Resilience Engineering in Practice

The third Australian Institute of Health Innovation-Resilient Health Care Network international prize in resilient health care

Professor Jeffrey Braithwaite
Centre for Healthcare Resilience and Implementation Science, Australian Institute of Health Innovation

Professor Erik Hollnagel
Institute of Regional Health Research, University of Southern Denmark

Professor Karina Aase
Department of Health Studies, University of Stavanger, Norway

Associate Professor Christian von Plessen
Center for Kvalitet, University of Southern Denmark
The 2018 Award

THE INVITATION

THE PROBLEM
- Adverse events hover at 10% of all hospital admissions
- Less than 60% of health care encounters receive appropriate care
- The dominant approach to patient safety is “Safety-I”

THE ALTERNATIVE
- “Safety-II” is based on resilience engineering thinking
- It aims to understand how things typically go right
- Applying resilience engineering has the potential to transform the way we manage patient safety, and deliver more effective care to patients
THE 2018 Award

THE INVITATION

THE CHALLENGE
- For individuals or collaborations to document their best work-in-progress, study, demonstration or ideas which help reconcile WAI and WAD.
- Successful submissions must be feasible, innovative, compelling and globally translatable with the potential to transform how health care systems address patient safety and with demonstrable practical outcomes.

THE POTENTIAL
- Prize-winning innovations will have the potential to transform the way we manage patient safety and deliver more effective care to patients.
The Criteria

2017 RHCN PRIZE

1. Relevance to RHC
2. Persuasiveness of case
3. Feasibility of adoption
4. Innovative
5. Globally transferable
6. Practical outcomes
The 2018 Award

GRADING SCALE

Each entry was graded on a 5-point scale in accordance with six criteria

1. Poor, not competitive
2. Adequate, but not compelling
3. Good, but not first rank
4. Strong score, just falling short of excellent
5. Excellent, world class
The 2018 Award

THE PANEL

Professor Jeffrey Braithwaite
   Founding Director, AIHI, Macquarie University, Australia (Chair)
Professor Karina Aase
   Professor of Patient Safety, University of Stavanger, Norway
Professor Sir Liam Donaldson
   Professor of Health Policy, Imperial College, London, United Kingdom
The 2018 Award

THE PANEL

Professor Erik Hollnagel
Professor, the University of Southern Denmark, Chief Consultant, Centre for Quality Improvement, Region of Southern Denmark

Professor Cliff Hughes AO
Past-President, International Society for Quality in Healthcare (ISQua)

Professor Patrick McNeil
Executive Dean, Faculty of Medicine and Health Sciences (FMHS) Macquarie University, Australia
The Entrants

2018 RHCN INTERNATIONAL PRIZE: RESILIENCE ENGINEERING IN PRACTICE
The 2018 Entrants

8 entries, comprising of:

- 1 from the UK
- 3 from Australia
- 2 from Canada
- 1 from Japan
- 1 from Qatar
The Entrants

RESILIENCE ENGINEERING IN PRACTICE

#1 Better Care Framework: Reconciling Safety-II and Safety-I

#2 The Resilient Solutions Assessment Tool

#3 Redesigning the blood transfusion procedure in operating rooms: Aligning WAI and WAD

#4 Perceptive system analysis: Resilience lens to incidents reviews
The Entrants

RECONCILING WORK-AS-IMAGINED AND WORK-AS-DONE

#5 Learning from excellence: A call to learn from what goes well in healthcare
#6 Using a restorative justice and learning lens for critical incident reviews
#7 Safety Afterhours for Everyone (SAFE): Resilience engineering out-of-hours inpatient care
#8 Serious games to enhance surgical safety
• We assessed the degree of correlation among the six judges.
• Generally, there were positive moderate-to-high correlations among judges’ ratings, with few negative associations.
• We looked at the impact of outliers (the most generous and the most stringent) and found that removal of their ratings did not affect top 3 rankings.
• That is, removal of the most generous OR the least generous OR both had no impact on the rankings of the top-3.
• This suggests judges’ ratings were fairly consistent and that the rankings are robust.
RHCN Abstract judges scores and rankings

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Prize-winning Applications
THE 2018 AIHI-RHCN INTERNATIONAL PRIZE
The 2018 Winners
THIRD PRIZE

Entry Title:
Better Care Framework - Reconciling Safety-II and Safety I

Authors:
Associate Professor Andrew Johnson, Dr Robyn Clay-Williams and Dr Paul Lane

Selected Judge’s Comments:
“Excellent framework to teach complexity of health care”
“Of great interest to many clinicians and managers”
“Strong and innovative”
The 2018 Winners
SECOND PRIZE

Entry Title:
Learning from excellence: A call to learn from what goes well in healthcare

Authors:
Dr Adrian Plunkett

Selected Judge’s Comments:
“An example of looking at distinct positive outcomes and the work behind that”
“Very thoughtfully argued”
“Good application of the theory”
The 2018 Winners

FIRST PRIZE

Entry Title:
Safety Afterhours for Everyone (SAFE) – Resilience Engineering out-of-hours inpatient care

Authors:
Dr Tim Bowles
Dr Deepan Krishnasivam
Ms Katherine Birkett

Selected Judge’s Comments:
“Down-to-earth and practical”
“Scores highly on defining the interventions clearly”
“Explicit use of learnings from what works”
2018
RHCN-AIHI
International Prize