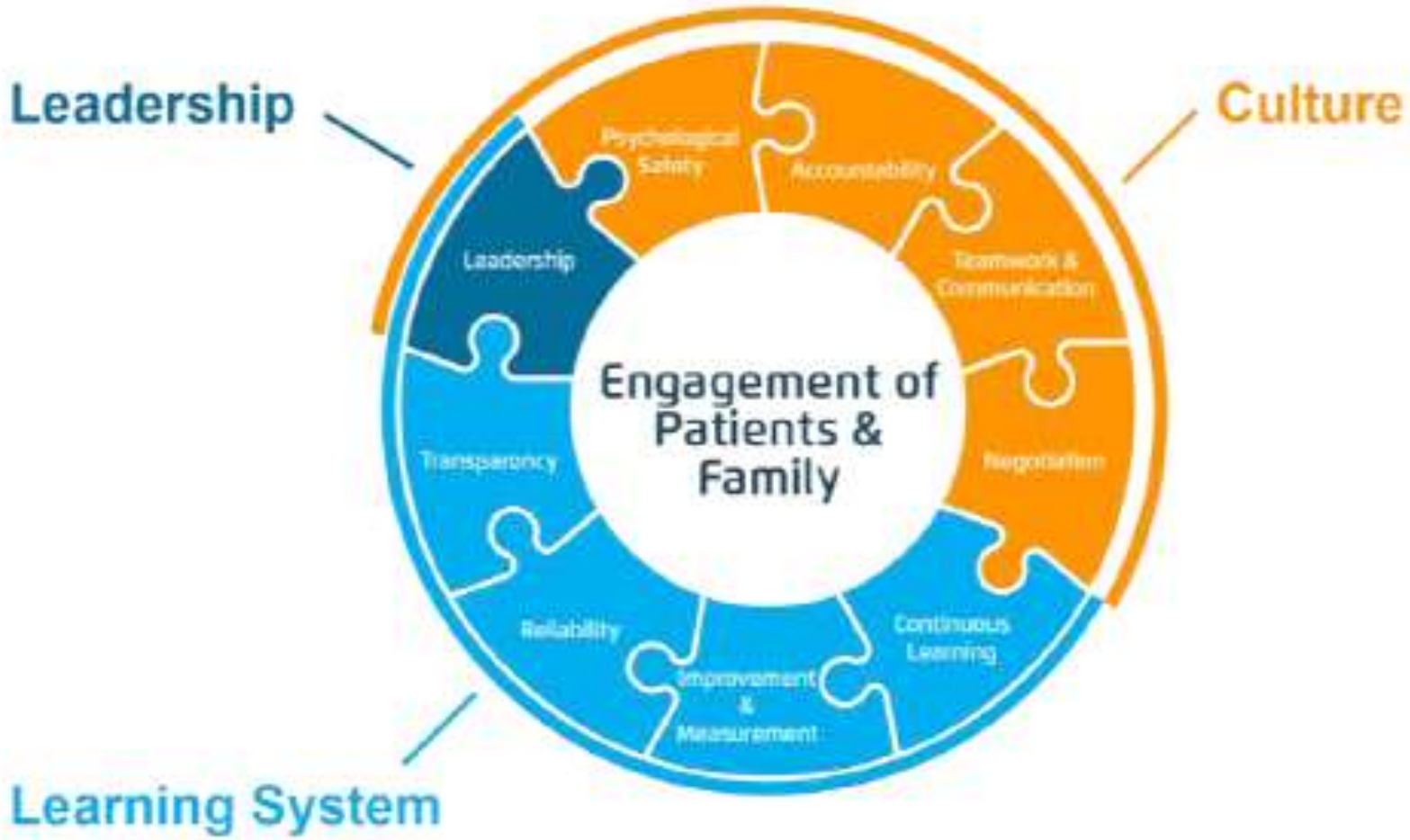
A Framework for High-Reliability Organizations in Health Care

- Health care organisations are meant for patients and families, and
  - All activities that is done in a health care organisation are for patients and families
    - They are at the centre of all activities
    - They entrust their lives and wellbeing with the care providers
- This framework deals with the quality improvement that is centred round patient safety

A Framework for High-Reliability Organizations in Health Care

- The key components of high reliability organisations are:
  - Leadership
  - Safety culture, and
  - A dedication to continuous learning and improvement
- The figure on the next slide shows the components of the HRO framework and how each aspect fits into three categories:
  - Leadership
  - Culture
  - Learning system

Framework for High-Reliability Organizations in Healthcare



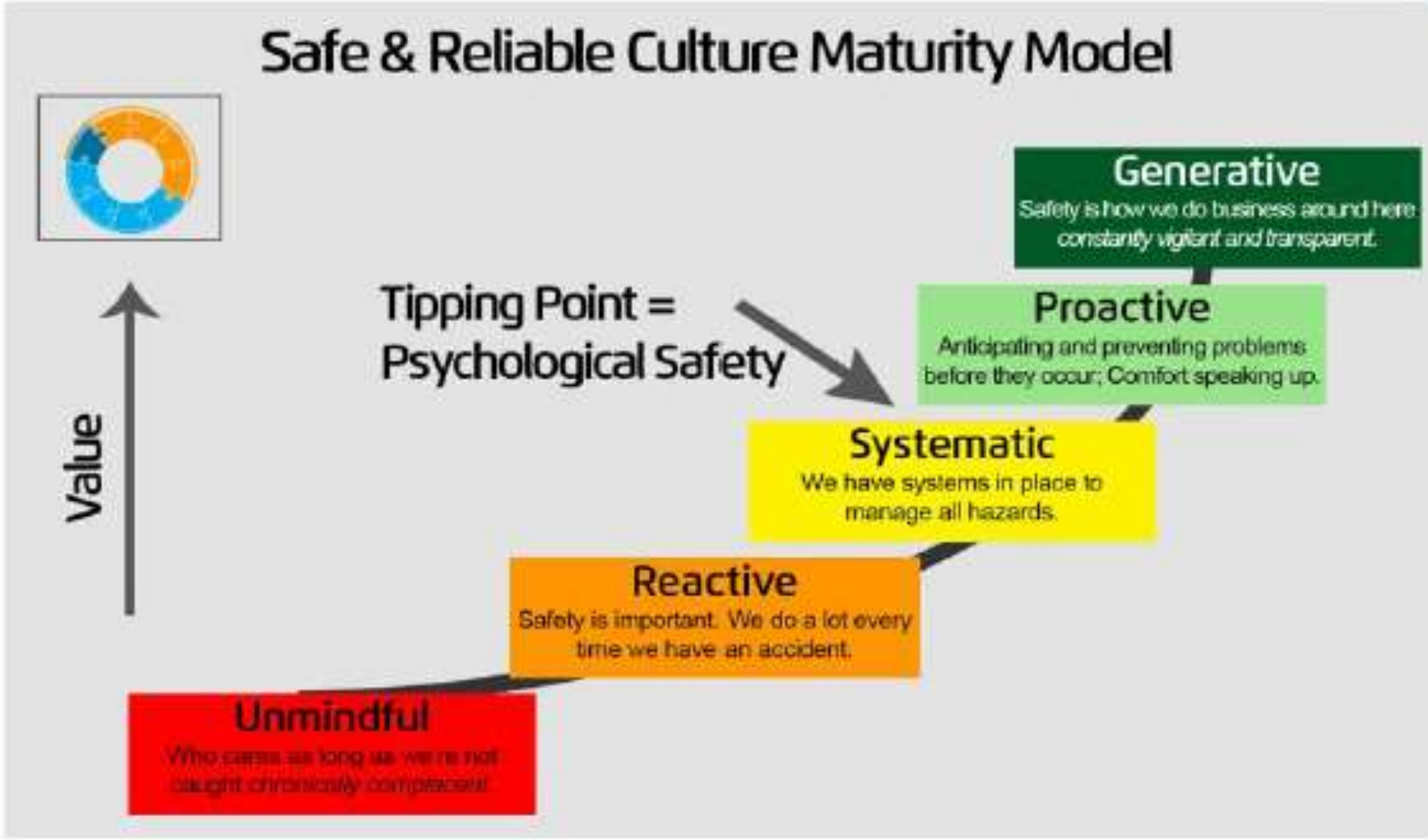
HRO Framework in Health Care organisations

- It is emphasised that all aspects of the framework must exist
  - ❖Else learning won't be sustainable and
  - ❖Improvement won't be sustainable
- The cultural maturity model helps illustrate :
  - ❖The type of culture that is necessary to move forward to become an High-reliability Organisation

HRO Framework in Health Care organisations

- Cultural Maturity Model
  - ❖The concept of the model is not new
  - ❖It has been around since about 1975
  - ❖Since its development, it has evolved to a level where,
    - ➢It helps organisations to think about how they can progress from an unmindful culture to one that is generative
  - ❖Within health care, all components of the framework from leadership to learning can be rated on a cultural maturity scale
  - ❖The next slide illustrates the concept

Cultural Maturity Model



The Modified Hudson Ladder

Cultural Maturity Model

- Historically, nurses and doctors have been trained and evaluated using the individual expert model
  - That is, qualification, experience and skill developed with intense practice under a dedicated teacher
- The idea behind this is that if an expert healthcare professional is put in any health care environment, the professional will figure it out how to go about
  - The problem is – that does not work

Cultural Maturity Model

- Health care today is too complex to do that successfully in all settings
  - ❖The best and the most effective solution to quality improvement is to work collaboratively and proactively
- The psychological safety [37]
  - ➢Psychological safety is
    - a multi-dimensional, dynamic phenomenon that concerns team members' perception of whether it is safe to take interpersonal risks at work

Cultural Maturity Model

- Cultivating psychological safety is necessary
  - ❖ Because the health care team needs to collectively redesign processes and services
  - ❖ This redesign is necessary to cope with new challenges, learn from mistakes and implement changes accordingly
- Feeling psychologically safe can enable team members to
  - ❖ engage in speaking up behaviour, such as
    - ➢ asking questions,
    - ➢ pointing out a mistake or near miss and
    - ➢ making suggestions for improvement

Cultural Maturity Model

- Thus in the modified Hudson ladder, when the team members feel safe to speak up the cultural maturity level is at the systematic level of the ladder
- The highest point in cultural maturity is a generative culture
  - ❖When an organisation reaches this level of maturity level, the employees are preoccupied with patient safety and are never complacent
  - ❖They proactively look for any warning sign for danger to patient safety and as a team take remedial action in a transparent manner

Cultural Maturity Model

- Reactive culture
  - ❖At this level when a safety problem arises, the team tries to take corrective actions before the problem becomes a major issue
    - ➢As no one was in the lookout for any safety warning signs, there was no planning how to deal with the impending safety issues, mistakes tend to happen
    - ➢They are distracted, they need to multitask, and they forget things
    - ➢It is like distracted driving
      - When that happens accidents are likely

Cultural Maturity Model

- Efforts need to be made for an organisation to become proactive and generative in the safety culture maturity model
  - ❖Studies of hospital safety culture maturity have shown that
    - ➢Most hospitals are at the levels of reactive
    - ➢Only a few hospitals are proactive to generative
  - ❖Also it was found that within the reactive culture there are pockets of proactive units
    - ➢These units were getting it right some of the time
    - ➢These departments worked c collaboratively

Cultural Maturity Model

- The ability to come together, think ahead, and play as a team is critical for the ability to deliver safe care
- Novices on the team can turn to the experts for valuable information
  - ❖This way the team learn how to deliver excellent care
- This way they learn about how to deliver excellent health care
  - ❖This keenness to learn under dedicated mentors ultimately make them expert

Cultural Maturity Model

- Going through these stages produces a large treasure of experience for the entire tram
  - ❖Whenever required, these experience can be drawn to produce predictability
  - ❖The most basic concept of high reliability organisations is
    - ➢Anything that can be made predictable should be made predictable

High Reliability Organisation

- Key Components of High Reliability Organisations:
  - ❖ Leadership driving
    - ➢ The safety culture
    - ➢ Engaging staff
    - ➢ Promoting a culture of safety
    - ➢ Emphasising continuous learning and process improvement
  - ❖ Leaders make it a part of everyday life of everyone within the organisation
  - ❖ Effective leadership is the primary component of an HRO

High Reliability Organisation

- Patient safety is an overarching requirement for any health care organisation
  - ❖Positive safety culture is a requirement for any high reliability organisation
  - ❖The cultural maturity model signifies the stages of maturity in the model
  - ❖In order to achieve the highest level of maturity, i.e. the phase of generative culture, one must know where you stand currently in the cultural maturity model
    - ➢This is the base line

High Reliability Organisation

- After the baseline is determined, than a road map can be designed to achieve the generic level
- The nomenclature of the various stages of the cultural maturity model has been modified by authors in the context this model was used
- For improving safety culture the requirements are:
  - Strong and effective leadership
  - Organisational development
  - A learning culture, and
  - Relentless focus on processes

High Reliability Organisation

- The original model names the various levels as:

Level	Description
A - Pathological	Why do we need to waste our time on patient safety issues
B - Reactive	We take patient safety seriously and do something when we have an incident
C - Bureaucratic	We have systems in place to manage patient safety
D - Proactive	We are always on the alert/thinking about patient safety issues that might emerge
E - Generative	Managing patient safety is an integral part of everything we do

- There are many toolkits are available for assessing safety culture
- A toolkit by the AHRQ and the Manchester Framework

AHRQ Hospital Survey Toolkit

Hospital Survey on Patient Safety (Version 2.0)

Instructions

This survey asks for your opinions about patient safety issues, medical error, and event reporting in your hospital and will take about 10-15 minutes to complete. If a question does not apply to you or your hospital or you don't know the answer, please select "Does Not Apply or Don't Know."

- *"Patient safety" is defined as the avoidance and prevention of patient injuries or adverse events resulting from the processes of healthcare delivery.*
- *A "patient safety event" is defined as any type of healthcare-related error, mistake, or incident, regardless of whether or not it results in patient harm.*

Your Staff Position

1. What is your position in this hospital?

Select ONE answer.

Nursing
- ☐1 Advanced Practice Nurse (NP, CRNA, CNS, CNM)
- ☐2 Licensed Vocational Nurse (LVN), Licensed Practical Nurse (LPN)
- ☐3 Patient Care Aide, Hospital Aide, Nursing Assistant
- ☐4 Registered Nurse (RN)

Medical
- ☐5 Physician Assistant
- ☐6 Resident, Intern
- ☐7 Physician, Attending, Hospitalist

Other Clinical Position
- ☐8 Dietitian
- ☐9 Pharmacist, Pharmacy Technician
- ☐10 Physical, Occupational, or Speech Therapist
- ☐11 Psychologist
- ☐12 Respiratory Therapist
- ☐13 Social Worker
- ☐14 Technologist, Technician (e.g., EKG, Lab, Radiology)

Supervisor, Manager, Clinical Leader, Senior Leader
- ☐15 Supervisor, Manager, Department Manager, Clinical Leader, Administrator, Director
- ☐16 Senior Leader, Executive, C-Suite

Support
- ☐17 Facilities
- ☐18 Food Services
- ☐19 Housekeeping, Environmental Services
- ☐20 Information Technology, Health Information Services, Clinical Informatics
- ☐21 Security
- ☐22 Transporter
- ☐23 Unit Clerk, Secretary, Receptionist, Office Staff

Other
- ☐24 Other, please specify:

SECTION A: Your Unit/Work Area

How much do you agree or disagree with the following statements about your unit/work area?

Think about your unit/work area:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Does Not Apply or Don't Know
1. In this unit, we work together as an effective team	☐1	☐2	☐3	☐4	☐5	☐9
2. In this unit, we have enough staff to handle the workload	☐1	☐2	☐3	☐4	☐5	☐9
3. Staff in this unit work longer hours than is best for patient care	☐1	☐2	☐3	☐4	☐5	☐9
4. This unit regularly reviews work processes to determine if changes are needed to improve patient safety	☐1	☐2	☐3	☐4	☐5	☐9
5. This unit relies too much on temporary, float, or PRN staff	☐1	☐2	☐3	☐4	☐5	☐9
6. In this unit, staff feel like their mistakes are held against them	☐1	☐2	☐3	☐4	☐5	☐9
7. When an event is reported in this unit, it feels like the person is being written up, not the problem	☐1	☐2	☐3	☐4	☐5	☐9
8. During busy times, staff in this unit help each other	☐1	☐2	☐3	☐4	☐5	☐9
9. There is a problem with disrespectful behavior by those working in this unit	☐1	☐2	☐3	☐4	☐5	☐9
10. When staff make errors, this unit focuses on learning rather than blaming individuals	☐1	☐2	☐3	☐4	☐5	☐9
11. The work pace in this unit is so rushed that it negatively affects patient safety	☐1	☐2	☐3	☐4	☐5	☐9
12. In this unit, changes to improve patient safety are evaluated to see how well they worked	☐1	☐2	☐3	☐4	☐5	☐9
13. In this unit, there is a lack of support for staff involved in patient safety errors	☐1	☐2	☐3	☐4	☐5	☐9
14. This unit lets the same patient safety problems keep happening	☐1	☐2	☐3	☐4	☐5	☐9

SECTION B: Your Supervisor, Manager, or Clinical Leader

How much do you agree or disagree with the following statements about your immediate supervisor, manager, or clinical leader?

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Does Not Apply or Don't Know
1. My supervisor, manager, or clinical leader seriously considers staff suggestions for improving patient safety	☐1	☐2	☐3	☐4	☐5	☐9
2. My supervisor, manager, or clinical leader wants us to work faster during busy times, even if it means taking shortcuts	☐1	☐2	☐3	☐4	☐5	☐9
3. My supervisor, manager, or clinical leader takes action to address patient safety concerns that are brought to their attention	☐1	☐2	☐3	☐4	☐5	☐9

SECTION C: Communication

How often do the following things happen in your unit/work area?

Think about your unit/work area:	Never	Rarely	Some-times	Most of the time	Always	Does Not Apply or Don't Know
1. We are informed about errors that happen in this unit	☐1	☐2	☐3	☐4	☐5	☐9
2. When errors happen in this unit, we discuss ways to prevent them from happening again	☐1	☐2	☐3	☐4	☐5	☐9
3. In this unit, we are informed about changes that are made based on event reports	☐1	☐2	☐3	☐4	☐5	☐9
4. In this unit, staff speak up if they see something that may negatively affect patient care	☐1	☐2	☐3	☐4	☐5	☐9
5. When staff in this unit see someone with more authority doing something unsafe for patients, they speak up	☐1	☐2	☐3	☐4	☐5	☐9
6. When staff in this unit speak up, those with more authority are open to their patient safety concerns	☐1	☐2	☐3	☐4	☐5	☐9
7. In this unit, staff are afraid to ask questions when something does not seem right	☐1	☐2	☐3	☐4	☐5	☐9

SECTION D: Reporting Patient Safety Events

Think about your unit/work area:	Never	Rarely	Some-times	Most of the time	Always	Does Not Apply or Don't Know
1. When a mistake is caught and corrected before reaching the patient, how often is this reported?	☐1	☐2	☐3	☐4	☐5	☐9
2. When a mistake reaches the patient and could have harmed the patient, but did not, how often is this reported?	☐1	☐2	☐3	☐4	☐5	☐9

3. In the past 12 months, how many patient safety events have you reported?

- ☐a. None
- ☐b. 1 to 2
- ☐c. 3 to 5
- ☐d. 6 to 10
- ☐e. 11 or more

SECTION E: Patient Safety Rating

1. How would you rate your unit/work area on patient safety?

Poor	Fair	Good	Very Good	Excellent
☐1	☐2	☐3	☐4	☐5

SECTION F: Your Hospital

How much do you agree or disagree with the following statements about your hospital?

Think about your hospital:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Does Not Apply or Don't Know
1. The actions of hospital management show that patient safety is a top priority	☐1	☐2	☐3	☐4	☐5	☐9
2. Hospital management provides adequate resources to improve patient safety	☐1	☐2	☐3	☐4	☐5	☐9
3. Hospital management seems interested in patient safety only after an adverse event happens	☐1	☐2	☐3	☐4	☐5	☐9
4. When transferring patients from one unit to another, important information is often left out.	☐1	☐2	☐3	☐4	☐5	☐9
5. During shift changes, important patient care information is often left out	☐1	☐2	☐3	☐4	☐5	☐9
6. During shift changes, there is adequate time to exchange all key patient care information	☐1	☐2	☐3	☐4	☐5	☐9

Background Questions

1. How long have you worked in this hospital?
   - ☐a. Less than 1 year
   - ☐b. 1 to 5 years
   - ☐c. 6 to 10 years
   - ☐d. 11 or more years
2. In this hospital, how long have you worked in your current unit/work area?
   - ☐a. Less than 1 year
   - ☐b. 1 to 5 years
   - ☐c. 6 to 10 years
   - ☐d. 11 or more years
3. Typically, how many hours per week do you work in this hospital?
   - ☐a. Less than 30 hours per week
   - ☐b. 30 to 40 hours per week
   - ☐c. More than 40 hours per week
4. In your staff position, do you typically have direct interaction or contact with patients?
   - ☐a. YES, I typically have direct interaction or contact with patients
   - ☐b. NO, I typically do NOT have direct interaction or contact with patients

Your Comments

Please feel free to provide any comments about how things are done or could be done in your hospital that might affect patient safety.

Thank you for completing this survey.

High Reliability Organisation

- Leading a Culture of Safety[40]
  - ❖AHRQ definition of culture of safety
    - ➢"A culture of safety as one "in which healthcare professionals are held accountable for unprofessional conduct, yet not punished for human mistakes; errors are identified and mitigated before harm occurs; and systems are in place to enable staff to learn from errors and near-misses and prevent recurrence" (AHRQ PSNet Safety Culture 2014).
  - ❖The leaders of organizations must set and, more importantly, demonstrate the behaviours and expectations essential to a safe and transparent culture.

High Reliability Organisation

- The leadership role in safety culture encompasses six domains:
- These are:
  - Establishing a compelling vision of safety
  - Build trust, respect, and inclusion
  - Select, develop, and engage your Board
  - Prioritize safety in the selection and development of leaders
  - Lead and reward a just culture
  - Establish organisational behaviour expectations

High Reliability Organisation

- These domains are interdependent, and
  - Each domain is an essential element that must be addressed along the spectrum of leadership journey to high reliability of the organistion
- The high-level strategies and practical tactics of each domain are divided into two levels:
  - The foundational level
    - The foundational level provides basic tactics and strategies essential for the implementation of each domain
  - Sustaining level
    - sustaining level provides strategies for spreading and embedding a culture of safety throughout the organization.

High Reliability Organisation

- The journey to zero harm is more complex than this simple two-level structure.
  - ❖The spectrum of safety consists at one end the foundational level and at the other end the sustaining principles embedded in the culture
- Each organization will be at a different place on the spectrum
  - ❖An organization may work on strategies and tactics across the two levels, or
    - ➢May be at different levels of progress across each of the domains.

High Reliability Organisation

- The keys to developing and sustaining a culture of safety are :
  - honest and transparent evaluation of
    - the organization's current state,
    - identification of gaps and goals, and
    - an action plan that engages all members of the Board, leadership team, and workforce.

A Culture of Safety: The Six Domains

Domain 1: Establishing a compelling vision for safety

- Vision
  - ❖Goal: *Commit to Develop, Communicate, and Execute on an Organisational Vision of Zero Harm to Patients, Families, and the Workforce*
  - ❖A compelling vision enhances performance, promotes change, motivates individuals, and provide context for decision making
  - ❖The CEO is responsible for
    - ➢launching the critical first step of
      - establishing safety as the most important part of what everyone does, every day

Organisational Readiness Level	Foundational	Sustaining
Tactics Overarching strategies for implementation at the CEO level	To engage your organisation • CEO takes responsibility for educating himself/herself on how to develop vision and lead a culture of safety. • CEO communicates and models a shared vision of zero harm to patients, the family,, the community, and the workforce. • CEO communicates genuine, clear message about vision, conveying purpose of safety culture to everyone, in all settings, repeatedly and for the long term • CEO communicates how vision is critical to organisational success • CEO prioritises measurement , gap analysis, and improvement of culture of safety as foundational for vision	To engage your organisation CEO and leadership team provide consistent, personalized messaging about the importance of safety and zero harm CEO relays importance and urgency of safety vision to both internal and external audiences CEO practices transparency and shared accountability between Board and leadership team regarding vision and relevant measurement and reporting Clearly articulate your vision to the workforce and the public Benchmark culture progress and best practices with other similar organisation (e.g. participate in collaborative)

Organisational Readiness Level	Foundational	Sustaining
Tactics Examples of tactics that may be implemented to create change of each of these levels	To engage your organisation • CEO gains additional understanding of safety by participating in full harm investigation, including disclosure and apology and root cause analysis • Work with select individual throughout the organisation to develop understanding of key organisational interests and goals • Work with leadership team to develop aspirational end state (e.g. zero harm) that will be incorporated into vision • Communicate the definition and importance of culture of safety • Build awareness of current state through culture surveys, observations, and focus groups and communicate this throughout the organisation	To engage your organisation • Develop and implement a reorganisation programme for leaders, clinicians, and adherence to vision • Establish organisational goals that address safety and disparities in care **To engage clinical leaders** • Include physician, nursing and other clinical leaders in development of vision statement and strategic plan **To engage patients and families:** • Clearly communicate the vision statement and value to patients • Incorporate patient and family stories, along with statistics, when discussing vision t the Board level • Include patient feedback in the development of vision statement

Organisational Readiness Level	Foundational	Sustaining
Tactics	To engage your organisation • Include zero harm vision in all communications from leaders at all levels, and keep these communications simple, consistent and repetitive. • Include equity of care as part of vision statement and communicate the definition and importance of health equity • Conduct training and information sessions for all employees to build understanding and enthusiasm for the vision • Spend time on all floors and units communicating the connection of culture of safety and vision to the work of the frontline	To engage your organisation

Assessing Execution

List of questions that should be asked to further assess and measure progress	Yes	No	
	☐	☐	Are the CEO and leadership team able to clearly communicate the vision to all parties, in both internal and external interactions?
	☐	☐	Can all members of the organisation articulate the vision for safety and how to relate to their individual work?
	☐	☐	Is a patient safety and quality dash boards (which includes safety culture metrics) utilised and regularly reviewed in the context of organisational vision?

Domain 2: Value Trust Respect and Inclusion

- **Goal:** Establish organisational behaviours that lead to trust in leadership and respect and inclusion throughout the organisation regardless of the rank, roll, or discipline
  - ❖It is necessary to create an environment which is both physically and psychologically safe
  - ❖For this, the essential requirements are: trust, respect for others, and inclusion
  - ❖Building trust involves managing conflict and making an environment where employees feel free to communicate a bad news

Domain 2: Value Trust Respect and Inclusion

- It also involves honest behaviour, inclusion and transparency and respect with everyone
  - Employees must uphold mutual accountability and feel free to speak up for safety
- Health care leaders are responsible to create such an environment of trust in the organisation by authentic relationship and conversations
- For example, this can be done by
  - Humble enquiry, asking questions for which the leader does not know the answer.
  - Relationship can be built by genuine curiosity and interest
  - These help leaders to find an honest answer which otherwise would elude them

Domain 2: Value Trust Respect and Inclusion

- The action of leaders must be genuine, honest and consistent throughout the organisation
  - ❖ These type of behavioural standards should apply to everyone
    - ➢ They may be other leaders, employees, subordinates, patients and families
  - ❖ This is essential for creating an environment of trust
  - ❖ The code of conduct must apply to all leaders in the organisation
  - ❖ The behaviours that encourage trust and respect applied consistently would firmly establish a free, fair, trustworthy environment

Domain 2: Value Trust Respect and Inclusion

- Ongoing training in appropriate behavioural model is necessary for volunteers, students, clinicians, and the workforce
  - ❖ Encouragement from leaders is necessary for the change in behaviour
    - ➢ This behavioural model encompasses fairness, transparency, collaboration, inclusion and individual responsibility
  - ❖ The leaders after modelling their own behaviour need to undertake the responsibility of
    - ➢ Training and reinforcement of positive behaviour by encouragement, counselling and hand holding whenever necessary

Domain 2: Value Trust Respect and Inclusion

- The core value in the organisation is safety, trust, respect and inclusion
  - ❖The CEO can nurture these values by demonstrating his/her own ‘practice what you preach’ behaviour and
    - ➢Also genuinely believing the positive aspects of this type of behaviour
  - ❖The CEO keeps the promises and commitments made to the workforce
  - ❖This is essential to build trust

Domain 2: Value Trust Respect and Inclusion

- She acknowledges and communicates when a problem cannot be solved immediately
  - By building an able and strong team, the leaders can delegate with confidence decisions and authority and repose trust on them
  - Trust does not mean nothing will ever go wrong
  - Leaders can expect to continually endeavour on building, sustaining, or repairing trust

Assessing Execution

- Assessing Execution

Assessing Execution	Yes	No	
List of questions that should be asked to further assess and measure progress	☐	☐	Are all clinicians and workforce members provided training in communicating with patients, including disclosure and apology?
	☐	☐	Are measures of respect included in all performance assessment tool?
	☐	☐	Is a formal programme for respect and trust in place and evaluated regularly?
	☐	☐	Is there systematic training on diversity and inclusion for both the clinical and non-clinical workforce?
	☐	☐	Do the Board and leadership team regularly create and evaluate improvement plans for addressing disparirities in patient care

Thank you

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