

Health inequalities indicator briefing

The Director of Public Health's Annual Report for 2010/11 *Reducing Health Inequalities in East Sussex* used a number of different indicators to assess health inequalities within East Sussex. This briefing provides a summary of the advantages and disadvantages of the different indicators in the report to provide clarity on how and when they should be used to measure inequalities at the local level.

Index of Multiple Deprivation (IMD)

Advantages: Goes down to lower super output area (LSOA). Comprises 7 different domains so recognises that people can experience deprivation in different ways.

Disadvantages: It is not routinely updated, and when it is updated it has always been modified, so comparable data have never been available to monitor changes over time. IMD is an indicator of socio-economic deprivation built up from multiple components, most of which are beyond PCTs' spheres of influence.

Life Expectancy

Advantages: Life expectancy can be estimated at any age, e.g. life expectancy at 65 years. Gives more weight to deaths at younger ages. Life expectancy has been used nationally to monitor health inequalities.

Disadvantages: At smaller geographies may be influenced by nursing homes in the area.

All age all cause mortality (AAACM)

Advantages: Is adjusted for age profile of a population. Can be monitored annually. Has been used nationally as a proxy indicator to monitor progress towards national health inequalities target.

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Disadvantages: A younger death does not necessarily have any more impact on the rate than an older death. It is quite possible that the death of a person aged 70 years may increase the rate to the same extent as an infant death.

Infant mortality

Advantages: Infant mortality used nationally to monitor health inequalities.

Disadvantages: Infant mortality is a fairly rare event and hence the rate is based on small numbers, with wide 95% confidence intervals so unlikely to pick up significant differences between areas (even at a district/borough level). Not available at a PCT level.

Slope Index of Inequality (SII)

Advantages: The SII has been widely researched and there is a body of literature to underpin its validity. The indicator statistic is easy to understand, as it is the gap in years of life expectancy between the best-off and worst-off within the PCT, based on a robust statistical model of the life expectancy and deprivation scores across the whole PCT. Inequalities have most commonly been analysed by presenting the 'gap' between a deprived subgroup of the population and the rest (or the average). Using an gradient indicator that represents the whole distribution across the PCT increases the power of the analysis and avoids arbitrary cut-offs, where areas are defined only as either 'deprived' or 'not deprived.'

Disadvantages: Available for PCTs only. Uses five years data that means it is less up-to-date and less responsive to changes in the short term. Was initially created as a World Class Commissioning (WCC) indicator, not yet clear whether will continue to be updated given WCC no longer exists.

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Premature mortality

Advantages: Is adjusted for age-profile of a population. Can look at specific causes of death, e.g. cancer, stroke.

Disadvantages: At smaller geographies, due to smaller numbers more subject to random variation year on year. To mitigate this, pooled years can be used but may limit trend analysis.

Indicators that tend to use small numbers and are therefore not robust at small geographies can be used if a number of years data is pooled together to provide adequate numbers, although this will limit the ability to monitor over time.

Dimensions of inequality to measure by

Inequalities in health between different population groups may be measured by using different dimensions. For example inequalities according to age, sex, geography, ethnicity, socio-economic group or disability. Most indicators of health and health-related behaviour can be broken down into at least one dimension of inequality. For example, inequalities in smoking behaviours by socio-economic group, or inequalities in childhood obesity by deprivation or urban/rural nature of where children live.

There are a large number of indicators that can be used that cover health status, outcomes and behaviours, determinants of health, access to services and health process measures. Key indicators that are used at the local level are:

- Unemployment/benefit data
- Index of Multiple Deprivation (IMD)
- Children living in income deprivation

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- Educational attainment
- Smoking rates
- Smoking during pregnancy
- Breastfeeding
- Infant mortality
- Childhood obesity
- Hospital admissions for specific causes (e.g. childhood accidents)
- Mortality from specific causes and premature mortality (Under 75s)
- Teenage conceptions
- Childhood immunisations
- Uptake of screening programmes
- Life expectancy

Sources:

The English Indices of Deprivation 2007. Communities and Local Government 2008.

World Class Commissioning Assurance Framework: Recommendations for a health inequalities indicator. APHO 2009.

World Class Commissioning Assurance Framework: Health inequalities indicator guide to interpretation. APHO 2009.

The Public Health Observatory Handbook of Health Inequalities Measurement. SEPHO 2005.

Life expectancy and all age all cause mortality rates: issues for identifying local health inequalities priorities. YHPHO 2007.

Local basket of inequalities indicators. APHO and Health Development Agency 2003.