DIRECTOR OF PUBLIC HEALTH AND HEALTH POLICY

ANNUAL REPORT
2006/2007

Working with you to make Highland the healthy place to be
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Acknowledgements

The production of this report has very much been a team effort. Thanks are due not only to the named contributors but to all members of the Public Health Team and Health Policy Directorate and others outwith the team.

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A copy of this report is also available at www.nhshighland.scot.nhs.uk
Foreword

As I write these words to the opening of my Annual Report for 2006/2007 I have to acknowledge with sad concern that inequity of health experience still threads through life in the Highlands and Argyll and Bute. Inequality afflicts remote and rural areas, as well as urban ones, and importantly, a number of communities of interest. These include the homeless, “looked after” children, and the prison population, to name but a few.

Over the past year, I have watched with interest as there has been a growing, I believe correct, consensus between politicians, professionals and the public as to what the major health priorities are facing us at present. These have been recurring strands in my previous reports. Inequalities in health are an on-going concern. The issue of tobacco has been overshadowed by the escalating threat of the consequences of alcohol misuse and obesity. The message of “eat better, move more” could never have been more apposite.

Therefore, in this report I have focused on what would be currently regarded as the four main health priorities at present, inequalities, alcohol, tobacco and obesity, or better, diet and physical activity. Given the importance I attach to Community Health Partnerships, I have also included a brief pen picture of each of the four Community Health Partnerships in the NHS Highland area. The diversity of public health interventions that are priorities in each of these areas is entirely appropriate to their differing social geography. I have also devoted a section to the Specialist Services Unit, often more readily understood as ‘Raigmore Hospital’. This hospital provides a vital source of specialist expertise necessary for the Community Health Partnerships to deliver their potential.

My observation of the development of the emerging Community Health Partnerships has been fascinating. I believe they are the happening place to be because of the tremendous potential, they offer to deliver health improving interventions that will promote community well-being as well as providing accessible quality health care. This will be even more true, if they realise the even greater potential afforded by developing into Community Health and Social Care Partnerships. The Community Health Partnerships are the places where we can connect with the professional practitioners who are grounded in actual interventions which are making a difference to the everyday person. It is because of this, that over the past year, I have sought to inject additional public health specialist expertise and capacity into each of the Community Health Partnerships and the Specialist Services Unit. This has entailed the pain of spreading a thin resource even more thinly across the Community Health Partnerships and the Specialist Services Unit (Raigmore Hospital). It has been very challenging across such a vast geographical area, and I am very grateful to my team for their collaboration and support in achieving this.

It would be remiss of me not to flag the issue of financial constraint, under which, in particular, both the NHS and its partner local authorities labour. We must not sacrifice investment in population health for the often short-term gains of health care. As it is, the NHS invests a minority of its funding in promoting health and well-being and the prevention of ill health and disease. Given this context, it must be obvious that partnership working, particularly with our coterminous local authorities and the voluntary sector is crucial to delivering the improvement in health that the public have increasingly come to expect. I must acknowledge the many professionals working in all these sectors, who we might describe as the ‘unbadged’ public health workforce, for example those in planning, farming, teaching, police or fire and rescue amongst many others. Their prime role or their job title does not reflect a public health function, and yet the reality is that their work often impacts on the health of the population. They support it in a far greater way than that of many others.
While it is evident from the outline I have given that this report is neither comprehensive or exhaustive, I must take responsibility for any errors of omission or commission that it contains. Thank you for reading this report, which I trust will stimulate you to a more positive health experience yourself, as well as helping you help those around you to a greater sense of well-being!

Eric Baijal  
Director of Public Health and Health Policy  
NHS Highland

5th November 2007
1. Introduction

The purposes of this document are two-fold. One is to raise awareness of the history of health experience of the population of the NHS Highland area, served by its two partner local authorities, The Highland Council and Argyll and Bute Council. The other is to point up the way forward to better health for the public we serve. I hope it will do so by facilitating greater engagement with the public, politicians and professionals. As a stock-take of health in the Highlands over the past year and looking forward to the next, this report has ‘one foot in the past and a focus on the future’.

I intend to highlight health inequalities across NHS Highland and report the progress that the Community Health Partnerships (CHPs), the Specialist Services Unit (SSU, essentially Raigmore Hospital) and the Argyll and Bute and Highland Councils have made towards addressing the determinants of these inequalities. I will focus on alcohol consumption, smoking, diet, weight, and exercise. The public, politicians and professionals would all agree that these are our current health priorities.

The specific objectives of this report are to:

1. Provide a status report of health and inequalities in Highland; a progress report on the NHS Highland Local Delivery Plan (LDP).
2. Provide a profile of the determinants of health and inequalities for each Community Health Partnership.
3. Summarise Community Health Partnership performance/progress on health improvement targets for alcohol, smoking, diet, weight and exercise.
4. Summarise the challenges these pose.
5. Point the way forward in terms of evidence-based interventions.

As a basis to these objectives, I draw the reader’s attention to the socio-ecological model of health, shown in Figure 1 below. This illustrates that health is determined by the complex interaction of many factors of which provision of health care is only one. Therefore action in partnership with other agencies and the communities and individuals they serve is essential to improve health and well-being as well as healthcare.
The role of effective partnership in the delivery of healthcare has been emphasised in the 2003 White Paper ‘Partnership for Care’. Since that time information and advice has improved with increased public engagement with planning services. As the Director of Public Health for NHS Highland, I have led the North of Scotland Public Health Network (NosPHN). This important collaboration acts as a voice for public health in the North of Scotland, and makes a significant contribution to improving health and reducing health inequalities across the region. Partners work together through the Network to plan and deliver effective and equitable public health services that benefit the North of Scotland population.

In 2005, the Scottish Executive published ‘Building a Health Service: Fit for the Future’. This document identified the challenges to health and wellbeing from persistent health inequalities, an ageing population and lifestyle factors such as obesity, alcohol and smoking. Over the past few years new insights, evidence and experiences have emerged and the Scottish Government recently published a discussion document ‘Better Health, Better Care’.

This policy discussion document has a refreshing public health perspective. It helpfully argues for a challenge to traditional boundaries between public sector organisations and highlights the need for partnership and cross-cutting work across government. It describes the context of an ageing population, persistent health inequalities and a growth in long-term conditions. These challenges are increasing demands for health and care services.
The paper focuses on three main elements

1. **Inequalities**: there is an emerging body of evidence on the links between risks in early childhood and chronic disease later in life, plus, the links between social, psychological and biological causes of inequalities. There is a current shift from defining inequalities from a geographical perspective towards looking at inequalities from a disease perspective: which diseases demonstrate the greatest inequalities. Inequalities drive service redesign and in some cases, centralisation of services may create a public perception of increased inequality (and inequity) of access and therefore concern. However, centralisation will be countered by targeting inequalities at local level through CHPs and primary care services.

2. **Taking Responsibility**: the report provides a welcome population perspective on a variety of issues. It calls for new action plans on tobacco control and alcohol problems, effective social marketing of health improvement, increased participation in sport and physical activity as well as extending entitlement to free school meals. The principles described in the report include everyone taking responsibility for their own health, coupled with interagency work to tackle health inequalities and give children the best possible start in life.

3. **Anticipatory Care and Long-Term Conditions**: a large number of actions, mainly for the health service, can be targeted on disadvantaged and hard to reach populations:

   - Intensive case management
   - Use of Scottish Patients at Risk of Re-admission and Admission, a statistical risk assessment tool
   - Self-care strategy
   - Carer information strategies
   - Treatment of dementia
   - Reduction in anti-depressant prescribing
   - Public Health input
   - Individual health plans for school pupils
   - Nursing, midwifery and allied health professionals to become enablers and supporters of self care

While many of the actions proposed in ‘Better Health, Better Care’ are for partnership working, those which relate specifically to the NHS will ensure that primary care and other resources are targeted appropriately in order to tackle health inequalities.
**HEAT** targets are a core set of Ministerial objectives for NHS in Scotland. (Box 1)

**Box 1: HEAT Targets**

1. **H**ealth Improvement for the people of Scotland – improving life expectancy and healthy life expectancy.
2. **E**fficiency and governance improvements – continually improved efficiency and effectiveness of the NHS.
3. **A**ccess to services – recognising patient’s needs for quick and easy use of NHS services.
4. **T**reatment appropriate to individuals – ensure patients receive high quality service that meets their needs.

NHS Highland and the Department of Public Health work with the four CHPs and the SSU to produce a Local Delivery Plan and measure performance towards 28 key targets that underwrite the four HEAT objectives.

In this report, I set out progress towards the key targets relating to the current public health priorities for the people of Highland and Argyll and Bute. I will focus on the evidence base for and progress towards interventions that address inequalities, alcohol, obesity and smoking and will highlight the unique contributions made by the Health Protection and Health Improvement Teams, the four CHPs and SSU towards achieving our goals.
2. Health and Inequalities in Highland

2.1 Population and Geography

NHS Highland has a sparse and ageing population. It encompasses some 41% of the total land mass of Scotland, but has only 6% of its population. In Scotland, the total population is expected to grow slightly in the next 10 years and the proportion of older people will continue to rise, particularly those in the over 85 age group. The estimated population of the enlarged NHS Highland on 30 June 2005 was 304,460, a rise of 1,930 on the previous year. Over the year, there were 3,338 deaths and 2,934 births; a continuation of the pattern of negative natural population change observed in recent years in the area. Population growth resulted from a net migration gain of 2,384. It is important to note that the population of Highland can double or treble in the height of the tourist season. Figure 2 depicts the changing population structure for the NHS Highland area from 1996, through 2006 to 2024. When set in the context of population projections, it demonstrates how we are progressing through a process of inversion of population structure. Put simply, this means that ultimately the population pyramid will be “upside down”; there will be far more older people than younger people.

Figure 2. NHS Highland Population, 1996, 2006 and projected to 2024

Data Source: GRO(S) Mid Year Populations 1996 and 2006 and Population Projections for Administrative Areas 2004 based
The Argyll and Bute and North Highland CHPs have older age structures than the other areas, but all the Highland areas exhibit the "pinched waist" profile that is indicative of population loss to out-migration in the young adult age range, and all four Highland CHP areas have larger population cohorts in the 45-74 age ranges than the Scottish average.

Given continued improvements in life expectancy, and the ageing of these cohorts over the next twenty years, Highland will experience greater numbers in the oldest age ranges compared with the rest of Scotland. The numbers of people aged over 65 years of age in the NHS Highland area are projected to increase to over 84,000 (27% of the population) by 2024. By the same date there will be 14% fewer children aged less than 16 years. Furthermore, the nature of the population is dramatically changing with a major and growing influx of different ethnic groups.

The complexity of planning the future NHS Highland workforce intensifies with the challenges of providing sustainable services in the context of an ageing population; the current centralisation of some health and education services; an increasing number of part-time and female staff; and the need to deliver sustainable services across large, remote and rural areas. NHS Highland has experienced particular challenges in both the recruitment and retention of many health professionals. This is due to a national shortage in some disciplines, a national emphasis on specialist rather than generalist training and a lack of available and affordable housing for incoming staff.

The demography of the NHS Highland area multiplies a number of challenges in addition to workforce planning. These include inequalities in access to services, life-style issues (relating to diet, physical activity, weight, alcohol and smoking) and the consequent escalating rates of chronic disease such as Type 2 diabetes, dementia and alcohol-related liver disease.

For example, diabetes is projected to increase by 16% over the next 10 years, and the two main drivers of this are the ageing population and increasing obesity (47% of people with diabetes in Highland are obese). Obesity is measured by the 'Body Mass Index' (BMI), a height versus weight calculation of body fat; and obesity is defined as a BMI score greater than or equal to 30.

In Highland, people with diabetes constitute 9% of hospital admissions, 12% of bed days and 10% of outpatient attendances. The current total cost directly attributable to diabetes in Highland is £18.4 million. This cost is projected to increase by at least 19% (£3.6 million) over the next ten years due to demographic changes alone (excluding effects of obesity trends). Figure 3 shows the projected increase in prevalence of diabetes in the NHS Highland area by 2017.

In line with the principles of "Delivering for Health" and "Better Health Better Care", effective care of diabetes requires education to empower self care plus regular and dedicated clinical review. Given an appropriately trained and resourced workforce, local primary care settings can provide this intrinsically "low tech" care for most newly diagnosed and established patients. Some patients with more complex needs will still need access to hospital based diabetes services, but scrupulous attention to lifestyle issues such as smoking, diet and exercise are key to reducing complications.
2.2 Determinants of Health

The NHS Highland area stretches from Campbeltown on the Mull of Kintyre up to John O’Groats - a 300 mile, 7 hour journey. The region encompasses diverse environments, communities, livelihoods and lifestyles. It spans a range of socio-economic groups and a range of health determinants such as housing, education, employment, income and access to services are reflected by inequalities in major risk factors and the diseases they cause. (Figure 4).

While the NHS Highland area has relatively low rates of household overcrowding, unemployment and income deprivation, the favourable comparison with Scotland as a whole tends to be skewed by the large areas of urban deprivation in the central belt.

In fact the remote and rural nature of the area can obscure many inequalities in access and health, e.g. the median public transport time to a GP is 80% greater than the Scottish average, and while drug misuse in the NHS Highland area is lower than the national average, hospital admissions for alcohol misuse are 30% higher (Figures 5 and 6).
Figure 5: NHS Highland compared to Scotland - percentage difference in select life circumstances indicators

- Percentage of single pensioner households (2001)
- SAPE Pensionable Population %: 2005
- SAPE Working Population %: 2005
- SAPE Child Population %: 2005
- Percentage of lone parent families with dependent children (2001)
- Median public transport time to GP (2006)
- Median population drive time to GP (2006)
- Percentage of households without access to a car (2001)
- Percentage of people within 0-500 metres of any Derelict Site: 2004
- House sales, median price: 2006
- Percentage of households with no central heating (2001)
- Percentage of households overcrowded (2001)
- Average tariff score of all pupils on the S4 roll: 2005
- Percentage of adult population with no qualification (2001)
- Percentage of working age population who are employment deprived: 2005
- Percentage of total population who are income deprived: 2005

Figure 6: NHS Highland compared to Scotland - percentage difference in select health indicators

- Hospital admissions for drugs misuse - rate per 100000 population: 2001-2004
- Hospital admissions for alcohol misuse - rate per 100000 population: 2001-2004
- Percentage vaccinated against MMR1 by 5 years of age: 2006
- Percentage of women smoking at booking: 2002-2004
- Modelled estimates of smoking prevalence in persons aged 16+ as a percentage of population 16+: 2003/2004
- Estimated percentage of population prescribed drugs for anxiety, depression or psychosis: 2004
- Emergency hospital admissions - both sexes - aged 65 and over - rate per 100000 population: 2005
- Low weight live singleton birth rate per 1000 live singleton births: 2002-2004
- Percentage of population not in good health (2001)
- Percentage of population with a limiting long-term illness (2001)
2.3 Mortality and Morbidity in Highland and Argyll and Bute

The major causes of mortality and morbidity (Figure 7) in NHS Highland are in line with national rates. Notable exceptions where NHS Highland exceeds the national averages are age standardised mortality ratios (SMR) for suicide and road traffic accidents.

Figure 7: Prevalence of selected chronic conditions based on Quality Outcomes Framework register sizes at February 2005

Prevalence = number of patients on the disease register for this condition, divided by list size, multiplied by 100.

Male suicide in Scotland is about 70% higher than in the early 1970s and although the rate for Scottish females has remained stable, it has become relatively worse in comparison with England, Ireland and Northern Ireland as rates in these countries have dropped. Rates vary within Scotland (Figure 8) and Highland has the highest suicide rate (SMR 1.24) while Lothian has the lowest (SMR 0.85). Although the SMR for Shetland is stated as 1.37, numbers are so small that a precise estimate is not possible.
Figure 8: Standardised Mortality Ratios: deaths caused by intentional self harm and events of undetermined intent, Scotland, 2002-06

The importance of suicide in Scotland as a whole is reflected in the HEAT target to reduce suicides in Scotland by 20% by 2013. NHS Highland is committed to provide education and training in assessment and prevention to 50% of key frontline mental health services, primary care and accident and emergency staff by 2010.
2.4 Promoting Equity of Health Experience

For generations, human health experience has been inequitable, and this has been described as ‘health inequality’.

**What do we mean by ‘health inequalities’?**

Social gradients in health are recognised and understood across the wider determinants of health, such as social class, educational attainment, employment, income, housing quality and social cohesion. These differences reflect marked social variations in life opportunities that influence the chances of living a healthy life. The poor health consequences of poverty and social exclusion are well documented. Disparities in health experience are health inequalities. These are linked to social circumstances across the life course. They have been central to recent health improvement policy in Scotland. Access to health and care services, may be compromised by ‘health’ literacy as well as geography. Health inequalities therefore reflect inequalities in the wider determinants of health such as education, employment, housing. For many the reality of health inequalities in society includes poorer health, reduced quality of life and premature death. The Dahlgren and Whitehead model (Figure 1) shows these interactions.

This model suggests that an individual’s experience of these broad determinants of health is mostly determined by their position within the ‘social hierarchy’ (their income, educational attainment and social class) and their ability to have control over their life and to lead a life they value. The causes of health inequalities are part of the structure of society and any change in outcomes will require time and concerted action across all the dimensions mentioned above. Equally these priorities are not just an issue for the health service and require improvements in the environment in which people live and work, as well as changes in peoples’ health related behaviours. The NHS can directly contribute to challenging inequalities by ensuring medical intervention for those at highest risk or already suffering from life threatening illness, equitable access to health and care services, implementing the equality and diversity agenda, and effective health improvement and prevention targeted at behaviours ingrained by persistent inequality of opportunity. However, it must be recognised that the NHS also has a key role in partnership working with local authorities, in particular, and also the voluntary sector to influence the wider determinants of health. Any NHS programme to reduce health inequalities cannot be stand-alone, but must recognise and include the wider health improvement work aimed at tackling the broader determinants of health. There is obvious added value in delivering these interventions in collaboration with local authorities in particular.

A key challenge to all health improving organisations in closing the gap in health inequalities is to ensure that as the general health of the population improves that the health of the most disadvantaged improves more quickly. The importance of reducing inequalities in health outcomes was formally recognised in the headline health targets of Closing the Opportunities Gap (CtoG) that flowed from the 2004 Spending Review and finds expression in the priorities for NHS Boards as part of the health improvement targets of Local Delivery Plans (LDPs). The ambition of these targets is to reduce health inequalities by increasing the previous rate of improvement for the most deprived communities by 15 percent between 2003 and 2008.
Measuring Health Inequality

How deprivation is often currently measured in Scotland is not sensitive enough to identify deprivation in remote and rural Boards. Alternative methodologies that embrace the whole population, rather than allocating individuals to areas of deprivation based upon their postcode, identify different issues to be tackled because the size of their inequality greatly exceeds the more ‘traditional’ inequalities such as CHD and cancer.

The target is to reduce health inequalities by increasing the rate of improvement for the most deprived communities by 15% across a range of indicators including; CHD, cancer, adult smoking, smoking during pregnancy, teenage pregnancy and suicides in young people: target date 2008. Table 1 summarises progress for these indicators.

The key indicator for this target is the age standardised death rate for Coronary Heart Disease for the 20% most deprived of the population with a local target of 110.9/100,000 for 2008. As at 2003-2005 the rate was 129.8/100,000 for NHS Highland (the former NHS Highland plus Argyll & Bute), based on five deaths in three years. This means we are exceeding the trajectory in relation to the former NHS Highland.

Nationally, to increase the rate of change this requires an annual decrease of 6.1% or 27.1% from 2003 to 2008 in premature CHD mortality in the most deprived areas. Policy monitoring therefore is being limited to an improvement in health outcome for the most deprived in society as defined by an area based description of need. To be clear, the target itself measures no gap in health outcomes.

Table 1: Summary of annual review indicators

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<th>Current</th>
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<th>Target</th>
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<td>Inequalities - CHD prem mort</td>
<td>129.8</td>
<td>143.9</td>
<td>110.9</td>
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<tr>
<td>Smoking</td>
<td>22.5</td>
<td>25.2</td>
<td>22.0</td>
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<td>MMR uptake</td>
<td>91</td>
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<tr>
<td>Suicide</td>
<td>16.1</td>
<td>18.5</td>
<td>16.6</td>
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<td>Teenage pregnancy</td>
<td>5.5</td>
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<td>Alcohol female</td>
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<tr>
<td>Breastfeeding</td>
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<td>Healthy Working Lives</td>
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<td>Screening uptake</td>
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**Measures sensitive to rural inequalities.**

Before assessing any interventions as failing, it is necessary to understand rural deprivation, and be clear about how it is measured in Scotland. Deprivation-based measures have been used throughout the UK, including Scotland, since the 1980s and none have been shown to be sensitive enough to describe deprivation in rural areas, rather they favour identifying concentrations of deprivation in urban areas. They use indicators that capture urban deprivation well, e.g. benefits uptake, and unemployment, rather than rural deprivation, e.g. missed employment opportunities owing to minimal public transport coverage, or social isolation.

In 2005, the North of Scotland Planning Group commissioned the Health Intelligence Network to examine a more effective way of tackling inequalities in rural areas. In 2006, the final report *Tackling Health Inequalities across the North of Scotland: A change of focus?* was produced and discussed possible changes of focus away from the more ‘traditional’ measures of inequalities such as premature CHD and cancer mortality, and towards the health issues that can be shown to have steeper inequality gradients, e.g. deliberate self harm, smoking during pregnancy, and alcohol misuse.

The report reviewed several methods of measuring inequalities. The Slope Index of Inequality was used owing to its "whole population' approach rather than focusing on those living in the most deprived areas. This approach also calculates a Relative Index of Inequality (RII) that enables direct comparisons between indicators using differing scales, e.g. standardised mortality rates per 100,000 population compared with the percentage smoking at first antenatal booking. The RII can therefore be used to:

- compare the size of the inequality of one health issue, e.g. premature mortality measured by a standardised rate per 100,000 population under the age of 75, with other health issues, e.g. teenage pregnancy measured by conceptions per 1,000 13-15 year old females, and
- identify which issues should be addressed across the whole population, including those living in rural areas, rather than simply address those issues that only affect those living in the most deprived areas.
Because this method can rationalise the different currencies of health inequalities on single scale, the results can measure needs and trends across the North of Scotland and so guide targeting resources. The method was applied across a basket of health issues taken from any Public Health Observatory and calculated for Grampian, Highland, Western Isles, Orkney, and Shetland health board areas, and as well as collectively.

These indicators should support local action to achieve a reduction in health inequalities, by highlighting not only inequalities and improvement in health but changes in the inequality gap. To support implementation of a health inequalities strategy requires development of:

- Requires more meaningful epidemiological information, which will require the development of primary care information systems
- A framework for data collection and analysis to meet gaps in knowledge and evidence base and to inform future actions
- Indicators that not only measure health improvement, but also the impact on the inequalities gap

Further, primary care information systems including those for Out-of-Hours and NHS 24 need developed to be more useful in population health. Population/community profiling at Board, Local Authority, CHP and intermediate geography level, a statistical entity created by aggregation of data zones is being used to identify areas of deprivation. This will enable an equity audit and gap analysis as part of needs assessments of specific groups. It is necessary for the coherent targeting of Board Strategies and plans which focus on the disadvantaged and hard to reach.

The Inequalities ‘Toolkits’

There are a number of tools at our disposal in tackling the issue of inequalities in a systematic way. These include Health Impact Assessment (HIA) - an adaptable process by which a proposed policy or intervention can be judged as to the effects it may have on the health of a population. HIA can be applied before, during or after a proposal has been implemented, and can be conducted to varying levels, from rapid through to comprehensive.

Health Equity Audit is the comparison of need and the resource targeted at in one population compared with another. This gives some indication of what inequality gaps may exist. In more detail it is a process by which local partners systematically review inequalities in the causes of ill health, and in access to effective services and their outcomes, for a defined population, ensure that action required is agreed and incorporated into local plans, services and practice, and evaluate the impact of the actions on reducing inequity. With tackling inequalities integrated into mainstream planning and service delivery, health equity audit provides a framework for systematic action. Inequality proofing is part of the assessment of all policy, strategy and plans and must include an assessment of the impact on inequalities.

The London Public Health Observatory has identified data sets and high impact interventions as part of its inequality tool. These interventions are:

- Measures to reduce infant mortality
- Smoking cessation
- Antihypertensive therapy in patients without pre-existing cardio vascular disease
- Statin prescribing in people without pre-existing cardio vascular disease.
Who experiences health inequality?

Geographic areas of deprivation: often described through the Scottish Index of Multiple Deprivation (SIMD). However, this index is not appropriate to rural deprivation, for which it is neither sensitive nor specific. The nature of deprivation in remote and rural areas is quite different to that in urban areas. For example, because of poor public transport, individuals may choose to run a car in preference to spending on other items. Another example relates to size of postcode sector. Very many of these sectors are so large in the rural areas that they contain a heterogeneous mix of affluence and deprived households and individuals. This is quite different to urban postcode sectors. In short, deprivation in a rural area has different characteristics to that in urban areas.

Deprivation and disadvantage experienced by individuals and groups ('communities of interest'): These groups are not necessarily reflected in a geography-based approach, and include for example, homeless people. Homeless (being without a roof; living in unreasonable, temporary, emergency or insecure accommodation) and potentially homeless people are among the most disadvantaged in our communities. Compared to the general population, homeless people have higher rates of premature death, chronic conditions and infectious diseases as well as stress, anxiety and other mental health problems and drug or alcohol dependence. Research has also demonstrated that homeless people often experience severe difficulties in accessing health and treatment services which further compounds their health problems. Other groups include "looked-after" young people; the prison population and their families; people with mental health problems; people escaping abuse and violence; carers; people living in poverty. Specific equalities groups: for example, individuals and groups, who may experience health inequality due to: disability (physical, sensory, learning); age, gender, ethnicity, including gypsy travellers; sexual orientation and faith.

Health Inequalities in Highland

The health status of the people of the Highlands has traditionally been better than that of Scotland but health inequalities exist in the NHS Highland area, and at least some inequality gaps are widening. Certainly, the work to tackle inequalities that has been in progress for some years has improved the health outcomes of those living across the deprivation spectrum. However, there are examples of how the relative inequality gap has increased despite beneficial interventions that have improved health amongst the most deprived. Figure 9 shows how premature CHD mortality has improved since 1996 in Highland for each quintile of deprivation but how the improvement for the least deprived (=1) has improved from approximately 70 to 30 per 100,000 population. Over the same time period, the most deprived (=5) has improved from 150 to 100 per 100,000 population. Whilst these improvements in the absolute premature mortality rates are most welcome, it should be noted that the relative gap has increased from 150/70 (=2.14) to 100/30 (=3.33), representing a 55% increase in the relative gap. This could be argued to be an artefact, but there is a simple reality that should not be disregarded, i.e. the relative gap across the whole population is skewed by those living in quintile 5 compared to those living in quintile 4.
Those living in the most deprived areas are proving to be ‘hard to reach’ despite being easy to identify in terms of their geographical location. There are those individuals who are experiencing multiple deprivation but living in less deprived geographical areas and some living in affluent, often rural areas proving to be ‘difficult to find’. It is worth exploring some of the nuances of rural and urban inequalities further.

In the recent document ‘Better Health, Better Care’, the Scottish Government has committed to improving the inequalities of the most deprived individuals. This is different to the approach taken by the previous administration who sought to improve the health outcomes of those living in the 15% worst deprived areas. This new approach may well be taken to acknowledge that not everyone who is deprived in a rural area lives in an area recognised as being among the most deprived – a large proportion don’t. Figure 10 shows that whilst 35% of people living in the most 10% deprived areas are income deprived, only 15% of the income deprived population live in the most 15% deprived areas. This is explained by the ‘heterogeneity’ of rural communities, with relatively poorer residents living side-by-side with relatively more affluent residents, masking those experiencing deprivation by creating an average score for the area.
By focusing on the worst deprived areas, only 15% of the income deprived population are addressed. To improve the health status of the outstanding 85% income deprived individuals, efforts beyond the most multiply deprived areas are required.

Analysis has revealed that across the North of Scotland, the greatest inequalities are largely related to specific lifestyle issues, rather than in measures of population health derived from premature mortality outcomes. These “lifestyle” inequalities differed between health board areas. In essence these are the ‘new inequalities in health’ – a high degree of inequality in behavioural issues such as alcohol abuse, teenage pregnancy, smoking during pregnancy, deliberate self-harm, and suicide. Across the North of Scotland, these indicators exceeded other indicators of premature mortality from several causes, low birth weight and childhood accidents.

The top five inequalities in rank order were:
- alcohol-related discharges
- teenage pregnancy
- deliberate self harm
- smoking during pregnancy and,
- premature CHD mortality

Specifically the scores of relative inequality (RII) calculated by this method for Highland are shown in Figure 11, ranked from highest to lowest. Figure 12 shows the relative confidence intervals for each indicator on the same scale.
Figure 11: Relative index of inequality scores for Highland, for selected health outcomes, 2001-2005.

<table>
<thead>
<tr>
<th>Health Outcome</th>
<th>RII (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol related discharges</td>
<td>158</td>
</tr>
<tr>
<td>Deliberate self harm discharges</td>
<td>158</td>
</tr>
<tr>
<td>Teenage pregnancy (13-15)</td>
<td>131</td>
</tr>
<tr>
<td>Smoking at first booking</td>
<td>125</td>
</tr>
<tr>
<td>Premature CHD mortality</td>
<td>77</td>
</tr>
<tr>
<td>Low birth weight babies</td>
<td>53</td>
</tr>
<tr>
<td>Premature cancer mortality</td>
<td>44</td>
</tr>
</tbody>
</table>

Figure 12: the scores of relative inequality for Highland, 2001-2005 for selected health outcomes with 95% confidence intervals.

Despite concerns about the robustness of these data, they are amongst the best indicators we have of priorities in rural health inequalities.
In summary, there have been improvements in inequalities in the last 10 years in Highland. However, the hard-to-reach people (20%) experiencing the worst multiple deprivation are still not improving at the same rate as the other 80% of the population. Choosing the appropriate measures and indicators requires effort to avoid the ‘failure-by-success’ scenario explained by Figure 10.

National developments

There is a growing perception from the Scottish Government that inequalities should be embedded in everything that Boards do (Better Health, Better Care).

The former Scottish Executive had commissioned NHS Health Scotland to review the performance management of health improvement early in 2007. Although work is ongoing, one of the early recommendations to the Scottish Government will be to add an inequality dimension to all health improvement indicators. Whilst this work is ongoing, other overlapping and influential streams are also playing their part on the future look of key health inequalities indicators in the HEAT system.

The Scottish Government’s policy discussion document “Better Health, Better Care” describes:

- Greater targeting of resources on services that support disadvantaged people and communities, particularly those with the most complex needs
- A stronger focus on identifying and addressing the wider health needs of those with physical disabilities and mental health problems
- Putting health inequalities at the heart of its agenda.

Many of the actions proposed are for partnership working, necessary to achieve a sustained reduction in inequalities. Those which relate specifically to the NHS include ensuring that primary care and other resources are targeted appropriately in order to tackle health inequalities.

One such influence is the recent report by Leyland et al that examined the size of inequalities in the causes of premature death in Scotland. Stratifying for age and gender, the report used the Slope Index of Inequality methodology to identify (see Figures 13 & 14) that the inequalities in premature death from suicide and substance misuse were much larger in younger people compared with the inequalities associated with premature death from CHD or cancer in older people. Unfavourable lifestyles, involving substance misuse, teenage pregnancy, deliberate self harm, suicide and violence must increase the risk of premature death.

A second, and crucial, influence will be the work of the Ministerial Inequalities Task Force. Intending to meet eight times between October 2007 and March 2008, a final report to the Minister is expected in May 2008.

Whilst Figures 13 & 14 examine inequalities in causes of premature death across Scotland 2000-2002, Figure 11 uses the same methodology to examine the differences in the size of inequalities between some causes of premature death and some lifestyle indicators in Highland 2001-2005. The connection between the largest inequalities in Highland (deliberate self harm, smoking, alcohol misuse) and the largest inequalities in premature death in Scotland (suicide, substance misuse) are unlikely to be coincidental.
Figure 13: Age specific contribution to inequalities of specific causes of death across SIMD income quintiles. Males Scotland 2000-02

Figure 14: Age specific contribution to inequalities of specific causes of death across SIMD income quintiles. Females Scotland 2000-02
**Local Development**

To tackle inequalities in a remote and rural Board requires identification of those individuals who experience multiple deprivation in the community but who live outwith the most deprived areas. This can only be done at a very local level. A balance is required between addressing those hard-to-reach individuals who live in the most deprived areas AND those individuals experiencing multiple deprivation but who don’t live in the most deprived areas.

Some examples of geographical work are the healthy living centres - Janny's Hoose in Merkinch and Healthways in Ross-shire and Islay's Healthy Living Centre.

The Highland Wellbeing Alliance (WBA) is currently reviewing its achievements and its structures following eight years of existence. Recent political and organisational changes within the Highland Council suggest that in the future the local geography for community planning will be at ward level. Joint work on community care and on children and young people will, in future, come under the umbrella of community planning with the Joint Committees continuing to play a lead role in decision making and governance. NHS Highland leads two WBA strands of work – the Joint Health Improvement Plan and the Equality & Diversity Strategy Group. By working in partnership on Equality & Diversity we have achieved significant efficiencies (including cost savings) and have been able to demonstrate the benefits in terms of speedy joined up responses to equality issues (such as migrant workers, racial harassment, Gypsy/Travellers).

**Forward Action**

What specific action should NHS Highland and its partner local authorities take? Reducing health inequalities has been a priority for every NHS Board and has been central to a range of policy developments.

Persistence of inequalities in health is contrary to the ethical principles and the commonly held values of social justice which underpin the NHS. They have huge socio-economic costs. The solutions to health inequalities are likely to run across all areas of people’s lives. Interventions aimed at tackling inequalities in health need to encompass individual, community and socio-economic levels of action. Changing individual behaviour will only have limited success amongst those experiencing deprivation unless they are supported by economic and structural change to create supportive environments. Improving health and reducing inequalities is a fundamental responsibility of NHS Boards, however sustainable change is best achieved by a multi agency response from statutory and voluntary agencies and local communities themselves.
Target issues

I am pleased to report there has been effective action in all priority areas of health inequality over the past year. In particular I would like to note work cutting across all major themes стратегic strands:

Early Years

To give children ‘The Best Possible Start’ and reduce existing inequalities requires a focus on particular issues such as smoking, drug misuse, alcohol, domestic abuse, infant nutrition and breastfeeding.

Healthy Weight

‘Better Health, Better Care’ advocates increased participation in physical activity and weight management programmes. NHS Highland’s draft strategy is currently out for consultation. Its aims include “to make the greatest gains in those population groups who have the highest burden of obesity and poorest health outcomes” and one of its underpinning principles is equity, ensuring “programmes should include all members of the community, whilst helping those most in need, and aim to close the health gap between sectors of society.” A key finding on inequalities is that access to healthy food and physical activity are linked to the indices of deprivation; although there are small pockets of excellent work within deprived communities, not everyone will benefit. A high priority for the strategy is to close the inequalities gap. One exemplar intervention is our programme ‘Food First’ which provides cooking classes to the disadvantaged to help them eat better. Another important related area of work is that of Community Supported Agriculture projects where purchasers agree to pay up front for produce delivered on a weekly basis from local farmers. I discuss these issues later in the report.

Tobacco

Smoking is the largest cause of preventable ill health and early death in the UK. Smoking is also the greatest single cause of health inequalities, as smoking has decreased more rapidly in non-manual employed groups compared to manual. Both NHS Highland and its partner local authorities are to be complimented on promoting smoke-free environments. Given the emerging or ‘new’ inequalities identified from the work done with the Slope Index of Deprivation, there needs to be a clear emphasis on supporting pregnant women to stop. Smoking cessation service covers all areas identified as deprived and in the highest 20% of smoking rates.

Teenage pregnancy/ sexual health

There is a strong link between social deprivation and sexually transmitted infections, abortions and teenage conceptions. Unintended pregnancy increases the risk of poor social, economic and health prospects for both mother and child. Girls from the poorest backgrounds are ten times more likely to become teenage mothers than girls from wealthier backgrounds.

The national target is to reduce by 20% the pregnancy rate (per 1,000 population) in 13-15 year olds from 8.5 in 1995 to 6.8 by 2010

The latest published rates are for 2003/2004 – the Highland Council area 5.1 and the Argyll & Bute Council area 6.3. We plan to continue to support local Sexual Health Forums to focus on ensuring that sexual health initiatives address the needs of disadvantaged groups and communities within their areas. Specific actions include continuing to roll out the Sexual Health and Relationships training in schools to support achievement of this target. This involves the provision of training courses across Highland for those involved in the delivery of Sex and Relationships Education in Highland schools. We will continue to support the free condom initiative and particularly focus on young people through the various festival events in the year. We will continue to develop a dedicated young people’s sexual health service based in Inverness but with opening hours set to enable attendance from all over Highland and timed to coincide with arrival/departure times for public transport.
The link between mental wellbeing and physical health is well known. There is a strong link between mental ill health, self-harm and suicide, and deprivation, particularly for young males.

The target is to reduce suicide rates between 2002 and 2013 by 20%. In the reconfigured NHS Highland Board, the latest available suicide mortality rate was 16.1 per 100,000 in 2005. This is an improvement on the baseline year which was 19.4 in 2002. The target is to reduce the rate from the base year by 20% in 2013, ie to reach a rate of 15.5 per 100,000. A linear trajectory to reach the target is currently being exceeded but suicide remains a serious problem, particularly for the male population living and/or working in remote and rural communities/occupations. Partnership working has begun with agencies such as the Scottish Crofting Foundation, the Forestry Commission and the Deer Commission when representatives participated in a SuicideTALK. This is a 2-hour awareness raising workshop recently introduced to allow greater numbers of individuals and community organisations to be provided with information and for the myths and stigma associated with suicide to be challenged. ASIST (Applied Suicide Intervention Skills Training) and STORM (Skills Training on Risk Management) courses continue to be provided. Support to community services and groups also continue, for example, the Samaritans. Groups using drama (STIGMA Play) and poetry (Embedded Poet) as media to address this important problem have also received funding. Awareness raising events include the provision of information at sporting events such as the Inverness Marathon. In addition, Scotland’s national Shinty Governing body, the Camanachd Association, is involved in raising awareness in young men and their families. 2000 Shinty postcards were distributed at the recent Camanachd cup final, providing simple facts and encouraging people to get help and to help others. Locally, “Choose Life – Bi Beo” wristbands are being provided to clubs across the region many of whom will host a ‘SuicideTALK’ in the coming months.

**Young males**  
*Leyland et al “Inequalities in Mortality in Scotland 1981-2001”* highlighted young male mortality linked with alcohol, drugs, suicide and violence. The Scottish Government’s Public Health and Wellbeing Directorate has begun to consider the role of the NHS in tackling this. The Chief Medical Officer in Scotland recently stated that “widespread acceptance that violence is a significant public health issue, but also an increasing recognition that violence is a health inequalities issue”.

**Equality Schemes**  
I am pleased to report that over the past year the Board has made significant progress in the establishment of equalities schemes to discharge its responsibilities relating to disability, race and gender. This work has involved the public in, for example, focus groups and written feedback.

**Disability equality**  
In partnership with the STUC and Unison, the Board has supported 24 members of staff to take part in accredited British Sign Language learning, with a generic signing and Deaf Awareness, and NHS specific elements. This builds on the wider programme of deaf awareness and basic BSL training available to our whole staff group. Deaf Action continues to provide communication support services to Deaf people using NHS services. During 2006-2007, 524 communication support assignments were carried out – this represents an increase since 2003-2004 when the figure was 248.

**General Practitioners**  
with special interest in Learning Disability are being recruited. ‘Health & Happiness’ and ‘People First’ members have taken part in assertiveness training courses, participated in Crown Prosecution service training and helped develop a postgraduate training module on access to healthcare services. ‘Health & Happiness’ (an initiative led by and for people with Learning Disability) have rolled out a leisure link scheme to support access to sport, leisure and social activities for people with a learning disability. Their work on healthy eating continues apace with the Nairn allotment development being featured in the BBC Beechgrove Garden.
Race Equality  The interpretation service available to support communication with people whose first language is not English has been developed, in partnership with the Wellbeing Alliance. A ‘Welcome Pack’ for Migrant Workers, including basic information on why and how to register with Primary Care and how to access other NHS services has been developed. CHP staff liaise with local employers with migrant worker staff to ensure information on NHS services and health improvement issues is made available at http://www.nhshighland.scot.nhs.uk/HIRS/Pages/TranslatedMaterials.aspx We are partners in an European Social Fund funded project to support and develop our work with Migrant Workers, including issues around community safety and ESOL. This initiative also supports the employment of Citizens Advice Bureau legal advice workers. We have been working with our partners to support their ESOL tutors include information on using NHS services in their conversational practice sessions.

Gender equality  A Gender Equality Scheme was developed with wide involvement from staff, managers, trades unions, local voluntary agencies, community planning partners and the public. Objectives are framed around our roles as service planners and providers, as employers and as partners in public sector leadership. Specific objectives have been identified for national and local priorities including cancer, CHD and stroke, mental health, diabetes, anticipatory care, homelessness, advocacy, sexual and reproductive health, carers, primary care, violence against women and suicide together with objectives for health improvement priorities for smoking, alcohol and drugs and physical activity. A range of other objectives relating to local partnership priorities have also been agreed.

Twelve NHSH staff (together with eight Highland Council staff) trained as trainers and are now rolling out awareness training on domestic abuse and wider violence against women issues resulting in 400% increase in NHS Highland staff trained per annum. Protocol for staff further developed. The materials and guidance developed by us on this is being disseminated and used nationally.

Impact Assessment  The national Equality and Diversity Impact Assessment toolkit was modified during the year following a review of its use and utility. Board and Committee papers are now required to note whether or not the issue has been subject to impact assessment and the recommendations from this. To date, impact assessment has been completed on about 20 policies or services.

Models of intervention  For any of the models of intervention described we need to be able to identify the vulnerable population we are targeting. Interventions can be categorised as:

- Community based - which will benefit the entire community while having a particular impact on the deprived.
- Primary-care based - targeting individuals and households which are hard to reach and disadvantaged. Such individuals can be identified either using a quantified risk assessment tool or a qualitative process, for example, practice list review by an extended primary care team, including for example, a teacher and social worker and as well as health visitor practice nurse and GP.

Health Promoting Health Service  This initiative looks at how the NHS supports efforts to prevent ill health, promote positive health and help people to take more control over their own health. The approach looks at how the NHS can embed health improvement in everything it does.
**Health Promoting Schools**

Young people’s school years and early adult life represent a critical stage of development, and education is a key influence. Children from disadvantaged backgrounds tend to have lower academic achievement. Low educational attainment is a predictor of both poorer job prospects and adult health. It is in school and early adult life that patterns of behaviour are established which have a profound impact on health, including decisions relating to smoking, alcohol, drug use and sexual activity. In all of these areas of life, young people from disadvantaged backgrounds are at greater risk. Health Promoting Schools programmes can contribute to reducing health inequalities and social exclusion. A tool kit has been developed for schools that includes a self assessment backed up with assessment visits to ensure that they meet all the criteria to gain health promoting schools status. I am pleased to be able to report that all Highland Council schools have Health Promoting School status. This work will link with the Highland Council’s Active Schools initiative. Argyll and Bute Council are on course for accreditation of all schools by the end of 2007. Of the 92 schools in Argyll and Bute, two are officially accredited at level 3 (Excellent).

**Anticipatory Care, contribute to preventing the main causes of ill health**

using the social model of health indicates that prevention of ill health is tied up in social, environmental and economic factors affecting peoples lives as well as access to public services and healthcare provision, and will require a wide programme of health improvement work. This section focuses on the specific area of prevention from a model of delivery of health services. Recognising the risk factors and providing early intervention as well as improving chronic disease management combined with patient empowerment and choice will be key to tackling inequalities. The multiple benefits of primary and secondary prevention measures should be emphasised in any planning. Identifying those most at risk as well as those who are likely to become at risk are important elements of this. Developing models of anticipatory care, and management of long term conditions, including development of the ‘expert patient’ approach, should be explicit about how they will target inequalities.

**Health and Homelessness**

The Board has a Health and Homelessness Action Plan which needs to be taken forward with partner local authorities at CHP level and below. In 2005, the Scottish Executive published national standards for health and homelessness. All NHS Boards are required to work towards compliance and self-assessments have been submitted in 2006 and 2007. A specialist health team is based within the Inverness Homeless Persons Day Centre. The nurse from the team and colleagues from the Council participate in the Day Centre’s outreach “Streetwork” project, which aims to meet and engage with people who are rough sleeping on the street. This project won a Highland Quality Award in late 2006. A two-year pilot project in Argyll & Bute has seen the establishment of homeless nurses across the area. This project is funded by the Scottish Government until December 2007. The evaluation should provide useful pointers as to the model of service delivery which will be most effective in that area,

**Employment**

‘Employment is Nature’s physician and is essential to human happiness’ *Claudius Galen, Greek Physician 130 AD.*

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Healthy Working Lives is an initiative which brings together the previous ‘Scotland’s Health at Work’ (SHAW) programme and ‘Safe and Healthy Working’. A Highland Healthy Working Lives partnership group was set up in late 2005. The group includes representatives from NHS Highland, the Highland Council, the Health & Safety Executive, Job Centre Plus, Highlands & Islands Enterprise and Careers Scotland.

In Highland, there are currently 130 workplaces registered for the SHAW award. Of these, 60 have achieved the Bronze award, 24 Silver and 10 Gold. The national target of 40% of the workforce registered with the SHAW programme was exceeded in Highland with the achievement of 43% of the Highland workforce registered with the SHAW programme. NHS Highland currently has 3.5wte Healthy Working Lives Advisers, whose role is to recruit workplaces to register for the award scheme, provide them with advice and support to achieve the awards and assess them against the award criteria. During 2006/2007, 16 small and medium enterprises in Highland took advantage of health and safety support offered through the Safe and Healthy Working initiative. As well as the recruitment of new businesses to the Healthy Working Lives Award, the Healthy Working Lives Advisers are encouraging and supporting existing SHAW businesses in the transition to the new award programme. This transition should be completed by end of September 2007.

From 1 April 2007, all resources for delivery of Healthy Working Lives in Highland were devolved to Community Health Partnerships to enable local implementation of the initiative. Healthy Working Lives advisers are supported by a regional network provided in collaboration with the Centre for Healthy Working Lives.

Condition Management

The Condition Management Programme is a collaboration between the NHS (for whom my team takes the lead) and Jobcentre plus (Department of Work and Pensions). This project aims to help the long-term unemployed to return to work and complements ‘Healthy Working Lives’. It should contribute to reducing the inequalities gap created by unemployment.

‘Unlock Your Potential’

is a short-term European Social Fund funded initiative that began in April 2006 and will run until December 2007. The project works to support people on long-term incapacity benefit who wish to return to work or training or a similar target group who are interested in improving their health through voluntary work. To date there have been 135 people supported by the project with 11 full-time job entries and five part-time job entries resulting from this.

Community development

Health inequalities can affect whole communities differently throughout life. The effect of poor environment, economic disadvantage and criminality has a major impact on the quality of people’s lives. Health inequalities are part of a pattern that often combines social exclusion, low income, poor mental and physical health and poor access to services. A community development approach recognises these influences and works through communities and voluntary organisations to empower local people to improve these wider determinants of health through involving local people in identifying needs, developing much more extensive social networks, as well as having local people involved in planning and policy development. This approach involves greater flexibility of organisations, and often reorientation of resource.
While the levels of intervention described above are important, it is also worth highlighting the role of service access and distribution of resource in addressing inequality. The response required needs to be multifaceted and policies and actions need to be co-ordinated to ensure that improvements for one group of the population are not at the expense of others, and that those groups identified as experiencing deprivation, discrimination or other disadvantages have their needs explicitly addressed.

**Strategic Framework**

My team is currently leading action on the development of a clear, strategic framework for tackling health inequalities within which local operational action can be taken. This is based on appropriate indices and measurement of rural deprivation. It aims to deliver equity of health outcome for the people of Highland through a collaborative approach across both Highland and Argyll and Bute and this poses challenges in focusing resource on areas when we know many people who are disadvantaged live outside them. The principles it based on include:

- Reduce existing inequalities:
- Avoid creating new inequalities:
- Participation and empowerment of individuals and communities:
- Equity of access:
- Equity of capacity and targeting of resource:
- Embedding and mainstreaming inequalities in to all NHS work:
- Priorities for action and targeting resource

Specific objectives include: this must include a competent, inequality proofed culture and policy.

- Ensure that all staff within NHS Highland understand the root causes of health inequalities and their role in reducing inequalities
- Embed and mainstream health improvement and inequalities work into all aspects of strategy and policy development, and service delivery
- Build capacity to deliver preventative care
- Provide early interventions
- Target resources at those experiencing multiple deprivation
- Monitor the delivery and impact of action to reduce health inequalities

I appreciate that there are a number of examples of good practice in delivering interventions to tackle inequalities of various sorts in various places in Highland. However, to ensure consistent delivery of these approaches across Highland we need accurate knowledge of the nature and extent of current interventions and their outcome. While there is developing dialogue between the public health function and colleagues in primary care, I am eager to develop communication so that those involved in planning and strategy level, will produce a direction of travel which those who must deliver it own and are committed to. This is one of my priorities for the coming year.
3. Improving health and well-being in Highland

This Chapter sets out performance against the priority health improvements targets agreed by NHSH for 2006/07, and summarises the evidence base for interventions to reduce alcohol, smoking and obesity.

3.1 Alcohol

For alcohol we are to reduce incidence of exceeding the weekly alcohol limit of 21 units to 29% for men, and of 14 units to 11% of women: target date 2010.

3.1. Evidence Base

Alcohol is associated with increased anti-social behaviour and fear of crime and 61% of the population in the UK perceive that alcohol related violence is worsening. The amount of alcohol consumed by young people has risen dramatically in recent years and is higher in young people who are experiencing deprivation. The Scottish Schools Adolescent Lifestyle and Substance Use Survey 2006 asked 1,366 pupils from 22 schools in Highland about alcohol drinking behaviours.

Results were dramatic: 61% of 13 year olds and 88% of 15 year olds reported that they had never drunk alcohol; pupils aged 13 who drank in the last seven days had on average consumed 10 units of alcohol, while those aged 15 who drank in the last seven had consumed 14 units.

Table 2: Pupils reported having a drink in the past week

<table>
<thead>
<tr>
<th></th>
<th>13 years</th>
<th>15 years</th>
<th>boys</th>
<th>girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highland 2006</td>
<td>17%</td>
<td>38%</td>
<td>28%</td>
<td>28%</td>
</tr>
<tr>
<td>Highland 2002</td>
<td>24%</td>
<td>49%</td>
<td>38%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Table 3: Pupils reporting being really drunk

<table>
<thead>
<tr>
<th></th>
<th>13 years</th>
<th>15 years</th>
<th>boys</th>
<th>girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 – 10 times</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highland 2006</td>
<td>10%</td>
<td>16%</td>
<td>14%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Highland 2002</td>
<td>9%</td>
<td>16%</td>
<td>10%</td>
<td>16%</td>
<td>13%</td>
</tr>
<tr>
<td>More than 10 times</td>
<td></td>
<td></td>
<td></td>
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</tr>
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<td>Highland 2006</td>
<td>8%</td>
<td>17%</td>
<td>13%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Highland 2002</td>
<td>9%</td>
<td>25%</td>
<td>21%</td>
<td>15%</td>
<td>18%</td>
</tr>
</tbody>
</table>

The two major health markers of the consequences of alcohol misuse are the ongoing steep rises in alcohol related hospital admissions and deaths from cirrhosis of the liver.
Progress

Based on the results of 2003 Scottish Health Survey, it was estimated that 26.8% of men and 12.1% of women exceeded the maximum recommended levels of alcohol consumption. The equivalent proportions from NHS Highland’s 2002 Adult Health & Lifestyle Survey were 26.5% and 14% respectively.

Although these proportions compare favourably with the national targets, they represent levels of alcohol consumption among all adults aged 16yrs and over, whereas the target is concerned with levels of alcohol consumption among adults aged 16 – 64 yrs only. In addition survey data at population level can mask problem drinking in certain population subgroups. For example, in Lochaber, there has been an increase in alcohol-related acute hospital admissions by 35% between 1999/2000 and 2003/2004 (Source: SMR01).

‘Better Health, Better Care’ advocates the increased use of opportunistic screening and brief health promotion interventions throughout the NHS in Scotland. The Highland Drug and Alcohol Action Team (HDAAT) collaborates with the local Drug and Alcohol forum to deliver the following initiatives through the Drug and Alcohol Action Plan.

Reduction of hazardous drinking by children and young people

The Youth Action Teams across Highland presently provide support, guidance and intensive intervention programmes to over 170 young people who are experiencing significant difficulties with alcohol misuse.

The Health Promoting Schools programme in both the Highland and Argyll and Bute Council areas includes interventions to reduce alcohol and substance misuse in young people. For P7 pupils ‘Choices for Life’ events focus on highlighting the choices they will face in the transition to secondary school and identifies ‘healthy choice’ options delivered through art, drama and music.

The ‘Safer Scotland’ campaign focuses on the supply side of licensed trade and off-sales to raise awareness of ‘underage sales’. Spot checks and test purchasing or mystery shopper schemes (where underage shoppers attempt to purchase alcohol on licensed premises) are under consideration by Northern Constabulary following a pilot in Fife. Strathclyde Police piloted the use of breathalysers at under 18 discos in one area. The event was preceded with an educative awareness campaign and organisers were trained in the use of the breathalysers. The small scale pilot was found to be successful in reducing under age drinking at such events. Children can also be indirectly affected by alcohol misuse and NHSH works with social services in both local authority areas on child protection issues. Argyll and Bute Council in partnership with Children First and STRADA developed inter-agency protocols in working with substance misuse using parents and then delivered multi disciplinary training on the protocols. Substance misuse training has also been delivered to ‘early years’ staff and foster carers. The Mid Argyll Substance Misuse Group funded training for youth workers in ‘Alcohol and Young People’.

Alcohol care and support services

Significant resources are invested to improve access to psychosocial and pharmacological interventions, alcohol detoxification programmes, general hospital liaison services and services targeted specifically at young people. HDAAT provides hospital based alcohol liaison nurses and supports ‘Councils on Alcohol’ to ensure local access to counselling and support services through inter-agency working. Argyll and Bute Council provides similar support to the Councils on Alcohol and Drugs services in their areas. In addition the Council supports three community drug rehabilitation projects. The community drug rehabilitation project in Cowal developed a local pilot scheme in partnership with a local dental practice which involved actively encouraging clients to attend appointments via prompting and text messaging.
Argyll and Bute Substance Misuse Strategy Group focussed on raising awareness of SIGN 74 in primary care. A series of awareness raising events led to the development of a locally enhanced scheme for GPs in alcohol screening and brief interventions.

Risk communication

Communications campaigns in partnership with licensed trade, and the Inverness Licensing Forum include the ‘Too many for the Road’ drink-drive campaign (car park advertising in Inverness), Posters at Music festivals ‘Safe/Responsible’ messages and support for the Scottish Executive’s ‘Don’t Push It’ campaign. In Argyll and Bute, just prior to Christmas, the Public Health Network and Mid Argyll Substance Misuse Group worked in partnership to distribute 3,000 sensible drinking leaflets.

The HDAAT provides a range of drug and alcohol information through Information Line, the HDAAT website, and the ‘Best Bar None’ awards promote responsible management of licensed premises. For a number of years all licensees in Argyll and Bute have to have undergone server training in order to have their licence renewed.

3.2 Smoking

Smoking is a major cause of illness and death from diseases of the heart and blood vessels, the lungs, stomach, kidneys and other organs. The list of serious diseases caused by smoking is much longer than most people realise, and many smokers will develop more than one tobacco related illness and may face years of discomfort and disability. On average, a 35 year old smoker who continues to smoke can expect to live six to seven years less than a non smoker, with many losing far more than this. Generally the more cigarettes smoked, the more likely is poor health. As well as the major diseases like Coronary Heart Disease, Stroke and Cancer, the other harmful effects of smoking include reduced fertility in women, higher rates of male impotence, and dental problems.

The Register General of Scotland has estimated that at least 20-25% of all deaths in Scotland are due to smoking. This far outweighs any other single cause. Less easy to measure, but of huge importance is the impact of smoking related diseases on quality of life. Chronic lung disease, angina and narrowing of the arteries in the legs are all common smoking related diseases that can result in years of discomfort and disability.

Smoking during pregnancy is the single largest preventable cause of disease and death to the foetus and infants, and accounts for around one third of perinatal deaths. Recent evidence has also shown that smoking during pregnancy can increase the risk of diseases such as diabetes later in a child life, and children whose parents smoke are more likely to suffer from middle ear disease, asthma and other respiratory diseases, and are at higher risk of sudden infant death syndrome (cot death).

In recent years, awareness has grown of the health risks associated with inhaling environmental tobacco smoke. It is estimated that more than 1,000 deaths each year in Scotland are due to exposure to passive smoking.
The national target is to reduce adult (16+) smoking rates from 26.5% (2004) to 22.0% (2010). The significant key to achieving this is the smoking cessation services.

To calculate targets for smoking cessation uptake we have modified the estimated prevalence from the new Smoking Atlas for Scotland. Figure 15 shows prevalence estimates for the adult population smoking at intermediate geography (2,500-6,000 population) within NHS Highland CHPs.
Figure 15: Prevalence estimates for the adult population smoking
The areas estimated to be within the highest 20% of smoking prevalence in NHS Highland are geographically spread but tend to be associated with areas that can be characterised as town or urban settlement. Many of the areas identified are those acknowledged as among the most multiply deprived in Highland. Lower smoking prevalence is again geographically spread across the area but is generally lowest in more affluent suburban areas and settlement that can be characterised as accessible rural.

NHS Highland has no areas estimated to be among the highest 10% of smoking prevalence nationally. There are three areas in Highland that have population and social characteristics that would suggest smoking prevalence among the highest 20% of intermediate geographies nationally. These are Inverness Merkinch (34.5%), Alness (34.0%) and Campbeltown (33.2%).

The four CHP areas of NHS Highland have very similar levels of smoking prevalence but at intermediate geography there are variations within each CHP area (Figure 16). The outlying area in Mid Highland is Alness (34.0%) and that in Argyll & Bute is Helensburgh North (14.8%).

Figure 16: Boxplot of estimated percentage of smokers in the adult population by Highland CHP

A series of recommendations and practical guidance for the effective planning and delivery of smoking cessation services were made in the Smoking Cessation Guidelines for Scotland: 2004 Update (NHS Health Scotland and ASH Scotland 2004). Further recommendations were made in the 2007 update.
Key points include:

- Healthcare professionals should have ready access to information on the current smoking status of their patients and should ensure that smokers have been advised to stop at appropriate opportunities and have been offered treatment to help them to do so.
- There is increased evidence of effectiveness for brief intervention and referral for smoking cessation.
- All smokers making an attempt to stop should have ready access to, and be strongly encouraged to use, dedicated smoking cessation services involving structured behavioural support and nicotine replacement therapy or bupropion (Zyban).
- Specific populations of NHS patients, such as hospital in-patients and pregnant smokers, should, as far as possible, be offered smoking cessation treatment appropriate to their circumstances at locations and schedules to suit them.

Progress

In the reconfigured NHS Highland Board, the latest available percentage of adults smoking is 24.6% (2006) which is an improvement on 25.9% in 2004. The target is to reduce this percentage further to 21.5% by 2010 and the linear trajectory to reach that target is currently being exceeded.

During 2006, NHS Highland set up a specialist smoking cessation service in all CHPs and SSU. Service provision targets NHS staff, patients and the general public. Providers include 24 trained advisers (including 11 community pharmacists), in 36 clinic locations covering all areas of need. Nearly 700 participants have set a quit date in the first six months of this year.

Progress will not only be made by helping people who currently smoke to stop, but also by preventing people from starting smoking. The service supports the wider efforts in primary care and the community (e.g. schools and leisure centres) to provide health information, brief interventions and advice. Actions include putting smoking prevention into the school curriculum, providing all P7s with information backed up by school based activities on smoking, a smoking ban extended to all NHS sites and discussions with the LA on how we can support changes in the age of purchase for tobacco.

There is a particular focus on developing services to pregnant women. A specialist smoking cessation adviser for pregnant women was appointed in December 2006 and has now set up a service based in Raigmore with a remit to develop capacity for smoking cessation support across the midwifery service.

An overall service evaluation in 2007 will assess the effectiveness of different models of delivery, levels of patient satisfaction and areas for development.
3.3 Obesity

Our national target is that 50% of all adults (aged 16+) accumulate a minimum of 30 minutes per day of physical activity on five or more days per week.

Evidence Base and background

In Scotland, over 60% of the adult population are overweight or obese, one in every five children is in the unhealthy weight range, and levels are predicted to increase. The 2003 Scottish Health Survey showed that 23% of Highland men were obese, and 28% of Highland women. The Foresight study modelling indicates that by 2050 60% of adult men, 50% of adult women and about 25% of all children under 16 could be obese. This is often described as an ‘obesity epidemic’ and the majority of the population are under pressure.

Interventions which aim to promote a healthy weight often focus on food and/or activity, yet no matter how individually sensitive, Healthy Eating and Physical Activity promotion will not work as long as our environment encourages us to eat high calorie foods, and reduces our opportunities to be physically active during our daily lives. Some people call this an ‘obesogenic’ environment.

‘It is unreasonable to expect that people will change their behaviour easily when so many forces in the social, cultural, and physical environment conspire against such change.’

American Institute of Medicine

Evidence for effective interventions is limited. What we do know is that action is needed at many levels, individual, local, National, and European. The prevention and treatment of obesity will be influenced by for instance, taxation policies, social welfare benefit reform, European Union agricultural policy, changing community environments, and increasing the availability of affordable healthy food. The National Institute for Clinical Excellence (NICE) in England has produced guidance on the effectiveness of public health interventions and programmes, and Scottish Intercollegiate Guidance (SIGN) will be produced in 2008. NICE recommends the development of local obesity strategies which incorporate multi-component interventions: including interventions in the community; workplaces; schools, and interventions targeted at vulnerable groups and at individuals at vulnerable life stages.

Broader system change is needed. The shifting of community norms and resources so that a healthy lifestyle is affordable, acceptable, and easier to achieve than it is today, for all members of society. Clearly, system change requires many organisations to act, and so NHS Highland and its partners have been developing a Highland Healthy Weight Strategy. The strategy development has involved working in partnership to examine current activity; the evidence for effective action; roles and responsibilities, and outlining opportunities for action.
The strategy aims to take an environmental view of the influences on weight which extend beyond individual responsibilities and identifies action at many different levels. It also aims to acknowledge the relationship of mental health; deprivation and inequalities; rurality; and food access to obesity. Whilst the consequences of living in an environment which promotes over consumption of food and sedentary behaviour are not easy to overcome there are strategies that can help. The strategy aims to provide guidance for a co-ordinated, consistent, and comprehensive approach to promoting healthy weight in Highland. Figure 17 conveys the complexity of a strategy for tackling obesity that is fit for purpose. Highland Healthy Weight Strategy is currently going through consultation. An Adult Weight Care Pathway is in development, as well as a Toolkit for practitioners and managers. A Childhood Obesity Pathway will also be developed.

The key principles of Highland Healthy Weight Strategy are that all interventions should:
- Promote participation and collaboration
- Encourage self-efficacy
- Be without stigma and blame
- Ensure equity
- Be sustainable
- Be evidenced

Some of the cross-cutting themes in the strategy are:
- Maternal and child health
- Childcare, preschools and schools
- Neighbourhoods and communities
- Managing healthy weight
- Workplaces
- Lifestyle and emotional health
- Deprivation and inequalities
- Media marketing
- Food supply
Figure 17 The major influences on weight

**Principles**
- Promote Partnerships
- Encourages self efficacy
- Ensure equity
- Without stigma
- Evidenced
- Sustainable

**Working Lives**
- Facilities to promote PA & HE
- Public transport
- Community development
- Transport
- Environment
- Neighbourhoods & Communities
- Play
- Psychological health
- Stress
- Emotions
- Professional knowledge & skills
- Motivational interviewing
- HE = healthy eating
- PA = physical activity

**Lifestyle & Emotional Health**
- Self help
- Counselling
- Support groups
- Dietetic
- Psychological health
- HE = healthy eating
- PA = physical activity

**Maternal and Child Health**
- Healthy living
- HE = healthy eating
- PA = physical activity
- Breastfeeding
- Maternal health
- Child Care, Reschools & Schools
- Child Health
- Public Health

**Local/National Health Plans**
- Evidence
- Research
- Guidelines
- Protocols
- Demography & Morbidity
- Policy
- Decision
- Relevance
- Opportunities
- Money
- Clinical
- Management
- Physical activity
- Motivational interviewing
- HE = healthy eating
- PA = physical activity

**Managing Healthy Weight**
- Counterweight
- Private
- NHS
- Deprivation
- Cost of food
- Cost of membership to PA facilities
- Cost of membership to NHS
- Cost of membership to private weight loss organisation
- Healthy eating
- HE = healthy eating
- PA = physical activity

**Neighbourhoods & Communities**
- Public transport
- Community development
- Transport
- Environment
- Neighbourhoods & Communities
- Play
- Psychological health
- Stress
- Emotions
- Professional knowledge & skills
- Motivational interviewing
- HE = healthy eating
- PA = physical activity

**Statistics**
- Child Care, Reschools & Schools
- Child Health
- Public Health

**Key:**
- Roots - evidence + policies
- Branches - key themes
- Leaves - influencing factors

**Figure 17** The major influences on weight
Progress

The target is measured by the Scottish Health Survey, last undertaken in 2003. This survey indicated that over two thirds (66.2%) of the adult Highland population may be overweight or obese. This compares with 65.4% of the national adult population. The same survey indicated that about one third of children aged 2-15 may be overweight or obese. These figures are likely to have risen since 2003. More detailed data about children will be available through the national Child Health Information System from 2007.

Long-term indicators of progress would include reduced rates of obesity measured by BMI and waist measurement, and increased levels of fitness. However, short to medium term indicators would include a very varied range of factors. These could include a structured and evidenced based approach to treatment of obesity (patient pathway); increased skills of frontline staff; clinical outcomes such as reduced blood pressure, cholesterol, and diabetes, but also numbers of evidence-based prevention programmes; access to healthy foods; numbers of breastfed babies; numbers of workplaces providing weight management programmes; the self-efficacy of participant; access to physical activity and reduction in sedentary activity, and the development of environments which encourage physical activity.

The Healthy Weight Strategy has yet to be finalised and agreed. However, many examples of good work already exist, led by NHS Highland, the Local Authorities, and other partners. Some examples include:

**Maternal and Child Health**

Breastfeeding and good Infant Feeding is a key element of the prevention of obesity. An Infant Feeding Adviser for NHS Highland was appointed in 2007, and is supporting all health visitors and midwives to apply best breastfeeding management practice through the cascade of UNICEF UK Baby Friendly Initiative standards. A Highland Network of Breastfeeding Management Trainers lead the local delivery of training. The Adviser is also supporting Highland maternity units to work towards the UNICEF UK Baby Friendly Award. Raigmore Hospital received public health support to achieve this award in 2006, and it is hoped this will be renewed in 2008. NHS Highland recently started to participate in the national Child Health Information System and will in future have access to local ISD data on infant feeding. Local audit indicates that in April 2006, 64% of babies were breastfed on discharge and 41% were breastfed at six to eight weeks comparing favourably with the national average of 36.3% at six weeks. The Breastfeeding Policy and all other breastfeeding information materials produced by NHS Highland are available in multiple languages. A new Breastfeeding Welcome scheme was also introduced in September, to encourage public premises to comply with the Breastfeeding (Scotland) Act and enable women to easily incorporate breastfeeding into their daily lives.

Highland Council Early Education Service in partnership with the NHS and through its Child Health Development Officer provide Health Scotland training on food and nutrition for people working with the under fives. It also provides a universal programme to encourage physical activity with babies and toddlers called *Play @ Home*.

**Schools**

Schools gain Health Promoting Schools status through a self assessment toolkit and assessment visits and all schools in the Highlands have Health Promoting Schools status. This means that schools have reached certain standards with respect to curriculum content and learning methods; opportunities for physical activity and for healthy food; training and involvement of staff; participation of pupils in planning for health promotion and in setting targets for their own health, and engagement with local communities.
The Your Choice Health Action Group provides the joint planning support for Health Promoting Schools and incorporates planning to comply with Hungry for Success and the Schools (Nutrition and Health Promotion) Bill. Highland already exceeds the expectations of the new Bill. The Highland Active Schools programme is also jointly planned and is a key element of the Your Choice Action Plan. Active Schools Officers throughout Highland provide a full programme of activities, and all P7s are assessed for health and fitness.

**Community projects**

‘Food First’ is a pilot project funded through the Scottish Communities Foundation and managed by Partnerships for Wellbeing. A community food worker is working in two areas of Inverness (Merkinch and Dalneigh) with parents, toddlers and teenagers on low income to develop food skills and increase access to healthy foods. Part of this work is to promote the ‘Healthy Start’ voucher scheme for low income mums and ensure retail outlets are signed up to provide milk, fresh fruit and vegetables. Amongst other activities, Food First co-ordinates a highly popular volunteer led Fruit and Veg Barrow in both areas, which has led to increased consumption of fruit and vegetables, and also increased confidence, skills and friendship networks for the volunteers and others involved.

Encouraging physical activity: ‘Active Referral’ and ‘Step it Up’ Highland are projects to encourage physical activity. Active Referral is a two year initiative funded by the Scottish Executive to promote and support activity in the sedentary population. This is a joint NHS Highland and Highland Council project delivered through 19 leisure centres. Trained referral programme co-ordinators offer the scheme to their local Primary Health Care teams who can ‘refer’ sedentary clients with health problems to the centre for a supervised 12 week programme. The scheme is currently being evaluated and a report with recommendations is expected in 2007. Step it Up Highland is a volunteer led scheme run by Partnerships for Wellbeing which trains and supports a network of walk leaders in Highland.

**Food Supply Projects** - e.g. Highland & Islands food network supports the production and distribution of local food for local people through a variety of initiatives. Training is provided for crofters and primary producers on growing, cultivation and processing. Community Supported Agriculture is a distinct business model for supplying fresh food from small farms to local families, especially those on low incomes. A web based food map links consumers with their local producers. A travel fellowship to the USA has been secured to inform the development of this work.

**Weight Management** “Counterweight” is a primary care based weight management programme based on an Adult Care Pathway for obesity. Counterweight Weight Management Advisers train and support general practice and other staff to provide an evidenced approach to supporting behaviour change. A project to explore the effectiveness of Counterweight in rural areas and develop sustainability through a wider programme of training is in development.
Health Behaviour Change Training NICE has recommended the training of staff in approaches to behaviour change, and Highland staff, including dieticians have been trained in using Motivational Interviewing approaches. Motivational Interviewing is a client-centred and directive approach which enables people to explore and resolve their ambivalence about change and supports them to develop their own action plans. The skills and methods can be used in both brief and longer interventions. A network of Health Behaviour Change Trainers is being developed and a wider programme of training for front-line staff will be available in 2008.

Media and marketing ‘Eat Better Move More: Why Weight?’ is programme of action and awareness raising for Healthy Highland 2007, in parallel with Highland 2007. This is to include two Healthy Highland Schools Weeks, and a Healthy Weight Week (Eat Better Move More), in September 2007. It is very important that public awareness campaigns avoid victim-blaming and stigmatising, and also increase awareness of the scope for health at every size.

There are many more examples of good work going on and being planned in Highland.

Because of the complexity of the interactions obesity is not amenable to normal epidemiological extrapolation. So while I have described evidence based interventions we are putting in place, it is not currently possible to quantify their impact on the incidence of prevalence and consequences of obesity. Tackling this issue is generational and goes beyond the conventional planning cycle. At present there appears to be no short or medium term solution. Obesity has to be managed as a long term condition. It is therefore crucial that GPs identify it and initiate appropriate management.

Quantitative modelling of the prevalence of obesity has produced a range of scenarios in which disappointingly it does not decrease. The rate of increase depends on the balance between prevention and treatment.

Reducing rising rates of obesity in Highland is not going to be easy. The effectiveness of a Highland Healthy Weight Strategy will only be seen over a long period of time; evidence for action is likely to change over time, and action will vary in each area and will require many agencies. However the development of a partnership to provide an overview, a consistency, and a commitment to tackling obesity in Highland is a crucial step, and we would like to thank all our partners for their present and future involvement in this shared task.
4.0 Health Protection

Health protection can be defined as an integrated system for protection of the community (or any part of the community) against infectious diseases and other environmental hazards to health.

My Health Protection Team is based at Assynt House. It collaborates closely with colleagues in both local authorities, particularly those in Environmental Health Planning and Emergency Planning. It coordinates local, national and international health protection systems, maintains ongoing surveillance of infectious diseases and other adverse health effects, risk assesses any potential threats to public health, controls preventable risks, co-ordinates public health action in response to incidents when they do occur and implements measures to reduce the likelihood of recurrence. Main areas of activity in the last year were promoting and co-ordinating immunisation, managing public health incidents, surveillance and investigation of communicable disease as well as screening.

Immunisation against childhood infections

The Scottish Government target is 95% uptake for all childhood vaccinations. This target is measured by uptake of MMR 1 at five years. At the end of June 2007 the national uptake for MMR at age 24 months was 92.3 %, as compared with 90.2% in Highland (Figure 18). This represents a significant increase for Highland from the low of just over 70% recorded in one quarter during 2001. Training particularly for primary care professionals, including a locally developed on-line package will continue to support achievement of this target. The “It’s never too late” programme for MMR, which invites parents of un-immunised children to have them immunised, will continue targeting children as they become two and a half.

Figure 18
The uptake of all other childhood immunisations, Diphtheria, Tetanus, Pertussis, Polio, Haemophilus influenza b and MenC, at 24 months for the same period is over 95%. Uptake of diphtheria immunisation serves as a proxy indicator for these primary immunisations, and Figure 19 illustrates the sustained rise in diphtheria immunisation to 97.8% by the second quarter of 2007. On 4th September 2006 vaccination for pneumococcus (PCV vaccine) was introduced for all children from two months age with a catch up campaign for children under two years of age.

Figure 19

![Image of Immunisation uptake rate (%) at 24 months old - Diphtheria]

Data Source: HES Scotland Childhood Immunisation Statistics

4.2 Protection of water supplies

I am grateful to Scottish Water and our partner local authorities, The Highland Council and Argyll and Bute Council for their collaboration in monitoring public and private water supplies, and to ensure that appropriate measures are in place to maintain the microbiological and chemical quality of supplies in all locations.

An emerging issue with water supplies is cryptosporidium. Cryptosporidium is a parasite that is excreted in the faeces of a wide range of domestic and wild animals. Its oocysts are easily carried in water and may be present in low concentrations in many environmental waters and also, less frequently, in treated (disinfected and filtered) water for human consumption. Transmissions to humans is by faecal/oral spread, the main routes of which are from person to person, animal to person, drinking water, ingesting water from swimming pools, and occasionally by food, milk or other sources. However, it is not unusual for the cause of cases of cryptosporidiosis occurring in a community to remain unclear.
Enhanced monitoring of water supplies has resulted in more cryptosporidium being detected in Highland water supplies in recent years. This does not mean that more cryptosporidium parasites are there now than were there previously, but rather that the detection methods are becoming more sensitive and are being used more widely. One of the key roles of the Health Protection Team is to assess the potential risk when low levels of cryptosporidium are detected and recommend, to Scottish Water, appropriate actions to be taken. In the last year, the Health Protection Team placed a temporary Boil Water Notice for raised cryptosporidium levels on two locations in Highland. There were no human cases of cryptosporidiosis during these events.

4.3 Screening

Cervical cytology screening programme

The current uptake rate in Highland is 86.3% for eligible women to have had an adequate smear in the last 5.5 years. This exceeds both the national target of 80% and the national average of 82.6%. However the overall uptake has decreased year on year over the last seven years as is the case nationally and it appears to be mainly a reduction in uptake by younger women, particularly those aged 20 to 24 and to lesser degree, aged 25-29 years. The current uptake rates for these age groups are 57% and 79% respectively i.e. below the overall target of 80%. It will be necessary to undertake more detailed analysis of the uptake data by geography and age so as to identify any specific promoting action that may increase uptake.

After extensive preparation during the last year, the national call and recall system (SCCRS) went ‘live’ in May 2007 and has now been implemented in all GP Practices and managed service clinics. Prior to this system, less than 50% of General Practices participated in the Health Boards call-recall system. The purpose of the system is that every woman aged 20-60 years who are eligible for screening will receive a prompt to attend for their smear.

Implementation of the SCCR S system should facilitate a targeted approach to health inequalities. It has been adapted locally now for use so that a local GP can take smears from homeless women without compromising GP Practice-based call recall management and activity. The opportunity of other vulnerable groups of women to benefit from the screening programme is currently being negotiated with the prison system as an integral part of a wider care programme including implementation of NHS Highlands sexual health strategy and Hep C screening. In addition, the screening needs of some long-stay patents are currently being assessed with colleagues from the Mental Health services.
The introduction of a vaccination programme against Human Papilloma Virus (HPV), has recently been recommended by the Joint Committee of Vaccination and Immunisation (JCVI) subject to a cost benefit analysis. Since then the Scottish Government has made a commitment to implement this by autumn 2008. The implication of this is that 12-13 year old cohorts will be vaccinated against some of the types of HPVs that are known to cause up 70% of cervical cancers. The impact on the current screening programme will not occur until 2015 but it will still be necessary for screening to take place. The affect is expected to reduce the proportion of positive smears which has implications to QA in Cytopathology laborotoris. There is a separate review of Cytopathology labs ongoing across Scotland which includes looking at the future impact of vaccination.

In addition to vaccination there may be the introduction of testing for HPV status in certain women within the screening programme. This will possibly involve those women with borderline cellular changes whose progression to cancer is much less certain. Detection and treatment of HPV infection in these women would be expected to reduce referral to colposcopy.

**Breast cancer screening programme**

The most recent uptake rate available, (2003/04 to 2005/06) is 81.3% and this exceeds both the minimum national target of 80% and the national average of 76.2%. Two-view mammography will be implemented for incident rounds commencing in July 2008. Since 25% more cancers are expected to be detected as a consequence, an implementation plan has been submitted to the National Service Division (NSD) to accommodate the affect on the symptomatic service. It is expected that the NSD will provide feedback on the outcomes of these plans in terms of funding to Health Boards by the end of August. Women not registered with GP Practices are not routinely invited but the BSP covering Highland, annually enquires of the RAF and of the Specialist Mental Health Service unit whether there are eligible women who would benefit from screening.

**Bowel screening programme**

Bowel cancer screening in Scotland will be implemented across Scotland by 2009. NHS Highland will introduce screening in year 3 i.e. in 2009. The screening is targeted to 50-74 year olds with a projected uptake of 60% in women and 55% in men. For NHS Highland there would be about 590 positive screening tests per year requiring further investigation and follow up. The NHS Highland steering group has submitted a business case for the roll out of bowel screening and is supervising on going progress.

**Diabetic Retinopathy**

The screening programme which is compliant with QIS specifications commenced in Highland in June 2006 for the annual call and recall of the diabeteic resident population. Currently for the NHSH Highland Council area, there is one travelling mobile camera (self-contained unit) and one fixed camera site for screening at Raigmore. The mobile camera has an annual schedule to call at 46 different sites across the region. There is a plan to replace the current mobile unit, which has experienced some problems in the winter months with two mobile cameras (not self-contained) which can be delivered and used at various community sites across the region, together with the fixed camera at the hospital for various times of the year as the emphasis on the service is to reach people locally. There is an eligible screening population of 6,422 people and the aim is to screen 85% of these people (around 5,400) in the community.
Those who fall into the technical failure category (i.e. when a digital image cannot be obtained using a fundus camera), are assessed within the screening programme by a slit lamp examination, carried out by a hospital Optometrist at clinics in Raigmore, Portree, Golspie, Wick and Fort William. The Argyll and Bute area is also served by a mobile unit which is currently managed by Greater Glasgow and Clyde.

The screening service is working in conjunction with GPs who oversee local homeless centres with an aim to be as flexible as possible in order to make appointments available for those in the community who are staying in the area but not registered with a local GP. There are no formal processes in place at present to target “hard” to get individuals for screening. There is a planned community awareness campaign in association with Diabetes UK and RNIB including community stands and possibly local radio slots to take place this Autumn. Interpreters are used for some of the mobile van sessions.

4.4 Surveillance and investigation of infectious diseases

The Health Protection Team receives formal notifications of infectious diseases from General Practitioners, hospital clinicians and the microbiology departments at Raigmore and Inverclyde Royal and Lorn and the Isles Hospitals. The HPT also works closely with the Highland Council Environmental Health Department and Scottish Water to pick up on potential sources of infection, investigate them and implement appropriate control measures.

In the last year the HPT has investigated a wide range of suspected and confirmed outbreaks of infectious disease, including scabies, pertussis (whooping cough), norovirus, campylobacter and salmonella.

All laboratory confirmed cases of salmonella, shigella and E Coli 0157 are investigated in collaboration with Environmental Health. Cases of campylobacter and cryptosporidium are only investigated when there is a cluster or suspected outbreak.

In the period Jan – Dec 2006 we investigated 47 cases of suspected Mycobacterium Tuberculosis (10 confirmed). In addition all Highland residents who were contacts of confirmed cases, from within and without Highland region, were followed up and invited for review by chest physicians at Raigmore Hospital.
Table 4. Notifiable Diseases – number of cases for 2006/07 YTD split by Highland CHP (Community Health Partnership)

<table>
<thead>
<tr>
<th>Notifiable Disease</th>
<th>North</th>
<th>Mid</th>
<th>South East</th>
<th>Argyll &amp; Bute</th>
<th>YTD Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacillary Dysentery</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>7</td>
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<td>91</td>
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<td>102</td>
<td>289</td>
<td>521</td>
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<td>Food Poisoning</td>
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<td>29</td>
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<td>Leptospirosis</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lyme Disease</td>
<td>6</td>
<td>31</td>
<td>46</td>
<td>3</td>
<td>86</td>
</tr>
<tr>
<td>Measles</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Meningococcal Infection</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Mumps</td>
<td>4</td>
<td>32</td>
<td>14</td>
<td>53</td>
<td>103</td>
</tr>
<tr>
<td>Rubella</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Scarlet Fever</td>
<td>0</td>
<td>21</td>
<td>8</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>Toxoplasmosis</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tuberculosis (Resp)</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Tuberculosis (Non-Resp)</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Viral Hepatitis</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Whooping Cough</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>170</strong></td>
<td><strong>489</strong></td>
<td><strong>730</strong></td>
<td><strong>333</strong></td>
<td><strong>1722</strong></td>
</tr>
</tbody>
</table>
4.5 Emergency Planning

I appreciate the seriousness with which NHS Highland and its partner local authorities have taken the issue of emergency planning over the past year. We have a suite of emergency plans for a wide range of possible incidents. On behalf of the NHS my colleagues and I play into that the strategic coordinating groups and the emergency planning groups of both the Highlands and Islands and Strathclyde. There are a large number of multi-agency exercises on a regular basis each year which routinely involve NHS Highland staff, for example the one held in Argyll and Bute at the end of 2006.

The Civil Contingencies Act and current emergency planning principles emphasise the importance of integrated emergency management across agencies and therefore there are a range of multi-agency emergency plans covering topic specific issues and high risk sites which NHS Highland is integrally involved with. The NHS Major Incident and Major Emergency Plan is therefore just one of these many documents.

A Highland Emergency Planning Service Continuity Group has been established under the chairmanship of the Chief Operating Officer. Over the past months the Group have overseen the complete revision of the major incident plan including new chapters for our major hospital sites as well as each Community Health Partnership area. The revisions will also reflect the new Out-Of-Hours arrangements. This has been particularly important given the integration of the NHS in Argyll and Bute.

Overall, while I would not be complacent, given the plans we have and the extent to which they have been exercised, I think we are in a good position from which to mount a response to any major incident or emergency. However, the work to develop and refine the plans must continue.
5. Community Health Partnerships

CHPs have a clear role in directing resource to deliver effective interventions for areas and groups identified as having poorer health outcomes. The development of this work will require growth in the use of local partnership systems, plus support processes such as Joint Health Improvement Planning at local level and the vehicles to deliver this - local multi-agency mechanisms such as drug and alcohol and sexual health. The review of nursing in the community should enable this direction, as an example of a process for directing resource. This section highlights aspects of the NHS Highland CHPs.

5.1 The North Highland Community Health Partnership

Social Geography

The Highlands challenges of distance and population are marked in the North CHP area. The CHP organises its work in three localities, North and North-West Sutherland, East Sutherland, and Caithness. The boundaries of these localities are shown in Figure 20. There is a concentration of population in part of Caithness, but other than a smaller group of settlements in East Sutherland, people are spread over a large area, mainly along glens or in coastal settlements. The populations shown in this map are those people registered with General Practices. Registration rates are very high, however, and this is likely to represent the true population distribution closely.

The distribution of the population can also be seen in General Practice population figures (Table 5).

Table 5 - North Highland CHP General Practice populations April 2007

<table>
<thead>
<tr>
<th>Practice</th>
<th>Location</th>
<th>Practice Population</th>
<th>Area total</th>
</tr>
</thead>
<tbody>
<tr>
<td>55003</td>
<td>Princess Street, Thurso</td>
<td>5,787</td>
<td></td>
</tr>
<tr>
<td>55037</td>
<td>Riverbank, Thurso</td>
<td>6,017</td>
<td></td>
</tr>
<tr>
<td>55075</td>
<td>Dunbeath</td>
<td>518</td>
<td></td>
</tr>
<tr>
<td>55080</td>
<td>Canisbay &amp; Castletown</td>
<td>2,992</td>
<td></td>
</tr>
<tr>
<td>55094</td>
<td>Lybster</td>
<td>1,245</td>
<td></td>
</tr>
<tr>
<td>55131</td>
<td>Wick Medical Centre, Wick (1)</td>
<td>7,451</td>
<td></td>
</tr>
<tr>
<td>55145</td>
<td>Wick Medical Centre, Wick (2)</td>
<td>2,459</td>
<td></td>
</tr>
</tbody>
</table>

East Sutherland

<table>
<thead>
<tr>
<th>Practice</th>
<th>Location</th>
<th>Practice Population</th>
<th>Area total</th>
</tr>
</thead>
<tbody>
<tr>
<td>55201</td>
<td>Dornoch</td>
<td>2,401</td>
<td></td>
</tr>
<tr>
<td>55220</td>
<td>Golspie</td>
<td>2,016</td>
<td></td>
</tr>
<tr>
<td>55249</td>
<td>The Health Centre, Lairg</td>
<td>1,161</td>
<td></td>
</tr>
<tr>
<td>55287</td>
<td>Brora &amp; Helmsdale (55198,55234)</td>
<td>2,545</td>
<td></td>
</tr>
<tr>
<td>55291</td>
<td>Creich Surgery, Bonar Bridge</td>
<td>1,705</td>
<td>9,828</td>
</tr>
</tbody>
</table>

West Sutherland

<table>
<thead>
<tr>
<th>Practice</th>
<th>Location</th>
<th>Practice Population</th>
<th>Area total</th>
</tr>
</thead>
<tbody>
<tr>
<td>55183</td>
<td>Armadale</td>
<td>856</td>
<td></td>
</tr>
<tr>
<td>55215</td>
<td>Durness</td>
<td>333</td>
<td></td>
</tr>
<tr>
<td>55253</td>
<td>Lochinver</td>
<td>972</td>
<td></td>
</tr>
<tr>
<td>55268</td>
<td>Scourie, Kinlochbervie</td>
<td>713</td>
<td></td>
</tr>
<tr>
<td>55272</td>
<td>Tongue</td>
<td>562</td>
<td>3,436</td>
</tr>
</tbody>
</table>

NORTH HIGHLAND | 39,733

Source: Community Health Index (CHI) April 2007
Figure 20  Population Distribution in Caithness and Sutherland
Population

The North CHP area faces particularly striking population changes. The number of births in the area dropped below the number of deaths in 1992, and there were fewer births than deaths in every year after that, with the gap widening to a greater extent than in Highland as a whole (Figure 21). Current Highland Council population projections are for a marked change in the population of the CHP area over the next twenty years. This is a combination of ageing of the existing population, lower births than deaths, and anticipated migration. The movement of the large group of people born in the 1960’s through the age structure makes a particular impact. While these are estimates, they give an important indication of possible impact in the area. The projected changes are shown separately for North and North-West Sutherland, East Sutherland and Caithness below. (Figures 22, 23 and 24)

Figure 21
Figure 22: North and West Sutherland Population Projections 2007 - 2024

Figure 23: East Sutherland Population Projections 2007 - 2024
While the changes are most marked in Sutherland, and particularly in the North and West, they are present in the whole CHP area. The ageing population, combined with the existing sparsity, presents a particular combination of challenges for health and social care delivery. Delivering care to older people in their own homes will be particularly difficult with an expected smaller working age population on which to draw. Attracting specialist staff to rural areas is a challenge in itself, but people who take general posts, such as care assistants and home care workers, are usually existing local residents. Competition with other employment sectors may be marked. The tendency in Scotland has been for greater numbers of older people to live in single person households. The potential of this trend, if it continues, to further limit housing availability for staff who can be attracted to the area is obvious.

The diseases which affect people are altering. Many conditions are treatable, and people survive into old age. The burden of disease has shifted to long term conditions such as diabetes, heart disease, depression and arthritis. Different patterns of care are required. Hospital admissions make limited difference to many older people. The largest increase in any diagnostic group for hospital admission for older people has been in 'signs and symptoms', a category used when no clear disease is present. Often these are hospital admissions for people with long-term conditions who have a general worsening of their condition. They may have no specific treatable problem, but hospitals act as a ‘fall back’ when things worsen. In Scotland as a whole, five or more admissions a year for some older people, with very little measurable benefit, are not uncommon.
The move in health services, therefore, has been to promote better support for people with long-term conditions, and coherent care across community and hospital services. In Caithness and Sutherland, the challenges noted above will make this even more urgent than in Scotland as a whole.

**Poverty**

Deprivation is associated with higher levels of many illnesses, and of premature death. Work in Highland has demonstrated clear deprivation gradients in rates of premature mortality, dental decay, depression admissions and life expectancy, for example. Measuring deprivation in rural areas is difficult, partly because some aspects of rural deprivation are not captured easily (for example seasonal employment, multiple low paid jobs, dependence on cars being a drain on resources) and also because areas of densely concentrated deprivation are less common than in urban areas.

Datazones are small geographic areas. The Scottish Executive identifies 414 datazones in Scotland. Highland has 27 datazones in the most deprived 15% according to the SIMD. These areas include 6.1% of the Highland population. Many current Scottish Executive initiatives are targeted at the 15% most deprived datazones, meaning that few areas in Highland are eligible. The number of people in the North CHP area living in areas which are in the most deprived nationally is low (Table 6).

Table 6 - North Highland CHP data zones in the most deprived twenty percent of national multiple deprivation

<table>
<thead>
<tr>
<th>Datazone</th>
<th>Datazone area name</th>
<th>Population 2004</th>
<th>SIMD National Rank 2006</th>
<th>% of national deprivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>S01003977</td>
<td>Wick Pultneytown South</td>
<td>518</td>
<td>452</td>
<td>10</td>
</tr>
<tr>
<td>S01003976</td>
<td>Wick South</td>
<td>645</td>
<td>583</td>
<td>10</td>
</tr>
<tr>
<td>S01003985</td>
<td>Wick Hillhead North</td>
<td>757</td>
<td>931</td>
<td>15</td>
</tr>
<tr>
<td>S01003978</td>
<td>Wick South Head</td>
<td>567</td>
<td>1142</td>
<td>20</td>
</tr>
</tbody>
</table>

However, as the Office of the Chief Statistician (Scottish Executive, October 2006) points out:

“The SIMD has been produced at datazone level and therefore cannot be used to compare levels of deprivation within local authority areas. The local authority area share of deprived datazones should not be used as a measure of a local authority share of overall deprivation.”

This is because many income deprived people do not live in the most deprived areas. In Highland, for example, 17.1% of the total income deprived population (as defined in SIMD) live in the datazones in the most deprived 15% nationally. McLaren and Clarkson conducted a similar analysis for SIMD03, and found that, at that time, 81% of the people categorised as deprived in the Employment domain in Glasgow lived in the most deprived 5th of wards, compared to only 8.9% of the most deprived people in Highland. This reflects the ecological fallacy of applying the average characteristics of an area to all the residents of an area. Haynes and Cole comment that, “(the) rural poor do not benefit from resource allocation systems which estimate need from aggregate indicators”.

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This points to rural / urban differences. Urban areas in Scotland often have dense areas of deprivation, in which the great majority of residents are deprived on any measure. The reason to target these areas is one of efficiency: services concentrated in these areas will largely serve people living in deprived circumstances. There is, surprisingly, very little evidence of area effects of deprivation. Most of the available empirical research suggests that the high levels of ill-health in deprived areas are the result of the accumulation of individual adversity, rather than any effect of living in an area in which deprivation is common. It follows that it is as important to identify people living in deprivation in other areas, as well as in deprived areas.

The equation of efficiency of intervention changes markedly in rural areas. Figure 25 allocates each datazone in the North CHP to a decile of national deprivation. The bars and left hand scale show the percentage of people in those areas that are income deprived. The number above the bar indicates the number of datazones in this decile.

For example, there are two datazones in the North CHP in the most deprived tenth nationally (number above the bar) and just over 30% of people in these areas are income deprived. The line and right hand scale shows the cumulative percentage of the income deprived population in the North CHP that would be covered by targeting these datazones. For example, targeting the four datazones in the two most deprived deciles would cover about 15% of the North CHPs income deprived population.

Figure 25: Income Deprivation by Area in the North CHP

Source: SIMD06

This means that, in rural areas like the North CHP, a combination of geographical targeting and identification of individuals at risk is required. Unlike some large urban areas, most people living in poverty do not live in areas in which most people are deprived.
Disease

Rates of premature deaths from heart disease have tended to be higher in the North Highland CHP area than in the NHS Highland area as a whole (Figure 26). This is reflected in information gathered by General Practices. 2,052 people in the North CHP area have been identified by General Practitioners as having Coronary Heart Disease, 5.4% of the total practice population, compared to 4.4% in the NHS Highland area as a whole. Some of this difference may be related to differences in age structures between the CHP areas, but this would not explain the high average rate of premature coronary heart disease deaths in the CHP area.

This emphasises the need for work on prevention of disease and promotion of health. One important factor is smoking. Around 26% of men and 24% of women in the North CHP area smoke. While there are some variations by area (Figure x), helping people to stop smoking wherever they live is an important role for the CHP.

It is possible to use the proportion of specific diseases known to be associated with smoking to calculate how many deaths in the North Highland CHP area are likely to have been caused by smoking. In the five year period from 2000 to 2004, 464 deaths – about one in every five deaths in the CHP area – are likely to have been caused by smoking. This equates to 93 deaths a year, or almost two deaths a week. This is an appalling toll, but the disease caused by tobacco extends to people who have to live with other problems, including activity-limiting lung disease. Figures 27, 28, 29 and 30 compare differences in life circumstance and health indicators for the North CHP.
Figure 26 - Premature Coronary Heart Disease mortality trends for North CHP and NHS Highland 1997-2005

Tobacco Atlas
percentage of population smoking (quantiles)

North Highland CHP
percentage of population smoking by intermediate geography area

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Directorate of Planning & Performance
Health Intelligence & Knowledge Team
Date: July 2007
Conclusions

The North Highland CHP area faces particularly great challenges of population change and sparsity. The CHP will have to continue to review its services in the light of this. Targeting services to people living in poverty is more of a challenge in rural counties, and area-based work alone is not enough. The CHP is working on long-term condition management, and this will take into account the difficulties in identifying people at risk.

Heart disease and smoking, while decreasing, remain important challenges for the CHP, and health promotion and support to stop smoking will both be important challenges for the area.

Figure 27: North Highland CHP compared to NHS Highland: percentage difference in select life circumstances indicators
Figure 28: North Highland CHP compared to NHS Highland: percentage difference in select health indicators

- Percentage of population with a limiting long-term illness (2001)
- Percentage of population not in good health (2001)
- Low weight live singleton birth rate per 1000 live singleton births: 2002-2004
- Emergency hospital admissions - both sexes - aged 65 and over - rate per 100000 population: 2005
- Estimated percentage of population prescribed drugs for anxiety, depression or psychosis: 2004
- Modelled estimates of smoking prevalence in persons aged 16+ as a percentage of population 16+: 2003/2004
- Percentage vaccinated against MMR1 by 5 years of age: 2006
- Hospital admissions for drugs misuse - rate per 100000 population: 2001-2004
- Hospital admissions for alcohol misuse - rate per 100000 population: 2001-2004

Figure 29: North Highland CHP compared to Scotland: percentage difference in select life circumstances indicators

- Percentage of population with a limiting long-term illness (2001)
- Percentage of population not in good health (2001)
- Low weight live singleton birth rate per 1000 live singleton births: 2002-2004
- Emergency hospital admissions - both sexes - aged 65 and over - rate per 100000 population: 2005
- Estimated percentage of population prescribed drugs for anxiety, depression or psychosis: 2004
- Modelled estimates of smoking prevalence in persons aged 16+ as a percentage of population 16+: 2003/2004
- Percentage vaccinated against MMR1 by 5 years of age: 2006
- Hospital admissions for drugs misuse - rate per 100000 population: 2001-2004
- Hospital admissions for alcohol misuse - rate per 100000 population: 2001-2004

Figure 30: North Highland compared to Scotland: percentage difference in select health indicators

- Hospital admissions for drugs misuse - rate per 100000 population: 2001-2004
- Hospital admissions for alcohol misuse - rate per 100000 population: 2001-2004
- Percentage vaccinated against MMR1 by 5 years of age: 2006
- Modelled estimates of smoking prevalence in persons aged 16+ as a percentage of population 16+: 2003/2004
- Estimated percentage of population prescribed drugs for anxiety, depression or psychosis: 2004
- Emergency hospital admissions - both sexes - aged 65 and over - rate per 100000 population: 2005
- Low weight live singleton birth rate per 1000 live singleton births: 2002-2004
- Percentage of population not in good health (2001)
- Percentage of population with a limiting long-term illness (2001)
5.2 The Mid Highland Community Health Partnership

The Mid Highland Community Health Partnership covers the largest land mass of any CHP in Scotland (over 14,000 sq km) and has one of the lowest population densities with just less than 90,000 people living in the area. Geographically the area covered is diverse; including areas of urban settlement in small towns as well as some of the most remote and socio-demographically fragile communities in both island and mainland locations in NHS Highland. The challenge of access to and providing services operates differently across the area and the contrasts between the geography of Easter Ross and Lochaber are visually striking. The reality behind what is often a picture postcard image is that the geographical barriers of an extensive coastline, mountains and a poor road infrastructure increase the peripherality of much of the population who live out with the Inner Moray Firth area. Over 80 percent of the population live in an area classified as remote from a major service centre and across the CHP both public and private transport access times to local services are among the highest on average in Scotland. Delivering service in this context presents particular considerations of equity of access.

The population of Mid Highland has increased in recent years, particularly in settlements within the commuter zone of Inverness and as a whole is projected to grow in future years. However, this pattern of growth is not uniform and population decline in some most isolated areas has been obscured by the buoyancy of the rural population in more accessible areas and select parts of Skye and Lochaber.

On a number of recognised summary measures the health of the Mid Highland population is comparable with the rest of Highland and better than the Scottish average. However, in an international context this position is less favourable. Life expectancy at birth in Mid Highland is currently 75.3 years for men and 80.8 years for women, slightly higher than Scotland, but compares unfavourably with the majority of EU-A member states. The largest causes of premature death in Mid Highland are Cancer, Heart Disease and Stroke as they also are nationally.

While life expectancy has risen in recent years, and overall death rates from major diseases have fallen, there is compelling evidence both nationally and within Highland that there are gaps in the health experience and outcomes of the most and least affluent communities and that these have been increasing. Mid Highland has a small number of areas that are recognised as among the most deprived in Scotland and partnership work with these communities and our Well Being Partners through the vehicle of Regeneration Outcome Agreements has provided a start to tackling behaviours and circumstances ingrained by persistent inequality of opportunity. The geography and population distribution of Mid Highland mean that such area concentrations of social deprivation are few and alternative strategies to reach the most deprived individuals and households in rural and remote areas are required.

Over 20 percent of the population of Mid-Highland is over the age of retirement and given the current population structure this group will inevitably grow over the next 20-30 years as a greater proportion of the population are now surviving to old age, and life expectancy is projected to continue increasing. However, almost one in five of the Mid Highland population currently live with a limiting long-term illness. Understanding the causes and prevention of chronic diseases and disability, and preserving good health in an ageing population will be crucial challenges for health improvement to ensure that healthy life expectancy increases in coming years.
I am pleased to report that Invergordon General and Ross Memorial Hospitals have joined the national Health Promoting Health Service Network and have together been accepted as an Implementation Site for Health Promoting Hospitals by NHS Health Scotland. Some of the key elements of action in the next 2 years are likely to be around staff health (including Healthy Working Lives), food and nutrition and joint working with the local community.

The Mid Highland CHP Health Improvement event on 27th April, 2007 showed that there is much health improvement activity taking place, but suggested a need to critically examine its current portfolio of health improvement work with regard to its ‘fit’, both with the health and wellbeing needs of our population and with NHS Highland’s performance objectives (currently expressed as ‘HEAT’ targets).

In early August, the three Mid Highland CHP Public Health Practitioners conducted a rapid appraisal of current health improvement activity at locality level, using a uniform, structured format. This allowed assessment of alignment with population health determinants within each locality and with the CHP’s health improvement performance objectives (Figure 31). A report of this work is currently in draft form and will be finalised at the next meeting of the Health Improvement Group in September 2007.
Work is also ongoing to agree the distinct functions and structures of both locality and CHP level Health Improvement Groups.

Health service delivery and quality

Work in this area has been to ensure that the effectiveness, efficiency, acceptability, equity and appropriateness of health services is optimised in relation to population need.

A major recent focus within this public health domain has been on long term conditions (LTCs). Mid Highland CHP established a LTC Action Team, led by the CHP Clinical Lead. This has now met three times and has agreed a workplan for its first year. Its overarching aim is to achieve optimal integration of primary, secondary and tertiary LTC prevention across the Mid Highland CHP area.

The second piece of current work is a Health Equity Audit (HEA) on LTC management at three geographical levels within NHS Highland. The epidemiology of LTCs is characterised by striking health inequalities, associated with age, gender, geography, ethnicity and socioeconomic deprivation. HEA aims to reduce these health inequalities by systematically understanding current availability, use and outcomes of existing services in relation to predicted population health need. The HEA will inform the CHP’s geographically focused LTC prevention activities and provide indicators of progress to its LTC Action Groups. Twelve conditions will be included within the HEA, including the ‘top ten’ LTCs exerting the largest health impact in the UK, together with rheumatoid arthritis, diabetes and epilepsy.
The HEA will issue its final report by the end of October 2007.

Finally, the South Lochaber subgroup of the Lochaber Care of Older People Implementation Group will shortly be reconvened to maintain a forum for discussion of the Action Plan proposals for the local area, pending a final decision from the Scottish Executive on implementation.

Figures 33, 34, 35 and 36 compare differences in life circumstances and health indicators for Mid-Highland CHP.
Figure 33: Mid Highland CHP compared to NHS Highland: percentage difference in select life circumstances indicators

Figure 34: Mid Highland CHP compared to NHS Highland: percentage difference in select health indicators
Figure 35: Mid Highland CHP compared to Scotland: percentage difference in select life circumstances indicators

- Percentage of single pensioner households (2001)
- SAPE Pensionable Population %: 2005
- SAPE Working Population %: 2005
- SAPE Child Population %: 2005
- Percentage of lone parent families with dependent children (2001)
- Median public transport time to GP (2006)
- Median population drive time to GP (2006)
- Percentage of households without access to a car (2001)
- Percentage of people within 0-500 metres of any Derelict Site: 2004
- Percentage of households with no central heating (2001)
- Percentage of households overcrowded (2001)
- Average tariff score of all pupils on the S4 roll: 2005
- Percentage of adult population with no qualification (2001)
- Percentage of working-age population who are employment deprived: 2005
- Percentage of total population who are income deprived: 2005

Figure 36: Mid Highland compared to Scotland: percentage difference in select health indicators

- Hospital admissions for drugs misuse - rate per 100000 population: 2001-2004
- Hospital admissions for alcohol misuse - rate per 100000 population: 2001-2004
- Percentage vaccinated against MMR1 by 5 years of age: 2006
- Modelled estimates of smoking prevalence in persons aged 16+ as a percentage of population 16+: 2003/2004
- Estimated percentage of population prescribed drugs for anxiety, depression or psychosis: 2004
- Emergency hospital admissions - both sexes - aged 65 and over - rate per 100000 population: 2005
- Low weight live singleton birth rate per 1000 live singleton births: 2002-2004
- Percentage of population not in good health (2001)
- Percentage of population with a limiting long-term illness (2001)
5.3 The South East Highland Community Health Partnership

The South East Highland Community Health Partnership (SE CHP) covers an area of 5,800 square km, with a mix of urban, semi rural and rural geography, and includes the main urban settlement in the North, Inverness, although the challenges of distance do not appear as great as the other CHPs. The CHP serves a population of around 91,000, about one third of NHS Highland’s population, with more than two thirds of the CHPs population living in or around the city of Inverness. Recent data (2005) shows that the number of deaths in SE CHP equals the number of births. However, like the other areas in Highland, the CHP displays a population profile that is ‘waisted’, therefore indicative of population loss to out migration in the young adult age range, with larger cohorts in the age range 30-59 and a general pattern of an aging population.

The accession of eight new states to the EEC in 2004 saw a significant increase in the number of overseas workers moving into Highland to find employment, with an estimated 3000 to 3500 workers settling in Highland. The vast majority of these have settled in the Inverness area, with significant numbers living in Aviemore. Of these 70% are between the ages of 18 and 34. As well as bringing a welcome boost to the economy through increasing the working age population, this population change over a relatively short period of time, has presented some challenges for the CHP in with the form of different cultures and languages.
SE CHP experiences lower levels of deprivation compared to most other areas in Scotland. However the CHP has the same issues of measuring deprivation within rural areas, where people experiencing deprivation live side by side with people who are at the opposite end of the socio-economic spectrum. However, there are areas within Inverness city that are classed through the Scottish Index of Multiple Deprivation (SIMD) as within the 15% most deprived in Scotland, and three that are within the 5% most deprived.

Over the past year, SE CHP has made significant progress in developing its health improvement role. One of the main developments has been in the reconfiguration of its public health nursing teams, to site all team members together in one base. As part of this change, nurses have also moved to covering geographical populations rather than practice based populations, while still retaining alignment to GP practices. This has allowed staff to provide a greater focus to community development.

SE CHP covers one of the early implementer sites (Inverness) for the ‘Getting it Right for Every Child’ initiative (GIRFEC). This initiative has seen Highland Council, NHS Highland, Northern Constabulary, Scottish Children’s Reporter Administration and the Voluntary Sector Agencies work together, with the support of the Scottish Government, to implement improved multi agency ways of working to meet children’s needs. It builds on existing integrated practices across Highland, and is evolving to ensure that the universal services of Health and Education have the means and the support to recognise and meet children’s needs earlier.

It is being done through a commonly understood framework, which is supported electronically to allow effective sharing of information across agencies, without duplication and repeated gathering and recording of the same information. The project is working to break down the barriers to effective and uncomplicated multi agency working.

SE Highland CHP has also introduced a number of exciting initiatives over the last year to support enhanced patient care in a local setting. These have included an expansion of the Inverness Intermediate Care Service which provides patients with nursing and therapy care, either to avoid them being admitted to hospital or support earlier discharge. In Nairn, a small team of staff is pro-actively caseload managing specific patients as part of an Anticipatory Care initiative.

The CHP has developed support for some of the most vulnerable people in the area through a number of initiatives aimed at reducing inequalities in health outcome. Notably, two projects contribute to this. Firstly, development of the outreach ‘streetwork’ project which seeks out the most vulnerable people and facilitates access to mainstream support services as well as providing on the spot crisis care. The set up for the project allows close working with the local Social Work teams and associated school groups. Secondly development of a six month project which offers 5 Minute MOT health checks and has a particular focus on improving sexual health to vulnerable client groups, particularly homeless people, prisoners, young people with drug or alcohol problems, and people with mental health problems.

One of the other major developments in health improvement is the development of the CHP smoking cessation service. The service has expanded and now has three advisers delivering support to smokers in a number of community locations and particularly targeted at those communities that are most deprived.

Figures 37, 38, 39 and 40 compare differences in life circumstances and health indicators for SE CHP.
Figure 37: South East Highland CHP compared to NHS Highland: percentage difference in select life circumstances indicators

- Percentage of single pensioner households (2001)
- SAPE Pensionable Population %: 2005
- SAPE Working Population %: 2005
- SAPE Child Population %: 2005
- Percentage of lone parent families with dependent children (2011)
- Median public transport time to GP (2006)
- Median population drive time to GP (2006)
- Percentage of households without access to a car (2011)
- Percentage of people within 0-500 metres of any Derelict Site: 2004
- Percentage of households with no central heating (2001)
- Percentage of households overcrowded (2001)
- Average tariff score of all pupils on the S4 roll: 2005
- Percentage of adult population with no qualification (2001)
- Percentage of working age population who are employment deprived: 2005
- Percentage of total population who are income deprived: 2005

Figure 38: South East Highland CHP compared to NHS Highland: percentage difference in select health indicators

- Hospital admissions for drugs misuse - rate per 100000 population: 2001-2004
- Hospital admissions for alcohol misuse - rate per 100000 population: 2001-2004
- Percentage vaccinated against MMR1 by 5 years of age: 2006
- Modelled estimates of smoking prevalence in persons aged 16+ as a percentage of population 16+: 2003/2004
- Estimated percentage of population prescribed drugs for anxiety, depression or psychosis: 2004
- Emergency hospital admissions - both sexes - aged 65 and over - rate per 100000 population: 2005
- Low weight live singleton birth rate per 1000 live singleton births: 2002-2004
- Percentage of population not in good health (2001)
- Percentage of population with a limiting long-term illness (2001)
Figure 39: South East Highland CHP compared to Scotland: percentage difference in select life circumstances indicators

- Percentage of single pensioner households (2001)
- SAPE Pensioner Population %: 2005
- SAPE Working Population %: 2005
- SAPE Child Population %: 2005
- Percentage of lone parent families with dependent children (2001)
- Median public transport time to GP (2006)
- Median population drive time to GP (2006)
- Percentage of households without access to a car (2001)
- Percentage of people within 0-500 metres of any Derelict Site: 2004
- Percentage of households with no central heating (2001)
- Percentage of households overcrowded (2001)
- Average tariff score of all pupils on the 1st roll: 2005
- Percentage of adult population with no qualification (2001)
- Percentage of working age population who are employment deprived: 2005
- Percentage of total population who are income deprived: 2005

Figure 40: South East Highland compared to Scotland: percentage difference in select health indicators

- Hospital admissions for drugs misuse - rate per 100000 population: 2001-2004
- Hospital admissions for alcohol misuse - rate per 100000 population: 2001-2004
- Percentage vaccinated against MMR1 by 5 years of age: 2006
- Modelled estimates of smoking prevalence in persons aged 15+ as a percentage of population 15+: 2003/2004
- Estimated percentage of population prescribed drugs for anxiety, depression or psychosis: 2004
- Emergency hospital admissions - both sexes - aged 65 and over - rate per 100000 population: 2005
- Low weight live singleton birth rate per 1000 live singleton births: 2002-2004
- Percentage of population not in good health (2001)
- Percentage of population with a limiting long-term illness (2001)
5.4 The Argyll & Bute Community Health Partnership

Argyll and Bute is not highly deprived compared to other local authority areas in Scotland, but there are still significant numbers of people in deprivation. Like many parts in NHS Highland the area and population is heterogeneous and therefore does not have many areas of concentrated multiple deprivation. Houses with the same postcode can be at opposite ends of the socio-economic spectrum. In many rural areas deprived individuals and households are fairly evenly distributed throughout the patch, with circumstances of deprivation having more to do with an individual’s characteristics than the area in which they live. In Argyll and Bute it is often individuals and households rather than communities that face deprivation and social exclusion.

That said some areas within Argyll and Bute are classed through the Scottish Index of Multiple Deprivation (SIMD) as within the 15% most deprived in Scotland and two are within the 5% most deprived. Ten datazones (each datazone made up of 500 – 1,000 people) in the most deprived 15% are found within the local authority boundary, two of which are in Helensburgh and Lomond (see Figure 1). Given the population numbers, around 8% lies in a datazone that is within the 15% most deprived.

Population sparseness in the rural areas gives rise to much of Argyll and Bute being classified as accessible rural or remote rural. As a result geographic access to services is problematic and SIMD places Argyll and Bute in the most deprived 10% for this domain.

With the health domain the worst areas swing back to the urban centres rather than the rural areas. Notwithstanding the scattered deprivation not picked up by SIMD, the towns in Argyll and Bute require attention to the health inequalities that exist there.

The housing deprivation category consists of the percentage of people living in households without central heating and those who live in overcrowded households. Parts of the local authority area are without access to mains gas and as a result more houses are without central heating than the average (Figure 41). In Argyll and Bute 60% of the datazones are ranked within the top 50% most housing deprived areas in Scotland. Deprivation in this category is evenly split between urban and rural areas.
Results of the 2002 Scottish House Conditions Survey reinforce the housing deprivation position. This survey showed that 83% of the housing stock in Argyll and Bute was in need of some repair, of which 46% was urgent. These are both above the national average. In addition, an estimated 21% of households in Argyll and Bute were suffering fuel poverty compared to a national average of 13% (Table 7). The definition used for fuel poverty is when a household is required to spend more than 10% of its income (including Housing Benefit or Income Support for Mortgage Interest) on all household fuel use.
Table 7: Fuel Poverty

<table>
<thead>
<tr>
<th>Area</th>
<th>Achieved sample size per local authority</th>
<th>Fuel poverty - 2002 definition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Not fuel poor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No.</td>
</tr>
<tr>
<td>Scotland</td>
<td>15,168</td>
<td>1,851,000</td>
</tr>
<tr>
<td>Argyll and Bute</td>
<td>400</td>
<td>31,000</td>
</tr>
<tr>
<td>West Dunbartonshire</td>
<td>416</td>
<td>38,000</td>
</tr>
</tbody>
</table>

According to an Argyll and Bute report most households deemed below tolerable standard are located in rural areas. Estimates on unfit housing can be unreliable but the most recent figures suggest that 2.4% of all houses or just over 1,000 homes in Argyll and Bute are below tolerable standard. This is more than double the estimate for all Scotland.

The population information for Argyll and Bute is currently showing greater deaths than births but with recent years showing a net migration gain. Argyll and Bute as a whole is likely to experience greater future ageing in the older age ranges than Scotland. However population projections may have over estimated inward migration and as a result this may not feed through to as large cohorts in the older age groups as currently being estimated. Nonetheless, an ageing population is a reality, the degree of which is still being debated. Deprivation in Argyll and Bute is less amenable to measurement due to its scattered distribution throughout the area. While many in Helensburgh are able to access higher paid employment in Glasgow much of rural Argyll have access only to low paid jobs. In 2003 the average worker in Argyll and Bute earned £381 per week. These earnings were 13% lower than those in Scotland. In 2001 the average wage was £390 per week which was only 3% lower than the Scottish average at the time.

Figures 42, 43, 44 and 45 compare differences in life circumstance and health indicators for the Argyll and Bute CHP.
Figure 42: Argyll & Bute CHP compared to NHS Highland: percentage difference in select life circumstances indicators

- Percentage of single pensioner households (2001)
- SAPE Pensionable Population %: 2005
- SAPE Working Population %: 2005
- SAPE Child Population %: 2005
- Percentage of lone parent families with dependent children (2001)
- Median public transport time to GP (2006)
- Median population drive time to GP (2006)
- Percentage of households without access to a car (2001)
- Percentage of people within 0-500 metres of any Derelict Site: 2004
- Percentage of households with no central heating (2001)
- Percentage of households overcrowded (2001)
- Average tariff score of all pupils on the S4 roll: 2005
- Percentage of adult population with no qualification (2001)
- Percentage of working age population who are employment deprived: 2005
- Percentage of total population who are income deprived: 2005

Figure 43: Argyll & Bute CHP compared to NHS Highland: percentage difference in select health indicators

- Hospital admissions for drug misuse - rate per 100000 population: 2001-2004
- Hospital admissions for alcohol misuse - rate per 100000 population: 2001-2004
- Percentage vaccinated against MMR1 by 5 years of age: 2006
- Modeled estimates of smoking prevalence in persons aged 16+ as a percentage of population 16+: 2003/2004
- Estimated percentage of population prescribed drugs for anxiety, depression or psychosis: 2004
- Emergency hospital admissions - both sexes - aged 65 and over - rate per 100000 population: 2005
- Low weight live singleton birth rate per 1000 live singleton births: 2002-2004
- Percentage of population not in good health (2001)
- Percentage of population with a limiting long-term illness (2001)
Figure 44: Argyll & Bute CHP compared to Scotland: percentage difference in select life circumstances indicators

Figure 45: Argyll & Bute compared to Scotland: percentage difference in select health indicators
1. **What have we done that is different?**

The main difference from the rest of NHS Highland has been in the approach to the Joint Health Improvement Plan. This has not sought to include all health and health determinant issues but has targeted issues that were not being covered sufficiently in the area or where joint working was not already happening to the necessary degree. Similarly the CHP Health Improvement Plan focussed on one issue (alcohol) to target time and resources rather than duplicate effort.

2. **Where have we been successful?**

**Partnership working** – A key feature of community planning for health improvement has been the level of joint work at both a strategic and local level. As a result we have managed to create a jointly funded post to drive the health promoting school agenda over the next year.

**Local public health networks** - At a local level the public health networks have been instrumental in developing good partnership working and initiating activities tailored to local communities that meet the overall strategic direction agreed for Argyll and Bute. Such activities include: coordinated youth activities events for families focussed on health improvement; and elderly support groups breaking down social isolation

**Mental health** – Argyll and Bute have increased their focus on mental health. Actions include: *Choose Life’s* activity in promoting greater public awareness of mental health issues and encouraging people to seek help early, training for staff in many agencies to provide early prevention and intervention and the identification and dissemination of good practice; joint training in emotional literacy for those involved with children and young people; and development of a self-help CD ROM on mental health and wellbeing

**Alcohol** - A Local Enhanced Service (LES) for alcohol misuse has been agreed. This LES funds the development and production of an up-to-date register; practices to undertake brief interventions and offer support to carry out behavioural change; follow-up treatment such as counselling sessions, which may be done in conjunction with or by referral to local alcohol services. There is increased targeting of adults to reduce the negative impact of alcohol and innovative initiatives such as alcohol free dances in Kintyre for young people during 06/07.

**Road safety** – We work with a range of voluntary and statutory agencies to implement a variety of drive safe campaigns

**Obesity** - Integrated working across primary care – GPs refer obese people to weight management programmes carried out by Health Visitors and make referrals to Health Walks (largely coordinated by Volunteer Walk Leaders with Health Visitor support).

3. **What are our challenges?**

Alcohol related hospital admissions are not as high as some other parts of NHS Highland but they are still high compared to the rest of Scotland. Road traffic accidents remain a high priority for both residents and visitors to the area. As the population ages, there is a need to better address the prevention and good management of long term conditions is also a requirement.
6. The Specialist Services Unit

The Specialist Services Unit (SSU) delivers specialist acute services which are provided mainly at Raigmore Hospital, Inverness. Approximately 80% of in-patient activity occurs in Raigmore (540 staffed beds). The catchment population covers the whole of the Council area of Highland population (215,300) and for some services, provides treatment from Moray and Western Isles. Therefore a large number of patients, their families and friends visit Raigmore Hospital each day and throughout the year. Although diagnosing, treatment and care of patients are the main functions, the potential to promote and support healthy living is at the same time being realised i.e. it is an important health improving organisation as well as a provider of health care. Raigmore is a major employer in Highland and promoting the health of its staff is also very important. I am pleased to report that Raigmore Hospital has demonstrated commitment to developing its’ role as a health improving institution by having convened a short-life working group on Health Improvement earlier this year. Supported by specialist staff from my team, this group developed a health improvement audit tool and undertook a stocktake and awareness raising of the current health improvement activity. This mapping project (stocktake) involved twenty key staff members identified by each of the four clinical directorates being interviewed. Over 44 different health improving interventions pertaining to the day to day care of patients were recorded. Some of these interventions were identified by individual staff who realised the potential of particular initiatives to further improve the quality of life of patients under their care. Examples included Cardiac Rehabilitation exercise classes, relaxation sessions and bicycle exercise for Haemodialysis patients-see picture.

Using the framework of the national ‘Health Promoting Health Service’ as reference, a health improvement plan was developed and the SSU has convened core and reference Health Improvement groups to manage its implementation. The plan prioritises four main areas: Food and nutrition; Tobacco Policy and smoking cessation; Staff Health; Patient intervention and information. Since the plan was developed, further national guidance has been received (‘Health Promoting Health Service: Actions in acute care settings’) and these have been incorporated into the work plan of the core and reference health Improvement groups. Some key current actions include working towards reassessment of the UNICEF UK Baby Friendly Award; working towards being a Smokefree Hospital; opportunistic brief interventions for harmful drinking/alcohol dependency in patients attending A & E departments; provision of smoking cessation services to staff and patients, including a targeted approach with pregnant women and establishing commitment to the Healthy Working Lives Scheme. Future action will include the development of a self-care programme for patients and a weight management/healthy lifestyle programme for staff as well as the consideration of healthy retailing in the hospital i.e. removing sugary soft drinks and improving the availability of fruit and vegetables.
6.1 Improving Access to Rural Secondary Care

Rural General Hospitals have been proposed as a means of improving access to quality care in remote parts of NHS Highland. As part of the development of the model, the North of Scotland Public Health Network was asked to undertake a Needs Assessment. This comprised a rapid appraisal of the current use of hospital services by the catchment populations of rural general hospitals to determine the relevance to the emerging model of an RGH. An additional analysis of the same data was used to produce surgical procedure profiles of each hospital. This work was conducted alongside an ongoing needs assessment in NHS Orkney.

Preliminary analysis has identified six main themes that cut across service delivery areas in remote and rural hospital: models of care delivery, quality of care, recruitment and retention, diagnostics, telehealth and sustainability. The main service areas that were commonly reported on were cancer care, chronic disease and care of the elderly, rural paediatrics, surgery, maternity services and mental health.

A full report of findings and recommendations will be published by the Scottish Executive at the end of 2007.
7. Why think about the future?

“We can either stumble into the future and hope it turns out alright or we can try and shape it. To shape it, the first step is to work out what it might look like.”
Stephen Ladyman MP, January 2006

As I look forward to the near horizon, I am very conscious of writing about the same chronic, endemic, health issues that I have done in previous annual reports. These include poverty, the provision of affordable housing to minimum tolerable standard, occupational health in its widest sense as exemplified in ‘Healthy Working Lives’, ‘Unlock Your Potential’ and the new “Condition Management” initiative. These complementary interventions begin to address the inequalities between the employed and unemployed, while promoting health and well-being overall. Their concepts must span issues of parenting, child care, education, as well as the issue of minimum wages and sustainable micro-economies. I remain convinced that the way to achieve this is through sustainable community development, increasing social capital. At ground level, this requires an outreach work and charismatic, community leaders.

Promoting a smoke free environment remains challenging, as it necessitates even more of a shift in culture. The societal impact on this and other health-related behaviours such as alcohol consumption, diet and physical activity cannot be underestimated. Work at on these priorities is fraught with difficulty, because of a very small evidence base, which does not lend itself to easy quantification of the impact of the few interventions shown to be of benefit. I hope we will make better progress on this work over the coming year. However, given the small local capacity across the local authorities, the NHS and the local academic centres, this will be dependent on collaboration in regional and national working. If not beyond.

New public health legislation is imminent. This will focus on health protection in particular, and will have a significant bearing on the development of the constituents up specialisms. It will have implications for environmental health colleagues in local authorities as well as public health professionals in the NHS. I await this legislation being enacted with interest.

The diversity of challenges within the different community health partnerships, means that encouraging underlines the importance of encouraging an appropriate diversity of approach to health gain. Other developments that I anticipate impacting on our work include the issue of guidance from the Scottish government on health improvement in health promotion in acute health service settings.

The importance of corporate knowledge in both the NHS and local authorities cannot be emphasised enough. Each discipline and part of these organisations need to know and understand what other elements are doing to make an effective impact. This of course has to be founded on and make best use of organisational memory.

I would caution my readers that their expectations must be tempered with realism. Change in the public’s health is often a slow, that is generational, and painful process. Despite this, I look forward to real progress over the coming year.
Figure 7: Prevalence of selected chronic conditions based on Quality Outcomes Framework register sizes at February 2005

Note: The indicators in the new GMS contract were designed to measure and improve quality of care, and not primarily to provide information about population health status. However, with some caveats the register data from the QOF indicators has the potential to provide almost complete coverage about important areas of chronic disease prevalence. Recognised limitations for estimating disease prevalence include issues with disease definitions and recording rules and completeness. For example, the cancer indicators are restricted to patients diagnosed after April 2003, and the register figures are therefore likely to underestimate the true prevalence. Equally, the numbers of cases included in QOF exclude undiagnosed cases. This is particularly important for conditions like diabetes and hypertension, where 50% or more cases remain undiagnosed. In comparison, survey evidence will provide information about all those who have diagnosed or undiagnosed in a population. The QOF also has individual recording rules that permit some patients to be excluded from the denominator population. Particular limitations also result from the lack of availability of age, sex or other population characteristics that would permit comparison to be more easily directly drawn between areas. The availability of individual level data, within proper assurances of the protection of patient confidentiality, would elevate the usefulness of this resource to support the effort to improve service planning for those with long-term conditions.
References


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