



# **the review of the Index of Multiple Deprivation 2000**

executive summary



Greater London Enterprise



Association of  
**London** Government

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# Introduction

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The Index of Multiple Deprivation (IMD) was established to pinpoint those deprived areas most in need of funds to boost regeneration. It is, by necessity, a highly complex formula, used to decide the destination of millions of pounds of investment resources each year.

Because such huge sums are involved, it is vital that the IMD is as accurate as possible at measuring real deprivation. While the existing Index contains much that is useful and sound, it has significant weaknesses that underestimate the scale and degree of deprivation in London and other major cities.

Government is now in the process of reviewing the IMD. Given that the Index is used to determine the allocation of resources to different areas, it is critical that it accurately reflects and measures levels of deprivation.

This report outlines research undertaken for the Association of London Government and Greater London Enterprise. It explores the possibility of developing new approaches to the measurement of deprivation to make the system fairer. It summarises the methods used to develop the Government's existing IMD, outlines its rationale, identifies the weaknesses that limit its effectiveness and suggests some alternative or additional measures that we believe would improve the Index's ability to measure deprivation accurately.

The report also provides background information on the IMD and summarises the ALG's formal response to the current Government review.

The last review of the IMD resulted in a substantial downward ranking of all but three London boroughs, with four boroughs dropping out of the 50 most deprived authorities. In our view, this is not because London has seen real changes in deprivation levels but because the Index fails to reflect accurately the scale and depth of deprivation in major cities such as London.

As a result of the last review the London boroughs lost out substantially, as did the majority of large metropolitan authorities. This report sets out a powerful case for developing new approaches to measuring deprivation and a fairer mechanism for allocating regeneration resources. We strongly commend it to Government.

**Sir Robin Wales**

Chair

Association of London Government

**Cllr Dame Sally Powell**

Chair

Greater London Enterprise

# About the Index of Multiple Deprivation

## What is the Index of Multiple Deprivation?

The Index of Multiple Deprivation is a ranking produced by the Government of all districts (and wards within districts) across England showing their degree of 'deprivation'.

The current Index is made up of six different domains, each measuring different aspects of deprivation. These are income deprivation, employment deprivation, housing deprivation, health deprivation, education, skills and training deprivation and geographical access to services.

Each domain is made up of a number of different statistical indicators, which are combined to produce ward rankings for each of the domains. The different domains are then combined to produce an overall Index of Multiple Deprivation.

## What is IMD 2000 used for?

The IMD 2000 has mainly been used by the Government to determine which areas are eligible for its funding and/or the level of funding going to different areas. It has been used to allocate at least 15 different funding streams, such as Sure Start, the Neighbourhood Renewal Fund, the Urban Bus Challenge and parts of mainstream housing funding for local authorities. It is also being increasingly being used by the various bodies distributing National Lottery funding to allocate their resources.

It is also used in several informal ways - to direct resources at a local level and to identify and demonstrate need locally as well.

It is therefore very important that the Index accurately measures differing levels of deprivation between areas.

## The Government's Review of IMD 2000

The Neighbourhood Renewal Unit (NRU) in the Office of the Deputy Prime Minister (ODPM) has commissioned the University of Oxford to look at options for strengthening the IMD 2000 and assess how practical it will be to implement this. It will look into whether new, more up-to-date data is available to incorporate into the Index (particularly Census 2001 data), whether the data should be produced at different geographical scales and whether the methods used to construct the Index should be changed.

The researchers have produced an options paper and consultation on it is under way.

## Why is the review important for London?

Since 1981, the Government has produced four different Indices of Deprivation - revising the way it measures deprivation and the data it uses.

The ALG, other regional bodies such as the Greater London Authority and some academics have serious concerns about some aspects of the IMD 2000. The ALG believes that it does not accurately reflect levels of deprivation in London and other large urban areas.

Compared to the previous 1998 Index of Deprivation, many London authorities rank as significantly less deprived in IMD 2000. In the course of the review of the 1998 Index, all but three London authorities dropped in the ranking of deprivation (a total downward movement of 562 places). Four London authorities dropped out of the 50 most deprived authorities across all the domains (generally used as the cut off point for funding eligibility): nationally, only seven authorities dropped out.

The vast majority of large metropolitan authorities are ranked as less deprived under IMD 2000; generally non urban shire authorities ranked as significantly more deprived compared to the 1998 Index. The ALG believes

such major shifts in rankings were not the result of real changes in deprivation levels on the ground, but resulted from the way in which the IMD 2000 is constructed and some of the data used.

This change has affected the level of funding allocated to London boroughs to tackle deprivation and other related issues. It is **estimated** that London has lost £140 million of Neighbourhood Renewal Funding as a result of the change in rankings and £125 million of its housing funding allocation through the General Housing Needs Index - to give but a few examples.

Whilst the four boroughs which dropped out of the 50 most deprived boroughs nationally continue to be eligible for funding as part of transitional protection for three years, their future access to funding remains uncertain.

It is therefore critically important that the review of the IMD 2000 produces a revised Index that more accurately reflects the dimension and level of deprivation in London.

## Important issues for London and the review

The review consultation report sets out options and/or invites comment on:

- How best to update and change the existing domains within IMD 2000
- Whether new two new domains - crime/social order/social environment and the physical environment - should be added to the measure and if so, what they should consist of
- How the methodology used to construct the Index might be improved
- Whether data should be made available at the sub-ward and other levels.

The ALG would like to see a revised Index with:

- A crime and social order domain and some measure of the physical environment
- A measurement of access to services in a way other than geographical. If this cannot be achieved, removal of this domain from the Index
- Some measure of affordability and housing costs in the Income and Housing domains.
- A reconsideration of using factor analysis as a means of combining indicators within some domains.

# Updating and changing the existing domains

## Income Deprivation

The income domain measures the number of people living in low income families receiving non-overlapping means-tested benefits.

The ALG generally supports the indicators used within this domain.

However, the ALG is concerned that new indicators proposed in the report for people receiving Working Families or Disability Tax Credit include an income cut off point which is measured **before** housing costs.

Housing costs significantly affect disposable income and compound the problems of poverty. In Great Britain, 21% of children live in poverty before housing costs, but this rises to 31% if housing costs are taken into account. The difference is even greater in London - 25% of children living in poverty before housing costs, rising to 41% once housing costs are accounted for.

Failure to take account of high housing costs will therefore underestimate levels of income deprivation.

## Employment Deprivation

The employment domain aims to measure the number of people involuntarily excluded from the world of work.

The ALG generally supports the indicators used in this domain - unemployment claimant count of the under 60s, incapacity and severe disability allowance recipients and measurement of those on some New Deal schemes.

The ALG welcomes the introduction of some measure of the duration of unemployment (through the use of the New Deal for those under and over 25), but believes this should be taken further with an additional indicator around the very long term unemployed (2 years plus). People experiencing long term unemployment face much greater barriers in getting back into work than those unemployed for a relatively short period. Consequently, they are 'employment deprived' to a much greater degree.

An indicator of numbers of people on New Deal for Lone Parents should also be included in this domain - lone parents experience high levels of unemployment and are a group at greatest risk of poverty within the UK.

## Health Deprivation and Disability

The report proposes to use the Census 2001 to update data relating to limiting long-term illness, so that it can remain in this domain. The ALG supports this, along with the proposal to investigate the inclusion of mental health indicators and a measurement of people endangering their health through the use of illegal drugs and alcohol. However, the use of maternal smoking as an indicator is less robust - smoking is much more widespread than the use of illegal drugs and alcohol to the point of developing acute health problems. It should therefore not be used to measure serious health deprivation.

## Education, Skills and Training Deprivation

Measurements in this domain focus mainly on lack of qualifications of both adults and children at a local level at different ages.

The domain would be improved by including a direct measure of working age adults with no or low qualifications (rather than absence of high qualifications) and educational performance at 16 using postcoded pupil data.

Use of the Pupil Level Annual School Census (PLASC) data will provide

useful indicators which contribute to educational deprivation, particularly mother tongue (as the inability to speak English fluently is clearly an impediment to educational attainment). The ALG's Education and Race Commission demonstrated that a combination of ethnicity and class has a significant effect on educational attainment, rather than ethnicity per se. Both these factors should be considered when identifying those pupils most at risk of education deprivation.

The ALG is opposed to using data around special educational needs provision as this reflects policy decisions which vary across local authorities.

### **Housing Deprivation**

The housing domain should include a measure of the condition of housing stock and the lack of suitable accommodation.

The report questions the use of homeless households in temporary accommodation in a revised Index, suggesting that it reflects local policy rather than actual housing need. However, this is a key indicator to measure lack of suitable accommodation and reflects re-housing pressures and lack of housing supply. Consequently, this indicator should not be dropped. The

alternative measures suggested in the report also have limitations - the number of applications for housing is counted differently among local authorities and the number of placements does not take into account important aspects of housing deprivation, such as overcrowding, giving rise to re-housing demand.

Use of the Census 2001 data around household overcrowding and children living in unsuitable accommodation should also be used to indicate lack of suitable accommodation. The Census data will allow measurement of children living in flats above a certain floor height.

However, Census 2001 data around households lacking amenities and houses without central heating is unlikely to be robust enough at the sub-district level because of the relatively small number of households falling into these categories. The 2002 English House Condition Survey is based on small sample sizes and does not give reliable data even at the local authority level. It will therefore be difficult to use this data to update this domain.

### **Geographical Access to Services Domain**

The ALG remains opposed to measuring access to services on a geographical basis only. Use of this

single dimension to access to services distorts the Index. The proposal in the report to replace 'as the crow flies' measurements of distance with road distances does not address the ALG's fundamental concerns about this domain.

The domain should also take into account other barriers to access to services, such as those for people who do not speak English.

ALG and GLE research has identified some data to measure these different definitions of access. Data on the number of patients per GP is available at ward level through the National Database for Primary Care Research and Development Centre and could be used. However, data will be needed for a wider range of services to develop a robust measure of access to services in ways other than geographical.

If this data is not available, then this domain should be removed from future versions of the Index - by focusing on one dimension of access to services, it distorts the results.

# Developing new domains

The ALG supports the proposals to develop a crime and social order domain and a physical environment domain. The consultation report invites comments on how these domains might be constructed.

## Crime/social order domain

The ALG believes that crime and problems of social order are crucial aspects of deprivation that should be included in future Indices.

ALG and GLE research explored a robust method of estimating ward-based crime rates. It draws on police Basic Command Unit statistics and estimates ward-based crime rates taking account of the ward population, the socio-demographic characteristics of each ward and differences in risk to different socio-demographic groups. Statistical tests suggest that this produces accurate estimates of ward level crime.

## Physical environment domain

A poor physical environment and its effects on individuals is another important element of deprivation that should be included in the revised Index.

This could be measured by indicators around:

- Levels of road traffic accidents - an important aspect of the physical environment and its adverse effects on individuals and communities. Studies have linked high levels of traffic accidents among children with deprived communities.
- Air pollutants - as recognised in the report. The ALG and GLE research demonstrates how ward level data could be generated using statistics from the National Atmospheric Emissions Inventory (NAEI)
- Abandoned/nuisance vehicles - local authorities collect data on abandoned/nuisance vehicles and map this. However, consistency of approach and definition will need to be checked for this data set.

# Improving the methodology

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## **Improving the methodology used to construct the Index**

The review should reconsider the use of factor analysis to combine indicators within domains. Factor analysis gives the highest weighting to indicators which correlate highly with each other, low weightings to those that do not. This does not take into account the multi-faceted nature of deprivation even within each domain. The overall domains are weighted using judgement - why not the indicators that make them up?

## **Levels of data within the Index**

Data should ideally be available at the ward level (using up-to-date ward boundaries if at all possible) and the sub-ward level. Sub-ward level data will be important to identify pockets of deprivation, which might be masked at the ward level.

The ALG would like to see much greater use by Government and Government sponsored bodies of ward-level (and possibly sub-ward level) data to target funding resources.

## Developing new approaches to the measurement of deprivation

**A research report prepared for the Association of London Government and Greater London Enterprise**

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The Index of Multiple Deprivation (IMD) acts as an important mechanism to help pinpoint areas of socio-economic distress and to guide flows of regeneration funding accordingly. It is a highly complex formula which, while representing a commendable advance in the development of techniques to quantify deprivation, has significant limitations.

Because the IMD is used to determine the allocation of large amounts of regeneration funding such as Neighbourhood Renewal Fund monies, it is vital that the IMD is as accurate as possible at measuring real deprivation. While the existing IMD contains much that is useful and sound, it has a number of significant weaknesses that together serve to underestimate the scale and degree of deprivation in London and other major cities.

This report outlines research undertaken for the Association of London Government and Greater London Enterprise. It explores the possibility of developing new approaches to the measurement of deprivation to make the system fairer. It summarises the methods used to develop the Government's existing IMD, outlines its rationale and identifies the weaknesses that limit its effectiveness.

It also suggests some alternative or additional measures designed to improve the Index as a measuring tool. In particular, it tackles the

problem of the 'missing' domains of crime and environmental degradation and suggests an alternative way of measuring access to services. Incorporating such changes could be of critical importance in helping to create a more equitable and balanced mechanism for guiding flows of regeneration funds to where they are most needed.

The research is essentially exploratory and illustrative. Case study areas in Greater London and the North West were chosen to include a range of urban and non-urban local authority districts. These areas were used to explore what small-area data exist and what small-area estimates can be developed to improve the measurement of deprivation.

The findings suggest that there are ways in which two of the most significant omissions in IMD - the domains of crime and poor physical environment - can be measured at a ward level.

First, it explores a robust method of estimating ward-based crime rates, drawing on police Basic Command Unit (BCU) statistics which are available from the Home Office's website. The estimation of ward-based crime rates takes account of the ward population, and (using ACORN classifications) the socio-demographic characteristics of each ward and the differences in risk to different socio-demographic groups. Statistical tests suggest that this

produced accurate estimates of ward-level crime. It is recommended that this approach should be adopted in future versions of IMD.

Second, it identifies three environmental indicators that capture the essence of impoverished local environments. These include:

- Pollution emissions
- Traffic accidents

Data at a ward scale can be estimated from information that is in the public domain. There is a strong case for a revised IMD to incorporate such indicators to measure this missing domain.

The evidence from the study areas in Greater London and the North West suggest that for both of these domains the large urban areas show higher rates than do smaller towns and non-urban areas.

Third, the domain that measures access to services could be improved by exploring the per capita provision of services, rather than the crude and somewhat inappropriate measure of physical distance currently used in the IMD. Service provision is illustrated with the example of the number of patients per GP. For this, data at a ward scale is available through the National Database for Primary Care Research and Development Centre. The results for the study areas suggest that the larger the urban area, the higher the number of patients per GP. This would

be a valuable alternative to the existing use of physical distance as a measure of access to services. The availability of data at a ward scale for other types of services would need to be explored in order to develop a broadly-based measure of service provision in future versions of IMD.

There currently appears to be less that can be done to strengthen the measurement of either the housing or health domains. At this stage, robust small-area data are not yet available. However, relevant data will become available soon, with the publication of the results of the 2001 Census and with the expected development of address-based data on hospital statistics.

Our intention in this report has been to offer suggestions for alternative measures that could help address some of the weaknesses of the IMD, and to provide pointers for new measures that could supplement the substantive coverage of the current Index.

Injecting these sorts of change could potentially be of critical importance in helping to create a more equitable and balanced mechanism for guiding flows of regeneration resources, not least to Greater London.

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