5.4 Each site programme will reach 5,000 people directly and—it is hoped—many more indirectly, and the interventions will be evaluated. These interventions will focus on tobacco control, and encouraging healthier diets and more physical activity. The intervention site in England (Leicester) is a relatively deprived area, and we hope that the interventions will have a significant impact upon the socio-economically disadvantaged.

January 2008

Appendix 1

Percentage of employees of different socio-economic groups exhibiting individual lifestyle risk factors

Percentage	*I (professional)*	*II (intermediate)*	*III (n) (skilled non-manual)*	*III (m) (skilled manual)*	*IV (partly skilled)*	*V (unskilled)*
Current smoking levels						
Male	15	22	28	34	38	42
Female	14	21	29	28	36	37
Alcohol greater than 21 units—						
Male	28	35	32	30	31	29
14 units—						
Female	20	22	20	15	13	12
Overweight or obese						
Male	58	63	60	64	59	57
Female	45	51	49	56	57	60
Low physical activity						
Male	33	33	36	32	34	29
Female	37	40	41	42	43	40
Consumption of less than 5 portions of fruit and veg						
Male	64	71	79	80	78	83
Female	60	66	73	76	77	81

Source: Health Survey for England, 1998 and 2001.

Memorandum by Professor Sarah Cowley (HI 76)

THE CONTRIBUTION OF THE NHS TO REDUCING HEALTH INEQUALITIES

Executive Summary

1.1 The purpose of this evidence is to draw the attention of the committee to a small of piece of research that is just complete, but not yet published, which has relevance to the remit of this enquiry. This study is focused on the distribution and implementation of health visiting services in relation to area deprivation.

1.2 The major questions facing the committee are whether the NHS has a role in reducing health inequalities, given their social aetiology, and if so how. Although this study is focused on one occupational group and health need, it is argued that it provides valuable insight into the barriers faced within the NHS as a whole, in implementing its role in reducing health inequalities.

1.3 Evidence is provided showing that health visiting service provision is unrelated to areas of deprivation, although individual practitioners appear to focus efforts on the most deprived clients on their caseloads.

1.4 In conclusion, key areas of interest to this enquiry are highlighted, suggesting

- there is an absence of any NHS imperative to provide preventive or health promoting services
- there is a widespread and erroneous belief in the NHS, that curative, treatment services are a good substitute for skilled public health, preventive services.
- Joint targets do not automatically lead to consistency in service planning.
- Evidence of need and of suitable interventions for reducing inequalities are lacking across the NHS
- Measures of effectiveness in tackling inequalities are badly needed.

2. Background

2.1 The purpose of this evidence is to draw the attention of the committee to a small of piece of research that is just complete, but not yet published, which has relevance to the remit of this enquiry. This study is focused on the distribution and implementation of health visiting services in relation to area deprivation.

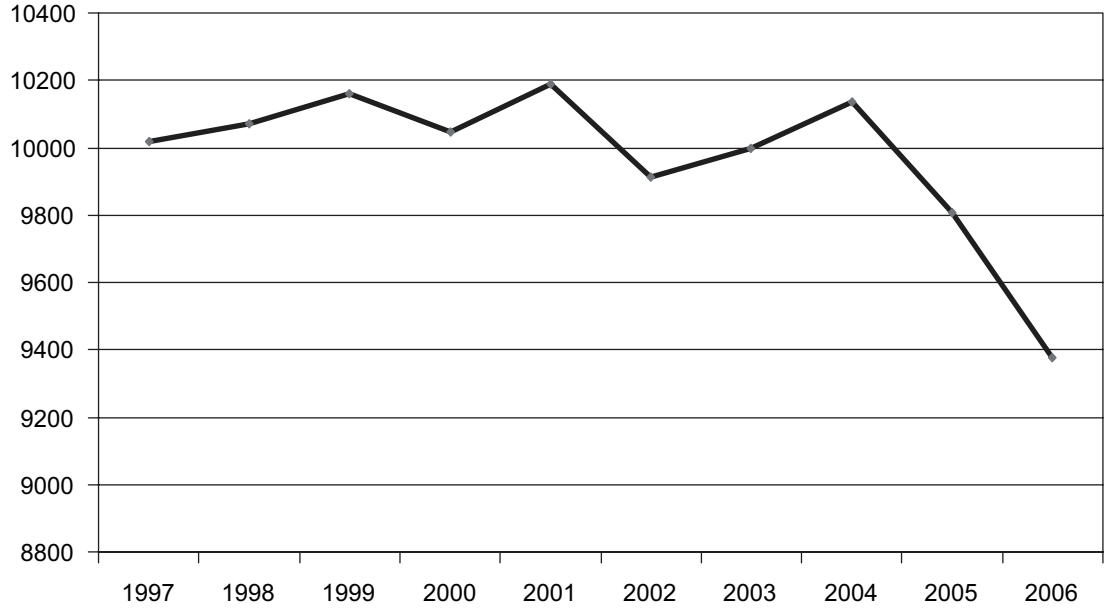
2.2 The major questions facing the committee are whether the NHS has a role in reducing health inequalities, given their social aetiology, and if so how. Although this study is focused on one occupational group and health need, it is argued that it provides valuable insight into the barriers faced within the NHS as a whole, in implementing its role in reducing health inequalities.

2.3 Evidence about the distribution, nature and causes of health inequalities far exceeds the amount of knowledge and information about what can be done to reduce them. However, there is national[585, 586] and international[587] agreement that the most effective actions include the provision of support to parents (particularly mothers) and young children.

2.4 Health visitors were the only occupational group named in Acheson's Independent Review of Inequalities in Health, with a recommendation that their role be strengthened. This has not happened; their numbers have fallen (see Figure 1). The latest published DH figures[588] relate to September 2006; they show a dramatic fall in numbers of health visitors, and an ageing workforce.

2.5 This fall in numbers has inhibited health visitors' preventive remit, as shown in a national survey of their activities (see below)[589], and a recent government review recommended limiting their remit to two focused roles[590] instead of the former broad and inclusive remit.

Figure 1: Health visiting workforce 1997–2006



3. The survey

3.1 The D-SCOVOR (Determining future directions for health visiting: a Scoping Census Of health Visitor Registrants) survey of 15% of health visitors registered with the Nursing and Midwifery Council was undertaken in 2005, to establish baseline data about their current roles and activities. After one reminder, 1459 replies were received, representing a 46% response rate overall. This survey revealed two broad patterns of universal service provision to mothers with new babies; one comprehensive and one more restricted.

3.2 The comprehensive service pattern seemed to apply in around 40% of areas. This consisted of a package of antenatal and post-natal home visits (up to four in total) and of group and clinic based activities, such as post-natal support groups, baby massage and other community events to which new parents could be invited. Respondents indicated that this universal service should meet the needs of most new parents, but

[585] Acheson D (Chair) Independent Inquiry into Inequalities in health. London, TSO, 1999.
[586] DH Tackling Health Inequalities, A Programme for Action DH, London 2003.
[587] Irwin L, Siddiqi A, Hertzman C (2007) Early child development: a powerful equalizer. Final Report for the World Health Organization's Commission on the Social Determinants of Health. http://www.who.int/social_determinants/resources/ecd_kn_report_07_2007.pdf
[588] DH workforce figures.
[589] Cowley S, Caan, W, Dowling S, Weir, H (2007) What do health visitors do? A national survey of activities and service organisation. Public Health. doi:10.1016/j.puhe.2007.03.016.
[590] Lowe R (Chair) Facing the Future: a review of the role of health visitors Department of Health, London. 2007.

if additional needs were identified, a range of services, including extra visits and specific group or community support activities, would be available. However, only 49% agreed that it was always feasible to deliver the core service.

3.3 The restricted service pattern, apparent in the remaining areas, revealed a core service consisting of only one visit, 10–14 days after the new birth was notified, baby clinics and child protection services. There were some groups and community services available in these places, but they were less prevalent than in the "comprehensive" areas. Overall, the absence of an antenatal visit predicted fewer postnatal visits; and fewer home visits predicted a smaller number of groups and community activities. In the opinion of 42%, it was not always feasible to deliver the core service, and most families would be unlikely to have their needs met by this restricted pattern of core services. Although additional services were said to be available once specific needs had been identified, it was not always feasible (30%) to deliver these services either.

3.4 Respondents provided postcode data for the services they described, and analysis showed some interesting correlations and contradictions, but limited details of how provision related to areas of deprivation or other services in an area. The Burdett Trust for Nursing funded a small extension study to examine these details, which is reported below.

4. Relationship of health visiting services to levels of deprivation or availability of other services in an area

4.1 Background. Universal health visiting services are a primary line of defence against social exclusion, since they reach out to all families with new born babies, providing support for parents and for parenting at the most vulnerable and significant period of an infant's life. There is increasingly strong evidence about the importance of the pre and post-natal period, and the early years, in determining future health, social well-being and educational achievement[591].

4.2 As well, there is strong evidence to suggest that health visitors' preferred approaches of home visiting, community outreach and group support are very effective in reducing health inequalities[592, 593, 594].

4.3 Data from the Millenium Cohort Study showing that higher income families were more likely to contact health visitors were used to suggest that health visitors spend too much time with higher income families[595] to be effective in their overall role in reducing health inequalities.

4.4 A counter-claim disputed that more time was, in fact, spent with such families, since so many contacts are initiated by health visitors rather than their clients. Also, better off families tend to have short queries that can answered in a single contact, whereas families with more entrenched problems need more time, or visits occur as a follow up[596].

4.5 Data from the D-SCOVOR survey (described above), also suggest that it is unlikely that individual health visitors are spending most of their time with middle class families, since six out of ten of their most frequent activities are concerned with either child protection or social problems. However, the same survey revealed great inconsistencies in the level of health visiting service provision across the country. An analysis was undertaken across three sources of data to try and discern any rationale for these discrepancies.

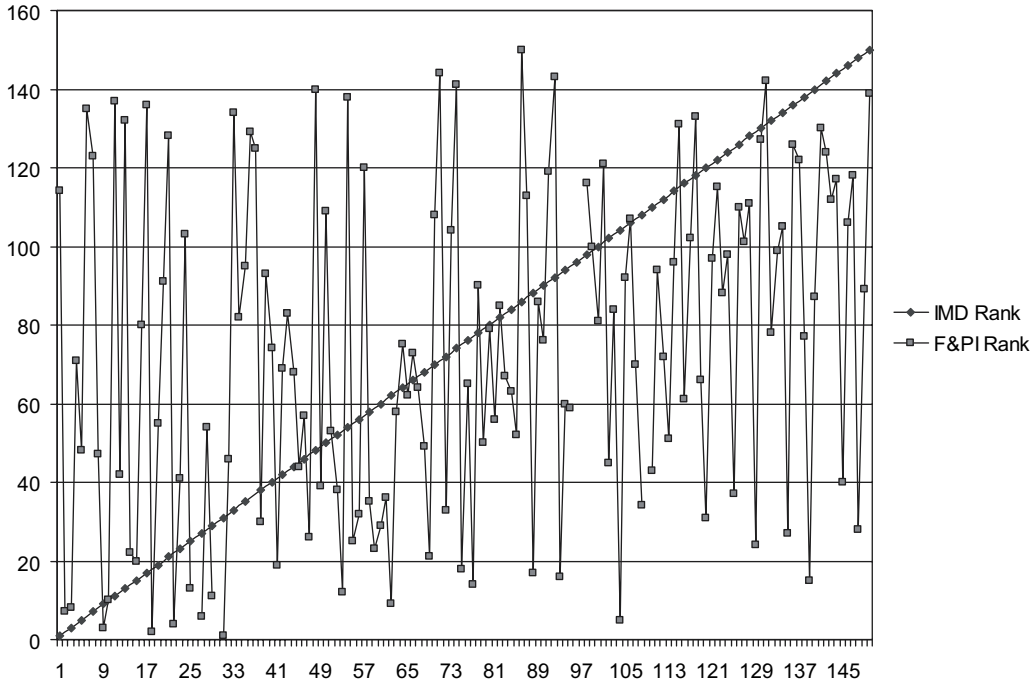
4.6 Analysis at Primary Care Trust (PCT) level. Data gathered by the Family and Parenting Institute (FPI) were used (with their permission)[597] to analyse the ratio of health visitors to children under five years, of age against the Index of Multiple Deprivation (IMD). IMDs are intended as a measure of deprivation within small areas, so caution must be exercised when using them to reflect larger geographical areas. Also, health visiting caseloads are usually organized around "natural areas" such as housing estates or GP catchment areas, rather than the Super Output Areas (SOAs) used for IMD scores.

4.7 The ratio of health visitors (full time equivalent) to children under five was calculated from data provided to the FPI under the Freedom of Information Act, and relates to staffing levels in December 2006. Whilst this provides an average "caseload" size for each full time equivalent (FTE) health visitor, specific team and corporate working arrangements vary from one PCT to another. There were missing data from six PCTs; two of those who supplied no information are in the most deprived quartile of areas. Figure 2 shows the rank of caseload sizes against the average IMD score for each PCT.

[591] Shonkoff J P, Phillips D A (Eds) From Neurons to Neighbourhood : The Science of Early Childhood Development.. National Academy Press: Washington D.C. 2000.
[592] Elkan R, Robinson J, Williams D, Blair M. Universal vs. selective service. The case of the British health visitor. Journal of Advanced Nursing 2000, 33(1), 113 –119.
[593] Karoly L.A., Kilburn M. R, Cannon J.S (2005) Early childhood interventions: Proven results, future promise. Santa Monica CA, Rand Corporation, http://www.rand.org/
[594] Macleod J & Nelson G. (2000) Programs for the promotion of family wellness and the prevention of child maltreatment: a meta-analytic review. Child Abuse & Neglect, 24, 9, 1127–1149.
[595] HM Government. Reaching Out: an action plan on social exclusion. Cabinet Office, Social Exclusion Task Force, London. 2006.
[596] Anon. Class bias claim refuted. Community Practitioner Volume 80 Number 3 page 4.
[597] Family and Parenting Institute (FPI). Health Visitors: an endangered species FPI, London 2007.

4.8 Primary Care Trusts (PCTs) were mapped to the IMD scores in 2004, but since then PCTs have been reconfigured, often merging into larger organizations, so further mapping was carried out to current (2007) configurations. The averaging process created some minor anomalies similar to that found in "rounding" of figures. Also, since PCTs extend across large population areas, most will encompass some areas of great deprivation and some areas of relative affluence. Detailed figures for the average score and "best fit" of both the IMD scores and ranks of PCTs are available on http://www.kcl.ac.uk/schools/nursing/research/population/deprivation.

Figure 2. Health visiting caseload size against IMD score



4.9 As shown in Figure 2, there is no apparent connection between distribution of health visiting services and levels of deprivation

4.9.1 Health visitors in 36 PCTs had full time equivalent caseloads of between 160.76 and 281.07 children under 5 years old; 14 of these PCTs fell in the most deprived quartile of areas, by IMD score (between 29.31 and 49.42) and rank (between 7 and 67)

4.9.2 Health visitors in 36 PCTs had full time equivalent caseloads of between 281.21 and 328.44 children under 5 years old; 10 of these PCTs fell in the most deprived quartile of areas, by IMD score (between 29.3 and 48.91) and rank (between 8 and 75.75)

4.9.3 Health visitors in 36 PCTs had full time equivalent caseloads of between 332.57 and 405.61 children under 5 years old; 8 of these PCTs fell in the most deprived quartile of areas, by IMD score (between 28.56 and 35.39) and rank (between 44 and 72)

4.9.4 Health visitors in 36 PCTs had full time equivalent caseloads of between 405.68 and 1,355.7 children under 5 years old; 10 of these PCTs fell in the most deprived quartile of areas, by IMD score (between 30.74 and 52.16) and rank (between 3 and 62.6).

4.10 There is a strong positive rank correlation (Spearman's Rho = $+0.807$, $p<0.001$) between the number of health visitors and the number of children. The next strongest correlation between the local system measures and the IMD fields is weaker but telling: Rho = $+0.318$, $p<0.001$ between PCT deprivation rank and the number of children under 5.

4.11 The PCTs ranked 1–30 (the 20% most deprived) have a mean of 15,089 children, and those ranked 121–150 (the 20% least deprived) have a mean of 26,166 children (t-test, $p<0.001$). In other words, there are many more children living in areas that are not very deprived, with implications for the universal service. It would be expected that health visitors working in those areas would have less opportunity to meet many families in severe need. In turn, needy families living in such areas are harder to identify, except through a universal service.

4.12 The ratio of children to health visitors shows a smaller effect. The least deprived areas have slightly more health visitors per child than the most deprived areas, the difference being about 67 children per health visitor (327.7 vs. 394.4). This is significant at $p=0.020$ (ie $p<0.05$), but the ratio varies much less than the variations in numbers of children or in deprivation.

4.13 In their responses to the FPI, many PCTs rounded the number of children to the nearest 500 or even 1000, which tends to reduce the reliability of the calculations. Only the most significant items are reported above, because of the margin for error introduced by "rounding" of IMD scores and ranks in mapping from their original source to PCTs.

4.14 D-SCOVOR survey data were analysed with the associated IMD scores, but there seemed little logic behind the distributions at a strategic level.

4.15 In these data, health visitors in the most deprived areas spend most time with homeless people (rank correlation). They are also more likely to liaise with Sure Start (t-test with unequal variances, $p < 0.001$, mean difference in IMD 7.3). This would match expectations, because Sure Start Local Programmes (SSLPs) were first established in the most deprived areas, which is also where most homeless people are likely to be found. This points to some lasting benefit to the NHS role in reducing health inequalities, where SSLPs have been established and expanded their influence.

4.16 Those health visitors who liaise with Sure Start have significantly more frequent contact with pregnant teenagers and with pre-school Children (U-test, both $p < 0.001$). A small subset of the respondents ($n = 47$) had the most frequent contact (all the time) with pregnant teenagers: they worked in areas where the IMD scores are especially high (t-test for this small sample, unequal variances, $p = 0.009$: mean difference in deprivation score 6.8). This group included specialists focusing solely on that (young parents) population.

4.17 Health visitors in the most deprived areas also reported spending most time on administrative work (rank correlation). This is unsurprising given the additional documentation associated with child protection procedures and with referring clients to other services, such as social work or housing support.

4.18 Health visitors in the most deprived areas also make the fewest types of home visit, although not necessarily the fewest visits overall. D-SCOVOR only revealed data about the number of scheduled core services, not how faithfully they were carried out or how many additional visits were made. The extent to which the respondents felt their service was likely to meet most needs on their caseload was significantly correlated with the number of scheduled home visits (more likely to be "sufficient" if more visits are scheduled).

4.19 Neither the amount of group work nor the "core service" items were correlated at all with deprivation scores. Where an antenatal visit was offered by the service, significantly more postnatal visits were also scheduled (median values 1/4 three vs. two visits; Mann–Whitney U test, Po0:001). The existence of a scheduled antenatal visit was, therefore, a marker for a more comprehensive core service, but this was not related to level of deprivation (t-test), nor was the presence or not of 1–5 post-natal visits.

4.20 In other words, service planning, set at PCT level, did not appear to take into account the need to schedule more visits or groups in deprived areas. Instead, assessments and planning of services would be entirely dependent upon the professional judgement and commitment of the health visitor.

4.21 Health visitors working in the most deprived areas appear to be focusing on those families who are most in need, sometimes because they are employed to provide a selective service targeting vulnerable groups. However, (bearing in mind limitations reported by respondents) once a need had been identified by the health visitor, it is quite likely that she would be unable to respond appropriately.

4.22 Finally a selection of Children's and Young People's Plans (CYPPs) was examined, to see if they provide any evidence at the planning level to explain the discrepancies and apparently ad hoc development of health visiting service levels and organization.

4.23 This review focused on the 10 PCTs with the best ratio of health visitors to pre-school children, then the 10 worst. A further 10 PCTs were systematically drawn from the list, choosing each 10th PCT. Local authorities are required to develop CYPPs, which are joint planning and commissioning documents; PCTs have a duty to co-operate in this exercise[598].

4.24 The plans all reflected the framework provided, but varied in the amount of detail provided. All identified the areas that needed to be targeted as a result of deprivation, particularly where Sure Start Local Programmes were in place.

4.25 Although the needs were highlighted, specific details about how they were to be met were generally absent. Levels of co-operation between PCTs also appeared variable, reflected not only in the amount of detail about health-led services, but also in the absence of information about the impact that health services might have on later years.

4.26 In general, professionals and specific services were mentioned only in passing or as examples of how a strategic priority might be achieved. It was unsurprising, therefore, that health visitors and health visiting services were rarely mentioned, except to cite their universal availability. However, there was little to explain what that "universality" meant, exactly, in terms of service availability to parents and children.

[598] HM Government. Joint planning and commissioning framework for children, young people and maternity services. London, Department for Education and Skills and Department of Health. 2006, www.everychildmatters.gov.uk/planningandcommissioning

4.27 More surprising, was the paucity of information relating to infants and pre-school children in general; they were barely mentioned beyond the provision of Sure Start Local Programmes and acknowledgement of the need for a "Foundation Stage Strategy." It would appear there is a need for commissioners developing these plans to be provided with a more in-depth insight into the importance (as outlined above) of early prevention and the impact of infancy and the pre-school years on the rest of a child's life and on later health inequalities.

5. Conclusions

5.1 Although this study is small and specific to a single occupational group (health visitors) and the population they serve (mainly families with pre-school children) it illustrates the way that specific barriers within the NHS operate to inhibit its role in reducing health inequalities.

5.2 There is strong guidance from government that health inequalities are a high priority for PCTs, very strong evidence that preventive services focused upon all mothers with young children is the best known approach to reducing health inequalities, and that health visitors are the best placed occupational group to deliver this form of support. Yet health visiting services are provided inconsistently, with patchy and underdeveloped services that are rapidly reducing, reflecting the absence of any NHS imperative to provide preventive or health promoting services.

5.3 Whilst noting the need to increase health visiting numbers[599], the primary response from government to the reduction in health visiting numbers was to draw attention to the increase in other primary care nursing numbers[600]. This is supports a widespread and erroneous belief in the NHS, that curative, treatment services are a good substitute for skilled public health, preventive services. If the NHS is to play any meaningful part in the reduction of health inequalities, this belief must be challenged.

5.4 Despite joint PSA targets, the policy requirement for PCTs and Local Authorities to collaborate in the provision of children's services appears inconsistent in the way it is being implemented. Educational authorities and early years services rarely include under-3s, and relevant outcomes are for local authorities, not the NHS. Joint targets do not automatically lead to consistency in service planning.

5.5 There appears to be a widespread lack of awareness of the crucial period of pre-natal to three years of age in reducing health inequalities, and of the evidence about how to influence this period. Evidence of need and of suitable interventions for reducing inequalities are lacking across the NHS, particularly in relation to children's services.

5.6 Measures of effectiveness in tackling inequalities are badly needed. Information for auditing the effectiveness of services affecting the health and life chances of children is in very short supply[601]. A broad study conducted and implemented in Ireland provides helpful guidance and relevant indicators that might be adopted in the UK[602].

5.7 To offset the inconsistencies revealed in the small study reported here, some interim guidance has been developed and published about how best to commission to generic health visiting services, which it is hoped might be supported by government. The principles might have wider currency in terms of guidance for preventive services[603, 604].

January 2008

Memorandum by the UKPHA (HI 77)

HEALTH INEQUALITIES

The UKPHA is an independent, UK-wide voluntary association, which through our membership brings together individuals and organisations from all sectors, who share a common commitment to promoting the public's health.

As a multidisciplinary organisation we seek to promote the development of healthy public policy at all levels of government and across all sectors. We act as an information platform and aim to support those working in public health both professionally and in a voluntary capacity.

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[599] Beasley C. A clear direction. Community Practitioner 2007. 80: 12, 3.
[600] Department of Health (DH) The government response to Facing the Future: a review of the role of health visitors London, DH. 2007.
[601] Association of Public Health Observatories (APHO). Indications of Public Health in the English Regions, Report 5: Child Health. APHO, http://www.apho.org.uk/apho/indications.htm 2006.
[602] Brooks A-M & Hanafin S. Measuring Child Well-Being: An Inventory of Key Indicators, Domains and Indicator Selection Criteria to Support the Development of a National Set of Child Well-Being Indicators. The National Children's Office, Dublin, 2005.
http://www.nco.ie/viewdoc.asp?fn=/documents/Publications/Well_Being_Indicators_Inventory_of_key_indicators.pdf
[603] Cowley S. A funding model for health visiting Part 1: Baseline requirements. Community Practitioner 2007. 80: 11, 18–24.
[604] Cowley S. A funding model for health visiting Part 2: Impact and implementation. Community Practitioner 2007. 80: 12, 24–31.