

Evaluating Perinatal Excellence to Reduce Injury in Premature Birth (PERIPrem)



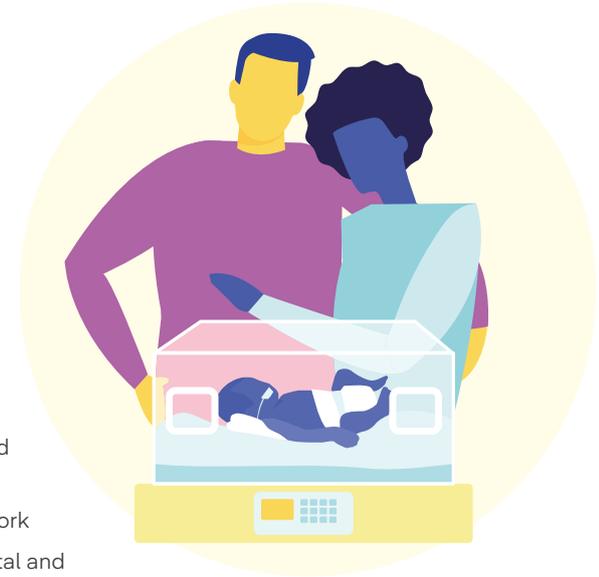
PERIPrem is a unique care bundle of 11 evidence-based interventions for mothers and preterm babies.

- Implemented in 12 sites across the South West region
- Led by the South West and West of England Academic Health Science Networks (AHSNs) in partnership with the South West Neonatal Network
- Co-design and co-production approach, rooted in Quality Improvement (QI) methods
- Involving unit-level perinatal teams, parents with lived experience of preterm birth, and the wider regional clinical community

The South West AHSN was commissioned to evaluate PERIPrem to understand the effectiveness of using QI methodology to support maternity and neonatal units in implementing a standardised bundle of care to mothers who deliver their babies at less than 34 weeks' gestation.

The evaluation

- Mixed-model data analysis to understand which PERIPrem interventions were received
- Linear mixed-model data analysis of staff surveys on psychological safety and teamwork
- Qualitative interviews with maternity, neonatal and obstetric staff, and QI coaches
- Qualitative data analysis using behavioural science methods



What we found –

Over the evaluation period **693 babies** were born to **604 mothers**.

By the end of the implementation phase (July 2020–June 2021):

- Improvements (between 8 and 63%) in the delivery of 10 of the 11 interventions: place of birth, antenatal steroids, optimal cord management, thermoregulation, caffeine, early breast milk, probiotics, prophylactic hydrocortisone.
- Significantly more women and babies (from 3 to 29%) were receiving all the interventions they were eligible for.
- Increase (55 to 78%) in the percentage of interventions women and babies were receiving.

Over the implementation phase:

- Improvements in ventilation, early breast milk, multi strain probiotics and prophylactic hydrocortisone, and a steady increase in place of birth.
- Improved team function, situation monitoring and communication within perinatal teams.

Facilitating PERIPrem implementation

Support staff by:

Staff capability

- Increasing knowledge, skills and confidence in delivering the interventions
- Breaking down the bundle

Staff motivation

- Emphasising the existing evidence-base
- Using own data to understand the impact of their change ideas
- Building a trusted and recognisable brand

Staff opportunities

- Using strategically placed cues within units to prompt delivery
- Finding time to bring specialities within and across regional units together
- Protecting time
- Funding to backfill time and purchase necessary equipment
- Access to a suite of adaptable resources
- Tailored QI support and advice provision
- PERIPrem lead with a change mindset and strong leadership

A Glover Williams, S Tuvey, H McBain, N Menzies, S Hedge, S Bates, K Luyt on behalf of the PERIPrem Steering Group. [Perinatal Excellence to Reduce Injury in Preterm Birth \(PERIPrem\) through Quality Improvement](#). BMJ Open Quality (2022)

McBain H, Tuvey S, Williams AG, Hedge S, Menzies N, Bates S, Luyt K. [Barriers and Enablers to the Implementation of a Perinatal Care Bundle: The Perinatal Excellence to Reduce Injury in Premature Birth \(PERIPrem\) Project](#). Research Square (2022)

For more information please contact South West AHSN Evaluation Lead, Dr Hayley McBain (hayley.mcbain@swahsn.com).

Get in touch

The South West and West of England AHSNs are two of 15 AHSNs set up across the country by NHS England in 2013, to spread innovation in health and care.

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