

CLAHRC researchers enjoyed success at the recent Public Health England Annual Conference in Warwick.

They were among the authors of an award winning poster representing our partnership work with Islington Council.

We are working with the borough as it seeks to link NHS data with its own datasets to build a clearer picture of local population needs and better target services and interventions.

Linking these sources of data can build a picture of how social determinants of health – the conditions in which people are born, grow, live, work and age – might impact on residents' wellbeing and use of health services. Examples would include how housing conditions impact on hospital admissions or how serious childhood illnesses could affect school attendance and attainment.

The poster was presented by Laura Scott, Principal Data Specialist at Islington Council and highlights how 90 data sources within the council are being joined up, already proving valuable in understanding local risk factors for ill health and improving access to services.



Islington Insights population register:

linking council data to understand local population needs for a fairer, healthier city

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Key messages: Developing the *Islington Insights* population register was challenging, requiring locally-developed methods to manage variable data content and quality. It has enabled a greater understanding of the local population and complex issues, allowing council services to be delivered more effectively and fairly.

BACKGROUND

Councils hold information on many aspects of people's lives. Data are in multiple databases with no common key identifiers, with no standard approaches to recording.

Aims:

- create The Islington Insights population register by linking data across the council.
- use these data to understand the population's needs, improve council services, and identify opportunities for prevention and service integration.

METHODS

Creation:

- Over 90 data sources were brought together using locally developed algorithms using combinations of name, date of birth, address and other identifiers.
- A 'golden record' generated for each individual with a single best set of demographics.
- Co-resident adults were grouped as households and assumed to move together to manage high within-Borough mobility and variable recording of address changes. Each child was assigned to a responsible adult and assumed to remain with that adult.

Validation: The population profile was compared with Greater London Authority (GLA) population estimates.

RESULTS & DISCUSSION

The register has a population profile similar to GLA estimates. (Fig. 2)

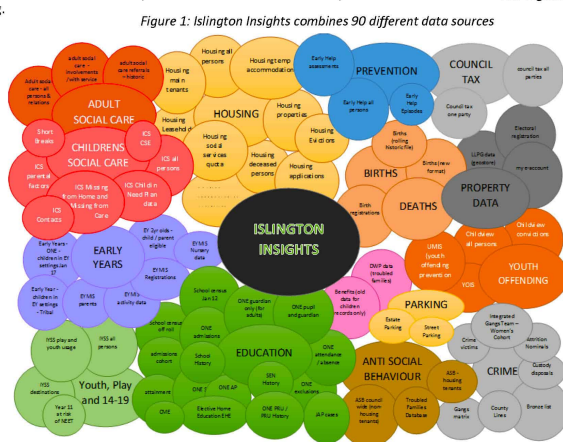


Figure 1: Islington Insights combines 90 different data sources

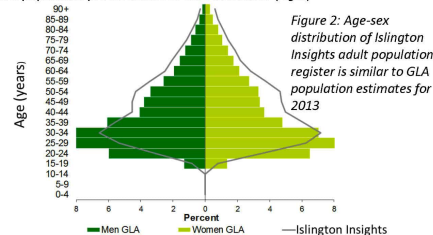


Figure 2: Age-sex distribution of Islington Insights adult population register is similar to GLA population estimates for 2013

Challenges and opportunities:

- Building the database required significant time and expertise.
- Each dataset varied in quality and personal identifiers available for linkage.
- Grouping household members was needed because of high mobility and variable recording of address changes but allows exploration of how issues affect whole households (e.g. domestic violence).

Figure 3: Islington Insights has been used for many purposes



Uses: Islington Insight has already led to greater understanding of complex local issues (Fig. 3). It will enable external data linkages, e.g. with local health data to better understand the social determinants of health.

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Islington insights population register: linking council data to understand local population needs for a fairer, healthier society

Laura Scott, Helen McDonald, Mahnaz Shaukat, Lawrence Vandervoort, Logan Robertson, Jessica Sheringham, Sarah Dougan

Over 1500 participants visited the PHE annual conference representing a wide range of organisations working to improve the health of the public.

The CLAHRC's Dr Jessica Sheringham (Senior Research Associate) was an author of the poster chosen from over 350 submitted - the award was presented at the conference dinner.



The project is funded by the Health Foundation as part of its [Advancing Applied Analytics programme](#), aimed at improving analytical capability in support of health and care services.

Read more about this work via the link below

[Linking health and local government data at household level to understand social determinants of health](#)