



An Overview of the NHS Saving Babies Lives Care Bundle

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**Tommy's**

Royal College of
Obstetricians &
Gynaecologists



each baby
COUNTS.



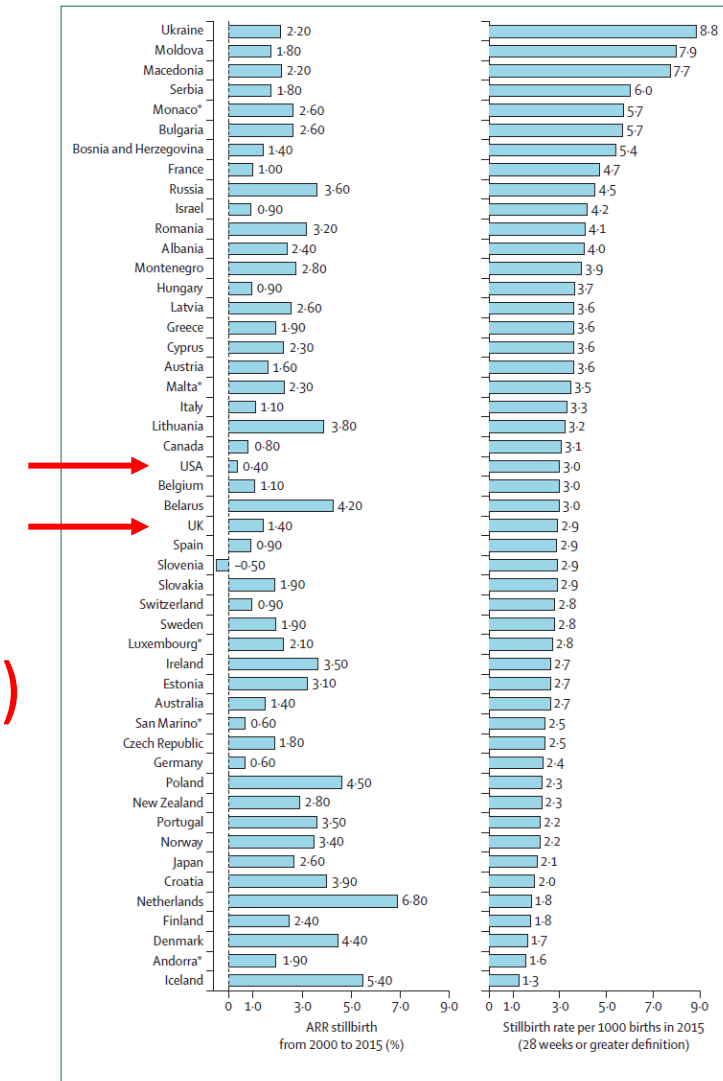
Stillbirth in High Income Countries:

Large Variation in Stillbirth Rate

Lancet Ending Preventable Stillbirth Series, Lawn et al 2016

Variation in absolute rates (≥ 28 wks) across 49 HICs

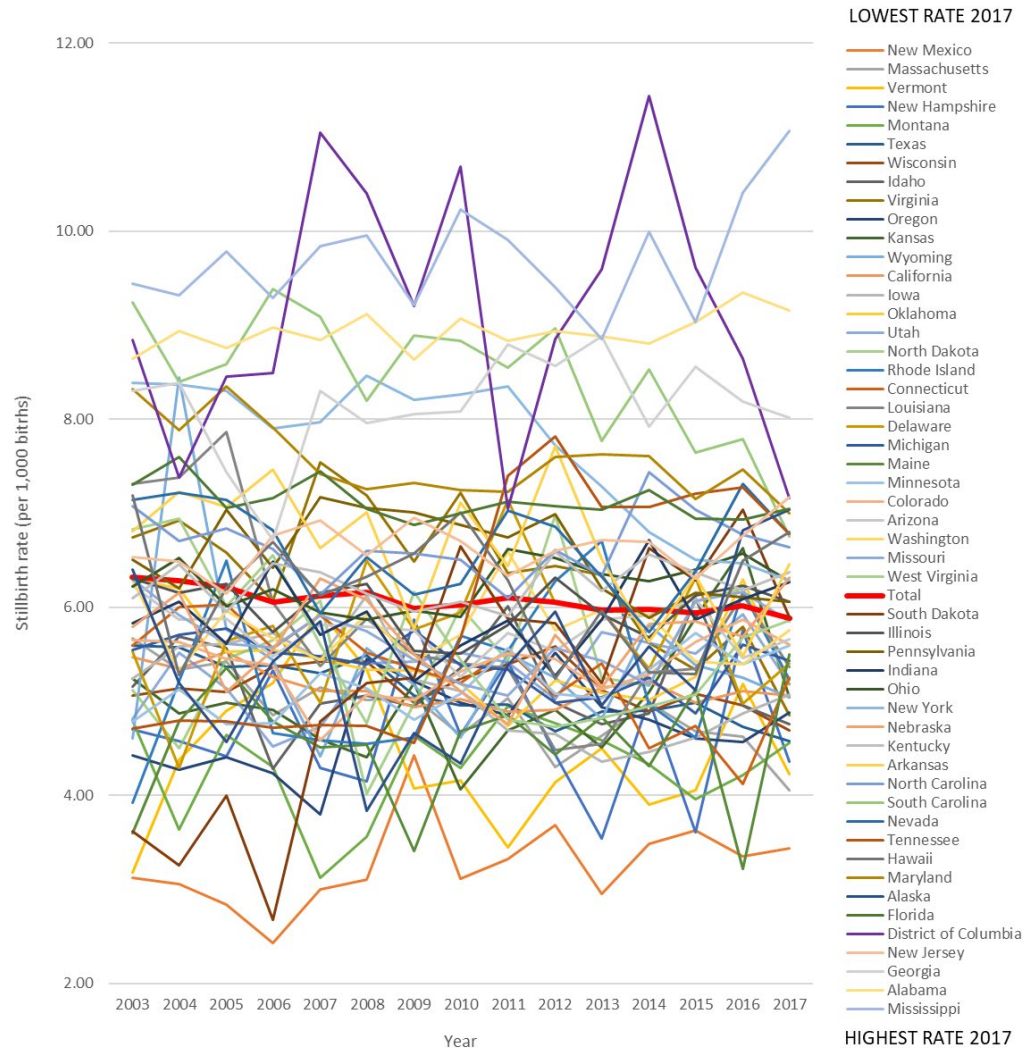
- Lowest rate: Iceland = 1.3 per 1,000
- Highest rate: Ukraine = 8.8 per 1,000
- Range = 6-fold variation
- UK = 24th out of 49 High Income Countries
- US = 20th – **2nd lowest annual rate of reduction (0.4%)**
- If all countries achieved a rate of 2 per 1,000 or less (equals top 6 performing countries) ~20,000 stillbirths could have been avoided in 2015



Stillbirth in HICs:

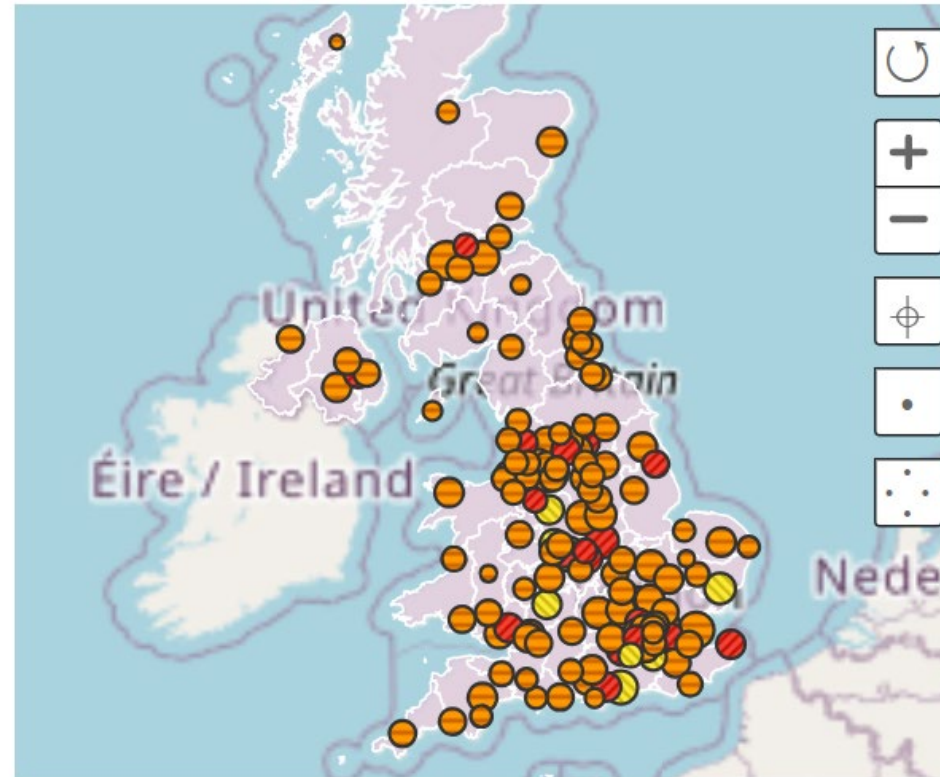
Large Variation in Stillbirth Rate

Stillbirth Rate by State from 2003 - 2017



Mortality rates excluding congenital anomalies, births, 2021

Stabilised & adjusted stillbirth rate per 1,000 total births excluding congenital anomalies. Bubbles are proportional to the total number of births



Highcharts.com Map data ©2023 OpenStreetMap

- Variation within countries – reflects deprivation / ethnicity / population factors

UK National Maternity Ambition

“The ambition is to reduce the number of stillbirths, neonatal deaths, maternal deaths and brain injuries that occur during or soon after birth by 50% by 2030 and to keep on track we want to see these reduced by 20% by 2020”

*Jeremy Hunt, Secretary of State
November 2015*



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Suboptimal Care in Stillbirth

- 85 cases of antepartum stillbirth in 2013
- 78 cases of intrapartum related perinatal deaths in 2013



Poor growth of the baby in the womb: in nearly two thirds of cases reviewed national guidance for screening and monitoring the growth of the baby was not followed.

Missed Opportunity: Monitoring Growth

- Woman's abdomen not measured to check how her baby was growing
- Measurements not plotted on a graph
- Woman not referred for closer monitoring when the baby's growth didn't follow a normal pattern

Fetal Growth



Baby's movements: almost half the women had contacted their maternity units concerned that their baby's movements had slowed, changed or stopped. In half of these there were missed opportunities to potentially save the baby.

Missed Opportunity: Identifying Reduced Fetal Movements

- Not investigating when a woman presents with concerns about her baby's movements
- Misinterpreting the fetal heart trace
- Not responding appropriately to additional risk factors, including the woman returning with further concerns about her baby's movements

Reduced Fetal Movements

In 80% of cases different care might have prevented the baby's death



In 1 in 4 deaths there were problems with adequate staffing and resources



Guidelines weren't followed when monitoring the baby's heart rate during labour, leading to delays when babies needed to be delivered urgently

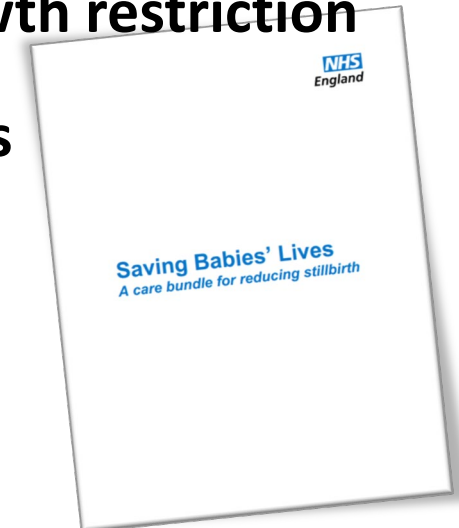
The Saving Babies' Lives Care Bundle – V1

Launched by NHSE in March 2016 to reduce stillbirth rates –

Pilot sites started intervention from March 2015

Brings together four key elements of care that are recognised as evidence-based and/or practice:

- 1. Reducing smoking in pregnancy**
- 2. Risk assessment and surveillance for fetal growth restriction**
- 3. Raising awareness of reduced fetal movements**
- 4. Effective fetal monitoring during labour**

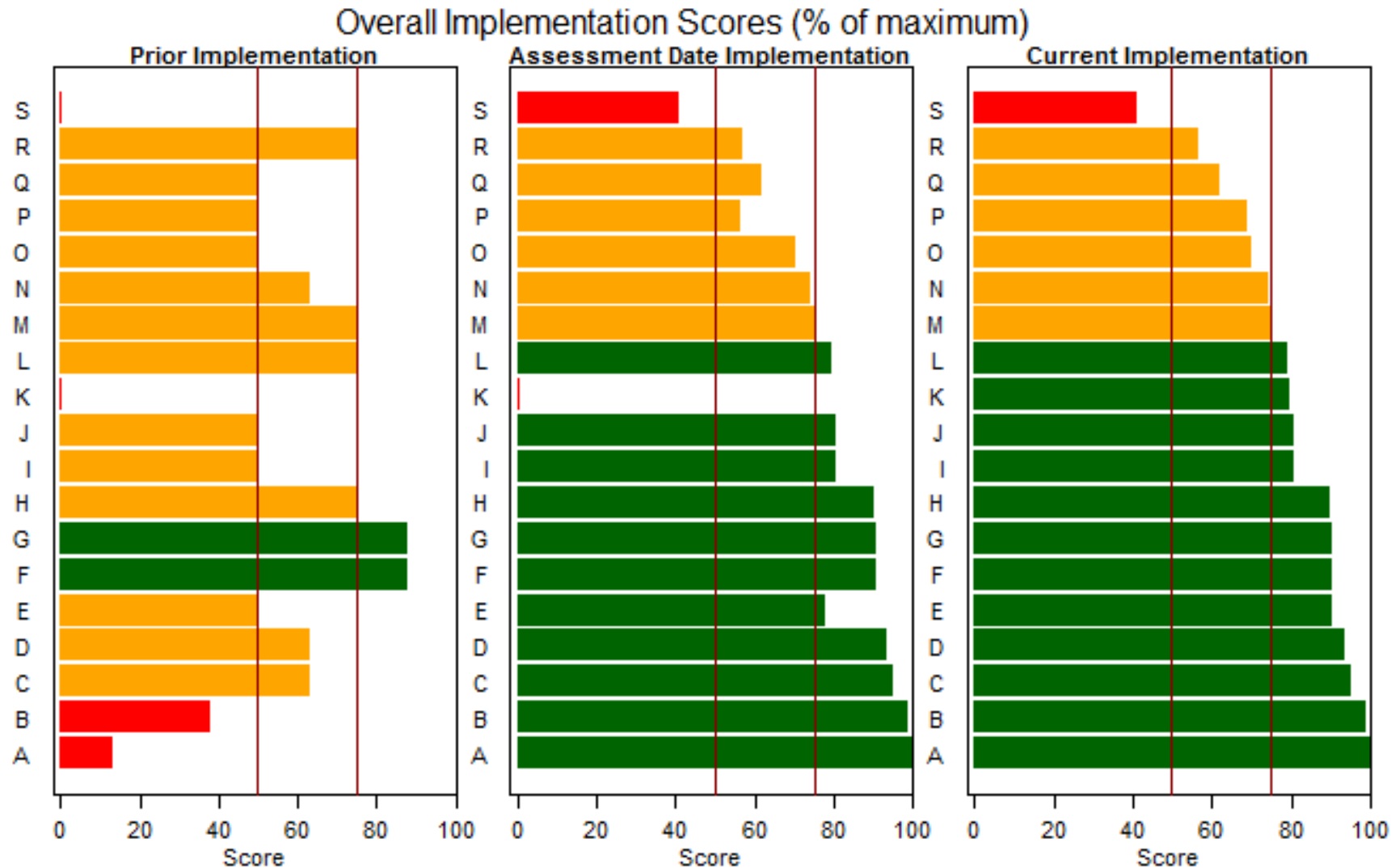


SPIRE Evaluation - Overview

- 19 sites (evaluation period 2013-2017)
- *Electronic data* on 467,661 livebirths and 1,903 stillbirths in whole time period
- *Clinical audit* of 720 term live singleton births and 340 pregnancies with reduced fetal movements
- 598 Small for gestational age births (before/after Saving Babies Lives implementation)
- 2,230 mothers completed *postnatal questionnaire*
- 1,064 health professionals completed *staff questionnaire*

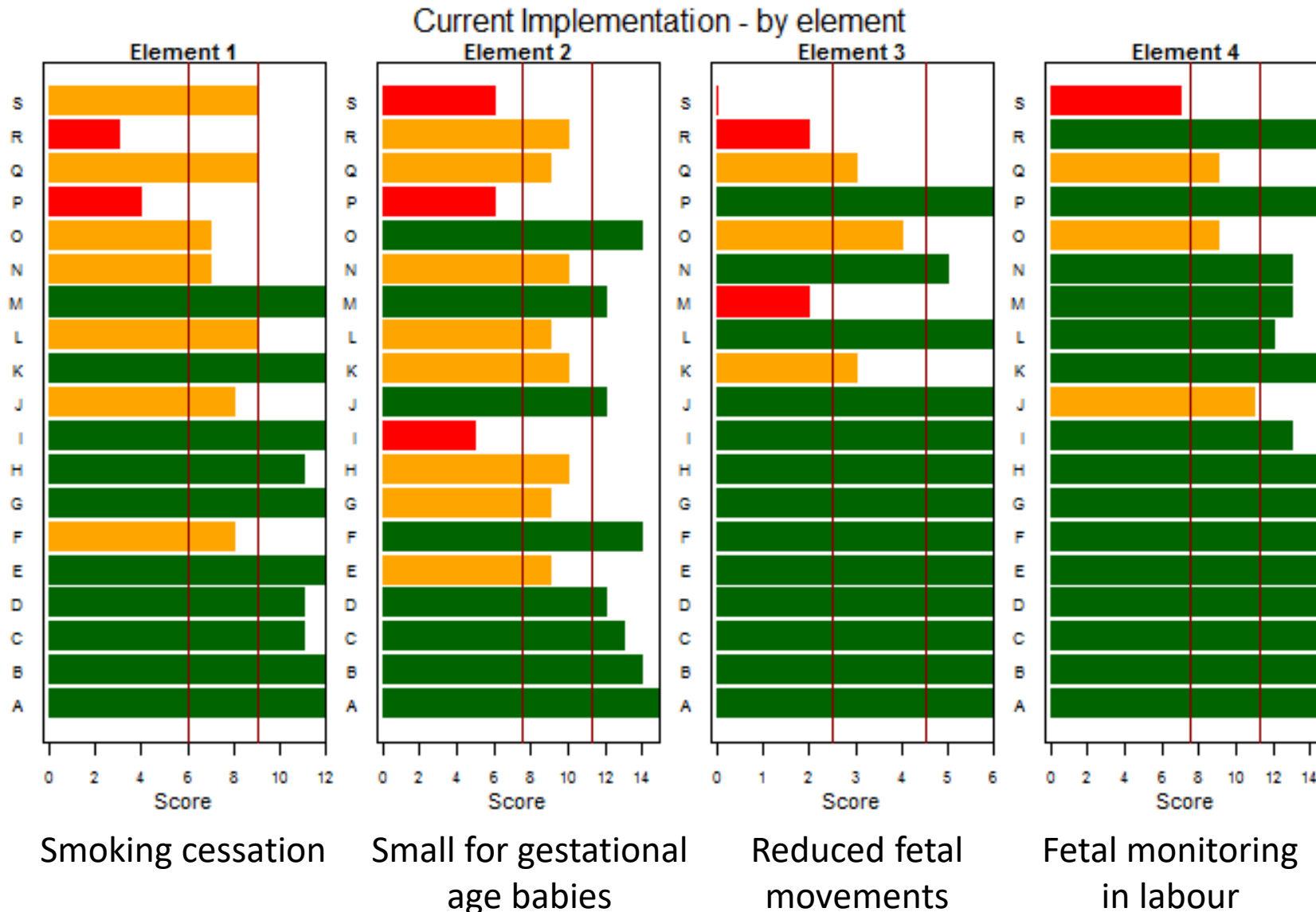
Implementing the Care Bundle

2013-
2014

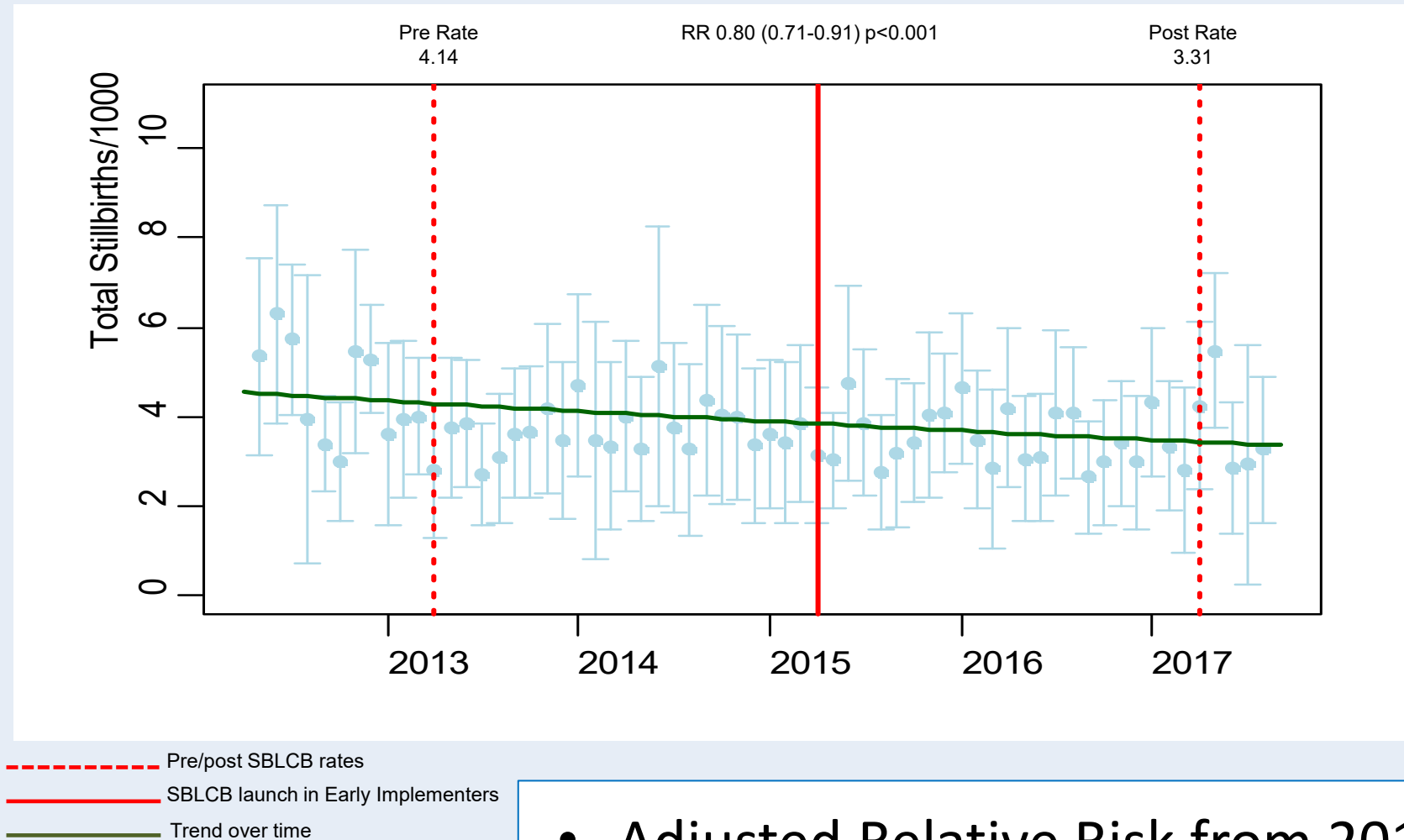


2017

Implementing Elements



Change in Stillbirth over time



- Adjusted Relative Risk from 2013 to 2017 was ~5%

Secondary Outcomes – Change Over Time

Outcome	n	Number Deliveries	Pre Rate	Post Rate	RR (95% CI)	P value
Preterm births	17	446,378	7.42	7.90	1.06 (1.03-1.09)	<0.001
Preterm singleton births	17	446,378	6.3	6.6	1.05 (1.02-1.08)	0.002
Elective CS	17	452,944	9.86	11.78	1.20 (1.17-1.23)	<0.001
Emergency CS	15	386,817	13.7	15.0	1.10 (1.07-1.12)	<0.001
Induced Deliveries	18	473,889	26.3	31.4	1.20 (1.18-1.21)	<0.001
Instrumental Deliveries	18	473,889	12.3	12.4	1.01 (0.99-1.04)	0.245
Spontaneous Deliveries	18	473,889	63.4	60.4	0.95 (0.95-0.90)	<0.001
Ultrasound scans (per pregnancy)	14	449,357	3.5	4.4	1.24 (1.20-1.28)	<0.001
NICU admissions [§]	14	384,584	3.5	4.1	1.19 (1.11-1.26)	<0.001

n; number of Trusts providing data

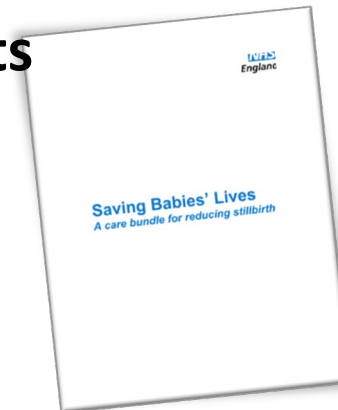
[§]; from term singleton deliveries (per 100 births)

NHS England Saving Babies' Lives Care Bundle – V2

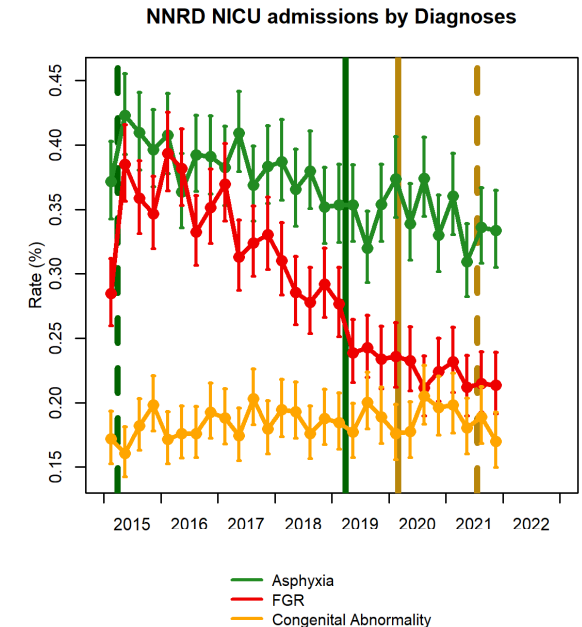
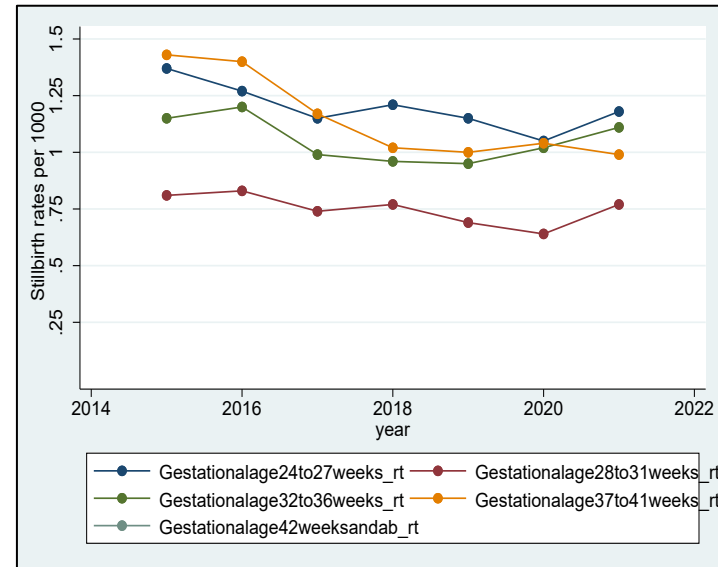
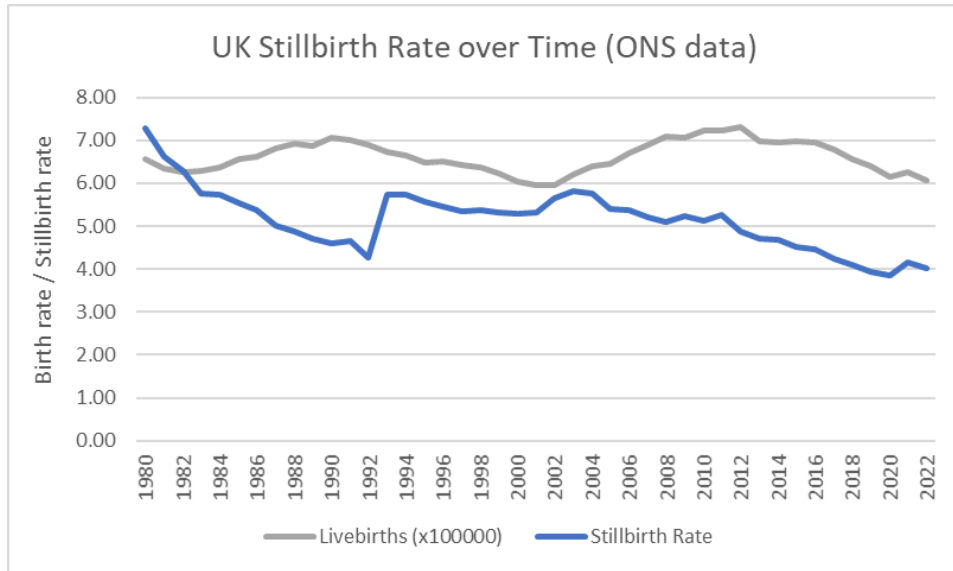
Launched by NHSE in March 2019 to reduce stillbirth rates and implement learning from evaluation of Version 1

Brings together **five** key elements of care that are recognised as evidence-based and/or practice:

1. Reducing smoking in pregnancy
2. Risk assessment and surveillance for fetal growth restriction
3. Raising awareness of reduced fetal movements
4. Effective fetal monitoring during labour
5. Reducing preterm birth



Changes in UK Stillbirths (ONS data)



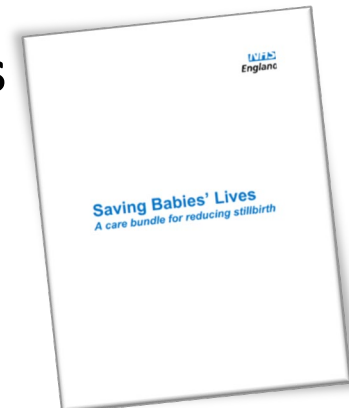
- Stillbirth rates increased in 2021 after sustained reduction, likely COVID-effect
- Term stillbirths were not increased (prime goal of the Care Bundle)
- Reduction in neonatal admission from fetal growth restriction and asphyxia

NHS England Saving Babies' Lives Care Bundle – V3

Launched by NHSE in May 2023 to reduce stillbirth rates and implement updated NICE/RCOG guidance

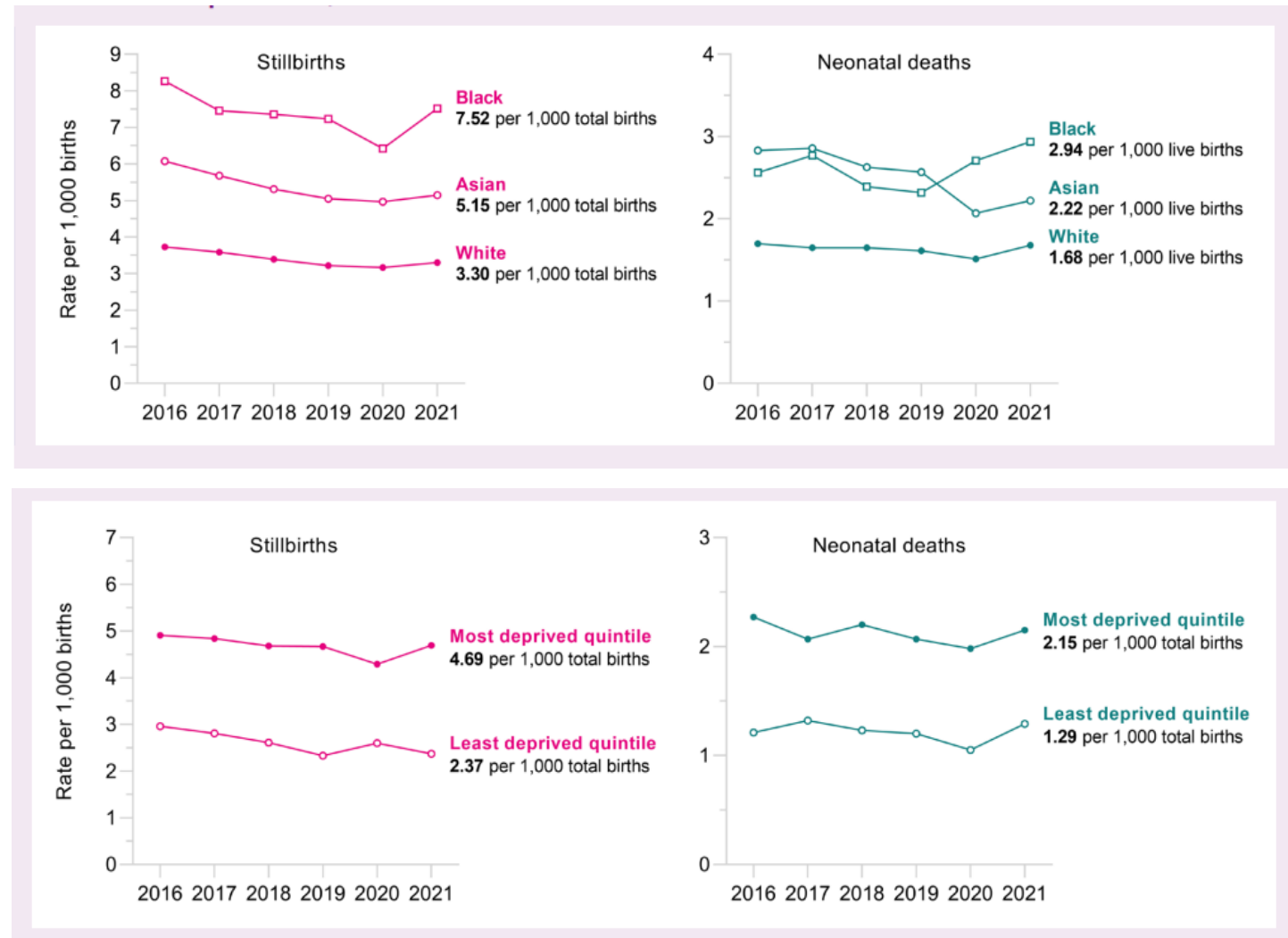
Brings together **six** key elements of care that are recognised as evidence-based and/or practice:

1. Reducing smoking in pregnancy
2. Risk assessment and surveillance for fetal growth restriction
3. Raising awareness of reduced fetal movements
4. Effective fetal monitoring during labour
5. Reducing preterm birth
6. **Management of pre-existing diabetes in pregnancy**



Sources of variation in perinatal mortality

- Ethnicity and deprivation remain critical
- Highest perinatal death rates in Black mothers and those who are most deprived
- Interaction between ethnicity & deprivation



Addressing Variation in Perinatal Mortality in the UK



Women's ethnicity, nationality and citizenship status was not always recorded well.

All women should be asked about their ethnicity, nationality and citizenship status, to help provide care that is tailored to their specific needs.



When a woman's first language wasn't English and she needed an interpreter, this wasn't always provided.

Women should be offered information about maternity care in different ways. An interpreter should be offered at each appointment, if the woman needs it to understand the information she is given or to talk to her doctor or midwife.



Blood tests to check for gestational diabetes were not offered to 1 in 3 Black women. Almost all White women who should have been tested were offered a test.

All women with risk factors for gestational diabetes, which includes all Black women, should be offered a test between 24 and 28 weeks of pregnancy.



All the Black women should have been offered a high dose of Vitamin D to take during their pregnancy, but none of them were.

All women should be offered Vitamin D to take during pregnancy, and women with darker skin or a BMI over 30 may be offered a higher dose.

Specific needs for individual groups

- Asian women



Asian women were more likely to decline screening for chromosomal conditions when it was offered. Almost all White women chose to accept the offer of screening.

Women should be given information about antenatal screening tests, translated where necessary. If a woman chooses to have any of the tests, she should be offered an appointment to talk about the results and her future choices.

- Black women



Some Black women found it difficult to get certain types of care or advice, even if it was offered to them.

Maternity care should be personalised to the needs of each woman. Women should be helped to overcome any problems that make it hard for them to get the care they need.

- White women



Some women faced challenges in their personal lives which were not always recognised or taken into account when planning their care. These challenges were more common for White women.

Information about women's personal and social risk factors should be written in the notes, and updated throughout the pregnancy, so that extra support can be provided if it is needed.

Conclusions

- UK needs to address stillbirth rates (alongside other challenges in maternity care)
- Saving Babies Lives implemented by majority of early adopter units, but implementation variable
- Reduction in the rate of stillbirth over time (except during COVID)
- Changes in other important secondary outcomes
- Incorporate changes iteratively in quality improvement cycle
- Focus on care for groups at highest-risk of stillbirth and neonatal death
- Medical / technical solutions do not provide complete solution

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