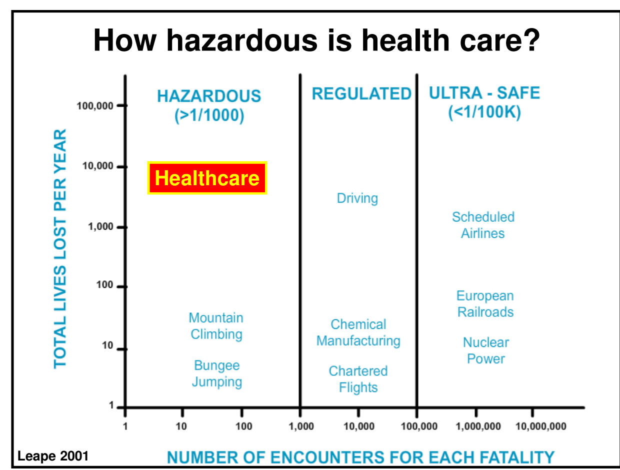
Messages from this talk

- How safe is our practice?
- Aim = a better understanding of:
  1. Safety & Error in healthcare & HF
  2. High Reliability Organisations & the NHS
  3. Safety Culture & Just Culture
  1. The 'MORE OB' programme



"Each year in the USA 120,000 patients die because of medical error - that's equivalent to a jumbo jet crashing every day…. "

Gerlin A. Healthcare's deadly secret: accidents routinely happen. Philadelphia Inquirer; Sept. 12, 1999

Patient safety at risk in 80% of NHS hospitals, says study

CHARLIE COOPER
HEALTH CORRESPONDENT

Patient safety is being put at risk by an "unacceptable" postcode lottery in the quality of NHS care, the hospital watchdog has warned in its annual report.

The Care Quality Commission (CQC) said its inspectors had found frontline staff to be caring almost across the board, but too many hospitals were poorly led and failing to keep patients safe.

The findings are based on a year of new-style inspections in which half of England's NHS hospitals, as well as a number of GP surgeries and care homes, have been rated.

Out of 82 hospitals, only 29 were rated "good" overall, 48 were said to require improvement and five were found to be "inadequate".

The sample is not entirely reflective of the NHS as a whole, because hospitals where there were existing concerns have been inspected first.

However, a stark divide in performance between the best and worst hospitals, as well as generally poor performance on key measures of patient safety and hospital management, have caused concern among inspectors.

David Behan, the CQC's chief executive, said his organisation was "calling time on unacceptable inadequate care".

48 The number of hospitals inspected that were found to require improvements

He said: "When our inspections identify poor care, they must lead to improvement by providers, who should learn from the good and outstanding care we champion through our new ratings."

At almost all hospitals, frontline staff were praised for being caring toward patients, with all but one hospital deemed to be good or outstanding on this measure.

However, on patient safety, 80 per cent of hospitals either required improvement or, in eight cases, were deemed inadequate. Two out of three hospitals were also rated inadequate or requiring improvement on management.

Services attracting the most concern included A&E departments and care of the elderly, a CQC source said.

Problems in discharging elderly patients because of a lack of available beds in care and residential homes or effective care in the community, is leading to these patients enduring inappropriately long stays in hospitals – which leads to queues at the door of A&E.

CQC inspectors also found that one in five nursing homes did not have enough staff on duty to ensure residents received good, safe care.

The Guardian - 18th October 2014

"Never Events"

"Girl whose brain was injected with GLUE awarded £24 million"

Maisha Najeeb, 10, permanently brain damaged by mix-up at Great Ormond Street Hospital……

January 28th 2014

"Never Events"

Maisha, who is now 13, was due to undergo treatment that involved injecting glue to block off bleeding blood vessels, and an injection of harmless dye to check the flow of blood around the brain and head.

However, solicitor Edwina Rawson from Field Fisher Waterhouse, said there was no system in place for telling the syringes apart and they were mixed up. She said the damage to Maisha's brain caused catastrophic and permanent brain damage.

How do we do in labour?

- 1 in 12 labours associated with adverse events

Neilsen P et al Obstet Gynecol 2007

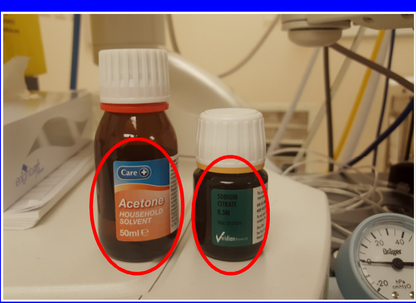
- 50% of adverse events preventable with better care
- 'Human error' was a frequent finding in intrapartum deaths

Confidential Enquiry into Stillbirths & Deaths in Infancy

Why Mothers Die 00/02, CEMD

Our recent "Near Miss"…a cord prolapse

Our recent "Near Miss"…a cord prolapse

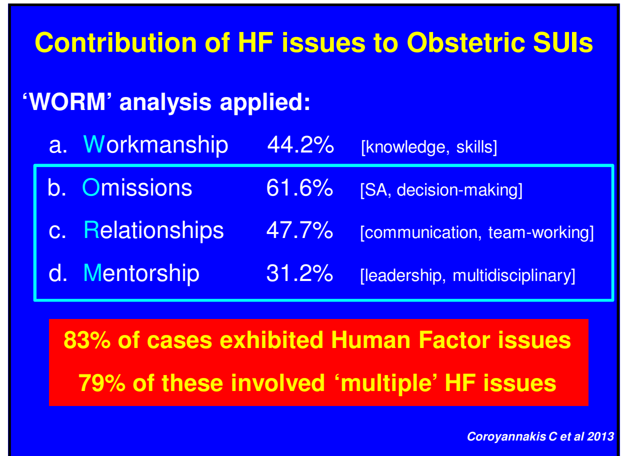


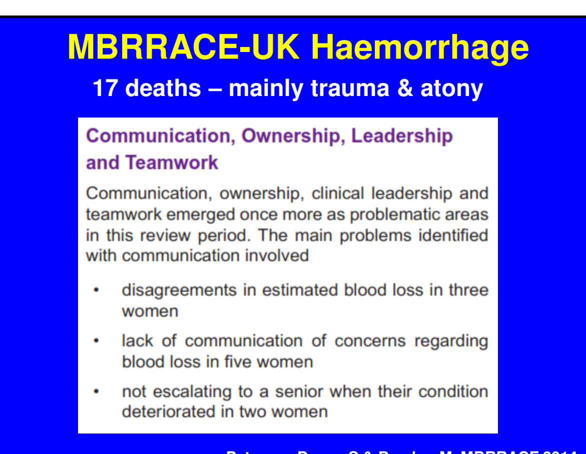
Recurrent themes in Health Services…

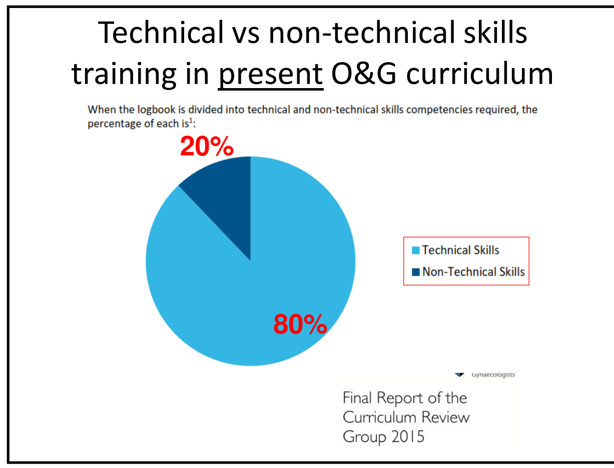
- Emergency cases = 90% of mortality
- Leadership
  - Management
  - Senior clinical staff involvement
- Staffing & Skill mix in teams
- Patient safety
  - EWS
  - Escalation policies
  - CIRs

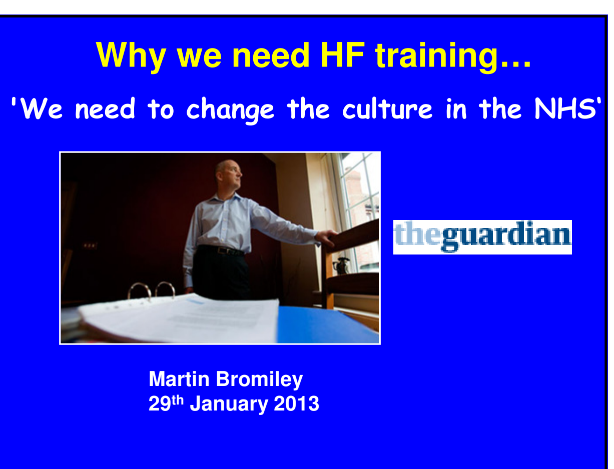
The same recurrent themes in Maternity Services....
MORECAMBE BAY: KEY FINDINGS
Deaths of 11 babies and 1 mother "preventable"
Total of 20 "major failures"
44 recommendations for NHS - 18 for the Trust
'Old-fashioned and in poor condition' maternity services upgraded after 2015 review
Healthcare Improvement Scotland
REPORT
Review of Maternity Services at Cwm Taf Health Board.
Leaked report exposes maternity scandal at Shropshire NHS trust
Review of Ayrshire Maternity Unit, University Hospital Crosshouse, NHS Ayrshire & Arran (Adverse Events)
June 2017
... reports & press can be negative for all involved

Issues in obstetrics…
Recurrent Themes:
• failure to recognise problems
• failure to refer
• inappropriate delegation
• lack of teamwork


Contribution of HF issues to Obstetric SUIs
'WORM' analysis applied:
a. Workmanship 44.2% [knowledge, skills]
b. Omissions 61.6% [SA, decision-making]
c. Relationships 47.7% [communication, team-working]
d. Mentorship 31.2% [leadership, multidisciplinary]
83% of cases exhibited Human Factor issues
79% of these involved 'multiple' HF issues
Coroyannakis C et al 2013


MBRRACE-UK Haemorrhage
17 deaths – mainly trauma & atony
Communication, Ownership, Leadership and Teamwork
Communication, ownership, clinical leadership and teamwork emerged once more as problematic areas in this review period. The main problems identified with communication involved
• disagreements in estimated blood loss in three women
• lack of communication of concerns regarding blood loss in five women
• not escalating to a senior when their condition deteriorated in two women
Paterson-Brown S & Bamber M. MBRRACE 2014


Technical vs non-technical skills training in present O&G curriculum
When the logbook is divided into technical and non-technical skills competencies required, the percentage of each is[1]:
20%
80%
Technical Skills
Non-Technical Skills
Final Report of the Curriculum Review Group 2015


Why we need HF training…
'We need to change the culture in the NHS'
theguardian
Martin Bromiley
29th January 2013

What are 'Human Factors'?

Made up of two components:

1. How humans work in a specified system or environment (includes ergonomics)
2. Non-technical skills which are cognitive, social and personal

'NTS' = Non-Technical Skills

Personal resource skills

- Managing stress
- Coping with tiredness & fatigue

'Stress Response Curve'

We know stress affects performance

High
Optimum
Deterioration
Performance
'Awakening'
Low
Level of Stress
High

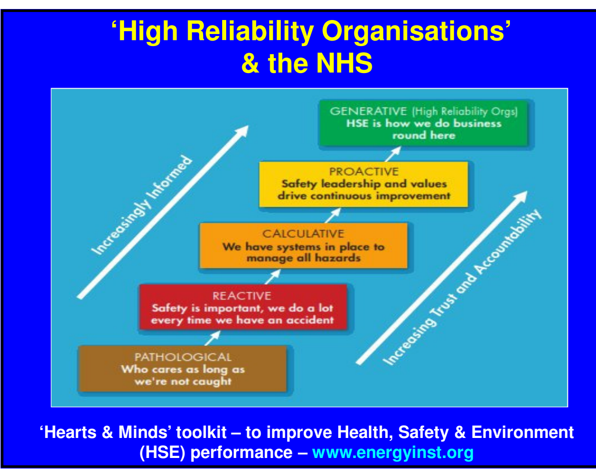
The importance of organisational factors in enhancing patient safety

What does a good 'Safety Culture' mean?

Places the highest value on safety, occupational health and environment

- people are always alert to expect the unexpected
- people fully understand what they should do
- people are open to suggestions
- people believe their actions make a difference to themselves & to others
- managers do not manage, but show genuine leadership

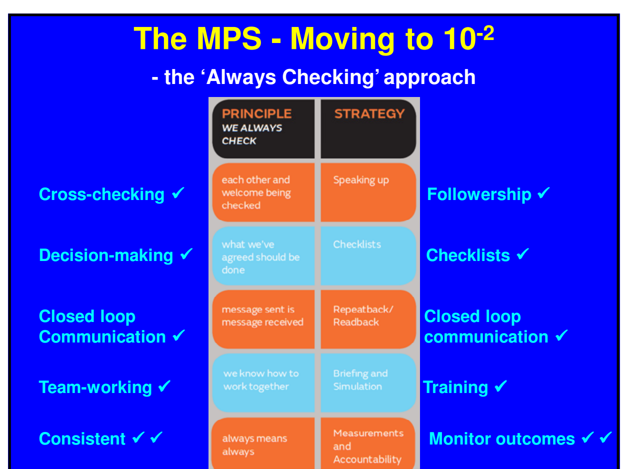
'High Reliability Organisations' & the NHS

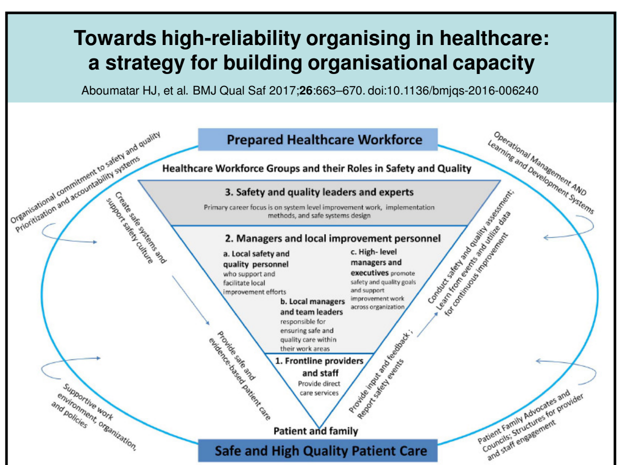


'Hearts & Minds' toolkit – to improve Health, Safety & Environment (HSE) performance – www.energyinst.org

Quantifying 'Reliability' & Safety

- A procedure that is 'reliable' 9 times ex 10 has 10^{-1} reliability
- So…. a 20% failure rate = $>10^{-1}$ reliability
- Systems with $>10^{-1}$ reliability are regarded to be 'chaotic'
- Airline & Nuclear industries have achieved 10^{-6} reliability for 'critical processes'
- Equivalent to 1 in 1,000,000 failure rate





A 'Just Culture'….

Ensures balanced accountability for both individuals and the organisation

- Aim is to ensure patient safety
- Designing & improving systems in the workplace
- Comprehensive data & analysis of error
- Specific tools to enhance safety
- The principle of a 'blame free culture'
- … but serious individual errors & violations are investigated and disciplined as appropriate

A 'Just Culture'….

Ensures balanced accountability for both individuals and the organisation

- Staff feel free to report errors
- HROs also encourage *'mindfulness'* in their staff:-
  1. A constant concern not to fail
  2. Respect for expertise regardless of rank
  3. Able to adapt to unusual circumstance
  4. Can task focus but maintain a bigger view
  5. Can *'flatten the hierarchy'* when required

For Health Services to move towards 'HROs'

We must develop a SAFETY CULTURE
We must develop a JUST CULTURE

1. Develop comprehensive CIR systems
2. Embrace the 'duty of candour'
3. Develop rapid review, no blame systems

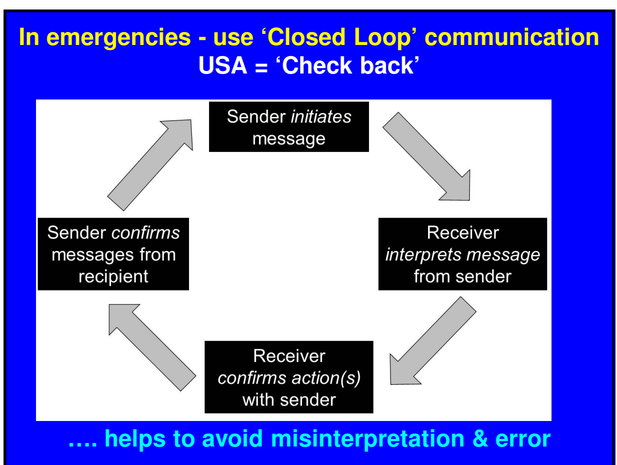
THE PROBLEM WITH…
The problem with root cause analysis
Mohammad Farhad Peerally,[1] Susan Carr,[2] Justin Waring,[3] Mary Dixon-Woods[1]

Our current approach to root cause analysis: is it contributing to our failure to improve patient safety?
Kathryn M Kellogg,[1] Zach Hettinger,[1] Manish Shah,[2] Robert L Wears,[3] Craig R Sellers,[4] Melissa Squires,[5] Rollin J Fairbanks[1]

LEADERSHIP, FOLLOWERSHIP & TEAM-WORK

Effective Teams in Emergencies

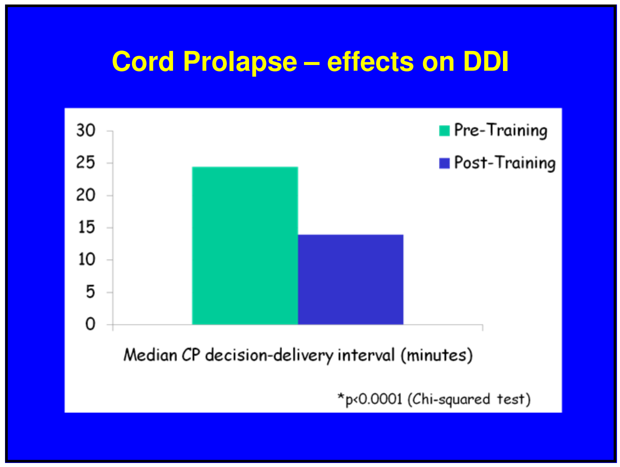
- Shared aim / mental model
- Step back – ‘helicopter view’
- Strong leadership – ‘active listening’ & specific task allocation
- Active followership – shared responsibility ‘watch out for each other’
- Clear decision-making
- Clear communication

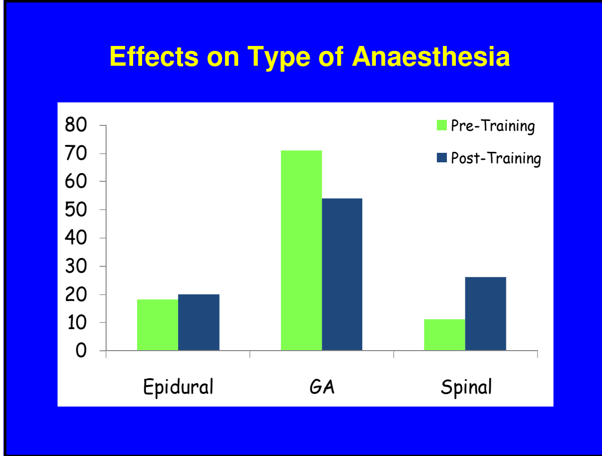


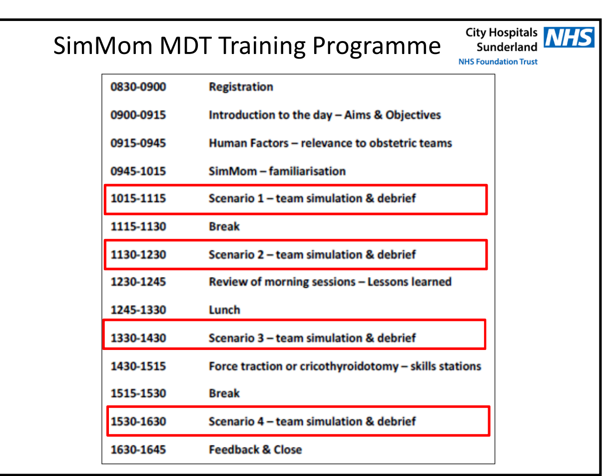
Effective labour ward teams - eclampsia

- Characteristics of effective teams: teams that managed to give magnesium within 10 min of the drill:
  - stated the emergency (fit) significantly earlier: 36 vs 50s ($p=0.051$, MannU)
  - proportion of directed commands was higher: 71% vs 26% ($p=0.03$)
  - overall communication less
  - SBAR-like structure to communication

Siassakos et al. 2011



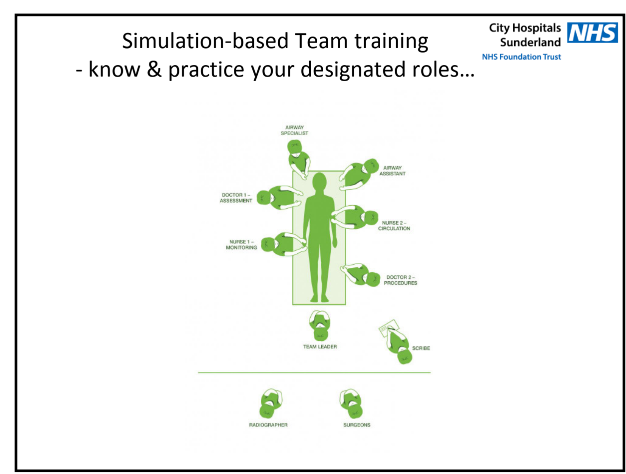


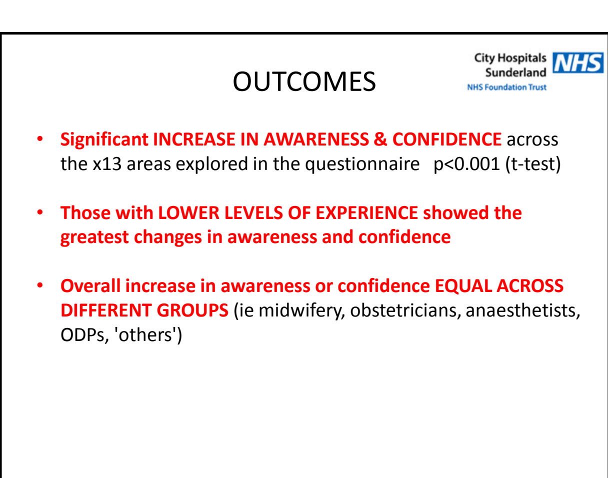


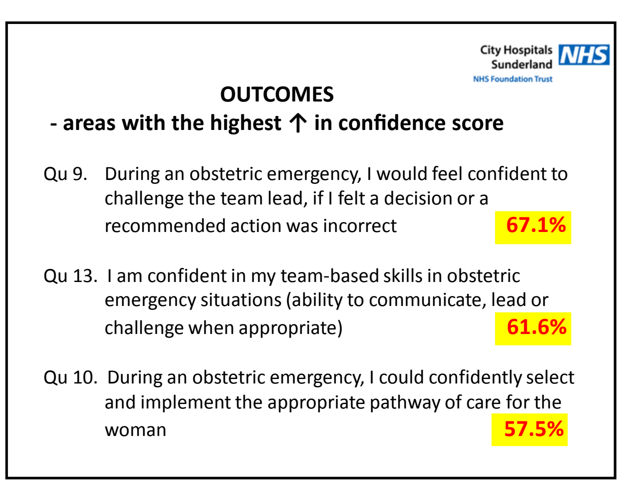
SimMom MDT Training Programme

City Hospitals Sunderland NHS Foundation Trust NHS

Time	Activity
0830-0900	Registration
0900-0915	Introduction to the day – Aims & Objectives
0915-0945	Human Factors – relevance to obstetric teams
0945-1015	SimMom – familiarisation
1015-1115	Scenario 1 – team simulation & debrief
1115-1130	Break
1130-1230	Scenario 2 – team simulation & debrief
1230-1245	Review of morning sessions – Lessons learned
1245-1330	Lunch
1330-1430	Scenario 3 – team simulation & debrief
1430-1515	Force traction or cricothyroidotomy – skills stations
1515-1530	Break
1530-1630	Scenario 4 – team simulation & debrief
1630-1645	Feedback & Close







Research

Evaluating the contribution of interdisciplinary obstetrics skills and drills emergency training

Variation in the quality of maternal health and perinatal care provision was highlighted by the Government's initiative to reduce the stillbirth and neonatal death rate by 50% by 2025 and 20% by 2020 (Department of Health, 2017). While a consistent decrease in these mortality rates has been evident over time, a similar decrease was not seen in City Hospitals Sunderland NHS Trust. Research (Knight, 2016) identified that emergency obstetric practices could be targeted for intervention, and therefore, identifying areas for quality improvement in standards of emergency obstetric practice and implementing a robust training programme in collaboration with City Hospitals Sunderland NHS Trust became key priorities.

The issues surrounding the effective management of conditions such as eclampsia and pre-eclampsia are well known (Mol et al, 2015). In the context of risk and human factors analysis, further investigation into how interdisciplinary emergency skills and drills training affects collaborative working in obstetrics was needed. Clinical simulation has provided a way of showing improvements in obstetric care, with core educational principles adopted in the form of human factors training, guided by professional curricula (Nursing and Midwifery Council (NMC), 2018). This has been highlighted in several reports (Freedman et al, 2015; National Maternity Review, 2016).

High fidelity simulation

Research has demonstrated that high fidelity simulation is an effective way of improving patient outcomes in the context of major obstetric haemorrhage, shoulder dystocia and cord prolapse (Thompson et al, 2004; Sørensen et al, 2013). The fiscal implications of high fidelity simulation training have been a key resource issue, but in recent years these costs have been justified their potential benefit on the clinical management of pregnant women (Asche et al, 2018). High-fidelity simulation is now regarded as integral to the functional and perceived quality of obstetric care (Lawn et al, 2016; Rivera-Chiauzzi et al, 2016). The majority of educational

Abstract

Background High-fidelity simulation is integral to health professional training. The effect of interdisciplinary training on levels of confidence in obstetric emergencies is less well explored.
Aim To evaluate the impact of a multidisciplinary training project in obstetric emergency skills and drills on the confidence of staff.
Methods A mixed-methods approach was used to evaluate the self-reported confidence levels of obstetrics staff. A total of 69 staff voluntarily attended emergency skills and drills training with a birthing simulator manikin. The programme used four emergency scenarios that had potential for poor maternal outcomes. A debrief followed each scenario and confidence levels were self-reported before and after each training session.
Findings There were significant ($P<0.05$) effects on teams' self-perceived confidence levels. Staff reported that training improved their knowledge and understanding of interdisciplinary roles, and improved capacity within and between professional disciplines.
Conclusion This model is of significant use in interdisciplinary obstetric emergency care training. Training had a direct effect on the staff's perceived confidence and encouraged critical reflection on professional practice in emergency obstetrics.

Keywords

Emergency obstetrics | Simulation | Skills/drills training | Quality improvement | Confidence

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Patient Safety Programmes

- To be effective blend top-down management with bottom up engagement & innovation
- Require a combination of standards, innovation, iterative learning as well as a change in culture
- Multiple strategies are required:
  - simplification & standardisation of work processes
  - improving NTS (teamwork, leadership, communication)
  - a 'Just Culture' that allows 'learning from mistakes'

MORE^{OB} (Managing Obstetrical Risk Efficiently)

- Canada experienced a significant shortage of staff willing related to escalating litigation
- MORE^{OB} Programme developed by the Society of Obstetricians and Gynaecologists of Canada (SOGC) in 2001

MORE^{OB}

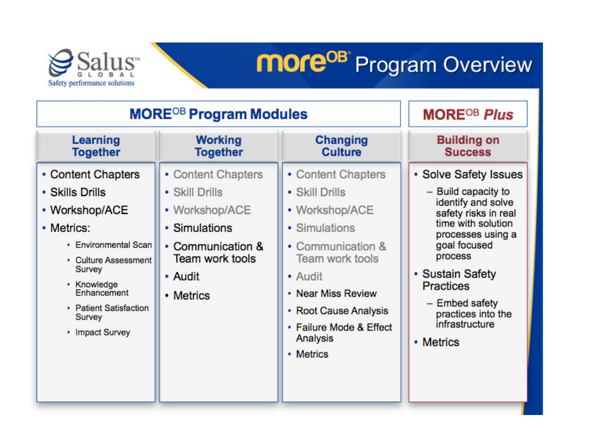
- Based on the principles of High Reliability Organisations
- A comprehensive structured 'performance improvement intervention' designed to instill an *enduring culture of patient safety*
- Targets *multidisciplinary obstetric teams* to achieve better patient outcomes

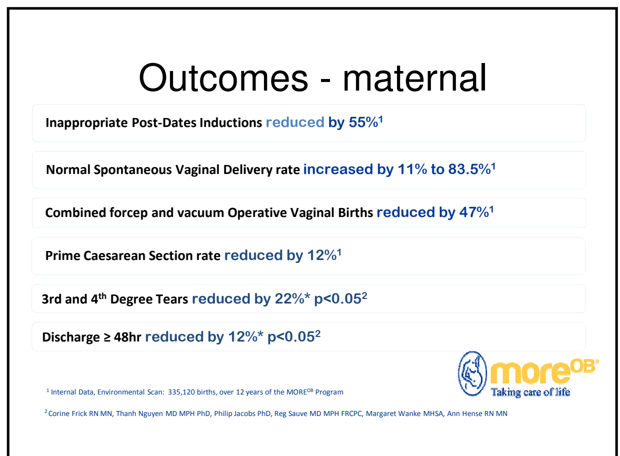
MORE^{OB}

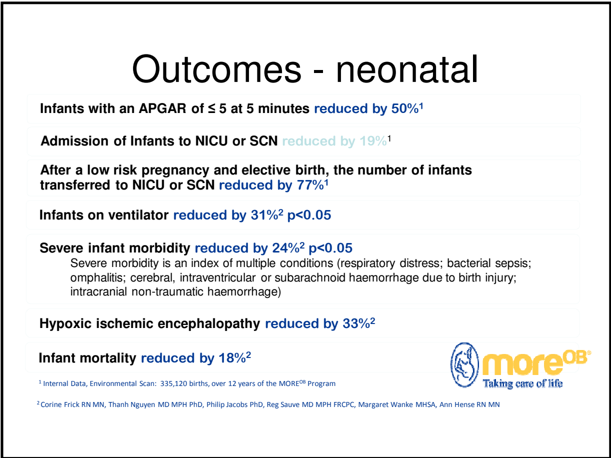
- 3 modules over 3 years.
- Tools & metrics:
  - 17 online clinical chapters updated annually by SOGC committee
  - Unit-focussed Culture Assessment Survey (CAS)
- *In-situ*, high-fidelity, low-tech simulations
- *Multidisciplinary* workshops;
- *Individual* pre- & post- knowledge tests
- Regular assessments *against unit goals*

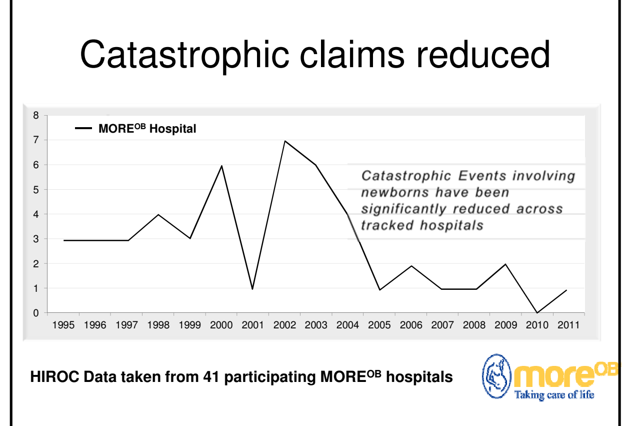
MORE^{OB} *Plus* (2008)

- Obstetric teams *demanded* to remain engaged with the MORE^{OB} Programme beyond its three-year duration
- MORE^{OB} *Plus embeds the culture of safety &* supports teams to identify & resolve unit-specific risks







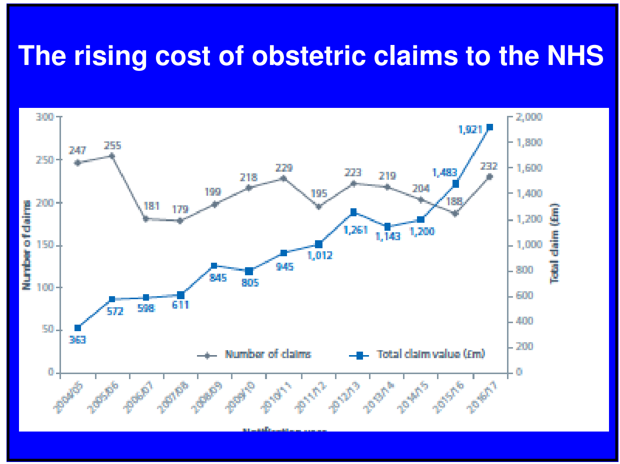


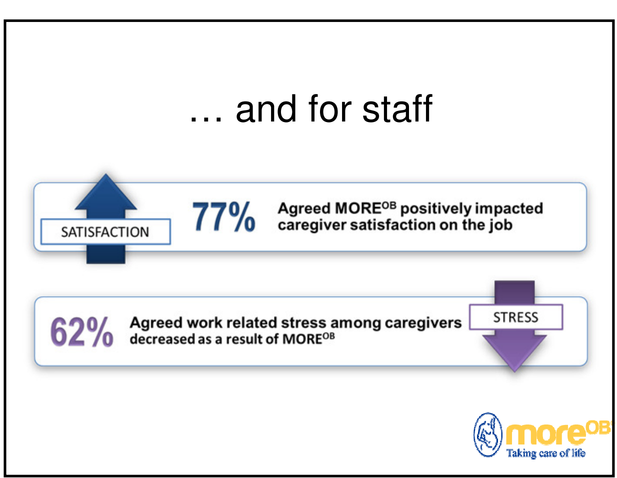
Litigation claims have fallen

- *Number of births increased* 8% (78,306 to 84,895 per year)
- Cost of *significant claims* dropped ($137m to $89m)
- *'Claims cost per birth'* fell by 40% ($350 to $210 per birth)

Greg King, CFO, Healthcare Insurance Reciprocal of Canada.
Report on 26 First-Phase tracked hospitals

moreOB
Taking care of life





Embedding patient safety requires culture change - strong & effective clinical leadership is a vital element

How we behave matters

"We believe that kindness, valuing people and being thoughtful of all around us are vital to creating the right culture for safety and are leadership traits that we both embody and promote."

A positive culture in the NHS

"An organisation with a safety culture is one where patient safety is at the forefront of everyone's minds…It influences the overall vision, mission and goals of an organisation. That is, it influences everything you do."