Engineering resilience in an urban emergency department

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learn  respond  monitor  anticipate

Hollnagel (2010)
adapt
pilote
evaluate
30% increase in volume

56% increase in CTAS 1-3

88% increase in mental health and substance use

40% of ED patients seen in Rapid Assessment Zone

fastest time to physician in the region
Despite a lot of limitations, we make it happen... it’s what we do. I don’t think you’d be working in Emergency if you couldn’t adapt to that... We’re able to step up to the plate, utilize what resources we have — even though some of them are limited — and we’re able to think outside of the box. We’re *flexible* and we’re *adaptable*.

[Questerview, nurse leader, lines 538, 546-550]
adapt
transform
fail
coping with complexity
performance
Woods & Wreathall (2008)
café workshop
Focus on what matters
Contribute your thinking
Speak your mind and heart
Listen to understand
Link and connect ideas
Listen together for deeper insights and questions
Play, doodle, draw
Have fun!
‘What is resilience engineering and why is it important?’

3 x 20 min café rounds, 30 min open space discussion
how ready and able are we to respond when something unexpected happens?

how well do we detect changes to work conditions that effect our ability to perform?

how well do we learn from what happens?

what effort do we put into what may happen in the future?

synthesis
expect the unexpected
threshold

Woods & Wreathall (2008)
‘spidey sense’
humanity
fragmentation
signal
Ability to respond to the actual:
1. We have a list of everyday and unexpected clinical, system, and environmental events for which we prepare and routinely practice action plans.
2. We revisit and revise our list of events and action plans on a systematic basis.
3. We define thresholds to adapt/transform operations and proactively mobilize resources in order to maintain our capacity for response under conditions of increased volume and acuity.
4. We effectively team, communicate, and work together within the department, and with other departments and services.
5. We have organizational support and resources to maintain our capability to meet acuity and volume demands.
6. We link our local department adaptations to organizational and health system changes.

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Ability to monitor the critical:
7. We attend to formal and informal signals of work saturation.
8. We continuously monitor operational tempo to detect when we are falling behind.
9. We systematically monitor, (re)prioritize, and match current patient acuity to required resources.
10. We continuously monitor, measure, and revise consensus and evidence-based departmental and regional performance metrics and health systems outcomes.
11. We regularly monitor system recovery.
12. We graphically display critical real-time operational performance indicators (vital signs).
We cherish stories of success and failure in everyday practice.
Ability to anticipate the potential:
19. We make it easy and welcoming to voice potential or anticipated safety threats.
20. We invest in developing and maintaining capability to understand and predict future safety threats.
21. We invest in developing and maintaining capability to understand and predict future threats to safety and operational performance.
22. We use historical data, early warning signals, and thresholds to inform our real time response.
23. We reassess and recalibrate our response based on real time data.
24. We prepare and practice for potential threats and everyday hazards.

We invest in developing and maintaining capability to understand and predict future threats to safety and operational performance.
feedback
comments
critiques
questions