



Evidence Based Labour Ward Team Training

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**Where is
Professor
Draycott?**

Prompt Maternity Foundation

- Founder member
- Board member
- Prompt trainer in the UK and internationally
- No financial interest

Southmead Hospital, Bristol



- 6,200 deliveries
- 26% C/S rate
- 3% home births
- Stand alone & integrated birth centres

Introduction

- Overview of some of the research on labour ward training
- What are the factors that make training successful?
- Future research into how training works
- Not -political and financial context

Recommendations

- Simulated emergencies should be organised to improve management of rare obstetric emergencies

CESDI – 4th Annual Report 1997

CEMD – Why Mothers Die 1998

CEMACH – Saving Mothers Lives 2007

Kings Fund: Safer Births everybody's business. 2008

NHSLA. CNST Maternity Standards 2009

CMACE. Saving Mothers Lives. 2010

- All units should maintain or initiate on-going multi-disciplinary team training for their maternity staff

Evidence based training

- Not all training is equal or effective

Siassakos D et al BJOG 2010

- Minimal guidance or evidence to suggest the best methods for training

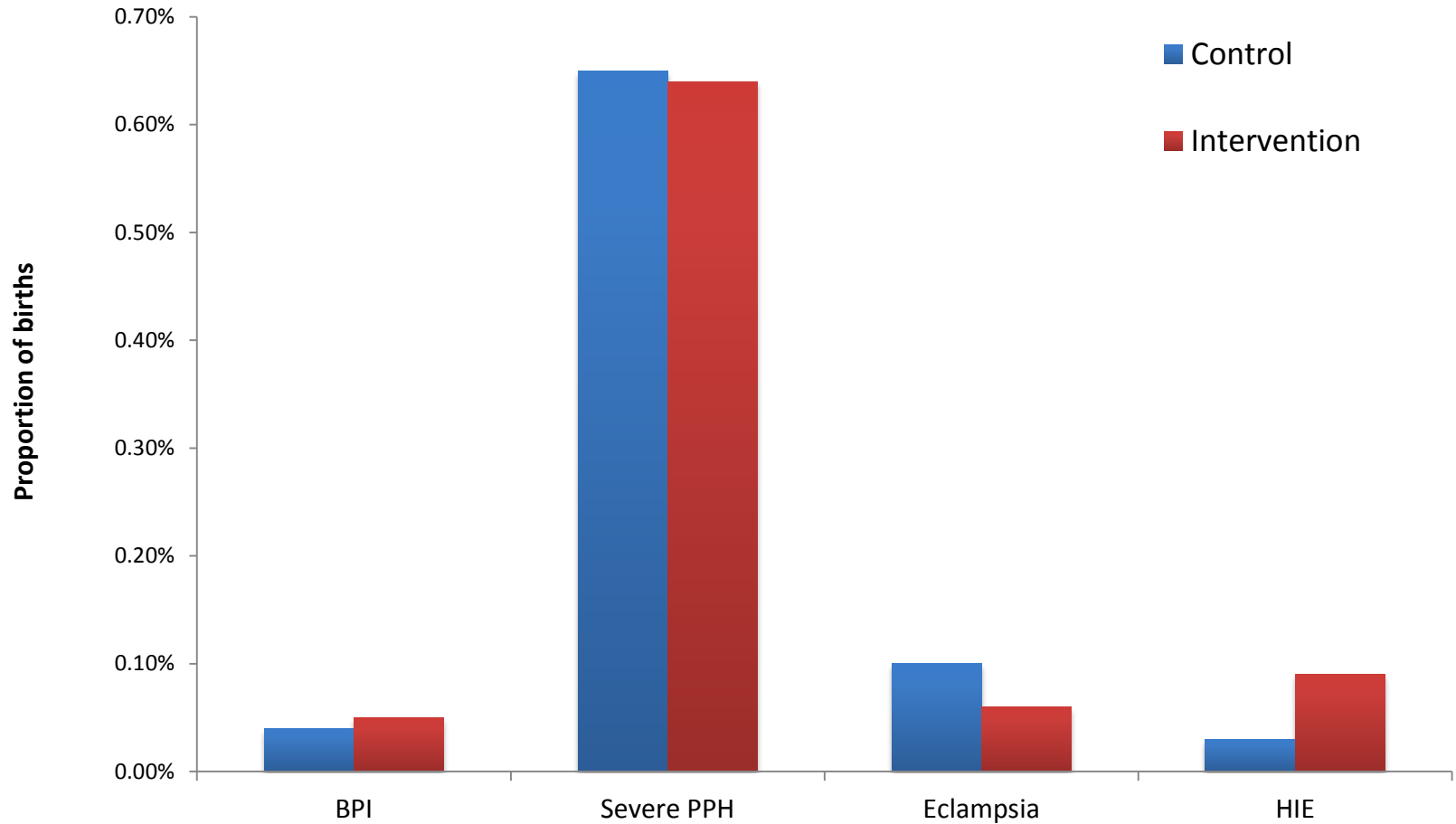
Black RS, Brocklehurst P BJOG 2003

TOSTI Study

- Cluster RCT in Netherlands
- Cost effectiveness of multi-disciplinary team training
- 24 units: 12 control and 12 intervention
- Training intervention
 - Central simulation centre
 - 80% teamwork training, 20% clinical
 - Not integrated

Fransen et al SESAM 2013

TOSTI preliminary results



HIE RR 3.2 (1.06 - 9.8)

p = 0.029

Teamwork Training

- MedTeams OB

- No change in any of the AOI outcomes

Nielsen et al Obstet Gynecol 2007

- MOSES

- Emphasis on NTS, clinical coaching as needed
- Well received by participants
- Difficult transfer to the delivery suite

Freeth et al J Cont Health Education 2009

TeamSTEPPS

- Prospective RCT 3 community hospitals USA
- Multiprofessional, locally based training
- 100% participation
 - No intervention (control group)
 - TeamSTEPPS training only
 - TeamSTEPPS + clinical simulation
- 37% decrease in perinatal morbidity where clinical simulation added

Shoulder dystocia drill training

- 2 cities, southern England, similar sized units, similar patients
- Training for shoulder dystocia started for CNST 2000
 - City 1: 70% reduction in BPI
 - City 2: 100% increase in BPI

MacKenzie et al Obstet Gynecol 2007

Draycott et al Obstet Gynecol 2008

Southmead labour ward training

- Bi-monthly training started in June 2000
- Annual attendance mandatory
- Multiprofessional in-house training
- High fidelity, low tech simulation
- Teamwork and clinical training integrated
- No assessment

Improved perinatal outcomes

Bristol: 2000 – 2012

- 50% reduction in low Apgar scores & HIE

Draycott et al BJOG 2006

- 45% reduction in school age CP (dyskinetic & quadriplegic)

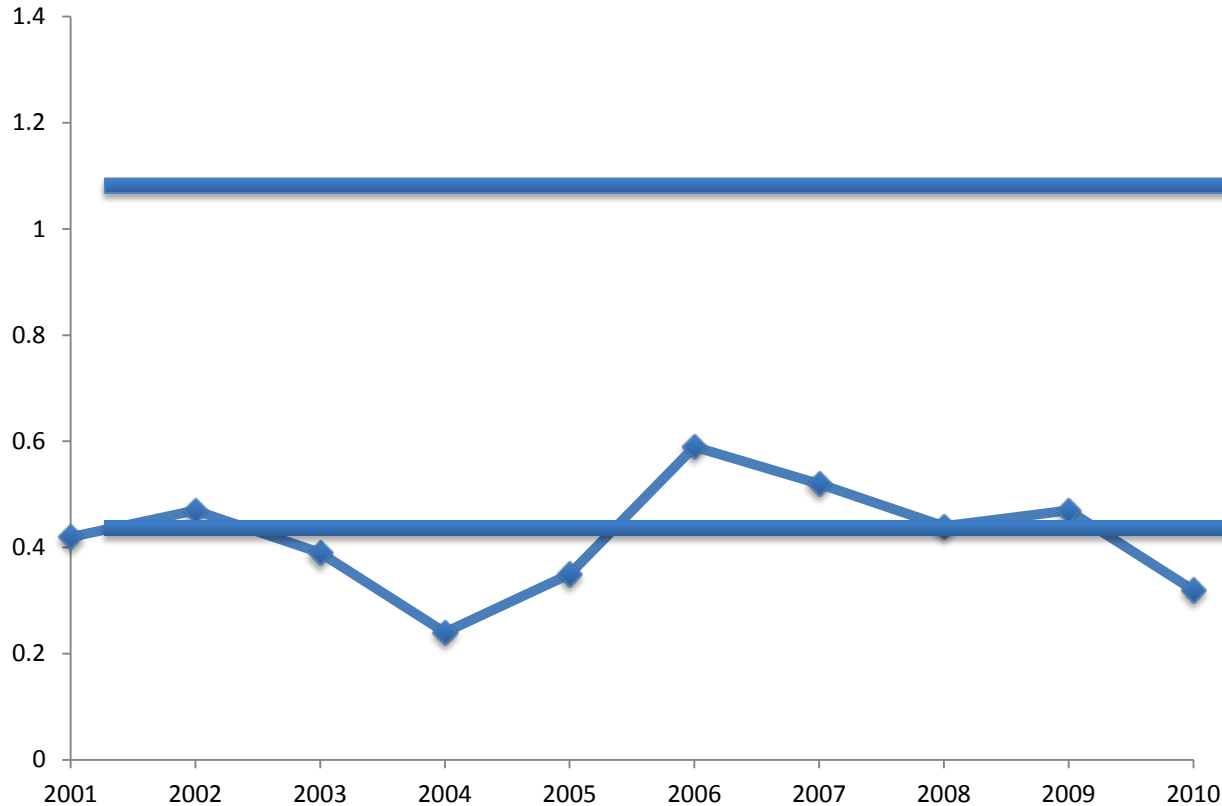
Odd et al submitted Arch Dis Child 2015

- 100% reduction in BPI after shoulder dystocia

Crofts et al BJOG 2015

NBT Apgar <7 at 5 mins

% Low Apgar



- Average rate in SW 1.1%
- NBT varied from 0.24% to 0.59%
 - Not statistically different over time
- Median – 0.41%

Prompt Kansas

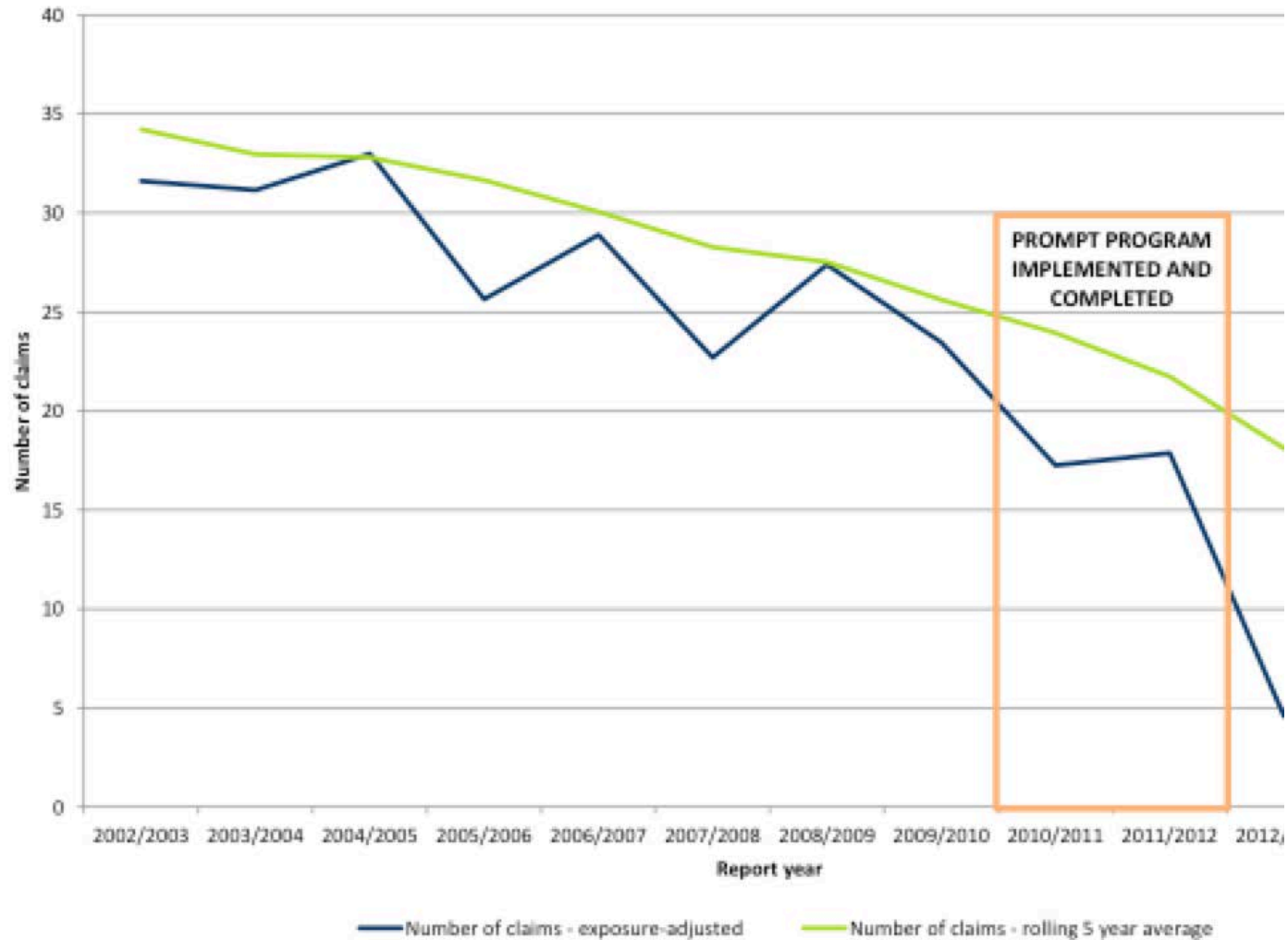
- Kansas University Medical Centre
 - Started training in 2008
 - Mandated for obstetric doctors and L&D nurses
- Significant improvements up to 2013:
 - Reduction in CS rate: 29% to 23%
 - Reduction in Apgar<7⁵mins: 0.66% to 0.46%
 - Parallel reduction in cord arterial pH<7 & HIE
 - 100% reduction in BPI post SD: 10.7% to 0%

Weiner et al AmJOG 2014

Prompt Victoria

- 8 units across Victoria
- 7 managed to introduce training
- Safety attitudes questionnaire
 - Teamwork
 - Safety
- Clinical outcomes:
 - Apgar <7¹ min: 9.1% vs 7.7% p<0.001
 - Cord lactate (>5.27): 25 vs 23 p<0.028
 - Baby length of stay: 2.85 vs 2.79 p<0.006

Prompt Victoria



Prompt Zimbabwe

- Prompt team went to Zimbabwe in 2011
- 87% of staff had never received any training before
- All maternity staff trained by March 2013
- 34% reduction in maternal death rates

Accepted Bulletin of WHO 2015

Common factors

- Training conducted in-house
- High fidelity simulation
- 100% of maternity staff trained regularly
- Training all maternity staff together
- Teamwork training integrated with clinical training
- Self-directed infrastructural change
- Institution-level incentives to train

Siassakos et al BJOG 2009

Impact of Training

- 23 studies
- Training can save lives
- Mandatory in-house training for all staff
- Future challenges
 - sustainability
 - scaling up training

Bergh et al Best Prac & Res Clin O&G 2015

Why does Prompt work ?

- SAPPHIRE study
 - Mary Dixon-Woods, SAPPHIRE Group, University of Leicester
- THISTLE Study & THISTLE Plus

Why is Southmead safe ?

SAPPHIRE team initial observations

- Training day is a 'place of safety'
 - Immediate feedback
 - Safe space
 - Opportunity for system based discussion
- Standardisation and access to algorithms
 - Singing from same hymn sheet

THISTLE study - Scotland

- Trial of Hands-on Interprofessional Simulation Training for Local Emergencies
- Research funded by Chief Scientist Office
- Universities of Aberdeen and Bristol
- PROMPT training intervention in collaboration with SCOTTIE



THISTLE study

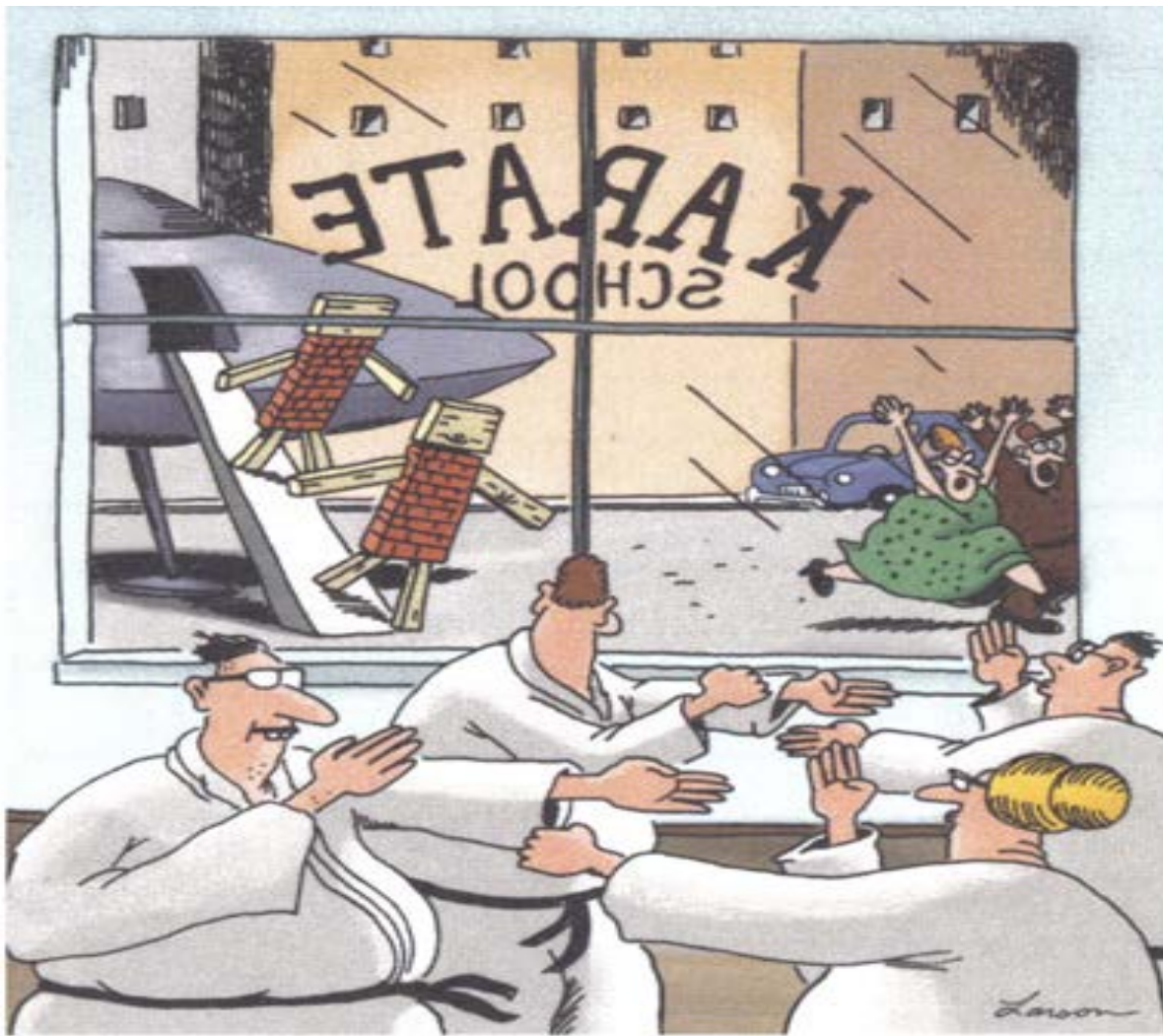
- Stepped-wedge clustered RCT
- 5 minute Apgar scores pre and post intervention
- 15 units with > 1000 births per annum
- 3 units already running local Prompt training
- Remaining 12 units invited to join
- Multi-professional team from each participating unit attended 2 day train the trainers course
- Units roll out prompt training for all maternity staff

THISTLE Plus

- Parallel process evaluation
 - 4 units
 - Focus groups of staff
 - Aim to identify successful context features
 - Strategies to create these

Conclusions

- Labour ward training not yet perfect
- Some models work better than others
- Local multiprofessional training for all staff
- Combine clinical and teamwork training
- Outcome measurement is vital
- Ongoing research may show us why training works



Thank you

The class abruptly stopped practicing. Here was a chance to not only employ their skills, but also to save the entire town.

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Obstetric Anaesthesia

2015

Riviera Centre, Torquay
21-22 May 2015

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FOR ANAESTHETISTS**

CPD approved meeting
5 CPD points per day