Scottish Needs Assessment Programme

Health Needs and Health Promotion in Deprived Areas in Scotland

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We are grateful to Directors of Public Health for information on needs assessments and to Health Promotion Managers for information about health promotion activity within Health Boards.

January 1997

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SUMMARY

1. Mortality by social class has been measured since the beginning of this century. Variations in health status show a relationship between deprivation and early death and increased morbidity. The gap between the health status of the affluent and that of the deprived has increased and continues to do so. There has been an increase in the decade 1981-1991 in Standardised Mortality Ratios (SMRs) amongst those living in deprived areas and a decrease in SMRs amongst those living in affluent areas. [24]

2. There are, however, gaps in existing data. National and local data on mortality, morbidity and health related behaviour, linked to deprivation categories, should be made available to Health Boards.

3. Most Health Boards have been able to identify variations in health status within their own area using a standard scoring system to measure deprivation, the most widely used being the Carstairs and Morris Deprivation Score.[10] However, it must be recognised that not all people with the socio-economic characteristics of deprivation live within geographically defined deprived areas.

4. Health needs assessments in geographically defined deprived areas carried out under the direction of Directors of Public Health can incorporate several types of study - comparative, consultative and epidemiological - each of which may use varying degrees of community involvement. The health needs assessment may extend beyond health/ill-health to include behaviours and also environmental and socio-economic determinants which have an impact on health.

5. The review undertaken as part of this report indicated that half of all Scottish Health Boards have completed, or are carrying out, health needs assessment in their identified deprived areas. Some studies focus solely on health/ill-health needs and some encompass the wider influences on health.

6. There is a need to ensure a validated methodology is used (including representative sampling) when undertaking health needs assessments of geographically defined deprived areas. Ideally health needs assessments should take place in advance in order to inform subsequent health promotion. However, in certain circumstances, actively involving the community in the process of the health needs assessment increases awareness and empowerment relating to health and therefore may constitute the first step in developing health promotion activity within the community.

7. Health Boards which were identified by the review as having undertaken health promotion initiatives specifically in geographically defined deprived areas were the Health Boards which had previously carried out relevant health needs assessments in such areas.

8. A wide variety of health promotion activity takes place, directed at individuals or at groups within geographically defined deprived areas; much health promotion within the NHS is carried out as part of the day to day work of health professionals. There is scope for developing the health promotion role of the primary care team particularly within geographically defined deprived areas. Because practices are based on patients registered on GP lists they are not necessarily geographically defined. This is more apparent in urban areas where several GP practices may

share the same or overlapping practice areas and therefore is of particular relevance for developing primary care in geographically defined deprived areas.

9. There is evidence of innovative health promotion activities in geographically defined deprived areas; consideration of a range of such initiatives, involving the community, should continue to be developed. All health promotion activities should be accompanied by a monitoring and evaluation process.

10. Of those health promotion activities involving joint working each key partner has their own contribution to make towards improving health; roles and responsibilities of each partner need to be clarified and co-ordinated in order to obtain maximum benefit. Where health promotion initiatives do not fall within the remit of any specific agency, joint funding arrangements may require consideration. Geographically defined deprived areas may also be eligible for European and national funds such as for Priority Partnership Area status.[32]

11. Monitoring and evaluation of health promotion in geographically defined deprived areas has, to date, been very limited. The quality of health promotion needs to be ensured through the development of quality standards. As many different elements in relation to health promotion can be evaluated, it is important that there is clarity about what these should be and that success criteria appropriate to each element are considered. Ultimately, however, the success criteria of these elements should rest on their ability to demonstrate effectiveness in terms of impact on health.

KEY ISSUES AND RECOMMENDATIONS FOR COMMISSIONING

1. The Information and Services Division (ISD), in conjunction with others, should seek national agreement about an index to be used to measure deprivation, such as Carstairs and Morris deprivation scores. This would improve consistency and allow comparison between Health Boards and potentially others, including local authorities.

2. ISD should explore potential relevant developments in order to minimise existing information gaps, for example, the provision of morbidity information other than hospital activity; linking morbidity and mortality data with the deprivation scores of areas of residence; the provision of cancer registry information by deprivation category or by socio-economic class. This should include routine analysis of deprivation scores at national level. This may be by postcode sector, by local government district, or by locality.

3. ISD should measure national morbidity data by an agreed deprivation index in order to help commissioners in their role of assessing health needs within their Health Board area.

4. ISD should consider the possibility of alternative indicators when considering deprivation in rural areas. Allowance must be made for specific features such as car ownership and access to services

5. SNAP should, where appropriate, make data analysis by deprivation category a requirement of future SNAP reports.

6. Commissioners should ensure that assessment of health needs and determining opportunities for health gain, including setting quality standards, form the basis of

commissioning to promote and improve health in geographically defined deprived areas.

7. Commissioners, when undertaking a health needs assessment in a geographically defined deprived area, must set clear aims and clarify whether the wider influences on health such as environmental and socio-economic determinants are to be included. Complementary health needs assessments performed by the NHS and other agencies provide a more complete picture of the needs in relation to health within a geographically defined deprived area.

8. Commissioners should ensure a validated methodology is used (including representative sampling) when undertaking health needs assessments of geographically defined deprived areas. Commissioners should also be aware of the various levels of community involvement in needs assessment, whether comparative, consultative or epidemiological

9. Directors of Public Health should use their annual reports as a vehicle to highlight health needs in geographically defined deprived areas. The identified needs could then be included in strategies both within and outwith the NHS.

10. Commissioners must be aware that by carrying out health needs assessments within geographically defined deprived areas, they may raise community expectations.

11. There is a need to recognise the special characteristics and specific needs of target populations, not just in geographically defined deprived areas but also of individuals with the socio-economic characteristics associated with deprivation who do not live in deprived areas. Because of its patient focus primary care could play an important role here.

12. Commissioners should develop the role of primary care in delivering health promotion in geographically defined deprived areas. Because practices are based on patients registered on GP lists they are not necessarily geographically defined. This is more apparent in urban areas where several GP practices may share the same or overlapping practice areas and therefore is of particular relevance for developing primary care in geographically defined deprived areas.

13. Commissioners must ensure continued development of healthy alliances at strategic level in order to agree joint strategies. Many of the influences on health are outwith the remit of the National Health Service and significant health gains cannot be achieved by the NHS alone. It is essential that all appropriate statutory and voluntary agencies and the community itself, work in partnership to an agreed joint strategy.

14. Health professionals must work with a number of key partners in healthy alliances to further develop health promotion activities to an agreed joint action plan. Effective working with others could be achieved at operational level through clarification of roles of different players in health promotion activities. Community involvement should be further encouraged.

15. Commissioners have scope to be innovative in contracting for health promotion in geographically defined deprived areas. There should be a willingness to adopt a range of pilot projects provided they are evaluated adequately. For example, health visitors working as community health workers, linkworkers, etc are uniquely placed

within the health service to provide a link especially within primary care. There may be resource implications in developing appropriate skills. Joint training with other agencies may also be beneficial.

16. Commissioners and other partners should give consideration to a local database of health promotion activities in geographically defined deprived areas, to prevent duplication of effort and to improve communication about local work being undertaken.

17. Commissioners need to be clear about the different elements in relation to health promotion that may be evaluated. Success criteria appropriate to each element, whether a specific approach to health promotion, e.g. community development approach, or the healthy alliance process should be considered. Ultimately, however, the success criteria of these elements should rest on their ability to demonstrate effectiveness in terms of impact on health.

1 INTRODUCTION

Background

"In Britain death rates at all ages are two to three times higher among disadvantaged social groups than their more affluent counterparts. Most of the main causes of death contribute to these differences, and as a result, people in the least privileged circumstances are likely to die about eight years earlier than those who are more affluent. People in disadvantaged circumstances can also expect to experience more illness and disability."[9]

Inequalities in health have been a focus of debate in the arena of health and social policy for a considerable period. The Registrars General for England, Wales and Scotland have analysed death rates by social class and by occupation since the beginning of the century. More recently the General Household Survey and the Health Survey for England, 1991, have studied self-reported health-related behaviour by similar categories.[1-3]

In 1980 the Black Report gave a high profile to evidence that people in lower social classes experience considerably increased levels of mortality and illness than those in upper social classes, concluding that the main influence on the observed inequalities in health lay in the material circumstances and conditions in which people live.[4] Ten years after Black, evidence was provided that differentials in health between rich and poor were becoming more apparent, especially if other indices such as employment, car ownership and housing quality were considered.[30] An examination of trends in socio-economic mortality differentials in Greater Glasgow between 1980 and 1992 revealed that differentials between deprived and affluent groups had increased. Mortality rates amongst the total population living in deprived areas declined only slightly, whilst for those living in more affluent areas the decline in mortality rates had been more sustained.[5]

The causes of inequalities in health are complex. Some of the determinants of health, such as age, sex and genetic constitution, cannot be changed by individual choice or public policy. Others, however, are related to people's circumstances and are potentially amenable to improvement; some of these circumstances could best be addressed locally and others nationally. These include factors in the physical environment, such as adequacy of housing, working conditions and pollution; social and economic influences, such as levels of employment, the quality of the social environment and social support; behavioural factors and barriers to adopting a healthier personal lifestyle; and access to effective health and social services. This has been recognised by WHO in "Health For All" (1984) which identified as one of its central principles the promotion of equity in health.[6]

In 1992 the UK policy documents "The Health of the Nation" and "Scotland's Health: A Challenge to Us All", recognised the importance of health promotion not only in terms of achieving targets for the total population, but also of health promotion initiatives being targeted at specific populations.[7,8] "Scotland's Health: A Challenge to Us All" made reference to the needs of people living in a deprived area in relation to diet. Such people may be further disadvantaged if lack of access to shops prohibits availability of healthy foods. In 1995 the report "Tackling Inequalities in Health" aimed to contribute to the process of developing a practical agenda for tackling inequalities in health in Britain, particularly at national level.[9]

Measuring variations in health status

There has been a lack of consistency in recording occupation on death certificates and in Census records, therefore reservations have been expressed about using social class or occupational code alone for measuring health inequalities. Measurements which describe socio-economic characteristics of an area, (available from the Census) and which can be analysed at many geographical levels have therefore become more popular.

Several deprivation indices have been developed. A study undertaken as part of this report reviewed deprivation indices currently used within Scottish Health Boards. The majority of Health Boards attempt to gauge levels of deprivation across their Health Board area by using a deprivation index or scoring system such as Carstairs, Jarman, or Townsend.[10-12] The most widely used is the Carstairs and Morris Deprivation Score, used by half of all Health Boards. In addition, measures developed by individual local authorities are used to determine deprivation within small areas such as enumeration districts (see appendix).

Carstairs and Morris Deprivation Scores

The Carstairs scores provide a relative measure of deprivation when calculated on the basis of a combination of selected Census variables (overcrowding, male unemployment, low social class and car ownership) standardized to their mean for the whole of Scotland. Ranges of deprivation scores are grouped together to give deprivation categories from 1 (the most affluent) to 7 (the most deprived). The score for a particular postcode sector is thus a summary measure of its socio-economic status relative to the average for Scotland as a whole. It is important to appreciate that the scores refer to the population of the postcode sectors and that they are based on the proportions of individuals within them who have reported a particular attribute at the time of the Census.

As with any system for summarising populations there may be weaknesses within the scoring system itself, and also in the way in which it is used.

1. The population size of postcode sectors can vary greatly. Postcode sectors with smaller populations are likely to have large standard deviations, which will have implications for their rankings within the scoring system.

2. Rural postcode sectors tend to have less homogeneous populations than do urban postcode sectors. This results in rural postcode sectors having a more middle range score which may give a false impression of levels of deprivation within the area.

3. The scores are population-based rather than based on individuals. However the characteristics which determine the scores are associated with individual people. There must be recognition of the fact that some people who would be classified as being deprived in terms of socio-economic factors, will not be living in areas with high deprivation scores.

2 AIMS AND OBJECTIVES

The aim of this SNAP report on health needs and health promotion in geographically defined deprived areas is to provide an overview of the subject to help commissioners (Health Boards, general practitioners and others) in their role of assessing health needs; determining opportunities for health gain; developing and implementing strategies through contracting with providers for appropriate services and joint working through building healthy alliances with key partners.

The objectives are:

1. to describe variations in health status in Scotland and measures indicating deprivation in current use

2. to ascertain Health Boards' involvement in health needs assessment in geographically defined deprived areas

3. to ascertain Health Boards' involvement in health promotion activities in geographically defined deprived areas

4. to review monitoring and evaluation of health needs assessment and health promotion activities in geographically defined deprived areas

5. to consider costed options and expected benefits

6. to identify gaps and priority areas for future work

7. to highlight issues and make recommendations for commissioners when carrying out health needs assessment, and commissioning health promotion activities, in geographically defined deprived areas

The factors which influence health in geographically defined deprived areas are not the main focus of this report; the Scottish Forum for Public Health Medicine may wish to consider those issues.

3 VARIATIONS IN HEALTH STATUS

This section utilises existing information to compare mortality, morbidity and health related behaviour in deprived and non-deprived areas. Most of the following information relates to the Carstairs and Morris deprivation categories which tend to have an urban focus. It should be noted that the trends, patterns and issues may be slightly different if the rural dimension was to be included.

Mortality

Differences in mortality between social classes in Scotland have been noted since the early part of the 20th century. Table 1 illustrates all-cause Standardised Mortality Ratios (SMRs) for ages 40-64 in 1991-92 for each Carstairs and Morris deprivation category in Scotland. In 1991-92 the all-cause SMRs ranged from 61 in the most affluent areas (deprivation category 1) to 159 in the most deprived areas (deprivation category 7).

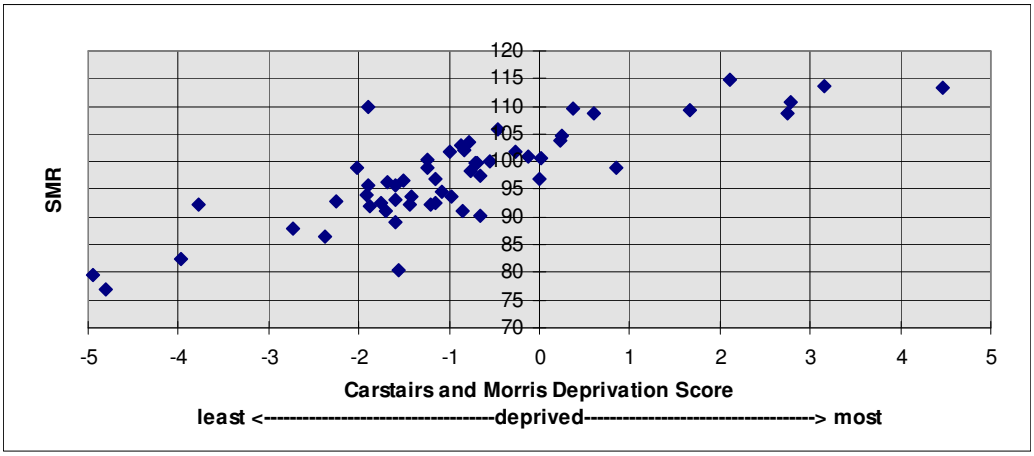
Table 1
Age and sex standardised all cause mortality ratios by deprivation category, Scotland 1991-1992, ages 40-64 (all Scotland = 100)

	Carstairs and Morris deprivation category						
	1	**2**	**3**	**4**	**5**	**6**	**7**
SMRs (1991-92)	61	74	84	97	111	129	159

Source: P. McLoone 1994 [13]

Figure 1 shows the correlation between local government district Carstairs and Morris deprivation scores (rather than deprivation categories) based on the 1991 census and all cause SMRs between 1988-92.

Figure 1
SMRs for all causes of death 1988-92 for local government districts by Carstairs and Morris score, 1991



Source: ISD Public Health Common Data Set 1992 and P. McLoone 1994 [13,14]

Table 2 shows SMRs for a variety of causes in 1980-1985 by deprivation category according to the 1981 census.

Table 2
1980-1985 SMRs by deprivation category (1981 census)

Cause of death	Carstairs and Morris deprivation category						
	1	2	3	4	5	6	7
All causes	84	89	95	101	107	112	123
All causes 0-64 years	66	80	91	99	110	123	138
All causes 65+ years	90	92	96	101	106	108	116
Malignant neoplasms	84	89	93	100	106	115	129
Malignant neoplasms 0-64 years	78	87	92	99	106	119	129
Lung cancer	67	78	82	98	113	130	176
Breast cancer	98	99	102	101	100	102	87
Cervical cancer	44*	77	88	102	113	121	163
Ischaemic heart disease	82	89	96	102	110	110	110
Ischaemic heart disease 0-64 years	63	75	93	101	116	124	123
Cerebrovascular disease	89	91	100	104	104	103	105
Cerebrovascular disease 0-64 years	58	79	93	102	110	126	128
Road traffic accidents	80	99	106	99	97	95	116
Non-RTAs	70	96	96	102	101	109	131
Suicide and undetermined	62	90	90	102	97	113	157
Smoking related	73	82	89	100	111	122	148
Avoidable - various	52*	76	91	97	112	135	147
Avoidable - CVD and Hypertensive HD	73	82	89	100	111	122	148

* Less than 100 deaths

Source: Table 5.8 Carstairs V and Morris R, Deprivation and Health in Scotland, Aberdeen University Press, 1991 [(10)]

For most of the causes of death listed, there is a clear gradient of increasing SMRs from most affluent to most deprived category. This is particularly noticeable when account is taken of age; the discrepancy is greatest in all causes, malignant neoplasms, ischaemic heart disease and cardiovascular disease in those dying before the age of 64 years, compared with those dying beyond this age.

Further work is needed to update this information. SMRs for a more recent period should be studied by deprivation category based on the 1991 census to enable comparisons between the situation in the mid 1980s and 1990s. The Information and Statistics Division (ISD) could play a role in providing up-to-date information on mortality and deprivation categories, both at a national level and (for Health Boards) by Health Board area or by local government district. This would assist Health Boards with monitoring progress towards national and local health targets.

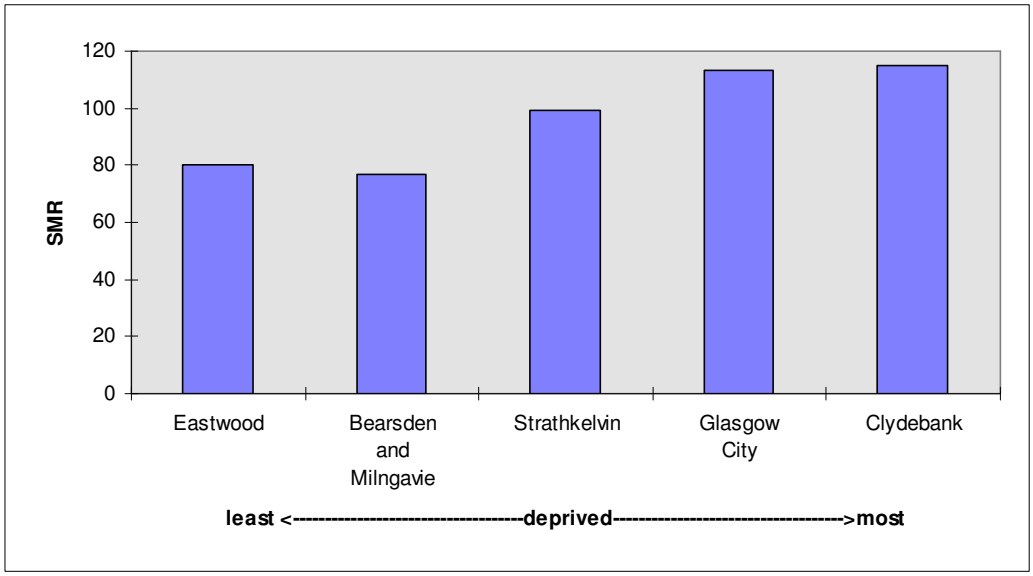
Within a Health Board area, the socio-economic influences on mortality become more apparent when analysed by the local government districts (LGDs) prior to April 1996. Carstairs scores for each LGD in Greater Glasgow Health Board area are shown in Table 3, while SMRs for these LGDs are shown in Figure 2.

Table 3
Carstairs scores by LGD in Greater Glasgow Health Board area 1991

Local government district	Carstairs scores 1991	
Eastwood	-4.95	least deprived
Bearsden and Milngavie	-4.80	
Strathkelvin	-2.03	
Clydebank	2.11	
Glasgow City	4.46	most deprived

Source: P. McLoone, 1994 [13]

Figure 2
SMRs for all causes of death in Greater Glasgow Health Board area by Local Government District 1992 (Scotland = 100)

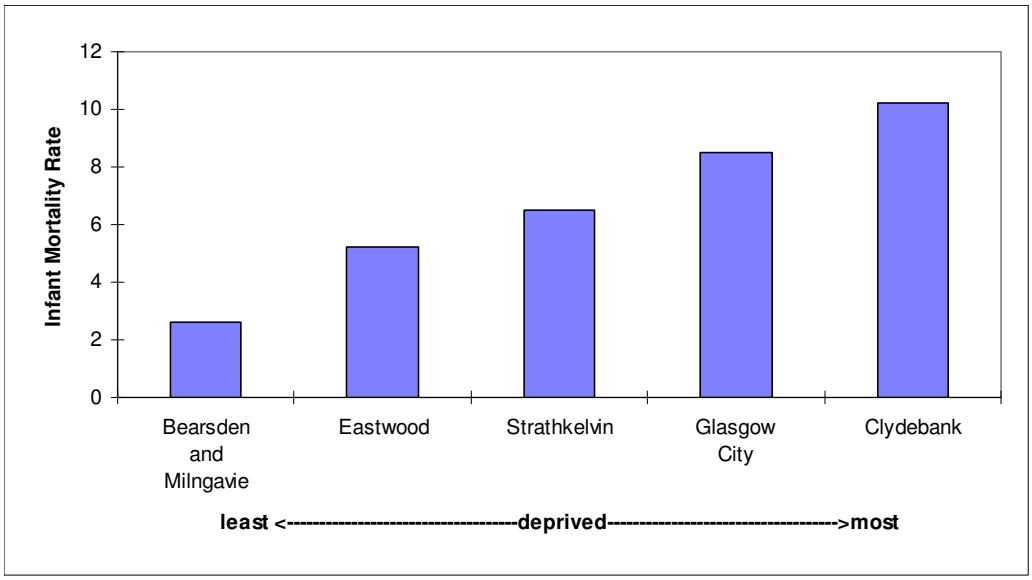


Source: ISD, Public Health Common Data Set, 1992 [14]

It is evident that those districts with larger negative Carstairs scores (Eastwood and Bearsden and Milngavie), i.e. more affluent areas, have the lowest SMRs for all causes of death in the Greater Glasgow Health Board area, and that their SMRs are significantly lower than the Scottish average. On the other hand, districts with positive Carstairs scores (Glasgow City and Clydebank), i.e. the most deprived areas, have the highest all-cause SMRs for the area.

Figure 3 shows that mortality rates in infants (under 1 year) in the Greater Glasgow Health Board area increase in areas of higher deprivation. The infant mortality rate has long been recognised as an important measure of the health of a community.[22]

Figure 3
Mortality rates in infancy (under 1 year) in Greater Glasgow Health Board area by Local Government Districts, 1992



Source: Registrar General for Scotland. Annual report 1992. [23]

Table 4 and Figure 4 compare SMRs in relation to deprivation category over time. Although these tables look at relative mortality, absolute mortality should also be considered.[24] Comparison over time shows changes in all cause SMRs, by deprivation category (for Scotland) in the 40 to 64 age group (Table 4 and Figure 4).

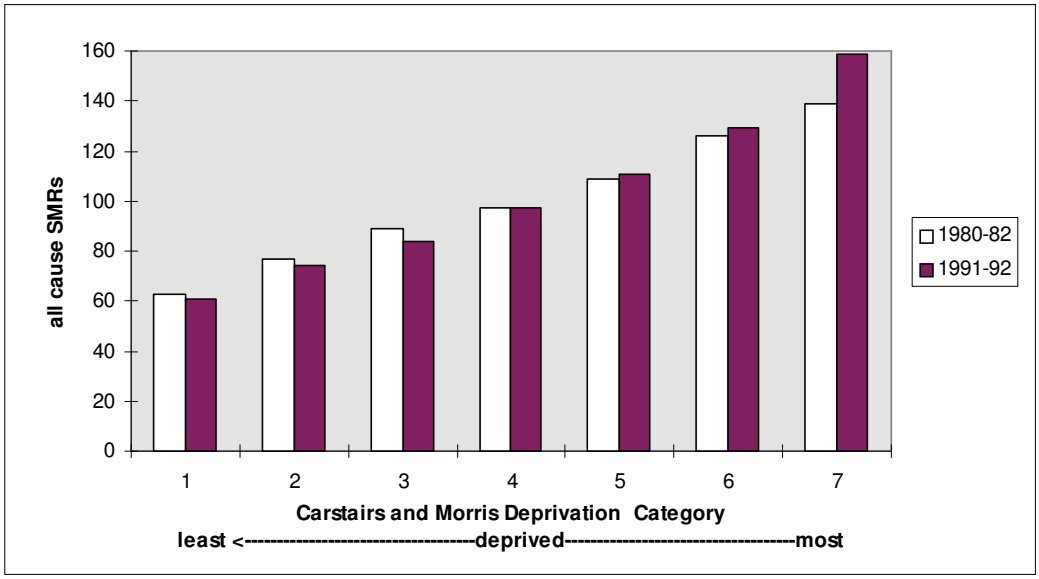
Table 4
Age and sex standardized all-cause mortality ratios by deprivation category, Scotland, ages 40-64 (All Scotland = 100) including the percentage of the population within each category in 1981 and 1991

	Carstairs and Morris deprivation category						
	1	**2**	**3**	**4**	**5**	**6**	**7**
SMRs 1980-82 (% population 1981)	63 (6.1)	77 (13.7)	89 (21.8)	97 (25.5)	109 (14.8)	126 (11.4)	139 (6.8)
SMRs 1991-92 (% population 1991)	61 (6.1)	74 (13.8)	84 (21.8)	97 (25.4)	111 (14.8)	129 (11.4)	159 (6.7)
Difference 90s-80s	-2	-3	-5	0	1*	3	20

* this figure is the correct product of rounding

Source: P. McLoone 1994 [13]

Figure 4
Age and sex standardized all-cause mortality ratios by deprivation category, Scotland, ages 40-64 (All Scotland = 100)



Source: P. McLoone 1994 [13]

The all-cause SMRs range from 63 in the most affluent areas (deprivation category 1) to 139 in the most deprived areas (deprivation category 7) in the period 1980-82. In 1991-92, the SMR range is wider, from 61 in deprivation category 1 to 159 in deprivation category 7, thus the gap in mortality rates between the most affluent and most deprived areas has widened between the two periods. Table 4 also shows the percentage of the population of Scotland which falls into each of the categories: the percent of population in both the most deprived (7) and least deprived (1) categories is relatively small (under 7%).

At a local level, trends in socio-economic mortality show a similar pattern. In Greater Glasgow, for example, the difference in SMRs between deprived and affluent areas increased markedly between 1980-82 and 1990-92 for both sexes and all ages, as shown in Figures 5 and 6 below. This indicates that the gap between deprived and affluent areas in terms of health appears to be widening in this local area. (An analysis of deaths for the period 1985-87 showed similar results, indicating a continuing trend over the decade.)

Figure 5
Ratios of SMRs between deprived and affluent areas for males living in Greater Glasgow, 1980-82 and 1990-92 (Both periods have been standardised to Greater Glasgow = 100 in 1980-82)

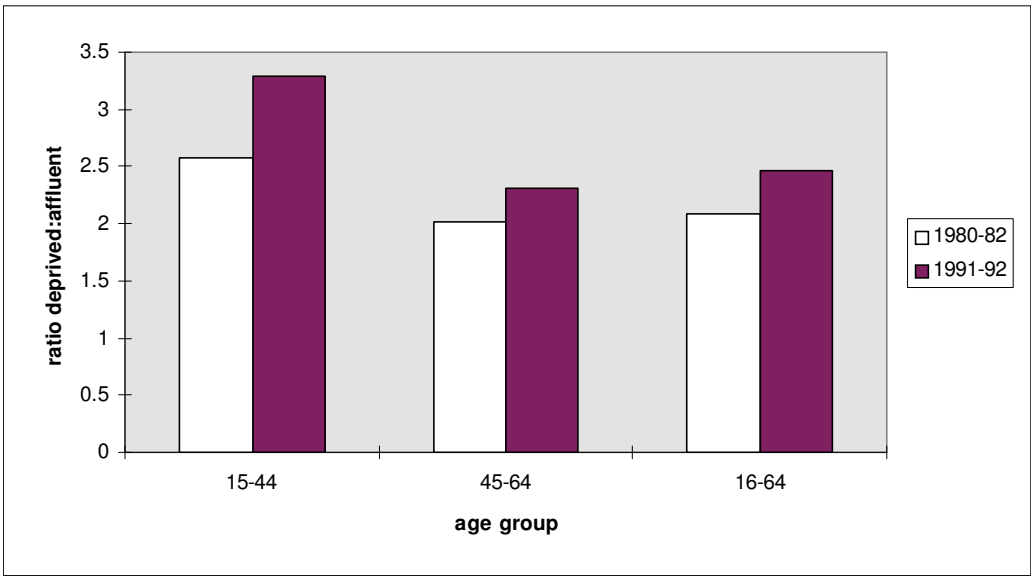
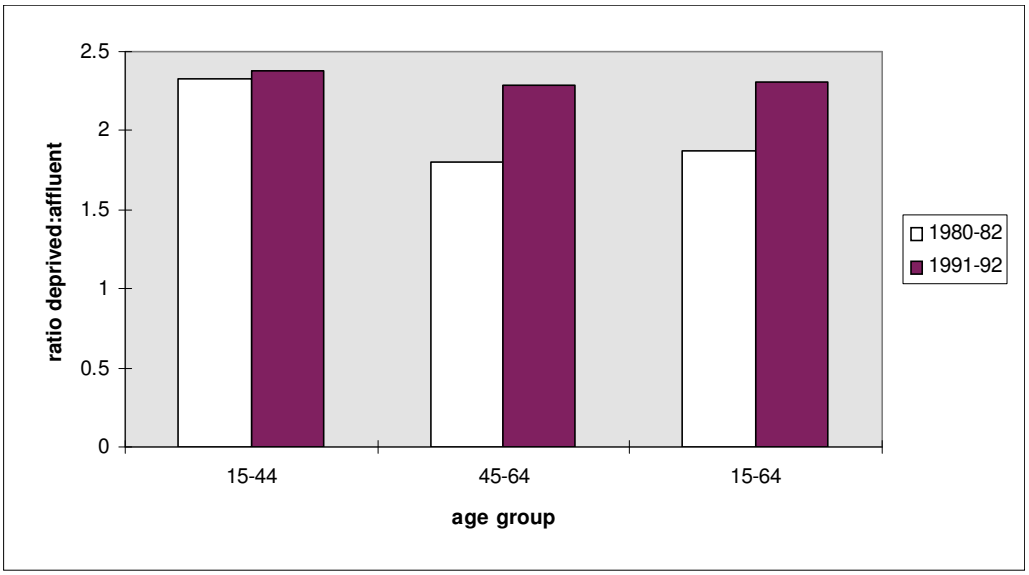


Figure 6
Ratios of SMRs between deprived and affluent areas for females living in Greater Glasgow, 1980-82 and 1990-92 (Both periods have been standardised to Greater Glasgow = 100 in 1980-82)



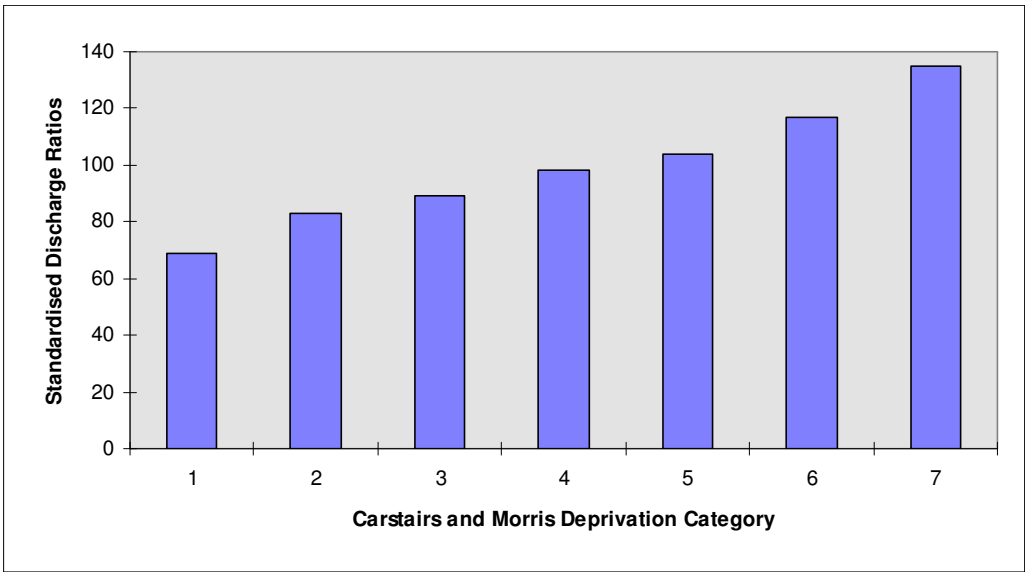
Source: McCarron et al, 1994 [5]

Morbidity

There are no comprehensive statistics available on illness in the population. Hospital statistics on diagnosis at discharge are available, but these show disease patterns only for patients receiving hospital treatment.

The hospital statistics available show that the pattern of varying levels of mortality in different socio-economic groups is also reflected in morbidity. The standardised discharge ratios (SDRs) for inpatient stays in Scotland for ages 40-64 in 1991, by deprivation category, are shown in Figure 7.

Figure 7
Age and sex discharge ratios by deprivation category, Scotland, 1991 ages 40-64 (Scotland = 100)

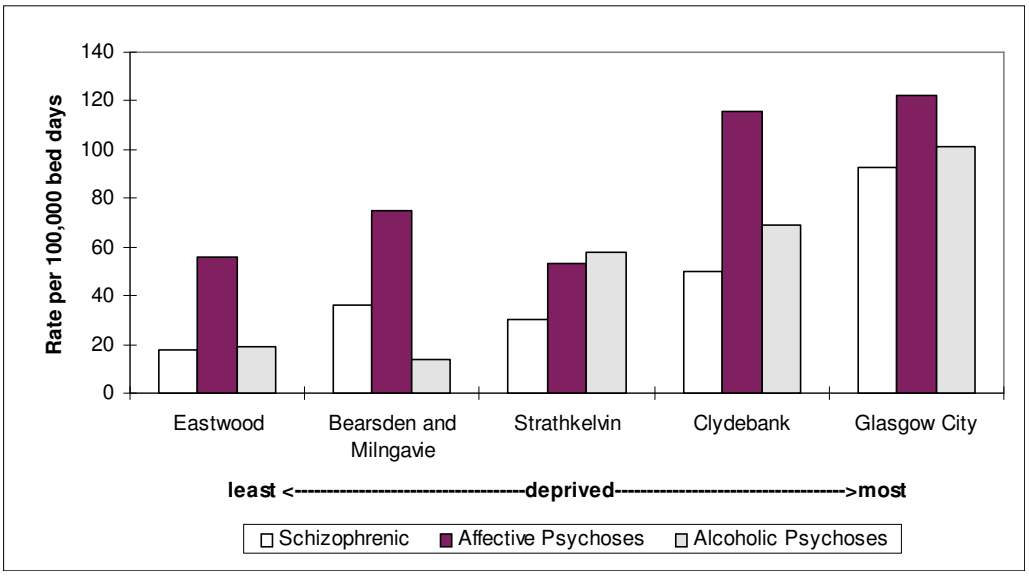


Source: P McLoone 1994 [13]

As with mortality, morbidity indicators increase over the range of deprivation categories. There is a clear distinction between those categories representing more affluent areas, which tend to be below the Scottish average in terms of hospital discharges, while categories representing more deprived areas are above the Scottish average.

At a local level the difference in morbidity between socio-economic groups is also apparent. In Greater Glasgow, for example, the rate of psychiatric admissions per 100,000 bed days for various disorders is greater in the more deprived areas of Glasgow City and Clydebank (Figure 8).

Figure 8
Age standardised rates for psychiatric admissions per 100,000 bed days for Greater Glasgow Health Board area by Local Government District 1992 (Scotland = 100)



Source: Public Health Common Data Set 1992 [14]

The extent to which health factors influence socio-economic factors (rather than vice versa) is a subject of debate.[15] Psychiatric morbidity is one area in particular where ill-health may lead to deprivation as well as deprivation leading to ill-health.

Health-Related Behaviour

Information exists on a range of health related behaviours by deprivation category. In most instances the same picture of the less affluent having less healthy lifestyle habits recurs, whether in relation to smoking, healthy eating, breastfeeding or teenage conception rates. Tables 5 to 8 illustrate variations in health related behaviour by social class or by deprivation category, based on information from a wide variety of sources. Health Board needs assessments would be facilitated if more comprehensive information were available at more frequent intervals. Deprivation categories are not readily available. ISD may have a role to play in providing such information, and it would be helpful if future SNAP reports detailed information by deprivation category where appropriate.

In addition there is evidence that socio-economic factors influence uptake of health promotion programmes, for example in Forth Valley Health Board's "Be Better Hearted" coronary heart disease health promotion programme 19% of the target population in more affluent areas participated, compared to a 10.7% participation rate in more deprived areas.[19]

Table 5
Percentage of Scottish Adults aged 18-60 reporting selected behaviours by occupational social class, 1992

	Social class					
	I	II	IIINM	IIIM	IV	V
Current smokers	18.8	25.1	29.3	42.2	45.8	51.5
Ex-smokers	21.8	21.8	16.6	18.3	16.1	13.6
Non-smokers	59.4	53.1	54.1	39.5	38.1	34.8
Drinks heavily on occasion	54.6	54.3	57.8	72.8	68.6	77.3
Undertakes physical activity	75.4	68.3	61.0	54.8	42.6	36.4
Adds salt to food at table	30.8	33.0	35.4	48.5	46.8	50.0
Eats fresh fruit daily	55.2	44.7	42.1	24.7	30.1	17.6

Source: Robertson B, and Uitenbroek D, Health related behaviours among the Scottish General Public, Jan.-Dec. 1992, Research Unit in Health and Behavioural Change, University of Edinburgh, 1994 [16]

Note: Deprivation categories were not available.

Table 6
Teenage conception (rate per 1000 girls) by age and deprivation category, Scotland, 1990-1992

Carstairs and Morris Deprivation category	Age				
	13-15years	16 years	17years	18 years	19 years
1	3	17	24	31	37
2	5	26	40	53	61
3	7	35	53	67	72
4	9	49	75	94	103
5	12	68	95	116	123
6	11	66	104	122	137
7	15	88	137	172	170

Source: SNAP, Teenage Pregnancy in Scotland 1995 [17]

Table 7
Incidence of breastfeeding by social class of husband/partner (1990, Great Britain)

Percentage breastfeeding initially:						
Social class						
I	II	IIINM	IIIM	IV	V	No partner
86	79	73	59	53	41	43

Source: White A, Fresh S, O'Brien M. Infant Feeding 1990, London: HMSO, 1992 [18]

Note: Deprivation categories were not available.

Table 8

Duration of breastfeeding at ages up to four months by social class of husband/partner (1990, Great Britain)

Percentage of those who breastfed initially still breastfeeding at:							
	Social class						
	I	II	IIINM	IIIM	IV	V	No partner
1 week	94	89	86	82	80	80	77
6 weeks	78	71	65	57	51	51	45
4 months	56	50	38	34	31	26	23

Source: White A, Freeth S, O'Brien M. Infant Feeding 1990, London:HMSO,1992 [18]

Note: Deprivation categories were not available.

4 HEALTH NEEDS ASSESSMENT IN GEOGRAPHICALLY DEFINED DEPRIVED AREAS

Commissioners, in particular Directors of Public Health, are required to assess health needs in order to inform planning and commissioning decisions. The assessment of health needs and related issues within particular communities has to be based on research, whether quantitative, qualitative or a combination of both. The health needs assessment may focus on a whole community or a target population within a particular community. Five main types of needs assessment have been described.[20]

Types of Needs Assessments

1. **Epidemiological** - the study of causation of a disease and possible interventions to model the incidence, prevalence and mortality associated with the disease in order to predict the resources required and possible outcomes.

2. **Economic** - the comparison of costs and benefits of a range of options not only to the provider but also to the consumer.

3. **Comparative** - the comparison of a local situation with that of another within the same Health Board area, with other Health Boards, or with the national situation.

4. **Consultative** - seeking the opinion of consumers and professionals alike in order to predict the resources required and possible outcomes.

5. **Pragmatic** - the selective, rather than systematic, approach to recognising areas of provision which are insufficient or inappropriate.

Health needs assessment in geographically defined deprived areas can encompass one of the above types or a combination of different types.

Health and Influences on Health

The experience of a particular group of people can be envisaged to extend intrinsically beyond the narrow remit of measures of **health/ill-health** to the wider range of **behavioural** factors in operation within particular communities which affect health, and the environmental and socio-economic **determinants** of health.[25] The relationship between these three categories of health/ill-health, behaviours and determinants is complex. Many of the factors comprising the determinants (such as housing and transport) lie outwith the responsibility of the NHS and are the direct responsibility of other agencies such as Local Authorities.

Various needs assessments carried out within particular communities address one, or a combination, of the three categories of health, behaviour and determinants. They can be quantitative, qualitative or a combination of the two. NHS health/health-care needs assessments tend to focus solely on health/ill health while NHS health and lifestyle surveys seek to assess health and health related behaviours. Health and lifestyle surveys, which are carried out in consultation with the community and encompass their concerns and priorities, tend to extend to include some of the determinants of health such as housing, transport and the environment. Needs assessments which are carried out by other agencies tend to focus on the areas which are within their remit, typically including behaviours and determinants which

operate within particular communities but which also can have an impact on health. Therefore, although the various needs assessments tend to focus on different factors, they also show considerable overlap, indicating that they are not mutually exclusive but complementary.

Each agency clearly has responsibility to provide distinct services, such as housing and transport, but the degree of overlap illustrates the need for joint working between various agencies in health needs assessments and in seeking to meet the health needs identified. This is addressed by the formation of alliances whereby the different partners have a forum for discussing their different objectives and priorities and a common agenda can emerge. Health promotion must be an integral part of strategies developed by health alliances.

Framework for consultation

Commissioners are encouraged to consider the views of local people in the planning and commissioning of health services, including health promotion; to promote informed local debate about health issues; and to involve local people in the process of assessing need. Some health needs assessments have minimal community involvement, such as direct population surveys without prior consultation, while others seek to maximise community involvement; there is a continuum between these two. The process of consultation within geographically defined deprived areas can be made more difficult if a proportion of the population is transient.[21]

However an individual Health Board chooses to set its own framework for consultation, it is important that it includes all relevant players, including the community itself, the primary care team and other agencies. A broad framework for consultation might include:

- consultation with primary care teams, and in particular with General Practitioners to ascertain their views and those of their patients.

- determining health related behaviour. Surveys can be an invaluable aid in gaining an accurate picture of aspects of a community. Whatever type of survey is conducted, whether quantitative or qualitative or a combination of the two, certain criteria should be adopted, e.g. the sample should be representative, to enable extrapolation of the results to the entire target population.

- in the case of community representatives, it is important that they do in fact represent their communities' attitudes and beliefs rather than their own personal views.

- direct contact with the community via the establishment of ongoing arrangements for listening and discussing.

The Annual Reports of Directors of Public Health can be used as a vehicle to highlight the health needs assessments carried out in geographically defined deprived areas. The findings of the needs assessments can also be included in other important documents such as local health strategies. However, commissioners must be aware that by carrying out health needs assessments within geographically defined deprived areas, they may raise community expectations.

Current health needs assessment activity in deprived areas

Following enquiries to each Health Board, information was provided about health needs assessment activities that have taken place in their recognised geographically defined deprived areas over the previous five years and the methodologies used. About half of the Health Boards were carrying out needs assessments in geographically defined deprived areas using a variety of approaches and methodologies (Appendix). Various levels of community involvement were utilised.

Conclusion

In conclusion, a number of types of health needs assessments in geographically defined deprived areas can be carried out using various levels of community involvement. Before a health needs assessment is undertaken, it is necessary to determine if the focus of the needs assessment is to extend beyond health/ill-health to include behaviours which affect health and the environmental and socio-economic determinants which also have an impact on health. A health needs assessment which includes the wider spectrum of health and influences on health will provide a more complete picture of the community living in a geographically defined deprived area. Input from others including agencies which also carry out needs assessments on issues relating, for example, to housing, transport and children's play areas would complement the health needs assessment undertaken by the commissioner.

The commissioner has responsibility for health needs assessment. Ideally health needs assessments should take place in advance in order to inform subsequent health promotion initiatives. However, in certain circumstances, actively involving the community in the process of health needs assessment increases awareness and empowerment relating to health and therefore may constitute the first step in developing health promotion activity within the community.

5 HEALTH PROMOTION ACTIVITIES IN GEOGRAPHICALLY DEFINED DEPRIVED AREAS

In a geographically defined area which is deprived, approaches to health promotion activities may be classified as:

- health promotion directed at an individual, and
- health promotion directed at a group of people.

The usual approach within the NHS is that of health promotion directed at an individual. All health professionals - but especially members of the primary care team such as health visitors, General Practitioners and dietitians - have a health promotion role to play as an integral and basic part of their daily work. Much of their work will be on an individual basis, working with individual people who may have some socio-economic characteristics associated with deprivation, regardless of where they live. One drawback of health professionals working with individuals within a community is that the problems of a geographic area may be masked by the numbers of health professionals who have caseloads within the area. Recent work by Aberdeen University in a geographically defined deprived urban area highlighted the large number of professionals within primary care health teams working with individuals, because the majority of people living within the area were not registered with the local general practice.[21] With a move towards locality planning based on general practices the need for health promotion within this deprived area may be overlooked as the needs of each individual are subsumed within those of the general practice with which they are registered.

The 1993 health promotion contract within primary care allocated funding on the basis of a practice achieving one of three levels of health promotion activity. No additional incentive was given to working with those from deprived areas and it was much easier for a general practitioner to achieve health promotion targets by concentrating on 'softer' targets (such as smokers from social classes 1-3). The inverse care law has been cited as applying to health promotion within primary care, concluding that health promotion clinics benefit populations at lower risk of ill-health.[19] New arrangements for health promotion in primary care were introduced in 1996 under NHS Circular PCA(M)(1996)20 GP Health Promotion[33]. General Practice health promotion activities are now the responsibility of individual practices. Each practice submits descriptions of its proposed and completed health promotion activities for a year to a local Health Promotion Committee for approval. Criteria for approving GP health promotion activities are that they must be based on: patient needs, local health priorities, modern authoritative medical opinion, "Scotland's Health: A Challenge to Us All" and the Priorities and Planning Guidance[34].

Health promotion directed at groups may involve individual health professionals working with groups, (such as smoking cessation groups) or may involve other agencies and key partners. Each agency has an agenda determined by national policy (e.g. Scotland's Health, A Challenge To Us All) and local policy: these set the "top-down" priorities. In geographically defined deprived areas, community priorities relating to health for the community (the "bottom-up" priorities) tend to focus on determinants such as employment, pollution and housing before smoking, diet, alcohol consumption and so on. For example, in a survey (initiated by the NHS) carried out within a particular deprived community[29], dog fouling was identified as a high priority; the responsibility for providing the solution to this clearly lies outwith the NHS. In order to improve health in geographically defined deprived areas, it is

important that each agency responds to the community priorities which fall within their remit. Successful joint working in geographically defined deprived areas is dependent on key workers, professionals and members of the community working in a complementary way. On occasion unnecessary confusion and duplication may arise due to lack of clarity of these roles, which may be alleviated by joint training. There is a need for activities to be co-ordinated, through healthy alliances, to avoid waste of time, effort and resources. One of the benefits of working in healthy alliances is being able to bid for European and national funding, e.g. Priority Partnership Area programmes.[32]

The above approaches have addressed those people who live in geographically defined deprived areas. However, it must be recognised that not all people with the socio-economic characteristics of deprivation live within geographically defined deprived areas.

Current health promotion activities

Routine individual based health promotion forms an integral and basic part of the daily work of many health professionals, particularly members of the primary care team. Against this background, part of the research for this report involved asking Health Boards for information relating to current health promotion activities within deprived areas; about half of the Health Boards were involved in such activities. Responses received from the various Health Boards described a range of approaches to health promotion. Some Health Boards prefer to develop health promotion teams within deprived areas whilst others see health promotion activities as an integral part of community health projects, many of which involve joint working: this is particularly relevant when the issues at stake relate to the wider environmental determinants of health. What follows is not a comprehensive list of the reported activities but an illustration of the different types of approach, with examples of each type. It is important to note that this list is limited to those health promotion activities in which health professionals have been involved: it is recognised that there are many activities initiated by other agencies which have an influence on health but are not included here.

Approach: Wide ranging projects which cover many aspects of health and where the community, within the geographically defined deprived area, is involved at various levels and may be both client group and providers. Examples: -

- In Greater Glasgow Health Board, the Triumph Health Project, Greater Govan, aims to develop programmes within the workplace, community, schools and primary care setting. Emphasis is on exercise, drugs, youth health and women's health.

- In Tayside Health Board, Health Visitors are employed to work as community health workers in geographically defined deprived areas, addressing a range of health needs in the community and developing community groups in conjunction with other agencies.

- In Grampian Health Board there is recruitment and training of local people as health promotion assistants, identifying training needs and developing appropriate interventions in response to needs in the community.

- In Greater Glasgow Health Board the Drumchapel Community Health Project involves community health volunteers, support and self help groups and promotes empowerment and inter-agency working [26].

- In Dumfries and Galloway the North Dumfries and Dick's Hill Community Health Project offers advice, information, group formation and support [27].

Approach: Projects which are aimed at the community as a whole, concentrating on a particular health issue. Example :-

- 'Fast Fruit' Food Co-ops in Grampian provide accessible, cheap, fresh fruit and vegetables to community groups and individuals.

Approach: Projects aimed at a specific group within the community and covering a range of topics. Examples :-

- Youth Health Promotion in Castlemilk, Greater Glasgow, aimed at young people in secondary schools, in the community and in the primary care setting and covering sexual health and other youth health issues.

- Asian linkworker in Tayside based in a general practice to facilitate better access and understanding of health services in addition to addressing health needs of the Asian community.

Approach: Projects aimed at a specific group and covering a specific topic. Reported initiatives which fall into this category were very often of a more innovative nature. Examples :-

- Safe and Sound project in Grampian, providing advice and support and the loan of baby care equipment to families.

- Inter-Act drama project in Forth Valley Health Board area, aimed at young people, covering HIV/AIDS, drugs and alcohol.

- Wester Hailes video and teaching kit for women and stress (Lothian Health Board).

- Craigmillar, book on men's health (Lothian Health Board).

- Forth Valley Health Board classified schools into three categories according to deprivation and provided mobile dental health units to cover the more deprived schools.

- In Tayside, Healthy Tuck Shops in primary schools and secondary schools and a pilot Youth Cafe focused on healthy eating.

Some schemes have completed process evaluation, but no outcome evaluation, while some others have produced a comprehensive report. Because many of the reported initiatives were new and most were ongoing, evaluation may not have been complete at the time of writing. There were several reports of the evaluations having been used to direct the project and highlight strengths and weaknesses, such as in the Safe and Sound Project in Grampian and the Triumph Health Project, Greater Glasgow.

6 MONITORING AND EVALUATION

Much of the current monitoring and evaluation of both needs assessment and health promotion activities within geographically defined deprived areas must be seen against the background of existing inequalities in health on the one hand and the achievement of national and local health targets on the other. Targets may be achieved without any improvement in the health of those living in geographically defined deprived areas, therefore an emphasis on targets alone may not meet the needs of such groups.

Needs Assessment

The survey carried out in connection with this report indicated that within Scotland there are variations in the extent to which needs assessment is being undertaken in geographically defined deprived areas, and little evidence of evaluation relating to needs assessment. The importance of ensuring representativeness has been outlined, and Health Boards have a part to play in evaluating this aspect of needs assessment, particularly when the consultative approach is taken. In order to monitor progress towards targets it is probable that needs assessments in relation to geographically defined deprived areas will be necessary for all Health Boards.

Health Promotion

The survey indicated some active targeting of health promotion within geographically defined deprived areas, but obviously this is only possible where such areas have been recognised. Health promotion activities that are taking place should be properly evaluated; it is important that monitoring and evaluation are kept distinct from the health promotion activities themselves. Quality standards need to be developed. The survey highlighted a limited amount of evaluation which has taken place to date. An extensive literature search for evaluations of health promotion activities in deprived areas was undertaken, including Medline, requesting a literature search from HEBS and from the NHS Management Development Group library. Published work on evaluation of health promotion activities in deprived areas is very limited. [28]

A framework for evaluation of the process of healthy alliances has been developed. [31]

The commissioner needs to be clear about the different elements in relation to health promotion that may be evaluated, including:

- the different needs assessment approaches, including level of community involvement
- the different health promotion approaches, including level of community involvement
- the healthy alliance processes themselves.

The success criteria appropriate to each element, whether a specific approach to health promotion, e.g, community development approach or the healthy alliance process, should be considered. Ultimately, however, the success criteria of these elements should rest on their ability to demonstrate effectiveness in terms of impact on health.

Health gain may be seen as long term outcomes, for example, reduced teenage conception rates, but may also be seen in terms of intermediate outcomes such as change in knowledge, attitude and behaviour. Other intermediate outcomes may need to be further developed. Examples of these have been highlighted. [25]

7 COSTED OPTIONS WITH EXPECTED BENEFITS

Very little information exists on costed options and expected benefits of either health needs assessment or health promotion activities in geographically defined deprived areas.

Needs Assessment

Different approaches to needs assessment may incur different costs. Assessing need in small areas uses more resources, but additional expenditure on needs assessment may prove to be cost-effective in the long-term if Health Boards are to allocate resources for health promotion appropriately. In addition, assessing health need in small areas using a consultative approach may increase ownership and hence participation in follow-on activities. It is also more likely to be cost-effective if all relevant parties work together on needs assessment; such joint working will depend on the type of need being assessed.

Health Promotion

Problems exist in establishing the effectiveness and cost-effectiveness of the various approaches to health promotion in geographically defined deprived areas. Very little information in relation to costed options with expected benefits for health promotion activity, either with individuals or with groups, exists.

Health promotion activities that are well co-ordinated are more likely to be cost-effective, and to maximize benefits.

8 IDENTIFICATION OF GAPS AND PRIORITY AREAS FOR FUTURE WORK

From the survey it is clear that identification of all the geographically defined deprived areas within Health Board areas has not been carried out. In areas where health needs assessments have not been undertaken, inevitably health promotion activity has not been targeted at geographically defined deprived areas.

With the advent of locality planning, general practitioners will play a greater role in identifying and targeting those within their practice population who have the characteristics of deprivation. Confusion may arise from the use of the Jarman index to measure deprivation in primary care, and the use of Carstairs and Morris to measure deprivation in Health Board areas.

Needs Assessment

Gaps in health needs assessment exist at both national and local levels. Nationally, information gaps exist and ISD may have a role to play in, for example, linking national mortality and morbidity data, (such as SMRs or cancer registry) to deprivation categories. Gaps exist in available research and literature, particularly with reference to evaluation and costings. The commissioner will require these information gaps to be filled.

Consideration should also be given to validation of surveys undertaken in geographically defined deprived areas particularly with respect to:-

1. the representativeness of the sample
2. the adequacy of sample size
3. the range of factors related to health to be studied (health/ill-health, behaviour, determinants)
4. the validity of individual questions.

Health Promotion

Gaps exist in terms of knowledge of current health promotion activities being undertaken in geographically defined deprived areas both within and outwith the NHS. At a local level there may be a need for a register, or database, of health promotion activity to prevent duplication of effort. There needs to be clarity about which element in relation to health promotion is being evaluated. Success criteria appropriate to each element, whether a specific approach to health promotion, e.g. the community development approach or the healthy alliance process, are needed. Ultimately, however, the success criteria of these elements should rest on their ability to demonstrate effectiveness in terms of impact on health. In the previous section the dearth of information relating to costed options and expected benefits was highlighted. Quality standards also need to be developed.

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APPENDIX 1

Information was requested from Health Boards regarding:

1. Indicators used to measure deprivation within Health Board areas.
2. Identified deprived areas by Health Board, with indication of how areas are identified as being deprived.
3. Needs assessments undertaken in deprived areas in previous five years by Health Board, with indication of methodology used.

The tables below summarise the information received from each Health Board.

1. Indicators used to measure deprivation by Health Board areas.

Argyll and Clyde	Urban - Strathclyde Regional Council deprivation measures for enumeration districts - unemployment, lone parents, overcrowding, non-elderly illness, vacant properties. Also elderly living alone, ethnic minorities, long-term illness and lacking amenities. Rural Strathclyde Regional Council use school catchment areas - primary pupils receiving footwear/clothing grants, single parent households, single elderly, overcrowding, distance of settlement from main population centre, number of buses each week.
Ayrshire and Arran	Townsend - unemployment, overcrowding, housing tenure, car ownership. Routinely available ready comparison between Health Board area and rest of Scotland.
Borders	Carstairs - one area identified
Dumfries and Galloway	None used but Carstairs, Jarman, unemployment under consideration.
Fife	None - global provision of service
Forth Valley	Carstairs and Morris ie. overcrowding, car ownership, head of household unemployed or in social class IV or V. Owner-occupier rate. (Has more relevance in England where more houses are owner-occupied. In Scotland the rate was 35% in 1981, rising to 52% in 1991.) Central Regional Council identifies 15 “areas of need” through the urban programme, but acknowledges the existence of smaller pockets of deprivation in other areas.

1. continued (indicators used)

Grampian	Carstairs - seen as more useful in towns because 2 of its 4 indicators (car ownership and occupation) may underestimate rural deprivation. Currently profiles (60 or so) are being created of all localities, using Regional council ward boundaries.
Greater Glasgow	Neighbourhood types (8) based on 30 census variables and cluster analysis of the 137 postcode sectors within the GGHB. Carstairs indices (for post-code sectors) used to compare GGHB with other parts of Scotland. Jarman used only if unavoidable as not designed to identify deprivation.
Highland	-
Lanarkshire	Carstairs, Jarman, Areas of priority treatment (used by Strathclyde Regional Council).
Lothian	Carstairs, using depcat scores at postcode sector, electoral ward and locality level. Convenient index, developed specifically for Scotland.
Orkney	Certain postcodes “deprived” (Jarman, 1981 census) - out of date, not obviously deprived.
Shetland	Using Jarman, no deprived areas in Shetland therefore no activity.
Tayside	Carstairs. Social priority areas identified by Regional Council.
Western Isles	Census variables - single parent families, overcrowding, elderly living alone plus local knowledge

2. Identified deprived areas by Health Board, with indication of how areas are identified as being deprived.

Argyll and Clyde	Many areas for priority treatment plus several identified as having rural deprivation
Ayrshire and Arran	LGDs: Cumnock and Doon Valley = most deprived area.
Borders	One area identified.
Dumfries and Galloway	Areas designated by the Scottish Development Department's analysis of small area socio-economic profile from 1981 census to target urban programme funding. Areas of deprivation recognised in Stranraer, north Dumfries, Sanquhar/Kirkconnel and Eastriggs.
Fife	None identified.
Forth Valley	Electoral wards used in preference to post-code sectors because of greater uniformity of numbers of resident population. Carstairs and Morris include Sitrling in the second most affluent quintile of Scottish LGDs and the other two LGDs in the second least affluent. Deprived electoral wards tend to be in the S-E of the area, particularly around Falkirk but the two most deprived wards are in Stirling LGD.
Grampian	Areas like Woodside and Torry.
Greater Glasgow	Postcode sectors. Deprivation measures can also be provided for social work areas, electoral wards etc.
Highland	-
Lanarkshire	Deprived areas are in N Lanarkshire, contiguous with Greater Glasgow conurbation. Lanarkshire has the lowest proportion of population in Carstairs Depcats 1 and 2 (affluent) and proportion in Depcats 6 and 7 (deprived) is second only to GGHB.
Lothian	Deprived areas identified at postcode sector and locality level. Fort, Fauldhouse, Pilton, Muirhouse, Craigmillar.
Orkney	Deprivation not centred in any particular area.
Shetland	Using Jarman, no deprived areas in Shetland, therefore no activity.
Tayside	Large concentrations of urban poverty in peripheral housing estates and parts of central Dundee, in a few housing estates in Perth and in Arbroath.
Western Isles	Housing areas, in some cases as few as 8-10 deprived houses in a village.

3. Needs assessments undertaken in deprived areas in previous five years by Health Board, with indication of methodology.

Argyll and Clyde	Cowal: June 1992, effect of closure of US base Larkfield: June 1992, one day seminar to identify health promotion needs of local community. Gibshill: Nov. 1993 Health fayre followed by workshops with local people re. problems and solutions Emphasis on exploring health needs with local people. Work planned in 2 areas in Renfrew district, 2 areas in Dumbarton district, 7 areas in Argyll.
Ayrshire and Arran	Rapid appraisal project in NW Kilmarnock underway - bottom up approach, focus group discussions, other qualitative methods.
Borders	No needs assessment.
Dumfries and Galloway	None.
Fife	None (number of surveys on a geographical basis).
Forth Valley	Study of the association between deprivation, coronary heart disease risk factors and uptake of the "Be Better Hearted" programme.
Grampian	None. Some work on homelessness
Greater Glasgow	Royston Health Survey in which local people and health and social care professionals identified the main local health problems. Survey of residents in Drumchapel, the Gorbals and Greater Govan, employing local residents as interviewers in peoples' homes. Castlemilk - health surveillance of elderly people and survey of mental health needs Cambuslang - series of focus groups exploring health needs Haghill - smaller scale local project to identify priority health issues. Seven projects on inequalities in health in the primary care setting have all included a basic health needs assessment.
Highland	-

3. continued (needs assessments)

Lanarkshire	No specific needs assessment projects have been undertaken, but 1992 health and lifestyle survey has been analysed using the Carstairs index.
Lothian	Wester Hailes: knowledge re mental health problem Granton: west Pilton clinic user participation in practice; report on the Middle House Stress Centre discussion and interviews with the local community in Royston, Wardieburn local shopping survey community development and health: individual and group contacts women and food conference Pilton: the need for a Prescribed Drug Information Service; post-natal depression: workshop, group discussions Craigentinny: community development report on mental health needs of black women Craigmillar: research project on inter-agency working re care in the community. Gorgie - community survey re women's health film re environmental issues in local communities Blackburn - women's perceptions of their own health and of local health services
Orkney	No needs assessment related to deprived areas
Shetland	No deprived areas in Shetland, therefore no activity.
Tayside	Community-based lifestyle survey in Kirkton-a large housing scheme 1994 Tayside Health and Lifestyle Survey 1994 analysed by postcode. Mid Craigie: perceptions of health survey 1988-89, 1989-90, using residents as interviewers. Whitfield Community Health Survey 1991-1992, involving local residents at all stages.
Western Isles	None - because of scatter and size of areas