![Public Health England logo]

Protecting and improving the nation's health

Briefing – Comparators

What is a comparator?

Comparators provide context to help interpret indicators. In public health, the state of an area for diseases and conditions are often measured by indicators. Without context it is difficult to interpret whether the value of these indicators is high or low, hence whether its outcomes are 'good' or 'bad', and therefore whether actions should be taken to address the situation. Perspective is provided when the value of an indicator is viewed alongside a comparator.

Indicators that are used to define comparators

It is common to use geographical hierarchies for comparators. For example, for a local authority (LA), a comparator could be the region within which the LA falls, or the national value. Areas can be combined into comparator areas by analysing datasets to identify groups of similar areas. Each comparator is different, but the common themes that go into their calculations are population, age structure, geographical size, socio-economic characteristics (such as education, deprivation, employment, income, health and care, and so on) and housing, among others.

Components of area comparators

Chartered Institute of Public Finance and Accounting (CIPFA) nearest neighbours

Each area has an ordered list of other similar areas, from most similar to least similar, based on population, output area density, output area based sparsity, tax base per population, unemployment, retail premises density, housing benefit caseload, people born outside UK and Ireland, households with less than four rooms, households in social rented accommodation, persons in lower NS-SEC (social) groups, standardised mortality ratio, authorities with coast protection expenditure, non-domestic rateable value per population, properties in different tax bands and an area cost adjustment (other services block).

Index of Multiple Deprivation

A deprivation score for each area is calculated, based on indicators from seven domains: income deprivation, employment deprivation, education, skills and training deprivation,

health deprivation and disability, crime, barriers to housing and services and living environment deprivation.

Areas are grouped by 59 variables split into five domains: demographic structure, household composition, housing, socio-economic and employment.
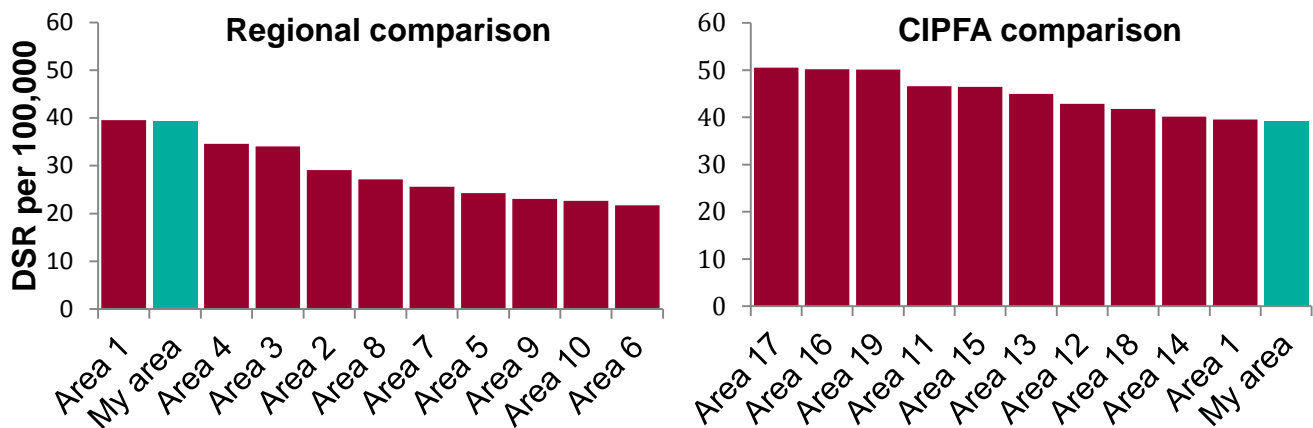
Considerations when selecting a comparator

It is advisable to choose the comparator specifically for the indicator that is being assessed. The purpose of a comparator is to highlight how the area in question is performing against other areas with similar characteristics.

Example

The charts below highlight the effect of choosing different comparators. Both charts show rankings of mortality rates from respiratory diseases for people under 75, with the area being studied highlighted teal. In the chart on the left, LAs in the same region are shown and the highlighted area has the second highest mortality rate. In the chart on the right, the area is compared with the ten LAs with the most similar characteristics in England (CIPFA nearest neighbours) and the same rate is now the 11th highest among its comparators.

Under 75 mortality rate from respiratory disease, 2012-14

The Public Health Outcomes Framework tool includes many different comparator groups. It can be found at http://www.phoutcomes.info

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