Public Health
England

Dementia Profile

User Guide

Using Fingertips Software

January 2016

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1. Introduction

The Dementia Profile is a suite of interactive web tools developed for the Dementia Intelligence Network by the Mental Health Dementia and Neurology Intelligence Network (MHDNIN) of Public Health England.

The profile uses Fingertips to provide easy access to in-depth analysis of a wide range of health related data in thematic profiles.

This user guide focuses on the common features of the Fingertips software and uses examples taken from the Dementia Profile. Other profiles developed in the software also share these features. Metadata information on the indicators is available via the 'Definitions' section of the profile.

# 2. Quick Guide to Fingertips Software Features

A training video for the Subnational Fingertips tool is available at introducing the Fingertips tool

Additional information
A link to the Fingertips homepage signposting to supporting information and tutorials is found in the top section of each tool. A 'Contact Us' link is also available in the top right.

Search for indicators
Most tools provide search facilities, located across the top of the page. Using this function returns all indicators which include the keyword in the name or in a specific set of metadata fields.
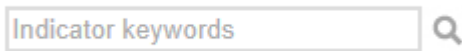
Domains
Profile can be broken down into domains which can be explored by clicking the domain headings. The currently selected domain is marked with a dark background. For example, the screenshot below shows six available domains with the 'Prevalence' domain currently selected:
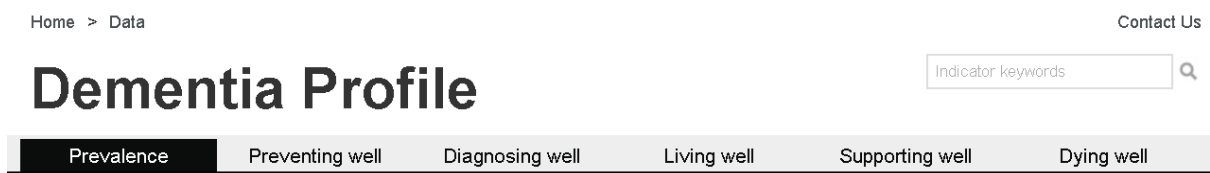
Geography
The example below shows a profile with the complete set of options, only offered when choices are actually available in the data:

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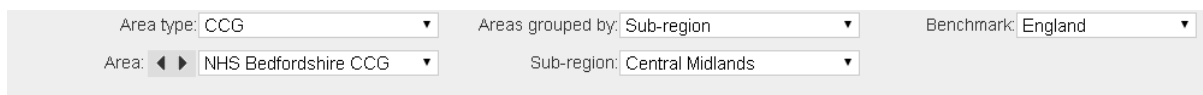
Area type

Fingertips can only display data for one level of geography at a time. If a tool contains indicators at more than one geographical level the user needs to firstly choose which geography they want to view the data by.

Note: Not all indicators are provided at all geographical levels. If an indicator is not showing check different area types!

Areas grouped by

Which areas are displayed together is decided in the 'Areas grouped by'-dropdown. The options are either a higher geographical level (Centre, Region) or groupings by similarity such as deprivation deciles.

Subsequent choices

Dependent on the choice of 'Areas grouped by' the drop down underneath is populated (in the example above: choosing 'PHE Centre' determines that centres are offered to choose from – Thames Valley was selected here). Subsequently options are offered in 'Area', these are based on the previous selections: E.g. Oxfordshire is one of the Counties/UAs in Thames Valley.

Benchmark

To decide on statistical significance a benchmark needs to be chosen. This is by default England.

Statistical significance and colour coding

A training video on significance is available at: understanding significance in the Fingertips tool

For each indicator, the colour coding shows whether the measure for that area is statistically above or below the comparator (sometimes 98%) The default comparator is the national average. This can be changed to the regional average using the benchmark 'drop-down' at the top of the page. Details of the statistical method used for comparison are available by clicking on the 'Definitions' tab. If the indicator is not coloured it means that no statistical comparison was possible. In most cases this is because the raw data used to calculate the indicator, and which is necessary to undertake statistical comparison, were not available, or the necessary benchmark value could not be obtained.

Even if an indicator is significantly better than the England or regional average, there may still be a health issue in the area that is worthy of intervention. Some indicators will change colour depending on the comparator group – for example, it is not unusual for areas to be significantly higher than the England average while not being significantly different from the regional average. It is also possible that an area may be experiencing a downward trend while remaining above the national or regional average. Local knowledge and understanding of health issues are also needed to provide context and to inform decisions of where priorities lie.

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3. Views

The Dementia Profile consists of five web views that illustrate the indicators in a variety of styles. A definitions section and a download section have also been included in the profile to provide access to and an understanding of the data illustrated through the profile. These profile features are listed below, with the subsequent pages providing further details.

'Overview' is the default option. It shows all the indicators in rows, the geographical areas in columns, and indicator data in each cell, colour-coded depending on whether it is significantly different from the benchmark.

'Compare indicators' allows the user to select two indicators from the drop-down box and compare values for all geographical areas with a scatter plot chart, trend lines and R^2. The chart can also be exported.
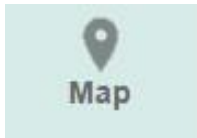
'Map' allows users to see the spatial variation of indictors across England. For each indicator a bespoke comparator group can be defined by the user, with the selected geographies being also presented in a column chart in order of value.

'Trends' allows users to look at data over time, presenting data as a graph and a table. Drop-down boxes allow users to choose the indicator and area of interest and colour-coding indicates whether the values are significantly different from the benchmark.

'Compare areas' allows the user to select an indicator from the drop-down box and examine values for all geographical areas with a bar chart, funnel plot, and a table showing the confidence intervals around each value.

'Area profiles' allows users to select a geographical area and presents all the indicators in a profile for that area in a spine chart. Counts as well as indicator values are presented here, along with figures for national and regional averages, and the range of values.

'Definitions' provides more details about each indicator, including the data source and rationale. It also gives information on how statistical comparisons are made for each indicator.

'Download' provides access to actual indicator data and the underlying data used in the production of the indicator in spread sheet format.

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Overview

'Overview' is the default option in most profiles. It shows all the indicators in rows, the geographical areas in columns, and indicator data in each cell, colour-coded depending on whether it is significantly different from the benchmark.

This view shows a 'tartan rug' of all the indicators, allowing indicators to be compared across all the areas belonging to the grouped-by option chosen (see above: geography). For some options the number of indicators is large and users will probably have to scroll down the screen to see all of the measures. For each indicator, where statistical significance can be calculated the colour coding shows whether the measure for that area is statistically above or below / better or worse than the comparator average. The default comparator is the national average.

The values in the tartan rug can be sorted using the arrows at the start of each row. Using the arrows in the header row sorts the areas alphabetically while using them in an indicator row sorts the table by ascending or descending values of the indicator where the sorting was applied.

The tartan rug can be exported as an image by clicking the 'export table as image' on the left top corner of the table.

Export table as image

Sort the columns into alphabetical order (this is the default view)

Indicator	Period		England	Cumbria and North East NHS r...	NHS Cumbria CCG	NHS Darlington CCG	NHS Durham Dales, Easington...	NHS Hartlepool And Stockton...	NHS Newcastle And Gateshead...	NHS North Durham CCG	NHS North Tyneside CCG	NHS Northumberland CCG	NHS South Tees CCG	NHS South Tyneside CCG	NHS Sunderland CCG
Dementia: Ratio of inpatient service use to recorded diagnoses	2013/14		65.1	-	55.9	46.8	54.5	54.3	66.5	62.1	59.6	62.0	64.3	63.2	65.8
Dementia: DSR of emergency admissions (aged 20+)	2013/14		779	-	705	669	794	767	908	800	765	710	1030	1071	996
Dementia: DSR of emergency admissions (aged 65+)	2013/14		3046	-	2772	2604	3105	3011	3521	3105	3008	2765	4044	4169	3938
Dementia: Short stay emergency admissions (aged 20+)	2013/14		25.5	23.0*	19.7	27.0	26.4	23.0	23.4	34.9	21.8	21.6	30.4	16.6	13.5
Dementia: Short stay emergency admissions (aged 65+)	2013/14		25.4	22.9*	19.5	27.0	25.8	23.2	23.3	34.4	21.7	21.5	30.6	17.1	13.2
Alzheimer's disease: DSR of inpatient admissions (aged 20+)	2013/14		146.2	-	156.2	168.3	177.9	145.7	243.7	151.5	254.1	177.4	197.7	364.2	224.2
Alzheimer's disease: DSR of inpatient admissions (aged 65+)	2013/14		574.5	-	617.8	662.7	696.8	568.4	958.9	588.5	1013.0	692.0	782.2	1436.9	886.1
Vascular dementia: DSR of inpatient admissions (aged 20+)	2013/14		127.5	-	229.5	121.8	123.7	142.6	148.8	158.9	140.6	93.6	177.9	98.5	172.2
Vascular dementia: DSR of inpatient admissions (aged 65+)	2013/14		505.2	-	910.5	470.2	484.1	559.3	588.3	629.0	563.5	371.1	702.7	386.9	689.4
Unspecified dementia: DSR of inpatient admissions (aged 20+)	2013/14		336.1	-	237.4	326.1	388.3	361.8	298.7	305.4	267.4	320.3	422.5	383.5	434.2
Unspecified dementia: DSR of inpatient admissions (aged 65+)	2013/14		1327.3	-	941.8	1292.9	1530.1	1428.7	1173.2	1210.2	1056.4	1257.0	1668.4	1507.6	1726.1

Sort the columns by the values of this indicator.
Click once to sort in descending order, click twice to sort in ascending order.

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Compare Indicators

'Compare indicators' allows the user to select two indicators from the drop-down box and compare values for all geographical areas in a scatter plot chart.

There is an option to highlight the user's respective area on the chart and to add trend line and R^2. The chart can be exported as an image or PDF by clicking the 'export table as' on the left top corner of the table.

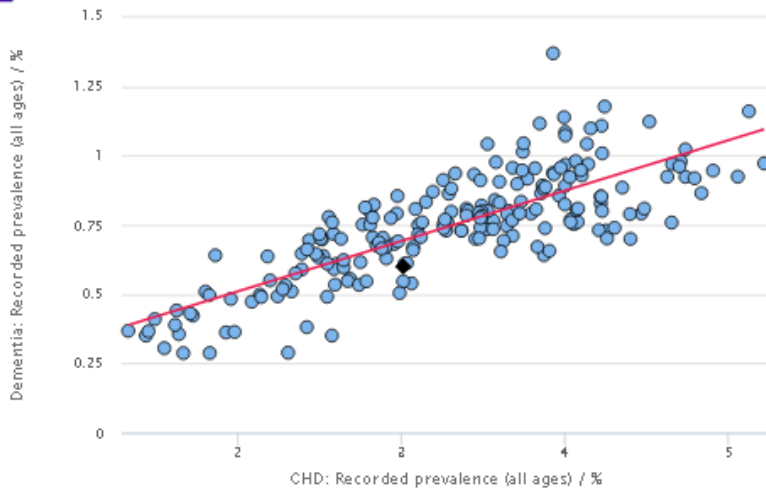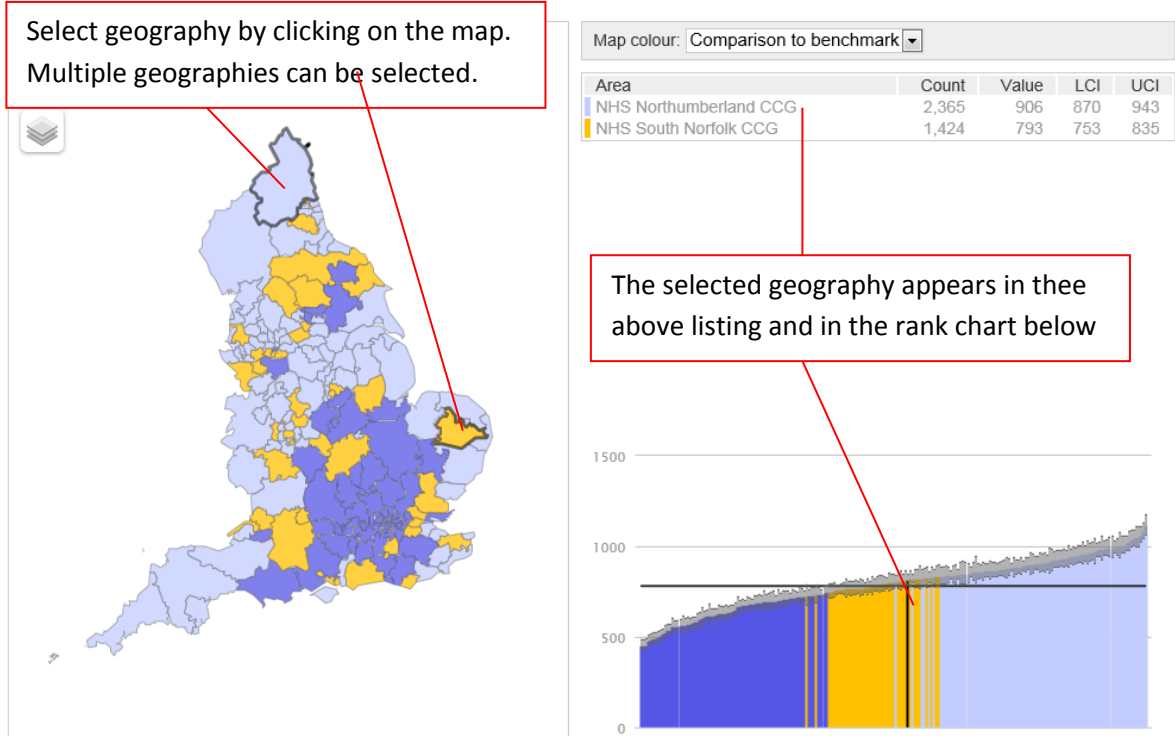Select indicators to be plotted on the chart

Highlight Area point and add trendline & R^2

Maps

'Maps' allows users to see the spatial distribution of the value of indictor across England. It also allows the user to build a bespoke comparator group of geographies. A variety of benchmarks can also be selected.

Select geography by clicking on the map. Multiple geographies can be selected.

The selected geography appears in thee above listing and in the rank chart below

Map colour:	Comparison to benchmark

Area	Count	Value	LCI	UCI
NHS Northumberland CCG	2,365	906	870	943
NHS South Norfolk CCG	1,424	793	753	835

Trends view

This view presents indicator time series data. Drop-down boxes allow users to select the geographical area and the indicator of interest. The default view is to present one indicator for one area. However, it is also possible to choose to show all indicators for the area, or to generate many charts showing the same indicator over time in all areas.

Generates trend chart for all indicators within the theme for selected area

For some indicators and for some areas time series data is not available, but for other indicators there is a useful dataset with many time points. These data are presented in chart form and also in table form, with confidence intervals shown in the tables. Hovering over a data point on the chart will display the values for that point.

Smoking Prevalence in adults - current smokers (IHS)   Derby   Proportion - %

Export chart as image   Show confidence intervals
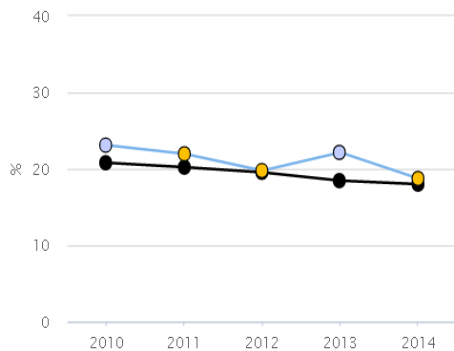
Period		Count	Value	Lower CI	Upper CI	East Midlands	England
2010	○	-	23.1	20.9	25.2	21.3	20.8
2011	●	-	22.0	19.9	24.1	20.3	20.2
2012	●	-	19.8	17.7	21.8	19.9	19.5
2013	○	-	22.1	20.0	24.2	19.1	18.4
2014	●	-	18.7	16.6	20.9	18.8	18.0

Source: Integrated Household Survey. Analysed by Public Health England.

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Compare areas

This tool allows areas that have been grouped together to be compared by use of a bar chart. Both the indicator and comparator group can be changed using the drop-down menu.

Sort the rows into alphabetical order (this is the default view)

Sort the rows by the values of this indicator. Click once to sort in descending order, click twice to sort in ascending order.

Proportion - %

 Export table as image

Area	Value		Lower CI	Upper CI
England	0.7		0.7	0.7
East Midlands region	-		-	-
NHS Nottingham West CCG	1.1		1.1	1.2
NHS Erewash CCG	1.0		0.9	1.0
NHS Hardwick CCG	1.0		0.9	1.0
NHS North Derbyshire CC...	1.0		0.9	1.0
NHS South Lincolnshire...	1.0		0.9	1.0
NHS Bassetlaw CCG	0.9		0.9	1.0
NHS Rushcliffe CCG	0.9		0.9	1.0
NHS Lincolnshire East C...	0.9		0.9	1.0
NHS Newark & Sherwood C...	0.9		0.8	0.9
NHS Mansfield And Ashfi...	0.9		0.8	0.9
NHS Nottingham North An...	0.8		0.8	0.9
NHS Southern Derbyshire...	0.8		0.8	0.8
NHS East Leicestershire...	0.8		0.7	0.8
NHS Lincolnshire West C...	0.8		0.7	0.8
NHS West Leicestershire...	0.8		0.7	0.8
NHS South West Lincolns...	0.7		0.7	0.8
NHS Corby CCG	0.7		0.7	0.8
NHS Nene CCG	0.7		0.7	0.7
NHS Nottingham City CCG	0.6		0.6	0.6
NHS Leicester City CCG	0.6		0.6	0.6

Source: QOF
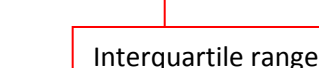
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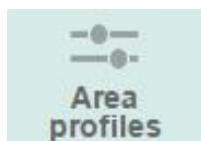
Areas view

A training video on spine charts is available at understanding spine charts video tutorial

This view focuses on one area, selected using the drop-down box near the top of the page or by clicking on the area name in the Overview. It produces a table of indicators within the theme which contains typically:

- counts for the area (for example, Direct Age Standardised Mortality Rate: People with dementia aged 20+)
- the indicator value for the area (usually a percentage or a rate)
- the value for England and for the region
- the lowest and highest values within the region.

Benchmark average

Colour-coded indicator value

Indicator	Period	Bassetlaw		Region	England		England		
		Count	Value	Value	Value	Worst/Lowest		Range	Best/Highest
Directly Age Standardised Mortality Rate: People with dementia aged 20+	2013	186	215.9	-	187.2	104.0			362.8
Directly Age Standardised Mortality Rate: People with dementia aged 65+	2013	186	869	-	746	419			1,461
Deaths in Usual Place of Residence: People with dementia aged 65+	2013	136	73.9%	66.9%	66.6%	25.0%			83.4%
Place of death - care home: People with dementia aged 65+	2013	118	63.4%	59.3%	58.6%	19.5%			77.0%
Place of death - hospital: People with dementia aged 65+	2013	48	25.8%	32.4%	32.6%	15.5%			66.2%
Place of death - home: People with dementia aged 65+	2013	18	9.7%	7.0%	7.4%	1.9%			17.2%

Range of the data – here, the data is skewed towards the best values

Interquartile range

It also displays these data in the form of a spine chart with colour coded points indicating whether the area is significantly different from the benchmark. Hovering the mouse cursor over elements of the spine chart will give more information about the underlying data. When England is selected as the benchmark, a spine chart display is generated for the indicator if at least 75% of the values in England have valid data. This rule is to prevent the display of spine charts that are misrepresentative due to extensive missing or suppressed data points.

In the spine chart the red vertical line represents the benchmark. The light grey bar shows the range between the highest and lowest areas in England or the region (depending on the benchmark selected) with the interquartile range shown in dark grey.

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- The interquartile range (dark grey bar) is the difference between the 25th and 75th percentile i.e. if all areas' values for an indicator are ranked from lowest to highest the 25th percentile is 25% of the way through the ranking and the 75th is 75% of the way through.

- The light grey bar represents the range and skew of the data. If the worst and best values are equidistant from the mean the light grey bar will extend evenly across the chart. If the data are skewed towards the lower values the light grey bar will extend to the left hand side and if the data are skewed towards the higher values the light grey bar will extend to the right hand side.

Each dot represents the area indicator value. For indicators displayed left to right from lowest to highest values the dots to the left of the red line show that the value for this area is lower than the benchmark average, dots to the right of the line show that the value is higher than the benchmark average. Where possible, these are colour coded showing whether the local value is statistically significantly lower (dark blue), higher (light blue) or not significantly different from the comparator (amber).

Definitions & Downloads

For each indicator there is a set of metadata, providing a definition for the indicator, the data source, the methods applied etc. Depending on the purpose, more detailed information might be required than can be provided in the metadata. In this case please see also the Profile specific supporting documents or contact profilefeedback@phe.gov.uk .

'Download' provides access to actual indicator data and the underlying data used in the production of the indicator in spread sheet format, along with the accompanying metadata.
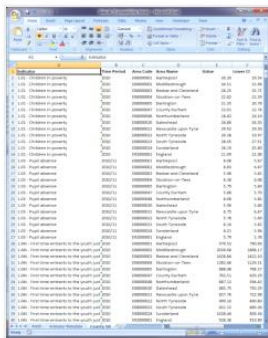
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4. Acknowledgements

This document is based on version 1.7 of the Fingertips User Guide produced in February 2014 and was modified specifically to support the Dementia Profiles.

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