



Health Inequalities

and Irish General Practice in areas of deprivation

A report on Health Inequalities in General Practice and the results of a survey of Irish General Practitioners on the issues affecting General Practice in deprived areas



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Author: Dr Philip Crowley

**Irish College of General
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Executive summary

This report is the result of work done for the Irish College of General Practitioners. Its purpose is to explore future possible roles for the College in the area of supporting general practices in urban and rural areas of deprivation. A review the literature and a survey of the GP members of the College were carried out.

The literature review

The literature on health inequalities is extensive both internationally and in Ireland. Both mortality and morbidity/illness is much higher in social class 4/5 compared to social class 1/2. A higher level of demand for general practice and other primary care services in areas of deprivation is a consistent finding in the literature. This also true for out-of-hours demand and use of accident and emergency services.

General practice services tend to be concentrated in wealthier areas with poorer areas less well served. There are various financial incentives that create this anomaly. There is some evidence in the literature that general practice referral rates to hospital are lower for poorer patients, women and for ethnic minorities. The literature proposes that GPs should become advocates for their patients in deprived areas and should ensure that they tackle any obstacles to access to their own services.

The survey results

2,419 GP members of the Irish College of General Practitioners were surveyed. 718 responses were received giving a response rate of 30%. Forty per cent of general practitioners felt they were practising in areas of deprivation. Those who said they had a greater than 60% GMS patient population included

30% of practices and those that said they had greater than 70% GMS include 22% of practices.

Only 9.6% felt that their morale was poor or very poor. Males, older GPs, single-handed GPs and those in areas of deprivation were significantly more likely to demonstrate lower morale.

Many positive aspects of working in areas of deprivation were highlighted. These included having good patient relationships, the real need for GP services in these areas and the potential for greater health impact in these practices.

Difficulties for practices in deprived areas included the lack of access to hospital and community services, the social and psychological needs of patients and the lack of time to deliver quality services.

The survey highlighted the lack of access to the GMS card as the main obstacle in attending general practice services while long waiting lists for community services were creating problems for patients. Waiting times and two-tier access to hospital services were the key problems in the hospital area.

Action needed

Some form of payment linked to deprivation that would be utilised to develop and enhance services for patients in deprived areas was the key suggestion to arise from the survey. The financial threshold for access to the GMS card should be raised and multidisciplinary teams developed in areas of deprivation. Access to hospital services must be improved for poorer patients and the Irish College of General Practitioners should enhance its role as advocate on these issues.



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– Dr Philip Crowley,
Irish College of General Practitioners

Introduction

“In areas with most sickness and death general practitioners have more work, larger lists, less hospital support and inherit more clinically ineffective traditions of consultation, than in the healthiest areas and hospital doctors shoulder heavier case loads with less staff and equipment, more obsolete buildings and suffer a current crisis in the availability of beds and replacement staff. These trends can be summed up in the inverse care law, that the availability of good medical care tends to vary inversely with the need for the population served.” (Tudor-Harte 1975)

“The current extent of health inequalities stands as an indictment of our society. Ensuring an adequate response to the malign effect of poverty on the health of our patients is the greatest contemporary challenge facing the discipline of general practice.” (Smeeth 2001)

The Irish College of General Practitioners and its members have long been concerned about the considerable health inequalities affecting the Irish population. These health inequalities are exacerbated by inequalities in access to health services. Many general practitioners work in areas of deprivation where poverty has a considerable impact on patients' health and health service use. This report comprises a literature review on the area of general practice, deprivation and health inequalities and presents the results of a survey of Irish general practitioners on the issues facing general practice in areas of deprivation. This work has been commissioned by the Irish College of General Practitioners in order to identify the issues around general practice and health inequalities and to chart a way for the College to support action in the future in this area.

Deprivation has been defined:

“People can be said to be deprived if they lack the material standards of diet, clothing, housing, household facilities, working, environmental and locational conditions ordinarily available to their society and do not participate in, or have access to, the forms of employment, occupation, education, recreation, family and social activities and relationships which are commonly experienced or accepted.” (Townsend in Beale 2001)

“The primary determinants of disease are mainly economic and social and therefore its remedies must also be economic and social.” (Rose 1992)





Section 1

Literature Review





Health inequalities

It is well established that the health of those in poorer communities is significantly worse than in wealthier communities. This is true for Ireland, the UK and many other countries. There are three proposed explanations for this; one is the 'selection' explanation that suggests that long-term illness creates social drift so that people who are ill become poor. The second is a cultural or behavioural explanation that suggests that cigarette smoking; poor diet and lack of exercise amongst poorer groups in society are the main explanation for health inequalities. The third explanation is a 'materialist' one which suggests that differential exposure to health threats, over which people have little control, is the true explanation for health inequalities. Studies have consistently identified that differences in risk behaviour, hypertension, cholesterol and obesity are insufficient to fully explain socio-economic health inequalities. Socio-economic circumstances and psychosocial factors do appear also to be important factors (Marmot 2001).

Looking globally at inequalities in health, the data suggests that countries with strong welfare regimes provide a buffer to the impacts of income inequality so those countries with poor welfare regimes and high income inequalities have the worst health and the greatest health inequalities. There are good population health indicators in Kerala, Costa Rica, Cuba, Finland and The Netherlands, countries with completely different levels of national earnings per capita, which suggests that national economic wealth is not even a necessary condition for health (Coburn 2004).

The relationship between income and mortality has been shown to be a continuous one and does not flatten off above some poverty line (Watt 1996). Adverse socio-economic conditions in childhood are associated with mortality in later life, particularly stroke and stomach cancer, while mortality from coronary heart disease and respiratory disease is dependent on social circumstances in both adulthood and childhood. Earlier work on the Barker hypothesis suggested that there was an increased risk of

coronary heart disease in children who are born with low birth weight. The risk of coronary heart disease is, however, further increased by poor living standards in adult life showing the compounding effect of disadvantage at various stages of the life course (Davey-Smith et al 1998).

Those who are socially excluded such as the unemployed, refugees, other poorer migrants and the homeless experience significantly worse health outcomes than the general population (Shaw, Dorling et al 1999).

Poorer neighbourhoods have been shown to provide fewer 'opportunity structures' for health promoting activities (Pilgrim 2004). Even after controlling for personal income, education and occupation living in a disadvantaged neighbourhood or area is associated independently with an increased incidence of coronary heart disease (Diez Roux et al 2001).

The poorer the person is the more likely they are to have a mental health problem, however, affective disorders are diagnosed fairly evenly in all social classes whereas there is a very strong correlation between lower social class and the diagnosis of schizophrenia. The thinking behind this correlation between mental health and poverty is that people who live in material deprivation endure higher stress from crime, traffic and cramped home conditions, they will be vulnerable to unemployment or jobs with poor/low amount of personal control and all of these may contribute to lower levels of self worth and self esteem (Pilgrim 2004).

Mental disorders, anxiety and depression have been shown to be strongly associated with unemployment and financial strain is a powerful independent predictor of onset and maintenance of common mental disorders (Weich, Lewis 1998). Unemployment is associated with a doubling of the suicide rate and there is very little association between socio-economic status, social class and housing tenure with suicide, once the association with unemployment is taken into account (Lewis, Sloggit 1998).



Children whose parents were classified as unoccupied are invariably living in poverty and experience relatively high risks of mortality (Judge, Benzeval, 1993).

Significantly higher child mortality has been found for children with fathers in manual occupations than those in non-manual occupations (Chawla 2004).

Many studies have looked at mortality and the links to deprivation but the area of morbidity is considered to be more important in terms of health service needs. A strong association has been shown between diabetic eye disease, bronchitis and emphysema, musculo-skeletal disorders and depression with deprivation. (Eachus, Williams, Chan etc 1996).

The Whitehall-2 study found that diabetes and hypertension were much more common in lower grade male civil servants aged 35-55 (Marmot 1991).

In the UK the gap in life expectancy between classes has narrowed to some degree but the disparity in disease free years remains considerable. The life expectancy of men living in the least deprived 10th of electoral wards was 77.4, while in the most deprived it was 71.4. In women, the difference was less with women's life expectancy being 81.2 in the least deprived areas and 78 in the most deprived. Men's healthy life expectancy was 66.2 in the richest 10th of the population but only 49.4 in the poorest 10th (ONS 2005).

In the UK the following two targets for tackling health inequalities have been set:

- A reduction of at least 10% in the gap in mortality between manual groups and the population as a whole.
- A reduction of at least 10% of the gap between the quintile of areas with the lowest life expectancy at birth and the population as a whole (Pole, Hammer 2001).

Health inequalities in Ireland

Ireland demonstrates one of the highest income inequalities amongst social democratic countries. Only Australia, United Kingdom and most markedly the United States are worse (Coburn 2004). The differential access to the same hospital for those with private health insurance is perceived as one of the most inequitable aspects of our current health system (Harkin 2001).

Some facts:

- On the island of Ireland the mortality rate in the lowest occupational class is 100%-200% higher than the rate in the highest occupational class (Balanda, Wilde 2001)
- For circulatory diseases mortality is 120% higher in the lowest occupational class, cancers 100% higher, respiratory disease 200% higher and injuries and poisoning over 150% higher (Balanda, Wilde 2001)
- At the age of 65 Irish men have the lowest life expectancy in the EU (Public Health Alliance of Ireland 2003)
- Prenatal mortality is three times higher in poorer families than in richer families (Public Health Alliance of Ireland 2003)
- The birth of low birth weight infants is more than twice as likely in women in the unemployed socio economic group than in the higher professional group (Public Health Alliance of Ireland 2003)
- Chronic and physical illness is two and a half times higher for poorer people than for the wealthy (Public Health Alliance of Ireland 2003)
- Hospitalisation rates for mental illness are more than six times higher for people in lower socio economic groups than those in the higher groups (Public Health Alliance of Ireland 2003)
- Poorer people are more likely to smoke cigarettes, drink excess alcohol, take less exercise, eat less fruit and vegetables than richer people and these lifestyle choices are limited by their economic and social circumstances (Public Health Alliance of Ireland 2003).

- Members of the traveller community live between 10 and 12 years less than the population as a whole (Public Health Alliance of Ireland 2003)
- Homeless people experience high rates of ill health and 40% of hostel dwellers have serious psychiatric illness (Public Health Alliance of Ireland 2003)
- Rates of means-tested medical card access have fallen from 39% in 1977 to under 28% in 2003 (Public Health Alliance of Ireland 2003)
- In 1996 unskilled manual men were twice as likely to die as higher professional men, eight times more likely to die from an accidental cause and four times as likely to be admitted to hospital for a first time with schizophrenia (Barry, Sinclair et al 2001)
- 22% of the population live on weekly incomes of less than €164 per adult and €54 per child per week. 6.5% of children experience consistent poverty in Ireland. Many people in poverty suffer from stress, isolation and depression. Lack of money and the inadequate income makes it difficult to pursue a healthy diet or to participate in active leisure pursuits (Combat Poverty Agency 2004)
- Healthy living choices are unequally distributed in our society where smoking is much more prevalent in social classes 5 and 6, particularly in young people, and eating fruit more than once a day is far less likely in social classes 5 and 6 (Department of Health and Children 2000)

The National Anti-Poverty and Health Strategy group recommended targets to tackle health inequalities:

- A reduction by at least 10% of the gap in premature mortality between lowest and highest socio economic groups for circulatory diseases, cancers and for injuries by poisoning by 2007
- A reduction by at least 10% of the life expectancy gap between the travelling community and the whole population by 2003
- A reduction of 10% in the gap in low birth weight between children from the lowest and highest socio economic groups by 2007 (Institute of Public Health 2001).

There is a significant level of illiteracy in Ireland whereby access to services, understanding doctor's directions, consent forms and use of medication are affected. 17.4% of respondents in the Slan survey were not able to read or understand information (McCarthy 2002).

An analysis in 1989, of small area mortality patterns in Dublin, found significant mortality black spots mainly in the inner city in the Ballybough, Drumcondra and East Wall areas on the north-side and between Dolphins Barn and the Liffey on the south-side. Clusters of higher mortality were also shown in Coolock, Finglas and Crumlin and there were isolated black spots in Blanchardstown, Clondalkin, Tallaght, Rathmines and Churchtown (Johnson, Dack 1989). Recent data show significant areas of high unemployment linked to higher mortality rates in the Mountjoy and Ballybough areas (O'Reilly 2005).

Rural health

There is a dearth of research on the impact of rural isolation on health and on the levels of rural health inequalities. The issue of rural deprivation has not been adequately measured or described and current deprivation indices are inappropriate for rural settings (Farmer, Baird 2001).

Irish research has suggested that rural general practice has more onerous on-call and a need for a wider range of service delivery. The authors felt that this demand was becoming unsustainable (Glynn, 2004). Rural areas in the UK exhibit lower levels of hospital use and poorer health outcomes than urban areas and these variations are related to variations in the cost of accessing a service (Rice, Smith 2001).

Ethnicity and health

Substantial differences in health care based on race and ethnicity have been shown and this is after controlling for the stage of disease, presentation, co-morbidity and the severity of illness (Cohen 2003) (Schneider, Zaslavsky, 2002). African Americans



enrolled in health care have been shown to receive unequal quality of care in terms of breast cancer screening, eye examinations and follow up hospitalisation. Breast cancer is higher in white women but African American women are 28% more likely to die from it (Cohen 2003). When identical stories about cardiac symptoms were offered to primary care physicians, striking differences were found in the decision to refer for catheterisation on the basis of patients' race and sex. Some of this was felt to be due to discrimination and stereotyping (Cohen 2003).

A study in England found that practices with greater south Asian populations are less likely to prescribe lipid-lowering drugs despite their higher cardio-vascular morbidity and mortality (Ward 2004). A UK study of the use of GP services by minority ethnic groups found it to be higher than the white population. The use of out-patient services was lower suggesting an inequity at the referral stage, not at the first contact stage (Smaje, Le Grand 1997). The apparent bias in terms of referring ethnic minority people to secondary care services is not supported by another study (Smaje 1998).

Equity in the health services

There has been much work done on the area of equity in health service delivery and there has been considerable concern expressed about the inequities in the Irish health system.

The principal of equity in the UK National Health Service has been defined as:

- You have universal entitlement
- Financial burden is shared across society
- A service that is free at the point of use and comprehensive in range
- Equality of geographical access
- The same high standard is guaranteed for all
- Selection of patients is on basis of need and not the ability to pay
- The service encourages non-discrimination (Whitehead 1994).

While the NHS may not meet all of these principles it is clear that the health care system in Ireland falls short of achieving an equitable health service.

Inequalities in access to secondary care services

There is a wide range of literature demonstrating inequalities in access to secondary care or hospital services for people from more deprived areas, for different ethnic minority groups and on the basis of gender. Ever since Julian Tudor Hart described the inverse care law (Tutor Hart 1971) numerous studies have demonstrated ongoing problems with access for people who probably have most need of secondary care services.

UK studies have shown large local variations in mortality from coronary heart disease and prevalence of angina is strongly correlated with material deprivation. Socio-economic deprivation was associated with significantly reduced likelihood of both angiography and coronary artery by-pass grafting (Payne 1997), (MacLeod, Finlayson 1999), (Payne, Coy 1993). A study from the United States showed that women and blacks were less likely to be referred for cardiac catheterisation than men and whites (Shulman et al 1999).

A study in Ontario showed that, despite Canada's universal health care system, socio economic status had pronounced effects on access to specialised cardiac services and on mortality one year after an acute myocardial infarction. The wealthier areas had 23% higher rate of use of coronary angiography and a 45% decrease in waiting time (Alter, Naylor et al, 1999). There is some conflicting evidence from the UK showing that general practices with a higher proportion of South Asian patients had higher rates of angiography and deprivation showed no relation with angiography (Jones, Ramsay 2004). Previous negative experiences for patients of the health services, fear of the outcome, denial of the symptoms and low expectations, were found to be further barriers to accessing heart disease services (Todd et al 2001, Gardiner, Chapel 1999).



Type 2 Diabetes is higher in lower socio-economic groups (Rose et al 1981). A UK study found that practices in areas of high deprivation had to work harder to achieve quality indicators for care of diabetics. It is suggested that the high rates of diabetes were due to higher rates of obesity, physical inactivity and low birth weight (Connolly et al 2000).

A study in the UK showed that cervical cancer screening coverage was consistently higher in affluent areas but the gap narrowed during the 1990s. The improvement in coverage in deprived areas was associated with an increase in the number of practice nurses. (Baker, Middleton 2003). This supports the idea of targeted investment in primary care interventions to promote health and screen for disease. This belies other studies that have suggested that preventive interventions may increase health inequalities because of a higher uptake amongst affluent groups. A study in Cardiff looking at asthma admissions showed a strong correlation with Townsend index of deprivation (Burr 1997). A study in south east England showed that residents living in deprived areas were more likely to be admitted as emergencies and less likely to be admitted as day cases for breast, colon and lung cancer. Patients from deprived areas with lung or breast cancers were less likely to have recorded a surgical intervention. The late stage presentation in people from a deprived area and their lower uptakes of screening for cancers of the breast and cervix in poorer areas has been blamed for differences in mortality rates (Pollock, Vickers 1998).

When the better off smoke more, consume a higher fat diet and take less exercise they were still found to have better health prospects in one study (Davey-Smith, Egger 1993).

The impact of general practice on population health

Strong primary care systems in countries are associated with a reduction in premature mortality from respiratory and cardiovascular disease after controlling for country GDP, individual income and

exposure to risk factors. Increased primary health care is associated with higher patient satisfaction and reduced aggregate health care spending. The gatekeeper role of general practice is important in controlling health care costs as specialists tend to use expensive technology and focus on cure rather than prevention (WHO 2004).

A study in the US found that both income inequality and primary care physician supply were significantly associated with mortality, where areas with less GPs showed higher mortality (Shi, Starfield, 2001). An English paper found that a lower supply of GPs was associated with increased hospital utilisation and the association between mortality and lower supply of GPs was partly explained by confounding factors such as the prevalence of limiting long-term illness, deprivation, ethnicity and social class (Gulliford 2002).

Demand for general practice services in deprived areas

There is a broad literature looking at the demand for general practice services analysed in relation to deprived and non-deprived areas. Studies confirming the association between low income and greater morbidity both physical and psychological abound in the literature. The importance of this literature is that we can understand the extent to which some of the problems encountered by general practice in poorer areas of Ireland might be related to extra demand generated by extra sickness or mortality or more frequent consultation for the same morbidity in deprived areas.

A UK study reviewed a number of papers that show a substantial inequality in the distribution of GPs, practice nurses and other practice staff. The authors found that areas with greater levels of material deprivation possessed lower levels of primary care provision in both GP numbers and services and they found that primary care resources have a tendency to gravitate to areas of greater affluence (Reeves, Baker 2003). A study in the eastern health board in Dublin found that 10 out of 12 common conditions studied



were significantly more common in those from social classes 5 and 6 than social classes 1 and 2. Social classes 5 and 6 had a 70% overall excess morbidity compared to those in social class 3 and 4 and they in turn had a 21% excess morbidity rate over social class 1 and 2 showing the overall gradient of need and demand (Lyons 1996).

An analysis of the fourth national morbidity survey of general practice in the UK using their 1991 census found that higher rates of consultation were found in the following groups of patients: those classified as permanently sick; those who were unemployed (especially recently unemployed); those living in rented accommodation; those from the Indian subcontinent; women living with a spouse or partner; and those in urban areas especially those living relatively near a general practice. However, when characteristics of individual patients are known, and controlled for, the impact of indices of deprivation, based on area-based statistics, is considerably reduced. This suggests that resource allocation methods based on area of residence will always be inferior to those that take account of the characteristics of individual patients (Carr Hill 1996). Area variables such as rates of car ownership have been found to be significant measures of potential demand, however individual characteristics have been found to be more powerful predictors of consulting behaviour. The authors propose that the best method for creating a basis for equitable distribution of resources in relation to socio-economic disadvantage in general practice would be a combination of small area statistics and a sample of anonymised records to check for individual characteristics associated with increased demand (Carr Hill 1996).

A study of consultation rates in the UK found that they were 42% higher in social classes 4 and 5 than in social classes 1 and 2 while consultations for preventative health care were lower in young men in social classes 4 and 5 than in social classes 1 and 2 (Martin 2001). A review of equity and consultation rates found that the greatest differences in consultation rates between social classes 4 and 5 and those in 1 and 2 was for life threatening, urgent, chronic or incapacitating conditions and for more trivial conditions the differences were less (Blaxter 1984).

English and Scottish studies showed that children from lower socio economic groups are more likely to seek home visits. Consultation rates for preventative care were slightly lower in lower socio economic groups (Saxena 1999) (Morrison 1991).

A study in the west of Scotland suggested that frequent attendance was significantly associated with greater numbers of serious conditions, higher levels of anxiety and lower levels of self assessed health. Thus the extra demand is explained by higher levels of health needs rather than by greater readiness to consult (Wyke 2003). A Dutch study found that GPs who work in socio-economically deprived areas, particularly in larger cities, are consulted 1.5 times more often for children than their colleagues in better off and rural areas (Bruijnzeels, van der Wouden, Fortes 1995). Areas of higher morbidity have been shown to have greater demand for community services (Buckingham 1997).

A UK paper showed 44% more out of hours contacts in more deprived areas, 18% more surgery consultations, 28% more same day consultations and an increase in psychological problems and respiratory problems (Carlisle, Avery, Marsh 2002). A survey in Nottingham found a significant variation in out of hour's contacts for general practice and accident and emergency across wards. Fifty-eight per cent of this variation was explained by a difference in Jarman Deprivation Index score. They found a disproportionate amount of out of hours demand fell on deprived inner city practices and that high general practice and high accident and emergency activity occurred in the same areas so one service was not substituting for another (Carlisle et al, 1998).

Another study found that the mean consultation length in the United Kingdom was 8.4 minutes and remained short by international standards, whereas in Canada it is 15 minutes and 21 minutes in Sweden. This study found that increasing socio economic deprivation was associated with higher prevalence of psychological distress but shorter consultations – an example of the inverse care law (Stirling, Wilson, McConnachie 2001).

An analysis of consultations in four general practices in the north of England suggested that the top 20% of

attendees accounted for 55% of consultations (Neal et al 1998), while an analysis of the UK's fourth national survey of morbidity in general practice suggested that the most frequently consulting 4.7% of patients used 21% of consultations over one year (Scaife 2000). Those who were the most frequent attendees tended to be women, those who are divorced or widowed, from poorer social classes, those who are unemployed and those who are South Asian (Scaife 2000).

A study in Cumbria found that frequent attendance was associated with a high predisposition to neurotic illness, and with poor past physical health. Ten per cent of patients who most frequently attended generated over 30% of surgery consultations. Of the social characteristics only marital breakdown was found significantly more often in frequent attendees (Westhead 1985). A study in Scotland found that significant disease in any child was the strongest predictor of frequency of new consultations. The measure of mother's anxiety, the number of children in the family and the mother's education level also contributed significantly. Socioeconomic deprivation was associated with increased utilisation even when the effects of prevalence of chronic disease and signs of maternal anxiety were taken into account (Campion, Gabriel 1985).

An English study suggested that socio economic deprivation rather than higher detection through screening accounts for much of the variation in prevalence of type 2 diabetes (Whitford et al 2003). The higher rate of detected diabetes is explained by the poorer circumstances of the patients' lives. Thus poorer practices have a higher workload arising from the care of those with diabetes and resources to manage diabetes in primary care might usefully target practices in poorer areas (Whitford et al 2003).

A study in the UK suggested that the provision of free patient transport for general practice co-ops enabled those from deprived areas to access the service and resulted in a more accessible and equitable out of hours service across the socio economic spectrum (O'Donnell, McConnachie et al 1999).

A UK paper found an overall decline in annual home visiting rates by 27% between 1981 and 1991 from

411 per 1,000 patient years to 299. They found that home visiting was twice as high for people with social class 5 compared to social class 1. Just over 1% of patients received nearly 40% of all home visits thus confirming the overall sense that there

are specific sub groups who have particularly high need and demand of general practice services (Aylin 1994). The study found that high visiting rates for people in social class 5 were due to a combination of increased morbidity, poorer car access and different expectations of general practice services (Aylin 1994).

A study looking at enduring and disabling mental illness in deprived areas of Newcastle in England found a high point prevalence, 12.9 per 1,000 patients, of people with enduring psychotic and non psychotic illness representing a considerable workload and disability. This prevalence is over three times that found previously in general practice. They found that only half of the patients were in contact with mental health services and a quarter of those with psychosis were not in contact with any mental health service (Kai, Crosland, Drinkwater 2000).

One study in New York found that lower family income is significantly associated with poorer health status, greater psychological stress, more family dysfunction, less social support, more behavioural risk factors, higher rates of obesity and uncontrolled blood pressure, poorer physical and mental health status and more medical diagnoses leading to additional workload. The authors stress that these patients will require more time including time spent on modifying behavioural risk factors (Fiscella 1999).

One UK paper found no evidence that the socio economic status of children and young people was associated with a difference in the use of health services or general practice services. However children and young people from minority ethnic backgrounds tended to access general practice services more and hospital services less, suggesting poorer quality of health care (Cooper, Smaje, Arber 1998)





A UK study showed higher morbidity with almost three times as much mental illness in the deprived group of patients compared to wealthier patients. The deprived group had 60% more hospital admissions and 75% more casualty attendances. They had much lower uptake of preventative healthcare especially childhood immunisations and cervical cytology. There was also a higher birth rate and it was felt that family planning was ineffective where it was most needed (Marsh, Channing 1986).

Impact of demand on quality

A study on patient satisfaction in general practice found that a personal service with continuity of care was what most guaranteed satisfaction and there were falls in satisfaction associated with an increasing total patient list size, the absence of a personal GP to attend and it being a training practice (Baker 1996).

A UK study found that practices with five minute booking intervals had significantly worse scores for quality of care for asthma, diabetes and angina than those with 10 minute booking intervals. They found preventative care was worse in practices in deprived areas, that longer times were essential for high quality clinical care and that good team working was a vital component. They felt additional support was needed to provide preventative care to deprived populations (Campbell, Hann et al 2001) (Freeman 2002). With regard to the perception of doctor availability, smaller practices may have advantages (Campbell 1996).

Research has found that GPs are frequently subjected to verbal abuse with an estimated annual frequency being between 25%-59%. One study found 5% of general practitioners reported having been threatened with a weapon in the previous year and annual rates of physical injury ranging from 1%-11%. The cross sectional study in the North of England found that over half of the respondents experienced verbal abuse in the previous year but only five of the 380 respondents reported being threatened with a weapon and only one reported physical injury. Those in deprived areas are more likely to report verbal abuse (Ness, House, Ness 2000).

Deprivation estimates and targeted payments

The Jarman underprivileged area score is used to take the geographical variations in the demand for primary care into account. The range and weighting of variables included in the score were identified after surveying a sample of GPs.

The score comprises eight variables:

- Unemployment – residents unemployed as a percentage of economically active
- Overcrowding – % of households with more than one person per room
- Lone parents – % of residents in 'lone parent' households
- Under-5s – % of residents aged less than five years
- Elderly living alone – % of elderly living alone
- Ethnicity – % of households headed by a person born outside the UK
- Low social class – % of households headed by an unskilled person (Social class V)
- Residential mobility – % of residents who changed address in the previous year.

The Townsend material deprivation score includes four variables:

- Unemployment (lack of material resources and insecurity)
- Overcrowding (material living conditions)
- Lack of owner occupied accommodation (a proxy indicator of wealth)
- Lack of car ownership (a proxy indicator of income).

The increased payments for deprivation in the UK have been based in the past on the Jarman index. One study analysed this and found that the formula did not accurately reflect general practice workload and the authors felt that payments might have the perverse effect of increasing the list size and thus decreasing the quality of service. They argue that payments should be linked to quality of service making allowance for deprivation, and the availability of other

health and social services. The validity of the Jarman index is weakened by the fact that it fails to include car ownership and housing tenure (Ben-Shlomo, White 1992) (Carr-Hill, Sheldon 1991). People in poor housing, unskilled workers and people born in a foreign country have been seen to have higher consultation rates (Reijneveld 1996). On the other hand a study in Rotherham showed positive correlations between depression, and respiratory symptoms and to a lesser extent self reported arthritis and obesity, with unemployment and deprivation (Payne 1993).

Research from Newcastle looked at different scores for allocating resources to doctors in deprived areas. The authors compared the under privileged area score (Jarman) with Townsend's material deprivation score and found that allocations to practices would differ considerably depending on which score was used (Hutchinson, Foy, Sandhu 1989). Some areas such as inner London have many people who don't appear on the census because they are mobile, including refugees and homeless people. These areas did not get the correct deprivation weighting (Majeed, Martin, Crayford 1996). The Townsend score has been shown to be more closely associated with rates of increased consultation in that all four of its component variables were individually associated with an increase in demand whereas only four out of eight of the Jarman components were.

Most studies of socio economic status and health use social class as an index of socio economic position but a paper in the UK suggests that this may result in an underestimation of the association between social factors and mortality (Davey Smith, Shipley, Rose, 1990)

Evidence from the UK has backed up evidence from Sweden showing a 150% increase risk of self-reported poor health for people living in the most disadvantaged neighbourhoods.

This study used the 'care need index', comprised of:

- Numbers of elderly people living alone
- Children under age five
- Unemployed people
- People with low education status

- Single parents
- High mobility patients
- Foreign born patients.

The authors suggested that these categories be used in analysing excess demand in general practice in other countries (Sundquist, Malmstrom 2002).

A study in 1997 of a single practice over a four and a half year period found that the costs of providing primary health care including drug treatment increased with decreasing socio economic status from £107 stg for social classes 1 and 2 to £256stg for social class 4 and 5, per person, per year, that's a 1:2.5 ratio in cost terms. They felt that additional deprivation payments could be used to expand the work of practice nurses in treating chronic illness that is a major component to the excess morbidity (Worrall et al 1997).

A further paper on deprivation and general practice workload from England showed that council tenure increased the likelihood of consultation significantly. Patients from India or Pakistan also yielded a high likelihood of consultation and a marginally increased consultation rate was found for women from manual socio economic groups. The authors propose a new deprivation index arising from these elements (Balarajan 1992).

As car ownership is essential for mobility in rural areas it can be an inappropriate marker of affluence (Davey-Smith, Egger 1993). It has been warned that small shifts in local Jarman scores between censuses can result in significant financial instability in general practices. In order to determine any additional payments account should be taken of the socio-economic status of individuals or households thus identifying pockets of deprivation in more wealthy areas (Beale 2001).

Deprivation markers for Irish general practice

In Ireland the Small Areas Health Research Institute in Trinity has developed a deprivation index based on:



Unemployment, social class, car ownership, local authority housing, and over-crowding.

As it includes car ownership it may underestimate rural deprivation. The index could be applied by assigning the deprivation score of the enumeration district (ED) where the general practice is and the scores for the neighbouring EDs. An alternative would be to use the percentage of the practice population who have GMS cards as a proxy for level of deprivation and of demand for services.

The Royal College of General Practitioners, standing group on health inequalities

In the UK the Royal College of General Practitioners has for a number of years had a committee focusing on the issues of inner city general practice and of health inequalities in general practice. They have produced three consensus statements that are relevant to Irish general practice.

- A 2002 report called for the issue of homelessness in primary care policy to be prioritised and the report highlighted the multiple health problems of those who are homeless. It stressed the need for the homeless to have equity of access to primary care services. It underlined the need for health promotion activity and psychiatric service support for the homeless. It called for resources to be allocated to primary care in a way which recognises the additional needs of homeless patients (Royal College of General Practitioners 2002).
- A 2003 report highlighted the existence of multiple illnesses as a significant issue in deprived areas where the management of one illness impacted on the management of others. The authors felt that the ever-increasing specialisation in hospital care has the tendency to disadvantage patients with a number of illnesses. They propose that resource allocation for primary care needs to take account of the demands of co-morbidity that affects deprived

areas disproportionately (Royal College of General Practitioners 2003).

- A 2004 report highlighted the high prevalence of low level symptoms and unhappiness which do not fulfil diagnostic criteria but are associated with a poor quality of life. It highlighted the high global burden of disease that mental illness represents where it accounts for 28% of the years lived with disability in most world regions. Anti-depressants account for 7% of the UK primary care drug budget and the total cost of treating those with mental illness is greater than that of heart disease, breast cancer and diabetes combined. The authors stress the importance of clinicians being able to make time for patients in order to deal with these issues. They highlight that only 13% of people in the UK with long-term mental health problems are in employment. They highlight that suicide rates are highest amongst young men in deprived localities, confirmed by work done in Ireland (Crowley et al 2004). They welcome the fact that the UK GMS contract provides mechanisms to reward enhanced services for depression. They stress the importance of maintaining links between primary care and voluntary and community and specialist mental health organisations. (Royal College of General Practitioners 2004)

General practice in Ireland

Obviously there are clear distinctions between general practice in Ireland and general practice in the NHS. The most obvious is that over 70% of patients pay to see their GP in Ireland. In Ireland there are not significant waiting times to see the GP as there appears to be in the NHS and there are more single-handed GPs in Ireland than in the NHS. A study in the Republic of Ireland on stress and morale in general practice found that a third of respondents rated themselves as highly or very highly stressed in 1997. The major stresses were patient demand, excessive workload, lack of time and out of hours work. Over 40% of doctors in urban areas feared for their safety while nearly 20% of rural doctors did. Of all GPs 19% had been threatened with physical violence in the past



year. Heavy night and weekend rotas with many one on one rotas in rural areas were described. Despite all this, morale appeared to be high with only 11.5% rating their morale as poor or very poor (O'Dowd, Sinclair, McSweeney 1997, ICGP). GPs in Northern Ireland had significantly higher stress levels and significantly lower levels of morale. The authors concluded that doctors in the Republic, while they had less practice support than those in the NHS, had more control over their own working lives resulting in better morale than in the UK (Gilliland, Sinclair et al 1998).

A study on Irish general practice found that 90% of GPs felt that communication with hospitals needed to be improved. Of the respondents 75% stated that they did not have attached staff such as physiotherapists, chiropodists, psychologists, counsellors or public health nurses in their practices (Nic Gabhann, Kelleher 2000). Health status has been found to be the most significant socio-economic indicator of frequency of general practice consultations in one study in Ireland. Location, education and social class also impacted on consultation frequency (Kelleher 2005).

A study in Ireland found that almost all services, apart from dental and optician services, were used more by those at the lower end of the income distribution but that this group also had the greatest need. Those in higher income groups receive more health care for a given health status. Hospital services were distributed inequitably across the income distribution whereas GP services tend to be pro-poor, that is they were used more by those with lower incomes for a given health status. Dental and optician services tend to be pro-rich. The authors concluded that GP services showed a greater level of use by those in lower income groups than would be predicted for their health need (Layte, Nolan 2004).

An analysis of the utilisation of GP services in Ireland between 1987-2001 looked at the impact of the 1989 change in the reimbursement system for GPs from fee per service to capitation. They found that there was a strong association between eligibility for the medical card and GP utilisation patterns and that there was no evidence that this effect diminished between 1987-1995 with the change of payment system. This study suggests that demand inducement under a fee-per-

item system was not a significant issue as had been suggested (Nolan, Nolan 2003). Rural patients are less likely than their urban counterparts to visit their GP and the distance and or availability of GPs had an impact on GP utilisation. Those with lower incomes but without a medical card are more likely to decide not to visit a GP, suggesting some individuals are precluded from GP services on the basis of income while those with medical cards are more likely to visit their GP and to visit more frequently (Nolan, Nolan 2003).

Public health care spending in Ireland has risen from €2.2 billion to €10.1 billion between 1990-2004 and despite this Ireland has not reached the average for the 22 OECD countries. In many OECD countries, unlike Ireland, primary care is either free or heavily subsidised. The average GP visiting rate in Ireland of 3.6 visits per person per year is about the middle of the range across these countries. The Irish average is slightly higher than the UK and visiting rates in Ireland are about twice as high towards the bottom of the income distribution scale when compared with the top. In Ireland there is a very sharp fall off in visiting rates at the cut-off point for medical card eligibility. The authors conclude that charges inevitably discourage necessary as well as unnecessary visits.

Numbers paying health insurance increased greatly over the past decade with almost half of the Irish population now with private insurance. Private care is subsidised by the tax-payer through income tax relief on payments and because 50% of the private care is delivered in public hospitals. Concern about waiting times for public hospital care seems to be a major stimulus to this growth in private insurance (Nolan, Nolan 2004). Medical card eligibility has been shown to promote greater use of GP services (Madden, Nolan, Nolan 2004).

Health inequalities can arise across a number of the grounds of equality legislation including gender, age and ethnicity as well as on socio-economic status. The Equal Status Acts 2000-2004 prohibit discrimination in the provision of goods and services. Some of the barriers that minority groups may face may be attitudinal amongst service providers. Other barriers may be communication barriers and the provision of information by methods that are inaccessible to



certain minority groups (Crowley 2004). A small study in a Dublin practice (O'Carroll 2004) found that 10% of consultations were related to filling in forms, a significant element in workload.

Inequalities in primary care and inequalities in referral to secondary care: the role of general practice

There is a considerable literature looking at the potential in general practice for discrimination against people from lower socio economic groups in terms of referral to secondary care services. This may be explained by the existence of co-morbidities that make people unsuitable for surgery but may also be a subconscious decision that disadvantages these patients. It is also relevant that more deprived areas generally have fewer primary care doctors.

A paper from England found that people in the most deprived quartiles were generally least likely to receive surgery for hip replacement or hernia repair despite being most likely to consult a general practitioner with symptoms (Chaturvedi, Ben-Shlomo 1995). While this finding might be expected in a health service where access to secondary care services are influenced by economic means such as in Ireland or the United States, it is interesting that it may also be found in an nationalised health service like the United Kingdom.

Another study found that diabetes and asthma programmes are generally more common in the more affluent areas. Only 27% of the London inner city area practices achieve the higher target level for cervical smear testing compared with 88% overall. A similar trend was apparent for childhood immunisation (Leese, Bosanquet 1995).

Another study found huge variations in the size of catchment areas even after correcting for numbers of doctors. They found an inverse relationship between the quality of service provision and the size of catchment areas. The location of a surgery premises

was inversely associated with deprivation in that they were least likely to be located in areas where the need may be greatest (Jenkins 1996). This is also suggested by a study in Trinity College for the Dublin area (Sinclair 1997). This suggests that accessibility declines with increasing distances from the surgery. Larger practice lists may disadvantage patients.

There is less vocational training taking place in deprived areas in England due to a lack of approved trainers. Increased remuneration and improvements to personal safety such as providing mobile phones for registrars on call may be required to attract GP registrars to inner-city areas (Harris 1996). The inequality in the geographical distribution of GPs in England and Wales is much less than the inequality in distribution of practice nurses, practice staff and opticians. Practices with more deprived populations may find it harder to achieve certain targets such as cervical screening. This will make it harder to generate the same level of income per head of population because of the difficulty in achieving the bonus payments for achieving the targets (Gravelle, Sutton 2001). A study found that for chronic ill health the lower socio economic groups were making greater use of general practice services than those in higher socio-economic groups (Collins, Klein 1980).

Research has found that practices with higher deprivation scores have been found to have significantly lower rates of utilisation of angiography and revascularisation. Those practices 20km or further from a revascularisation centre had significantly lower rates (Hippisley-Cox, Pringle 2000) (Macleod 1999). Prescription of lipid-lowering drugs has been found to be lower than expected in the bottom quintile of the distribution of socio-economic status (Watt 2002).

The American Medical Association found that that lower socio-economic position was associated with having less cervical smear tests, less mammograms, less childhood and influenza immunisations, less diabetic eye examinations, later enrolment in pre-natal care and lower quality ambulatory and hospital care. They also found that ethnic minority groups had fewer cardio-vascular procedures, fewer kidney and bone marrow transplants, fewer peripheral-vascular



procedures and less aggressive treatment for prostate cancer. Socio-economic position and race was associated with higher rates of amputations, treatment for late-stage cancer, avoidable hospitalisations, hospital readmissions and untreated disease. The reasons suggested were health care affordability, geographical access, transportation, education, knowledge, literacy, health beliefs, racial concordance between physician and patient, patient attitudes and preferences and provider bias (Fiscella, Franks, Gold, Clancy 2000).

A UK study found that patients of ethnic minority descent, those in lower socio-economic position or females were less likely than whites, more affluent groups or men to access secondary or tertiary medical care while they were at least as likely to report immediate health care seeking. Inequalities were particularly prevalent in cardiac treatments and lower socio-economic position has been associated with later detection of breast cancer. The reasons suggested for this were either differences in the presentation of symptoms, communication problems between doctors and patients or systematic differences in the referral and treatment behaviour of practitioners (Adamson et al 2003).

The Institute of Medicine in the United States highlighted evidence suggesting that prejudice and stereotyping on the part of healthcare providers may contribute to differences in care (Institute of Medicine, 2002). A study in the US on physician attitudes found that they tended to perceive African Americans and members of low and middle socio-economic groups more negatively than whites and made assumptions about patient intelligence and beliefs about the patients' risk behaviour (van Ryn, Burke 2000).

A Nottinghamshire study found morbidity, workload and drug treatment in primary care increased with decreasing socio-economic status. The authors refer to studies where patients from higher social classes were more likely to be referred to secondary care whereas others have shown either the opposite or no clear pattern (Hippisley-Cox, Hardy et al 1997).

A UK study found that patients of high socio-economic status were more likely to be tested for disease and

less likely to receive a prescription compared to patients with low socio economic status and that women were more likely to be tested and to receive a prescription than men. The authors reviewed other evidence showing that patients from lower social classes were more likely to get shorter consultations and were less likely to be followed up or have diagnostic tests carried out (Scott, Shiell, King 1996). GPs may spend less time in consultation with patients from socio-economically disadvantaged backgrounds (Wringer, Sanson-Fisher 1997) (Sterling, Wilson, McConnachie 2001).

Models of support for general practice in deprived areas in other countries

Time precluded a detailed search and analysis of the approaches taken in different countries to develop and support quality primary care in urban and rural deprived areas. A number of national colleges of general practice were contacted to explore if there were any elements of good practice we could draw on. The approach to incentivising general practice in deprived areas in England and Scotland was also reviewed.

In Denmark they have a fixed number of GPs (1 per 1,550 inhabitants) per head of population. All GP care is free of charge and available 24 hours per day. Some areas have negotiated extra GPs to allow for the extra demand and need for care in underprivileged areas. They have no national policy or model of quality care for deprived areas (Olesen 2005).

In Australia the focus has been on provision of care to isolated rural areas. They have a system of graded incentives proportional to remoteness to promote general practice in isolated areas. They have no national policy or model of quality care for deprived areas (Chater 2005).

In Portugal there is no additional financial support for general practice in deprived areas. They have no

national policy or model of quality care for deprived areas (Pisco 2005).

In England the 2003 GP contract developed a complex formula to allocate payments to practices in areas of deprivation. Payments are adjusted for age, sex and residence in a nursing home. Further adjustments are made for morbidity and mortality, list turnover, location in London and rurality. The formula is applied to practice populations not to primary care organisations. To determine the payments they used data from a General Practice Research Database covering 240 practices which gives information on consultation frequencies and duration. They utilised data from the 1991/2 Morbidity statistics for General Practice study to estimate morbidity levels. They also used rates of standardised limited long-term illness and standardised Mortality Ratio for over 65s (The NHS Confederation 2003).

In Scotland they used the above elements but also unemployment rate, levels of elderly people on income support and households with two or more indicators of deprivation. Payments in Scotland are contingent on meeting targets for child health surveillance and immunisation, contraception services, cervical cytology, health promotion, and asthma and diabetes chronic disease management (The Scottish NHS, 2005).

Action in primary care to tackle health inequalities and the effects of deprivation on health

“There is an urgent need to counteract the role that the health services play in increasing inequalities in particular inequalities in access to health care. We need to become part of the solution and not part of the problem.” (Page 436 Smeeth, Heath 2001)

Many people working in primary care may feel their role is merely to deliver services and do so to the best of their ability. However, there has been much written on the potential for those working in primary care to

promote action both within healthcare and outside of healthcare to positively influence the tackling of health inequalities and the effects of deprivation on health.

There is a lack of evidence on costs and possible harms of interventions to tackle health inequalities and the evidence base needs to be improved (McIntyre, Chalmers, Horton, Smith 2001). Most interventions that have been studied only address a small aspect of health inequalities in isolation (Gepkens, Gunning-Schepers 1996).

There are three ways of understanding what it means to tackle the health inequalities:

- Work to improve the health of poor groups
- Work to close the gaps in health between the poorest and the better off groups
- Address the association between socio economic position and health across the entire population (Graham 2004).

The literature proposes a wide range of actions for primary care:

- Inequality must be recognised as a significant quality issue and policies should be judged for their impact on equity (Dahlgren, Whitehead 1992)
- Reliable data must be collected to address these inequalities
- Population wide performance measures should be adjusted to allow for the impact of socio-economic position and race
- Reimbursement should be linked to socio-economic and racial composition of practice populations (Fiscella, Franks et al 2000)
- The medical profession might act as advocates to promote action on the social determinants of poor health that confront them in their surgeries
- General practitioners could refer patients to community services that may help them improve their social circumstances (Olsey 2003)
- Primary care providers could form partnerships with community organisations, particularly recreation providers, to promote participation of their poorer patients
- Consider the use of non professional support workers or peer workers in primary health care

teams to offer advice, support and information to disadvantaged groups around social care needs to reduce GP consultations (Abbot, 2000), (Reilly 2004), (Hastings 1993), (Kelleher 2001)

- Employ more trained practice nurses for work on prevention and chronic care
- More general practitioners are needed to create longer consultation times (Mathie 1997)
- Promote a more minority friendly practice by having culturally diverse staff, providing interpretation and by staff participating in cultural diversity training (Glenn-Vega 2002), (AMA 1993)
- Promote welfare advice in the GP surgery, as it is less stigmatising (Bourland, Owens 2004), to improve mental well being (Abbot Hobby 2000).
- Provide incentives to encourage better chronic health care and support partnerships with community organisations (Gillis)
- Reimbursement of additional staff salaries in general practice in deprived areas should be up to even 100%
- Consider negative controls prohibiting new practices in well-provided areas and financial incentives or allowances for under-doctored areas (Whitehead 1994)
- Doctors should promote social reform to meet basic human needs in housing, clean air, safe drinking water and adequate nutrition (McCally et al 1998) (Nathanson 1997)
- Promote greater integration of general practice, social services and community health involving co-location of workers and integrated care programmes for chronic diseases (Harris, Furler 2002), (Chrom 1999)
- Health services should be delivered within a social model of disability that promotes independent living. Promote disability awareness training for health service staff to tackle attitudinal barriers experienced by people with disabilities (National Disability Authority 2003)
- Provide prompts to encourage the use of health services, promote multidisciplinary approaches,

and ensure interventions address the identified needs of target populations (Arblaster 1996)

- Health services need to examine and ensure they are equally accessible to people of different minority groups by monitoring the use of services (Crowley 2002)
- Work is needed to increase access to primary care by increasing the income threshold for the medical card. Promote common waiting lists for both public and private patients in public hospitals (Barrington R 2004)
- The primary determinants of disease are economic and social and therefore their remedies must be also economic and social, so that those in medicine need to engage with politics. (Watt 1996)



And some more general proposals:

- Enure a decent minimum wage, adequate social welfare and concerted area based community development (O'Shea, Kelleher 2001), (Crowley 1998), (Combat Poverty Agency 2000) (Crowley, Freake 2004)
- Improve childcare to facilitate access to work and shift the balance of taxation away from spending and indirect taxation towards income and introduce a weighted capitation system of payment for general practice to ensure resources follow deprivation (Benzeval, Judge, Whitehead 1993)
- Promote greater redistribution of wealth, remove barriers to accessing health and social services and follow up of those leaving institutional care (Shaw 1999)
- Policies of progressive taxation and substantial income redistribution will underlie any significant effort to tackle health inequalities (Lawrence 1998).



Discussion of the literature review

The literature review provides unequivocal evidence for the association between poor health, both physical and mental, and socio-economic deprivation. There are striking inequalities in mortality between social classes in Ireland and certain sub-groups such as travellers have significantly shorter life expectancy than the general population. It is important to stress that mortality differences between social classes represent the end-stage of much larger differences in morbidity linked to disadvantage over the whole life-course. The literature also highlights the increased demand in areas of deprivation on general practice for consultations, house calls and out of hours work.

The issues of rural isolation, deprivation in rural areas and the effect of remoteness from services needs further study. Undoubtedly these are significant issues for Irish general practice but they have been under-researched.

The literature suggests that there are problems in general practice that may contribute to health inequalities. More deprived areas generally have fewer primary care doctors. Accessibility declines with increasing distances from the surgery and larger practice lists may disadvantage patients. There is also some evidence from the UK and the USA to suggest that primary care may disadvantage patients from deprived areas and ethnic minorities in under-referring them to secondary care. We have no evidence of this in Ireland but it is something we need to be careful about. The literature on health service discrimination on the basis of ethnicity is something we need to be aware of in Ireland with our increasingly multi-cultural patient population.

There may be structural reasons, economic funding and time reasons for the quality of care in primary care in deprived areas not being as comprehensive as that in more affluent areas. The decision to refer to secondary care may be influenced by many things, which may include lower patient expectations, lower general practice expectations on behalf of the patient, co-morbidity that may make other interventions less

likely to be successful and the possibility of subconscious assumptions or prejudices about the patients. Some studies did demonstrate that inequalities in hospital access occurred despite increased GP consultation rates for patients from lower socioeconomic groups.

While the effort to tackle health inequalities will involve actions on health determinants by actors outside of the health services, there is good evidence to support action on health service structure and delivery. Lack of investment in primary care has been shown to have a negative impact on population health.

There is evidence that practices in affluent areas are better resourced and have better facilities in order to meet health service targets for disease prevention and screening. This enables them to access further rewards. It is important that any incentives to preventative care in Irish general practice take account of this inequality.

The literature highlights problems with a strict cut-off point for deprivation payments suggesting that payments should be introduced gradually across a range of deprivation levels. Many authors suggest linking deprivation payments to expenditure on specific resources such as ancillary staff, practice improvements, or the running of specific quality incentives. The basis for determining increased demand on general practice will need to be a mix of area markers of deprivation and practice /patient markers of morbidity and consultation frequency.

One study highlighted how repeated drug treatment indicating chronic illness was the largest component of the total drug and labour cost in practice (Worrall et al 1997). The current indicative drugs target scheme for general practices in Ireland takes insufficient account of the case mix of general practices potentially rewarding practices with patients with lower levels of chronic illness and lower levels of demand for services.

The literature highlights many areas where we should consider actions to tackle the significant health inequalities in Ireland. We might usefully start by pushing for equitable access to primary and secondary care for our patients.



Section 2

The Survey



A survey of Irish general practitioners on deprivation and general practice

The literature on issues facing the delivery of primary care in urban and rural deprived areas demonstrates the extra demand and need for primary care services in these areas. It also highlights the role of general practice in tackling the health inequalities faced by patients in deprived areas. The Irish College of General Practitioners carried out a survey of its membership in January 2005 to explore these issues.

Methods

A survey was developed and piloted, with extensive discussion, with six GPs and adaptations were made on the basis of the feedback. The survey was then administered to all members of the Irish College of General Practitioners which represents 95% of all GPs. The survey was then analysed using SPSS, version 12.

Survey response

There were 718 responses from 2,419 questionnaires which gives a 29.6% response rate. There were a certain number of non-respondents to each question and they were excluded from the calculations. No reminder questionnaire was sent.

Profile of respondents

Age ranged from 27-82 years with a mean age of 47. Age was grouped as shown in Table 1 – one quarter of respondents were over 55 years of age.

Almost one-third of respondents (31.4%) were female.

The number of GPs in the respondent's practice range from one to 14 with a mean of 2.6.

Almost one-third (31.4%) remain as single-handed practitioners.

Almost one-quarter (22.5%) of respondents work in a rural area, 38% work in an urban area and 39% are in mixed areas.

Table 1: Respondents age group

Age	N	%
<35	90	12.7
35-44	191	27.0
45-54	246	34.8
55+	180	25.5
Total	707	100.0

Table 2: Number of GPs in practice

Age	N	%
1	217	31.4
2	200	29.0
3	117	17.0
4-14	156	22.4

Table 3: Location of practice

Area	N	%
Mixed	279	39.4
Rural	159	22.5
Urban	270	38.1
Total	708	100.0

Table 4: % of GMS compared to practice in an area of deprivation

% GMS	% No*	% Yes*
0-24	84.6	15.4
25-44	76.8	23.2
45-69	51.6	48.4
70-84	31.9	68.1
85-100	17.8	82.2

*No: Does not practice in an area of deprivation

*Yes: Does practice in an area of deprivation

Table 5: Practice in an area of deprivation by GP gender and age-group

Practice in a deprived area	Gender		Age-group			
	Female	Male	<35	35-44	45-54	55+
	%	%	%	%	%	%
No	62.2	58.5	57.8	61.6	59.3	57.2
Yes	37.8	41.5	42.2	38.4	40.7	42.8

Table 6: Practice in an area of deprivation by practice profile

Practice in a deprived area	Practice type			Practice location	
	Group	Single-handed	Mixed	Rural	Urban
	%	%	%	%	%
No	61.7	56.0	73.3	55.3	49.1
Yes	38.3	44.0	26.7	44.7	50.9

Table 7: Respondents' reported morale

Morale	N	%
Very Good	131	18.5
Good	320	45.2
Average	189	26.7
Poor/Very Poor	68	9.6

GMS profile and deprivation

The percentage of GMS in respondents' practices ranged from 0 to 100 with a mean of 45.8%.

When asked 'Do you work in an area of deprivation?', 40.2% of respondents felt that they practised in an area of deprivation.

When responses here were compared to the proportion of the practice that is GMS, there appears to be a substantial overlap (Table 2).

Overall, 22% of practices were >70% GMS, and 72% of these considered that they were in an area of deprivation.¹

There was a significant difference ($p < 0.01$) in mean % GMS between stated deprived area (mean = 59%) and stated non deprived area (mean = 37%). Thus those practices that defined themselves as deprived did tend to report a higher proportion of GMS patients.

No significant relationship was observed between practicing in an area of deprivation and GP gender or age-group.

There is no significant relationship between practicing in an area of deprivation and being in single-handed practice. However, deprivation is significantly ($p < 0.01$) related to practice location with mixed urban/rural areas being less likely to be rated as deprived.

Respondents' reported morale

Only 9.6% of respondents suggest their morale is poor or very poor. A further 26.7% evaluate their morale as average.

There is a significant relationship ($p = 0.036$) between morale and doctor's gender with women showing better morale. There is a significant relationship ($p < 0.01$) between morale and doctor's age group with older practitioners more likely to report poor morale (Table 8).

Table 8: Morale by GP gender and age group

Morale	Gender		Age Group			
	Female	Male	<35	35-44	45-54	55+
%	%	%	%	%	%	%
Very Good	19.7	17.9	30.3	13.9	14.3	22.6
Good	49.1	43.1	49.4	55.1	43.0	36.7
Average	26.1	27.2	16.9	24.6	32.0	26.0
Poor/Very Poor	5.0	11.8	3.4	6.4	10.7	14.7

There is a significant relationship ($p = 0.047$) between morale and single/group practice with single-handed GPs more likely to report poor morale (Table 9).

Table 9: GP morale by practice profile

Morale	Practice type		Practice location		
	Group	Single Handed	Mixed	Rural	Urban
%	%	%	%	%	%
Very Good	19.3	17.7	17.8	17.7	19.5
Good	47.4	39.5	46.5	41.8	46.1
Average	25.8	29.8	24.7	29.1	27.0
Poor/Very Poor	7.5	13.0	10.9	11.4	7.5

There is a significant relationship ($p < 0.01$) between morale and whether the practice is in a deprived area and between morale and mean proportion of GMS patients in the practice; with decreasing morale with increasing GMS proportion.

Table 10: Morale by practising in a deprived area

Morale	Deprived area	Not deprived area
	%	%
Very Good	22.3	12.9
Average	47.7	42.3
Very Good	24.7	28.7
Average	5.3	16.1

Table 11: Morale by mean GMS practice population

Morale	Mean % GMS	N
Very Good	42.025	122
Good	43.947	301
Average	48.740	177
Poor/Very Poor	53.788	66

A multiple logistic regression on morale (good/very good) and (average/poor/very poor) with gender, age, single/group profile, deprivation and proportion GMS showed that only practising in an area of deprivation remained a significant independent predictor of morale.

Issues relevant to patients of few resources and deprived areas

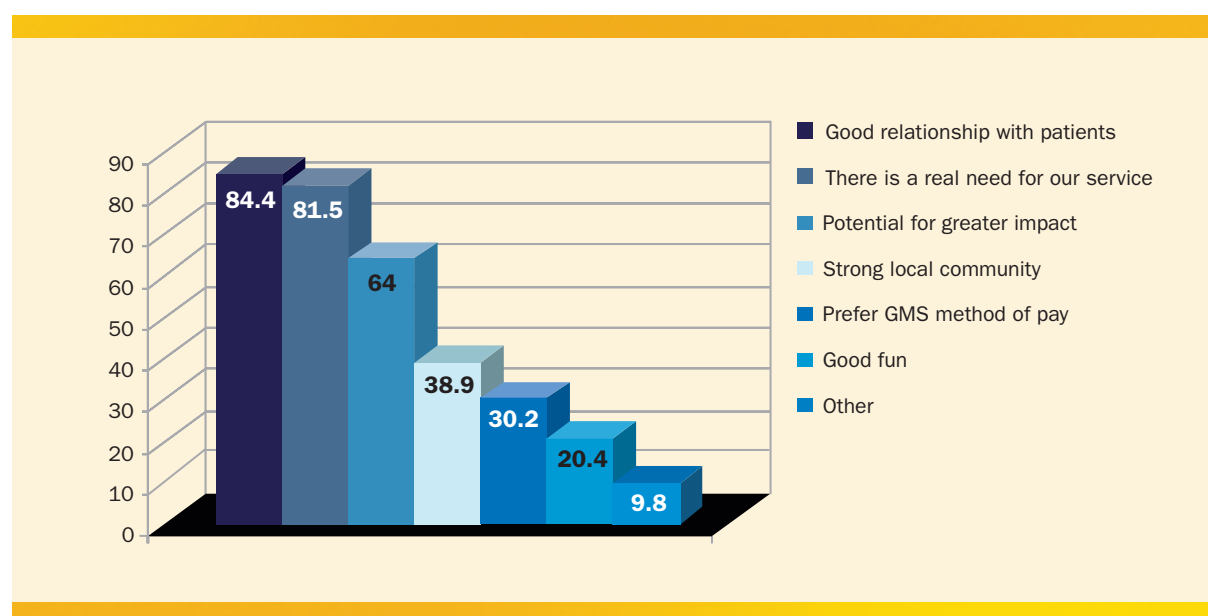
Respondents were asked to rank the top three difficulties for their practice in providing care to their patients who have few resources.² The responses received are listed in Table 12. The greatest difficulties were access to hospital and other services and the existence of social and psychological problems – each mentioned by over half of the respondents.

Table 12: Difficulties providing care to patients of few resources

	N	% of GPs
Access to hospital/Other services	203	59.4
Social/Psychological problems	184	53.8
Lack of time/Workload	152	44.4
Harder work for same earnings	129	37.7
Form filling	82	24.0
Lack of investment for Practice	75	21.9
More house calls for social reasons	44	12.9
Shortage of doctors/nurses	41	12.0
Isolation	33	9.6
Poor patient compliance	30	8.8
Lack of other staff in Practice	26	7.6
Other	11	3.2

GPs who reported practising in an area of deprivation noted the positive aspects of practising in a poor community (Figure 1).² The most often mentioned positive aspect was a good relationship with patients (84.4%), next was the real need for services (81.5%) and the third was the potential for greater impact (64%).

Figure 1: Positive aspects of practising in a poor community¹



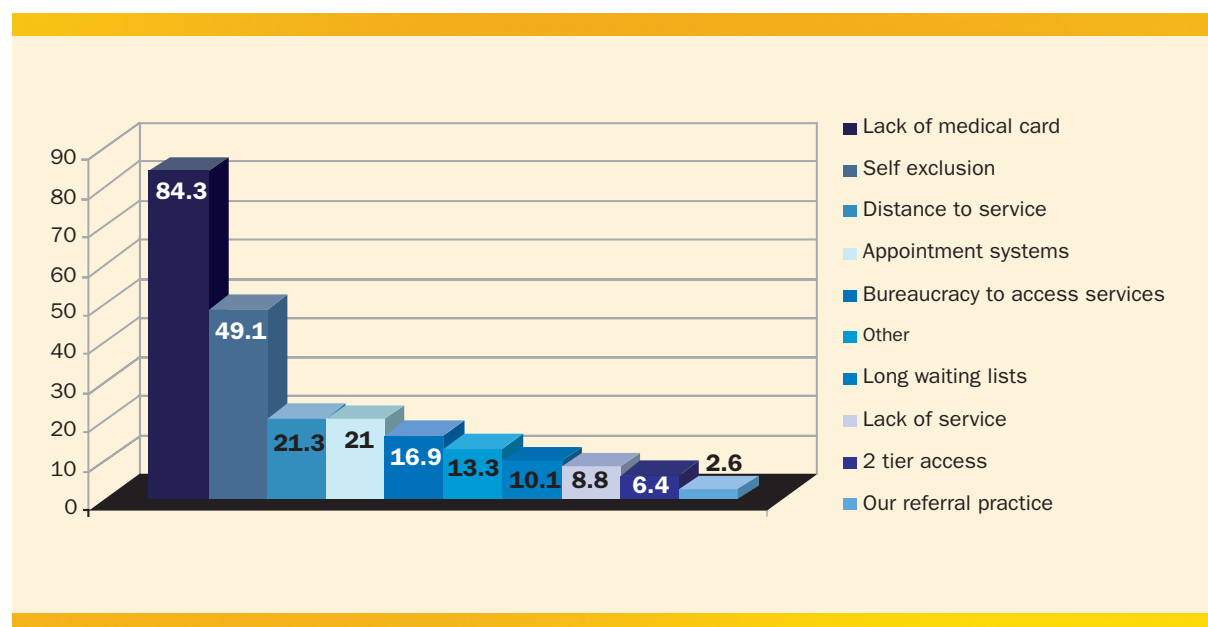
All GPs were asked what they would wish to develop to improve their patients' health, if they had more resources. Counselling was mentioned by 69.4% of GPs (Table 13).²

Table 13: Areas GPs would like to develop to improve patients' health

	N	% of GPs
Counselling	490	69.4
Social supports for patients	403	57.1
Physiotherapy	362	51.3
Multidisciplinary team	352	49.9
Increase Dr+Nurse/patient ratio	330	46.7
Time for team working	296	41.9
Modernise practice	278	39.4
Mental health nurse in team	245	34.7
PHN in team	215	30.5
Occupational therapy	187	26.5
Other	97	13.7

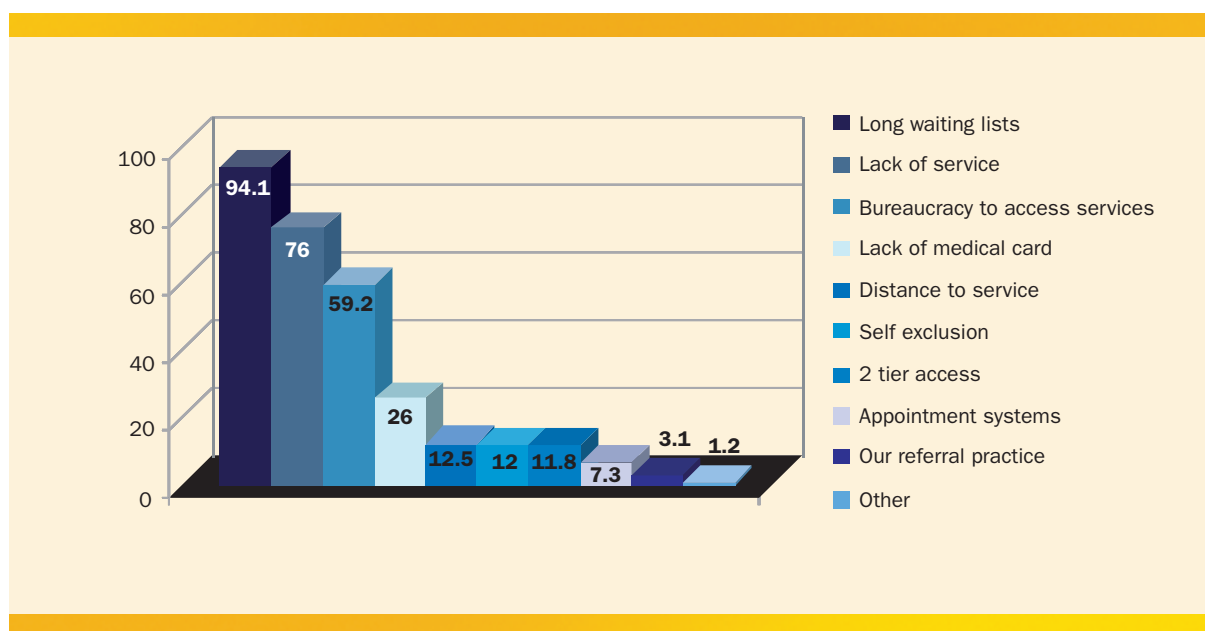
GPs were provided with a list of responses and asked to record the main obstacles faced by their patients in accessing GP services (Figure 2),² community services (Figure 3)² and hospital services (Figure 4).²

Figure 2: GPs' view of obstacles faced by patients in accessing GP services¹



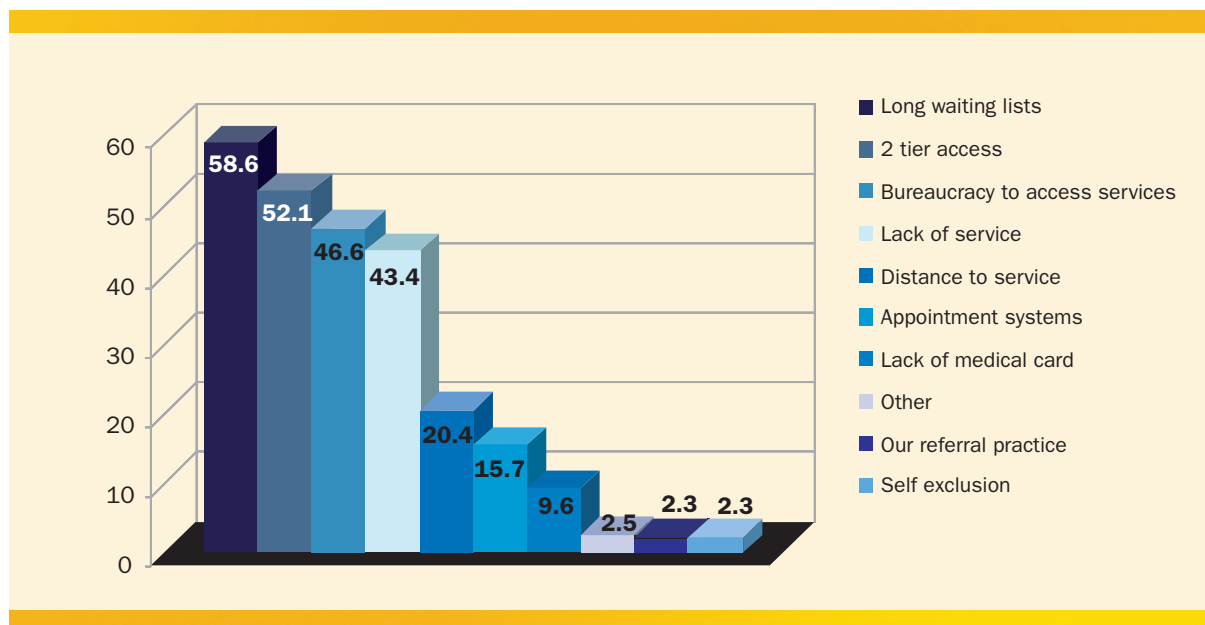
The main obstacles in relation to accessing GP services are medical card availability and patient self exclusion, mentioned by 84.3% and 49.1% of GPs respectively.

Figure 3: GPs' view of obstacles faced by patients in accessing community services¹



The main obstacles for patients accessing community services according to GPs are long waiting lists (94.1%), service availability (76%) and bureaucracy (59.2%).

Figure 4: GPs' view of obstacles faced by patients in accessing hospital services



Long waiting lists (58.6%), two-tier access (52.1%), bureaucracy (46.6%) and service availability (43.4%) were the most often mentioned obstacles to accessing hospital services.

College advocacy

The top three areas of support GPs working in deprived areas would like from the College in providing care to patients in deprived areas are shown in Table 14. The most often mentioned were better pay for GMS work, push for more resources and advocate on issues/lobby government.

Table 14: Support from the ICGP to GPs in deprived areas

	N	% of GPs
Better pay for GMS work	171	62.4
Pushing for more resources	171	62.4
Advocate on issues and lobby government	152	55.5
Raise profile/status of this work	93	33.9
Develop a network of GPs working in deprived areas	49	17.9
Look at models in other countries	38	13.9
Blue print for skills/resources needed	36	13.1
Develop evidence on key issues	36	13.1
Education	32	11.7
Link with community/patient groups	22	8.0
Other	5	1.8

Table 15 lists the open-ended responses received when GPs were asked – What are the issues that the College should pursue publicly in order to improve the health of patients in poor communities and tackle inequalities?

Table 15: Issues the ICGP should pursue publicly to tackle inequalities

	N
Additional Allowance/Pay	203
Increase Medical Card Threshold	159
Ancillary Staff – physio/nurse & expand primary care strategy/multi-disciplinary teams	139
Advocacy	126
Education/Health promotion	120
Cut hospital waiting lists	85
Two tier system	59
More doctors	58
Counselling psychology	36
Social/community supports	31
Health inequality gap	28
Distance/Rural access	22
Promote GP especially in deprived areas	19
Access to hospital tests	18

Footnotes

1. These are GPs' own estimates and many practices will not have accurate data on private active patients making an estimation of percentage GMS somewhat subjective.
2. Adds to greater than 100% as GPs could give more than one response.



Other views among respondents

Some GPs expressed a strong feeling that the over-70s' medical card deal (which paid GPs extra for private patients on becoming eligible for medical cards at the age of 70) is a source of inequality and unfair and GPs should be paid the same for all over-70s. Frustration was expressed at the bureaucracy surrounding the cancellation and renewal of medical cards.

Additional deprivation payments should be used as incentives for specific services. Part of the investment in general practice should go on premises development and this should include tax incentives. The College should develop its advocacy on health inequalities by using the media pro-actively and lobbying government. Some felt that taxes needed to be raised to fund better services.

The focus on health education included those who felt that patients needed to be educated about managing minor illness, and how to use your GP service appropriately.

The indicative drugs target scheme was criticised for not making allowance for practices with higher-demand patients with more chronic illness requiring high cost drugs which may create a perverse incentive to refuse such patients. Additional pay might be used to reduce list sizes in deprived areas and incentives created to promote preventive care.

Some felt that the primary care strategy had created inequalities between practices. Some felt demoralised by administering a discriminatory system and that we need "a health care system that is available to every person regardless of income" while others felt we should "stand up and be counted regarding the health apartheid".

Some GPs argued that we need a single patient register with public and private patients on it. The call for more doctors was accompanied by the desire to see a better GP/patient ratio and a desire for incentives to take on assistants. GPs felt there should be a common waiting list for all patients in public hospitals. Special type consultations or other payments should be used to include chronic disease care, warfarin testing, screening, cardiovascular risk factor assessment and counselling.

There was a call for cutting down the amount of form-filing and need for GP letters which adds considerably to workload. Some GPs felt that there needed to be more outreach outpatient clinics in rural areas provided by hospital consultants.

There was some support for a fixed prescription charge for those who could afford it. It was stressed that we can have pockets of deprived patients in wealthier areas.

"Lack of access for my poorer patients to hospital services causes incredible hassle for us every day and an inordinate amount of time writing and ringing begging for serious cases to be seen".



Discussion

This survey achieved a reasonable response rate and demographically appears to be representative of Irish general practice as a whole. There are significant numbers of general practitioners over 55 and approaching retirement. Somewhere between 22% and 30% of practices are in areas of deprivation. The majority of Irish general practices are small or single-handed. Morale appears to be quite high as only 9.6% reported poor or very poor morale. This is a slight improvement on the 11.5% level found in a survey in 1997 (O'Dowd et al, 1997). Lower morale is associated with single-handed practice, working in a deprived area, being male and older. General practitioners see many positive aspects to working in areas of deprivation and these are elements that the College might highlight in efforts to attract newly established GPs into practices in deprived areas.

The major issues identified by GPs in this survey include the need to increase access to the medical card. There is a clear demand for some form of targeted payment to address the extra demand of providing primary care services in areas of deprivation. The decision to pay GPs three to four times more for more wealthy patients over 70 years, who were given medical cards, may operate as a further perverse incentive to concentrate general practice in wealthy areas rather than in areas of greater need.

The introduction of targeted payments for deprivation might be timely when a new GMS contract is designed.

In developing a payment, a balance must be struck between the two purposes for its introduction. On the one hand, it could be used to increase the income of GPs working in areas of deprivation to level the income playing field and make it easier to attract GPs into deprived areas. On the other hand, it could also be used to incentivise and support the development of quality initiatives to improve preventative care and management of long-term illness and could support the recruitment of further support staff to focus on these areas. The whole issue of list size, mean consultation time and demand needs to be balanced in a way that best meets the needs of patients in deprived areas and helps to retain practitioners in these areas and maintain their morale.

The primary care strategy set up 10 primary care teams with additional funding supporting linkages between general practices and groups of general practices with other attached staff (Department of Health and Children, 2001). While these teams have progressed and have made links with local communities, funding for the expansion of this strategy has not yet been made available. GPs in this survey demonstrated considerable support for expanding practice teams and multi-disciplinary working.

Significant problems with waiting times for hospital services are creating major problems for patients without health insurance. This has a major impact on general practice creating a significant workload in phoning hospitals and advocating for appointments for patients.



Recommendations

For the Irish College of General Practitioners:

- Seek further funding to develop project work in this area
- Consider developing a network of GPs and nurses working in deprived areas
- Further develop the role of the College as an advocate for patients living in poverty
- Advocate for expanding GMS access to people on low incomes
- Examine models of primary care development in deprived areas in other countries
- Ensure that the College develops a clear understanding of the needs of, potentially isolated, rural GPs
- Encourage links between primary care and community organisations
- Advocate for further investment in primary care to develop multi-disciplinary team working.

Recommendations for the health service and others:

- Negotiate for a deprivation weighting in future capitation payments to be linked to the development of specific quality initiatives
- Employ support/peer workers linked to primary care to deal with social issues
- Support funding for community development initiatives in deprived areas
- Monitor primary and secondary care access for equity on the basis of social class and ethnicity
- There is a need for action on social and economic issues facing patients suffering health inequalities
- Improve primary/secondary care communication and introduce a single hospital waiting lists for all patients.

Conclusion

General practice needs investment to increase its capacity to manage patients with multiple and long-term health problems. There is a particularly pressing need for investment in practices dealing with patients living in poor socio-economic circumstances. Morale remains fairly high in general practice but access to primary and secondary care is inequitable and must contribute to the significant health inequalities in our population.

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**Irish College of General Practitioners,
4-5 Lincoln Place,
Dublin 2.**

**Tel: 01-676 3705
Email: info@icgp.ie
www.icgp.ie**