Department of Health

Tackling inequalities in life expectancy in areas with the worst health and deprivation

Methodology

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1 This study focuses on the strategic approach of the Department and the NHS in tackling health inequalities. It examines the impact of Departmental and NHS initiatives to reduce the gap in life expectancy between spearhead[1] and non-spearhead areas and the cost-effectiveness of key health-specific interventions such as smoking cessation services and the use of drugs to control cholesterol (statins) and blood pressure (antihypertensives).

2 This study does not examine the Department's wider health inequalities programme, for example the delivery of the infant mortality element of the health inequalities PSA target or cross-government commitments set out in the Department's cross-government health inequalities strategy, *A Programme for Action*. However, it should be noted that infant mortality contributes 5-6 per cent to the gap in life expectancy between spearhead areas and the England average. The Department's strategy for the infant mortality target does not focus on spearhead areas, but on the 43 local authorities that face the biggest challenge in reducing infant mortality in routine and manual groups – 16 of which are not spearhead authorities.

3 In recognition of the need to develop a new post-2010 health inequalities strategy, the Department commissioned an independent review by Professor Sir Michael Marmot. His February 2010 report, *Fair society, healthy lives – strategic review of health inequalities post-2010*, focussed on the impact of wider social determinants on health inequalities including education, employment and housing. In developing this study we liaised closely with Sir Michael's review team.

4 The main methods used are described in detail below.

Review of key documents

5 We reviewed literature, research and Departmental documents to inform our understanding of key issues and trends related to tackling adult health inequalities and in particular to identify:

- how national policy and support arrangements have been implemented;
- key levers with the health system for addressing adult health inequalities; and
- key issues in the delivery of programmes and policies to help tackle adult health inequalities.

1 A fixed list of 70 local authorities in the bottom fifth nationally, in 1995-97, for three or more of the following five factors: male life expectancy and birth; female life expectancy and birth; cancer mortality rates in under 75s; cardiovascular disease mortality rates in under 75s; and Index of Multiple Deprivation 2004.

6 The documents we reviewed included:

- regional and local strategic documents;
- Audit Commission and Care Quality Commission reports;
- World Class Commissioning panel reports;
- policy documents and guidelines on health inequalities, public health and commissioning, including NICE guidelines;
- evaluation reports; and
- academic literature on tackling adult health inequalities.

Secondary data analysis

7 We analysed a wide range of secondary data to identify performance, trends and health inequalities in funding, access to health services, prevalence of key conditions, outcomes for key conditions, and key initiatives such a smoking cessation services. Secondary data was analysed to measure progress against key targets. Secondary data included:

- resource allocation and programme budgeting expenditure data;
- Quality and Outcomes Framework data;
- World Class Commissioning panel reports;
- expected and actual prevalence data for key conditions;
- outcomes data for key medical conditions;
- performance data for key interventions such as smoking cessation services and statin prescription; and
- data underlying adult health inequalities targets.

8 We commissioned Professor Julia Hippisley-Cox to examine the effect of spearhead status on differences in health inequalities in primary care, both between spearhead and non-spearhead areas and between affluent and deprived areas within spearhead and non-spearhead areas. The study examined trends in health inequalities for four key domains by ethnicity and deprivation between 2002 and 2009, comparing a sample of practices contributing to the QResearch database in spearhead areas with a sample from non-spearhead areas.

9 The four domains relate to key interventions likely to contribute towards meeting the life expectancy element of the 2010 health inequalities target and were:

- rates of smoking and obesity (defined as a body mass index greater than or equal to 30 kg/m2);
- use of statins and aspirin in patients at high risk of cardiovascular disease;
- use of antihypertensives in patients with uncontrolled hypertension (i.e. systolic blood pressure greater than 150/90 mm Hg); and
- use of statins and aspirin in patients with established cardiovascular disease for secondary prevention.

10 The QResearch database is a validated, representative, anonymised research database containing patient level data from more than 12 million patients registered with 604 general practices from across the United Kingdom over the last 20 years. The practices in the QResearch database are mapped to the 32 Strategic Health Authorities in operation prior to the changes in 2006 rather than to individual Primary Care Trusts. Of the 604 practices, 256 practices were excluded because they were either in mixed areas (spearhead and non-spearhead) or were practices from the devolved administrations.

11 We also commissioned the Department of General Practice and Primary Care, King's College London School of Medicine to examine changes in health inequalities in one spearhead area, Lambeth, using a range of patient level indicators measured at two time points, 2006 and 2009. This allowed us to assess the extent of current inequality and also to examine changes over the three-year period.

12 The consultants used the Lambeth DataNet to explore health inequalities, comparing African Caribbean and white patients and patients in the most deprived and least deprived areas. The consultants examined treatment outcomes for patients suffering from any of four chronic diseases: diabetes; hypertension; coronary heart disease and stroke.

13 The Lambeth DataNet comprises electronic patient records taken from practices in Lambeth, South East London. The study sample covered all patients from just over half the GP practices in Lambeth (27 out of a total of 53 practices in 2009 and 29 of 54 practices in 2006). Data were extracted from local practice computer systems in November 2006 (records for 206,097 patients) and March 2009 (192,432 patients). The effects of ethnicity and social deprivation on each health outcome were tested using logistic regression.

Semi-structured interviews

14 We held semi-structured interviews with:

- officials from the Department of Health, including the Health Inequalities Unit, the Health Inequalities National Support Team, the Efficiency and Income Generation Finance and Operations Directorate, Performance and Operations Directorate, the Equality and Human Rights Group, and the tobacco programme;
- NHS staff and local authorities – we visited ten spearhead areas (Birmingham North and East, Bury, Greenwich, Halton, Hull, Islington, Leicester, North of Tyne, South of Tyne and Warrington) and one non-spearhead area (Luton);
- key stakeholders with an interest in health inequalities, including the Care Quality Commission, the Audit Commission, the National Smoking Cessation Centre, the National Social Marketing Centre, the Faculty of Public Health, the Improvement Foundation, Professor Sir Michael Marmot and his review team, the National Institute for Health and Clinical Excellence, the Kings Fund, and Dr Tim Doran, University of Manchester; and
- health policy staff in the Scottish Executive and Welsh Assembly.

15 We used the interviews to identify:

- how national policy and support arrangements have been implemented;
- key levers with the health system for addressing health inequalities;
- key issues in the delivery of programmes and policies to help tackle health inequalities; and
- how health inequalities policy in England compares with other parts of the UK.

Surveys of primary care trusts (PCTs), local authorities and Local Involvement networks

16 We surveyed PCTs in spearhead areas. The survey was conducted via email and completed between July and September 2009. Sixty-one out of the sixty-two spearhead PCTs (98 per cent) submitted a return. Seven PCTs in non-spearhead areas with large pockets of deprivation also submitted returns. The survey captured information on local actions to tackle health inequalities, the support PCTs receive to help tackle health inequalities and partnership working between PCTs and local authorities. The survey was developed in consultation with the Health Inequalities Unit at the Department of Health and was subject to review by the Health and Social Care Information Centre Review of Central Returns (ROCR) Committee who considered the data collection to be useful and reasonable (ROCR-Lite/09/0015/FT6). The questionnaire was piloted beforehand with three PCTs. All completed questionnaires were signed off by the PCTs' Chief Executives. The seven responses from non-spearhead areas were not included in the analysis of responses but fed into our wider understanding of the issues involved in tackling health inequalities.

17 We surveyed local authorities in spearhead areas. The survey was conducted via email and completed between July and September 2009. 42 out of 70 local authorities (60 per cent) submitted return. The survey captured information on the support local authorities receive to help tackle health inequalities, partnership working between PCTs and local authorities and the role of Overview and Scrutiny Committees in helping to tackle health inequalities. The majority of survey questions were the same as questions asked of PCTs. The survey was approved by the Research Group of the Association of Directors of Adult Social Services.

18 We surveyed Local Involvement Networks in spearhead areas. Local Involvement Networks aim to give citizens a stronger voice in how their health and social care services are delivered. We received 22 returns. The survey captured information on community views on tackling health inequalities. Due to the low response rate we have not reported findings from the survey, but responses fed into our wider understanding of the issues involved in tackling adult health inequalities.

Calculating the cost of key interventions in spearhead areas

19 The Department estimate that increasing the use of a number of key interventions could have a substantial impact on reducing the gap in life expectancy between spearhead areas and the England average. The Department estimate that the gap could be reduced by about 6 per cent if:

- smoking cessation clinics in spearhead areas doubled their capacity for two years;
- there is increased blood pressure control – 40 per cent coverage in the use of antihypertensives in hypertensives; and
- there is increased use of statin therapy – 40 per cent coverage in hypertensives.

20 We evaluated the cost of providing increased provision of stop smoking services, increased blood pressure control and increased statin use. The current service use levels for smoking services were obtained from Departmental data. The current levels of statin use and the current level of hypertensive drug use were obtained from QResearch data. The unit costs were obtained from NICE’s cost effectiveness guidance.

Expert panel

21 We set up an expert panel to review our initial findings and an initial draft of our report. Its members included:

- Dave Buck, Deputy Director, Health Inequalities Unit, Department of Health;
- Professor Tim Blackman, Professor of Sociology and Social Policy and Director of the Wolfson Research Institute, Durham University;
- Professor Peter Goldblatt, Senior Research Fellow, Health Inequalities Review of England;
- Paul Fryers, Deputy Director, East Midlands Public Health Observatory;
- Dr David Sloan, Consultant in Public Health, Audit Commission; and
- Professor Peter Smith, Professor of Health Policy, Imperial College London.

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