Introduction to the Scottish Atlas of Healthcare Variation

Realistic Medicine

Using the Atlas

Introduction to the Atlas

Atlas Demo

Data Journey
What is Realistic Medicine?

Realistic Medicine puts the person receiving health and social care at the centre of decisions made about their care and aims to ensure that all treatment offered to patients is able to add value.

One of the main aims of Realistic Medicine is to reduce harm and waste, and tackle unwarranted variation.

https://www.realisticmedicine.scot/

https://www.gov.scot/publications/practising-realistic-medicine
Aims of the Scottish Atlas of Healthcare Variation

- To **highlight geographical variation** in Scotland’s population health, the provision of health services and associated health outcomes.
- Facilitate discussion and raise questions about why differences exist.
- Help to **promote quality improvement** through this conversation.
- Help identify and eliminate unwarranted variation.
- Support the **reduction of harm and waste**.

The Scottish Atlas of Healthcare Variation is designed to highlight variation and **no judgement on the performance or inferences on quality of care of one geographical area against another should be concluded.**

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**Video Introduction**

Professor Mahmood Adil, Medical Director, National Services Scotland, gives a brief overview of the Scottish Atlas of Healthcare Variation and the contribution it can make to supporting Realistic Medicine within Scotland.

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**What maps are included in the Scottish Atlas of Healthcare Variation?**

As of January 2020, topics featured in the Scottish Atlas of Healthcare Variation include:

- Surgical Procedures
- Same Day Surgery (BADS)
- Cardiovascular
- Colorectal Cancer
- Mental Health
- Respiratory

For more information and to view the maps published to date, please explore the Scottish Atlas of Healthcare Variation web pages at:

Where does the data for the Scottish Atlas of Healthcare Variation come from?

The data featured in the Scottish Atlas of Healthcare Variation comes from a range of data sources, such as:
- Scottish Morbidity Records (e.g., SMR01 acute hospital; SMR00 outpatient)
- Prescribing Information System (PIS)
- Scottish Cancer Registry
- National Records of Scotland Mortality Records
- Scottish Bowel Screening IT System (BoSS)

The data included in the Atlas is sourced from robust data sources which are routinely updated and subject to national coding guidance to ensure consistent standards.

Data flows - Hospital example From Stethoscope to Datascope

For more information on standards and coding for clinicians, please visit:
- https://www.isdscotland.org/products-and-services/terminology-services/information-for-clinicians/

What is ISD data used for?

Uses of coded national data

Clinical Audit
Appraisal
Commissioning
Clinical Governance
Clinical Indicators
Case Mix Planning
Benchmarking/Quality Improvement
Outcome Measures
Health Trend Epidemiology
Research

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Scottish Atlas of Healthcare Variation - Charts

Funnel Plot
- The Scotland value is indicated by the grey horizontal line on both the dot and funnel plot.
- Maps will generally be based on age-sex standardised rates rather than absolute numbers. Such a rate takes into account the size of the population as well as adjusting for the age and gender profile in each area, making comparisons between areas more accurate and meaningful.

Dot Plot
- Each dot has a vertical line extending above and below it, which indicates how confident we are that the value is truly representative of the population in the area concerned.
- Areas with larger populations will have narrower range (shorter vertical line), because we can be more confident that the value calculated is precise than we can be for areas with small populations.

Box Plot
- The box plot in the trends over time section shows “fold values” for each year on the vertical axis. These are based on the ratio of the highest and lowest indicator values for that year and are a good indication of the "spread" of values.
- The box plot chart helps to visualise how the variation has changed over time. The values that fall within the middle half of the full range are presented with the grey "box", with the median (or mid-point) highlighted within the box, and the maximum and minimum values shown by the whiskers extending at each of the range.
Next Steps

The Scottish Atlas of Healthcare Variation aims to highlight areas where access to health and care services may differ and stimulate questions and debate about the health and care needed by people in those areas.

It is hoped that the Atlas will support clinicians and healthcare teams to start new conversations about possible solutions to address unwarranted variation in healthcare provision across Scotland.

Key questions to pose

- What do you think is underlying this variation...
  # Could it be related to the population profile in our area?
  # Could it be due to local practice or pathways differing from other areas?
  # What other information could you look at to explore and understand this variation better...
  # More detailed/granular data on the same/related indicators?
  # Patient outcomes?
  # Related prescribing?

The aim is to encourage specialty leads to explore why there is variation and, if they decide that this variation is unwarranted, identify what action is needed to address this. The clinical narratives in the Atlas should support them to do this.

Key questions to ask yourself...

- What is the average (Scotland level) value?
- What is the variation/spread of values across different areas...
  Where does my area lie within this?
  How wide are the confidence intervals for my area?
  How do we compare with areas we would expect to be similar?
  How has this changed over time?
- How many cases/patients does this indicator value relate to in my area?

Remember that average is not necessarily "ideal" and that high or low values don't necessarily mean "worse" or "better" outcomes, access or activity.

Sources of further information

**ISD Website:** [https://beta.isdscotland.org/](https://beta.isdscotland.org/)

**Local data and intelligence**
- NHS Board analytical teams
- LIST team - nss_list@nhs.net

**Discovery:** [https://www.nssdiscovery.scot.nhs.uk](https://www.nssdiscovery.scot.nhs.uk)

**SCRIS (Scottish Registry and Intelligence Service)**
[https://www.isdscotland.org/Health-Topics/Cancer/Scottish-Cancer-Registry/](https://www.isdscotland.org/Health-Topics/Cancer/Scottish-Cancer-Registry/)

**Source Tableau Platform (Health and Social Care Integration)**
[https://www.isdscotland.org/Health-Topics/Health-and-Social-Community-Care/Health-and-Social-Care-Integration/Dataset/](https://www.isdscotland.org/Health-Topics/Health-and-Social-Community-Care/Health-and-Social-Care-Integration/Dataset/)

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