Greater Glasgow and Clyde NHS Board

Board Meeting
August 2014 **Board Paper No. 14/44**

Board Nurse Director

Scottish Patient Safety Programme Update

1. Background

The Scottish Patient Safety Programme (SPSP) is one of the family of national improvement programmes, developed over recent years in relation to the national Healthcare Quality Strategy. These programmes draw on improvement methods advocated by the Institute for Healthcare Improvement. SPSP now contains a number of distinctly identified programmes as follows:

- Acute Adult Care
- Primary Care
- Mental Health
- MCQIC (incorporating Paediatrics, Maternal Care & Neonates)

2. Purpose of Paper

This is a high level overview report to update the Board on the Maternity and Children Quality Improvement Collaborative (MCQIC). MCQIC encompasses the clinical improvement activity of the Scottish Patient Safety Programme's maternity, neonatal and paediatric strands, whose overall aim is to improve outcomes and reduce inequalities in outcomes by providing a safe, high quality care experience for all women, babies and families in Scotland. MCQIC was launched in March 2013 and is a programme of quality improvement that will run until December 2015.

This report is presented to Board for information and approval. In particular the Board is asked to:

- Note the updates in each of the three work-streams, in terms of current activity, key areas of progress, or key issues to note.

3. Update on Maternity Workstream

3.1 National Programme Aims

The Maternity Care strand aims to support clinical teams in NHSGGC to improve the quality and safety of maternity healthcare. The overall aims of the Maternity Care strand are to:

- Increase the percentage of women satisfied with their experience of maternity care to > 95% by 2015, and
- Reduce the incidence of avoidable harm in women and babies by 30% by 2015.

Avoidable harm is defined by the further sub aims to:

- Reduce stillbirths and neonatal mortality by 15%
- Reduce severe post-partum haemorrhage (PPH) by 30%
- Reduce the incidence of non-medically indicated elective deliveries prior to 39 weeks gestation by 30%
- Offer all women carbon monoxide (CO) monitoring at the booking for antenatal care appointment
- Refer 90% of women who have raised CO levels or who are smokers to smoking cessation services,
- Provide a tailored package of antenatal care to all women who continue to smoke during pregnancy.

3.2 Current Position - Overview

There are three major obstetric care sites and all three sites within NHSGGC have been well engaged and are demonstrating good levels of progress in implementing the programme.

In addition to feedback from the national support team in Healthcare Improvement Scotland (HIS) the local programme implementation is supported by midwifery champions and obstetric leads on each of the three sites. There are monthly MCQIC meetings involving all applicable sites to assist on progress and regular MCQIC information days are held locally for staff. Bimonthly Obstetrics and Gynaecology SPSP Monitoring meetings are held to review and support SPSP activity across the SPSP agenda. The measurement package is being reported on a monthly basis and progressing steadily toward full implementation.

The overview table (see below) provides a snapshot of the measurement activity from each of the sites. As measurement can be challenging it is often resolved later in an improvement team's approach so we use the extent of local measurement as a very crude indicator of any programmes maturing development. The cross programme picture is presented in Table 1, which gives a generally positive overview as to the individual measures that each site is currently collecting and submitting.

Although MCQIC was initiated last year, unlike the Adult Acute programme, there were no tried and tested interventions or clinical bundles or measures, so there remains ongoing development of the programme content. This means the teams are having to adapt to these changes as the national team identify new requirements. It is also important to note that the maternity work stream has significantly more key measures to implement when compared to other SPSP work-streams. To accommodate this scope there is a clear understanding from Healthcare Improvement Scotland (HIS) that there is to be a reasonable lead in time for all Boards to be reporting on all measures. Measurement milestones have now been set by HIS with a target of all Boards to be gathering and reporting on all measures by autumn of next year, which we are well on track to meet.

This is reflected in the overview table which shows that there are still challenges to be resolved the Directorate can demonstrate a broad scope of activity generated in the first year. The measures within Table 1 indicating data development does not imply that the Directorate is not monitoring or reviewing this measure, but simply that it is not yet measured in the reporting format required by HIS. An example of this is around measure MP 17 relating to Post Partum Haemorrhage (PPH). PPH has traditionally been a major focus of maternity service and is well embedded as a priority in the current

risk management processes within the Directorate. HIS has only recently set out a specific PPH bundle so further work to generate the reporting in the required format is ongoing. As one team finds a solution the support arrangements are then able to help translate successful methods from one team to the next too accelerate our overall implementation. Another example of catching up with the national programme change is the safety culture survey (measure MP07) where data is still be developed in all teams. This is because this survey has only just been developed and distributed to the maternity champions in July 2014.

Table 1: Overview of Maternity Measures by Site

Measure reference	Measure Name	SGH	RAH	GRI (PRM)
Key Measures				
Person Centred Care				
MP04	% of birth plans signed and dated by the woman and midwife	Data developing	Measuring	Data developing
Leadership and Culture				
MP05	Number of safety walkrounds	Measuring	Measuring	Measuring
MP06	% of actionable items being completed each month	Measuring	Data developing	Data developing
MP07	Safety Culture Survey	Data developing	Data developing	Data developing
Teamwork, Communication and Collaboration				
MP08	% compliance with the daily safety brief bundle	Measuring	Measuring	Measuring
MP09	% compliance with surgical briefing	Data developing	Measuring	Measuring
MP10	% of exchanges that use a high quality SBAR	Measuring	Measuring	Measuring
MP11	% compliance with the significant event debrief bundle	Data developing	Data developing	Data developing
MP12	% compliance with team huddles	Data developing	Measuring	Measuring
Safe, Effective and Reliable Care				
MP13	% compliance with the MEWS bundle	Measuring	Measuring	Measuring
MP14	% of observations identified as at risk that have appropriate interventions undertaken in terms of their management as categorised by MEWS	Measuring	Measuring	Measuring
MP15	% compliance with the sepsis 6 bundle	Data developing	Measuring	Measuring
MP16	% compliance with the PPH prevention bundle	Data developing	Measuring	Data developing
MP17	% compliance with the PPH management bundle	Data developing	Measuring	Data developing
MB01	% of normothermic newborn babies at the point of discharge from labour suite	Measuring	Measuring	Measuring
MP18	% of women with a documented discussion regarding fetal movements	Measuring	Measuring	Measuring
MP19	% compliance with the stillbirth bundle	Data developing	Data developing	Data developing
MP20	% compliance with VTE bundle	Data developing	Measuring	Data developing
Outcome Measures				
MO01	Rate of stillbirths	Measuring	Measuring	Measuring
MO02	Rate of neonatal deaths	Measuring	Measuring	Measuring
MO03	Rate of severe post-partum haemorrhages	Measuring	Measuring	Measuring
MO04	% of non-medically indicated deliveries prior to 39 weeks gestation	Measuring	Measuring	Measuring
MO05	% of women satisfied with the care they received	Data developing	Data developing	Data developing
MP01	% of pregnant women offered CO monitoring at booking	Universal implementation	Universal implementation	Universal implementation
MP02	% of pregnant women with a CO level ≥ 4 ppm (or who say they are current or recent smokers) that are referred to smoking cessation services	Universal implementation	Universal implementation	Universal implementation
MP03	% of pregnant women who continue to smoke who are provided with a tailored package of antenatal care	Data developing	Measuring	Data developing

3.3 Examples of Current Position

Person Centered Care

The team at the Southern General Hospital (SGH) are resolving their data challenge and will begin collecting data via community midwives May 2014. Alongside this they are planning to test “Passport to Discharge” in early discharge ward once reconfiguration takes place in the Autumn.

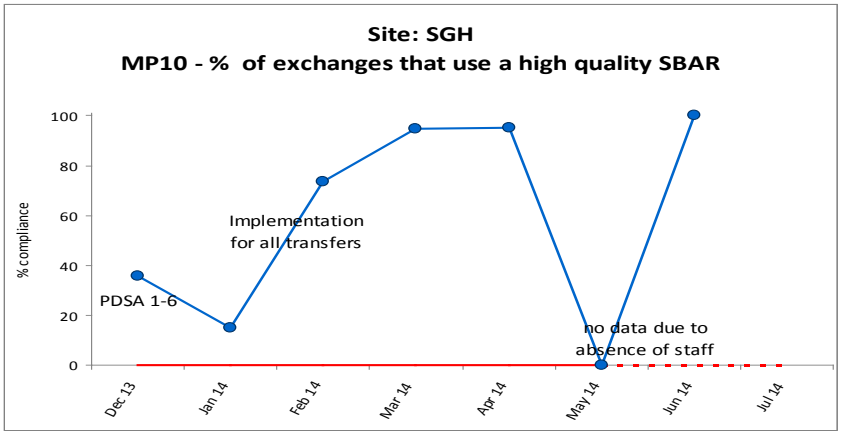
Leadership & Culture

A pilot of Safety Culture tool proposed via the national team has been completed the SGH team . An action plan is being taken forward in local MCQIC meetings. The experience of this tool is being liked to the national team for broader consideration as to its contribution tot eh programme more generally. Patient Safety Walkrounds by leaders have been established in all areas.

Teamwork, Communication & Collaboration

Each team is testing the implementation of daily safety briefs. These tests include finding ways to create the greatest opportunity to participate, exploring different times and venues as well as different formats for the information being shared. Implementation of surgical brief is challenged by clinical work flows which limits the sustained participation by the full clinical team. Although the programme focussed on the three main sites there is also testing of daily briefings in the community midwifery team at Inverclyde Royal Hospital. The SGH team have implemented structured clinical handover for patient transfers from labour suite to post natal wards and are report >95% compliance for past 4 months (see chart one). Further testing is being undertaken around SBAR tool for transfers from Maternity Assessment unit to labour suite.

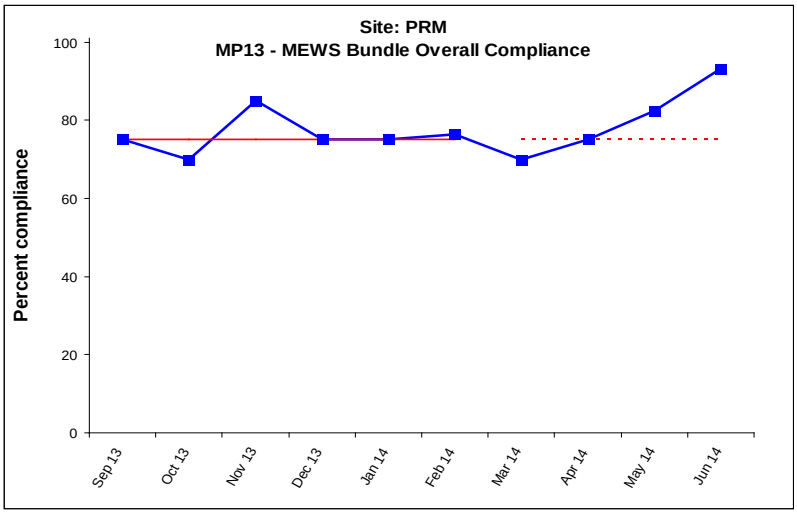
Chart one:



Safe, Effective & Reliable Care

The physiological monitoring of patients is a safety critical process so all teams have an active focus on this area. In chart two we can see the team at the Princess Royal Maternity (PRM) appear to have developed a process capable of higher reliability and will be working to sustain this over coming months.

Chart two:



There is considerable activity across the reaming clinical care elements but this is generally at the level of testing ways to generate highly reliable processes and in finding ways to create meaningful measurement approaches that are both diagnostic of the improvement activity and sustainable in the context of busy clinical care. The team in paisley have >95% compliance in processes to ensure we maintain normal temperatures in babies discharged from the labour suite. The team at SGH are being supported by community midwives in collecting and submitting data which demonstrates improvement in documentation of discussion on foetal movement.

Key Outcome Measures

It is normally the case that outcome measures don't tend to reveal positive shifts until well into implementation however there ash been universal implementation of carbon monoxide monitoring at all sites as exampled by the data charts from the team at PRM.

Chart three

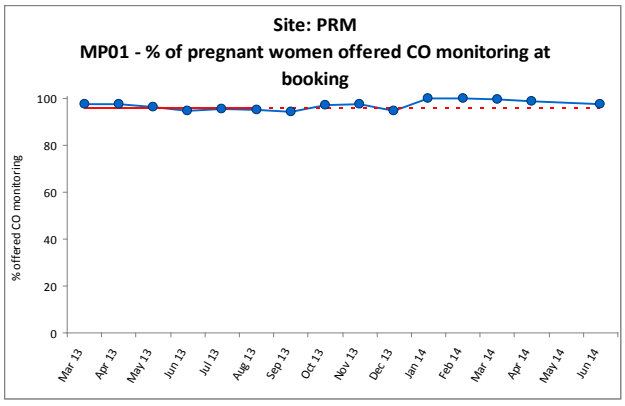
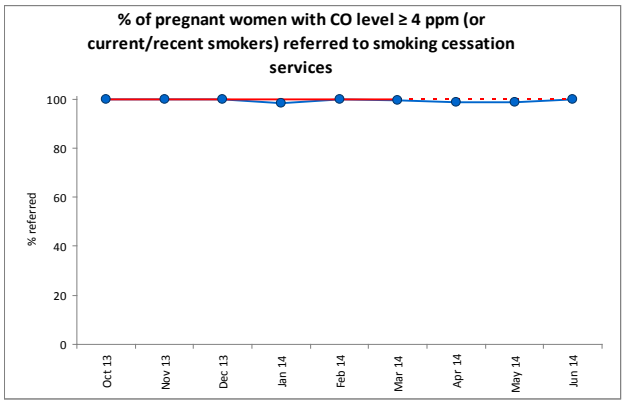
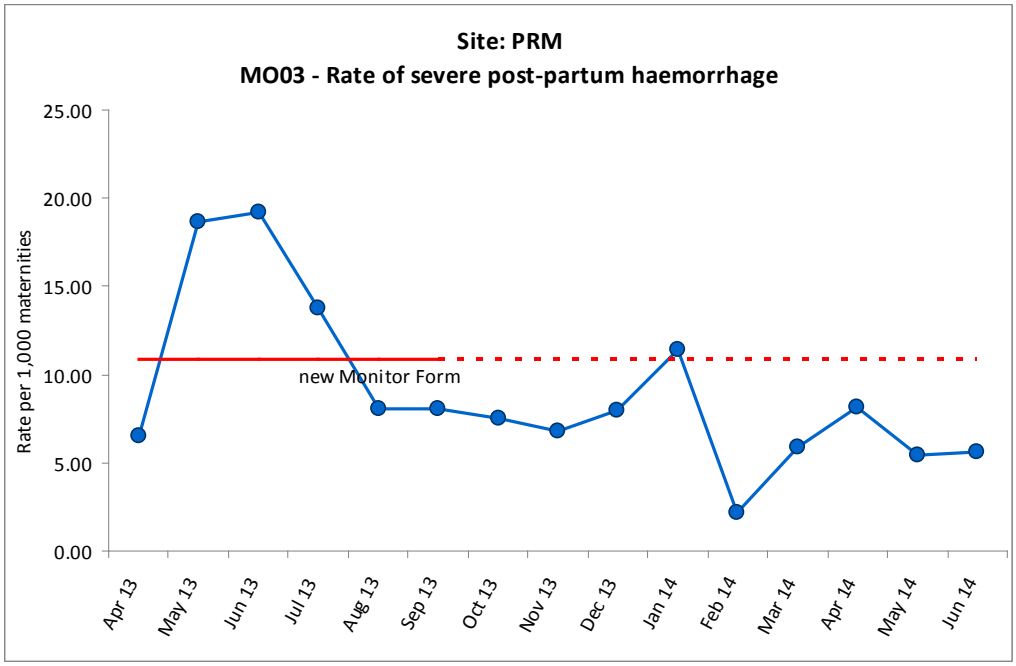


Chart Four



Of interest is the apparent improvement in observed Rate of Severe Post Partum Haemorrhages at PRM. The chart below, while not yet fulfilling rules to confirm a shift, does appear to demonstrate a reduction in this outcome. The related process reliability has not been demonstrated but there are often other improvement activities operating in teams.

Chart five:



Next Steps

Each team has their local plan for further development. For instance over the next 4 months the RAH team intend to

- Establish fuller reporting on safety walk rounds
- Review the possible use of the Safety Culture Survey.
- Continue data reporting which in the next assessment period should demonstrate improvement as, at this present time, for some measures the collection period has not been long enough to demonstrate improvement.

- Continuing awareness sessions for Sepsis 6 and establish a robust data collection system.
- Identify areas for improvement from data and planning strategy on VTE bundle. Further establish designed data collection as a collective responsibility, moving away from existing person dependent arrangements.

4. Update on Paediatric and Neonatal Workstream

4.1 National Programme Aim

Achieve a 30% reduction in adverse events that contribute to avoidable harm in Neonatal and Paediatric Services by December 2015.

4.2 Summary of Current Position

There are currently 20 teams supported across Paediatric and Neonatal services.

The majority of paediatric teams working on General Ward can demonstrate a sustained reliable process across a range measures so have now been stepped down to quarterly data collection for a number of programme elements. Those working towards sustained reliability continue to receive support from the SPSP improvement team. All teams continue to demonstrate a sustained reliable

process with Hand Hygiene (HH), while 5 General Ward teams have shown that they have successfully implemented a reliable process in all applicable measures.

Neonatal teams have agreed the use of the national toolkit in order to submit their data to the local data team for monthly collation and reporting. Data is now submitted by 3 out of 4 neonatal teams. The last team is confirming their data collection process and should start to submit data (via the national toolkit) by the start of September 2014.

The Central Venous Catheter (CVC) maintenance bundle has been tested within the pilot setting of Yorkhill Ward 6A. The improvement support team and Senior Charge Nurse worked together to devise documentation and a data collection tool similar in format to that used for the PVC maintenance. Initial testing has gone well and the plan is now to test the bundle in 1 or 2 other units prior to wider implementation.

Table 2 below highlights the areas in which PICU/ITU have been particularly successful, with a reliable process demonstrated in 6 out of 8 applicable measures (progress score 4.5 and 5). (N.B. We use a set of tracking indicators that allows the support team to describe the stage of implementation with scores of One reflecting setting up, between one and three testing and measuring, scores of 4 to 5 show a reliable care process has been established. This allows a quick thumbnail sketch of team progress to be shown.)

Table 2: Critical Care Teams

Team	Hand Hygiene	VAP bundle	Cent Line Insert	CVC Maint	MDR	MDR & DG	PVC Maint	Safety Brief
RHSC-PICU/ITU	**5**	**4.5**	**3**	**5**	**5**	**3**	**5**	**5**

The Neonatal teams have been actively engaged in their improvement journey for a relatively short period, but are making good progress in most areas.

Table 3: Neonatal Teams

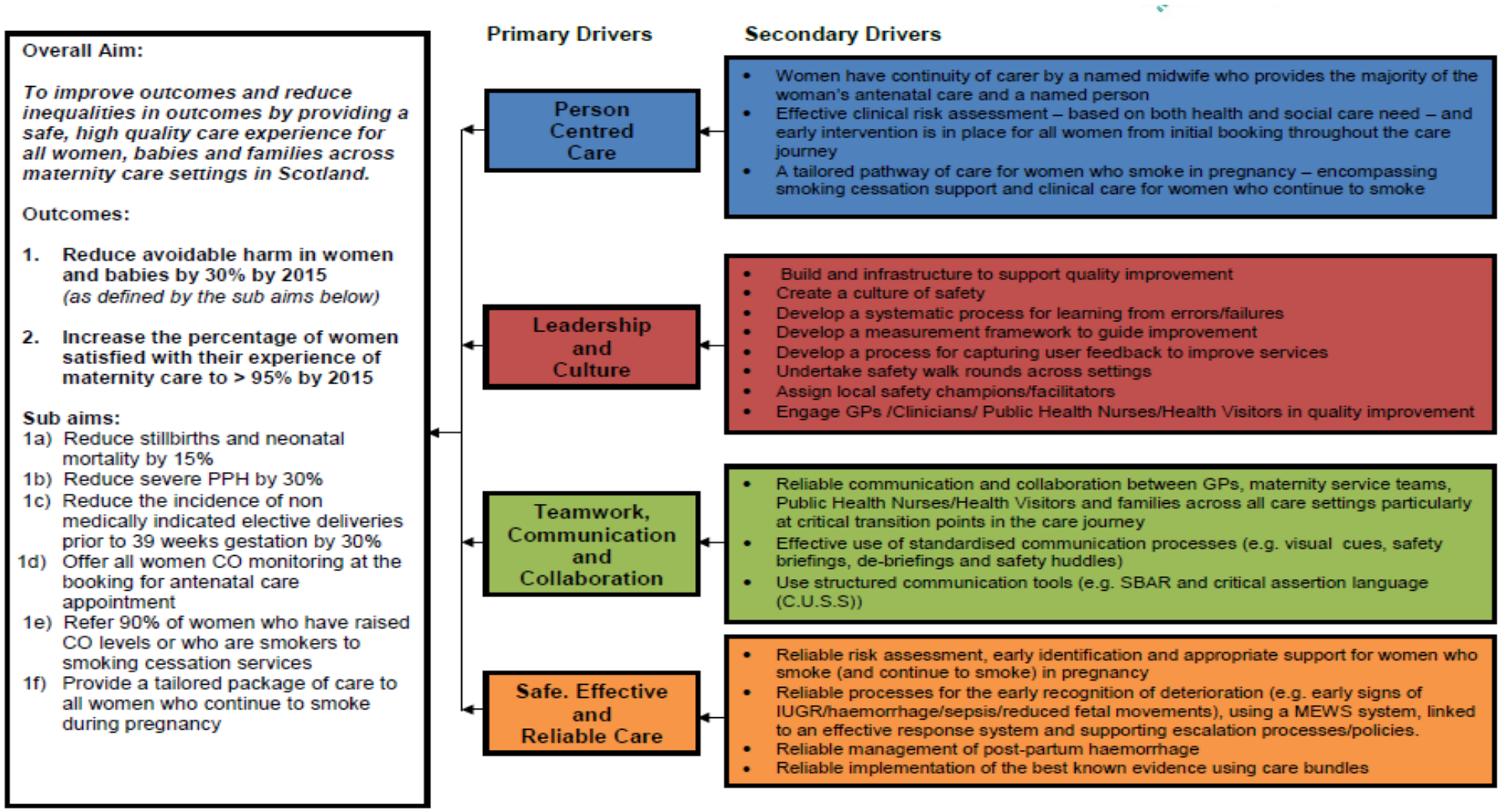
Team	Hand Hygiene	Cent Line Insert	CVC Maint	PVC Maint	Safety Brief	SBAR	Gentamicin
PRMH-Neonatal	**5**	**2**	**2**	-	**4**	**-**	**3**
RAH-Neonatal	**5**	-	**3**	**3**	**3**	**0.5**	**3**
RHSC-Neonatal	**5**	-	-	-	**4**	**-**	**5**
SGH-Neonatal	**5**	**3**	**2**	-	-	**0.5**	**0.5**

The RHSC Theatres team in Table 4 below has achieved success in most measures, although further work is required to enable progress with the Post-List debrief measure.

Table 4: Peri-operative Teams

Team	Pre-list Team Brief	Surgical Pause	Antibiotics	PVC Insert	Sign Out	Post-list De-Brief
RHSC-Theatres	**5**	**5**	**5**	**2.5**	**4**	**2.5**

Appendix 1: Maternity Workstream Driver Diagram



Appendix 2: Scottish Patient Safety Programme: Glossary of Terms

SPSP	Scottish Patient Safety Programme
SPSP-MH	Scottish Patient Safety Programme – Mental Health
SPSP – PC	Scottish Patient Safety Programme – Primary Care
SPSPP	Scottish Patient Safety Paediatric Programme
CVC	Central Venous Catheter
CAUTI	Catheter Associated Urinary Tract Infection
DG	Daily Goals
DMARDs	Disease Modifying Anti Rheumatic Drugs
EWS	Early Warning Scoring
HAI	Healthcare Associated Infection
HDU	High Dependency Unit
HIS	Healthcare Improvement Scotland
HSMR	Hospital Standardised Mortality Ratio
IHI	Institute for Healthcare Improvement
ITU	Intensive Care Unit

ISD	Information Services Division
LES	Local Enhanced Service
LVSD	Left Ventricular Systolic Dysfunction (heart failure)
MCQIC	Maternal Quality Care Improvement Collaborative
MEWS	Maternity Early Warning Score
MDR	Multi Disciplinary Rounds
MDT	Multi Disciplinary Team
NEWS	National Early Warning Scoring
PDSA	Plan, Do, Study, Act (small scale, rapid, reflective tests used to try out ideas for improvement)
PPH	Post Partum Haemorrhage
PVC	Peripheral Venous Cannula
QOF	Quality Outcomes Framework
SBAR	Situation, Background, Assessment, Recommendation (a structured method for communicating critical information that requires immediate attention and action; can also be used effectively to enhance handovers between shifts or between staff in the same or different clinical areas.
SMR	Standardised Mortality Ratio

SSI	Surgical Site Infection
SUM	Safer Use of Medicines
Surgical Briefing	A pre-operative list briefing designed to ensure entire team understand expectations for the list and each procedure.
Surgical Pause	A pre-operative pause as an opportunity to cover surgical checklist and act as final reminder of items that must be completed prior to commencement of the operation.
Trigger Tool	A case note audit process designed to find examples where the care plan has not progressed as expected
VAP	Ventilator Associated Pneumonia
VTE	Venous Thromboembolism