2008

Director of Public Health

ANNUAL REPORT

NHS
Grampian

Dr David Cameron
Chairman

Foreword

I am pleased to introduce NHS Grampian Director of Public Health's (DPH) Report for 2008.

The DPH Report is an integral component of our planning processes in NHS Grampian. It has a key role in informing NHS Grampian's Health Plan, providing a focus for our work to improve health – including the fundamental role of health protection – and to reduce inequalities in health.

In this 60th year of the NHS, we have also seen the first Act of Parliament in over 100 years to update legislation on Public Health. The Act outlines new roles and powers, the majority of which come into force in 2009. We also anticipate the introduction of a new Health Bill in Scotland and continued work to reduce waiting times.

If we are to fulfil our commitments, we need to ensure that we improve health and reduce inequalities in health through our individual and collective efforts, whether in communities, organisations or business.

This year, for the first time, the Concordat, which sets out the new relationship between central and local government, provided the basis of the Single Outcome Agreements. The Agreements support Government's five strategic objectives for a Scotland which is Smarter, Wealthier and Fairer, Greener, Safer and Stronger, and Healthier. As we move towards an outcomes based approach across the public sector, we have an increasingly strong platform for consensus on our respective actions to realise these objectives.

In many respects, we look to the DPH's Report to provide us – as stakeholders, individuals, communities and partner organisations – with guidance on how we can reduce the risk of serious preventable ill health. There are key messages on the action we can, and are, taking to ensure the best possible health for the people of Grampian.

I commend the Report and its key messages to you.

Dr Lesley Wilkie
Director of Public Health

Preface

In my 2008 Report, I am delighted to reaffirm our commitment to universal, free access to healthcare. During the year, we have celebrated the 60th anniversary of the introduction of the NHS in Scotland. Reflecting on that achievement helps us get a sense of perspective; it enables us to see how our actions have improved our health as a society. It also provides us with evidence that some of our actions and behaviours as a society need to change. In other words, reflection is an important function to provide us with an informed basis from which to chart and signpost the ways forwards. This Report attempts to do both.

It is easy to forget the huge significance of this event 60 years on, but I hope this report will help remind us of where we were and how far we have come.

Since 1948 we have seen overall health improve but also have seen changes in health behaviours (some good, some bad) and changes in the nature of ill health and who is affected.

Since 1948, we have been delivering more extensive and increasingly complex services for our population, at an ever quickening pace. Each section of my report maintains a historical theme, illustrates advances and changing circumstances.

The first section illustrates the range of public health services which the NHS has developed over these 60 years and the changes in some patterns of disease.

In the second section, we illustrate the way in which our changing demography impacts on services; how we always need to be keenly aware of population trends to ensure service delivery meets the needs of patients. We focus in particular on some of the challenges in increasingly improving services for an aging population.

Section three focuses on anticipatory care as an approach to addressing serious preventable ill health; and illustrates how ways of working which support patients, from all walks of life – but in particular our most disadvantaged citizens – will improve health, reduce the burden of disease for individuals, communities, and the population as a whole. As we celebrate 60 years of progress in the provision of healthcare and services, we are reminded that we can take, must take, and history shows have been able to take, action to prevent serious ill health. Given the number of challenges, the urgency with which we address issues such as obesity, smoking and misuse of alcohol will ensure that we do not unnecessarily increase the burden of (preventable) ill health on our communities.

Sections four and five address these important issues, for our Grampian population, as for Scotland as a whole. We need to take urgent action to ensure we maintain a healthy weight, eliminate tobacco and use alcohol appropriately. This year, there has been good progress through the Alcohol and Drug Action Teams (ADATs) and we reflect national and local concerns on alcohol and the actions we can take to reduce alcohol misuse in our communities.

We all wish to live to a healthy old age, to be in the best possible position to make a contribution to our economy and to have the health to enjoy the fruits of our labours. I hope you find my report will encourage you as a citizen, or as a partner agency, to work together to ensure we have the best possible health, as well as healthcare, in Grampian.

Acknowledgements

As always, the production of the DPH Report is a team effort.

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Executive summary

Key messages

The Director of Public Health's Report has two important functions. First, it needs to reflect on the evidence on health and healthcare, issues and progress during the year. Second, and most importantly, on the basis of that reflection it provides guidance and direction for action.

During 2008, we have celebrated the 60th year of the founding of the NHS and it is timely to acknowledge the tremendous strides we have made in health and in healthcare.

If we are not to squander these considerable gains, we need to take every opportunity – as individuals, as communities, as members of organisations and agencies, as a region and as a country – to take collective responsibility to reduce serious preventable ill health. This makes sense at every level reducing the personal, family, social and economic burdens which result.

At the heart of good public health is the recognition that it is through society's organised efforts that we create, and potentially can destroy, the health of our population.

Our opportunities to create good health, in particular for the people of Grampian, have rarely been more profound.

The Scottish Government's Concordat with Local Authorities is a significant example of a mechanism which enables outcomes to be delivered, jointly and individually, with clear roles for each agency. The NHS has been party to the Single Outcome Agreements in 2008, and this will progress to Joint Agreements in the coming year.

Celebrating 60 years of Public Health in Grampian

The people of the North East have a long tradition of taking a keen interest in health and healthcare.

One clear measure of progress is the infant mortality rates 'then and now'. In the 1930s and '40s infant mortality rates were still relatively high. Just prior to the advent of the NHS, in 1948, across Aberdeen and the four north east counties the average rate was 37 i.e. 37 out of every 1,000 children born would die before their first birthday. Just over 60 years on, latest figures (2007) show the rate has reduced significantly to 3.3 per 1,000 live births.

However, the Aberdeen Typhoid Outbreak of 1964 is a useful reminder that legislation and guidelines are easily undermined by complacent or careless practice and the subsequent burden, in health and economic terms, affects the population from individual to communities to organisations. It is also a good example of the importance of the organised efforts of society in addressing the outbreak, and reflects the vital work of outbreak teams, comprising key stakeholders and, in particular, Local Authorities, led overall by Public Health.

The Public Health (Scotland) Act 2008, which received Royal Assent on 16 July, updates legislation which is now more than a hundred years old. This includes new powers and responsibilities for health boards. The main provisions of The Act come into force in 2009.

Population trends and service development

Many factors influence the planning and delivery of healthcare services. From a Public Health perspective, two particularly important factors are demographic change and the prevalence of chronic, long-term conditions.

Grampian's population has been stable over the past 15 years. However, there are now signs that it is starting to increase, largely through migration but, perhaps more importantly for the long-term, by an increasing birth rate. Of particular significance is the increasing size in the elderly population.

The greatest relative increase has taken place in the over 85 year age group, which has at least tripled during the period 1959 - 2007, while the 75 - 84 year old group has also increased substantially. Life expectancy at birth has increased among both men and women during recent decades. A child born in Grampian during the period 1991 - 1993 was predicted to have an average life expectancy of 73.2yrs. For children born during the years 2004 - 2006, this has increased to 76.1yrs.

Services must adapt to meet our changing healthcare needs to take account of: the predicted increasingly elderly population; increasing levels of chronic, long-term illness; and, the predicted decrease in the working age population for whom we require to provide care and to finance it.

Challenges associated with providing services locally include:

Addressing the training needs of those providing services.

Ensuring the sustainability of local services where these may be provided by a small number of key individuals.

Ensuring that the opportunity costs (money spent on local services and therefore not available for spending on other parts of the service) of providing local services are justified by the benefit gained; ensuring benefits outweigh costs.

As with all complex and interconnected challenges, we need to develop flexible approaches and challenge ourselves to think beyond a "one size fits all" solution.

Tackling serious preventable ill health

Working in a proactive, anticipatory way, can improve the health of communities.

Successive Scottish Governments, have provided clear policy direction: to increase the rate of health improvement in deprived communities by enhancing primary care services to deliver anticipatory care. We also know that with changes in the GP

contract nationally, and significant investment in more sophisticated computerisation at GP practice level, parts of the infrastructure to support this more targeted approach to care already exist.

As our Community Planning Partnerships mature, and as more and more people value good health for themselves and their families, we will be able to extend our anticipatory care approach well beyond a medical, or NHS Grampian, focus and into the heart of our communities.

NHS Grampian is participating in a national pilot programme, Keep Well, to reduce the risk of preventable serious ill health; offering a health check to those aged 45 - 64 living in areas we know are associated with poor health, to identify those at risk of developing preventable serious ill health and offer services, monitoring and follow up, to reduce that risk.

Our ultimate aim is to improve the health status of our most disadvantaged citizens, decreasing their risk of early death from heart disease, and increasing appropriate access to, and use of, services.

NHS Grampian has an ambitious target, to reduce premature mortality from heart disease, in particular, among our most deprived citizens. We do need the support of everyone in the community to reduce the burden from heart disease and we have a strong sense that the people of Grampian want a future where serious preventable ill health, across the whole community, is minimised, risks are well managed and life expectancy is no longer associated with postcode.

Prevention and self care are fundamental to our organised efforts to ensure the best possible health for our own population in Grampian, and for future generations. Separately and collectively:

Each individual can reduce the risk of serious preventable ill health.

Each family can reduce the risk of serious preventable ill health.

Each community can reduce the risk of serious preventable ill health.

Each organisation can reduce the risk of serious preventable ill health.

Each section of the Report focuses on one component of our behaviour, ‘the how’, which contributes to preventing serious ill health; nutrition; tobacco control; and alcohol misuse.

Nutrition

During the war people ate less fat, sugar, eggs and meat. In addition, those who had poorer diets before the war received the same rations as others and, as a result, their diets, and health also improved.

While there is no desire to return to the austerity of that time, there is also no doubt that finding ways to cope healthily, and on a budget, is an important contribution to reducing the risk of serious preventable ill health.

Food is an inextricable part of all aspects of our lives, whether at home, school or at work. It is important to remember that everyone has a responsibility for making sure that the food we eat benefits our health. Future generations will then be supported to change their eating habits, progressively, and make healthier food choices so that healthy eating and breastfeeding become the norm once more.

Where we see opportunities to prevent ill health, we must take them.

We advocate breastfeeding as the best start for baby and mum, providing ideal food for the healthy growth and development of infants. It also makes sense from a budgetary point of view.

We support central government in their efforts to:

Help consumers by engaging with the food and drink industry to support healthier, and more environmentally sustainable, food choices.

Improve affordability, access and security in relation to food.

We will encourage public bodies to lead by example, and to support people to develop and maintain healthy behaviours.

We will support clear and consistent messages for the public on healthy food choices.

We will work together to support people to develop the practical skills they need to put health messages to good effect and to rediscover the benefits of lifelong healthier eating.

We recognise that investment in the promotion of health will benefit future generations in Grampian.

Tobacco control

Smoking remains the single most important, preventable, cause of ill health.

Encouragingly, research conducted by 'Clearing the Air Scotland' shows a consistently high level of support for the ban among ex-smokers and non-smokers, and also an increasing level of support among smokers themselves.

There is still a great deal we can do in Grampian to support those smokers who wish to quit, and to provide information to young people to help them make informed decisions about not using tobacco.

We know that smoking is often a symptom of other challenging circumstances in people's lives and we endeavour, with our partners, to help our clients to address these. Our priorities include supporting people living in areas of deprivation; young people; pregnant women, and those living with mental illness.

Local and national evidence on tobacco use has identified a number of issues that can create barriers to smoking cessation. These issues include personal difficulties; drug or alcohol misuse; aggressive behaviour; requirement for specialist help; social isolation and/or low self-esteem; weight gain; boredom; cannabis use; inability to cope with harmful stress; and control and reward.

Our approach locally is to work with our clients to address these barriers progressively. To do that we rely on close working with our partners, be they colleagues in NHS Grampian or in housing organisations; in hostels for the homeless; among colleagues working with Looked After Children; voluntary agencies; local authority colleagues where education and community learning colleagues have an important role; our retail community: and of course parents and family – particularly in the case of young people.

The Smoking Advice Service is open to all age groups, including under-16s, whether they choose to self-refer, or be referred, into the service. Some 48,000 people have made contact with the Service since it began.

The Community Pharmacy Scheme, an integral part of the Smoking Advice Service, has 114 community pharmacies in Grampian. They provide a very flexible service, with good geographical coverage and access, for those who wish support to stop smoking.

We are always looking for new ways to reduce smoking prevalence. We welcome contact from new potential partners who may wish us to work alongside, or vice versa.

We will work closely with Community Health Partnerships and Community Pharmacy colleagues to work alongside sections of the community which are often harder for agencies to reach.

We will continue to improve access to smoking cessation services for those who experience health inequalities and, we will support communities to build their own capacity to provide that support.

We will continue to provide a programme of tobacco awareness activity and seek ways of increasing capacity to deliver targeted messages to our young people. Our work will be guided by 'Scotland's Future is Smoke-Free: A Smoking Prevention Action Plan' with a focus on preventing children and young people from starting to smoke.

Together, we create the smoke-free environments which give each and every one of us the best chance of enjoying good health.

Alcohol

Most of the adult population enjoys alcohol responsibly and in moderation.

However a growing number of people use alcohol excessively, resulting in harm to themselves, their families and their communities. There were 386 alcohol related deaths in the period 2003 - 2007 in Grampian.

Encouraging responsible alcohol intake, reducing alcohol misuse and tackling its negative consequences is a priority in Grampian. NHS Grampian

is addressing these challenges in partnership with the local Alcohol and Drug Action Teams (ADATs) and our work is guided by the national plan for alcohol.

Current guidelines for sensible alcohol consumption are given in units of alcohol per day. For men, an upper limit of 3 - 4 units per day with a maximum 21 units of alcohol per week is recommended. For women, the maximum recommended limits are 2 - 3 units per day and 14 units per week. Both men and women are advised to have one or two alcohol free days per week. The aim of these guidelines is to enable people to make informed choices and avoid consuming alcohol at levels likely to cause progressive harm to their health.

The messages on alcohol are stark. Scotland as a whole is drinking too much. Our information suggests a similar picture in Grampian.

Alcohol misuse is harming our health.

Alcohol misuse is costing our country £2.25 billion a year.

Alcohol misuse is increasing inequalities.

Tackling misuse needs a sustained and integrated response with commitment across the board from central legislation to local implementation.

We are working intensively with stakeholders including the voluntary sector, statutory partners and businesses to identify priority areas and to formulate targeted solutions. Our goal is to build on and complement the services and structures already in place and to be responsive to new challenges and local needs.

We fully support a targeted, multi-disciplinary approach underpinned by new legislation and additional funding to enable us to change our relationship with alcohol.

In support of the development of a relationship change with alcohol, we are implementing a programme of "brief interventions" through the work of primary healthcare professionals. This will provide support to hazardous and some harmful drinkers. The overall aim is to discuss the costs and benefits of drinking from the patient's perspective, offer advice and, where appropriate, agree a goal, such as reducing alcohol intake or abstaining.

Through our organised efforts we will promote an environment where drinking safely and sensibly, rather than drunkenness, is the acceptable cultural norm in Grampian.

In conclusion: Improving health in Grampian

In conclusion, we can continue to improve the health of every individual, community and organisation in Grampian by close working.

We need to focus on the significant gains we can make in reducing serious preventable ill health. By tackling this, we will ensure increased healthy life expectancy i.e. living to a ripe old age with a greater number of years spent in good health.

There are some positive indications that the population of Grampian is responding to national and local challenges around health. We want to ensure that good health is achievable in every community in Grampian and we will continue to work closely with Community Health Partnerships and Community Planning Partnerships to support a systematic approach to encouraging good health.

We invite any individual, community or organisation, not yet known to us, and wishing to join us in working for good health to make contact through our healthpoint service on 0500 20 20 30. Please take the opportunity to talk with our team about your activities, ideas or aspirations or drop them a line at healthpoint@nhs.net.

Celebrating 60 years of
Public Health in Grampian
1948 - 2008

Introduction of the National Health Service

Before the introduction of the National Health Service in 1948, British citizens had no automatic right to free and comprehensive healthcare.

Although a number of public health measures had been introduced in the late nineteenth and early twentieth centuries, they were aimed at specific sections of the population: local authorities had powers to isolate and treat cases of infectious disease, preventing further spread; town and county councils provided mother and child welfare services; the education authorities operated a school medical inspection service; and the National Health Insurance Act of 1911 entitled workers below a certain earnings level (but not their families or dependents) to the benefits of a general practitioner.

For many years there had been talk of extending the National Health Insurance scheme but it was not until after the Second World War that the idea of a health service for all became a reality. The National Health Service Act for England and Wales was passed in 1946 and the Scottish Act in 1947, but the new service came into operation in all parts of Britain on the same day.

On Monday, 5 July 1948, the population awoke to a new era in healthcare. From this date, all treatment would be free at the point of delivery (though it was of course being paid for through taxation, National Insurance contributions and, to a lesser extent, local rates). Everyone was now entitled to the services of a family doctor and would have access to specialist services and hospital treatment. Most important of all, the introduction of the National Health Service (NHS) meant that people who needed medical treatment would no longer have to worry about finding the money to pay hospital or doctor's bills.

NHS healthcare was provided through three separate organisations: the hospitals were administered by local hospital boards, executive councils regulated the services of local GPs, dentists and chemists, while public health work fell largely to the staff of local authority health departments, each led by a Medical Officer of Health.

Public health and communicable disease

Public health departments have their origins in the legislation which was passed in the nineteenth century to prevent the spread of disease and control epidemics. Under the NHS, this work continued to be one of the main areas of activity for the local authority health departments.

The list of diseases which were legally notifiable, i.e. which doctors were required to report, was originally drawn up in 1889 and has been extended in the years since then. In 1948 over 3,000 cases of notifiable diseases were reported in the North East. Over a fifth of notifications were cases of tuberculosis (TB), and of these, three-quarters were respiratory TB and the remainder non-respiratory. At this time more than 20 separate diseases were notifiable, although some, like

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plague, cholera and smallpox, were now rarely encountered. However, other diseases would be added to the list, notably whooping cough (1950), food poisoning (1956), measles (1968) and chickenpox (1988). Further changes would occur over the next 60 years as more diseases declined, often due to the introduction of immunisation programmes, but they remain notifiable. However, it is of note that the Public Health (Scotland) Act 2008, which received Royal Assent on 16 July, updates legislation which is now more than a hundred years old. The Act includes new powers and responsibilities for health boards. Its main provisions will come into force next year.

With some diseases, all three strands of the NHS became involved, and one event that tested the co-operative links between these three strands was the Aberdeen typhoid outbreak of 1964. GPs were usually the first point of contact, and patients were admitted to hospital for isolation and treatment. To prevent further spread, a massive health education campaign was launched, emphasising good hygiene and food safety practices. Although the source of the outbreak was in Aberdeen, local authority health departments in Aberdeen and the surrounding counties were involved in interviewing and monitoring both cases and contacts.

Prevention and control of some diseases required co-operation with other local authority departments and/or government bodies, e.g. reducing the number of cases of undulant fever (brucellosis) depended on eliminating the disease in cattle, and a national eradication scheme was begun in the 1970s. Today, the NHS still works closely with local authority environmental health colleagues to prevent, investigate and control the spread of infectious disease.

There are now 32 notifiable diseases and, in Grampian in 2007, there were over 3,800 notifications. As in most recent years, chickenpox formed a large proportion (60%) of these, while new cases of TB accounted for just over 1% of notifications.

Services to mothers and young children

Another important area of activity for the local authority health departments was the provision of services to mothers and young children. Although maternal mortality – the number of women dying as a result of pregnancy or childbirth – had decreased greatly in the 1930s and '40s, infant mortality rates were still high. In 1948 the average rate across Aberdeen and the four north-east counties was 37, i.e. for every 1,000 children born, 37 would die before their first birthday. The Scottish rate at this time was 45

and today (2006) the Scottish rate stands at 5.3.

In 1948, a third of all north-east births still took place at home, and it was the duty of local authority health departments to provide a domiciliary midwifery service. Throughout the 1950s and ’60s, ever-increasing numbers of mothers gave birth in hospital. Local authority midwives spent more time on ante-natal and post-natal care and, in some areas, in family planning clinics. Today the majority of births still take place in hospital, but each year since 2001 a small but growing number of babies have been delivered at home. In 2007, there were 74 such births.

Additional mother and child welfare clinics were started in many north-east towns. With fewer cars and a lack of public transport it was difficult for many mothers to attend such clinics, so in Kincardineshire a special bus was provided, to bring mothers and children living in rural areas to clinics in Laurencekirk and Inverbervie. In Aberdeen, a mobile health clinic was introduced in 1952, to serve the new outlying housing estates until the easing of post-war restrictions on finance and the supply of building materials meant that permanent clinics could be established. Following the end of food rationing in 1954, health departments became responsible for the distribution of welfare foods. Orange juice, cod liver oil and National Dried Milk were supplied free of charge until 1961, and after this at cost, but remained free to those who could not afford to pay.

‘The fifth freedom’ – development of contraceptive services

Measures were also taken to promote what had been termed ‘the fifth freedom’, freedom from the tyranny of excessive fertility. In 1948, Aberdeen Town Council took over the Gynaecological Advisory Service, a contraceptive service previously run by a voluntary organisation, and continued to provide advice to married women who, for health reasons, wished to avoid further childbearing or to space out future pregnancies. The service was renamed the Family Planning Clinic in 1966, the year Aberdeen became the first local authority in Britain to provide a free contraceptive service to referred clients. Family planning clinics were also established in other parts of the North East – in Kincardineshire in 1967, and in Keith and Elgin in 1971. They proved particularly popular with patients who preferred not to discuss such matters with their family doctor. At this time, the family planning service was solely for married couples, or those about to be married, and it was not until some years later that contraceptive services were made available to all.

Vaccination and immunisation programmes

In the early years of the NHS, local authorities were also responsible for vaccination and immunisation programmes, some of which were provided at child welfare clinics or through the school medical service. By 1948 most babies were routinely vaccinated against smallpox. Immunisation against diphtheria had begun during the Second World War for the under-fives and also for schoolchildren. This continued under the NHS and, shortly afterwards, a programme of whooping cough immunisation was introduced. Protection against polio also became available at this time, firstly in 1956 by injection and then, from 1962, through the use of an oral vaccine.

In subsequent years, several new vaccines were added to the childhood immunisation schedule. These included measles (1968) and rubella (1970 - 71), the combined vaccine for measles, mumps and rubella (1988), Haemophilius influenzae type b (1992), and meningitis C vaccine (1999).

All these measures ensured that the infant mortality rate in the North East continued to fall. By 1972 it had more than halved, to an average of 15.3 (the Scottish figure was then 19). Latest figures (2007) show that the rate in Grampian is 3.3 per 1,000 live births.

Tuberculosis (TB)

TB was still a major public health concern in 1948. Despite the discovery of drugs which could be used to treat TB, new cases of respiratory TB then accounted for 14% of all notifications in the North East. Various TB prevention measures were introduced,

including BCG vaccinations and screening programmes.

From 1950, contacts of identified cases of TB in Scotland were tested and, if necessary, offered the BCG vaccination. This scheme was extended to school-leavers in 1953, and children in Aberdeen and Banff were among the first to receive it. The BCG programme has been reviewed several times since 1953 in response to changes in the pattern of disease, and the school programme has been replaced with a risk-based approach that aims to protect those children who are at highest risk of exposure to TB.

Screening programmes for TB allowed early identification of potential health problems before an individual might think of attending their own doctor. Local authorities ran mass miniature radiography campaigns which checked for unknown and early cases of TB among the general population. The small-scale mass miniature radiography survey carried out in Kincardineshire in 1954 was one of the first of the rural surveys in Scotland and provided useful information on how future campaigns could be improved. Campaigns were also held in Aberdeenshire (1956 - 57) and Aberdeen (1957), Banff (1959) and Moray (1962 - 63 and 1968).

Additional screening programmes were developed. The Moray TB campaigns of the 1960s were combined with a diabetes detection drive. In an attempt to discover unknown cases of diabetes, people attending the mass miniature radiography sessions were also given self-testing kits. Similar surveys were carried out in parts of Banffshire and Aberdeenshire. A more recent programme, implemented in Grampian in 2002, is diabetic retinopathy screening, when all diabetics aged 12 and over get an annual examination of the retina, to detect and treat changes which could ultimately lead to blindness.

Cancer screening programmes

Screening for cervical cancer is another of the early programmes to be developed in the North East. Although it began in the hospital service in 1960, women attending local authority ante-natal and family planning clinics were offered the chance to have a smear taken. Despite the opportunistic basis of this service, it was not long before the rate of cervical cancer dropped and Aberdeen's work was nationally recognised. To maintain this progress, it was important that women were re-tested regularly but in the early years it was difficult to establish an effective recall system. A computerised call and recall system was instituted in Grampian in 1989. The latest preventive measure started in September 2008: Human Papilloma Virus (HPV) vaccine is now offered to 12 - 13 year old girls to protect them against the strain of wart virus that is a known cause of cervical cancer.

Screening programmes for TB allowed early identification of potential health problems before an individual might think of attending their own doctor.

Additional cancer screening was provided when the purpose-built breast screening centre opened in Aberdeen in 1990. Originally, women aged 50 - 64 were automatically invited, but from 2005 this was extended to women up to the age of 70. Older women can request a mammogram every three years. For women living in Aberdeenshire, Moray, Orkney and Shetland, the service is provided from a mobile unit that travels to these areas on a three-yearly rota.

Grampian was one of three areas selected in 2000 for a pilot scheme of colorectal screening for people aged 50 - 69. With 54% participation in Grampian, the scheme demonstrated that this form of screening was feasible, and the Scottish bowel screening programme was announced in 2006, with rollout running from 2007 to 2009. All eligible men and women aged 50 - 74 will be sent a test kit every two years.

Health visitors and health education

Health visitors comprised a large part of local authority health department staff and undertook a wide range of public health duties. As well as home visits, they participated in ante-natal and post-natal clinics, child welfare work and, until their gradual replacement by school nurses, in the school medical service. Aberdeen had a health visitor training school and in the early 1960s this was the first in the country to admit male nurses to health visitor training. It was found that adolescent males and elderly men accepted advice more readily from male health visitors. In many rural areas, district nurses fulfilled a double or triple role, acting also as health visitor and/or domiciliary midwife.

Health visitors had a key role in the provision of health education, carrying out sessions in clinics, GP surgeries and schools, and speaking to outside groups. Early work focused on care of babies and young children, dental health and home accident prevention, but later expanded to include the dangers of smoking and the responsible use of alcohol. The health education department set up in the 1970s continued this work, leading to Grampian long-term campaigns such as the Smokebusters scheme, introduced in 1987 to encourage children to reject the smoking habit, and the Grampian Heart Campaign, aimed at reducing coronary heart disease through the promotion and support of healthy lifestyles.

The working links between GPs, district nurses and health visitors were gradually formalised through the attachment of district nurses and health visitors to GP practices. In 1959 Aberdeen had pioneered general practitioner/health visitor linkage in Scotland. District nurse attachments were started in 1966. Encouraged by the success of these, other north-east areas soon followed, Banff in 1969 and Elgin in 1971. Currently, the health visiting role is continuing to evolve as part of the review of nursing in the community.

Re-organisation of the NHS

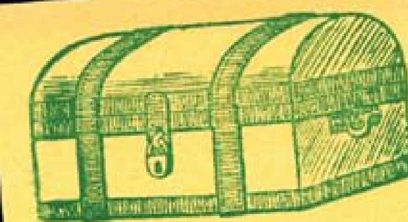
By the late 1960s, it was felt nationally that the existing NHS structure could be adapted to continue to improve healthcare. A White Paper on the re-organisation of the service led to the passing of the 1972 NHS (Scotland) Act, which provided for an integrated health service in Scotland. On 1 April 1974, the regional hospital board, five local authority health departments and three executive councils – the three strands which had provided NHS healthcare in Grampian since 1948 – were merged under the new Grampian Health Board. While most staff were directly employed by the Board, GPs, dentists, pharmacists and opticians continued as independent contractors. Local authority health staff transferred, although public health staff continued to work closely with their erstwhile colleagues in Environmental Health and Social Work.

From the mid-1970s onwards, many more health centres – the focus of the primary care and community health services – were provided, in established communities as well as in the newer towns such as Portlethen and Westhill. In several parts of Grampian, e.g. Dufftown, Peterhead, Insch and Aboyne, it was possible to build these new health centres on the same site as the local hospital, bringing all the district's health services under one roof.

Modern public health has its roots in the pioneering work to control epidemics in the nineteenth century. The early years of the twentieth century saw this work continue and expand. In 1948, according to one north-east Medical Officer of Health, the future of public health lay 'in the education of the public in the maintenance of health and the prevention of illness'. The creation of the National Health Service provided statutory and organisational frameworks for many of the most significant public health developments in the latter half of the century.

Public health work of both the NHS and local authorities continues to evolve. With the establishment of Community Health Partnerships (2004), the recent concordat between local authorities and the Scottish Government, and the introduction of Single Outcome Agreements, the opportunity to focus our joint endeavours and resources on health and healthcare in a co-ordinated and coherent way has never been greater. In addition, the new public health act, recently passed by the Scottish Parliament, defines the roles of public health to meet the challenges of the 21st century.

To maximise our services now, and ensure they are fit for purpose in the next 10 - 20 years, we need to make effective use of information. In the next section, we illustrate some important demographic characteristics for health and service planning in Grampian.



Population trends and service development

Introduction

Many factors influence the planning and delivery of healthcare services. From a Public Health perspective, two particularly important factors are demographic change and the prevalence of chronic, long-term conditions.

Our population trends

To ensure the best health and healthcare of our citizens, it is important that we understand the demographic trends in our own population, as those will influence the nature, volume and shape of the services we need to provide.

Grampian's population has been stable over the past 15 years, varying by less than 1 - 2%. However, there are now signs that it is starting to increase, largely through migration but, perhaps more importantly for the long-term, by an increasing birth rate. In Grampian, the population of the Aberdeenshire Council area has been growing at the expense of Aberdeen City in recent years. This is mainly due to the growth of housing development in Aberdeenshire, particularly in areas in commuting distance of the city.

Population projections

The General Register Office for Scotland's figures for Grampian have, until recently, predicted a strong decline in the population of Aberdeen City. The latest projections, however, show a stable population for the city for the next decade, but declining thereafter. Aberdeenshire's population is expected to grow steadily, while Moray's will remain stable for the foreseeable future. There will be a strong increase in the elderly population in Grampian, partially offset by a slight decline in the younger age groups.

Grampian had a strong natural increase (excess of births over deaths) in population throughout the 1990s (Fig 2). This fell to a low level in the early years of the present decade, actually turning negative in 2003. However, this natural increase has started again, and has reached almost 800 in 2007. This is much higher than allowed for in the latest population projections, and it suggests that the anticipated decrease in the younger population is now much less certain.

These trends will need to be closely monitored to ensure that services can respond appropriately (Fig 1).

Fig 1: Percentage change in population in Grampian by age group and projection year

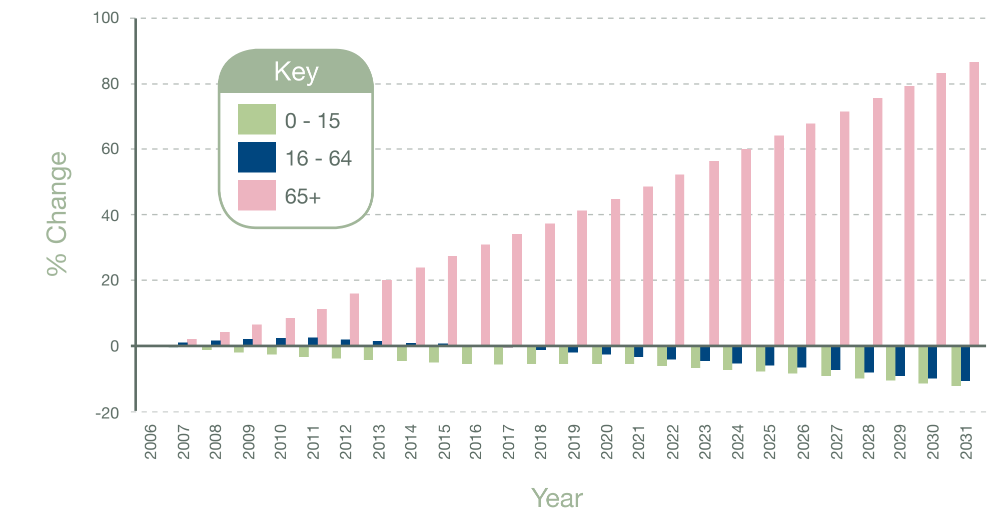
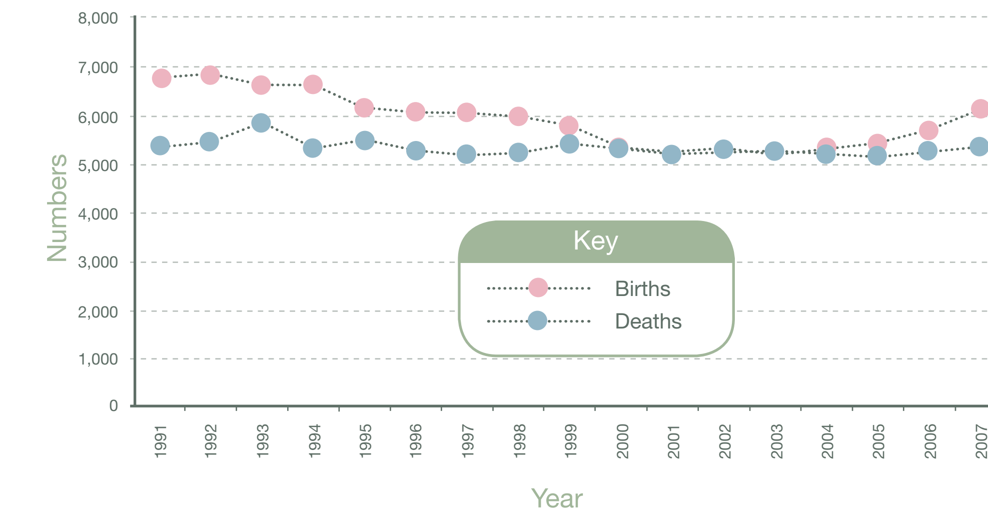


Fig 2: Birth and death registrations for Grampian residents (1991 - 2007)



Age trends

The increasing size in the elderly population is charted (Fig 3). For compatibility across the period it is based on the old North East Regional Hospital Board area, including the Northern Isles. This shows the trends since 1959. The greatest relative increase has taken place in the over 85 year age group, which has at least tripled during this period, but the 75 - 84 year old group has also increased substantially.

Life expectancy

Life expectancy at birth has increased among both men and women during recent decades (1 and 2). As shown in figure 4, a child born in Grampian during the period 1991 - 1993 was predicted to have an average life expectancy of 73.2yrs. For children born during the years 2004 - 2006, this has increased to 76.1yrs.

As the proportion of elderly residents in Grampian increases, we need to address the implications for the planning and delivery of healthcare services.

During the period 2006 - 2031 the dependency ratio, the ratio of the economically dependent part of the population to the economically productive part, is predicted to increase significantly in Grampian. As a consequence, the financial resources available to society to provide healthcare and other public services will decline.

A further impact will be the decline in the proportion of the population of working age, available to deliver healthcare services. This will be a challenge nationally but will be particularly acute in Grampian due to the competition the NHS faces from other employers, particularly the oil industry.

Meeting the needs of our elderly population may increasingly fall to informal carers. This also presents challenges to both health and social care services as many carers are elderly themselves, and appear to experience poorer health than non-carers (4 and 5).

With our ageing population rising, there will be an increasing prevalence of chronic, long-term conditions. Patterns of ill health suggest that, unless we are able, progressively, to anticipate need using a more preventive approach, the burden of ill health for individuals and the community will rise significantly.

Changing patterns of illness

Compared to younger people, older people are higher users of health services, and are at greater risk of being admitted as an emergency to hospital. Once admitted, they typically have a longer length of stay (6). Almost 40% of health and social care spending across Scotland is on caring for people aged over 65 years old (7).

Due to various advances, more people are able to live with heart disease, diabetes and, increasingly, cancer.

Historically, illness such as infections and respiratory disease were major causes of death (8). However, during recent decades, this has changed. Due to various advances, more people are able to live with heart disease, diabetes and, increasingly, cancer. The rise in the prevalence of these long-term conditions is a significant contributor to morbidity and mortality.

Chronic, long-term conditions are illnesses which require ongoing medical care, which limit what an individual can do, and which are likely to last longer than one year. People of any age may have a long-term condition but the prevalence rises with age. The proportion of people with multiple chronic long-term conditions also increases with age (9). As the use of health services increases with increasing morbidity (11), this is of importance to healthcare providers as well as patients and their families.

Fig 3: Elderly population of North-East hospital region (1959 - 2007)

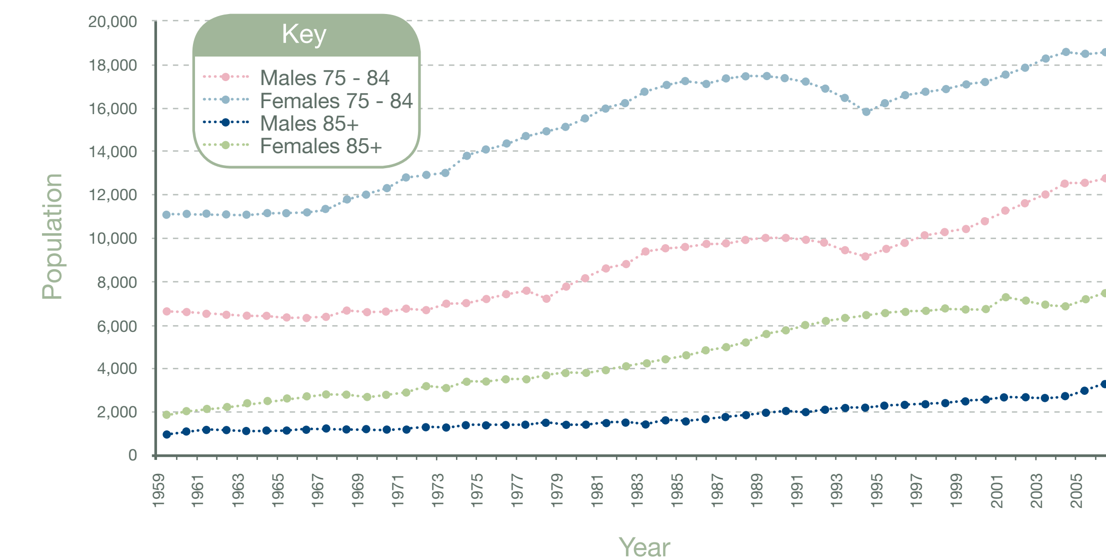
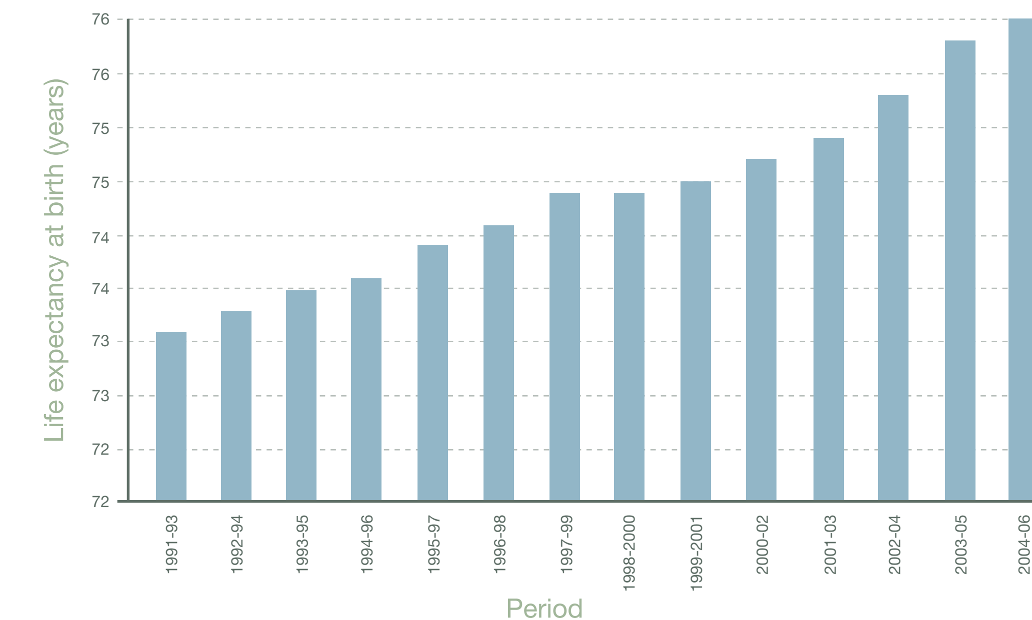


Fig 4: Life expectancy in Grampian: 1991 - 1993 to 2004 - 2006



The prevalence of chronic, long-term conditions is also clearly associated with disadvantage (9). In figure 5, the percentage of the Grampian population with self-reported limiting long-term illness, by deprivation quintile, is shown. Quintile 1 represents the least deprived communities in Grampian, and quintile 5 represents the most deprived. The rates of self-reported limiting long-term illness increase with increasing deprivation.

Responding to these challenges

Services must adapt to meet the changing healthcare needs of our society. In short we need to provide services which meet the healthcare needs of all sections of society during times when our population is predicted to become increasingly elderly, levels of chronic, long-term illness are expected to rise and the working age population whom we require to provide care directly, and finance it through taxation, is predicted to decrease.

Possible solutions

As with all complex and interconnected challenges, it is not possible to tackle the problem with a "one size fits all" solution. There needs to be a range of measures. Many of these are well described elsewhere.

They range from actions to prevent ill health occurring in the first place such as smoking cessation initiatives, screening and case finding to detect illness at an early and treatable stage, and fiscal (e.g. tax on tobacco products) and legislative (e.g. smoking ban in public places) measures of government.

Increasingly, individuals are being supported to make the necessary lifestyle changes, identify risk factors and conditions early and manage their own care. Self-management is one of three streams of work, the others being specialist care and complex care, which the Long Term Conditions Board has been established to oversee in Grampian.

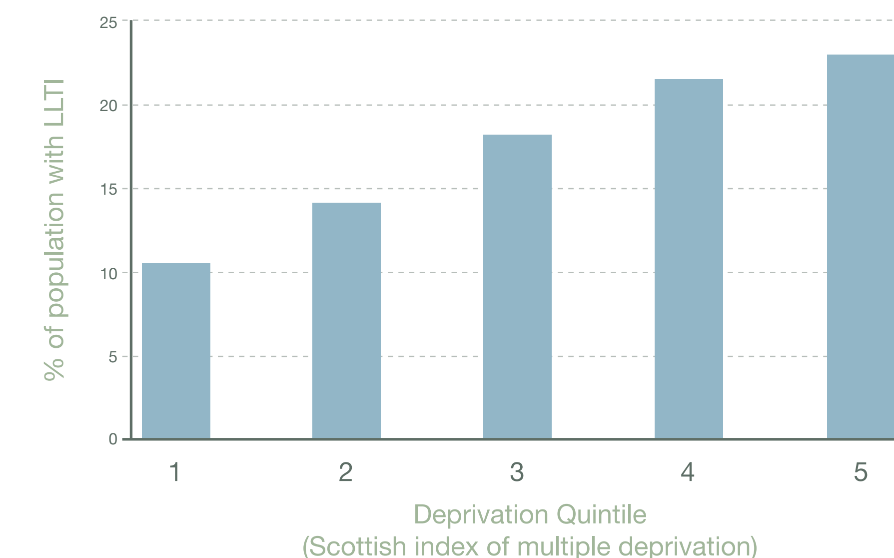
Much of the work cannot be done by the health service in isolation. In recent years, we have increasingly worked in partnership with other organisations, both statutory and voluntary. For example, many patients require support from health and social care services. Traditionally these services have been delivered independently. However, initiatives such as Joint Futures have led the way in delivering a clear, shared patient focused agenda between health and social care agencies to provide efficient, good quality care to meet the needs of patients.

Thinking specifically about NHS services, approximately, 90% of patient interactions with the health service take place in primary care (15).

Building upon this, providing health services close to patients' homes whenever appropriate is a key feature of both local and national health policy (16 and 17). There are undoubtedly benefits to this. We know that patients prefer to access services locally, wherever possible, avoiding the need to travel to a relatively distant specialist centre.

Fig 5: Percentage of the Grampian population with self-reported limiting long-term illness by deprivation quintile

(Based on 2001 census data)



However, there are also a number of challenges associated with providing services locally, including:

- Addressing the training needs of those providing local services.
- Ensuring the sustainability of local services where these may be provided by a small number of key individuals.
- Ensuring that the opportunity costs (money spent on local services and therefore not available for spending on other parts of the service) of providing local services are justified by the benefit gained; ensuring benefits outweigh costs.

Health systems have a responsibility to use their resources to maximise the

health of the population they serve. Demand for healthcare exceeds the resources available to provide it (19). Therefore, difficult choices have to be made between services competing for scarce resources. Decisions must be taken in an open and systematic manner and need to be informed by the population we serve.

Developing plans

One of the major challenges for society in general, and the health service in particular, is how to care for the elderly over the next 10 to 20 years.

In 2001 the Department of Health in England produced a National Service Framework for older people. Five key areas for development, as relevant to the Grampian population as elsewhere in the UK, are:

- Early intervention for old age conditions.
- Streamlining to specialist care in crisis situations.
- Early transfer to the community for rehabilitation in intermediate care.
- Multidisciplinary assessment prior to care home placement.
- Partnership working across health and social care.

What might this mean for an elderly person living in their own home in 20 years' time?

Then, as now, they will receive the majority of their care from their local Primary Care Team i.e. general practitioner, practice and district nurse, chiropodist, physiotherapist and the other healthcare professionals based in the team. They may also receive services from the local authority social work team and voluntary organisations based in their area.

Should a medical emergency arise, such as acute breathlessness, chest pain, a stroke or infection, then admission to hospital will be required. In the future, this is likely to be straight to an acute geriatric assessment facility. Access at this early stage of an illness to special diagnostic facilities and medical and nursing expertise is required, often urgently, and is likely to be located in a major specialist hospital. The aim of the care delivered at this stage is to identify and begin to treat the underlying medical condition quickly.

At the same time, plans will begin to be made for the patient's return to the community via intermediate care and rehabilitation, depending on their needs. This next stage will not be provided in a big, acute, specialist hospital. This care can be delivered on a more local basis, in community hospitals, nearer to the patient's own community. This will require, for most community hospitals, some significant redesign and redevelopment of their infrastructure and mode of service delivery so that the care provided is compatible with modern standards and maximises the patient's potential for rehabilitation. The end point would be when either the patient was able to return home, with appropriate support services already in place, or where this is not possible, the individual is suitably accommodated in a local care home.

Streamlining care in this way ensures that patients spend an appropriate length of time in each stage. So, in the future, a relatively short time will be spent in the acute facility, often only a few days, while in the intermediate and rehabilitation setting the length of stay may range from a few, to several, weeks.

Key messages

- To make streamlining of care a reality requires detailed and extensive planning. Services must continue to be provided while facilities are adapted or moved. Staff must be recruited and trained in good time to provide the new style of care. Developments must be taken forward with partner organisations, such as the local authorities so that their services are also in place when needed. As always, funding must be identified, much of which will have to come from resources currently available. As services are redesigned, money saved in one area will be re-directed to support the new services.
- To support this streamlining of care, Public Health provides epidemiological support to build a local picture of the sorts of changes in the population (numbers and disease experience) described at the beginning of this section, and the evidence-basis for the changes proposed. A fundamental component will be the evaluation of changes once they have been made to ensure that the benefits that we anticipate are, in fact, being delivered.
- In all of our planning, however, we do need to ensure a much more robust approach to prevention as part of the care pathway. We need to work together to reduce the burden of serious preventable ill health, and the next section illustrates an important aspect of this.

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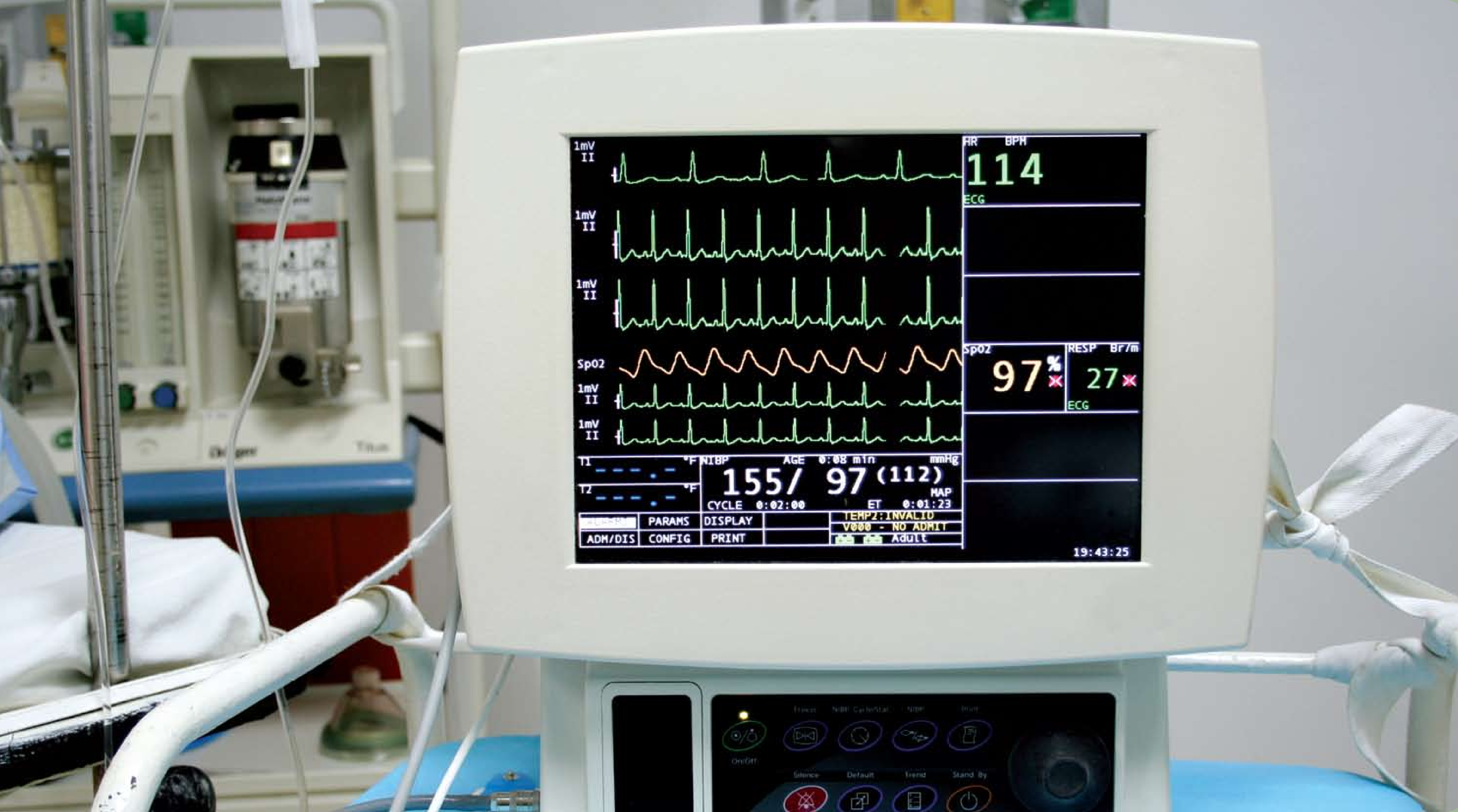


Tackling serious preventable ill health

Introduction

Some 40 years ago, a physician working in a deprived mining village in Wales published evidence that those who are most likely to need good healthcare are least likely to receive it. Observational studies conducted by the Medical Research Council regularly detected people with unmet medical needs and Dr Julian Tudor Hart (1) was determined to tackle this in his community through his practice as a GP. To address this law of 'Inverse Care', he applied a population approach to the care and prevention of clinical problems.

So what has this got to do with the current health of the people of Scotland and particularly those living here in Grampian?

Nationally, evidence from the Health and Wellbeing Profiles (2) reveals a continuing gap in health outcomes, access to, and use of, health services. Those living in disadvantaged communities suffer greater ill health and have a lower life expectancy than those in more affluent communities.

In Grampian, despite our favourable economy, we have a similar situation with disparities in health between the least and most advantaged communities

Local examples

Evidence on heart disease

If we look nationally and locally, for example, at early deaths as a result of heart disease, we have seen a very encouraging, year on year, reduction in the total numbers of deaths.

However, when we look more closely at figure 1 (IHD mortality u75s national quintiles), showing deaths aged less than 75 by socioeconomic group (quintile 1 being the most advantaged and quintile 5 being the most disadvantaged citizens), we can see that the current rate of deaths is unevenly distributed. Those in the most disadvantaged quintile (quintile 5) are almost three times more likely to die from heart disease before the age of 75, when compared with the most advantaged.

This pattern is most evident in both Aberdeen City and Aberdeenshire, and least evident in Moray.

Despite the undoubted advances in treatment, prevention and early detection of heart disease in which NHS Grampian has invested over a period of time, and despite the efforts of clinical staff and those of the wider population, there has been an enduring trend; those who are most disadvantaged are more likely to die, prematurely, of heart disease.

Our target outcome

NHS Grampian has agreed with the Scottish Government that, for the 15% 'most deprived', it will aim to reduce premature death from heart disease by 8% year on year. This means that by 2011, we will have reduced the death rate to 59 per 100,000 (European age-standardised rates).

This is an ambitious target which will require the close collaboration of the entire community: the people of Grampian from all walks of life, with or without pre-existing conditions; secondary and primary care; Community Planning Partners including the private sector, and the Managed Clinical Networks dedicated to treating and preventing cardiac and related diseases, such as diabetes.

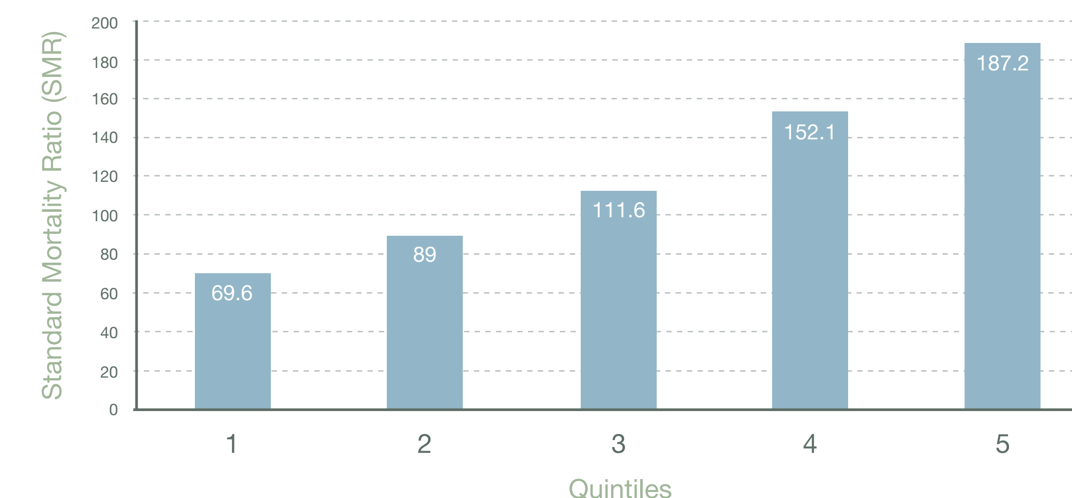
What can we do about it?

Improving and enhancing anticipatory care

The sustained evidence produced as the result of Tudor Hart's work over 25 years and published in 1991, illustrated that identifying the needs of those most at risk of serious preventable ill health and working with people to reduce their risk, makes a significant difference to outcomes, either through treatment for an existing condition or, in a preventive way, to reduce risk. These outcomes would include e.g. a reduction in the number of people smoking; an increase in the numbers whose blood pressure was maintained at 'normal'; and a reduction in other risks which contribute to heart disease. Tudor Hart also drew attention to the resources necessary for an anticipatory care approach, including a clinically accurate database and appropriate training of all staff, clinical and non-clinical.

We know that working in a proactive, anticipatory way can improve the health of communities. Successive Scottish Governments, through the *Kerr Report (2005)* (3) *Better Health Better Care (2007)* (4) and most recently through *Equally Well (2008)* (5), have provided clear policy direction: to increase the rate of health improvement in deprived communities by enhancing primary care services to deliver anticipatory care. We also know that with changes in the GP contract nationally, and significant investment in more sophisticated computerisation at GP practice level, parts of the infrastructure to support this more targeted approach to care already exist.

Fig 1: Ischaemic heart disease mortality for under 75s in Grampian 2002 - 2006 by national quintiles



What are we doing about it?

In NHS Grampian, we are implementing two new programmes, specifically, to improve our outcomes in heart health in our most disadvantaged communities, both of which reflect the approach advocated by Tudor Hart. In addition, as our Community Planning Partnerships mature, and as more and more people recognise the value of good health to themselves, and their families, we will be able to extend our anticipatory care approach well beyond a medical focus, or even NHS Grampian, and into the heart of our communities.

NHS Grampian is participating in a national pilot programme, Keep Well (6), to reduce the risk of preventable serious ill health, offering a health check to those aged 45 - 64 living in areas we know are associated with poor health, to identify those at risk of developing preventable serious ill health and offering services, monitoring and follow up, to reduce that risk. The two year local programme is funded by the Scottish Government. It is enabling us to build, progressively, the infrastructure of services around practices to ensure that more of the unmet needs of patients can be addressed, effectively. Our ultimate aim is to improve the health status of our most disadvantaged citizens, decreasing their risk of early death from heart disease, and increasing appropriate access to, and use of, services.

The Scottish Government identified Aberdeen City as the focus for this pilot, reflecting the significantly higher numbers of those in the target group. It also reflects some pump priming work piloted in the Seaton area of the City where residents were invited to free health checks available at various venues. Building on this and other work, we will collaborate across the NHS, and with local authority and Third Sector partners to re-design some of our services. Where these ways of working demonstrably enhance patient experience and outcome, our intention is to roll out these models to other areas in Grampian.

Our ultimate aim is to improve the health status of our most disadvantaged citizens, decreasing their risk of early death from heart disease.

Collaborating with the northern health boards, the North of Scotland Public Health Network has been proactive in securing further funding from the Scottish Government for Well North, a programme with broadly similar focus and aims to Keep Well. This will tackle the particular challenges of access to services faced in more rural communities. In the case of NHS Grampian, this will ensure additional funding for two years to develop and enhance our approach to healthy weight management in Aberdeenshire and Moray. It will also allow us to pilot an approach to a self-caring community in Dufftown.

Clearly this additional funding is providing us with the opportunity to look more radically at what we do to support our most disadvantaged communities. Our significant challenge in the medium term, however, is to sustain these changes beyond the two year funding period.

In all of this, our planning will reflect the evidence we will collect through national and local evaluations, just as Tudor Hart's evidence, assiduously collected over a quarter of a century, has contributed to national and local policy on anticipatory care.

We will ensure that we fully reflect evidence of good practice in other areas, and act on any external funding opportunities which arise to tackle health inequalities in a co-ordinated, systematic and enduring way.

Other examples

Supporting self care

Supporting all of us to 'self care' is clearly vital to our own health and to make effective use of health services. For example, in collaboration with NHS 24 we piloted NHS Grampian's Self Care Project to enhance the capacity of volunteer pharmacists, GPs, nurse practitioners, minor illness nurses and healthpoint advisors to provide quality assured, verbal, self care advice. The main recommendation is to roll out this service, continuously improving the way we approach patient information and signposting.

We are also at an early stage in assessing the health outcomes of an English pilot programme

which uses a telephone service offering personalised self care support to people with long-term conditions. Our assessment will make recommendations on the potential use of a similar approach in Grampian.

Helping people into employment

National research has shown that one million people on Incapacity Benefit (IB) want to return to work. We know people on IB for more than two years are more likely to die, or retire, on benefit than return to work. An estimated 22,000 people in Grampian are on IB.

We also know that financial difficulties are often compounded by health problems associated with insecurity, anxiety and loss of self-esteem. The cost, both financially and socially, makes this a key issue for individuals and communities.

There is also evidence that being in work generally can improve health, particularly mental health. *The Pathways to Work Green Paper* (7) set out new ways of helping those on IB to get back to work and NHS Grampian is working with the Department of Work and Pensions, and locally with Jobcentre Plus to deliver support, in the form of an individually designed programme, for each person who wishes it.

Moving forwards

In creating robust, well understood pathways of care we hope to support, more effectively, those most at risk of serious preventable ill health. This should reduce the risks to their health, either through most effectively managing an existing condition or preventing the development of a new condition.

Working in partnership with all of the key agencies, we have it in our grasp to take anticipatory care to new levels in Grampian and in Scotland. The additional experience and resource we have gained in primary care, and the more robust clinical and non-clinical partnerships we are forming to create these stronger pathways and networks, will continuously improve the care of our patients.

In all of this we are encouraged by the understanding, experience and, most of all, evidence of the difference that can be made by addressing the law of Inverse Care. Taking Tudor Hart's model in which anticipatory care, getting immersed in the patient's 'story', is built into proactive primary care, and extending that to access a much broader range of preventive support for patients will make that care 'richer and more imaginative' and demonstrate that the law of Inverse Care is reversible.

We have an ambitious target; to reduce premature mortality from heart disease, in particular, among our most deprived citizens. We do need the support of everyone in the community to reduce the burden from heart disease and we have a strong sense that the people of Grampian want a future where serious preventable ill health, across the whole community, is minimised, risks are well managed and life expectancy is no longer associated with postcode.

Key messages

Prevention and self care are fundamental to our organised efforts as a society.

- Separately and collectively:
  - Each individual can reduce the risk of serious preventable ill health.
  - Each family can reduce the risk of serious preventable ill health.
  - Each community can reduce the risk of serious preventable ill health.
  - Each organisation can reduce the risk of serious preventable ill health.

The following sections each focus on one component of our behaviour which contributes to preventing serious ill health: nutrition; tobacco control; and alcohol misuse. In the next section, we focus on nutrition, our changing diet and our understanding of its contribution to sustain good health.

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Nutrition in Grampian

Introduction

A healthy diet is important because it helps us maintain a healthy body weight, reduces our risk of some chronic diseases and generally enables us to lead more productive lives, both economically and socially. Over the years we have managed to reduce the range and extent of diseases linked to low income and malnourishment. Conditions like rickets have steadily declined. We now live longer on average than our predecessors. However, our added years can now often be spent in poor health and we can be malnourished because we eat too many processed, fatty and sugary foods and not enough 'healthier' foods.

Looking back

There have been many changes in the balance and types of foods that we have been eating over the years and it is interesting to compare the food we ate 60 years ago, and its impact on health, with the food we eat today.

Grampian has, for a long time, been at the forefront of innovative work linking poverty, diet and ill health. Sir John Boyd Orr who established the Rowett Research Institute studied the value of milk in the diet of children in the 1920s. This led to important legislation in Scotland to provide free school milk. This work showed that many families' diets fell short of what they needed to be healthy.

Results of Orr's studies were used to develop the wartime food policy, which included special arrangements to safeguard the health of mothers and children. The Ministry of Food was set up in 1939 to deal with the problem of providing a nutritionally adequate diet for people in Britain during the Second World War.

Food rationing started in 1940 and ended in 1954; it had a sound nutritional basis in order to make sure that people ate food that kept them healthy. During the war people ate less fat, sugar, eggs and meat. In addition, those people who had poorer diets before the war received the same rations as others and, as a result, their diets, and health, improved too.

Some foods were rationed but others, including flour, oatmeal, potatoes, fresh vegetables, fish and fruit (with the exception of oranges) were not. White bread was no longer available so brown bread was eaten. Many people grew their own vegetables and kept poultry. The Ministry of Food also gave out information about how to make the best of the food that was available.

The Aberdeen City report on School Health Services for 1971/72 includes a section on school meals. Under-sevens (and special cases) got milk. Lunches were provided for all and a relatively small number of breakfasts (46 per day) were provided for those deemed to be in need. Milk was withdrawn from secondary schools in Aberdeen in 1968 although the report notes that the use of milk as an ingredient in other food supplied at school was increased to make up for this.

At the same time, the annual report of the Medical Officer of Health for Aberdeen City records, in 1972, the increasing demand for Dietetic Services. It explains this by observing among other things, that with the *steadily increasing cost of protein foods many people are eating more carbohydrates and so becoming overweight* and noting that *sweet-eating has become a pastime of epidemic proportions, again sometimes causing obesity*.

What we eat today – and why

In Grampian in 2008, by contrast, our diets do not compare favourably

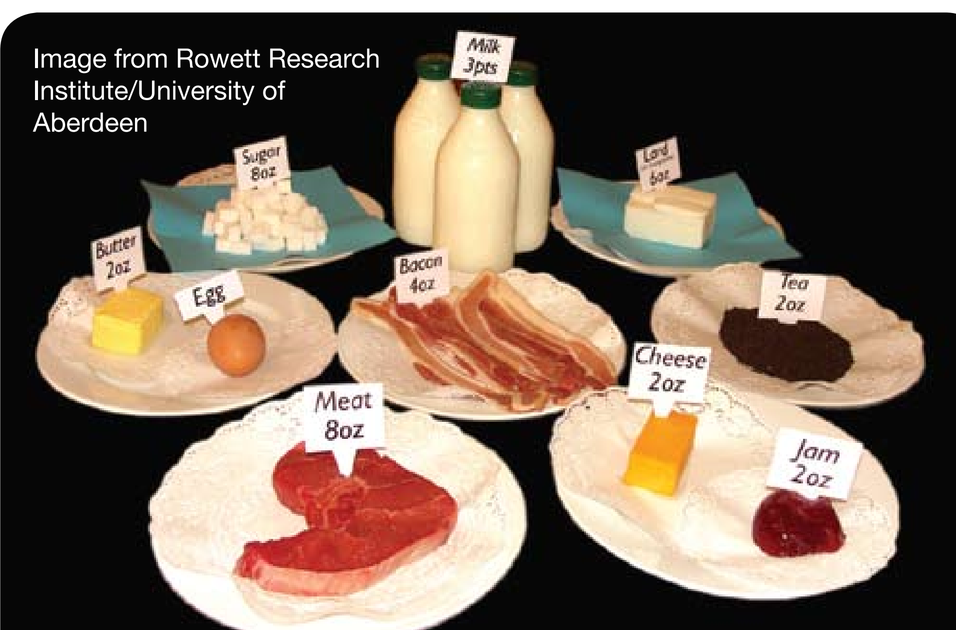

Image from Rowett Research Institute/University of Aberdeen

with the healthier diets of our 1940s predecessors.

Public Health efforts to improve health through diet have, historically, focused on making sure everyone has the right nutrients in their food. Now, our focus is on the balance of these nutrients in our diets. Despite many health campaigns urging us to eat more healthily, we still choose foods and drinks that are high in fat, sugar and salt. Many of these are convenience foods that need minimal preparation, in preference to other, often healthier foods which we perceive require time, skill and effort to prepare.

Today we have so much choice and yet making a healthy choice is not easy. With the growth of supermarkets and the global economy there has been a huge increase in the variety of foods available to us. We are overwhelmed by information about food. Making sense of it is a real challenge. Food labelling can be confusing and is often misleading. Food marketing has a powerful effect on the food we choose and children in particular are heavily influenced by it.

We eat outside the home more often today and ready meals are a convenient and quick solution when time is short. More women work and spend less time at home and our children do not learn how to cook, at home or in school, to the same extent as in times past. We depend, much more, on manufactured and processed foods produced by the food industry and sold through a small number of large retailers.

This is set against the backdrop of international post-war agricultural policies that have subsidised the production of meat, butter, milk, fat and sugar production, but not fruit and vegetables.

More women work and spend less time at home and our children do not learn how to cook, at home or in school, to the same extent as in times past.

What has been happening Scotland-wide?

Food is clearly a complex issue and responsibility for change sits partly with the Scottish Government and partly with the UK Government. Issues such as food labelling, pricing and retailing need to be influenced at UK level. Recent years have seen an increasing recognition of the importance of food to good health and the consequent strengthening of the policy agenda around this issue.

The Food Standards Agency (FSA) was set up in 2000 to replace the Ministry for Agriculture, Fisheries and Food. The Scottish branch of the FSA is in Aberdeen and the Agency has taken a firm position on a range of important issues including the development of a clearer system of 'traffic-light' food labelling and a large scale campaign to encourage us to use and eat less salt.

In 1996 *Eating for Health, A Diet Action Plan for Scotland* (1) set out visionary recommendations for action to tackle our unhealthy diets. Grampian responded with the publication of *Eating for Health: A strategy and diet action plan for Grampian* (2) followed by *Food in Focus, a strategic action plan for nutrition,* in 2003 (3).

A review of the *Scottish Diet Action Plan* in 2006 (4) identified considerable progress but also noted that activity to date had not had a significant impact on population trends in food consumption and nutrient intakes in Scotland. It also acknowledged that to shift the entire food system in a more health enhancing direction would take time.

The Scottish Executive's Expert Panel on School Meals published *Hungry for Success: A Whole School Approach to School Meals in Scotland* in 2002 (5), with a vision to revitalise the school meal service in Scotland. The report presented a number of far-reaching recommendations, including connecting school meals with the curriculum. In Grampian, our three local authorities continue to work in partnership with

catering professionals, schools and the school communities – teachers, parents and pupils themselves – to implement these standards which have been a cornerstone of food policy for our children.

HM Inspectorate of Education monitors the implementation of the recommendations of Hungry for Success. Inspections have shown that good progress overall is being made to implement the recommendations to improve school meals. They also reported an increased focus in schools on the nutritional aspects of health promotion.

How can we rediscover the benefits of lifelong healthier eating?

There is clearly a lot that we can still do, individually and together, to make sure that the food we eat enhances our health. Knowing the facts about how to eat healthily does not necessarily make it easy for us to eat healthily. Our lives are busy and demanding. Food choice is very personal and strongly influenced by peer pressure and cultural habits.

In Grampian, the NHS is supporting people to develop both practical skills and knowledge about food in order to help them to make sensible choices about what to eat. We are working to make it easier for people all over Grampian to have access to healthier food. Examples of initiatives we support include cooking skills sessions, breakfast clubs, tuck shops, young mums' groups and older people's lunch clubs.

NHS Grampian also offers advice and information through our healthpoints. This is a walk in service which provides free, confidential advice and information from trained staff on a wide range of health topics. In addition, healthline is a free, confidential, local telephone line answered by trained health advisers. These services can be accessed with or without referral from a healthcare professional.

We support national initiatives to promote healthy eating and are working as part of the Keep Well programme to support GP practices and our communities. We are also working closely with Community Food and Health Scotland to provide local training for both the national Neighbourhood Shops Scheme (which supports retailers to provide a wide range of healthier food) and for colleagues working with the homeless in Grampian. We work in low income and rural areas to improve access to healthier food choices. Examples include support for Community Food Initiatives North East (CFINE) and the developing network of community food outlets in Moray.

Breastfeeding – the best start for baby and mum

Breastfeeding is one of the best ways of making sure that babies get the right balance of nutrients. It is the healthiest way for a woman to feed her baby with many important health benefits for both mother and baby. For baby, there is reduced risk of respiratory, urinary, ear and gastrointestinal infections; allergic disease such as eczema, asthma and wheezing; childhood diabetes; obesity; high blood pressure; and high cholesterol in later life. For mother, there is reduced risk of ovarian and breast cancer (6, 7 and 8). Breastfeeding may also help in post-pregnancy weight loss for the period of lactation. Breast milk differs from formula milk in that it is perfectly tailored for babies, and contains antibodies, hormones, and enzymes (8).

Breastfeeding rates started to fall with the introduction of modified cows' milk at the end of the 19th century (8).

Interestingly, a Dietary Survey of 4,365 Scottish Infants in 1965, carried out after the reappearance of rickets in Glasgow, included some 500 returns from Aberdeen. According to these, only 22% of Aberdeen mothers started breastfeeding. Four weeks after birth, the rate had dropped to 12%. The results of the local survey (based on 191 forms from early 1968) were rather different; 22 babies (12%) were being breastfed but by the time of the survey – when the babies were between four and eight weeks old – only 15 babies were still being breastfed.

A report of pilot classes, run by the local Health Education Department for first-time mothers in 1977 and 1978, shows that the first session was to be on 'Feeding'. No details of the session content are given but the course objectives include the statement that by the end of the course new mothers would be able 'to accept that

(breast) milk alone' provides adequate nourishment for baby until the age of 10 - 12 weeks'.

There has been a steady increase in breastfeeding rates since 1990 and Grampian currently enjoys higher rates of breastfeeding than many other parts of Scotland. Current statistics show that in 2006, breastfeeding initiation rates in Grampian were 71%, 47% of babies were still being breastfed (exclusive and combination) at six weeks (9). In 2006, the Scottish average was 36% (10).

Scotland is one of the few countries in the world with legislation that supports breastfeeding mothers and gives a mother the right to feed an infant wherever, and whenever, she wants. *The Breastfeeding (Scotland) Act 2005* (11) is a major step forward in supporting women, and in promoting breastfeeding as the norm. Also, the friends and family of a breastfeeding mother have a vital role to play in boosting her self-confidence and providing encouragement to breastfeed for as long as she likes.

Breastfeeding can be a challenge for young mums and there are still some areas in Grampian where breastfeeding rates are very low.

All the evidence supports breastfeeding as the best start for babies. NHS Grampian recommends that babies are exclusively breastfed for up to six months. The World Health Organisation also recommends that supplemental breastfeeding continues for two years or beyond (12). To move on from a culture where any milk alone was thought to be insufficient, to one where breast milk alone is known to be enough for a baby, for six months, is a huge step forward.

The NHS Grampian Breastfeeding Policy (13), applies to all staff employed in the organisation who are in contact with pregnant women and breastfeeding mothers.

Support from health professionals is vital in the establishment of breastfeeding, and to support this, NHS Grampian is fully committed to the UNICEF Baby Friendly Initiative. The Baby Friendly Initiative works with the healthcare system to ensure a high standard of care for pregnant women and breastfeeding mothers and babies (14). NHS Grampian is working through Aberdeen Maternity Hospital and Dr Gray's in Elgin to achieve full accreditation by 2011.

The shape of things to come

There is little appetite and need to return to a 1940s style control of our food.

Our future vision of health will be shaped by making sure that people have the knowledge, skills and confidence to make good choices about what they eat and that good quality, nutritious food is available to everyone. In addition, the short and longer term health benefits make breastfeeding the healthy choice for mothers feeding their babies. It is important that woman are supported in their decision to breastfeed their babies, not just by professionals but by all areas of society.

The Scottish Government action plan *Better Health, Better Care* (15) has highlighted breastfeeding as a key health improvement target and for all health board areas in Scotland to achieve a 25% increase in exclusive breastfeeding rates by 2011.

Healthy Eating, Active Living: An action plan to improve diet, increase physical activity and tackle obesity (2008 - 2011) (16) has now been published by the Scottish Government. The action plan targets obesity, poor diet and the promotion of physical activity, and sets out how we can continue to encourage a healthier diet in Grampian. The plan has a focus on tackling health inequalities through targeted healthy living initiatives. This complements the implementation of Scotland's first national food policy (17) which will tackle healthier eating alongside sensible drinking, sustainability, food labelling and skills.

The Schools (Health Promotion and Nutrition) (Scotland) Act 2007 (18) is being implemented in Grampian. It builds on the achievements of Hungry for Success and includes measures

to set standards for the nutritional content of all food and drink served in our schools.

We are already beginning to see the results of work to improve our diets and the contribution which healthier eating makes to decreasing rates of coronary heart disease in Scotland and in Grampian. However, we need to extend this rate of improvement across all population groups. Ultimately, improvement in diet will also have a positive impact on the significant rise in obesity that we have seen over recent decades.

Food is fundamental to life and an inextricable part of all aspects of our lives, whether at home, school or at work. It is important to remember that everyone has a responsibility for making sure that the food we eat benefits our health. Future generations will then be supported to change their eating habits, progressively, and make healthier food choices so that healthy eating and breastfeeding become the norm once more. Where we see opportunities to prevent ill health, we must take them.

Future generations will be supported to change their eating habits and make healthier food choices so that healthy eating and breastfeeding become the norm once more.

Key messages

We advocate breastfeeding as the best start for baby and mum, providing ideal food for the healthy growth and development of infants.

- We support central government in their efforts to:
  - Help consumers by engaging with the food and drink industry to support healthier and more environmentally sustainable food choices.
  - Improve affordability, access and security in relation to food.
- We will encourage public bodies to lead by example to support people to develop and maintain healthy behaviours.
- We will support clear and consistent messages for the public on healthy food choices.
- We will work together to support people to develop the practical skills they need to put health messages into practice and to rediscover the benefits of lifelong healthier eating.
- We recognise that investment in the promotion of health will benefit the health of future generations in Grampian.

Smoking is another area in which we have made significant progress. As the next section shows, we have some way to go to all but eliminate this health hazard.

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Tobacco control in Grampian

Introduction

In 1950, Richard Doll and Austin Bradford Hill published the first research to clearly establish the link between smoking and lung cancer (1). However, Parliament continued to debate the links between smoking and ill health and not all those working in health were entirely convinced of either the risks, or the credibility of the research. It took seven years before the Ministry of Health finally issued a circular (2) to encourage local authorities to develop their own health education campaigns to raise awareness around the dangers of smoking.

Nearly 60 years later, those health education campaigns on smoking are part of our everyday life. There are few parliamentarians who would refute the claim that smoking causes ill health. Our environment, including the levels of smoke, has changed significantly.

Although a great deal of time has passed since Doll and Hill first drew attention to the dangers of tobacco use, smoking remains the single, and most important, preventable cause of ill health.

There is still a great deal of work to be done in Grampian to support those smokers who wish to quit, and to provide information to young people to help them make informed decisions about not using tobacco.

We know that smoking is often a symptom of other challenging circumstances in people's lives and we endeavour, with our partners, to help our clients to address these. Our priorities include supporting people living in areas of deprivation; young people; pregnant women, and those living with mental illness.

Addressing the harm caused by environmental tobacco smoke

In 2006, the Scottish Government implemented a legislative change to address the harm caused by Environmental Tobacco Smoke. Scotland became Smoke-Free from 6am on Sunday 26th March when it became illegal to smoke in enclosed public places under the *Smoking, Health and Social Care (Scotland) Act 2005* (3). The Act has been well received by smokers and non-smokers alike with a very small number of fixed penalty notices issued since its introduction.

Research conducted by *Clearing the Air Scotland* (4) shows a consistently high level of support for the ban among ex-smokers and non-smokers, and also an increasing level of support among smokers themselves.

The next step for us locally is to work towards an NHS Grampian smoke-free policy for all sites. The Scottish Government's emphasis is on the important role that the NHS must play in leading by example:

It is very important… that as public places and workplaces in Scotland become smoke-free, that these types of organisation (e.g. NHS) are in the vanguard, setting the pace and providing an example and leadership for others to follow (5).

Supporting our younger population

A further supportive legislative change has been to raise the age at which it is legal to purchase tobacco, from 16 to 18, as of 1st October 2007 (6).

The Scottish Government's report of the Smoking Prevention Working Group, *Towards a Future Without Tobacco (2006)* (7) made 31 separate recommendations for addressing tobacco use among young people. Recommendations included:

- Commissioning research into knowledge, attitudes and behaviour relating to tobacco use.
- Reducing the availability, affordability and attractiveness of tobacco products to young people.
- Discouraging young people from starting to smoke and encouraging and enabling young smokers to stop.

A five-year Smoking Prevention Action Plan based on the findings of this report has now been published. This will act as a guide for our work with young people to meet the above recommendations and encourage our younger population to remain smoke-free.

A population approach is taken with the Smoking Advice Service which is now in its eighth year. The Service is open to all age groups, including under-16s, whether they choose to self-refer or be referred into the service. NHS Grampian currently provides tobacco awareness presentations for pupils in primaries five, six and seven and also in secondary one - three. These sessions give pupils the opportunity to learn

about tobacco as a substance and the harms associated with its use. This is very much aimed at preventing young people from taking up smoking. Last year, some 50 presentations were delivered to schools in Grampian.

Findings from a national report (2006) (7) on youth smoking indicated that certain aspects of adult-based cessation services were inappropriate for young people. However, the report did not go as far as recommending a specialist youth smoking cessation service. We await further evidence-based recommendations on what works to help young people stop smoking and will incorporate these into future work planning. Young people under 16 make poor use of our services: one young person registered with the service reported a successful quit, in the last year. Of the 520 people aged 16 - 24 who registered with the service, 26 confirmed they had quit successfully. While we are dependent on those for whom we provide a service taking the trouble to respond to our service evaluation by providing information on their progress, we can only assume that those who have not reported, are unlikely to have quit.

Numbers of pregnant women in deprived communities who smoke are relatively higher than for the general population and we have a separate target for this particular client group to reflect that.

Supporting pregnant women who smoke

The Government's new targets are to reduce to 20%, by 2010, the average number of women smoking during pregnancy. The current Grampian average is 21% (2007), a drop of 3% from the 2003 figure.

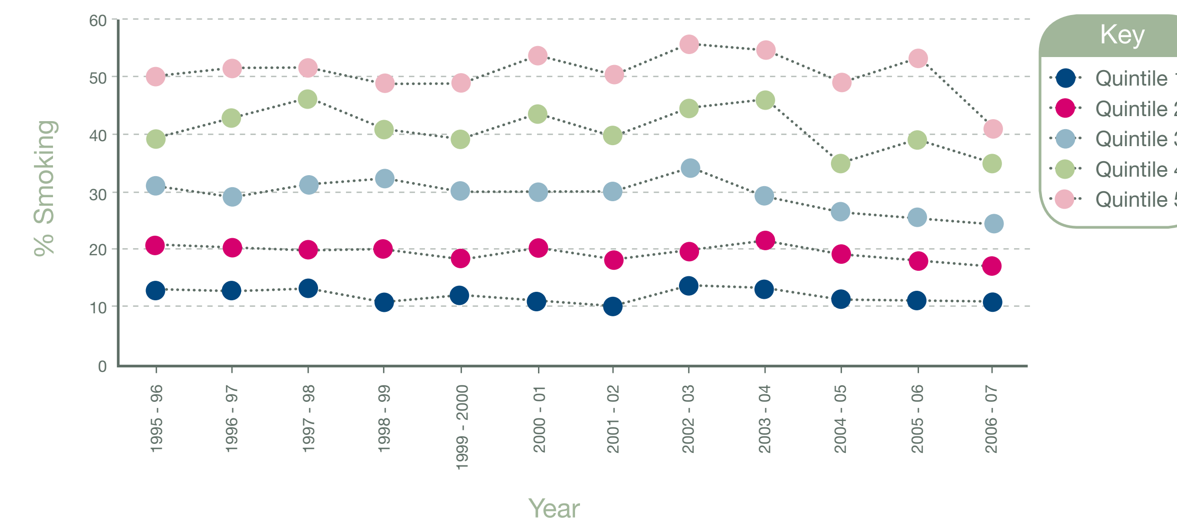
A number of steps have been taken to address the issue of smoking during pregnancy in Grampian. Members of the tobacco team work closely with Maternity Services to ensure pregnant women are given timely and appropriate advice. Smoking cessation training, for brief advice during pregnancy, is delivered regularly. Research shows that the reluctance of midwives to address the issue of smoking during pregnancy is mainly due to fear of damaging their relationship with the patient. The majority of training looks at communication skills and how to raise the issue appropriately.

We are also placing a particular focus on geographical areas where there is a high prevalence of tobacco use during pregnancy. Numbers of pregnant women in deprived communities who smoke are relatively higher than for the general population and we have a separate target for this particular client group to reflect that.

We aim to reduce to 32%, by 2010, the number of women in our deprived communities who smoke during pregnancy. Currently in the highest areas of deprivation, smoking prevalence during 2006/2007 for pregnant women is 42% (Fig 1). Although there has been a marked reduction since 2005/2006 (54%), there is still a great deal to be done to meet the updated target for this group.

Clear action is, therefore, required to ensure that the community as a whole encourages and supports pregnant women to take advantage of our smoking cessation service. This is of particular importance in Aberdeen City, and specific parts of Aberdeenshire and Moray, in line with higher adult smoking prevalence and deprivation.

Fig 1: Trend in percentage of mothers smoking during pregnancy in Grampian (1995 - 2007)



Stop now

We encourage partner agencies to support pregnant women who smoke to take advantage of our support to help them to quit.

In a number of Community Health Partnership (CHP) areas where we know there are higher levels of pregnant women smoking, funding has been allocated to pilot a dedicated, local midwifery–led smoking cessation service. By working in partnership with CHP staff and other public health colleagues, midwives and health visitors in these identified areas have been encouraged to undertake further specialist smoking cessation training. This enables them to address the issue of smoking and refer on to either the Smoking Advice Service or to provide support themselves as part of a local CHP pilot service. These services provide another option for pregnant women and their family members or friends to receive support to give up smoking. The pilot services are being monitored and evaluated, so that positive learning can be implemented in Grampian. These should help us to assess what interventions are most effective with this client group. Despite this volume of work, we still need to improve the effectiveness of our smoking cessation service to pregnant women.

Clearly, for people giving up smoking, good access to support and treatment is vital. Guidelines state that smokers who are pregnant should discuss the use of Nicotine Replacement Therapy (NRT) with a relevant healthcare professional before it is prescribed (8). Currently, access to NRT for pregnant women varies across Grampian. In Grampian, we are taking steps to ensure smoking cessation specialist trained midwives can prescribe NRT products for pregnant women, where appropriate, as part of an ongoing programme of smoking cessation support.

Stop now

Table 1: Percentage of smokers in the population by age and sex

Source: Tobacco atlas (9)

	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	75+	16+
Males	28.2	31.6	26.9	26.1	22.8	16.5	9.9	25.2
Females	29.6	27.6	25.1	25.5	22.7	17.3	10.4	23.5
All	28.9	29.6	26.0	25.8	22.8	16.9	10.2	24.4

Table 2: Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003 - 04

Source: Tobacco atlas (9)

	Adult smoking (Aged 16+)				Within CHP (Intermediate zone (IZ))					
Community Health Partnership (CHP)	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (Highest - lowest)	Ratio (Highest - lowest)
Aberdeen City CHP	24,031	22,885	46,916	26.5	Tillydrone	45.8	Cults, Bieldside and Milltimber West	10.1	35.7	4.5
Aberdeenshire CHP	20,299	20,627	40,926	22.8	Peterhead Harbour	33.8	Westhill North and South	15.7	18.1	2.2
Moray Community HSCP	8,250	7,716	15,966	23.0	SE Elgin	27.7	Forres	18.1	9.5	1.5

Supporting those who experience mental ill health

Over the last two years, we have provided a dedicated Smoking Cessation Specialist Service for patients using Royal Cornhill Hospital. This project still has a further year to run and its evaluation will help shape the future direction of smoking cessation support provided in the mental health service.

Supporting disadvantaged communities in Grampian

Evidence from the *Tobacco Atlas (2007)* (9) shows that Aberdeen City has the highest smoking prevalence of the three Grampian local authorities (Table 2). We also know that there is wide variation between areas in local authorities, and between different age groups, as tables 1 and 2 demonstrate:

Together, we create the smoke-free environments which give each and every one of us the best chance of enjoying good health.

The current national target, specific to deprived communities, is to reduce smoking prevalence among adults aged 16 and over to 33% by 2008. As with pregnant women, specific service initiatives to help us meet these targets are being undertaken in, and by, CHPs.

Local and national evidence on tobacco use has identified a number of issues that can create barriers to smoking cessation. These issues include personal difficulties; drug or alcohol misuse; aggressive behaviour; requirement for specialist help; social isolation and/or low self-esteem; weight gain; boredom; cannabis use; inability to cope with harmful stress; and control and reward.

Our approach locally is to work with our clients to address these barriers progressively. To do that we rely on close working with our partners, be they colleagues in NHS Grampian or in housing organisations; in hostels for the homeless; among colleagues working with Looked After Children; voluntary agencies; local authority colleagues where education and community learning colleagues have an important role; our retail community; and of course parents and family – particularly in the case of young people.

Together, we create the smoke-free environments which give each and every one of us the best chance of enjoying good health.

Supporting the general population

Since 2002, the Smoking Advice Service has been integrated in our hospitals with a number of smoking cessation advisors offering dedicated support to in-patients across Grampian. Working closely with ward staff, awareness of the service and demand has increased significantly.

The Community Pharmacy Scheme is an integral part of the Smoking Advice Service. Through this scheme, smoking cessation training and information is provided to community pharmacists who, in turn, provide smoking cessation support and Nicotine Replacement Therapy in their pharmacies. Currently we have 114 community pharmacies in Grampian registered in the scheme. This provides a very flexible service with good geographical coverage and access for those who wish support to stop smoking.

The Smoking Advice Service currently provides smoking cessation support to workplaces in association with the Healthy Working Lives programme and has a dedicated Workplace Smoking Cessation Advisor. Immediately following the implementation of the public places legislation, we had an increased demand for the workplace service and the volume of requests for support remains high.

Fig 2: Total quit dates set 2007

Workplace support

We are particularly keen to support businesses where staff may receive lower than average wages (in comparison to the average in Grampian) or workplaces with more manually skilled workers. We know that both of these client groups have an above average smoking prevalence. In this way we can support the business community to have a healthier workforce.

The number of international migrant workers to Grampian has increased in recent years. A recent study of migrant workers in Grampian indicated that the migrant population has increased to 15% in 2005/2006 (10). The majority had moved here to 'maximise their earnings'. So, the most logical way forward in providing smoking cessation support is to help those workplaces and occupations where international migrants are employed. It is important that services provided to encourage smoking cessation are

delivered in an accessible way. The language barrier is cited as one of the main problems in accessing services. Although Language Line is in use and accessible from 387 different points in Grampian, only two requests for the translation of smoking cessation materials have been received to date, and these were both for translation from English to French.

In all, some 48,000 people have made contact with the Smoking Advice Service since it began.

The service can provide different levels of support dependant upon group and individual requirements. This can range from a brief discussion to participation in a structured cessation programme. Sessions are provided throughout Grampian and at a variety of times and locations. We make every effort, when setting up new sessions, to accommodate the individual needs of clients. The provision of pharmacological aids such as Nicotine Replacement Therapy (NRT), Bupropion (Zyban®) and Varenicline (Champix®) is integral to the Smoking Advice Service.

Overall, our investment in supporting our Grampian citizens is sizeable, whether it is to help smokers who wish to stop, or to encourage our younger population not to start. Our work on tobacco-related issues is an absolute priority and we will continue to expand and refine our smoking cessation services to address need and to eliminate unnecessary smoke from the lives and environments of the people of Grampian.

Key messages

We are always looking for new ways to support individuals, groups, communities and partner agencies to eliminate smoking.

- We welcome contact from new potential partners who may wish us to work alongside them, or vice versa.
- Our Smoking Advice Service has had greatly increased referrals as a result of developments in prescribing. Our service will adopt innovative ways of working efficiently to meet our targets.
- We will work closely with Community Health Partnerships and Community Pharmacy colleagues to work alongside sections of the community which are often harder for agencies to reach.
- We will continue to improve access to smoking cessation support for those who experience health inequalities and through our training programme, build communities' own capacity to provide that support.
- The guidance set out in 'Scotland's Future is Smoke-Free: A Smoking Prevention Action Plan' will shape our work with children and young people across Grampian with a focus on preventing them from starting to smoke.
- We will continue to provide a programme of tobacco awareness activity and seek ways of increasing capacity to deliver targeted messages to our young people.

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Alcohol in Grampian

Introduction

Attitudes towards alcohol are varied and are influenced by many factors including culture, knowledge and religious beliefs. In Scotland, most of the adult population enjoys alcohol responsibly and in moderation. However a growing number of people use alcohol excessively, resulting in harm to themselves, their families and their communities.

Encouraging responsible alcohol intake, reducing alcohol misuse and tackling its negative consequences is a priority in Grampian. NHS Grampian is addressing these challenges in partnership with the local Alcohol and Drug Action Teams (ADATs) and our work is guided by the national plan for alcohol.

Recognition of harmful drinking

Current guidelines for sensible alcohol consumption are given in units of alcohol per day. For men, an upper limit of 3 - 4 units per day with a maximum 21 units of alcohol per week is recommended. For women, the maximum recommended limits are 2 - 3 units per day and 14 units per week. Both men and women are advised to have one or two alcohol-free days per week. The aim of these guidelines is to enable people to make informed choices and avoid consuming alcohol at levels likely to cause progressive harm to their health (1).

Different patterns of alcohol misuse are recognised. Hazardous drinking is alcohol intake above guided levels and harmful drinking is when it has resulted in physical or mental harm (2 and 3). Alcohol dependence is characterised by the continued compulsion to drink alcohol despite the impact it is having (2). “Binge drinking” is episodic heavy drinking and often defined as either drinking at or over double the daily limit in one session (8 or more units for men and 6 or more units for women).

Alcohol consumption for adults

Due to progressive increases in average alcohol strengths and serving sizes people often underestimate their alcohol intake (2, 4 and 5). A typical pub serving of wine could now contain up to 3.6 units of alcohol (based on a 250ml glass with a strength of 14.5%). Figures released by HM Revenue and Customs (HMRC) suggest that alcohol intake reported by surveys in the UK would only account for approximately half the alcohol actually sold. In 2007/2008 11.5 litres of pure alcohol was sold per person in the UK (6), enough for every person to exceed sensible daily limits.

Estimates can be made about Scottish drinking habits from Scottish Health Survey data (7) (adjusted to allow for increased serving size and alcohol strength):

- The percentage of men exceeding 21 units per week is 34%.
- The percentage of women exceeding 14 units per week is 23%.
- Men’s mean weekly consumption is 20.3 units per week.
- Women’s mean weekly consumption is 9.1 units.

Fig 1: Proportions of women exceeding recommended maximum daily limits of alcohol consumption

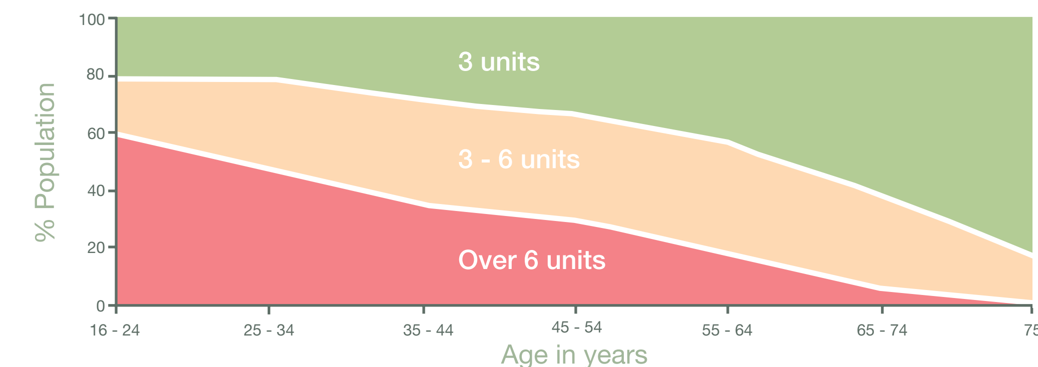
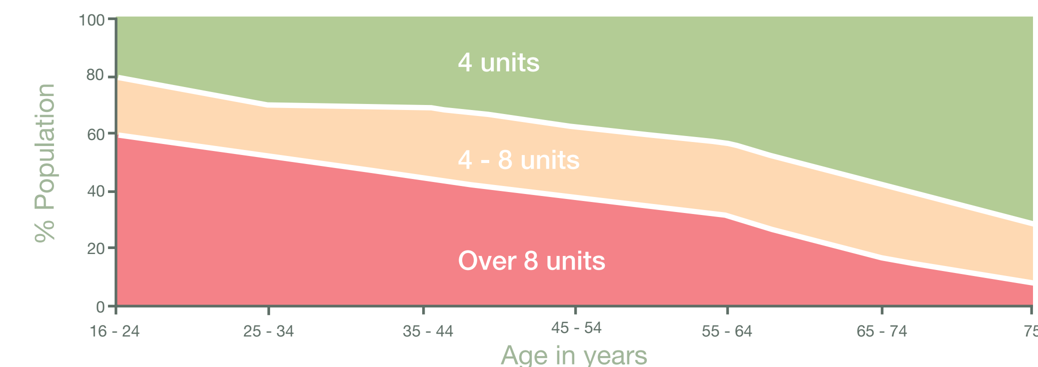


Fig 2: Proportions of men exceeding recommended maximum daily limits of alcohol consumption



Source: The Scottish Government. The Scottish Health Survey 2003: Revised Alcohol Consumption Estimates, 2008. Edinburgh.

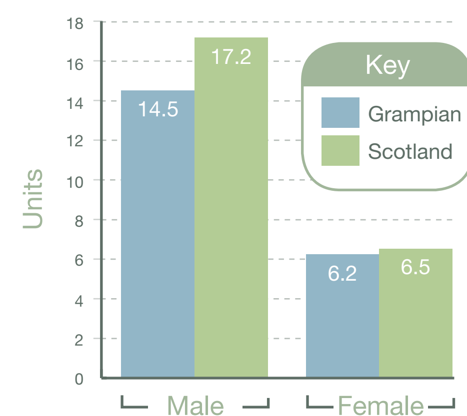
Worryingly high numbers of men and women exceed daily recommended amounts and, of those drinking excessively, the majority match the criteria for binge drinking:

- The percentage of men exceeding 4 units is 64%.
- The percentage of women exceeding 3 units is 64%.
- The percentage of men binge drinking (more than 8 units) is 40%.
- The percentage of women binge drinking (more than 6 units) is 33%.

Levels of binge drinking are even higher in younger age groups. 80% of men and 79% of women, in the 16 - 24 age group, exceed daily limits across Scotland.

While data adjusted for increases in serving size and alcohol strength is not available for Grampian, a comparison of unadjusted Grampian and Scotland data is useful to explore trends in consumption. These figures show that while figures for Grampian men are below Scottish averages, those for women are approximately the same (8).

Fig 3: Average weekly adult alcohol intake



Source: The Scottish Government. The Scottish Health Survey 2003, Volume 2: Adults 2005, Edinburgh.

Alcohol consumption in children

The Scottish Schools Adolescent Lifestyle and Substance misuse survey (SALSUS) looks at the patterns of alcohol consumption for children. Figures for Grampian show a decrease in the number of 13 and 15 year olds having drunk alcohol in the past week in 2006. However, levels are still above the Scottish average for 15 year olds and sustained effort is essential to continue with these improvements.

Fig 4: Percentage of children drinking alcohol in the previous week

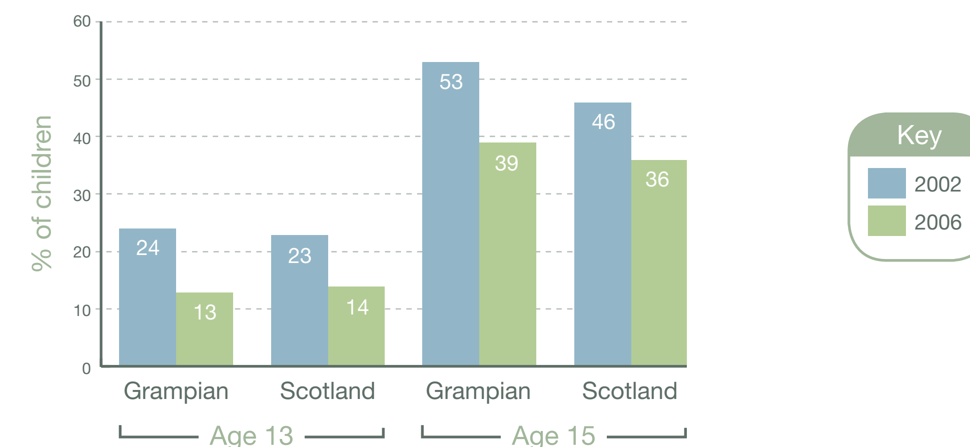
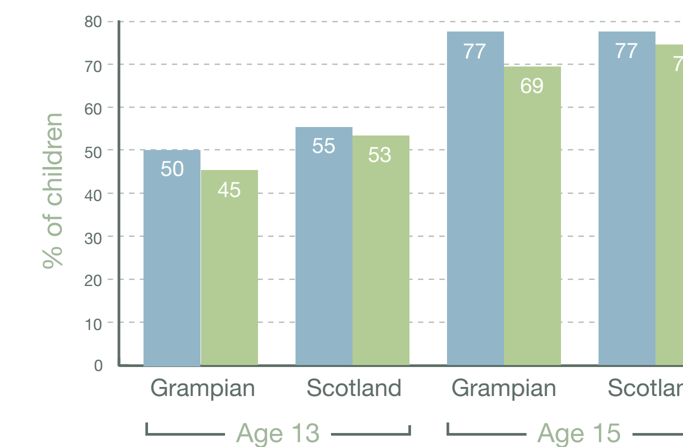


Fig 5: Percentage of children who have ever been drunk



Source: Scottish Executive. Scottish Schools Adolescent Lifestyle and Substance Misuse Survey (SALSUS) - National Report 2006. 29 May 2007; Scottish Executive. Scottish Schools Adolescent Lifestyle and Substance Misuse Survey (SALSUS) 2006. Smoking, drinking and drug use among 13 and 15 year olds in Grampian. Jul 2007.

The survey also asked children how often they had been drunk. Grampian has lower levels of both 13 and 15 year olds getting drunk than the rest of Scotland and showed further improvement in 2006.

It is encouraging that both the numbers of children drinking and those getting drunk is falling in both 13 and 15 year olds (9 and 10).

Cost and impact of alcohol use and misuse

Acutely, alcohol acts on the brain and nervous system to cause euphoria, lowering of inhibitions and loss of judgement. Unfortunately this often results in harm and is reflected in the numbers of people attending A&E services inebriated.

Chronic alcohol abuse can lead to liver damage called cirrhosis. This is a well recognised complication of long-term alcohol abuse in older

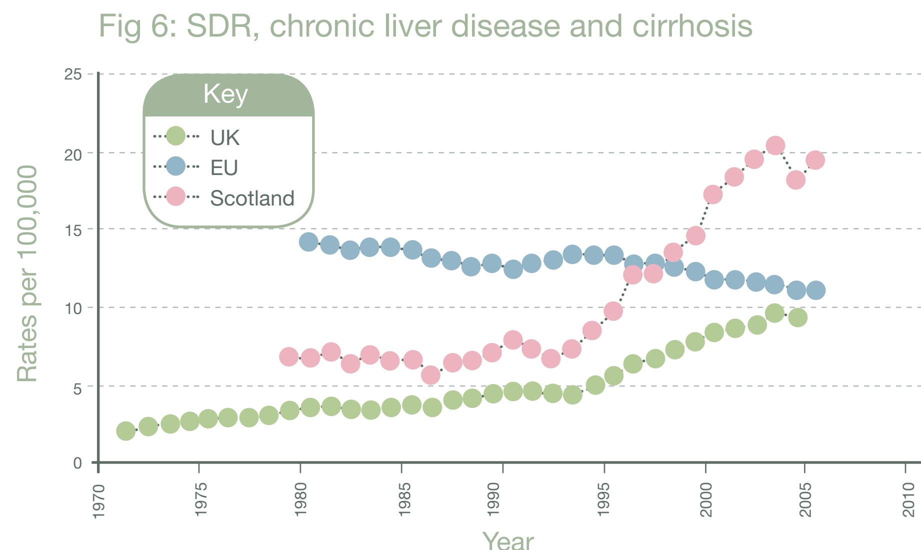
drinkers but people in younger age groups and, in particular, women are increasingly affected. Rates for Scotland have increased dramatically when compared with much smaller rises in the rest of the UK and falls across Europe as a whole (11).

Other effects of alcohol misuse on health include poisoning, pancreatitis, high blood pressure, heart disease, strokes, mental health problems, cancers and foetal alcohol syndrome (12).

The consequences of alcohol use impact disproportionately on the most vulnerable sections of society and contribute to increasing health inequalities. The most deprived 20% of the population are six times more likely to be admitted to hospital for an alcohol-related diagnosis than the least deprived 20% of the population (11,13 and 14).

Information is also collected on the economic impact of alcohol use and misuse. This includes costs to NHS Scotland, social work services, criminal justice and fire services, wider economic costs and human or

Fig 6: SDR, chronic liver disease and cirrhosis



Sources: ScotPHO; Scotland and European Health for All (HfA) Database 2007
SDR: Standardised Death Rate

social costs. For the year 2006/2007 this is estimated to be £2.25 billion for Scotland (15). Applying a similar methodology to Grampian results in an estimated annual cost for the health services alone of over £20 million (2006/2007) (15 and 16).

However, the real cost of alcohol use goes much further than purely financial considerations. Alcohol is often a factor in crime and in particular violent offences. Two thirds (67%) of assault victims in Scotland believed that at least one of their attackers to have been under the influence of alcohol (17) and alcohol was noted in 39% of cases of domestic violence (18) (figure only available for England and Wales). 24% of people in Aberdeen City, 11% in Moray and 12% in Aberdeenshire reported neighbourhood problems as a result of alcohol or drug consumption to be "very" or "fairly" common (19).

Addressing the causes of alcohol misuse

Action on alcohol is evidence-based and guided by national plans and local need. It is implemented locally by multi-agency partnerships: the Alcohol and Drug Action Teams (ADATs). These are organised geographically along local council boundaries and draw on the expertise of both statutory and voluntary partners.

Their work focuses on preventing alcohol misuse by addressing the drivers of alcohol consumption and providing targeted support and treatment for those with incipient or established alcohol problems. There is a large amount of evidence to show that measures which control access to alcohol (such as increased price and decreased availability) and brief interventions are among the most effective (12).

Acceptability: Perceptions of harm and benefit

People often, mistakenly, believe that because they do not drink every day or have alcohol dependency, they are not at risk of health problems. Though chronic alcohol abuse is widely recognised (94%) as "very likely" to cause significant damage to long-term health, fewer people perceive binge drinking to be as dangerous (43%) and are more likely to view it as a social problem (20). 57% of 18 - 24 year olds agreed with the statement "Getting drunk at the weekends is perfectly acceptable" (compared to 18% overall) indicating that binge drinking is more acceptable in younger age groups (20).

National and local education campaigns aim to raise awareness of the potential harmful effects of excessive alcohol consumption and promote sensible drinking habits. Programmes in Grampian include the Think B4U Drink interactive board game and short educational films

developed and produced by 16 - 24 year olds. Other activities include providing alternate activities for young people such as the Moray council midnight football league.

Affordability: Cheap alcohol

The association between pricing of alcohol and consumption is well documented, with falling price linked to increasing sales. Off-sales prices (e.g. supermarket or shops) have become cheaper and affordability is further enhanced by a concurrent increase in disposable income. This is reflected in a shift to alcohol consumption in the home including "pre-loading", which is drinking, with the express purpose of inebriation, prior to going out. Other practices in off-sales include "loss-leading" (12), where goods are priced below the actual retail value to entice customers into shops and multiple-buy offers such as "three for two" also encourage purchasing of larger volumes of alcohol.

"On-sales" promotional activities such as "happy hour" and discounts on larger amounts of alcohol encourage excessive drinking in short time periods.

Supply of cheap or even below cost alcohol can be tackled in several ways all of which aim to ensure that alcohol is sold at a reasonable minimum price. Price regulation is central and we support the proposal under discussion to have a minimum price for a unit of alcohol. We welcome the new Licensing (Scotland) Act, which comes into force on 1st September 2009. For the first time, it includes an objective on public health and aims to clamp down on the practice of irresponsible alcohol promotions.

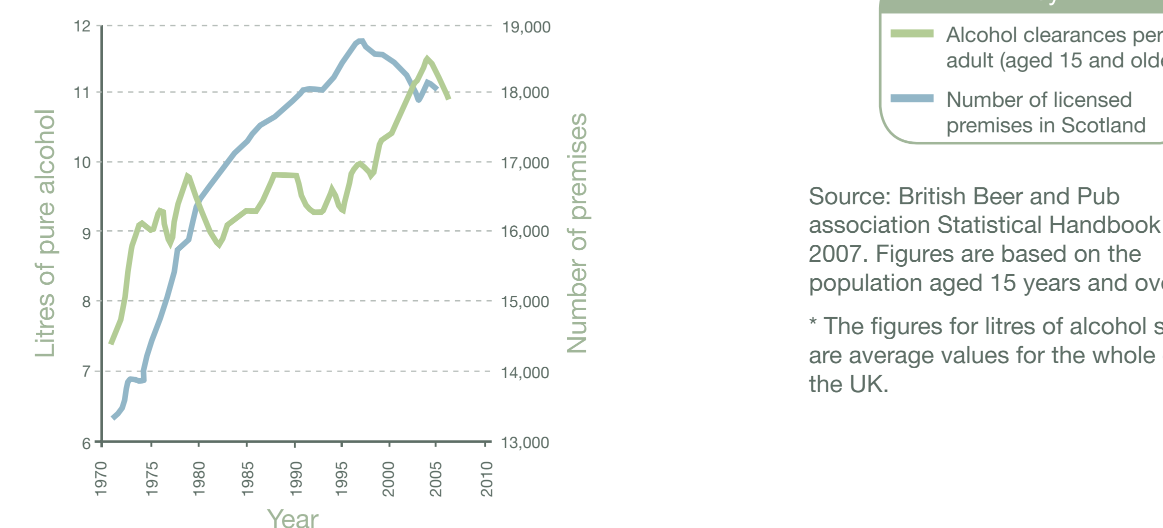
Accessibility: Open all hours

Numbers of licences in Grampian have remained relatively stable recently (21) but over longer periods of time, there has been a trend across Scotland and indeed the UK to increased numbers of licensed premises with extended opening hours (3). Licensed premises are often concentrated in small geographical areas which can result in a disproportionate impact locally.

Alcohol is easy to access, even by those who could be particularly vulnerable to its effects. Underage drinking, serving to drunks and high concentrations of outlets in the city centre contribute to irresponsible alcohol use. In 2006/2007 there were 2,017 liquor licensing law offences across Scotland compared to 1,332 in 1980.

One of our priorities is to reduce access to alcohol for vulnerable groups such as children and ensure responsible supply in on-sales and off-sales. We will continue to work closely with other bodies to find solutions to areas where high densities of licensed premises have been identified (21).

Fig 7: Number of licensed premises in Scotland and alcohol sold*

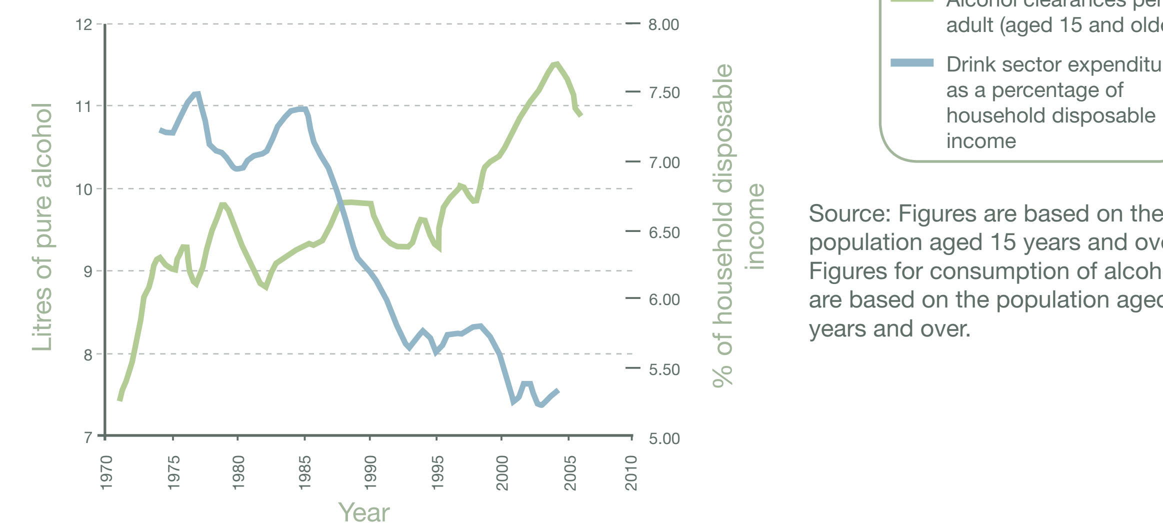


Key
- Alcohol clearances per adult (aged 15 and older)
- Number of licensed premises in Scotland

Source: British Beer and Pub association Statistical Handbook 2007. Figures are based on the population aged 15 years and over.

* The figures for litres of alcohol sold are average values for the whole of the UK.

Fig 8: Alcohol affordability and consumption



Key
- Alcohol clearances per adult (aged 15 and older)
- Drink sector expenditure as a percentage of household disposable income

Source: Figures are based on the population aged 15 years and over. Figures for consumption of alcohol are based on the population aged 15 years and over.

Helping those that are drinking hazardously or harmfully

In line with HEAT targets, we are implementing a programme of "brief interventions" with primary healthcare professionals that will aim to identify and provide support to hazardous and some harmful drinkers. The overall aim is to discuss the costs and benefits of drinking from the patient's perspective, offer advice and, where appropriate, agree a goal, such as reducing alcohol intake or abstaining.

Where individuals are identified with advanced, or well established, alcohol problems they are referred to specialist services. Integrated treatment and support programmes are beneficial in managing alcohol abuse. Local programmes include the formation and development of an Aberdeen City Integrated Alcohol Team, a group comprising doctors, nurses, social workers, and voluntary sector support workers who support and treat clients referred by GPs. In Aberdeenshire, support is provided by dedicated support workers.

Conclusion

Alcohol use is ingrained in our culture. The scale of alcohol misuse and its consequences are increasing and urgent action is needed to address this. Tackling misuse doesn't have a simple answer but needs a sustained and integrated response with commitment across the board from central legislation to local implementation.

In Aberdeen City we have been working intensively with stakeholders, including the voluntary sector, statutory partners and businesses, to identify priority areas and to formulate targeted solutions. Our goal is to build on and complement the services and structures already in place and to be responsive to new challenges and local needs.

Scotland's strategic approach is currently under discussion and in Grampian we welcome proposed changes that will tackle alcohol misuse. We believe that implementation of these changes will act synergistically with the work that we are taking forward locally to promote an environment where drinking safely and sensibly, rather than drunkenness, is the acceptable cultural norm.

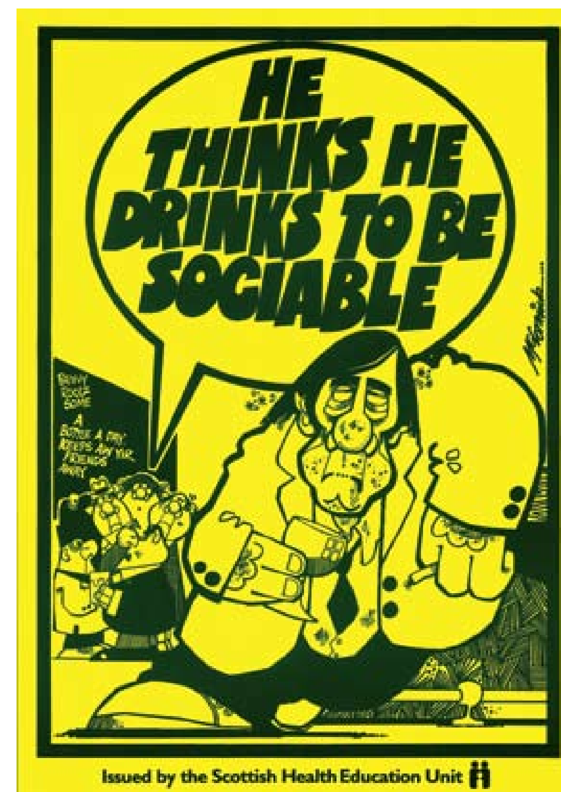
Key messages

- Scotland as a whole is drinking too much.
- Alcohol misuse is harming our health.
- Alcohol misuse is costing Scotland £2.25 billion a year.
- Alcohol misuse is increasing inequalities.
- A targeted multi-disciplinary approach supported by new legislation and additional funding is going to enable culture change.

Looking back at alcohol consumption

In 1950, shortly after the new NHS was born, awareness of the problem of alcohol misuse was growing. One of the ways it was monitored was in convictions for drunkenness, rates of cirrhosis and deaths from alcohol. For the North East of Scotland, deaths had fallen from 244 in the period of 1900 - 1904 to 14 in 1940 - 1944 and this was accompanied by a decrease in the rates of cirrhosis and convictions for drunkenness. However, since then, cirrhosis rates have increased dramatically in Scotland both for men and women and we now have some of the highest rates in Europe. There were 386 alcohol-related deaths in the period 2003 - 2007 in Grampian.

One of the first Scottish surveys was carried out in 1972 for the Scottish Home and Health Department and collected detailed information on drinking habits. Data for Aberdeen and Dundee was collected together, and male mean consumption was 19.3 units and mean female consumption was 3.2 units. Though alcohol consumption was reported at different cut-offs, 32% of men exceeded 21 units per week and 4% of women exceeded 11 units per week. Of those women who did drink, most preferred sherry or port. Men drank beer or stout. Again, celebrating or being sociable was the most frequently cited reason both by men and women for drinking. By way of comparison, if we look at current average sales of alcohol, these would translate to 21 units of alcohol per week for every person over the age of 15.



Encouraging responsible alcohol intake, reducing alcohol misuse and tackling its negative consequences is a priority in Grampian.

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Ask for publication CGD 080026