

# NHS Ayrshire & Arran



<b>Meeting:</b>	<b>Ayrshire and Arran NHS Board</b>
<b>Meeting date:</b>	<b>Monday 4 December 2023</b>
<b>Title:</b>	<b>Quality &amp; Safety Neonatal Workstream</b>
<b>Responsible Director:</b>	<b>Jennifer Wilson, Nurse Director</b>
<b>Report Author:</b>	<b>Attica Wheeler, Associate Nurse Director &amp; Head of Midwifery – Women and Children’s Services</b> <b>Jackie Welsh, Improvement Advisor – Women and Children’s Services</b>

## 1. Purpose

This is presented to the Board for:

- Discussion

This paper relates to:

- Annual Operational Plan

This aligns to the following NHS Scotland quality ambition(s):

- Safe
- Effective

## 2. Report summary

### 2.1 Situation

This paper provides an overview of progress in relation to the core Scottish Patient Safety Programme (SPSP) measures and also the Excellence in Care (EiC) measures which apply to Neonatal services.

### 2.2 Background

The overall aim of the programme is to improve outcomes and reduce inequalities in outcomes by providing a safe, high quality care experience for all women, babies, children and families across all care settings in Scotland.

A partnership agreement between MCQIC and NHS Ayrshire & Arran in relation to the way forward with new measurements was signed off and sent to all relevant parties on 21 December 2018. These are due to be updated and we are currently in discussion with the national team to agree measures for the drivers for improvement nationally. Since rebranding from MCQIC to SPSP Perinatal, in 2023, new measures are currently being agreed between the national team and all local Board areas.

Healthcare Improvement Scotland, have been hosting Expert Reference Groups with staff representation from each Board area.

The Neonatal workstream continues to report nationally on current measures within the Neonatal Care Measurement matrix. Under the terms of the joint Partnership Agreement with the SPSP Team, NHS Ayrshire & Arran agreed to measure the following within Neonatal services:

#### Core

- Reduce 'term' admissions to the NNU
- To optimise the management of care of pre-term babies

#### Supplementary

- Central Line Associated Blood Stream Infection (CLABSI)

In 2022 we adopted a modified approach in the way the service drives the programme of quality improvement. A framework for Transformational Change and Quality Improvement has been produced by the General Manager and Improvement Advisor for the Unit in collaboration with the Clinical Leads for QI and the QI Champions in each service. This has been circulated to all staff within the Service. A new method of scoping work is included in this, which includes the way we drive the SPSP Programme.

Excellence in Care (EiC), forms part of the government's response to the Vale of Leven Hospital Inquiry Report, and focuses on four key deliverables:

- A nationally agreed (small) set of clearly defined key measures/indicators of high quality nursing and midwifery
- A design of local and national infrastructure, including an agreed national framework and "dashboard"
- A framework document that outlines key principles/guidance to NHS Boards and Integrated Joint Boards on development and implementation of local care assurance systems/processes
- A set of NHS Scotland record-keeping standards

Improvement activity is monitored. Current activity and performance is included in the assessment section below.

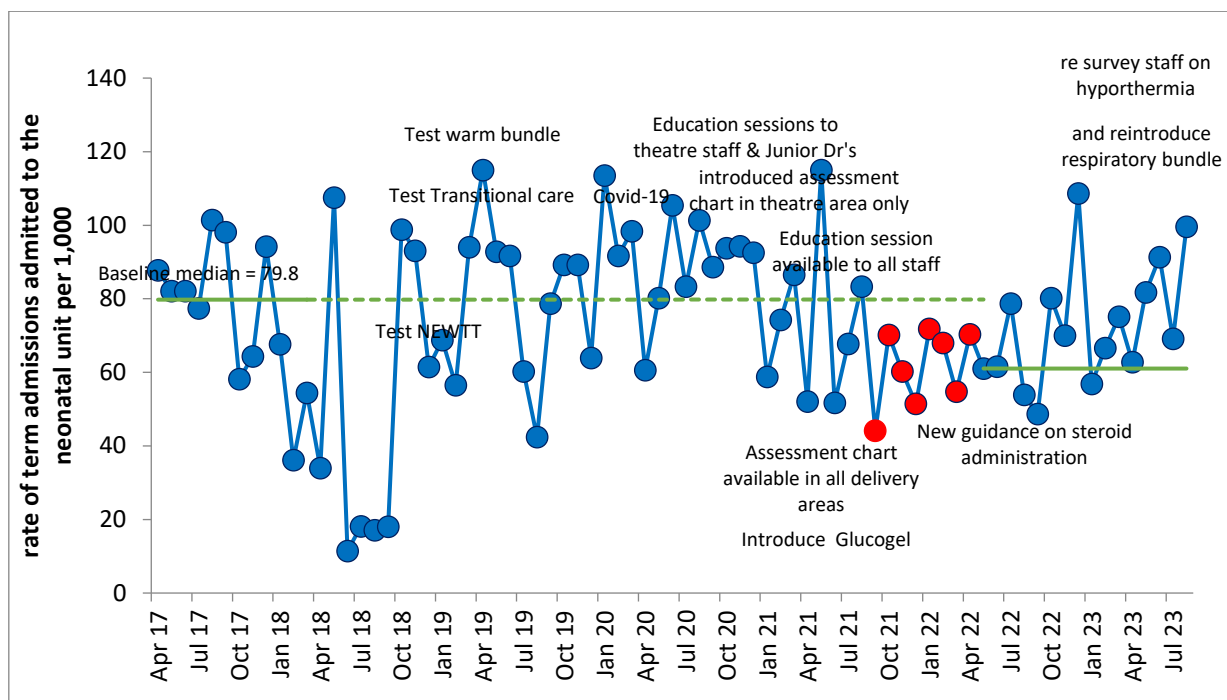
## 2.3 Assessment

### **Reduce 'term' admissions to the NNU**

All term admissions admitted to the unit for less than 24 hours are reviewed by the Unit Coordinator and hot week Consultant. A proforma has been developed to assist in identifying any themes. The data is variable at present with no consistent theme noted. We have been in discussion with the National Team to identify which babies are included in the data, as some boards do not include all admissions. NHS Ayrshire & Arran include all admissions, and will continue to do so.

Since 2021, improvement work was focused on the reduction of term admission (as annotated in the chart below), which resulted in the observation of a reduction on the number of term admissions to the Neonatal Unit. In May 2022 the services noted sustained improvement which allowed the median to be adjusted from 80/1000 babies to 61/1000 babies. This is the first observed reduction since the recording of this data in 2017, although still variable.

Figure 1. Term Admission to the NNU



The data above is presented to August 2023

In 2018, a transitional neonatal care four-bedded area was established within the Maternity in-patient ward; the aim of which is to keep small babies, who may have had longer stays in the NNU, with their mothers 24/7. This area is presently staffed by Maternity Care Assistants who support mums to provide the care for their babies. The Maternity Care Assistants are supported by a designated Neonatal 'Buddy'. Establishment of this area is enabling us to implement 'Best Start' recommendations.

There is guidance and a teaching package for the staff, who report directly to a designated in-patient ward midwife. The Advanced Neonatal Practitioner oversees any medical issues.

There has been recent discussion at the Healthcare Improvement Scotland's ERG meetings as to whether we should only be reporting on 'avoidable' term admissions moving forward. This will be agreed prior to the launch of the new drivers in November 2023

## Perinatal Wellbeing Package

Prior to the introduction of the national measure, the NNU collected similar information for babies  $\leq 30$  weeks gestation and compliance was favourable. However, since the Introduction of the SPSP package some elements are required for babies of various gestational ages which is reflected in the variable overall compliance.

Clarity has been sought with the national team on some of the aspects of this measurement package, as on occasion it has been noted that compliance with the pre-term wellbeing package is not achievable due to an imminent delivery:

- <27 weeks born in NICU
- <30 weeks magnesium sulphate within 24 hours
- <34 weeks antenatal steroids (within 1 week of birth)

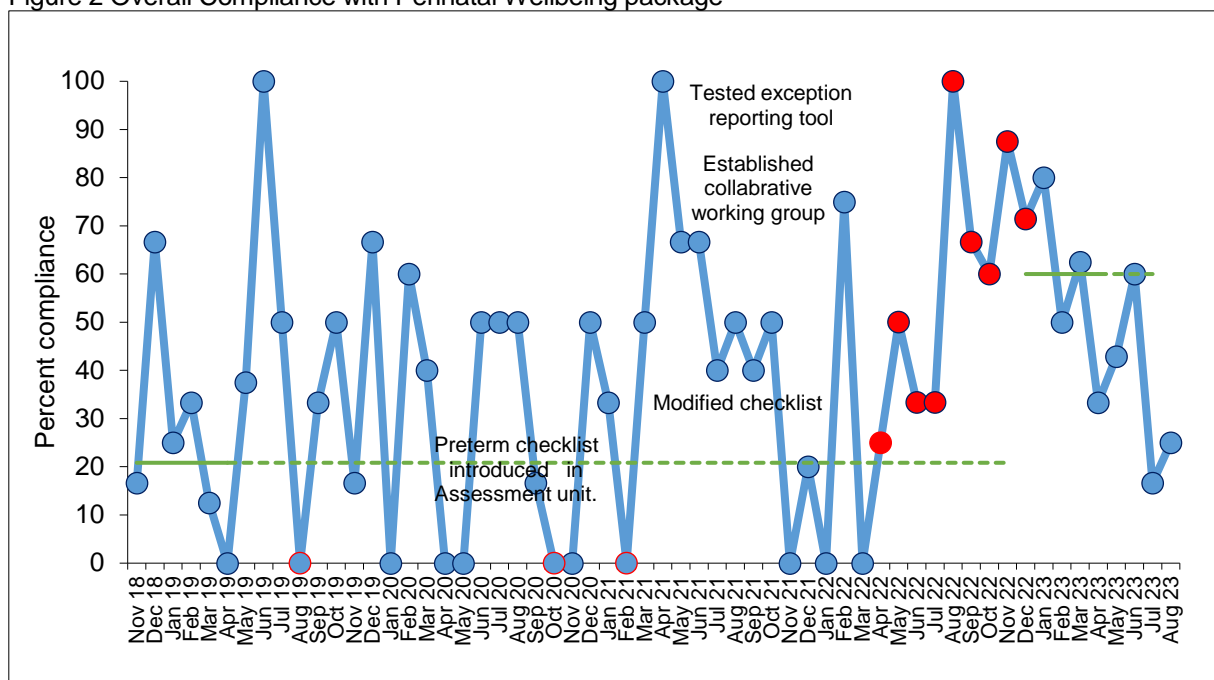
It is envisaged that the new Drivers established at national level will address the above.

Benchmarking with national figures, our compliance, although variable, is in keeping with Health Boards of a similar size and reflects the small data set.

Pre-Covid 19, the NNU tested the use of a life start trolley which allows for delayed cord clamping and promotes neonatal resus at the table or bed side. Training was suspended on the use of this trolley due to Covid and staff prioritising clinical work and cover for staff absence. This has now been re-established, and further training (scenario based) provided. There is an embedded antenatal counselling pack that promotes early discussion on key topics such as early expression of breast milk. All of this work has been developed in collaboration with our obstetric and maternity colleagues. A dedicated multidisciplinary group has been set up to drive this (Perinatal Wellbeing Group (POG)), which is formed by both Obstetric and Neonatal and Infant Feeding staff.

In January 2023 we observed a sustained improvement and were able to adjust the median line from 20.8% to 60%. Since then, the data has been variable which is attributed to the number of babies <32 weeks receiving mum's breast milk within 24 hours of birth. We are working with the Infant Feeding Team to test QI initiatives and also in early discussion of taking part in the national *NeoTRIPS* Early Breast Milk QI Initiative Scotland, which is a twelve month project to support local teams to make improvements whilst sharing expertise on a national basis.

Figure 2 Overall Compliance with Perinatal Wellbeing package



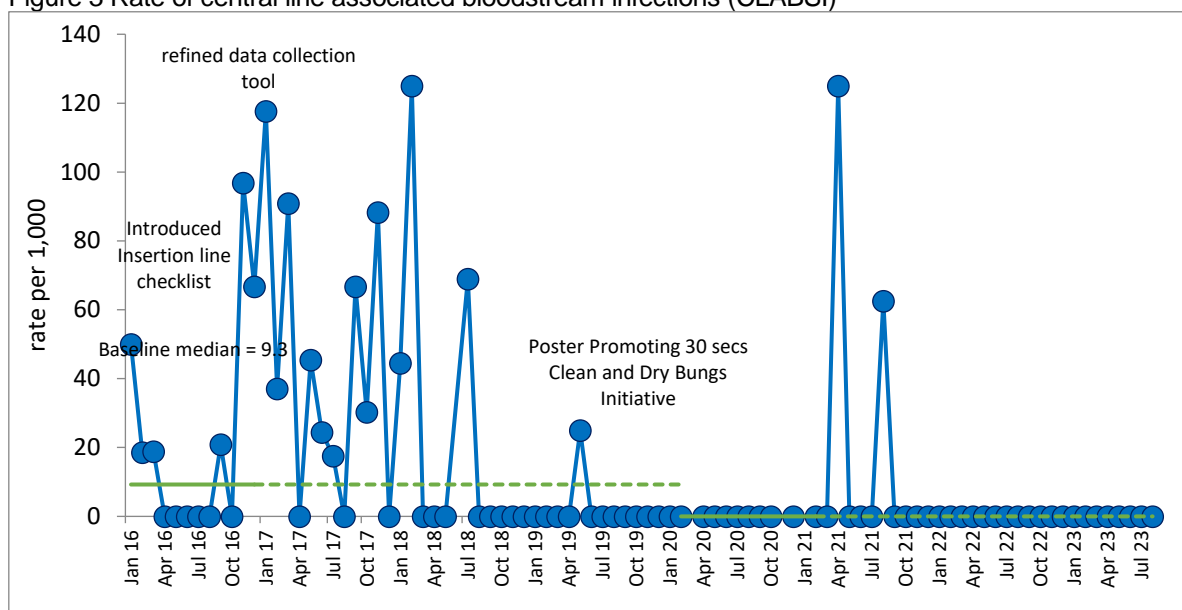
The data above is presented to August 2023

### Central Line Associated Blood Stream Infection (CLABSI)

Bloodstream infections can lead to mortality and preterm babies who have infections are more likely to develop neurodevelopmental disability. Taking steps when inserting and looking after a central line (e.g. long line or umbilical line) can prevent some infections.

The number of CLABSI acquired within NHS Ayrshire & Arran remain low with three recorded since August 2018. One case which was recorded in April 2021 was in relation to a baby transferred from another Health Board with cultures sent on the day of admission. This infection was not attributed to NHS Ayrshire & Arran NNU; however, the service is required to report this within their data.

Figure 3 Rate of central line associated bloodstream infections (CLABSI)



The data above is presented to August 2023

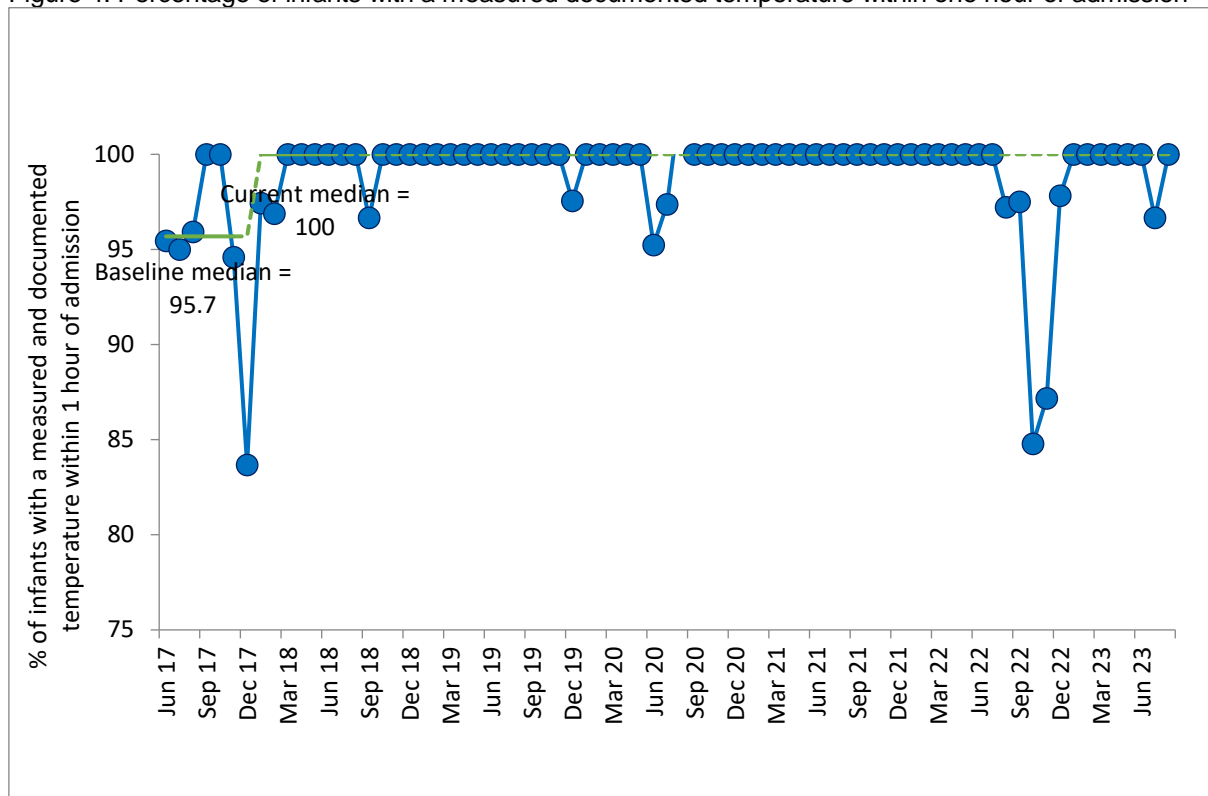
## Neonatal Temperature (also included in the EiC measures)

The national SPSP measure to improve outcomes and reduce inequalities in outcomes by providing a safe, high quality care experience for all infants and families across neonatal care settings in Scotland, includes reducing harm from unrecognised clinical deterioration including Hypothermia.

Recording the baby's temperature is one of the processes measured which informs reducing the rate of hypothermic infants. Recording the temperature should be carried out within 1 hour of admission to the neonatal unit.

Since February 2018. The documented recording of the baby's temperature has always been above the target achievement of  $\geq 95\%$ , with the exception of October and November 2022, however, having reviewed this data, this could have been an issue with *where* the data was recorded as opposed to *was* it recorded. 100% is observed in most occasions.

Figure 4. Percentage of infants with a measured documented temperature within one hour of admission



The data above is presented to August 2023

## Safeguarding Update

In line with the 'National Guidance for Child Protection in Scotland 2021' early identification of risk pre-birth is a key priority to facilitate assessment and early intervention. NHS Ayrshire & Arran multi-agency guidance, 'Pathway for responding to vulnerability in pregnancy' provides an overview of local processes in place to support the multi-agency team in the identification, assessment and response to vulnerability and child protection concern in the antenatal period.

The number of expectant families identified with vulnerability in pregnancy is stratified by local authority area displayed in Figures 5, 6, and 7, which highlight disparity in vulnerability between South Ayrshire versus North and East Ayrshire.

Figure 5. Displaying number of expectant families with identified vulnerability in South Ayrshire

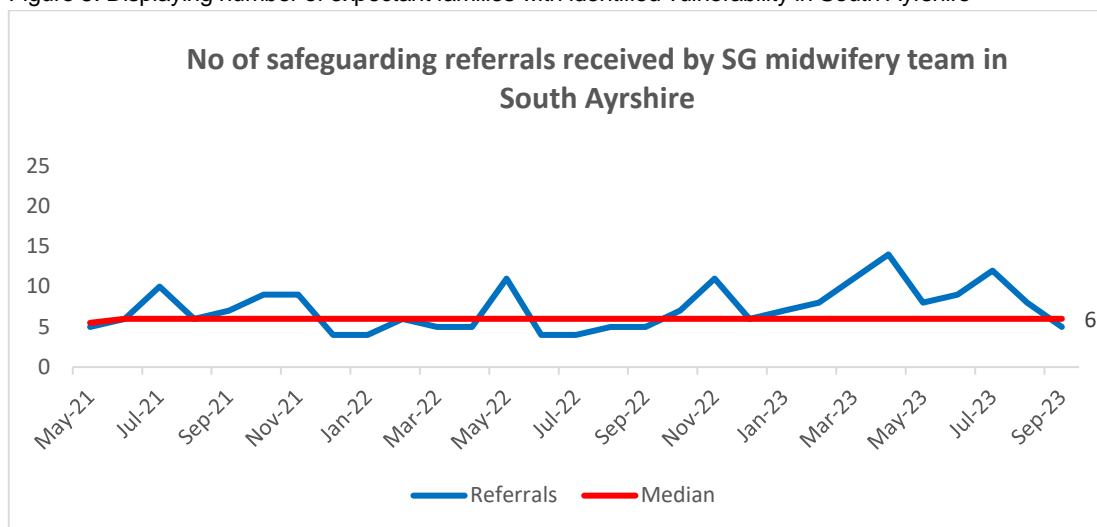


Figure 6. Displaying number of expectant families with identified vulnerability in North Ayrshire

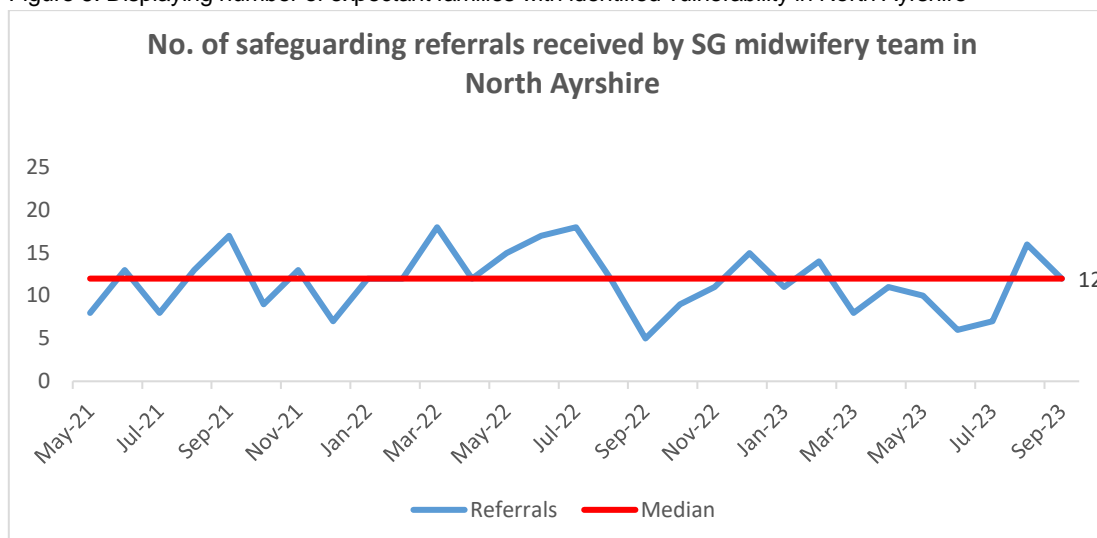
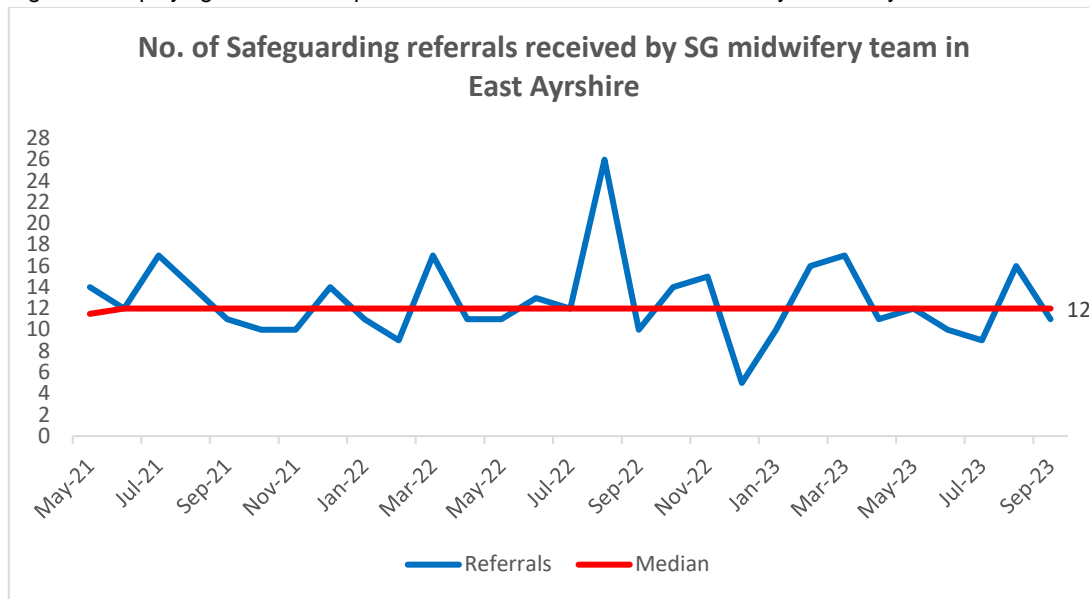


Figure 7. Displaying number of expectant families with identified vulnerability in East Ayrshire



In Ayrshire, following identification of vulnerability in pregnancy, specialist safeguarding midwives undertake assessment utilising the National Practice Model outlined in the Scottish Government framework, ‘Getting it Right for every child (GIRFEC)’. Figures 8, 9, and 10, illustrate the number of safeguarding assessments completed monthly over time.

Figure 8. Displaying number of safeguarding midwifery assessments completed in East Ayrshire

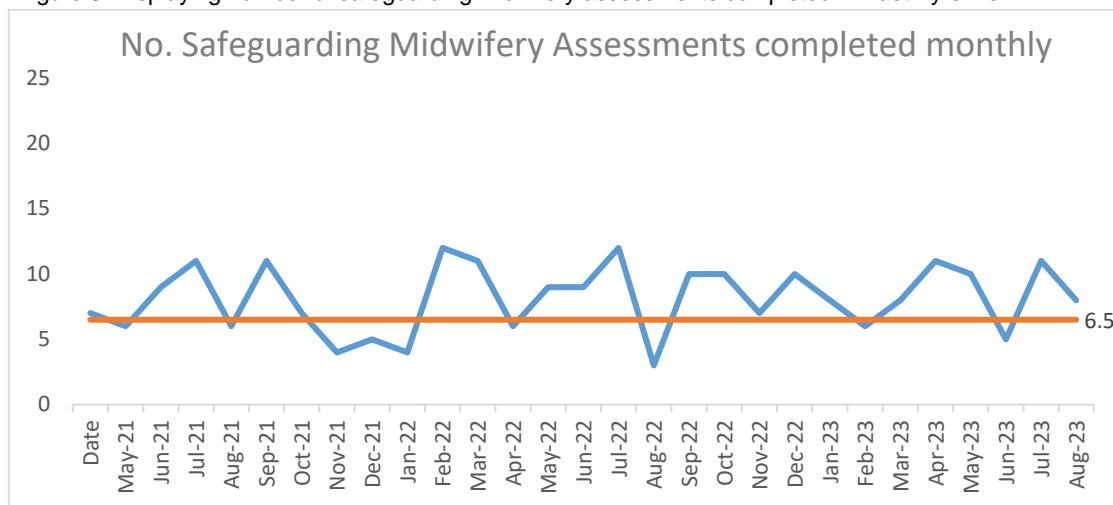




Figure 9. Displaying number of safeguarding midwifery assessments completed in North Ayrshire

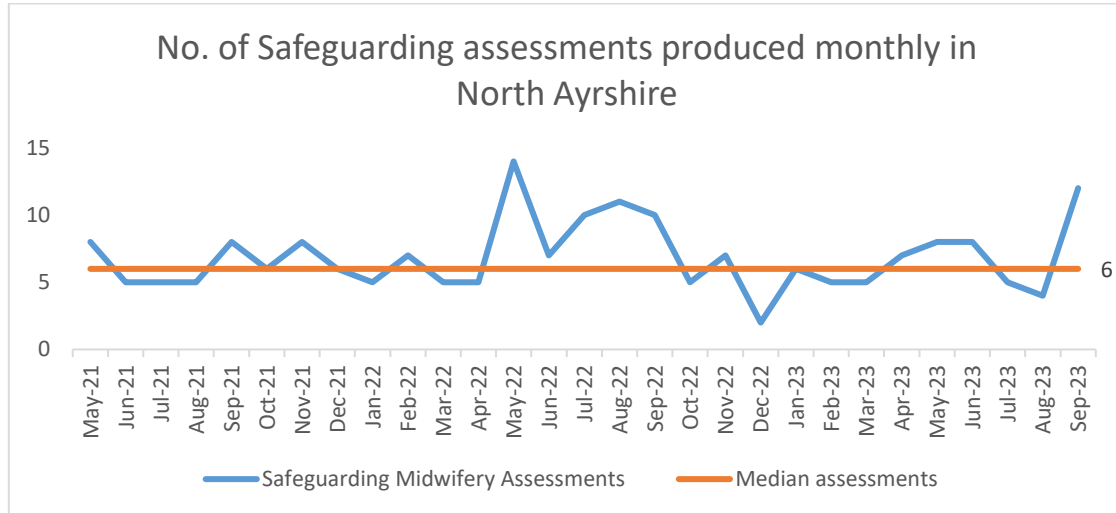
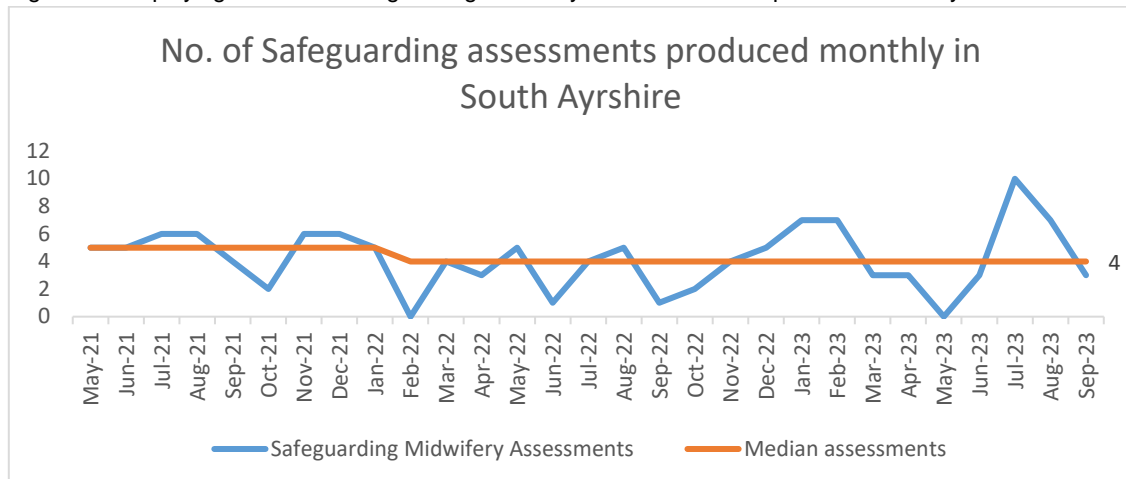


Figure 10. Displaying number of safeguarding midwifery assessments completed in South Ayrshire



Safeguarding assessments are discussed at each of the locality pre-birth multiagency screening groups for decision making on child protection thresholds and care planning. Decision making of the group are reported quarterly to South, North and East Ayrshire Child Protection Committees. Audit processes for pre-birth activity are being considered by health as an objective of NHS Once for Scotland Public Protection Assurance and Accountability Framework 2022.

Table 1. Pre-birth multi-agency screening decisions in East Ayrshire.

Reporting period	CP1	Social work assessment	Team around the child (TAC)	No further action
1 <sup>st</sup> Aug 2022- 31 <sup>st</sup> Oct 2022	11	6	3	8
1 <sup>st</sup> Nov 2022- 31 <sup>st</sup> Jan 2023	9	5	2	12
1 <sup>st</sup> Feb 2023- 30 <sup>th</sup> Apr 2023	8	4	3	8
1 <sup>st</sup> May 2023- 31 <sup>st</sup> Aug 2023	8	5	1	11

Table 2. Pre-birth multi-agency screening decisions in North Ayrshire.

Reporting period	CP1	Social work assessment	Team around the child (TAC)	No further action
1 <sup>st</sup> Aug 2022- 31 <sup>st</sup> Oct 2022	7	5	1	10
1 <sup>st</sup> Nov 2022- 31 <sup>st</sup> Jan 2023	12	1	0	2
1 <sup>st</sup> Feb 2023- 30 <sup>th</sup> Apr 2023	3	0	0	9
1 <sup>st</sup> May 2023- 31 <sup>st</sup> Aug 2023	7	1	0	9

Table 3. Pre-birth multi-agency screening decisions in South Ayrshire.

Reporting period	CP1	Social work assessment	Team around the child (TAC)	No further action
1 <sup>st</sup> Aug 2022- 31 <sup>st</sup> Oct 2022	1	3	0	4
1 <sup>st</sup> Nov 2022- 31 <sup>st</sup> Jan 2023	3	2	2	7
1 <sup>st</sup> Feb 2023- 30 <sup>th</sup> Apr 2023	3	4	0	10
1 <sup>st</sup> May 2023- 31 <sup>st</sup> Aug 2023	2	2	2	4

### 2.3.1 Quality/patient care

The overall aim of the programme is to improve outcomes and reduce inequalities in outcomes by providing a safe, high quality care experience for all women, babies, children and families across all care settings in Scotland.

- The number of reductions in term admissions to the neonatal unit has been enhanced with the development of training and a robust pathway for junior medical staff and midwives to increase confidence in assessing these babies. However the data remains variable and there is ongoing discussion nationally as to whether it would be more appropriate to report on the avoidable term admissions moving forward.
- Improvement noted on the management of pre-term wellbeing babies, with the medial line adjusted from 20.8% to 60%. The formation of a multidisciplinary group consisting of neonatal and obstetric staff has enhanced the joint-up approach to working between departments. Measurements which have been deemed unachievable due to imminent delivery have been raised with the National SPSP MCQIC team.
- Three central line infections have been recorded since August 2018, one baby who tested positive on admission was from another Health Board.
- Sustained improvement continues to be observed with the number of babies temperature being recorded within one hour of admission to the Neonatal Unit >95% compliant since February 2018, with the exception of two months where we believe the issue was where the information was recorded.
- In line with the 'National Guidance for Child Protection in Scotland 2021' early identification of risk pre-birth is a key priority to facilitate assessment and early intervention. NHS Ayrshire & Arran multi-agency guidance, 'Pathway for responding to vulnerability in pregnancy' provides an overview of local processes in place to support the multi-agency team in the identification, assessment and response to vulnerability and child protection concern in the antenatal period.

### **2.3.2 Workforce**

There can be issues with demand on staffing due to sickness and covering other areas. This results in staff, (including the QI Champion) requiring to support other clinical duties, which may have an impact on ongoing improvement work/data submission.

### **2.3.3 Financial**

There may be financial implications identified as new National Standards of care are identified. This will be discussed as the programme progresses.

### **2.3.4 Risk assessment/management**

Delivery of the programme is aimed at reducing harm within Women & Children's services. Non delivery of the programme could impact on the provision of a safe service and reputation of the organisation if timely effective implementation does not happen.

### **2.3.5 Equality and diversity, including health inequalities**

By working toward compliance with each of the measures as agreed with the SPSP Partnership, we aim to protect and improve the health and wellbeing of the population and reduce inequalities, including through advocacy, prevention and anticipatory care.

No impact assessment has been completed as the operational definitions as outlined by the SPSP programme set out the inclusion of the population to be included in any measurement and this is a national programme of work.

### **2.3.6 Other impacts**

The delivery of the elements contained within the SPSP programme and EIC will support the Board's commitment to safe, effective and person centred care.

We aim to provide compassionate partnerships between patients, their families and those delivering health and care services which respect individual needs and values, and result in the people using our services having a positive experience of care to get the outcome they expect.

We will protect and improve the health and wellbeing of the population and reduce inequalities, including through advocacy, prevention and anticipatory care.

### **2.3.7 Communication, involvement, engagement and consultation**

The Board has carried out its duties to involve and engage external stakeholders where appropriate:

- A partnership agreement between SPSP and NHS Ayrshire & Arran in relation to the way forward with new measurements was signed off and sent to all relevant parties on 21 December 2018. Since rebranding from MCQIC to SPSP Perinatal, new measures are currently being agreed between the national team and all local Board areas.
- The work contained within these measures is discussed at the Neonatal Quality Improvement Group meetings. A full programme of meetings has been set up for the remainder of 2023.
- Any work pertaining to pre-term babies is also discussed at the Pre-term Optimisation Group (POG) meetings (ad hoc)

- Any issues arising are taken forward at the Paediatric& Neonatal Clinical Governance meetings (where the Neonatal Unit is represented), and the Maternity CG where there is an impact.

### **2.3.8 Route to the meeting**

As above, the work detailed in this paper is discussed at the Neonatal Quality Improvement Meetings and the Paediatric/Maternity Clinical Governance meetings as required. A version of this paper was submitted to Healthcare Governance Committee on 6 November 2023.

### **2.4 Recommendation**

For discussion. The Board are asked to note and discuss the quality improvement and safety activity in Neonatal Services as part of the SPSP and EiC programme of work