

Dorset Intelligence and Insight Service (DiiS) – Dorset ICS

Current ICS priorities for using data



Data analysis skills

Supporting staff across the system to use data with confidence



Near real time data

For increased efficiency and more appropriate care

Building an integrated information system

- Located within a provider trust, to facilitate **data storage**
- Uses **Microsoft Azure** to provide its 'data lake' and **PowerBI** for content and portal management
- Data is **pseudonymised at source** and can only be re-identified by clinicians/service providers where they are directly responsible for the care of the patient/service user
- **Close to real-time data feed** with nightly updates from primary care records of all patients who have not opted out
- Data sources include **primary care, acute, mental health, community and children's and adults' social care data**, plus postcode level **MOSAIC data** (demographic and lifestyle information) for wider insights into socioeconomic determinants of health
- A 50-member public **digital patient engagement group** provides a sounding board for digital activities within the health and care system – including feedback on DiiS initiatives

"We've genuinely created a pseudonymised dataset that enables us to do PHM as well as going down into patient cohorts around a particular treatment area to identify how effective we're being"

ICS key facts

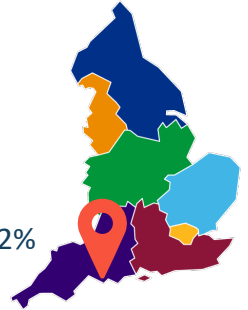
Region: South West

Population size: 819,184

Urban neighbourhoods: 77.8%

Neighbourhoods in most deprived quintile: 8.2%

No. of places: 2



"We're looking for more advanced skill sets around data interrogation and development [but] that doesn't take away the need for user experience and engagement"

How DiiS enables better use of patient data

- DiiS includes **clinical support tools** to assist healthcare providers in pathway and service design and care provision activities
- Near real-time data feed supports **case finding** so individual patients can be re-identified, leading to **more appropriate care** and **timely decision-making**
- Offers **population-level analysis** for population health management activities
- Tools and algorithms for **risk stratification and segmentation** are available – **DiiS trains users** on how to use these and what assumptions they can make as a result
- Focuses on **efficient use of data** – frequent usage audits prevent capacity being wasted on lightly used reports; unused data is scrubbed from the system and staff access permissions are regularly reviewed



White Tail



Understanding
Patient Data

Dorset Intelligence and Insight Service (DiiS) – Dorset ICS

What's enabled progress?

- Dorset chose to become an **early adopter of ICS principles**, meaning the system was able to move forward quickly with integrated approaches to using data
- Strong **leadership** from the top of the ICS has created a culture where staff are empowered to develop new skills and engage proactively with data
- **Removal of the payment by results tariff** encouraged system partners to have more sophisticated conversations about how to use data to provide care more efficiently
- DiiS is **user-led**: Dashboards and data collections are co-designed with lead clinicians to ensure that available data is meaningful and supports clinical and professional decision-making
- A **proof of concept** was established by work to expand access to real-time data as part of the COVID-19 response; DiiS was able to capitalise on this to maintain impetus on innovating with data
- DiiS benefits from a **supportive information governance environment** – IG leads are focused on improving patient care, based on robust pseudonymisation processes, and emphasising the Caldicott principle of sharing data within safe parameters
- DiiS hosts a data and analytics **centre of excellence which supports recruitment and retention** of analysts and data architects

What's improved as a result of DiiS?

- DiiS played a crucial role in improving **efficiency in prescribing asthma inhalers**: respiratory clinicians analysed prescribing data for symptom relief inhalers versus preventative inhalers, identifying outlying practice at primary care network and even surgery level. Findings were fed back to GPs making prescribing decisions. Following the initiative, a reduction in ED visits for asthma was observed.
- Local authority staff have worked with DiiS to understand the **prevalence of different health conditions among people experiencing homelessness**, and to address the accommodation needs of hospitalised people experiencing homelessness as part of a **coordinated package of care**

What's next?

- DiiS is planning to create **models and predictive analyses** – with a greater focus on data science modelling with automation in the background to achieve a faster experience and support further efficiencies
- There are plans to **incorporate some voluntary sector data** into the platform, subject to enhanced IG requirements
- In the longer term, a greater focus on data science is possible, incorporating wider datasets such as warmer homes and air quality
- Opportunities for **user-submitted data in rural locations**



White Tail



Understanding
Patient Data