





of the Director of Public Health NHS Grampian 2016- 2017



### Acknowledgements

I would like to thank members of the public health system for their contribution and assistance in the production of this report. I am grateful to Cancer Research UK and Health Scotland for their advice and guidance in producing this report.

I would like to extend my thanks to members of the modernisation team and corporate communication team within NHS Grampian for their contribution and direction in the development of this report.

I am grateful to the University of Aberdeen Medical Illustration Department for their time and effort in producing this report.



 $\sim$ 

**Susan Webb** Director of Public Health

There is a supplementary document of appendices available at www.nhsgrampian.org/dph

This document is also available in large print and other formats and languages, upon request. Please call NHS Grampian Corporate Communications on (01224) 551116 or (01224) 552245.

## Contents

Why cancer prevention?	4
A summary of cancer occurrence in Grampian	5
Making sense of cancer prevention messages	6
Realistic cancer prevention	7
An overview of cancer risk factors and prevention	8
Smoking	10
Obesity	14
Physical activity	17
Diet	
Alcohol	22
What it would take to prevent mouth cancer	25
Viral Hepatitis B and C can increase the risk of cancer	
Tackling cancer through vaccination - the HPV story	
Environmental factors that increase the risk of cancer	27
Take part in organised cancer screening programmes	
Can a conversation prevent cancer and increase opportunities?	
Concluding remarks on preventing cancer in Grampian	

## Why cancer prevention?

My annual report is about cancer prevention in the Grampian area. This report examines cancer risk and protective factors affecting people living in Aberdeen City, Aberdeenshire and Moray. I use this report to provide information about cancer prevention choices for individuals concerned about their cancer risk and for organisations and partnerships concerned with improving health and reducing inequalities.

Cancer is not a single disease: it is an accumulation of abnormal cells somewhere in the body. Cancers are described by the place in the body in which they occur and the characteristics of the abnormal cells found. Different cancers affect the body in different ways. The number of people who survive following a diagnosis varies by the specific type of cancer and its characteristics.

The number of cancers diagnosed each year continues to increase as our population grows and ages. However, cancer is not what it used to be. The number of people surviving and living with cancer in Scotland, and in Grampian, is the highest it has ever been. Finding and treating cancer at an early stage is important. Anyone worried about an unusual or unexpected change in their body should not be scared to get checked. Beating cancer requires better prevention, better care, better patient experience and better cures. Anybody can be affected by cancer. The conditions that we live, work and play in lead to unjust and avoidable differences in the chances of developing and dying prematurely from cancer. The extent of and reasons for this variation are not yet clear and continue to be the subject of research.

At first glance, variation may seem a matter of individual lifestyle choices. However, I describe other factors which are harder to control, including income, isolation and living conditions. Provision of adequate and accessible health services is important, but this alone is not enough to prevent cancer inequality.

Statutory services, community planning partners and national government play an important role in addressing the root causes of inequality and are central to our recommendations about cancer prevention. Many of these wider issues have been recognised as key local priorities within local outcome improvement plans.

This report looks at some of the practical ways individuals and organisations can contribute to health improvement, reducing inequalities and cancer prevention.

## A summary of cancer occurrence in Grampian

It is estimated that two in five people in Scotland will develop some form of cancer during their lifetime, and that around one in thirteen males and one in nine females will develop some form of cancer before the age of 65. Having lived to the age of 65 without cancer, the risk of getting cancer subsequently is one in three for males and two in seven for females.

The total number of cancers diagnosed in Grampian residents has risen steadily since 1991, a rise which can be explained partly due to the growth and ageing of our population. The general long-term trends in Grampian mirror the rest of Scotland, reflecting exposure to risk and protective factors going back several decades. However, there are variations in different types of cancer when comparing Grampian and the rest of Scotland and these are shown in the appendix available at www.nhsgrampian.org/dph This is particularly apparent in lung cancer, where the incidence in Grampian is significantly lower.

The most common types of cancer are cancers of the breast, bowel, prostate and lung. National estimates by Scotland's Information Services Division project a 20% increase in new cases of cancer over the next ten years. This takes into account historical trends and future population estimates.

> More than 3,000 cancers were diagnosed in Grampian residents

> > during 2015

## Making sense of cancer prevention messages

News and information are now easier to access than at any time in the past and cancer is a subject that is often in the public eye. However, no one regulates the vast amounts of information about cancer, which means that confusing and often misleading messages are easily spread. This type of information is often more accessible than evidence-based reports. As professionals who have signed up to beating cancer, we have a dual responsibility to convey accurate messages and counter inaccurate information. This report draws on research evidence to highlight the effects that individual, social and environmental factors can have on developing cancer. It does not attempt to provide detailed estimates of the number of people who may be prevented from developing cancer in Grampian. The focus of this report, and my aim, is about making messages simple and memorable so that individuals and organisations can be better informed about cancer prevention. In doing so, we can be more confident in our planning and investment decisions to reduce the burden of cancer and the variations within our population.

## **Realistic cancer prevention**

There is a clear, logical case for investing in prevention. Using evidence of 'what works' is important when deciding prevention activities. There is a substantial and growing body of evidence from economic evaluations of preventative interventions aimed at individuals, families and communities.

The cost of cancer treatment nationally will rise significantly with the projected increase in cancer diagnoses over the next ten years. The combination of strategic investment and effective cancer prevention activities across the entire health system could help to offset the projected rising costs of treatment. Moreover, minimising the impact of cancer risk factors in our population would not only reduce the overall impact of cancer, but lead to a general improvement in wellbeing and quality of life.

Prevention interventions that are cost effective may not necessarily be cost saving. However, a more cost effective approach from prevention to treatment means we stand a better chance of investing well in order to afford new treatments, drugs and interventions, which could offer Grampian patients not just better survival, but a better quality of life after cancer.

We are planning to contribute to the overall evidence base in cancer prevention and treatment in the North of Scotland. We have a huge volume of medical records, information and data relating to cancer. NHS and academic partners are working closely together and leading the North East's bid to develop a centre of research excellence for cancer. The challenge right now is to get data held in different systems to talk to each other. It is a rapidly evolving area and there are exciting developments as ways are found to integrate and use this information.

Every patient who is diagnosed and treated for cancer still has their rights and privacy respected but, at the same time, these advances allow them to contribute directly to research efforts to beat cancer and improve treatment. Harnessing the power of big data has huge implications for cancer diagnosis and treatment, as it can inform drug development, allow targeted treatment and provide better information on prognosis for patients.

From a public health point of view, the work of a centre of research excellence will open up a whole new world of epidemiology. The relationship between smoking and cancer took years to describe and result in public health action. Linking up existing datasets will allow us to explore and understand better the causes and patterns of cancer, giving us new insights into how cancer can be prevented, meaning that we can act faster and more precisely in ways that will doubtless save and improve many people's lives.

Monitoring and evaluating preventative approaches within our own organisations and collectively are crucial to make sure that we are making a difference for people and using public funds well. As partnerships develop, I would urge us all to scrutinise and prioritise interventions which are population-focused, cost effective and reduce variations in health. This means weighing up the harms and benefits in reducing the risk of cancer.

## An overview of cancer risk factors and prevention

Everyone has a risk of developing cancer. Most cancers are attributable to more than one cause.

Fewer than 1 in 20 cancer cases are caused by inherited genes alone. It may never be possible to predict a person's risk of developing a specific type of cancer with any degree of certainty.

In Grampian, cancer risk factors are common and the majority of our population have at least two cancer risk factors which could be altered.

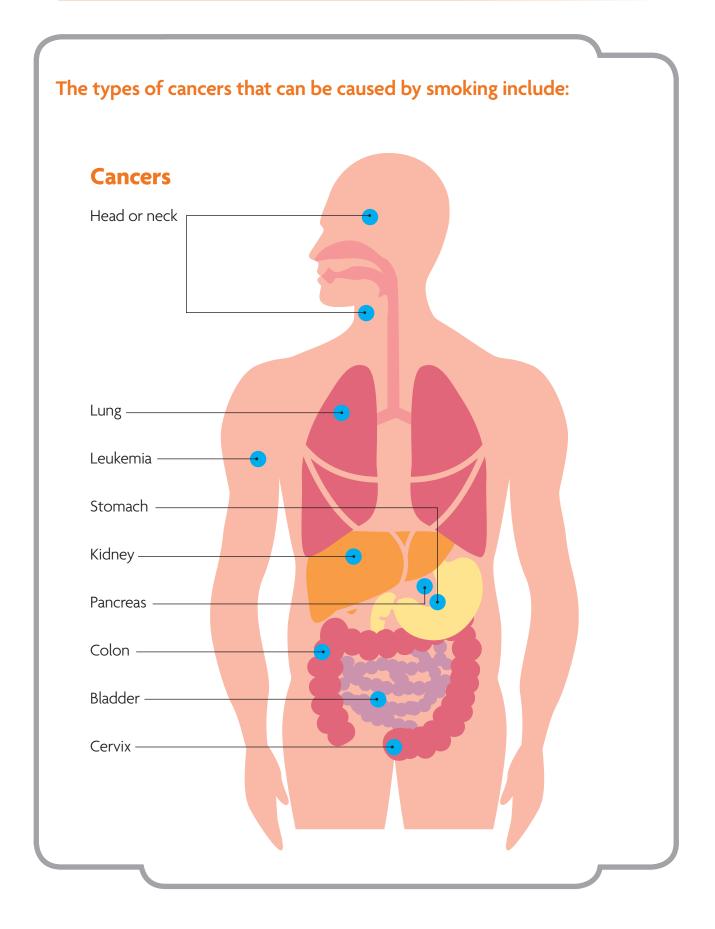
The World Health Organization has developed the European Code Against Cancer Recommendations for individuals to reduce their risk of cancer include:

- 1. Do not smoke. Do not use any form of tobacco.
- 2. Make your home smoke free. Support smoke-free policies in your workplace.
- 3. Take action to be a healthy body weight.
- 4. Be physically active and limit the time you spend sitting.
- 5. Have a diet which contains: whole grains, pulses, vegetables and fruits, limited amounts of foods high in sugar or fat and avoid sugary drinks, limited amounts of processed meat, red meat and limit the amount of salt.

- 6. If you drink alcohol, limit your intake. Not drinking alcohol is better for cancer prevention.
- 7. Avoid too much sun, especially for children. Use sun protection. Do not use sunbeds.
- 8. In the workplace, protect yourself against cancer-causing substances by following health and safety instructions.
- 9. Find out if you are exposed to radiation from naturally high radon levels in your home and take action to reduce high radon levels.
- For women, breastfeeding reduces cancer risk. If you can, breastfeed your baby. Hormone replacement therapy (HRT) increases the risk of certain cancers. Limit use of HRT.
- Ensure children who are eligible take part in vaccination programmes for Hepatitis B and Human papillomavirus (HPV).
- 12. When invited, take part in organised cancer screening programmes for bowel cancer breast cancer and cervical cancer.

Making the protective changes recommended by the European Code Against Cancer will reduce the risk of a person developing cancer during their lifetime. We need the places where we live, work and play to support people to make these changes.





## Smoking – a leading cause of cancer inequality

Most smokers don't get cancer – not least because smoking causes so many other diseases that can kill. However, this is of little comfort to the hundreds of people who develop smokingrelated cancers in Grampian each year. Around 400 people are diagnosed with throat and lung cancer in Grampian every year and most of these people are smokers. Smoking is in fact the largest preventable cause of cancer in the UK.

In some of our communities, only one in ten people smoke; in others, more than four in ten people smoke. Rates of tobacco-related cancer are higher in the latter than the former, and it is no secret that communities with higher levels of smoking also tend to be those where people live some of the most challenging lives. This can then continue the cycle between generations, as children who grow up seeing parents and others smoking are more likely to grow up thinking that smoking is a 'normal' part of coping with adulthood.

Current projections are that the number of people being diagnosed with smoking-related cancers will continue to increase.

#### Prevention

A world without tobacco smoking is possible. Currently, two out of three smokers start smoking before the age of 18. It is therefore important to support children to grow up without using tobacco. Not selling to under 18s, removing promotional displays in shops, and the move towards standardised packaging all help. We have seen significant reductions in the number of secondary school students who smoke, which is testimony to the positive efforts of parents, schools, retailers, trading standards, and children and young people themselves. Less than one in 20 teenagers aged between 13 and 15 in Grampian are regular smokers. While this is very positive, we cannot be complacent about the estimated 750 school pupils who do smoke regularly, and ongoing effort is required to make smoking a thing of the past.

As a result I am particularly delighted that NHS Grampian has signed up to Scotland's Charter for a Tobacco-Free Generation and to all the commitments that this entails.

	Projected number of cancers that will be diagnosed in Grampian 2023-27	% increase from number of cancers in Grampian between 2008-2012
Cancers of the lung, oesophagus	3222	65%
Cancers of the head and neck (includes mouth cancers)	871	78%
Bladder cancer	1210	19%



### SCOTLAND'S CHARTER FOR A TOBACCO FREE GENERATION

#### www.ashscotland.org.uk/what-you-can-do/scotlands-charter-for-a-tobacco-free-generation

#### Protection

Tobacco smoke is harmful to those who are exposed to it, not just smokers themselves. The ban on smoking in indoor public spaces is being widened to include hospital grounds and prisons from 2018. These measures protect employees and other members of the public from cancercausing tobacco smoke.

Children are particularly vulnerable to the harmful effects of tobacco smoke and most exposure is within the home. Health visitors and public health nurses have done much to increase parents' awareness of the risks, and it is more widely recognised that smoking at the back door or at an open window do little to prevent smoke entering the home. Take it right outside has additionally highlighted the damage to children who are exposed to tobacco smoke in cars.

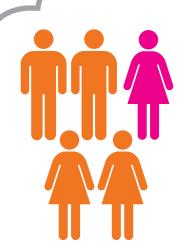


www.rightoutside.org

#### Cessation

The single biggest thing people can do to improve their health is not smoke. Two out of three smokers want to stop, and almost all smokers make multiple attempts to do so. Many smokers are switching to e-cigarettes and vaping instead of smoking. Although not riskfree, vaping is much less harmful that smoking. It would be a good thing if all smokers switched to vaping instead, ideally as part of the route to stopping altogether.

Smokers across Grampian can also easily obtain free help to stop smoking from their local community pharmacy, which can provide nicotine patches and other medications free of charge. Help can be provided even if people choose to continue vaping. During 2016/17, more than 5,000 smokers set a quit date at a community pharmacy and one in four were still stopped three months later. In the same year, more than 300 smokers saw a specialist smoking cessation advisor and four out of five were still stopped three months later – the best success rate in Scotland! The specialist service is free, and can be reached on freephone 08085 202030, at grampiansas@nhs.net or www.hi-netgrampian. org/stop-smoking-referral-form.



One in five adults in Grampian are regular or occasional smokers



Smoking is more common in young adulthood and middle age and becomes less common as people become older

About the same proportion of men and women report smoking

In 2014, smoking contributed to the deaths of 947 people in NHS Grampian Almost 90% of prisoners in HMP Grampian report being smokers



Lower socioeconomic status is associated with higher rates of smoking (one in three in the most deprived areas compared to one in ten in the most affluent areas)



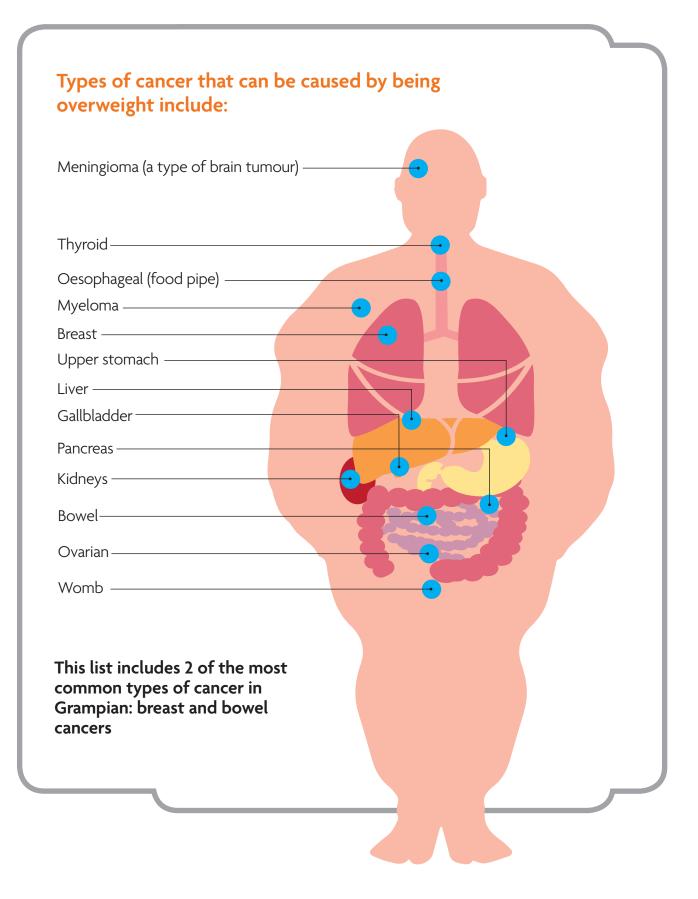
## Do you want to **STOP**smoking?

## We are here to help.

For free, confidential support contact the Smoking Advice Service on freephone

08085 20 20 30

## Obesity



## Obesity

#### Being overweight or obese - the cancer risk factor affecting the majority of Grampian adults

It is estimated that one in 20 cancers are caused by being overweight or obesity. Being overweight or obese is the second largest preventable cause of cancer in the UK. This is important because two out of every three adults are overweight or obese in Grampian, and around one in five children in primary one are at risk of being overweight or obese. Although the proportion of people with obesity has levelled out in recent years, the 'obesogenic environment' of the early 21st century poses continuing challenges to reversing this epidemic:

 We have created environments and transport systems that discourage active travel (walking or cycling) and regular physical activity.

- We have increased our collective dependence on the motor car.
- There is increased availability of high calorie foods and snacks, which are heavily marketed and promoted.
- Calorie-dense and nutrient-poor foods tend to be cheaper than healthier options.
- Snacking and 'constant grazing' have become normalised.
- More people work sedentary jobs.
- Longer working hours leave people with less time for food preparation and cooking.
- The growth in popularity of less active pastimes like social media, gaming and watching TV.

Current projections are that the number of people being diagnosed with obesity-related cancers will continue to increase.

	Projected number of cancers that will be diagnosed in Grampian 2023-27	% increase from number of cancers in Grampian between 2008-2012
Breast cancer in (women)	2987	39%
Cancer of oesophagus	528	18%
Bowel cancer	2995	49%
Kidney cancer	855	72%
Cancer of the pancreas	590	73%

### **Prevention and protection**

There are multiple factors that discourage active lifestyles and reduce overall levels of physical activity, and encourage people to snack, overeat and consume calorie-dense foods. Protecting people from this 'obesogenic environment' is a current political priority and the national strategy on diet, activity and healthy weight will offer all of us an opportunity to strengthen our collaborative work to address this challenge by:

- Creating infrastructures which encourage active travel to work and school.
- Reducing our use of private motor cars.
- Reducing the availability and visibility of high calorie foods and snacks.
- Increasing the availability and visibility of affordable healthier foods.
- Encouraging workplaces to increase physical activity levels during the working day.
- Encouraging healthy work-life balance, supporting people to have more time for food preparation and cooking.
- Encouraging affordable and accessible active pastimes and reduce screen time.

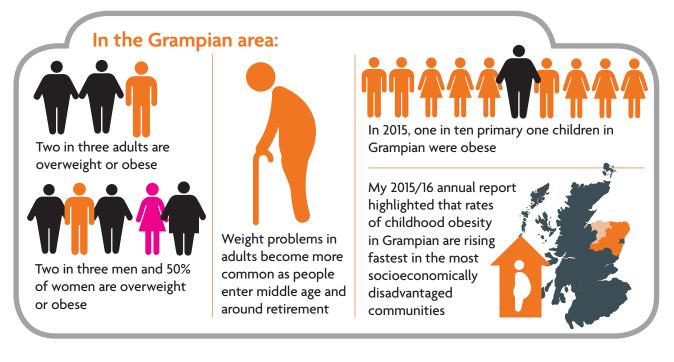
Collective use of the place standard for planning can assist us work towards this: https://placestandard.scot/

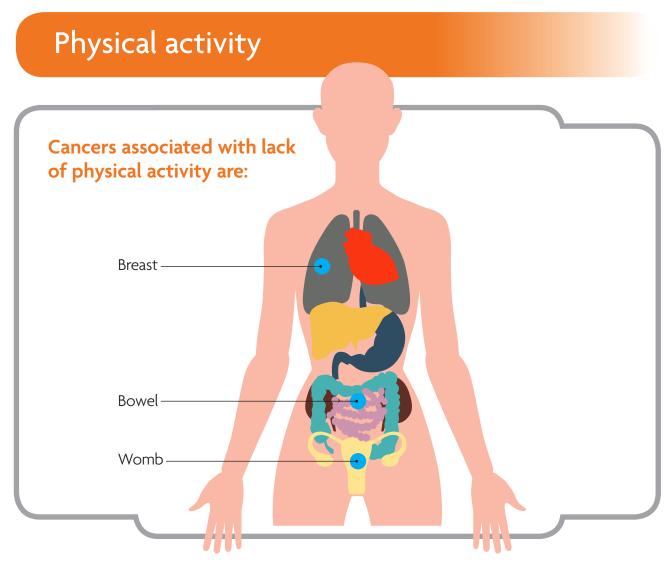
I view our Community Planning Partnerships, Chambers of Commerce, and Integrated Children's Services Partnerships as important fora for this collaboration.

#### Weight loss and weight management

Amongst those who are overweight or obese, intentionally losing weight can help reduce the risk of developing cancer. NHS Grampian provides effective adult weight management services, including pharmacological, dietetic and surgical interventions. These services are invaluable for those who benefit from them and I commend those involved in providing them. It is particularly important that those who are ill are able to access timely and trustworthy advice, guidance and support. However, with 180,000 overweight adults and 130,000 obese adults in Grampian, it is evident that NHS services for weight management cannot be the sole solution.

As such, I am pleased to see the collective efforts to help people maintain a healthy weight, such as Football Fans in Training provided by Aberdeen Football Club Community Trust, which has continued to demonstrate its ability to engage with local people in increasing their exercise levels and supporting them to lose weight.





The Academy of Medical Royal Colleges describes exercise as "the miracle cure" because it prevents and aids recovery from so many health conditions. This includes its preventive effects on breast cancer and bowel cancer two of the most frequently diagnosed types of cancer in Grampian. Current projections are that the number of people being diagnosed with both of these cancers will continue to increase.

#### **Prevention and protection**

Increasing levels of activity is about moving more and sitting less. The easiest way to increase physical activity is to walk more. This can be challenging though in a society shaped around the motor car, with people increasingly juggling multiple responsibilities and working longer hours, while the offer of sedentary pastimes has never been greater.

Businesses, employers, schools, colleges and universities who encourage and enable 'active travel' through walking or cycling are to be applauded for leading the way to a different future. NHS Grampian's membership of the North East Scotland Transport Partnership is particularly important given their work on the links between transport systems and people's health.

	Projected number of cancers that will be diagnosed in Grampian 2023-27	% increase from number of cancers in Grampian between 2008-2012
Breast cancer (women)	2987	39%
Bowel cancer	2995	49%

## **Physical activity**

Locally provided health walks help people of all ages and abilities to meet up and walk together. There are a number of online resources to help people find a health walk:

• www.grampian50plusnetwork.com

- www.morayways.org.uk
- www.pathsforall.org.uk/find-a-healthwalk/aberdeenshire
- www.outdooraccesstrustforscotland.org.uk
- www.sportaberdeen.co.uk/activities/beactive/walk-aberdeen/health-walks/

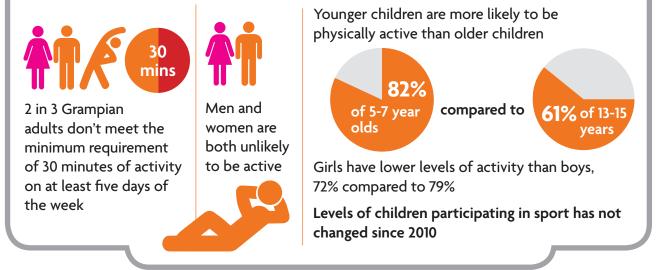
I am pleased to see that Ramblers Scotland have worked with NHS Grampian to bring their medal routes programme to Grampian. By including routes based around our hospitals, this means that staff, patients and visitors now have the opportunity to participate in guided walks of various lengths, linked to a nationally supported smartphone app: www.ramblers.org.uk/ nhsmedalroutes

#### **Removing barriers**

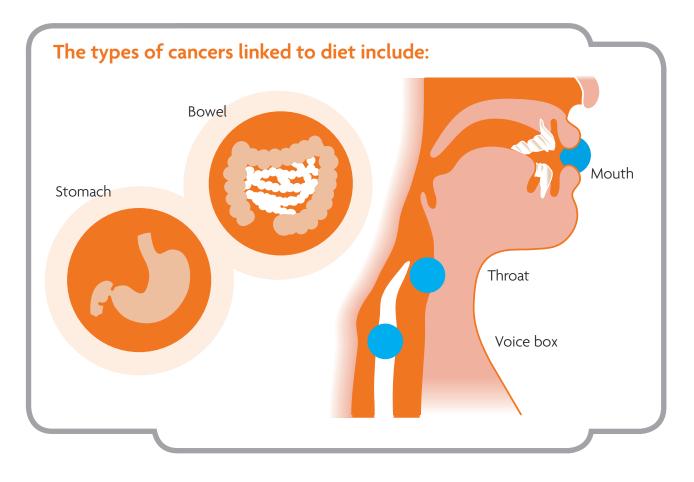
Some groups of people are more active than others. We know that one important factor, particularly for children, is family income. I am pleased that poverty has been identified as a priority by all of our Community Planning Partnerships. I would hope to see actions taken to ensure that access to sport and other physical activities is not prevented by lack of income.



## Lack of physical activity is the most common cancer risk factor in Grampian.



## Diet



Almost one in ten cancer cases in the UK each year are linked to diet: eating too little fruit and vegetables, eating any red and processed meat, eating too little fibre and eating too much salt.

Eating a healthy balanced diet is an important way to keep cancer risks low and is beneficial to everyone, whether they have a healthy body weight, are overweight or are underweight. This is important because there are many people in Grampian who find it difficult to have a balanced diet. It is an issue that affects men and women, young and old, and in all sections of our community.

Cancers linked to our diet are predicted to be diagnosed more frequently in Grampian in the future.

	Projected number of cancers that will be diagnosed in Grampian 2023-27	% increase from number of cancers in Grampian between 2008-2012
Stomach cancer	383	4%
Bowel cancer	2995	49%

#### Prevention – a healthy diet

The Eatwell Guide can help individuals make healthier choices when at home or shopping. It shows the different types of food and drinks we should consume and in what proportions to have a healthy, balanced diet. A healthy, balanced diet contains lots of fruit, vegetables and starchy carbohydrates, as well as some dairy, meat, fish, pulses and other kinds of protein. It is also important to drink plenty water. Adults should limit the amount of red meat and processed meats (sausages and ham) and not eat more than 70g a day, which is about the same as 2 slices of roast meat.

An interactive online resource based on the Eatwell Guide is available at: http://fss-eatwellguide.scot

#### Protection

Food producers, wholesalers and retailers all have an important role to play. Changing recipes to contain fewer calories, less sugar, fat and salt, pricing structures that favour healthier choices, greater choice of healthier options, and clearer labelling can all help support people to make healthy choices. Across Scotland, retailers can take part in schemes to promote healthy food options to consumers.

### The best start in life

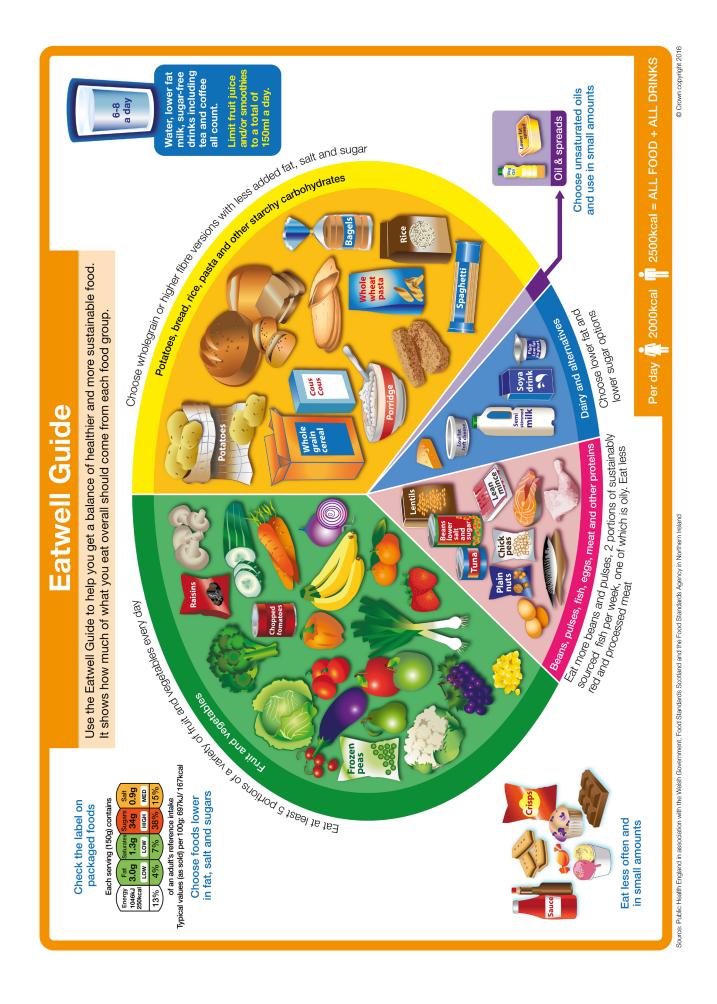
A healthy diet is important throughout life, and NHS Grampian's Child Health 2020 strategy includes actions on maternal and infant nutrition and child healthy weight interventions. Pregnancy and early childhood are times when good nutrition is particularly important.

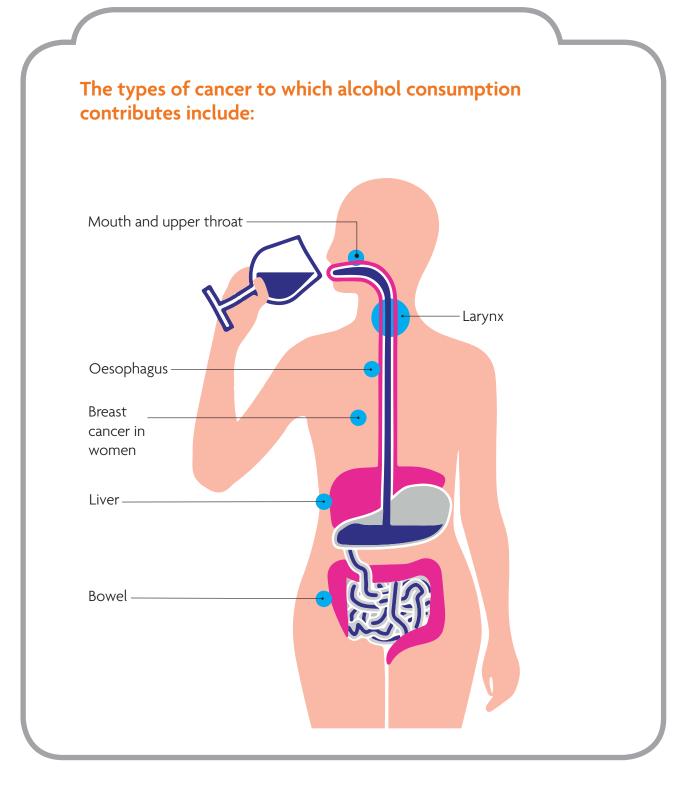
Midwives and health visitors across Grampian play a valuable role in identifying pregnant women and infants who are eligible for the Healthy Start programme, which provides free milk, fresh fruit and vegetables and vitamins: www.healthystart.nhs.uk

#### Affordable, sustainable, healthy

As food prices rise at a greater rate than inflation, maintaining a healthy diet becomes increasingly unaffordable for many people. This is not just about people being able to feed themselves, their families and their children - good food and healthy nutrition is fundamental to health and to sustained recovery after illness.

I am particularly impressed with the *Sustainable Food Cities* programme in Aberdeen City, and I am delighted that NHS Grampian has partnered with others under the leadership of *Community Food Initiatives North East (CFINE)* to make this a success. Now, more than ever, we must all work together towards an affordable, sustainable and healthy food system for our population.



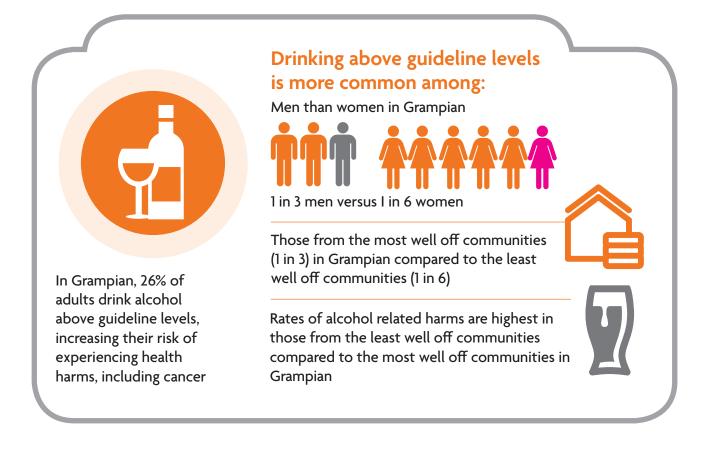


## Alcohol

#### Everyone can reduce their cancer risk by cutting back on alcohol

Alcohol ranks fourth amongst preventable causes of cancer. In 2010, 4% of cancers in the UK were caused by alcohol. Alcohol is associated with two of the most commonly occurring cancers in Grampian: breast and bowel. The available Grampian cancer projections suggest that these types of cancers will be diagnosed more frequently in Grampian in the future.

	Projected number of cancers that will be diagnosed in Grampian 2023-27	% increase from number of cancers in Grampian between 2008-2012
Breast cancer in (women)	2987	39%
Cancers of the head and neck (includes mouth cancers)	871	78%
Bowel cancer	2995	49%



## Alcohol

Alcohol is one of many factors which could contribute to this potential increase.

There is no safe type of drink which protects against cancer. Red wine, white wine, sparkling wine, gin, vodka, beer, drinks of rare vintage, drinks produced by craft brewers and distillers or mass produced drinks sold cheaply all contain alcohol and it is alcohol that increases the risk of cancer.

The increased risk of developing cancer is small at low levels of alcohol consumption but increases with the amount of alcohol drunk. Men and women should drink no more than a couple of drinks a day, eat a healthy diet and not smoke to minimise cancer risks. If breast or bowel cancer run in the family and you are concerned about your own risk of cancer, we would recommend drinking less than this.

#### Prevention

Excessive and even moderate drinking are not part of a healthy lifestyle. Any level of drinking increases the risks of developing certain types of cancers. People have to make their own judgement about risk and how much risk they are willing to accept.

Most alcohol that is bought in Scotland is consumed in the home or other private spaces, making it difficult to keep track of how much we are drinking. Just being aware of how much we are drinking - reading the alcohol content on the label and using a measure - can help to reduce the risk without reducing the enjoyment. The alternatives to alcohol on a night out or in are a growing market. It is worth remembering that a bigger choice of adult non-alcoholic drinks will appear in pubs, restaurants and shops if consumers demand it. As an area with substantial experience of producing high quality and premium drinks products, we have a lot to offer to, and much that we could gain from, ensuring our economic investment and development decisions are supportive of the adult nonalcoholic drinks sector.

Effective policies that reduce availability will help protect people from alcohol harms, including cancer. We are working closely with the five Licensing Boards in Grampian, as they review and reissue their statements of licensing policy in 2018, to ensure that measures to control the sale of alcohol locally do not inadvertently widen the variations in alcohol related health outcomes.

#### Changing individual drinking behaviours

Health and Social Care Partnerships, community planning and third sector partners' actions to improve access to alcohol brief interventions are an important aspect of cancer prevention. Alcohol brief interventions are short, effective, motivational conversations which can help people reduce the amount they drink.

Leadership at all levels is required to ensure that, in areas where it is appropriate to deliver a brief intervention, staff are able to do so. We need to consider where and how best to deliver these interventions so that all groups and communities in Grampian benefit equally.

## What it would take to prevent mouth cancer

Cancers of the mouth include cancers of the lip, tongue, oral cavity, salivary glands and other parts of the mouth and throat.

The highest rates of mouth and throat cancers are observed in people living in the most socioeconomically disadvantaged parts of Grampian. The risk increases with age and the majority of cases occur in peopled aged 45 and over.

The latest data for mouth and throat cancer in Grampian shows a 55% increase in the number of cases since 1989. Taking age and gender into account, rates of mouth cancers are rising in females and falling in males. By 2027, it is anticipated that rates of newly diagnosed cancers of the head and neck in the North East will be 23% higher than those seen at present.

#### Prevention

The main causes of mouth and throat cancer are tobacco usage and excessive consumption of alcohol. Other risk factors include poor diet, ultraviolet (UV) light exposure and human papilloma virus.

Poor oral hygiene can change the type of bacteria that live in the mouth. Bacteria that produce toxic chemicals on contact with alcohol become more common, increasing the risk of mouth cancer. People who smoke and drink have a high risk of developing cancer. Three in every four cases of mouth cancer could be prevented by stopping smoking and keeping to recommended levels of alcohol.

#### Protection

It is possible to cure some mouth and throat cancers if caught early. Dentists are well placed to spot signs and symptoms, as well as encouraging good oral health generally, so it is important to register with a dentist and attend regular check-ups. Details of dentists taking on NHS patients in Grampian can be obtained from the Dental Information and Advice Line (DIAL) by calling 0345 45 65 990.

We need to build the confidence of dental and health professionals to raise the issue of oral cancer, help people make changes about their smoking or alcohol consumption themselves and refer on to more specialist help where needed. It is also important to work with these professionals to ensure that oral cancer is detected, diagnosed and treated as quickly as possible.

Public awareness campaigns on mouth cancer and the associated risks factors, signs and symptoms are also a key strand of our prevention strategy.

# Viral Hepatitis B and C can increase the risk of cancer

Hepatitis B virus (HBV) and hepatitis C virus (HCV) can both lead to the development of liver cancer. Both HBV and HCV are blood borne viruses transmitted through exposure to infected blood and blood products. About 1% of the Scottish population are infected with HCV and although less common, HBV is a still major public health concern globally. Vaccination is available for HBV in those who are considered at increased risk.

Recent advances in viral hepatitis C treatment mean that there is an opportunity to prevent progression of liver disease, even in people with advanced infection or in whom previous treatments were not effective. The new treatments could substantially reduce the risk developing liver cancer. Finding people who are infected, but not yet diagnosed, is an ongoing public health priority in Scotland.

#### Protection

The best way to reduce the risk of developing liver cancer as a result of viral hepatitis is to get tested and know your status.

In NHS Grampian, we want to normalise getting tested for blood borne viruses and raise the awareness of the risks, as infections can be hidden and past exposures forgotten with the passage of time.

Testing for HBV, HCV and HIV are widely available across Grampian within: primary care, secondary care, substance misuse services, HMP Grampian and in the community from our partners Alcohol and Drugs Action and Turning Point Scotland.

To keep the risks of liver cancer low, it is also important to maintain a healthy body weight and keep the amount of alcohol consumed low.

# Tackling cancer through vaccination - the HPV story

Human Papilloma Virus (HPV) vaccine is the first anti-cancer vaccine to be introduced in the UK and its aim is to reduce cervical cancer in women. Almost all cervical cancer cases are caused by chronic infection with HPV. The presence of infection over a number of years can cause cancer to develop. The HPV vaccine works by promoting immunity to infection from strains of the virus particularly likely to cause cervical cancer.

HPV vaccination has been offered to girls in secondary school since 2008. Uptake has been high locally and nationally.

It is still too early to expect to see a fall in cervical cancer cases as a result of HPV vaccination. However, its introduction has already been shown to have reduced infection from five of the strains of HPV which contribute to 90% of cervical cancer in Scotland.

Vaccination has also reduced the frequency of pre-cancerous cervical abnormalities in young women who have been vaccinated. From the results so far, HPV vaccination is expected to reduce cervical cancer cases by 70% in immunised women.

## Environmental factors that increase the risk of cancer

### Ultraviolet light

Malignant melanoma is a type of skin cancer that is of particular concern because it can spread. In 2010 in the UK, 86% of melanoma skin cancers were attributable to over-exposure to UV. The available projections for melanoma skin cancer in Grampian indicate that, by 2027, we can expect a 60% increase in the numbers of cancers diagnosed, compared to 2008.

Over-exposure to UV is the main cause of skin cancer. Exposure to UV in Grampian can occur locally on a sunny day, in people who travel or work abroad, particularly if they work outside, and in people who use sunbeds. Any redness in skin after sun exposure increases risk. Intermittent over-exposure to UV, for example, getting sunburnt just once on holiday, should be avoided to keep risks low.

#### Prevention

To avoid excess UV exposure, use sun screen and top it up regularly, cover skin up with clothing and seek shade during periods of the day when sun exposure is strongest. If you want to tan, use fake tan rather than a sunbed.

#### Protection

Employers have an important role to play in raising awareness of the risks of UV exposure. In some situations, employers should consider formally assessing risks as part of a holistic occupational health risk assessment. It is particularly important to protect young children from getting sunburnt to reduce their chances of developing skin cancer in later life.

Skin cancer can be picked up early by actively looking for any changes in your skin and getting anything you are not sure about checked out quickly.

#### **Radon** gas

Radon gas is a naturally occurring radioactive gas, present in our living environments, which can increase the risk of lung cancer. Although a risk factor in its own right, the chances of developing lung cancer are up to 20 times higher in someone who also smokes. Concentrations of radon tend to be low outdoors but can build up in confined spaces.

The UK radon map (http://www.ukradon. org/information/ukmaps) shows that parts of Grampian have a higher chance of having high levels of radon. More information about radon, including how to order a measurement pack for our home or workplace, is available from local authorities and the national website. Radon levels can be reduced by addressing air flow through homes. Stopping smoking can drastically reduce the risk of lung cancer if you live in a radon area.

# Take part in organised cancer screening programmes

There are three national cancer screening programmes operating in Grampian for bowel cancer, breast cancer and cervical cancer. Screening is a way of identifying people who may have an increased risk of developing cancer - they can then be offered information, further tests or treatment to reduce their risk of developing cancer.

People with very early stage cancers may not notice anything wrong with their body. Treating cancer at the earliest possible stage increases the chances of survival and living well after a cancer diagnosis. Cancer screening programmes are a key part of our strategy to beat cancer. Participation in national cancer screening programmes is consistently higher in Grampian compared to the rest of Scotland. This is an important measure of programme success. Higher participation rates are associated with reduced premature death rates from those types of cancers for our whole population.

Participation in cancer screening programmes is a choice. When invited for to take part, people are provided with information to help them weigh up the benefits and risks and make a decision about whether taking part is right for them. Within Grampian, there are large differences in the rates of participation. In some areas, the majority of people invited to take part in a cancer screening programme do not take up the offer. This variation cannot be explained just by people making informed choices not to take part. Lower levels of participation in national cancer screening programs are more likely in people living in areas of socioeconomic deprivation compared to people living in more affluent areas. People from certain ethnic minorities, people who are homeless and people in contact with the criminal justice service may also be less likely to take part.

We need to address this variation if we are to reduce the avoidable and unfair differences in those developing cancer and dying prematurely from cancer.

Initiatives which help people register with general practices are important to increasing uptake and participation in screening programmes.

Information about screening programmes must be provided in a language and format which people understand, regardless of their background, to ensure that people can make informed decisions about taking part. Technology and social media could offer a useful and cost effective platform for raising awareness of screening programmes and engaging directly with people to help overcome barriers.

## Can a conversation prevent cancer and increase opportunities?

With limited time and rising demand, many frontline professionals may find themselves asking how or why to prioritise one lifestyle issue over others. Professionals also worry that assertively asking people about their behaviours and proactively encouraging change is not a patient-centred consultation.

A survey of 2,500 patients attending hospital outpatient clinics in Grampian found that maintaining a healthy weight, eating the recommended levels of fruit and vegetables, and feeling anxious or stressed were issues of concern for the majority. Research from Aberdeen City showed that people's decisions to adopt healthier lifestyle choices were made, not because of concerns about risk, but were motivated by wellbeing, including a desire to feel better, feel more confident and make friends.

Making Every Opportunity Count (MEOC) is an approach that frontline staff can use to support prevention and self-care. It is an approach that is being adopted across NHS Grampian and its community planning and health and social care partners.

It starts with a conversation about how someone is feeling and coping, in the right place at the right time. Frontline staff do not have to be experts in prevention. Staff do need the confidence to have a conversation and feel confident that they can refer or signpost people onwards for more specialist help when needed. Frontline staff who are putting MEOC into practice tell us that it an accessible and sustainable way to build prevention into their day to day encounters with the public. People tell us that they don't mind having a wellbeing conversation with staff. Sometimes, following a wellbeing conversation, spontaneous conversations about wellbeing happen in families, with friends across the community.

There are many examples of people from across Grampian who, following a wellbeing conversation, have proactively taken steps to live as well as they can in their current circumstances. Knowing that they have been able to make a difference to someone, however small, makes a big difference to staff job satisfaction.

With any interventions aimed directly at individuals, there is a concern that inequalities could be widened when those with the means to change do so and those in more difficult circumstances do not. The inclusive tone and proactive style of conversation promoted in MEOC aligns it towards the evidence base for reducing inequality. Support, when offered in this way, is more likely to contribute to meeting people's needs, even if those needs are not a direct responsibility of the service. If every frontline staff member was able to have this type of conversation, the chances of providing proportionate and appropriate support to people in the right, time and place are higher.

For the individual having a wellbeing conversation, the focus moves from disease and risk to their life and what is important to them. The aim of the conversation is to focus on the benefits people can gain by taking small steps whatever their life circumstances. People who need more help can be referred on or signposted to more specific services. Preventing cancer may not be the prime motivation for change, but certainly could be an added benefit to the change.

Whilst a brief conversation can be effective for an individual to live better, we will only make a difference to our population's health and risk of cancer if a preventative approach is at the heart of how NHS Grampian and its partners conduct business day in, day out.

To achieve this, managers and partners will want to encourage and enable their frontline staff to make this approach their own and just part of how we do things here in Grampian, taking advantage of simple steps and online resources.



# Concluding remarks on preventing cancer in Grampian

The number of cancers diagnosed each year in Grampian is forecast to continue rising over the next ten years.

Cancer is neither inevitable nor unavoidable, but we can stop this projected increase by addressing some of the cancer risk and protective factors that can be altered. There are numerous opportunities for change and improvement in Grampian. Making these changes, can help to reduce the increased demands on our services in the future, reduce the variation in cancer outcomes and improve the overall health and wellbeing of our population. Our ambitions for cancer prevention are that: People in Grampian are informed effectively and supported appropriately to make personal changes to their lifestyle which can reduce their risk of cancer.

All communities across Grampian establish and maintain conditions which minimise cancer risk factors and optimise cancer protective factors.

NHS Grampian and our partners, working as a public health system, commit to the vision and leadership which enable the right conditions for health and wellbeing in the places where we live, work and play.







