> ### What is already known on this topic
>
> In emergency departments in the United Kingdom only 30% of patients with chest pain indicating a low to moderate risk of myocardial infarction are admitted to hospital
>
> Some 6% of those discharged have undiagnosed myocardial damage
>
> ### What this study adds
>
> An emergency department based chest pain assessment unit using a protocol to rule out myocardial damage is sensitive enough to allow safe discharge of patients at low to moderate risk of myocardial infarction within six hours
>
> Such units can also reduce the number of patients admitted unnecessarily

expedited thrombolysis, a time dependent intervention.

Over 80% of available patients had a gold standard test in our study. The populations served by an inner city emergency department such as the Manchester Royal Infirmary are highly mobile and diverse; many of the patients who did not return were homeless, non-local, or migrant. Although 100% follow up is desirable, this test was evaluated in a real life population, and exclusion of patients who were not local or those who were homeless would have introduced bias by affecting the spectrum of disease.

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Targeting deprived areas within small areas in Scotland: population study

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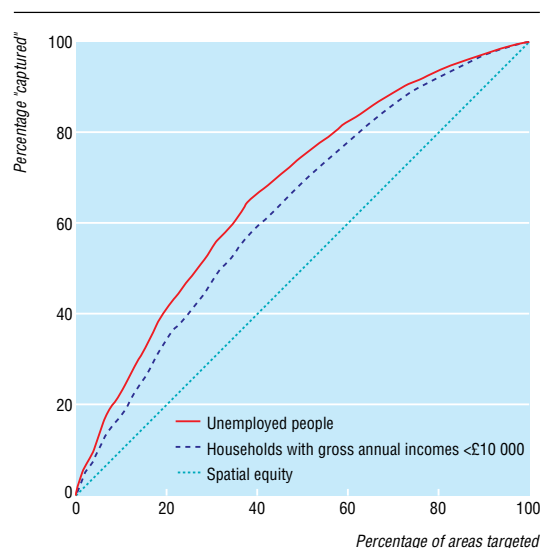
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Geographical measures of deprivation show wide variations in the socioeconomic characteristics of populations who live in small areas. This variation has led governments over the years to target deprived areas within these small areas with the aim of improving the residents' circumstances. A large number of initiatives based on such areas, including health action zones, employment zones, and social inclusion partnerships, have recently been introduced in the United Kingdom. In Scotland, some health boards target resources towards areas at the most deprived extreme of the Carstairs deprivation scale, which ranges from −7.5 (most affluent) to 12.9 (most deprived).[1]

In 1979, Townsend argued that an area based approach should not be central to improving the conditions of people in poverty.[2] Using Holtermann's earlier work,[3] Townsend concluded that the spatial concentration of aspects of deprivation could be low.

This paper examines whether this observation still applies 22 years later.

Methods and results

The number of unemployed people was extracted from the 1991 census small area statistics tables for the 1001 postcode sectors of Scotland. For each postcode sector, the number of households with a gross annual income below £10 000 (low income households) was taken from estimates of income in 1997.[4] The sectors were ranked from the most deprived to the least deprived using the Carstairs deprivation scale.[1] For each sector in turn, starting with the most deprived sector, I calculated cumulative totals for the number of unemployed people, expressing them as a percentage of the total unemployed people in Scotland (n = 249 074), and the number of low income households, expressing them as

Cumulative proportion of unemployed individuals and households with gross annual incomes <£10 000 in Scotland that would be captured for each postcode sector if Carstairs scores were used as a basis for targeting

a percentage of all low income households (n = 704 066). Cumulative proportions for the total number of sectors and the total population contained within those sectors were also calculated.

On the basis of these results, if 20% of the most deprived sectors in Scotland (1 205 833/4 998 202 (24%) of the population) were targeted, 41% of unemployed people and 34% of low income households would be "captured" (figure). By targeting 254 postcode sectors (1 501 569 (30%) of the population), resources could be directed to 48% of unemployed people and 40% of low income households. If 55% of the postcode sectors are targeted (62% of the population), 80% of unemployed people and 74% of low income households are captured, but even then, 20% and 26%, respectively, are excluded. Modest improvements in capture rates (2-6%) were achieved when the analysis was repeated using census enumeration districts (data not shown).

Comment

This analysis reaffirms Townsend's argument that the selective targeting of resources on an area basis would miss more deprived people than it would include. On the basis of Carstairs scores, more than 60% of the population in Scotland would need to be targeted to include 74% of low income households. The poor sensitivity of an area based approach means that the group of people to whom resources are directed includes people who are not poor. There are higher concentrations of poverty in some areas; however, the current increase in area based initiatives ignores the wide spatial distribution of deprived people. Only a small proportion of government spending is directed towards area initiatives, but their high profile implies that deprivation is a problem only within certain areas. However, deprived areas can include people who are not deprived and vice versa. Debate continues about whether the health experience of poor people in deprived areas is worse than that encountered by other poor people.[5] Targeting deprived areas may have merits, but a greater emphasis on national strategies is the key to dealing with poverty and improving the health of the population.

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Risk of macular degeneration in users of statins: cross sectional study

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Atherosclerosis and abnormalities of lipid metabolism are associated with an increased risk of age related macular degeneration—the Western world's main cause of blindness.[1] Statins (hydroxymethyl glutaryl coenzyme A reductase inhibitors) modify patients' lipid profile and lower their risk of coronary heart disease.[2] They also prevent stroke and, possibly, Alzheimer's disease. We report here an association between statin use and lower risk of age related macular degeneration.

Participants, methods, and results

We wrote to 660 men and women aged 66-75 who had been traced by the Office for National Statistics using information from their birth record at the Jessop Hospital for Women, Sheffield. Of these, 412 (62%) agreed to take part and were interviewed at home. We recorded their use of drugs, including statins, currently and in the previous five years, and their history of cardiovascular disease. The participants were invited to

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