

MSG Integration Indicators - Technical Documentation

Background

This document provides detailed definitions of the six MSG indicators:

1. Emergency admissions
2. Unscheduled hospital bed days
3. A&E performance
4. Delayed discharges
5. End of life care
6. The balance of care across institutional and community services.

This data is currently produced by Public Health Scotland on a monthly basis and is circulated to partnership colleagues in the form of an excel spreadsheet.

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Indicator 1a – Number of Emergency Admissions

Source: SMR01, Public Health Scotland

This indicator is derived from data collected on discharges from non-obstetric and non-psychiatric hospitals (SMR01) in Scotland. Only patients treated as inpatients or day cases are included. The specialty of geriatric long stay is excluded. Data are reported by month of discharge.

The basic unit of analysis for these figures is a Continuous Inpatient Stay (CIS) in hospital. An emergency admission occurs when, for clinical reasons, a patient is admitted at the earliest possible time after seeing a doctor. The patient may or may not be admitted through Accident & Emergency. Note that emergency admissions will also include urgent admissions.

A hospital stay is selected if an emergency admission occurred in the first episode of the stay.

Data is presented for all ages, under 18, 18+, 18-64 and 65+ age groups.

This indicator may be affected by SMR data completeness issues. The latest completeness estimates are made available in the monthly template and are also available here:

<http://www.isdscotland.org/products-and-Services/Data-Support-and-Monitoring/SMR-Completeness/>

Indicator 1b & 1c – Number of Admissions from A&E / A&E conversion rate

Source: A&E datamart, Public Health Scotland

Number of admissions from A&E - the number of A&E attendances which are admitted as an inpatient to the same hospital. These are identified where discharge destination is recorded as 'Admission to same NHS healthcare provider/hospital'.

A&E Conversion Rate – the percentage of A&E attendances that are admitted as an inpatient to the same hospital.

This indicator only includes data from 'New' and 'Unplanned Return' attendances at A&E, i.e. excludes those who are 'Recall' or 'Planned Return'.

Accident & Emergency sites submit data as either episode level files containing a detailed record for each attendance or as aggregate files containing monthly summary attendance and compliance figures only. **This indicator only contains data from all sites that submit episode level data.** This impacts Highland and Aberdeenshire partnerships in particular as they have a number of sites which submit aggregate data. Please see list of sites for details:

[List of Sites](#)

This indicator includes both attendances at EDs and MIUs/Other. An Emergency Department (ED) is a site that provides a 24 hour consultant led service. MIU / Other is a site that includes Minor Injuries Units (MIU), small hospitals and health centres in rural areas that carry out emergency department related activity and are GP or Nurse led. They may or may not be open 24 hours.

Data is presented for all ages, under 18, 18+, 18-64 and 65+ age groups.

Indicator 2a - Number of unscheduled hospital bed days; acute specialties

Source: SMR01, Public Health Scotland

These statistics are derived from data collected on discharges from non-obstetric and non-psychiatric hospitals (SMR01) in Scotland. Only patients treated as inpatients or day cases are included. The specialty of geriatric long stay is excluded.

Unscheduled bed days relate to all occupied bed days within a continuous hospital stay following an emergency or urgent admission.

Bed days for each month have been calculated based on the month in which the bed days were occupied. This differs from other analysis where bed days are reported by the month of discharge.

Data is presented for all ages, under 18, 18+, 18-64 and 65+ age groups.

Completeness

This indicator may be affected by SMR data completeness issues. The latest completeness estimates are made available in the monthly template and are also available here:

<http://www.isdscotland.org/products-and-Services/Data-Support-and-Monitoring/SMR-Completeness/>

Please note that bed day figures for this indicator will likely be incomplete in the most recent months. This is because not all relevant discharge records which occupied bed days in these months will have been received yet and so figures will change with each release of data as more records are submitted.

Indicator 2b & 2c - Number of unscheduled hospital bed days; long stay specialties (geriatric long stay and mental health)

Source: SMR01E & SMR04, Public Health Scotland

Unscheduled bed days relate to all occupied bed days within a continuous hospital stay following an emergency or urgent admission. Episodes beginning with a transfer have also been included for long stay specialties as many of these episodes will have started as unplanned acute admission. Therefore the initial unscheduled admission need not have been to a mental health / long stay specialty.

Bed days for each month have been calculated based on the month in which the bed days were occupied. This differs from other analysis where bed days are reported by the month of discharge.

Data is presented for all ages, under 18, 18+, 18-64 and 65+ age groups.

Completeness

This indicator may be affected by SMR data completeness issues. The latest completeness estimates are made available in the monthly template and are also available here:

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Please note that bed day figures for this indicator will likely be incomplete in the most recent months. This is because not all relevant discharge records which occupied bed days in these months will have been received yet and so figures will change with each release of data as more records are submitted.

Indicator 3a – Number of A&E Attendances

Source: A&E Datamart, Public Health Scotland

This indicator reports on the number of A&E attendances.

This indicator only includes data from 'New' and 'Unplanned Return' attendances at A&E, i.e. excludes those who are 'Recall' or 'Planned Return'.

Accident & Emergency sites submit data as either episode level files containing a detailed record for each attendance or as aggregate files containing monthly summary attendance and compliance figures only. **This indicator only contains data from all sites that submit episode level data.** This impacts Highland and Aberdeenshire partnerships in particular as they have a number of sites which submit aggregate data. Please see list of sites for details:

[List of Sites](#)

This indicator includes both attendances at EDs and MIUs/Other. An Emergency Department (ED) is a site that provides a 24 hour consultant led service. MIU / Other is a site that includes Minor Injuries Units (MIU), small hospitals and health centres in rural areas that carry out emergency department related activity and are GP or Nurse led. They may or may not be open 24 hours.

Data is presented for all ages, under 18, 18+, 18-64 and 65+ age groups.

Indicator 3b – Percentages of A&E attendances seen within 4 hours

Source: A&E Datamart, Public Health Scotland

This indicator reports on the percentage of A&E Attendances which are seen within 4 hours. The waiting time is defined as the time of arrival until the time of discharge, admission or transfer.

It only includes data from 'New' and 'Unplanned Return' attendances at A&E, i.e. excludes those who are 'Recall' or 'Planned Return'.

Accident & Emergency sites submit data as either episode level files containing a detailed record for each attendance or as aggregate files containing monthly summary attendance and compliance figures only. **This indicator only contains data from all sites that submit episode level data.** This impacts Highland and Aberdeenshire partnerships in particular as they have a number of sites which submit aggregate data. Please see list of sites for details:

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Data is presented for all ages, under 18, 18+, 18-64 and 65+ age groups.

Indicator 4 – Number of Delayed Discharge bed days

Source: Delayed Discharges, Public Health Scotland

This indicator reports on the number of bed days occupied by all people experiencing a delay in their discharge from hospital. Data is presented for 18+, 18-74 and 75+ age groups and for the following reason groups: all reasons, health and social care, patient/carer/family-related and code 9s.

Definitional changes were made to the recording of delayed discharge information from 1 July 2016 onwards:

- Delays in non-hospital locations are not included in figures from July 2016.
- Delays for healthcare reasons are not included in figures from July 2016.
- Reason for delay types reflect integration of health and social care partnerships in April 2016.

Length of delay is calculated from the patient's ready for discharge date to either their discharge date within the specific calendar month or the end of the calendar month for patients who are still in delay.

[Additional information on the definitional changes and impact on reporting can be found here.](#)

Indicator 5 – End of Life Care: Percentage of last six months of life by setting

Source: Death records, National Records of Scotland; SMR01 & SMR04, Public Health Scotland

This indicator measures the percentage of time spent by people in the last six months of life in the following settings:

- Community
- Hospice / Palliative Care Unit
- Community Hospital
- Large Hospital

Methodology:

All deceased persons (all ages) are identified for the financial year of interest from NRS death registrations. The date of death is used to identify the death.

Accidental deaths are excluded. This includes any deaths with an External Cause ICD10 (V01-Y84) recorded on the NRS death record, excluding Falls (W00-W19).

The possible number of bed days that these persons could have spent in a six month period is calculated by multiplying the total number of deaths by 182.5. The number of bed days spent in a hospital or hospice in the 6 months before death are then calculated using SMR inpatient records:

Hospital / Palliative Care Unit - includes inpatient stays in a hospice (where data is available) or NHS palliative care unit (identified by significant facility 1G). Note that not all hospices submit inpatient data to SMR and so this will not be a true reflection of hospice activity in every area.

Community Hospital - includes any inpatient activity in a community hospital. The classification was initially based on NHS Cost Book definitions and has been amended following feedback from LIST colleagues.

Large Hospital - includes all inpatient activity not identified as either community hospital or palliative care.

Community - Days spent in a community setting are calculated by subtracting days spent in hospital/hospice from the total number of days. Community includes care home residents as well as those living in their own home.

A small amount of inpatient activity located in care homes has been removed from the analysis and this activity will be captured under the community setting.

Data for the latest years may be marked as provisional (p). This could be due to completeness issues with SMR data or provisional NRS data which may be revised slightly in the future.

Indicator 6 – Balance of care: Percentage of population in community or institutional settings

Source: SMR01, SMR04, Care Home Census, Source Social Care data – Public Health Scotland; Social Care Census, SG; Population estimates, NRS

This indicator uses a range of data sources to estimate the proportion of the population in the following settings:

- Large Hospital
- Community Hospital
- Hospice / Palliative Care Unit
- Care Home
- Home (supported)
- Home (unsupported)

Methodology:

The first three settings are institutional and have been calculated using SMR inpatient activity. This is done by calculating total bed days within the year based on SMR inpatient records and then taking an average number of people per day by dividing by 365. Note that a small amount of inpatient activity located in care homes has been removed from these estimates as care home figures are arrived at separately.

Hospice / Palliative Care Unit – includes any SMR activity in a hospice or NHS palliative care unit (identified by significant facility 1G). Note that not all hospices submit inpatient data to SMR and so this will not be a true reflection of hospice activity in every area.

Community Hospital – includes any SMR activity in a community hospital. The classification was initially based on NHS Cost Book definitions and has been amended following feedback from LIST colleagues.

Large Hospital - includes all inpatient activity not identified as community hospital or hospice / palliative care unit.

Care Home – based on the [Care Home Census publication](#) released by PHS, using the total number of long stay residents present on the census day. This number is assumed to be typical for any given day in the year.

Home Supported – earlier years based on the [Social Care Survey](#) released by the Scottish Government and from 2017/18 based on the [Source Social Care data](#) released by PHS. The total number of people receiving any level of home care during the census week is used. This number is assumed to be typical for any given day within the year.

Home Unsupported – assumes that the remainder of the population is living at home without any care.

Data is presented for all ages, 65+ and 75+ age groups. The proportion of long stay residents in Care Homes aged 65+ and 75+ cannot be calculated directly, therefore a scaling factor has been employed for both of these age groups.

Please note this indicator is still under development.