



## Learning from PMRT reviews

Emeritus Professor Jenny Kurinczuk, National Programme Lead PMRT,  
National Perinatal Epidemiology Unit, University of Oxford



# Outline of the presentation

Focus on reviews of care when babies die as a means learning to improve future care

- Reviews of care – where we've come from
- Vision and development of the Perinatal Mortality Review Tool (PMRT)
- Issues with care identified from reviews
- Examples of quality improvement activities implemented as a consequence of review findings
- Improving the quality of reviews from the parent perspective



# Context prior to the PMRT development

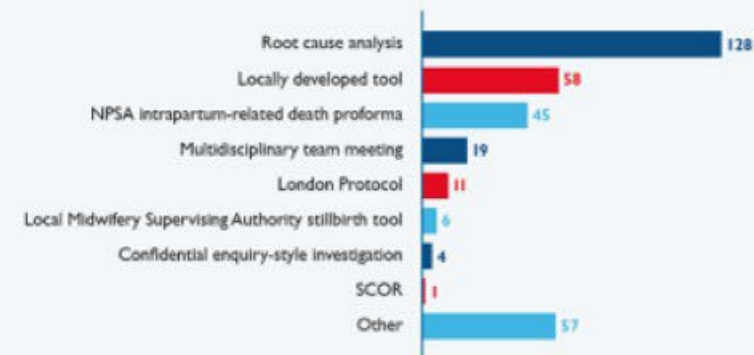
**EBC: Term - intrapartum stillbirths, early neonatal deaths\* and brain injury**

610 EBC babies in the **2015** report – care for most had been reviewed locally



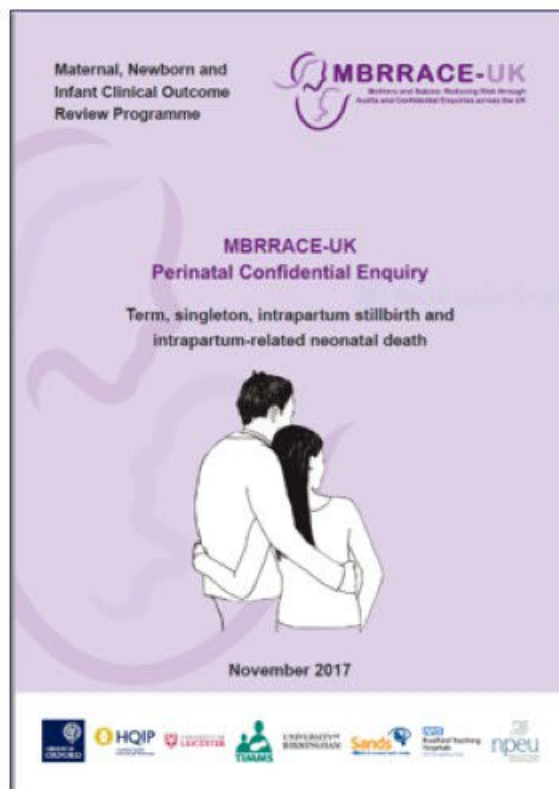
## Tools and methodologies used

Where a tool or methodology is used, there is little consistency in local practices.





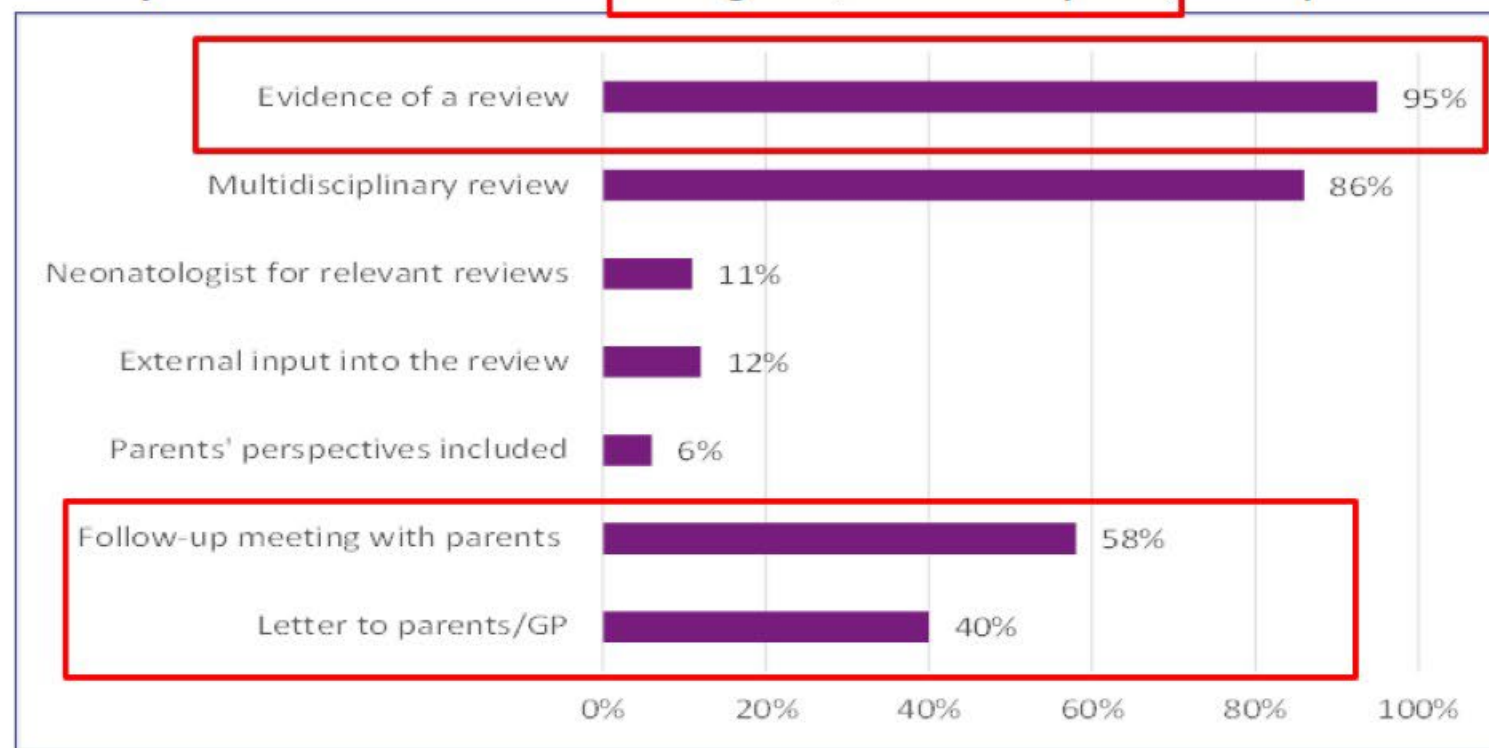
# Context prior to the PMRT development



## MBRRACE-UK: Term, singleton, intrapartum stillbirths and intrapartum-related neonatal deaths confidential enquiry

78 deaths from **2015** included: 40 stillbirths and 38 neonatal deaths

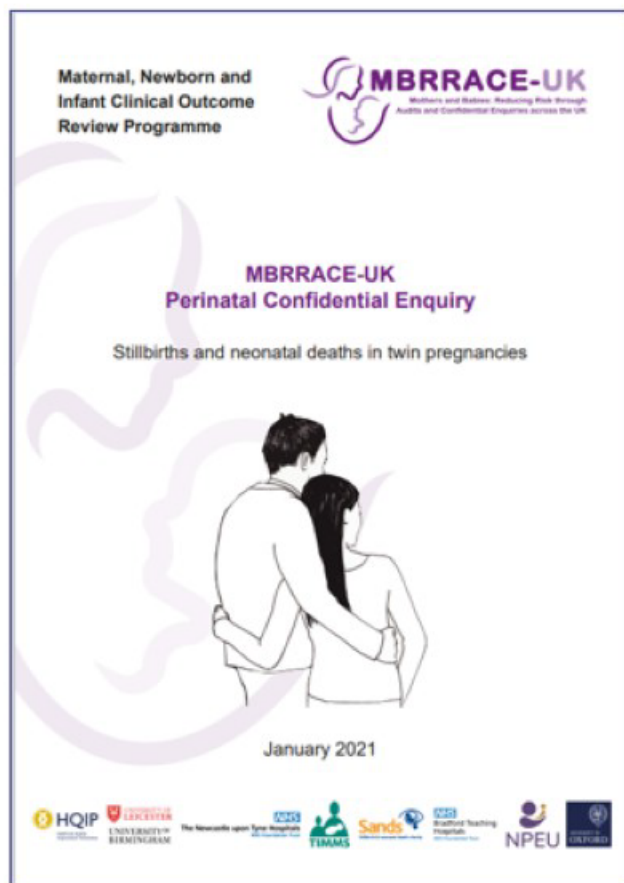
Quality of the local review – 25% good; 25% adequate; 50% poor





# Context prior to the PMRT development

~75% of all perinatal deaths are of babies born preterm



## **MBRRACE-UK: Stillbirths and neonatal deaths in twin pregnancies confidential enquiry (published in 2021)**

80 baby deaths from 50 pregnancies born in **2017**

96% were preterm; 82% born <32 weeks' gestation

60% were stillbirths and 40% neonatal deaths

Of the 50 pregnancies – **only 11 (22%) underwent a local review:**

Quality of the review: **1 good; 2 adequate; 8 poor**  
Actions to improve care identified in only 5 reviews

## Poor quality reviews

- Pretty typical of many 'reviews' seen in the earlier Confidential Enquiries
  - Prior decision was made by someone about what had happened that led to the death and the review was of only that part of the care with no consideration of prior care and events – not the whole pathway of care
  - Many reviews carried out by single individuals or small groups of individuals often all from the same speciality
  - Quality of the information (if any) provided to parents was woeful in many instances; letters sent to GPs and cc'd to parents; inappropriate language to refer to the baby

### Case presentation 2

Rectangular Snip



P° CB 34/40

Presented to labour ward – abdominal pain / nausea FMs present CTG NAD

Cat I LSCS ® bradycardia

O<sup>1</sup> O5 22:42 no sign of life

Resus stopped 22:56 – (no reason found for IUD at present

Nothing noted that could have prevented this – at present this is unexplained.

Post mortem results pending.



## Vision\*

- **All perinatal deaths** will be reviewed in an **objective, robust and standardised way** – review quality will improve
- **Parents' views of their care will be incorporated** and they'll receive a full, plain English, **explanation as to what happened with their care, whether different care may have made a difference to the outcome** and why their baby died (accepting that even with full investigations it is not always possible to determine why some babies die)
- We will **learn more** about why babies die
- And be able to **target resources** towards causes and **address any shortfalls in care** at local, network and national levels
- The **learning** and good practice will be able to be **shared**
- The goal being a **reduction in the number of babies who die; improved care for everyone**

\*Vision of the DHSC/Sands Task and Finish Group – 2013 to 2014 – reported in 2015 coinciding with the Kirkup Morecambe Bay Inquiry publication; PMRT commissioned in 2016, developed in 2017 and launched in 2018





# Purpose

## Reviews when babies die have two purposes:

- First, to enable information to be given to parents about what happened with their care, the quality of their care, whether different care may have resulted in a different outcome and whether there are any implications for their care in future pregnancies
- Second, to identify issues with care to enable **wider learning** for **QI activities to be implemented** to reduce deaths and improve care for everyone

## Reviews conducted:

- 2018 – PMRT launched – since then ~27,000 reviews have been started across the UK
  - only 2 Trusts/Health Boards have not started a review – because they have had not had any deaths



# Learning from issues with care identified

## **Local reviews will identify your local issues:**

- Enable local action plans to be put in place to improve care
- Summary report generated from the PMRT can be used to:
  - Identify any recurrent issues to prioritise improvement actions
  - Evidence for a business case to lobby for any necessary resources



# Learning from issues with care identified

## Local reviews will identify your local issues:

- Enable local action plans to be put in place to improve care
- Summary report generated from the PMRT can be used to:
  - Identify any recurrent issues to prioritise improvement actions
  - Evidence for a business case to lobby for any necessary resources

## National analysis of the PMRT data:

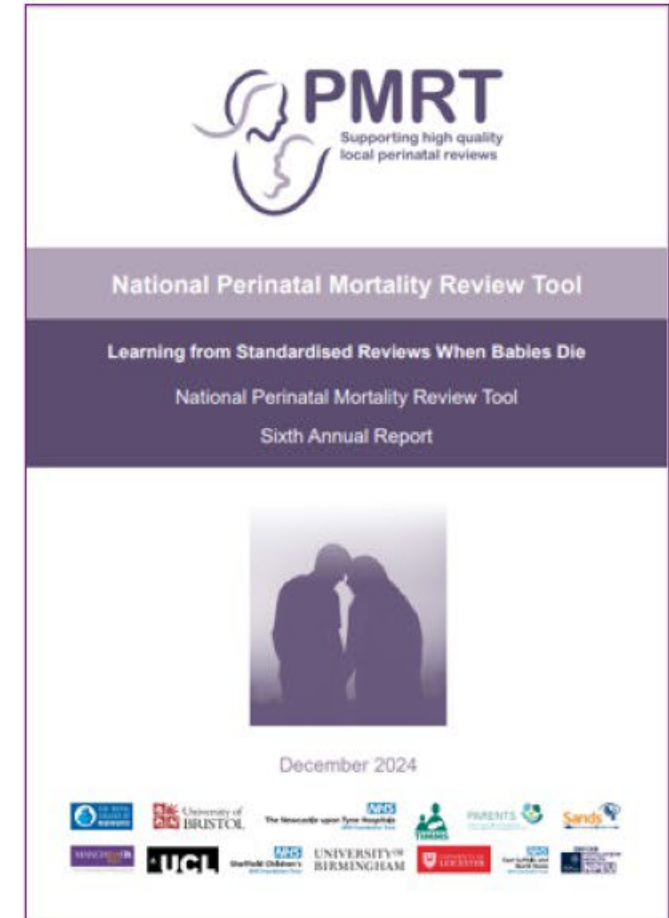
- Analysis of annual data
- Published in December 2024 – reviews completed in 2023

[www.npeu.ox.ac.uk/pmrt/reports](http://www.npeu.ox.ac.uk/pmrt/reports)

## Survey in 2024 of QI activities which followed from PMRT reviews

- Information which does not come directly from the PMRT

[www.npeu.ox.ac.uk/pmrt/resources/quality-improvement-ideas](http://www.npeu.ox.ac.uk/pmrt/resources/quality-improvement-ideas)





## Learning from issues with care identified

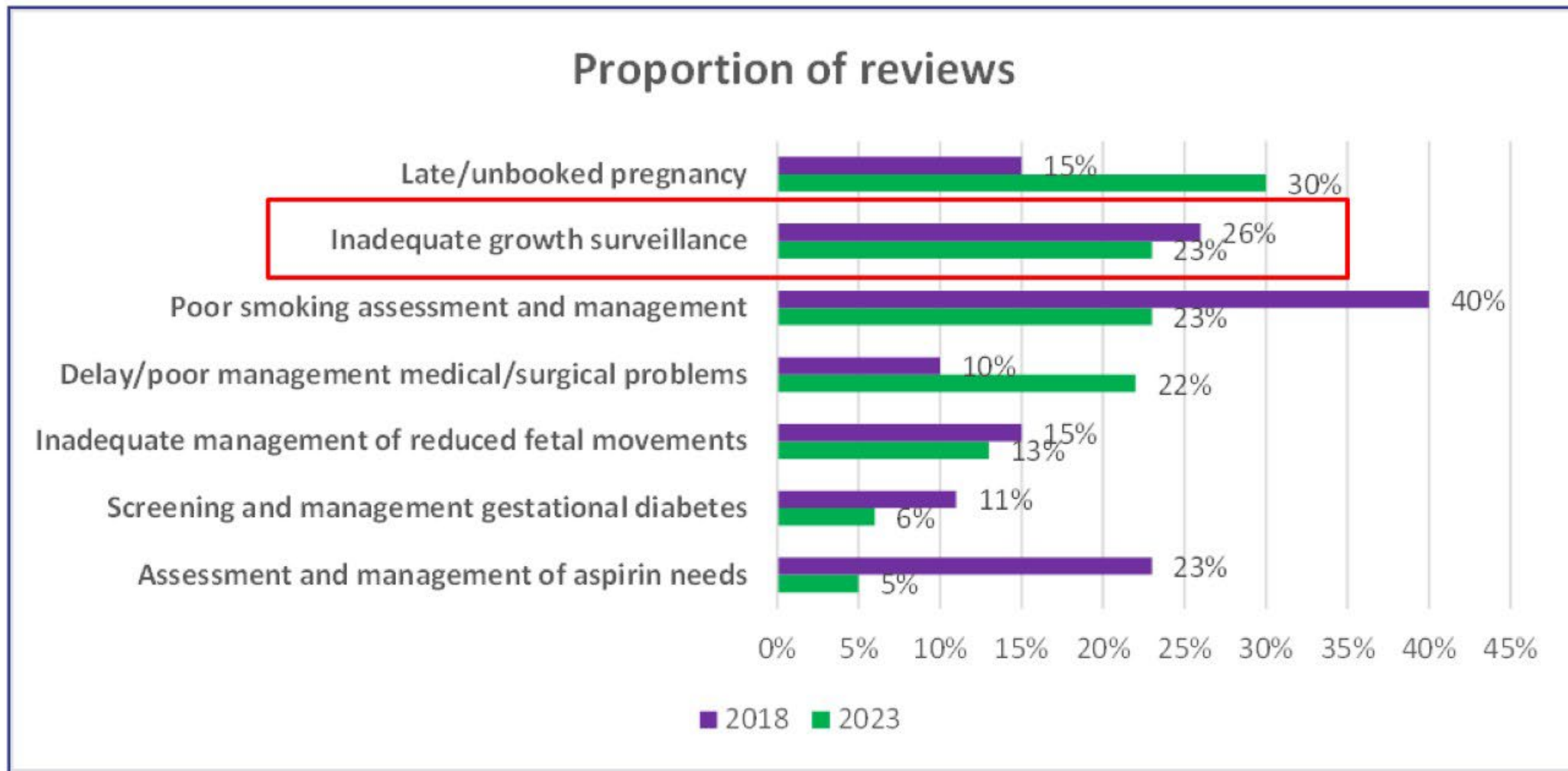


of reviews identified  
at least one issue with  
care that may have  
made a difference to the  
outcome for the baby

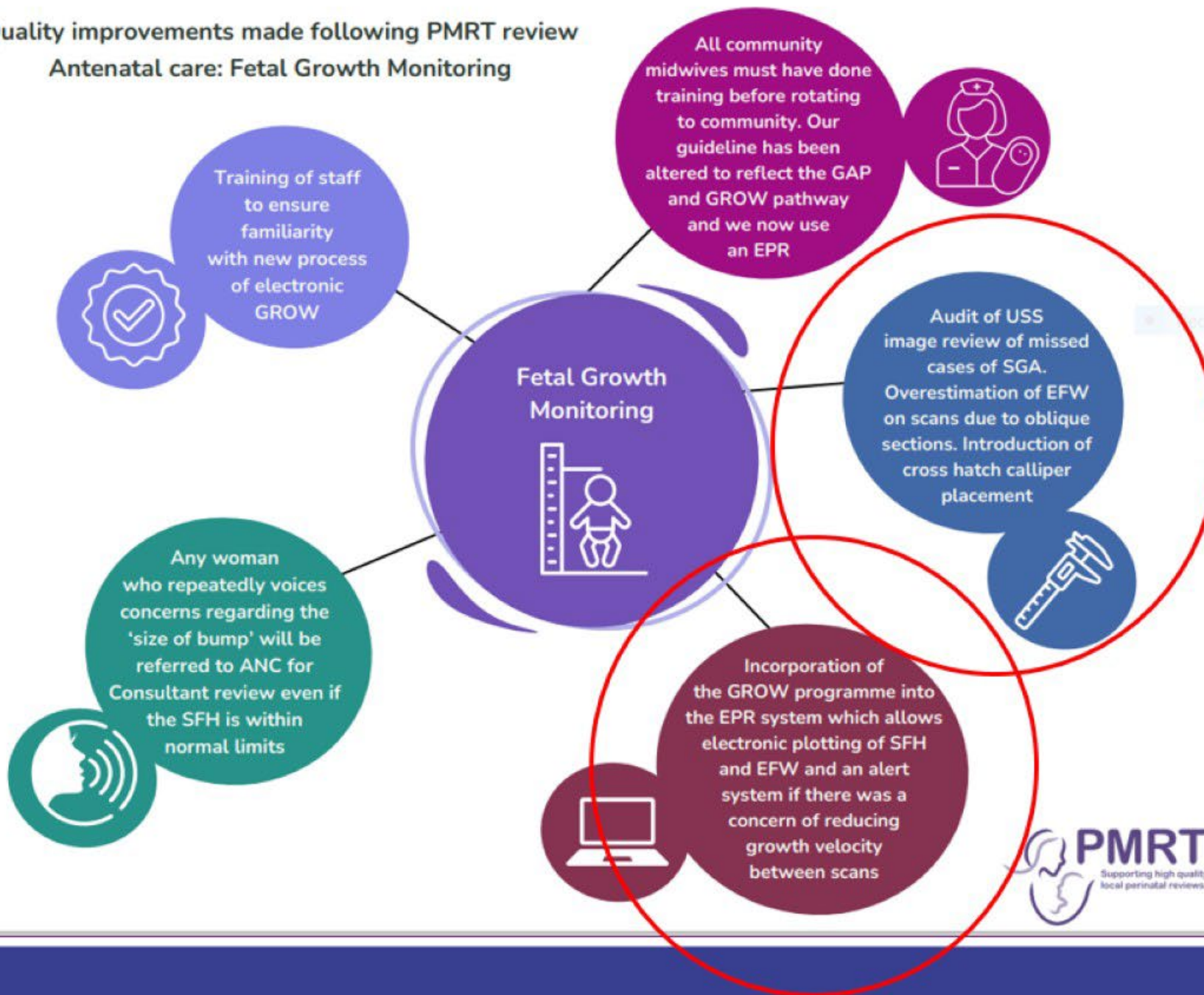


of reviews identified areas  
for improvement in care

# Top seven issues identified with antenatal care – 2023 compared with 2018

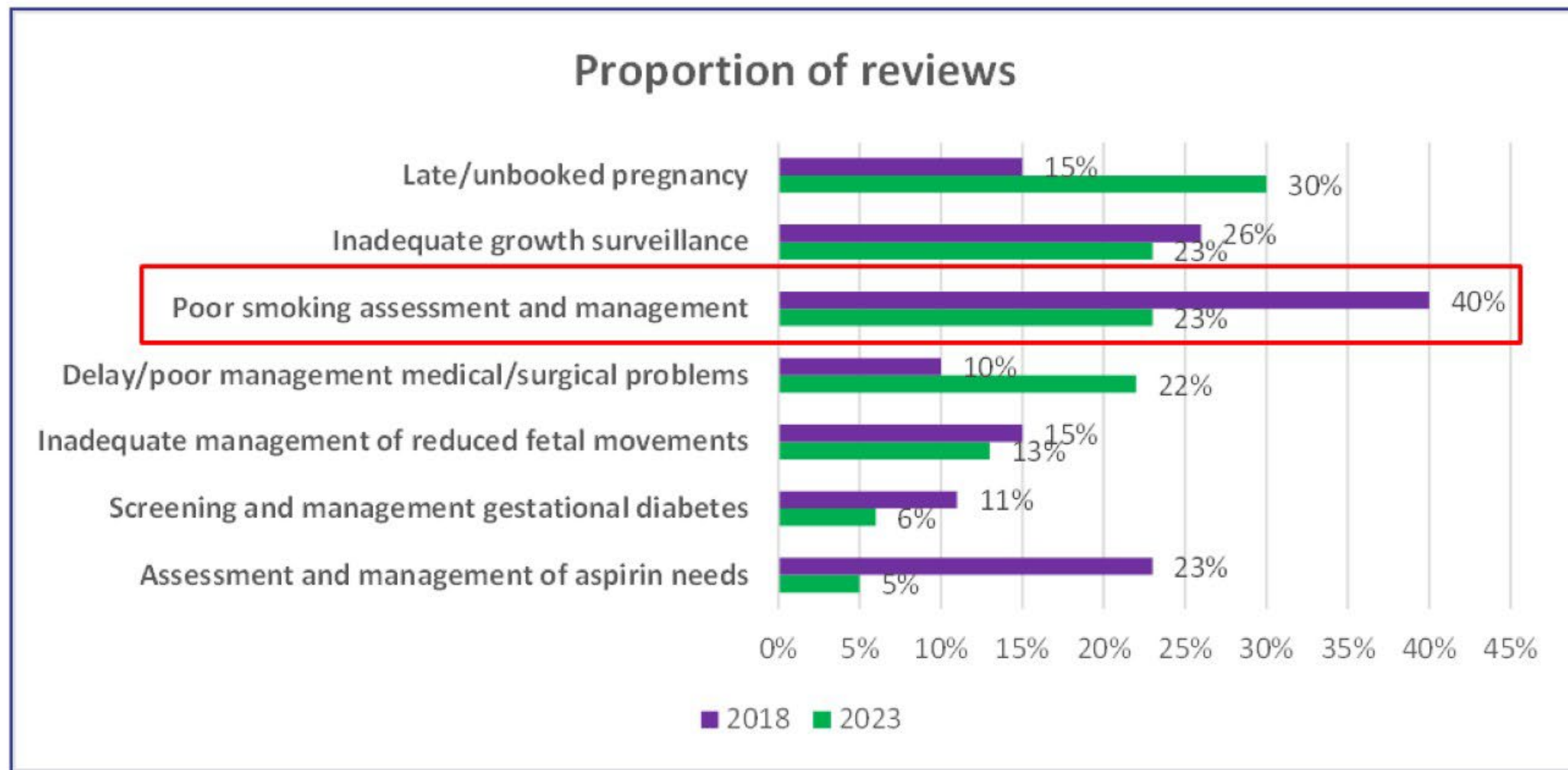


## Quality improvements made following PMRT review Antenatal care: Fetal Growth Monitoring



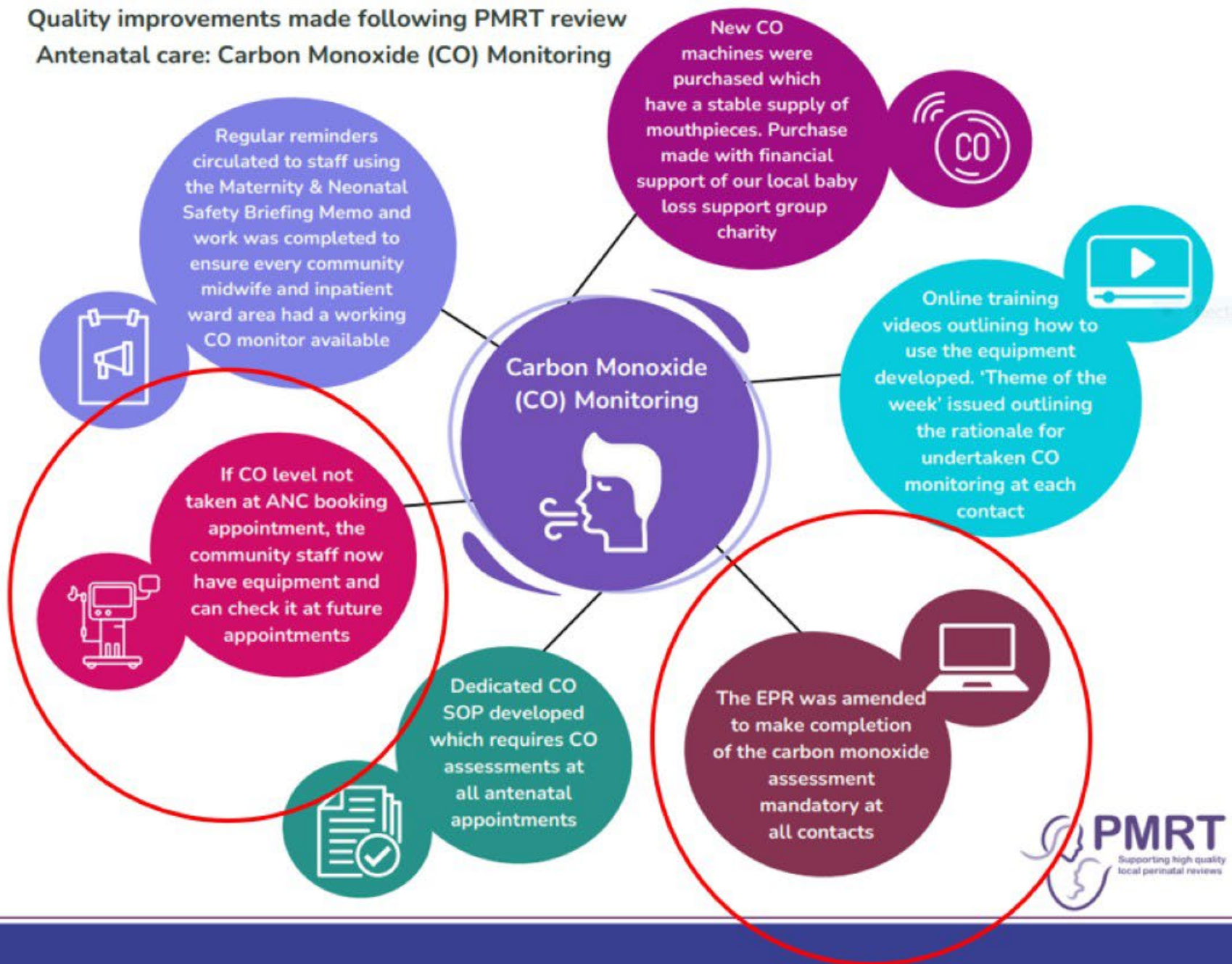


## Top seven issues identified with antenatal care – 2023 compared with 2018

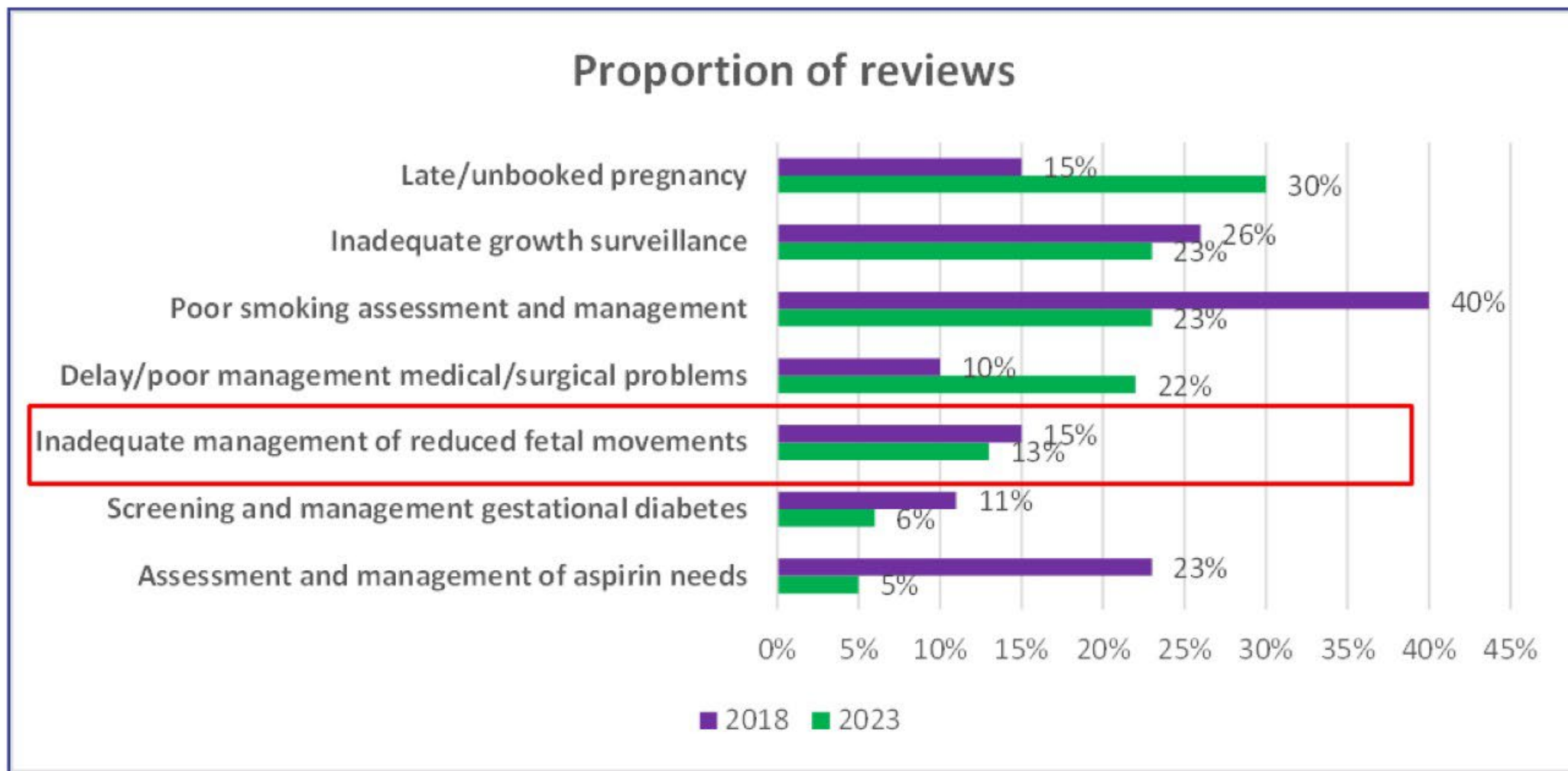


## Quality improvements made following PMRT review

### Antenatal care: Carbon Monoxide (CO) Monitoring

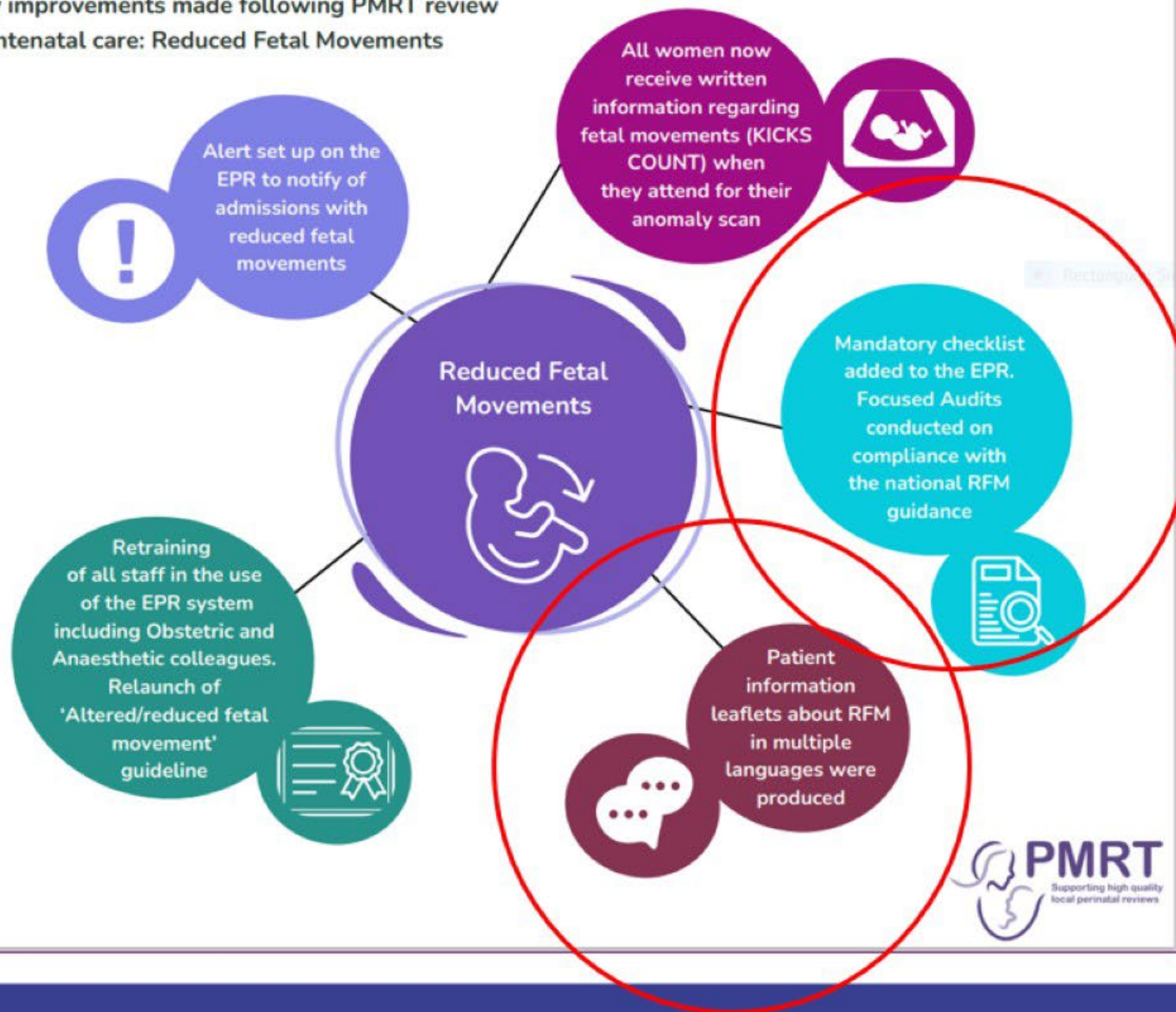


# Top seven issues identified with antenatal care – 2023 compared with 2018

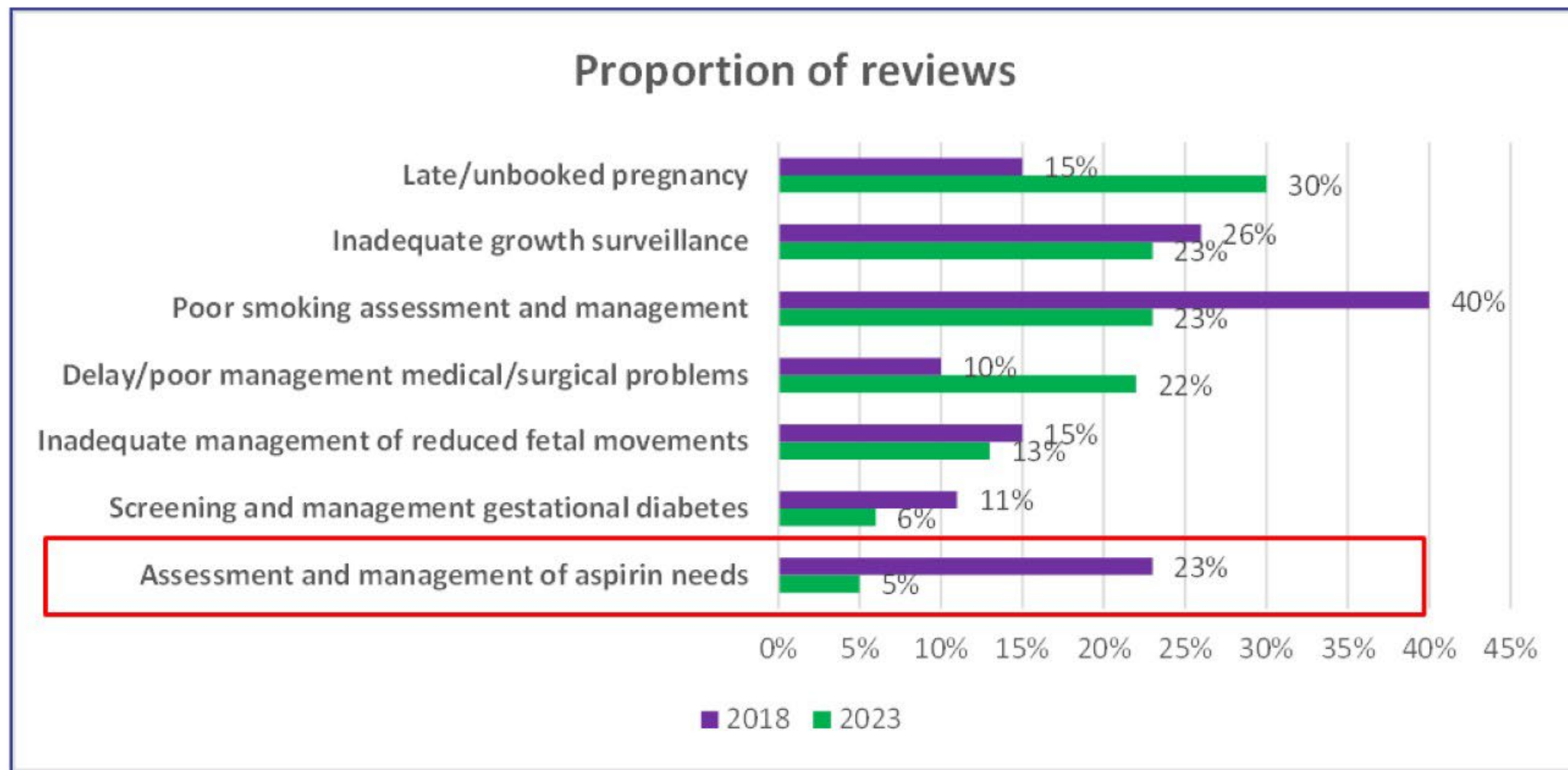




Quality improvements made following PMRT review  
Antenatal care: Reduced Fetal Movements



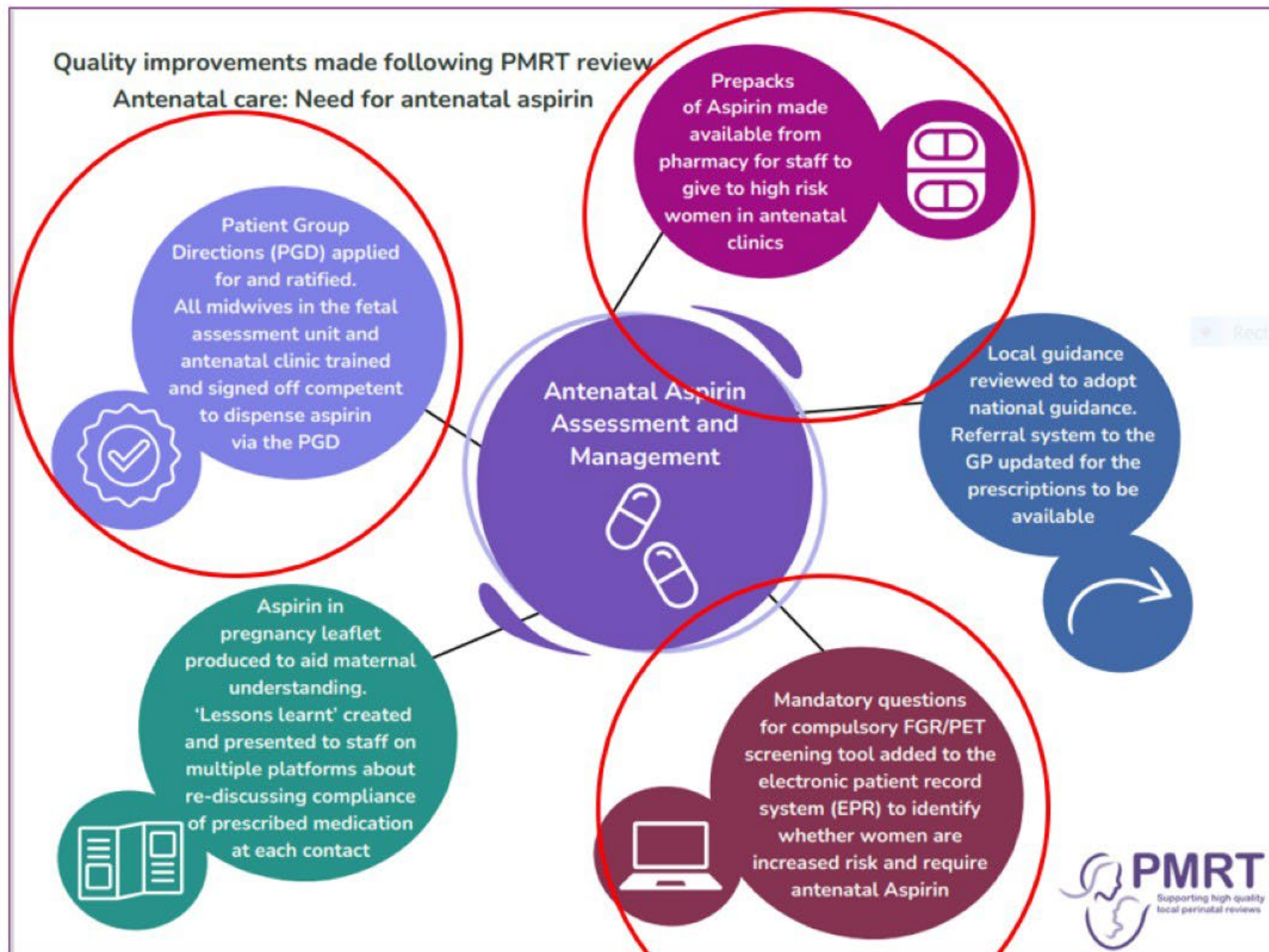
## Top seven issues identified with antenatal care – 2023 compared with 2018





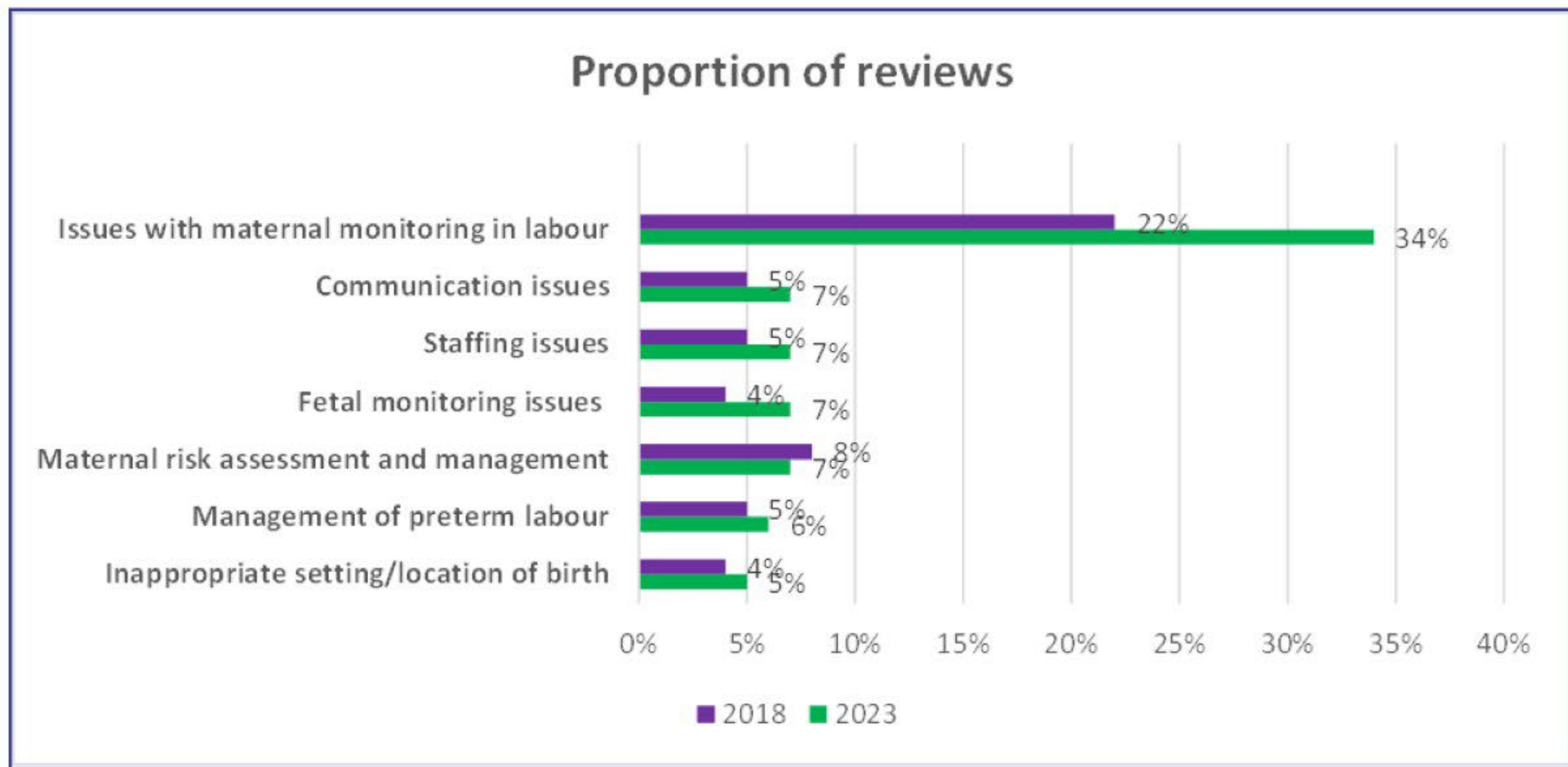
## Quality improvements made following PMRT review

### Antenatal care: Need for antenatal aspirin





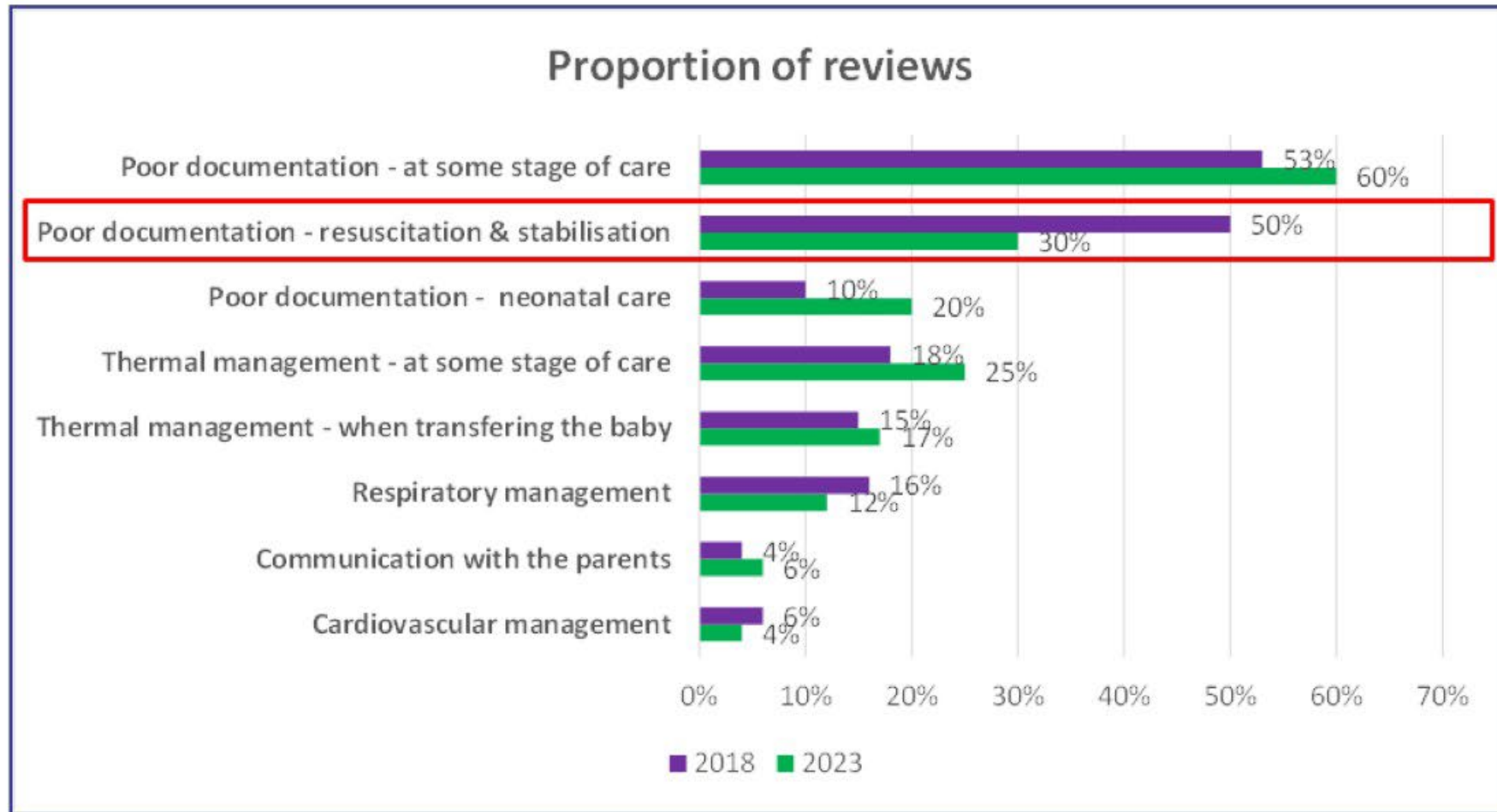
## Top seven issues identified with labour & birth care – 2023 compared with 2018



## Quality improvements made following PMRT review Care during Labour & Birth: Triage Services

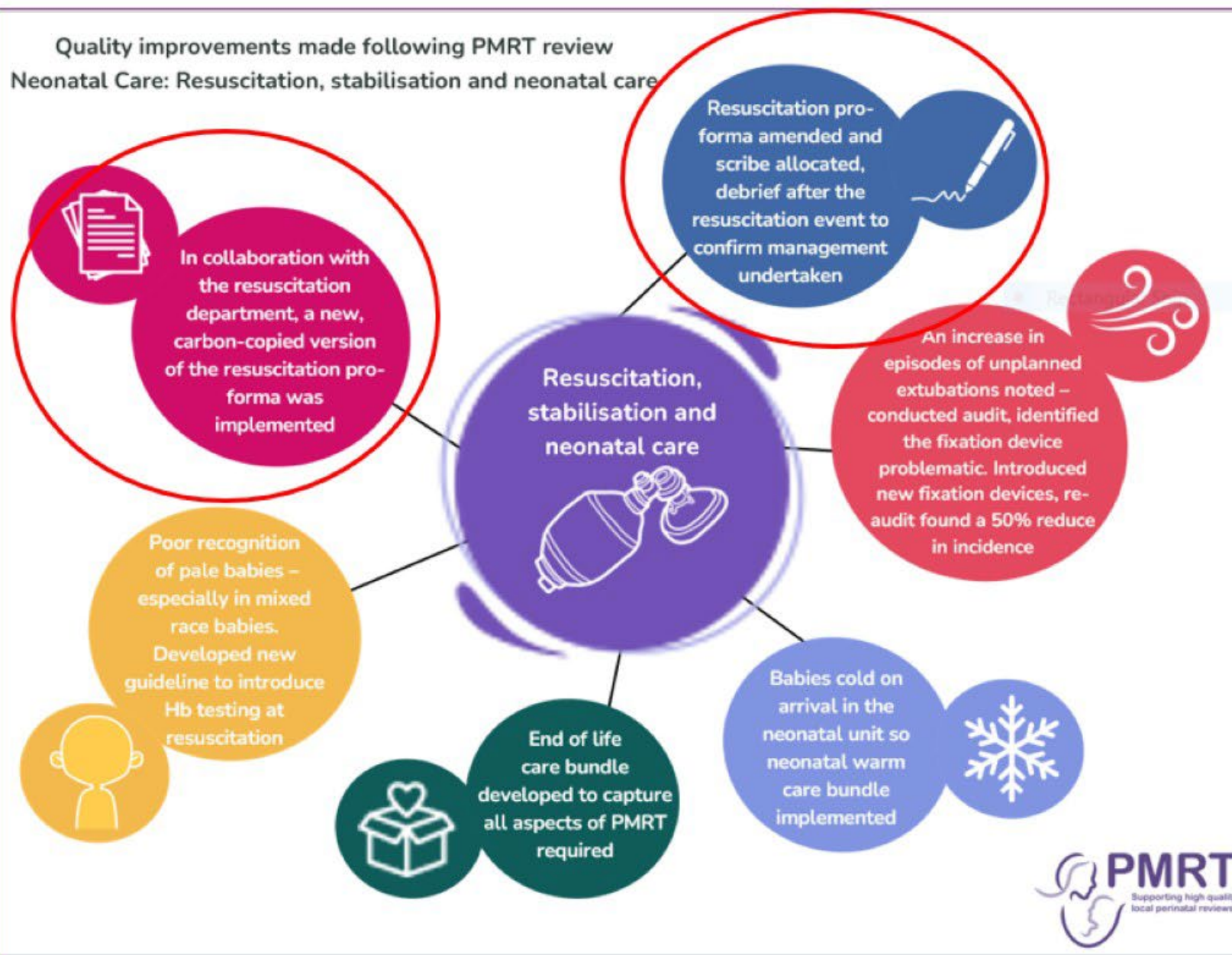


## Top eight issues identified with resuscitation, stabilisation and neonatal care – 2023 compared with 2018

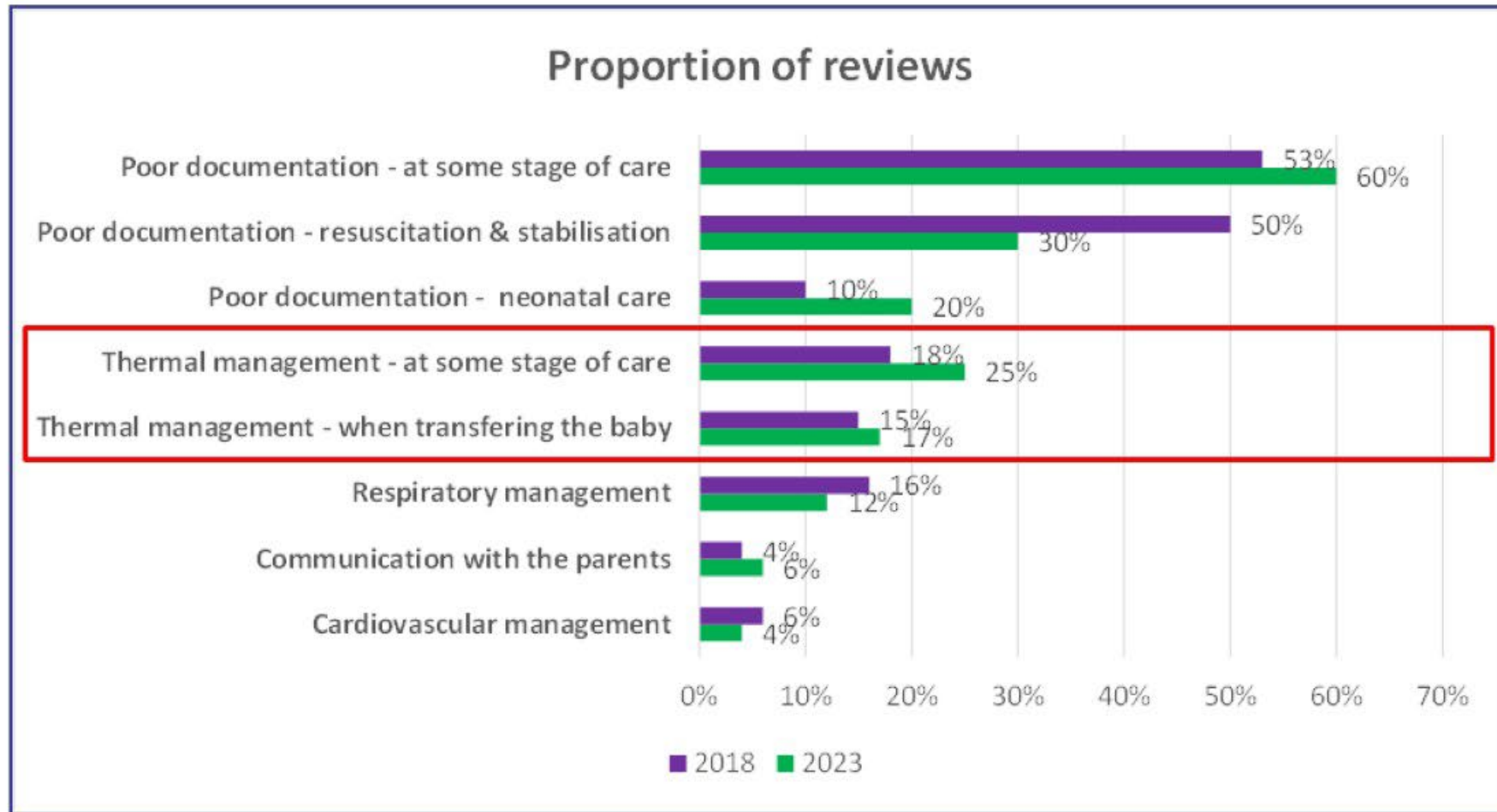




Quality improvements made following PMRT review  
Neonatal Care: Resuscitation, stabilisation and neonatal care

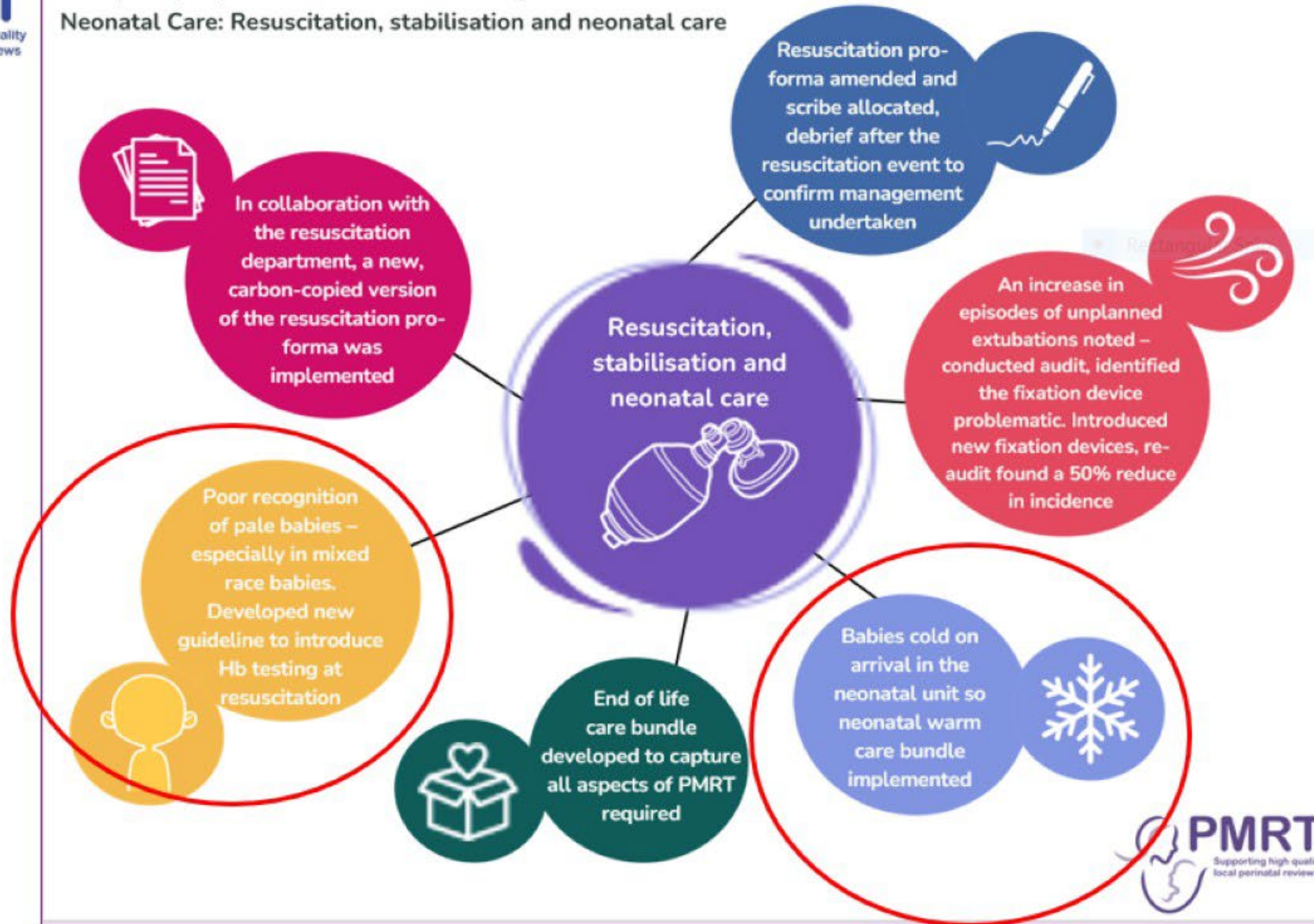


## Top eight issues identified with resuscitation, stabilisation and neonatal care – 2023 compared with 2018



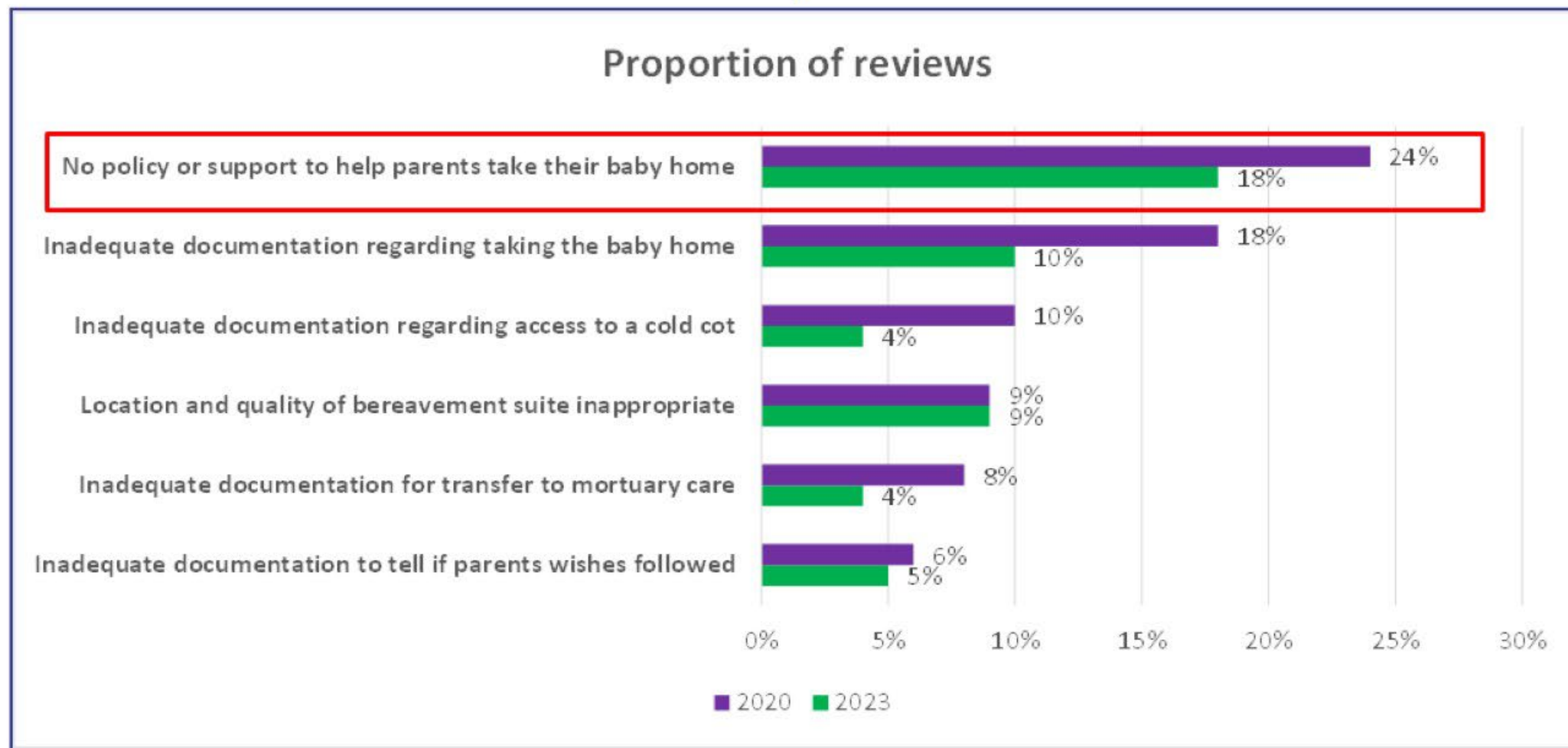


**Quality improvements made following PMRT review**  
**Neonatal Care: Resuscitation, stabilisation and neonatal care**





## Top five issues identified with bereavement care – 2023 compared with 2020

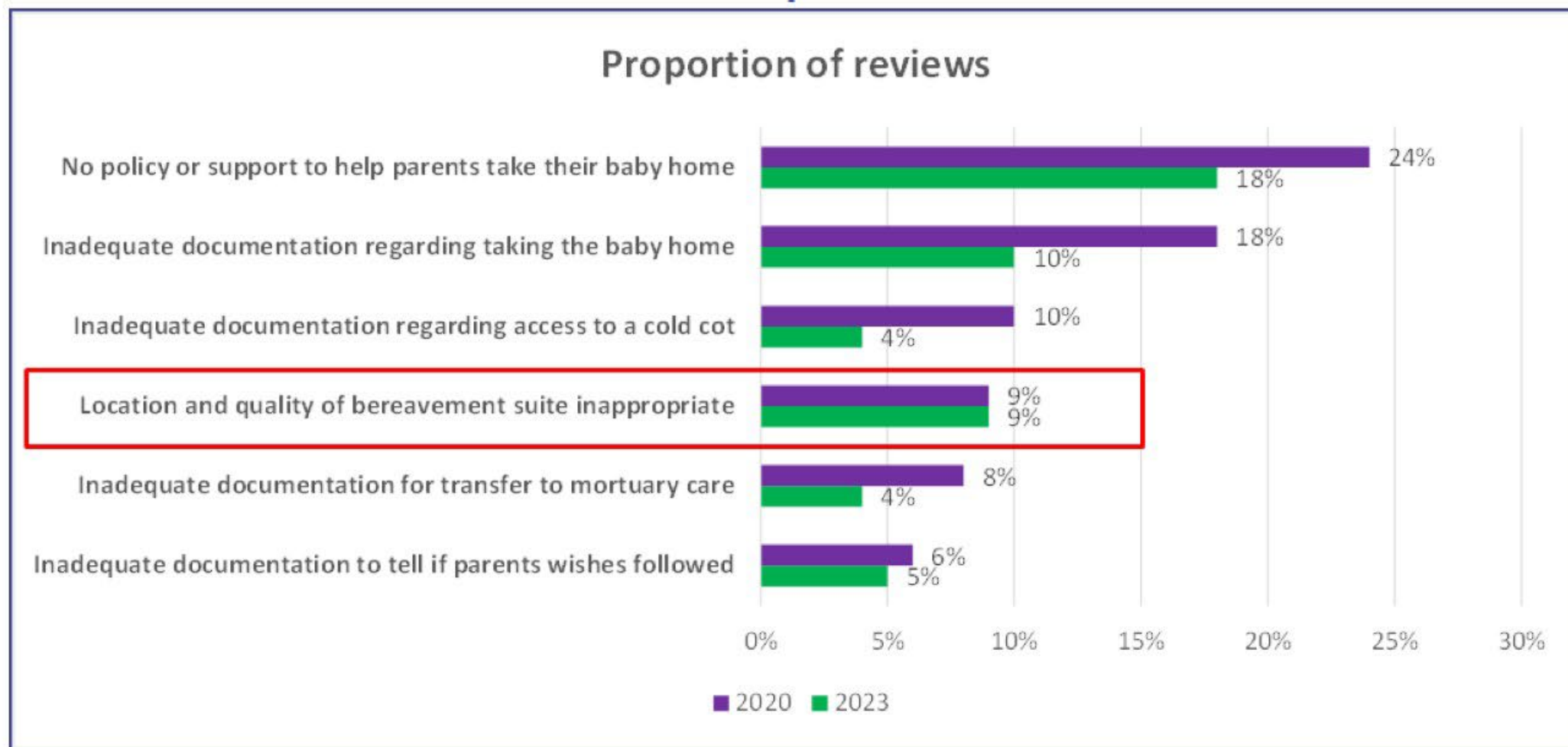


## Quality improvements made following PMRT review

### Bereavement Care: Taking the Baby Home



## Top five issues identified with bereavement care – 2023 compared with 2020





## Quality improvements made following PMRT review

### Bereavement Care: Bereavement Suite



## To ensure learning - ensure high quality reviews are carried out

- Tell the parents a review of care will take place, **seek their views about their care**
- Conduct a robust review of **all the care** mothers, families and babies have received when a death occurs
- Do this in as a multidisciplinary panel – don't separate the review of obstetric/midwifery care from neonatal care – things will be missed





# Improving the quality of reviews

- Lack of joined up review – confidential enquiry vignette

A 27-year-old woman in her **first pregnancy booked early**; low risk and had an uneventful antenatal period. When she **self-referred in labour at 40 weeks** it was noted that there was **blood stained liquor draining**; not considered abnormal – into birthing pool. Scant mention of blood loss thereafter. Prolonged active second stage of labour - **actively pushing for 3½ hrs** without escalation or review. **No fetal heart rate monitoring in the 30 minutes immediately preceding the birth of the baby**, who was born in poor condition.

There was a **delay in calling for the neonatal team** and the baby was **not intubated until 5½ mins** after birth. The baby was transferred to the neonatal unit for cooling; several days later re-orientation of care was discussed with the parents and the baby died.

**Subsequent review by only the neonatal team** not surprisingly they didn't review any of the care in the antenatal and intrapartum periods; they reviewed only the neonatal care, **found no issues with care** and categorised the death as 'expected'; this was conveyed to the parents.



## To ensure learning - ensure high quality reviews are carried out

- Tell the parents a review of care will take place, seek their views about their care
- Conduct a robust review of **all the care** mothers, families and babies have received when a death occurs
- Do this in as a multidisciplinary panel – don't separate the review of obstetric/midwifery care from neonatal care – things will be missed
- Make sure the review panel is multidisciplinary.
  - In 2023, 9% of perinatal deaths were reviewed by a panel of 3 or fewer individuals



# Improving the quality of reviews

- What happens when the review panel is not multidisciplinary – confidential enquiry vignette

A woman in her **third pregnancy self-referred at 23 weeks' gestation** with mild back pain and a mild pyrexia. After a wait of 2 hours for an initial midwifery assessment she waited 4 hours for an obstetric review. She was 4 cm dilated with bulging membranes. An **initial plan for active intervention** was made and she was commenced on magnesium sulphate, IV antibiotics and was given steroids.

She was seen by a member of the neonatal team the following day to discuss plans for active care and prognosis.

**Never clear if and when the management plan was changed from active management.**

The next day she had progressed to 8cm and her membranes had ruptured. **She remained on labour ward for a further four days, with two consultant obstetric reviews per day and no change in the plan of watchful waiting until her baby was confirmed as having died in utero at 24 weeks.** After her baby had died, she waited two and a half hours for a confirmation scan. Following the birth, she had a manual removal of placenta in theatre and a two litre postpartum haemorrhage.

**The review panel consisted of midwifery staff only;** none of the parents questions were directly addressed; none of the specific issues relevant to the outcome were identified



## To ensure learning ensure high quality reviews are carried out

- Tell the parents a review of care will take place, seek their views about their care
- Conduct a robust review of **all the care** mothers, families and babies have received when a death occurs
- Do this in as a multidisciplinary panel – don't separate the review of obstetric/midwifery care from neonatal care – things will be missed
- Make sure the review panel is multidisciplinary.
  - In 2023, 9% of perinatal deaths were reviewed by a panel of 3 or fewer individuals
- Include an external member with relevant clinical expertise who is in active clinical practice from outside your trust
  - The external provides a 'fresh pair of eyes' to the review of the care provided.
  - They are there to provide robust challenge where complacency or 'group think' in service provision has crept in.
  - Your MNVP is not external (even though they may not be employed directly by the trust)



## Improving the quality of reviews – the parents perspective

- In the review address the parents' questions – find these out before the review starts
- Identify any implications for future pregnancies for this couple
- Decide who is going to feedback the review findings to the parents; once that meeting is over they should write a sensitively worded plain language letter to the parents outlining the review findings and what they mean and what was discussed - **ONLY** provide the technical PMRT report to parents if they specifically request it
  - Refer to the baby as a baby – and by name if the baby has been given one
  - Don't say: "fetal demise" or "fetal remains"
- Discuss any implications for future pregnancies if that is appropriate in the circumstances
- Send the letter to the parents – cc to the GP and any other relevant professionals
- Leave the contact with parents open ended so they can come back if they have any questions in the future



# Learning from perinatal deaths

- Conduct high quality robust reviews - identify any services changes needed
- Implement QI led by your findings; consider the national findings and QI examples
- Benchmark your mortality rates with your peers – use the MBRRACE-UK surveillance data
- Use the Real-time Data Monitoring Tool to identify clusters, the impact of service changes – process control statistics are now available
- If you need funding for service improvements - use the PMRT summary reports as documentary evidence to write your business case
- *“We were very well aware of the huge gap in our service for bereavement support for our families. The PMRT reviews allowed us to grade cases where parents felt let down as a C to start getting more traction with the trust”*





## Recent and upcoming activities

- Updated parent engagement materials – available on the PMRT website + translated into 12 other languages: [www.npeu.ox.ac.uk/pmrt/resources/parent-engagement-materials](http://www.npeu.ox.ac.uk/pmrt/resources/parent-engagement-materials)
- PMRT 2024 annual report – review completed in 2023 - [Reports | PMRT | NPEU](#)
- **PMRT training: on-demand, on-line course will be launched later in early April**
- MBRRACE-UK perinatal mortality statistics for 2023: [State of the nation report | MBRRACE-UK](#)
- MBRRACE-UK perinatal recent confidential enquiry report  
**“The care of recent migrant women with language barriers who have experienced a stillbirth or neonatal death”**  
[Perinatal Confidential Enquiry | MBRRACE-UK](#)
- MBRRACE-UK Maternal mortality statistics – data brief for maternal deaths 2021-2023  
[Maternal mortality 2021-2023 | MBRRACE-UK | NPEU](#)



# Acknowledgements

- **Funders PMRT:**

Department of Health and Social Care (England)

NHS Wales

Health and Social Care Division of the Scottish Government

Northern Ireland Government

- **Users and parents:** Who provide suggestions for improvements to the PMRT

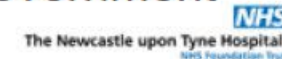
- **Funders MBRRACE-UK:**

NHS England

NHS Wales

Health and Social Care Division of the Scottish Government

Northern Ireland Government



# MBRRACE-UK/PMRT collaboration

- Jenny Kurinczuk
- Elizabeth Draper
- Marian Knight
- Sara Kenyon
- Bradley Manktelow
- Lucy Smith
- Peter Smith
- Scott Redpath
- Miguel Neves
- Adele Krusche
- Tracey Johnston
- Alan Fenton
- Charlotte Bevan
- Janet Scott
- Julie Hartley
- Dimitrios Siassakos
- Christy Burden
- Rachel Drain
- Alexander Heazell
- Sarah Prince
- Claire Storey
- Jo Dickens

# PMRT original development group

- Julie-Clare Becher
- Charlotte Bevan
- Thomas Boby
- Malli Chakraborty
- Katy Evans
- Meg Evans
- David Field
- Charlotte Gibson
- Alex Heazell
- Tracey Johnston
- Sara Kenyon
- Jenny Kurinczuk
- Liz Langham
- Karen Luty
- Kirsteen Mackay
- Helen McElroy
- Brian Magowan
- David Millar
- Edile Murdoch
- Miguel Neves
- Santosh Pattnayak
- Sarah Prince
- Coralie Rogers
- Dimitrios Siassakos
- Peter Smith
- Claire Storey
- Melanie Sutcliffe
- Suzanne Sweeney
- Gail Thomas
- Derek Tuffnell
- Jonathan Wyllie