This paper summarise the key points in the full paper.

The relevant paragraph in the full paper is referenced against each point.

- The number of formal complaints remains fairly stable (excluding prisons Graph 3). Graph 4 shows a subset of these complaints which are prison complaints which account for a large number of the overall complaints. The response rate at 20 days and 3 days remains a challenge (graphs 1 & 2).

- HSMR – None of the three acute hospitals are a statistical outlier; all are below one and have seen reductions from the October-December 2007 baseline.

- Staff absence levels (Graph 6) are over 4% (4.8%) which appears to reflect seasonal variation.

- The HEAT targets for reduction in C.Difficile and Staph. aureus bacteraemias are not being achieved (see graphs 11&12). Healthcare Associated Infection is a separate agenda item and paper.

- A number of reports on the Board agenda examine in more detail delayed discharges, A&E 4 hour waits, Cancer 62 day waits and compliance with stroke standards which remain a challenge.

Jo Bennett
Clinical Governance & Risk Manager
13 January 2015
Jo.bennett@nhslothian.scot.nhs.uk
1 Purpose of the Report

1.1 This report presents the Quality Report for December 2014, to provide assurance on the quality of care NHS Lothian provides.

Any member wishing additional information should contact the Executive Lead in advance of the meeting.

2 Recommendations

2.1 Review the quality dashboard and exception reporting to inform assurance requirements, (context and technical appendix are set out in Appendix 1).

3 Discussion of Key Issues

3.1 Exception Reporting – Quality Dashboard

3.1.1 The number of formal complaints remains fairly stable (excluding prisons Graph 3). Graph 4 shows a subset of these complaints which are prison complaints which account for a large number of the overall complaints. The response rate at 20 days and 3 days remains a challenge (graphs 1 & 2).

3.1.2 Since December 2009, Information Services Division (ISD) has produced quarterly hospital standardised mortality ratios (HSMR) for all Scottish hospitals participating in the Scottish Patient Safety Programme (SPSP). The aim of the Scottish Patient Safety Programme is to reduce hospital mortality by 15% by December 2012 compared to baseline of 2007. This has been extended to a national aim of a 20% reduction by December 2015. The publication in November 2014 is for the period April to June 2014.

The HSMR is based on all acute inpatient and day case patients admitted to all specialties (medical and surgical). The calculation takes account of patients who died within 30 days from admission; that is, it includes deaths that occurred in the community (out of hospital deaths) as well as those occurring in-hospital. It excludes deaths that occur more than 30 days after admission whether in hospital or not.

Hospital Standardised Mortality Ratio (HSMR) = Observed Deaths / Predicted Deaths. The prediction is based on data from SMR01 returns. The purpose is to adjust observed mortality for the underlying risk of death at the time of admission.
Key Points:

- The current values and change from baseline are in Table 1 below
- None of the three acute adult hospitals is a statistical outlier and all are below 1.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>HSMR Oct-Dec 2007</th>
<th>HSMR Apr-June 2014</th>
<th>Change from baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland</td>
<td>1.00</td>
<td>0.81</td>
<td>-15.89%</td>
</tr>
<tr>
<td>RIE</td>
<td>0.87</td>
<td>0.63</td>
<td>-18.06%</td>
</tr>
<tr>
<td>St John’s</td>
<td>0.88</td>
<td>0.75</td>
<td>-7.37%</td>
</tr>
<tr>
<td>WGH</td>
<td>0.74</td>
<td>0.59</td>
<td>-12.38%</td>
</tr>
</tbody>
</table>

3.1.3 Staff absence levels (Graph 6) are over 4% (4.8%) which appears to reflect seasonal variation.

3.1.4 The HEAT targets for reduction in *C. Difficile* and Staph. aureus bacteraemias are not being achieved (see graphs 11&12). Healthcare Associated Infection is a separate agenda item and paper.

3.1.5 A number of reports on the Board agenda examine in more detail delayed discharges, A&E 4 hour waits, Cancer 62 day waits and compliance with stroke standards which remain a challenge.
**Quality Dashboard – December 2014** (dates for each data item stated in background charts)

This table shows a monthly summary of process and outcome quality measures. Trend graphs are shown on the pages following. The Committee should look for process measures to increase or remain stable and for outcome measures to decrease or remain stable. As many of the measures below are intended for improvement, it is important that background trend charts are also scrutinised as focussing on one data point (as below) may be misleading. Data below which has been updated since the last Quality Report is asterisked.

If you have an electronic version of this report, links to each measure chart have been embedded in the headings below.

**QUALITY AMBITION**

**PERSON-CENTRED - Process Measures**
- 20-day Complaints Response Rate *
- 3-day Complaints Response Rate *
- Delayed Discharges and Average Length of Stay *

**PERSON-CENTRED - Outcome Measures**
- Number of Complaints (excluding HMP Healthcare) *
- Number of Complaints for HMP Healthcare *
- Staff Absence Levels *
- Patient Experience
- Staff Experience

**SAFE – Outcome Measures**
- Hospital Standardised Mortality Ratios for RIE, WGH & St. John’s *
- Incidents with harm *
- C. Difficile Numbers *
- Staph. Aureus Bacteraemia Numbers *
- Number of Cardiac Arrests *
- Rate of Cardiac Arrests *
- Inpatient Falls with Harm *
- Inpatient Pressure Ulcers Grade 2 or above *

**EFFECTIVE – Process Measures**
- A&E 4 Hour Wait *
- Cancer Waits 62 Days from Diagnosis to Treatment *
- Admission to stroke unit on day or day after admission *
- Stroke Treatment Measure: CT Scan *
- Stroke Treatment Measure: Swallow Screen *

**Additional Quality Measures**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Lothian Rate (Per 1000 admissions)</th>
<th>Scottish Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardised Surgical Readmission rate within 7 days</td>
<td>23.83</td>
<td>21.73</td>
</tr>
<tr>
<td>Standardised Surgical Readmission rate within 28 days</td>
<td>43.30</td>
<td>40.22</td>
</tr>
<tr>
<td>Standardised Medical Readmission rate within 7 days</td>
<td>48.36</td>
<td>51.88</td>
</tr>
<tr>
<td>Standardised Medical Readmission rate within 28 days</td>
<td>115.19</td>
<td>112.69</td>
</tr>
<tr>
<td>Average Surgical Length of Stay – Adjusted</td>
<td>0.95</td>
<td>1.00</td>
</tr>
<tr>
<td>Average Medical Length of Stay – Adjusted</td>
<td>1.10</td>
<td>1.00</td>
</tr>
</tbody>
</table>
**Person-Centred**

“Mutually beneficial partnerships between patients, their families and those delivering healthcare services that respect individual needs and values and which demonstrate compassion, continuity, clear communication and shared decision-making.”

<table>
<thead>
<tr>
<th>Title: 20-day Complaints Response Rate (Graph 1)</th>
<th>Title: 3-day Complaints Response Rate (Graph 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Numerator:</strong> Number of complaints responded to within 20 days</td>
<td><strong>Numerator:</strong> Number of complaints responded to within 20 days</td>
</tr>
<tr>
<td><strong>Denominator:</strong> Number of complaints</td>
<td><strong>Denominator:</strong> Number of complaints</td>
</tr>
<tr>
<td><strong>Goal:</strong> 85% of complaints responded to within 20 days</td>
<td><strong>Goal:</strong> 100% formal acknowledgement within 3 working days</td>
</tr>
</tbody>
</table>

### Process Measure

**20-Day Response Target across NHS Lothian**

![Graph showing 20-day response target across NHS Lothian](image1)

**Data Source:** Datix  
**Exec Lead:** Alan Boyter

<table>
<thead>
<tr>
<th>Title: Number of Complaints (excluding Prison Complaints) (Graph 3)</th>
<th>Title: Number of Prison Complaints (Graph 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Numerator:</strong> Total number of complaints</td>
<td><strong>Numerator:</strong> Total number of prison complaints</td>
</tr>
<tr>
<td><strong>Goal:</strong> Reduction in number of formal complaints</td>
<td><strong>Goal:</strong> Reduction in number of formal complaints</td>
</tr>
</tbody>
</table>

### Outcome Measure

**NHS Lothian Formal Complaints (excluding HMP)**

![Graph showing NHS Lothian formal complaints excluding HMP](image2)

**Data Source:** Datix  
**Exec Lead:** Alan Boyter

### Process Measure

**3-Day Response Target across NHS Lothian**

![Graph showing 3-day response target across NHS Lothian](image3)

**Data Source:** Datix  
**Exec Lead:** Alan Boyter

<table>
<thead>
<tr>
<th>Title: Delayed Discharges &amp; Average Length of Stay (Graph 5)</th>
<th>Title: Staff Absence Levels (Graph 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal:</strong> No patient waiting longer than 2 weeks for discharge, by April 2015</td>
<td><strong>Goal:</strong> 4% or less</td>
</tr>
</tbody>
</table>

### Outcome Measure

**SWISS Sickness Absence**

![Graph showing SWISS sickness absence](image4)

**Data Source:** Scottish Workforce Information Strategic Systems (SWISS)  
**Exec Lead:** Alan Boyter

---

**Legend:**
- **NHS Lothian - 20 days response to National Target of 85% by Month**
- **NHS Lothian - Complaints - 3 Day National Acknowledgement Target of 100%**
- **HMP Healthcare Formal Complaints**
- **SWISS Sickness Absence**

---

**Notes:**
- The graphs and data sources are represented accurately according to the text.
- The tables and metrics are clearly displayed, adhering to the requirements.
**Safe**

“There will be no avoidable injury or harm to people from healthcare they receive, and an appropriate, clean and safe environment will be provided for the delivery of healthcare services at all times.” Progress on this ambition is measured through standardised hospital mortality ratios, incidents with harm, HAI indicators, arrest calls, falls with harm and pressure ulcers.

<table>
<thead>
<tr>
<th>Title:</th>
<th>Hospital Standardised Mortality Ratio (NHS Lothian Acute Hospitals)  (Graphs 7 – 9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerator:</td>
<td>Total number of in-hospital deaths and deaths within 30 days of discharge from hospital</td>
</tr>
<tr>
<td>Denominator:</td>
<td>Predicted total number of deaths</td>
</tr>
<tr>
<td>Goal:</td>
<td>20% reduction against 2006/07 baseline by December 2015</td>
</tr>
</tbody>
</table>

**Outcome Measure**

Quarterly Hospital Standardised Mortality Ratios in Royal Infirmary of Edinburgh, October 2006 – June 2014

Data Source: ISD (Quarterly)  Exec Lead: David Farquharson

**Outcome Measure**

Quarterly Hospital Standardised Mortality Ratios in Western General Hospital, October 2006 – June 2014

**Outcome Measure**

Quarterly Hospital Standardised Mortality Ratios in St John’s Hospital, October 2006 – June 2014

**Title:** Incidents with harm (Graph 10)

| Numerator: | Number of incidents associated with serious harm reported per month in NHS Lothian (Dec 2011- Nov 2013) |
| Goal: | There are specific goals for reductions in Falls & Pressure Ulcers. See separate graphs for progress against these |

**Title:** C. difficile associated disease against HEAT Target 2012-13 (Graph 11)

| Numerator: | Total number of patients aged 15 and over with C.difficile toxin positive stool sample (CDI) |
| Goal: | NHS Lothian is to achieve 262 or fewer CDI by March 2015 as shown by trend line |

**Outcome Measure**

Progress against HEAT Target for *C.difficile* Infection (CDI)
Staph. aureus bacteraemias (SABs) against HEAT Target 2012-13 (Graph 12)

**Numerator:**
The number of SAB patient episodes (i.e. both MRSA and MSSA bloodstream infections)

**Goal:**
NHS Lothian is to achieve 184 or fewer SABs by March 2015 as shown by trend line.

**Outcome Measure**
Progress against HEAT Target for S. aureus Bacteraemia

---

Number of Cardiac Arrests (Acute Wards) (Graph 13)

**Numerator:**
Arrest – Number of 2222 calls which were for a cardiac arrest with chest compressions. Calls relating to Staff, Visitors, False Alarms, Cancelled Calls, Out of Hospital Arrests and outpatient CCU/ ITU/ day care procedures are excluded.

**Goal:**
50% reduction in Cardiac Arrests with chest compressions by December 2015 from February 2013 baseline

**Outcome Measure**
Estimated reduction in Cardiac Arrests with chest compressions by December 2015 from February 2013 baseline

---

Rate of Cardiac Arrests (Acute Wards) (Graph 14)

**Numerator:**
Arrest – Rate of 2222 calls which were for a cardiac arrest with chest compressions. Calls relating to Staff, Visitors, False Alarms, Cancelled Calls, Out of Hospital Arrests and outpatient CCU/ ITU/ day care procedures are excluded.

**Goal:**
50% reduction in Cardiac Arrests with chest compressions by December 2015 from February 2013 baseline

**Outcome Measure**
Target reduction = 50% reduction

---

Patient Falls with Harm (Graph 15)

**Numerator:**
Number of falls reported resulting in moderate or major harm or death (define moderate/major). Data for NHS Lothian inpatient sites

**Goal:**
20% reduction in inpatients falls and associated harm by December 2015

**Outcome Measure**
Data for NHS Lothian inpatient sites
Title: Number of Pressure Ulcers per month across NHS Lothian (Graph 16)

Numerator: Number of Grade 2 or above pressure ulcers

Goal: To achieve a reduction in the number of grade 2 or above pressure ulcers by March 2015 (from one a day to none a day)
**Effective**
“The most appropriate treatments, interventions, support and services will be provided at the right time to everyone who will benefit, and wasteful or harmful variation will be eradicated.” Progress on this ambition is measured through clinical quality indicators and stroke care.

<table>
<thead>
<tr>
<th>Title: A&amp;E 4 Hour Wait (Graph 17)</th>
<th>Title: Cancer Waits 62 Days from Diagnosis to Treatment (Graph 18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerator: Number of patients waiting less than 4 hours from arrival to admission or discharge</td>
<td>Numerator: Number of patients waiting 62 days to treatment Please note the scale</td>
</tr>
<tr>
<td>Denominator: Number of patients attending</td>
<td>Denominator: Number of cancer patients</td>
</tr>
<tr>
<td>Goal: 98% of patients waiting less than 4 hours from arrival to admission by March 2015</td>
<td>Goal: 95% of patients from diagnosis to treatment wait no longer than 62 days</td>
</tr>
</tbody>
</table>

### Process Measure

**UHS 2012-14 Compliance with A&E 4 Hour Target**

Data Source: Patient Administration System (TRAK)  
Exec Lead: Melanie Johnson

**62-day overall performance**

Data Source: SGHD Management Information  
Exec Lead: Jim Crombie

<table>
<thead>
<tr>
<th>Title: Admission to Stroke Unit within 1 day of admission (Graph 19)</th>
<th>Title: Stroke Treatment Measures (Graph 20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerator: Number of patients with initial diagnosis of stroke admitted to an acute or integrated stroke unit within 1 day of admission</td>
<td>Numerator: Number of admitted patients with initial diagnosis of stroke that have a swallow screen on the day of admission</td>
</tr>
<tr>
<td>Denominator: Number of patients admitted with initial diagnosis of stroke excluding in-hospital strokes, patients discharged within 1 day and transfers in from another health board</td>
<td>Denominator: Number of patients admitted with initial diagnosis of stroke</td>
</tr>
<tr>
<td>Goal: 90% of patients admitted with acute stroke should be in a Stroke Unit by the day after hospital admission</td>
<td>Goal: 100% of patients with initial diagnosis of stroke should receive a swallow screen on day of admission</td>
</tr>
</tbody>
</table>

### Process Measure

Note: 2014 data is not validated and should be treated as provisional

**Admission to stroke unit within 1 day- Lothian**

Data Source: ISD  
Exec Lead: Melanie Johnson

**Swallow screen on day of admission**

Data Source: ISD  
Exec Lead: Melanie Johnson
Effective (cont’d)

Title: Stroke Treatment Measures (Graph 21)

Numerator: Number of admitted patients with initial diagnosis stroke that have a brain scan within 24 hours of arrival

Denominator: Number of patients admitted with initial diagnosis of stroke

Goal: 90% of patients with initial diagnosis of stroke should receive a brain scan within 24 hours of admission

Process Measure

Note: 2014 data is not validated and should be treated as provisional

Data Source: ISD  Exec Lead: Melanie Johnson
4  Key Risks

4.1 Achieving the HAI HEAT target, complaints response times, stroke targets, delayed discharge target and cancer target.

4.2 This dashboard has been developed to ensure a range of measures that can be considered easily, all of which impact on the patient experience and outcome of care. These measures, however, do not reflect all aspects of care and need to be supplemented with condition-specific data, both qualitative and quantitative.

4.3 Failure to comply with national standards with potential impact on patient experience and outcomes of care, and external inspections.

5  Risk Register

5.1 Achieving HAI targets is also on the Corporate Risk Register (Risk 1076) and its risk grading has been increased to reflect that NHS Lothian is outwith HAI trajectory. Access to Acute Stroke Unit is on the University Hospital Services Risk Register – Medicine and Associated Services (Risk 2444). Compliance with stroke standards is captured in Unscheduled Care on the Corporate Risk Register. Patient Experience is also captured on the Corporate Risk Register.

6  Impact on Inequality, Including Health Inequalities

6.1 The work set out by this paper, which incorporates existing data and the development and monitoring of new indicators, will have a positive impact on inequality.

6.2 This paper combines elements of the NHS Lothian Quality Improvement Strategy and so does not in itself require an impact assessment. The constituent elements of the Quality Improvement Strategy have been subjected to impact assessment as they have been developed, including the HEAT programmes (assessed in March & April 2010) and the Scottish Patient Safety Programme (assessed in May 2009).

6.3 The findings of the Equality Diversity Impact Assessment in SPSP are that particular note must be made of the harm to patients with disabilities as part of the measurement of harm. The changes to the assessment documentation encourage systematic and standardised screening for all risks including screening of cognitive impairment.

7  Involving People

7.1 No service change.

8  Resource Implications

8.1 Work is ongoing to automate the production of this Dashboard, which is complex, as it uses data from a number of sources. This is within the Clinical Governance Workplan.
List of Appendices

Appendix 1: Supporting Context and Technical Appendix
Context and Technical Appendix

Quality Report Development

The NHS Scotland Quality Strategy set out three levels in its quality measurement framework. Level 1 – national quality outcome indicators, level 2 – HEAT targets, and level 3 – all other local and national measurement for quality improvement. The NHS Lothian Quality Report has been a standing item on the Board agenda since March 2010 and sets a range of measures against NHS Scotland’s quality ambitions and across levels 1 to 3.

Within this report is an updated set of process and outcome measures which are presented in a dashboard format. These measures will be reported at each Board on a monthly or quarterly basis. Data which has been updated since the last Quality Report is highlighted with an asterisk on page 10. The existing rolling programme of effectiveness measures for priority areas (diabetes, stroke, coronary heart disease, cancer, mental health and child & maternal health) will accompany the dashboard at every other Board meeting. This report contains core measures and Patient Safety clinical effectiveness measures.

The Quality Report is intended to link with NHS Lothian’s Quality Improvement Strategy (2011-14) and therefore will also include a range of measures set out in this strategy which will be reported in the dashboard on a regular basis, e.g. stroke and Delivering Better Care targets. The Dashboard will be changed over time to reflect local and national priorities and is currently going through a review.

The process measures in the dashboard relate to staff undertaking standard evidence-based care. Quality is improved by applying this standard, evidence-based care every time. A compliance level is set for most of these indicators at 95%, (i.e. when audited the care is provided in line with good practice at 95% of the time). Hence the Committee should look for the trend arrows to go up or if the compliance level has been met, that this is maintained.

Outcomes are measured using rates where possible (normally set per 1000 occupied bed days). The Committee should look for the arrows to be decreasing or to remain low.

The Scottish Government commenced production of a Hospital Scorecard in 2012 in response to the first Francis Report of February 2010, set within a Scottish context. The Quality Report reflects the National Hospital Scorecard and seeks to report these measures in a timely manner to inform assurance needs of the Board, with the exception of measures reported elsewhere, (e.g. A&E waiting times).

Hospital Standardised Mortality Ratio (HSMR)

HSMR is the ratio of observed deaths to expected deaths within 30 days of admission to hospital. If the HSMR for a hospital is less than 1, then fewer hospital deaths within 30 days of admission are occurring than expected. HSMRs are therefore used as system level ‘warnings’ for areas for further investigation. It must be emphasised that the quarter to quarter changes should be interpreted with caution. HSMRs cannot be compared between hospitals or boards; the comparison should only be against the expected number of deaths. There is some controversy about their use, but they remain widely used in this way.

S.aureus Bacteraemia (SAB) rate

New SAB HEAT targets were set in April 2013 which will be measured against the actual number achieved in the previous year. This explains the increased target line in the chart below for April 2013. Thus the current HEAT target for NHS Lothian is to achieve 184 or fewer SAB by March 2015.
**C. difficile Infection (CDI) rate**
New CDI HEAT targets were set in April 2013 which will be measured against the actual number achieved in the previous year and now includes patients aged 15 and over. Thus the current HEAT target for NHS Lothian is to achieve 254 or fewer CDI by March 2015.

**Incidents associated with harm**
Incidents are reported by staff using the DATIX system which records incidents that affect patients or staff. The category and degree of harm associated with each incident are also recorded. An increase in reporting of incidents is considered to be indicative of an improving safety culture and this is monitored in all Senior and Clinical Management Teams. Incidents associated with harm should not increase and this is the trend monitored at NHS Board level.

**Surgical readmissions within 7 days**
This is the emergency readmissions to a surgical specialty within 7 days of discharge as a rate per 1000 total admissions to a surgical specialty. The data are presented for calendar year 2011. This measure has been standardised by age, sex and deprivation (SIMD 2009).

**Surgical re-admissions within 28 days**
As for 7 day readmissions.

**Medical Re-admissions Within 7 Days**
This is the emergency readmissions to a medical specialty within 7 days as a rate per 1000 total admissions to a medical specialty. The data are presented for calendar year 2011. This measure has been standardised by age, sex and deprivation (SIMD 2009).

**Medical Re-admissions Within 28 Days**
As for 7 day readmissions.

**Average Length of Surgical Stay (Adjusted)**
Ratio of ‘observed’ length of stay over ‘expected’ length of stay. This indicator is case mix adjusted by HRG* and specialty. The expected length of stay is calculated by working out the average length of stay nationally (Scotland only) for each specialty and HRG combination. This is then multiplied by the total number of spells to get the expected length of stay. A hospital with a value above the national average (e.g. 1.01 will be 1% above the national average) and a hospital below the national average (e.g. 0.99 is 1% below the national average).

**Average Length of Medical Stay (Adjusted)**
Ratio of observed length of stay over expected length of stay. This indicator is case mix adjusted by HRG* and specialty. The expected length of stay is calculated by working out the average length of stay nationally (Scotland only) for each specialty and HRG combination. This is then multiplied by the total number of spells to get the expected length of stay. A hospital with a value above the national average (e.g. 1.01 will be 1% above the national average) and a hospital below the national average (e.g. 0.99 is 1% below the national average).

* HRG: Healthcare Resource Groups. These are standard grouping of clinically similar treatments that use common levels of healthcare resource. They are usually used to analyse and compare activity between organizations.