



JSNA Citywide Intelligence Hub Masterclass

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Housekeeping



Are you connected?

Please ensure you're connected to the internet.
Open Google Chrome (or another modern
internet browser) and make sure you can get
to <https://smarturl.it/citywideintelhub>



Are you comfortable?

Drink and snacks available – water and
vending machine; Coffee #1 downstairs



Toilets



Fire evacuation

Objective

By the end of this two-hour session, you should be able to use the Citywide Intelligence Hub for the Coventry Health and Wellbeing Board's Joint Strategic Needs Assessment (JSNA).



What do you want to get out of the session?

Please share the following:



Who are you? (Your name)



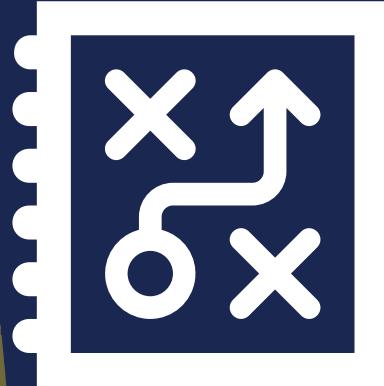
What do you do? (Job role / organisation)



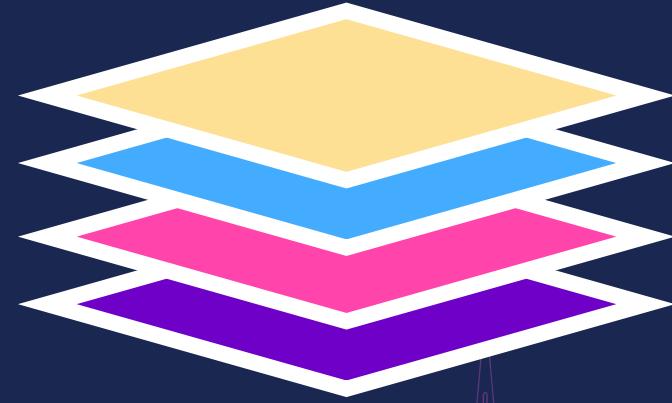
Why are you here? (What do you want to get out of this session?)

Agenda

1. **Citywide Intelligence Hub**
 - What is it? Why did we build it? How does it work?
2. **Joint Strategic Needs Assessment**
 - What is it? What does it tell us?
3. **Using the Citywide Intelligence Hub**
 - Data Profiler Tool
 - Data Correlation Tool



Citywide Intelligence Hub



Citywide intelligence hub
“single source of truth”



About the Insight Team

Insight

“Questioning, influencing and providing understanding to make life better in Coventry”



Culture



Health and wellbeing



Housing and homelessness

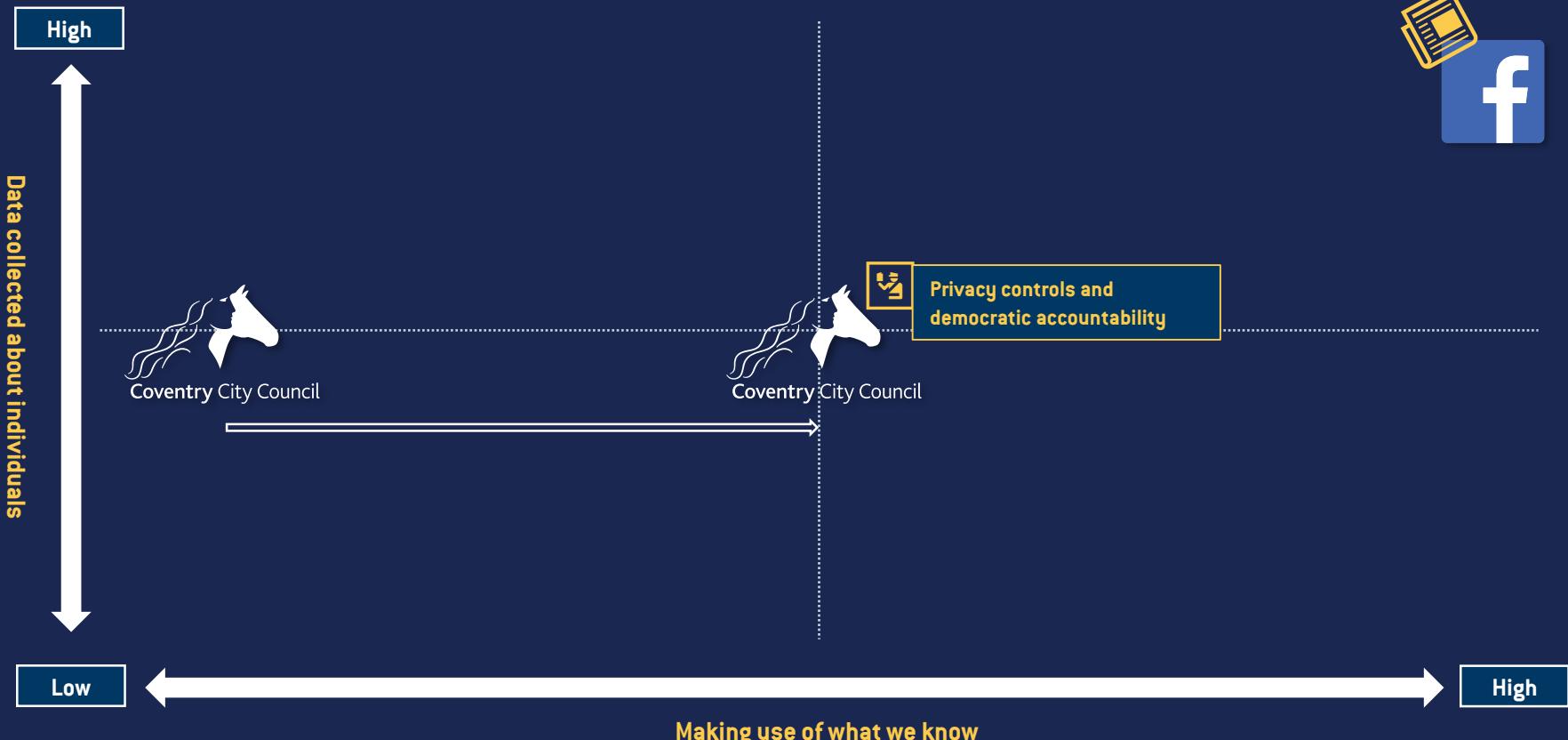


Geographical information systems



Compliments,
comments and
complaints

Making use of information



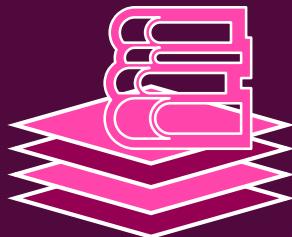
From individual projects...



...to building platforms...



Engagement platform



Data platform
(citywide intelligence hub)



Performance hub

...to free up time for advanced insight

What is happening
Descriptive analytics

Why is it happening
Diagnostic analytics

What is likely to happen
Predictive analytics

What should we do
Prescriptive analytics

Hindsight

Static reports and data books

Static spreadsheets

Static maps

Government statistical returns

Insight

Performance dashboards and Power BI reports

Interactive spreadsheets and open data

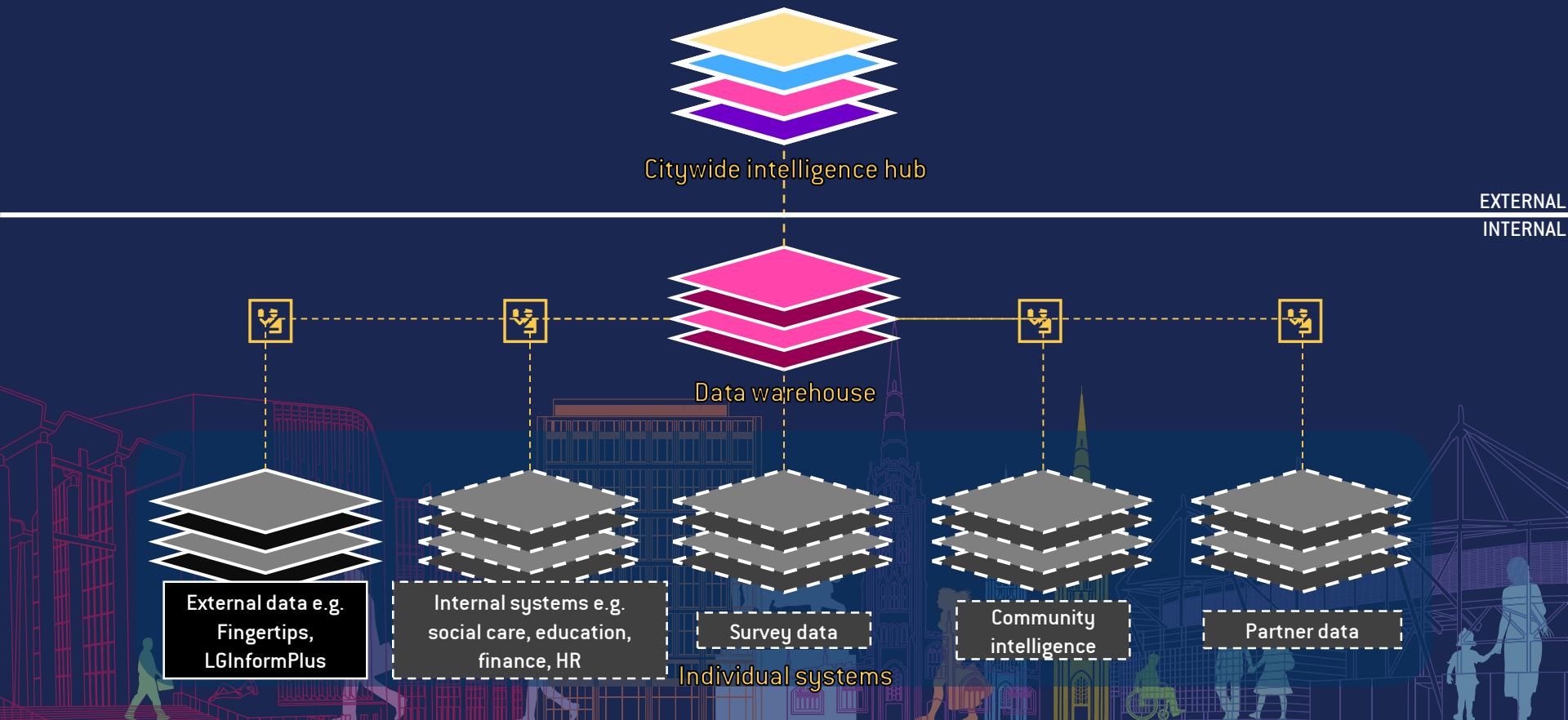
Spatial data

Data automation

Foresight

1. Citywide Intelligence Hub – how does it work?

Data platform



1. Citywide Intelligence Hub – how does it work?

Citywide intelligence hub



Citywide intelligence hub
“single source of truth”

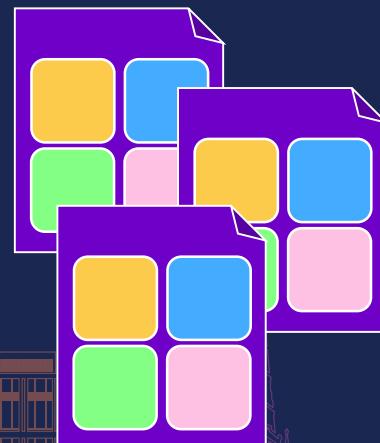
Data exploration

Data collection plan



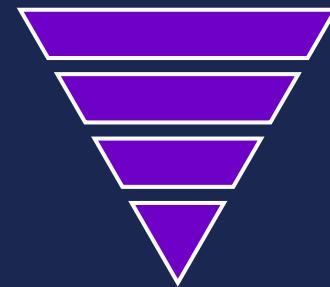
Identify all the indicators we want to collect – and where they're coming from (data sources)

Themes



Assign themes and sub-categories to each data item

Import



Set up import routines to import the data into the data warehouse

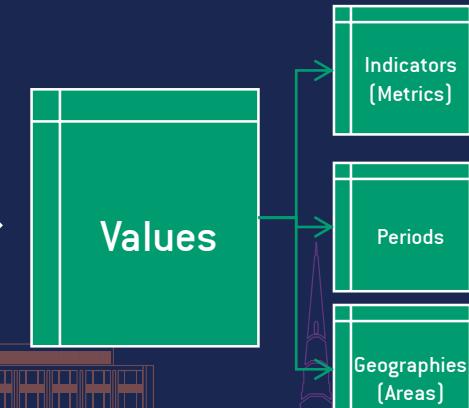
Data model

Data sources



Import
routine
with
refresh
period

Data warehouse



Power BI



Themes
look-up
table

Shapes
look-up
table

A data model that allows us to store indicator data over any bespoke space and time:
as long as an indicator has a geographical and time dimension, it will fit in this data model.

Coventry Joint Strategic Needs Assessment (JSNA)

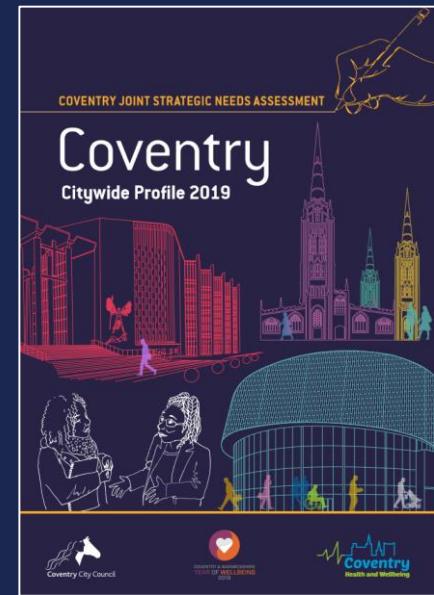
What is the JSNA?

The JSNA brings together evidence about the health and wellbeing of Coventry residents, to help leaders across health and care understand and work together to improve the health and wellbeing of the people of Coventry.

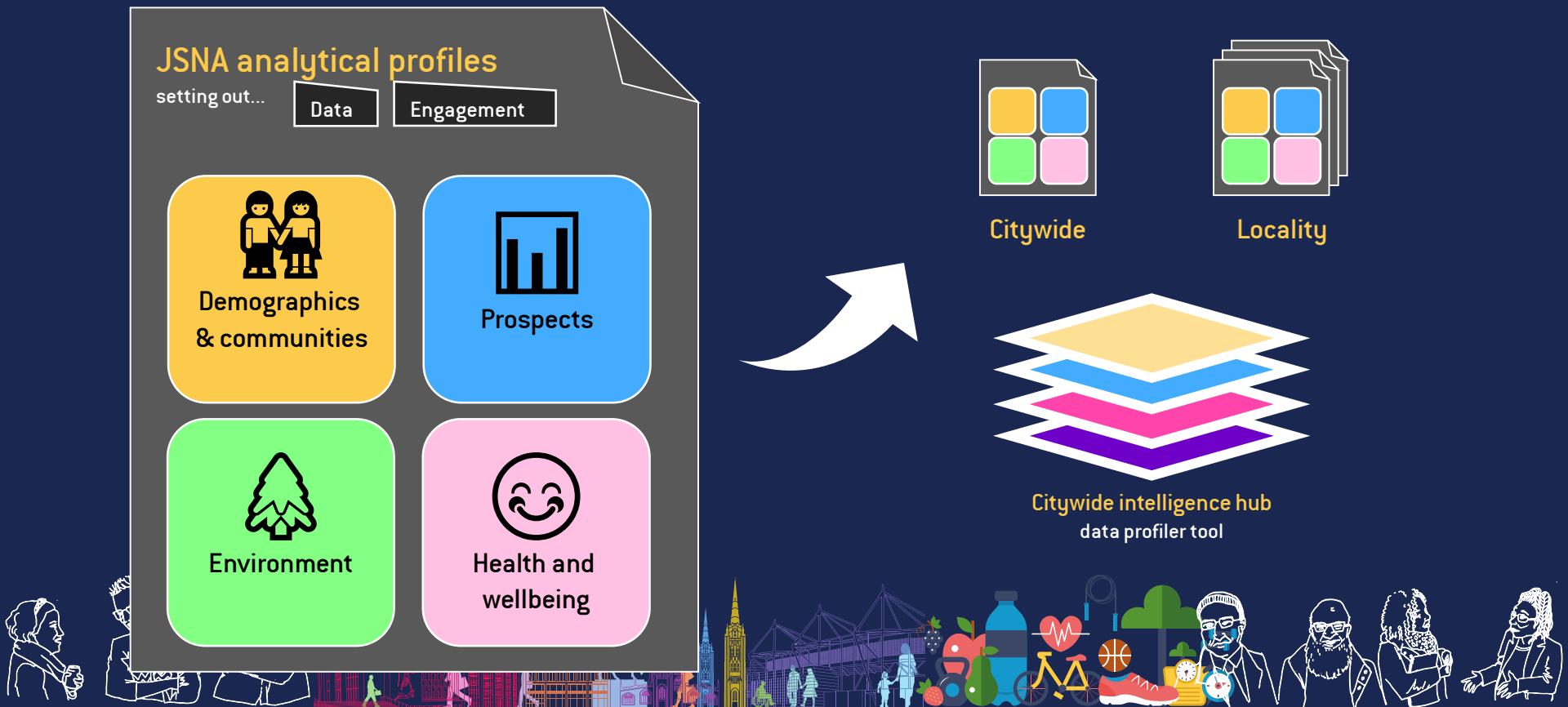
The JSNA is a statutory responsibility of the Health and Wellbeing Board.

Website: www.coventry.gov.uk/jsna/

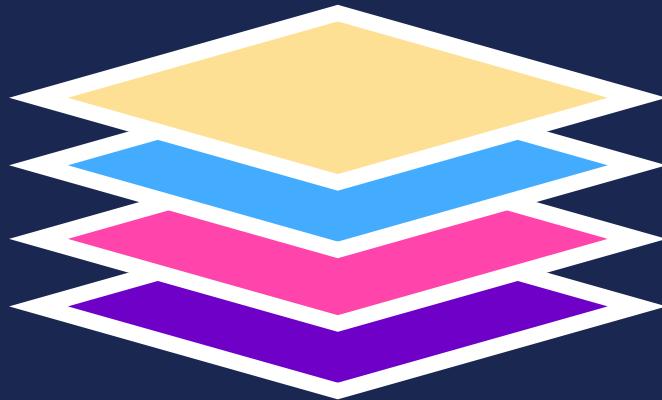
Citywide profile: <https://smarturl.it/jsna>



A place-based approach to the JSNA



Citywide Intelligence Hub



Citywide intelligence hub

Website: www.coventry.gov.uk/jsna/

Direct link: <https://smarturl.it/citywideintelhub>

Data Profiler Tool

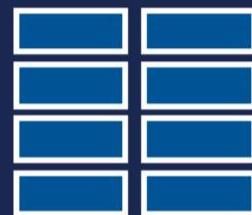
Compare and contrast metrics between different geographies and time periods using data tables, bar charts, line graphs and shape maps.

Data Correlation Tool

Show correlation between any two metrics.

Coventry Citywide Intelligence Hub

Insight Team, Coventry City Council



Data profile tool



Data correlation tool





Step 1. Choose theme:

Demographics and community

Environment

Equality

Health and wellbeing

Prospects

Step 2. Choose sub-category:

Adults

Aging well

Best start in life

Cancer

Cardiovascular, heart disease, C...

Children and families

Children's social care

Crime

Demand and access

Demographics

Step 3. Choose an indicator:

Search



% 15 year olds physically active for at least one hour per day seven days a week

% achieving 9-4 in English and maths - Black (9220)

% achieving 9-4 in English and maths - first language is English (9222)

% achieving 9-4 in English and maths - first language is English and maths - first language is English (9228)

% achieving 9-4 in English and maths - no identified SEN (9228)

% achieving 9-4 in English and maths - SEN without a statement (9229)

% 15 year olds with a mean daily sedentary time in the last week over 7 hours per day (...)

% achieving 9-4 in English and maths - boys (9215)

% achieving 9-4 in English and maths - first language is other than English (9223)

% achieving 9-4 in English and maths - non disadvantaged backgrounds (92...

% achieving 9-4 in English and maths - non disadvantaged backgrounds (9217)

% achieving 9-4 in English and maths - White (9217)

% achieving 9-4 in English and maths - a statement of SEN or EHC plan (9230)

% achieving 9-4 in English and maths - Chinese (9221)

% achieving 9-4 in English and maths - girls (9216)

% achieving 9-4 in English and maths - pupils known to be eligible for free school meals (92...

% achieving 9-4 in English and maths - pupils known to be eligible for free school meals (9214)

% achieving 9-4 in English and maths - pupils known to be eligible for free school meals (9214)

Step 4. Choose a view:

Data table

Chart

Map



Demonstration of the data profiling tool

Using the data profiler tool, I'll show you a data table, chart and map view of total resident population.

You'll see that as I select "data table" in Step 4, there'll be an additional Step 5 – choose a date to visualise.

The screenshot shows the Coventry Citywide Intelligence Hub - Data Profiler Tool interface. At the top, there are three steps: Step 1. Choose theme: Demographics and community; Step 2. Choose sub-category: Demographics; Step 3. Choose an indicator: Total resident population (1). Below these, there are four tabs: Local Authority, LSOA, MSAO, and Ward, with Local Authority selected. A red box highlights the Local Authority tab. To the right, a data table displays total resident population for various local authorities from 2002 to 2008. A red box highlights the first few rows of the table. At the bottom left, Step 4. Choose a view: Data Table, Chart, Map, with Data Table selected. A red box highlights the Data Table tab. Below it, Step 5. Choose a date to visualise: a grid of years (2002, 2005, 2008, 2011, 2014, 2017, 2003, 2006, 2009, 2012, 2015, 2018, 2004, 2007, 2010, 2013, 2016), with 2008 highlighted. A red box highlights the date selection grid. To the right, there is a map of Coventry with a tooltip showing '366,800.00'. A red box highlights the map area.

This link icon takes you to an indicator definition.

Notice that the data table mixes different geographies – e.g. Bablake next to Barking. You can filter this!

If you hover over things you'll get a tooltip.

Over to you

Using the data profiler tool, please could a volunteer create:

1. a data table showing median gross annual pay of employees by residence.
2. a line chart comparing the population of Coventry and Dudley over time.
3. a bar chart showing the % of ethnic minorities in 2016 across the West Midlands.
4. a map comparing and contrasting median age in Coventry at the LSOA level.

Quiz

Using the data profiler tool, find out:

1. **Homelessness:** how many households per 1,000 are statutory homeless in temporary accommodation in Coventry in 2017/18? which local authority had the highest rate?
2. **Fuel poverty:** in 2016, which Coventry LSOA had the highest percentage of the population living in fuel poverty?
3. **Depression:** which of the WMCA authorities have the lowest percentage of recorded prevalence of depression in 2017/18?



Primary model:

Demographic...	Environment	Equality	Health and we...	>
Search <input type="text"/>				
% 15 year olds physically active for at least one hour per day seven days a week (9...)	% achieving 9-4 in English and maths - a statement of SEN or EHC plan (9230)	% achieving 9-4 in English and maths - Black (9220)	>	
% 15 year olds with a mean daily sedentary time in the last week	% achieving 9-4 in English and maths - (9210)	% achieving 9-4 in English and maths - (9215)	>	
Local Authority	LSOA	MsoA	Ward	
(Blank)	1998	1999	2000	>

Coventry Citywide Intelligence Hub – Data Correlation Tool

The data correlation tool shows the correlation between any two metrics. Please be aware that correlation does not imply causation and further exploratory work will be required to determine the truth.

To use this tool, please:

1. choose a metric from the primary model (left);
2. choose another metric from the secondary model (right); and
3. click "compare now", below.

Compare now!



Secondary model:

Demographic...	Environment	Equality	Health and we...	>
Search <input type="text"/>				
% 15 year olds physically active for at least one hour per day seven days a week (9...)	% achieving 9-4 in English and maths - a statement of SEN or EHC plan (9230)	% achieving 9-4 in English and maths - Black (9220)	>	
% 15 year olds with a mean daily sedentary time in the last week	% achieving 9-4 in English and maths - (9210)	% achieving 9-4 in English and maths - (9215)	>	
Local Authority	LSOA	MsoA	Ward	
(Blank)	1998	1999	2000	>



Primary model:

Coventry Citywide Intelligence Hub – Data Correlation Tool



Secondary model:

Demographics and community

Search



Median age (1941)

LSOA

2011 Census

The data correlation tool shows the correlation between any two metrics. Please be aware that correlation does not imply causation and further exploratory work will be required to determine the truth.

To use this tool, please:

1. choose a metric from the primary model (left);
2. choose another metric from the secondary model (right); and
3. click "compare now", below.

Compare now!

Equality

Search



Fuel poverty (2131)

LSOA

2010 2011 2012 2013 2014 2015 2016





Primary model:

Median age (1941)

Demographics and community

Search

Median age (1941)

LSOA

2011 Census



Data tables

Coventry Citywide Intelligence Hub – Data Correlation Tool

Secondary model:

Fuel poverty (2131)

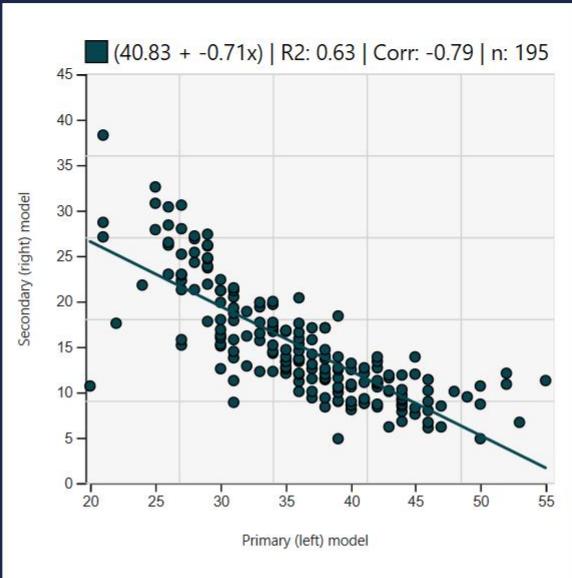
Equality

Search

Fuel poverty (2131)

LSOA

2010 2011 2012 2013 2014 2015 2016



Over to you

Using the data profiler tool, please could a volunteer come up and show a correlation between:

1. key stage 2 expected standard (92672) 2017 and average attainment 8 (6014) 2017/18;
2. good level of development (90631) and homeless young people(92695) in 2017/18;
3. ...anything else you would like to compare and contrast?

Review

Are you now able to use the Citywide Intelligence Hub?

Did you achieve what you came here to learn?

Evaluation / feedback form to follow.

Questions



Thank you!



Si Chun Lam

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Coventry City Council

**ONE
COVENTRY**

www.coventry.gov.uk/infoandstats/
www.coventry.gov.uk/jsna/

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