

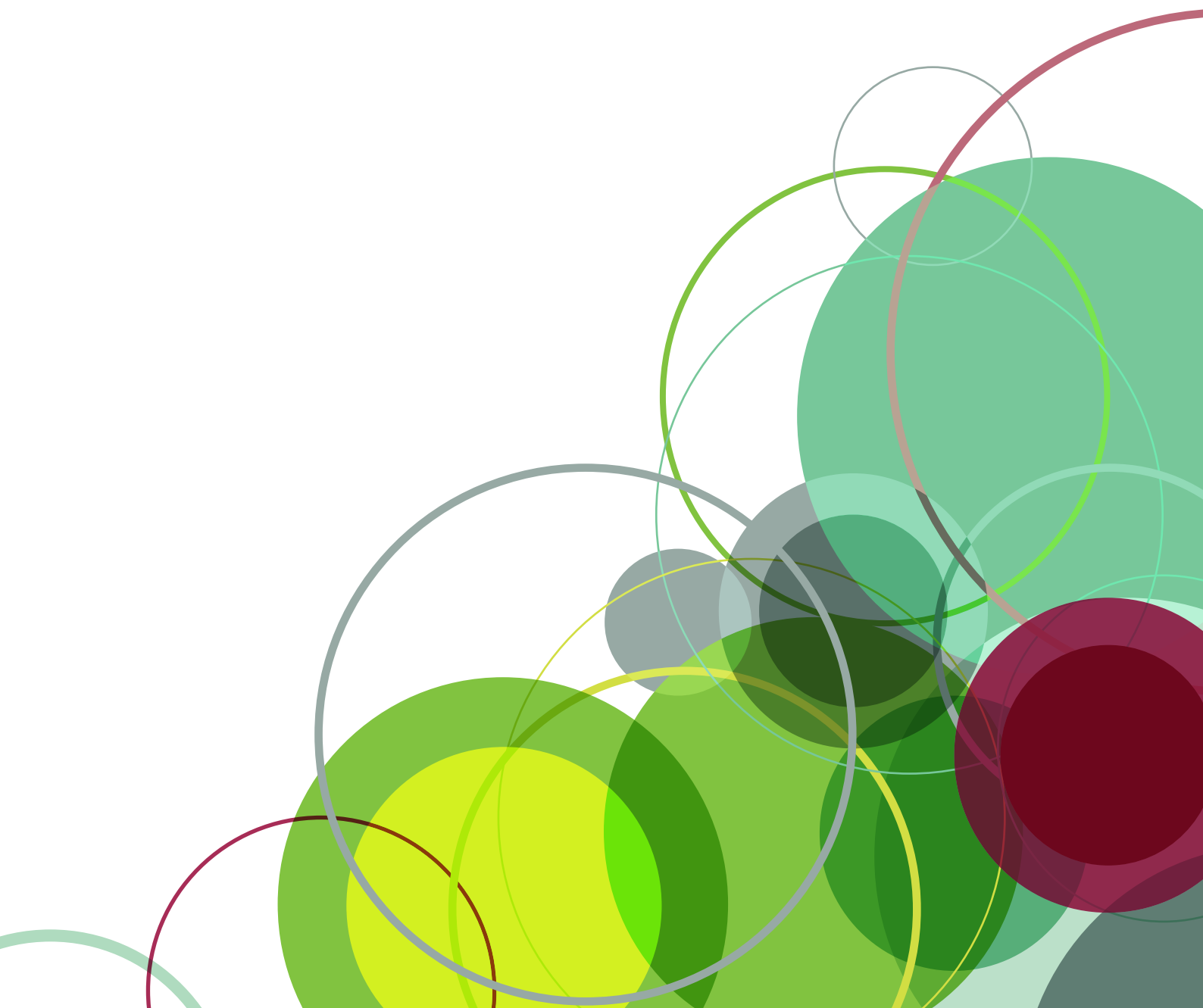
BRADFORD INSTITUTE
FOR HEALTH RESEARCH

| MAKING RESEARCH REAL

A COLLABORATION BETWEEN BRADFORD NHS
AND LOCAL GOVERNMENT PARTNERS

Connected Bradford

Real-time, linked data advancing
population health intelligence
and improving health and services
across Yorkshire



Connected Bradford



One aim: Population Health Management

to improve the health and wellbeing
of patients across the Bradford & Airedale region

Our research teams are open to collaboration and partnership working. If you would like to discuss a health data research / service improvement study please contact the programme office at cYorkshire@bthft.nhs.uk

Harnessing data to redesign healthcare

Linked data sets have been used to establish a more comprehensive view of the needs of population, and the different levels and costs of services that these populations consume. Linking GP practice to hospital, and other healthcare data, empowers commissioners and providers across Bradford & Airedale to understand discrete events that impact groups of people within the GP, community and in the hospital.

Work across the regions is now focussed on how we can best support these populations as a whole, and bring services together whilst supporting them in the community for as long as possible.

The projects are examples of how the Connected Bradford Database has been used for population health management.

ABOUT

Integrating datasets across the region

Connected Bradford connects de-identified, longitudinal, near to real time data from different organisations for approximately 700,000 citizens across the Bradford and Airedale region into a single database. The database is held securely at Bradford Teaching Hospitals NHS Trust using the highest standards of governance and security to protect citizens' records.

Connected Bradford started in January 2016 and we discussed our approach with the Information Commissioners Office in September 2016. The database is supported by individual data sharing agreements with multiple data providers across the region. Connected Bradford has ethical approval for a research database that is overseen by a Steering Group of committed individuals from each of the different organisations who meet regularly to oversee the database and review requests for anonymised data from analysts and researchers.

IRAS ID: 227117 REC reference: 17/EM/0254.

Connected Bradford also has Confidentiality Advisory Group s251 approval to link with education data and is exploring connecting to additional data sources such as crime, housing, voluntary care organisations and air quality.

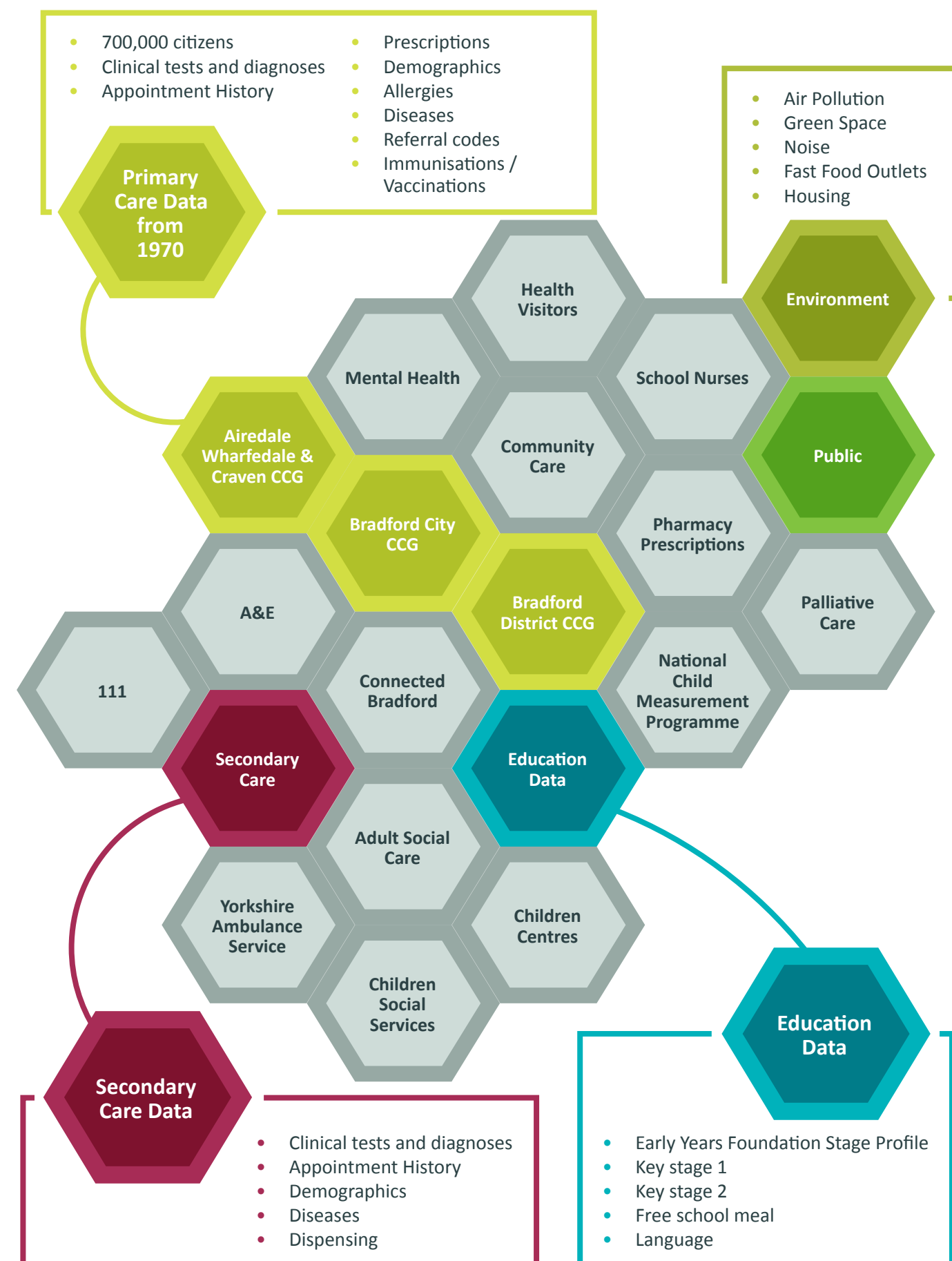
The database can be used to for whole population analysis by examining trends as well as population segmentation to track care, identify patient journeys, draw conclusions, develop interventions and evaluate interventions. Our goal is to be proactive and identify citizens that are not just unwell but at risk of developing illnesses and provide them with the right care before they worsen.

We continue to engage with our citizens and professional stakeholders to ensure that we have the support we need for population health management, learning health systems using the latest technology for service improvement, planning, evaluation and research.

Whilst the database cannot re-identify anyone, citizens can choose not to have their records in the Connected Bradford database by liaising with their GP so their opt-out preferences can be recorded in their primary care record.

Data Tapestry

Connected Bradford Database





PROJECTS

1

Improving the service redesign pathway for Wheezy Children

To improve population outcomes for children and young people with wheeze or asthma, the Ambulatory Care Experience (ACE) project was implemented at Bradford Teaching Hospitals NHS Foundation Trust. The ACE service has been running for one year now at Bradford Teaching Hospitals NHS Foundation Trust and is growing from strength to strength as a value based healthcare. Children with wheeze/asthma are referred predominantly by primary care to specialist nursing roles within the community who deliver care in the patient's home rather than urgent and emergency care.

Commissioners are working in collaboration with BIHR to evaluate the service redesign using the Connected Bradford Database measuring improvements and outcomes using the integrated de-identified data from the Trust and primary care for this segmented population. The database identifies the different patients referred to the service and the types of services they received before the referral including hospital admissions.

Other than identifying costs and savings which fall beyond the direct costs associated with the bed bases, the database enables budget analysis of the broader health and care economy. These include average length of stay for patients, A&E attendances, and hospital admissions for a similar group of patients supported by more traditional services.

If you would like to know more please visit us at www.bradfordhospitals.nhs.uk/the-ace-service/

2

Supporting older people with frailty

This project aimed to respond proactively to the needs of older people at risk of mild level of frailty whilst optimising their health outcomes and patient experience. By segmenting a population in primary care and in collaboration with Age UK at Saltaire Medical Practice, the project developed an intervention to improve their help aimed at increasing people's knowledge about their conditions to improve their ability to self-care and use health services appropriately.

The project evaluation used a controlled cohort to match patients against their health and social care resource utilisation and created a similar cohort of patient who did not receive the service. The database was used to identify a segmented population based on their health status, healthcare needs and priorities in primary care. The linked de-identified data across the whole system spanning primary care, secondary care and social care provided insight into the clinical outcome measures of the impact of the Age UK intervention.

3

Improving the pathway in the diagnosis of Child Autism Spectrum Disorder

We know that the current Autism Spectrum Disorder (ASD) process is lengthy and parents and children have to wait for long periods (sometimes 3-4 years) to receive a diagnosis. How did we help?

Using the linked datasets, the population health was segmented to identify children that had received a diagnosis of Child ASD. Additional information on the socio-economic status of the families indicated that diagnosis of autism is late in families with low income, ethnic minorities and families with low education. In addition, health care data was linked to education data which indicated the interplay of health and education in children. Ultimately this could lead to potentially fast track assessment and subsequent early interventions.

A pilot project across 10 schools in Bradford is currently being undertaken to establish whether education data leads to an earlier identification of children with potential ASD and earlier access to intervention and reduce inequity in provision of assessment at each intervention.



Bradford Teaching Hospitals
NHS Foundation Trust

In partnership with:

Bradford City CCG
Bradford Districts CCG
Airedale, Wharfedale & Craven CCG
Airedale NHS Foundation Trust
Bradford District Care Trust
Bradford Institute for Health Research

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