



SCPN 

Newsletter

Scottish Cancer Prevention Network - Evidence to Practice and Policy

VOL 8 . ISSUE 1



The SCPN are committed to getting the word about cancer prevention out to individuals, health professionals, policy makers and government.

We want to let everyone know what they can do to stack the odds against developing cancer through lifestyle choices. It's not enough for individuals to attempt to change. Health professionals, cancer charities and other agencies with an

interest in this field want to be informed about the latest research on how to support that change. Policy makers and government also have a role to play in ensuring our environment and legislative structures enable change rather than inhibit it.

We promote action for cancer prevention by disseminating news on recent research, initiatives and events through our website, newsletters and social media platforms.

What did our survey tell us?

96%

rated our newsletter **GOOD** or **EXCELLENT!**



Over **a third** of our readers also engage with us on social media.



90% of respondents did not know there is an **SCPN Blog!** Follow us at scpnblog.wordpress.com.

What our members think about the newsletter



find it informative



rated editorials excellent/very good



find it relevant to work/life

The SCPN has:

- ✓ **Supported** work around cancer risk factors 87% agree/strongly agree
- ✓ Increased **knowledge** of research on lifestyle and cancer risk 89% agree/strongly agree
- ✓ Raised **awareness** of primary cancer prevention and in cancer survivors 86% agree/strongly agree
- ✓ **Encouraged** action to prevent cancer 82% agree/strongly agree



2 in 3 respondents are aware of our Healthy Meetings Initiative



What could we do better?

- More research/reports
- More examples of good practice
- More public health/3rd sector news & events



Thank you for more than **90 ideas** for improving the newsletter - we're on it!

Join our network

<https://thescpn.org/join-scpn>

SCPN STUDENTS

thescpn.org/scpnstudents

Follow us on Social Media



@thescpn

Papers of the Year 2016



In December, the Scottish Cancer Prevention Network invited members, colleagues and regular **SCPN**

newsletter contributors to recommend what they had been reading on cancer prevention during 2016. We asked each one to recommend the paper they thought would be most valuable to share. Ten contributions were published on our blog site covering a range of subjects from management of prostate and pancreatic cancers to the economic advantages of obesity prevention and the benefits of smoking cessation even in advanced years. A very interesting read. If you would like to access these blogs and many more visit <https://scpnblog.wordpress.com/>

SCPN + Instagram



Last year, the SCPN joined Instagram – a popular photo and video based social network with over 500 million users and 95 million posts per day. It's all about visual storytelling, and

whilst you might use it to communicate your life story – through anything from holiday snaps to bragging about your delicious home-cooked meal – organisations like the SCPN are using Instagram to communicate their message in a new and engaging way. In 2014, 26% of all internet users were using Instagram, and a staggering 53% of internet users aged 18-29 – this compares to just 37% of those aged 18-29 who used Twitter, and the numbers across all demographics are expected to grow. There are no links to external content on Instagram, so care must be taken to deliver our messages on prevention as visually and succinctly as possible – a new challenge for the SCPN, but one with obvious benefits. Follow @thescpn today to see what it's all about!

SCPN students

Do you want to eat healthily without spending a fortune? Would you like to spice up your gym routine with an exercise

of the week? Would you like to become part of a group of students inspiring young people to make lifestyle changes to prevent cancer? Then check out SCPN students on social media!

Healthy Meetings

thescpn.org/healthy-meetings



Save the date

Look out for No Smoking Day 2017

Date: **8 March 2017**

Hashtag: **#NoSmokingDay**

There will be more information on ASH Scotland's website soon.

<http://www.ashscotland.org.uk/>

Editorial

Happy New Year and welcome to our new style SCPN newsletter. We have been studying the feedback from our annual survey and we have had three very clear messages for change.

- 1) More science – including work in Scotland
- 2) More good practice ideas
- 3) More public health dimensions.

To satisfy these requests.... you will find our new section on evidence relating to cancer prevention and early detection including an update on prevention papers and a focus on one paper (review/guideline) we really think you should read. We also have Scottish cancer statistics, an insight from one of our national experts, and a spotlight on some recent Scottish research.

Don't worry – we haven't forgotten about practice, policy and public health action. Dr Andrew Fraser reflects on the Christie commission on delivering public service, Obesity Action Scotland provide information on their briefing papers, CRUK comments on minimal alcohol pricing and we remember No Smoking Day. These messages consolidate many key public health dimensions for cancer prevention.

Our good practice example highlights some great work to get children cycling and hopefully their parents alongside them. We have some campaigning tips from Australia in the article on the '1 in 3 cancers' campaign. I'm happy to say our food section still has a wonderful innovative recipe from Kellie Anderson but will now also have some tips on using Scottish vegetables season by season.

All in all, some new ways to get updated with current evidence and think again about current policy and practice. Most of the content comes from people who submit articles/photos/ideas and requests. Please feel free to contact us with your thoughts and views at any time – don't wait for the annual survey!

Enjoy!

Professor Annie S. Anderson

@anniescotta

Professor Bob Steele

@BobSteele6

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THE TEAM

Dr Maureen Macleod - SCPN Fellow

Jill Hampton - Network Administrator

Bryan Christie - Journalist

Eoin McCann - Designer

Connor Finlayson - Digital Communications



Play on Pedals

Prof Chris Oliver, Physical Activity for Health Research Centre, University of Edinburgh

About 60% of Scots men and women meet the Government's recommended physical activity guidelines of moderate activity for 150 minutes or more per week or at least 30 minutes five days a week. It is estimated, however, that if everyone was physically active then around 10% of breast, bowel and womb cancer cases would be prevented.

Play on Pedals is a project, supported by the People's Postcode Lottery, which is enabling every pre-school child in Glasgow to learn to ride a bike. Children have the opportunity to try out balance and pedal bikes and receive support from Play on Pedals Instructors to learn to pedal. As well as being lots of fun, learning to ride a bike is an important life skill. The children that have participated in Play on Pedals have

developed both physically and socially, with changes to their confidence, resilience and interactions with their peers being noted by instructors.

By December 2016 the award winning project from Cycling UK, Cycling Scotland, the Glasgow Bike Station and Play Scotland had worked with 7,148 children in the preceding two and a half years. There have been over 230 community events run across Glasgow; 364 instructors and instructor trainers trained to teach children to ride; and grants have been given to 35 organisations to develop the project locally. Early years organisations have enjoyed at least eight weeks on the bikes, with 182 nurseries and childcare establishments across the city getting involved.

Many participating centres have purchased their own bikes or received donations from Play on Pedals bike amnesties. Over 450 balance and pedal bikes are now in use across Glasgow thanks to the project, enabling the continued delivery of training and activities for pre-school children. Bike mechanics also provide bike safety checks.

Perhaps these young cyclists will encourage their families to start riding or get back to riding themselves with all the enhanced benefits of physical activity starting so early in life? The impact of the Play on Pedals project is currently being measured but there are plans to roll the project out throughout Scotland.

Website: <http://www.cyclinguk.org/project/play-pedals>

Twitter: [@PlayOnPedals](https://twitter.com/PlayOnPedals)

Briefings Launched



Obesity Action Scotland (OAS) recently launched a suite of briefings around the subject of obesity. Exploring the relationship between obesity and its contributory factors, the briefings look in-depth at how obesity in the UK is shaped by external factors, using evidence and providing policy actions to tackle the current obesity crisis. The current list of briefings includes:

- Obesity in Scotland

- Obesity and Portion Size
- Obesity and Reformulation
- Advertising, Marketing and Obesity
- Obesity and Labelling
- Obesity and Price Promotions
- Obesity and NHS Scotland Staff
- OAS will continue to produce additional briefings.

All current briefings are available at: <http://www.obesityactionscotland.org/our-work/briefinwgs>

The Scottish Bowel Screening Centre - 10 years on

Linda Brownlee, Scottish Bowel Screening Service Manager



screening.

Our small team of laboratory staff have tested millions of kits. The laboratory turnaround time is one of the quickest in screening services - we get the results back to participants well within 14 days of receiving their test kit. The team has grown over those ten years, not just in staff numbers but also some staff have become Mum and Dads and Grannies and even a Great Granny! There have been 11 babies born to the staff!

Every day the Bowel Screening IT System, fondly known as "BoSS", generates the invitation letters, results and reminders automatically for everyone aged 50 to 74 (don't worry, when you pass 75 you can still take part - just give us a call on 0800 0121 833). Around 6,000 letters go out each day and every one is carefully packed with a return envelope, vital little cardboard sample applicators and of course the test kits so that every eligible person in Scotland can safely complete their bowel screening kit in the privacy of their own bathroom. A few years ago we were sorry to stop the operation of the bespoke mail machine, the "Stuffer", which ensured the mail was ready for pick up each day here at Kings Cross. Now an outsource company does this and we

only check they've reached our high quality standards - and they do!

Our admin team is solely devoted to answering the Bowel Screening Helpline. Around 350 calls come in each day from across Scotland asking questions about bowel screening. Some take the whole process as a straightforward health check and others, especially if they've had a previous cancer scare, can be very anxious and upset. If people are asked to submit a second test (if tiny traces of blood were found in their first sample) waiting for the result is a very anxious time and these callers can be a bit tearful. We get calls from people who find the whole idea too stressful or can't understand how to do it. Every call is confidential and we are happy to help, no matter how daft a question seems.

Over 70,000 people have been referred for colonoscopy, with hundreds having had a bowel cancer found early, thousands have had polyps removed that may have become cancerous and many of these people had no idea there was anything wrong as very often bowel cancer has no noticeable symptoms. You can see the figures on cancers detected on the ISD website at <http://www.isdscotland.org/Health-Topics/Cancer/Bowel-Screening/>

NHS Tayside has hosted the Scottish Bowel Screening Centre at its Kings Cross site since it was opened by Shona Robison MSP in June 2007. A lot has happened in those ten years!

We've had literally hundreds of tons of bowel screening test kits returned to the laboratory by Royal Mail from every corner of Scotland. It used to be sacks and now its boxes of mail- it's busier than Blue Peter in the seventies!!

Over the years there have been many dedicated staff pass through our laboratory and admin teams, 66 to date, each one playing their own vital role in the huge machine that is bowel

If you think the day job is tough...

We thought you might enjoy this blog post from Dr Judith Mackay, an eminent tobacco control researcher and activist, identified by the tobacco industry as one of the three most dangerous people in the world! A woman working in a

man's world and based in Hong Kong, which in the 1970 and 80s was a very misogynistic society, Dr Mackay recounts a lifetime of anecdotes, of a life spent battling for women's rights in health and especially the anti-tobacco

arena. Never one for the mundane this blog is well worth a read! <http://blogs.sps.ed.ac.uk/global-health-academy/2016/09/06/proud-to-be-a-dangerous-woman-prof-judith-mackay/>

Celeriac and Chestnut Soup – Low Calorie and High Fibre

Recipe and image by Kellie Anderson, MSc - kelliesfoodtoglow.com



Chestnuts and celeriac bring out the best in each other in this luxurious, velvet-smooth, low calorie winter soup. The soup is gluten-free and vegan. A perfect soup for after holiday indulgences.

Add an easy foam and a few shavings of summer truffle (available at many supermarkets) to make it fancy - even on a wet weekday afternoon!

- 1 celeriac (celery root), about 1 kg unpeeled weight or 800g peeled

and trimmed

- 350-400g peeled and cooked chestnuts
- 1 leek, chopped (about 125g chopped weight)
- 2 bay leaves
- 1 large sprig of fresh thyme (about 8 small "supermarket" sprigs)
- 2 tbsp freshly grated horseradish root, or bought grated horseradish (not sauce)
- 1.7 litre vegetable stock (low salt if possible)
- A few shavings of fresh truffle - optional

The Foam - 150 ml skimmed milk or plant milk, and a milk frother wand

Method:

1. Peel and roughly chop the celeriac.
2. Add to a large soup pot along with the remaining soup ingredients, except the truffle, if using.
3. If you can parcel up the thyme and bay leaves in a bit of muslin cloth or bouquet garni bag, do this.
4. Bring to the boil; reduce to a simmer. Gently bubble for 20 minutes.
5. Fish out the bay leaves and sprigs of thyme, then ladle into a blender, blending it in batches until completely smooth.
6. Pour back into the pan and gently reheat.

Just before serving, make the foam by adding the milk to a steep sided pan and heating gently. Use a frother to make a light foam and immediately dollop onto each filled bowl. Sprinkle over a little grated horseradish and shaved truffle, if using.

Scottish vegetables – winter

A winter 5 a day plan would benefit from a focus on vegetables. The choices abound – but we do sometimes forget that beyond carrots and swedes our root crops include artichokes (Jerusalem), parsnip, beetroot and celeriac. Above ground the leeks brave winter as do the brassicas including sprouts, broccoli, red cabbage and kale.

Kale (and other brassicas) are of particular interest to cancer researchers because of the naturally occurring phytochemical, sulforaphane. This compound activates Nrf2, a transcription factor which can favourably modify genes associated with chemoprevention. Additionally there is some evidence from long term studies that people with the highest intake of these type of vegetables experience a slower rate of cognitive decline as the years progress. Kale also contains lutein which has an important role in vision and is associated with reducing the risk of age related macular degeneration.

There is much to learn about bioavailability, dose and effect of

the small amounts of these important components which occur in vegetables, but we have enough data to say that including many brassicas in the diet regularly is no bad thing.

What to do with kale

- Chop raw kale finely and add to piping hot soup 2-3 minutes before serving
- Oven roast for 8 mins (180°C) for a crispy texture when preparing other roast veg
- Cook kale in boiling water for 3-5 minutes, drain and chop- add to lasagne or green pasta sauce (mix with pesto)
- As a side vegetable – stir fry chopped kale in sesame oil, adding finely chopped ginger and shallots
- Chop very finely and add as the last touches to salads (great for purple kale on a green salad)

For other recipes check out the website of Christopher Trotter, Fife's Food Ambassador <http://www.fife-food-ambassador.co.uk>



www.fife-food-ambassador.co.uk/scottishfoodblog/recipe-of-the-month/303/

There is lots of great work going on in Scotland to encourage more home grown veggie consumption. Check out the Veg Project by Nourish <http://www.nourishscotland.org/projects/veg-project/> and watch out for veg ideas from Greener Scotland <http://www.greener-scotland.org/sites/default/files/EIS-calendar13-14.pdf>.

For info on local cooking projects see also Community Food and Health (Scotland) <http://www.communityfoodandhealth.org.uk/>

Scottish Cancer Foundation Prize 2016

Sheila Duffy, Chief executive ASH Scotland



In November 2016 I was delighted to be honoured by the Scottish Cancer Foundation (SCF) with their annual prize, marked by the Evans Forrest Medal and a grant of £10,000 towards our work.

The prize is awarded to the person who in the opinion of the Scottish Cancer Foundation Board has made the most significant contribution to reducing the burden of cancer in Scotland.

2016 was a special year for those of us working on reducing tobacco harm. In March, we celebrated ten years of the successful implementation of smoke-free enclosed public places and noted the measurable health improvements that have followed on from this legislation.

In May, the phased introduction of standardised tobacco packaging throughout the UK began, and this measure should be fully in place by the end of May 2017. In November, the Scottish Health Survey reported a marked reduction in children's exposure to tobacco smoke in the home, an issue that has been the focus of national mass media campaigns encouraging smokers to 'Take it right outside' for the past few years. These campaigns have helped to remind people of the harms from breathing tobacco smoke, and helped pave the way for the prohibition of smoking in vehicles with under 18s present which was implemented in early December.

Last year was of course seismic in many other ways, including the election of a new Scottish Parliament in May and the UK vote to leave the European Union in June. Confident predictions here and abroad were often overturned, and the phrase 'post-truth' frequently used.

ASH Scotland's campaigns and policy stances are built on research evidence which we present in debates to help frame the issues and assess proposed solutions. In this approach we have seen success in persuading policy makers and the general public that action is justified. The tobacco industry

and its allies such as FOREST have cast doubt on the research and tried to muddy the very definition of evidence, but the debates in Scotland have largely centred around measurable facts and reasonable assumptions.

In the recent 'post-truth' era, perception and success in catching public support seem often to be driven by appeals to emotion rather than by facts or expert opinions. But some truths resonate. With the SCF prize money, which is supported by the Grant Simpson Trust, I want to try to address a gap in current knowledge by seeking out the views of ex-smokers and smokers living in challenging circumstances where smoking rates are high, and to find out more about their experiences of using and quitting tobacco. Around two thirds of those who quit smoking succeed without support and about half say they found it easier than they had expected. Learning more from their experiences will help us to engage more effectively with communities most at risk from tobacco related harm. As Dr Margaret Chan, Director-General of the WHO recently said: "Every death from tobacco is an avoidable tragedy". In a world full of so many new and old threats, tackling tobacco offers a sure opportunity to save lives.

The Christie Report – a framework for cancer prevention

Dr Andrew Fraser, Director of Public Health Science, NHS Health Scotland

From time to time a document emerges that really is a game-changer. Campbell Christie, the trade unionist turned public service leader, chaired a commission that bears his name.¹ Although Campbell Christie died shortly after publication, his report provides the framework to take prevention seriously – in all its forms and with great potential influence on cancer. The Commission called for a different way of delivering public services, and inspired four principles:

1. A decisive shift towards prevention

– saving lives, money, resources and avoiding waste of human life.

2. Greater integration of public services – joining up efforts, for instance, to prevent cancer in settings far from healthcare.

3. Investment in people who deliver services – not only are public service workers a large sector of the workforce, but they also need to be looked after, look after themselves, and support people's wellbeing across the board.

4. Focus on improving performance

– services can always seek to improve. Individuals and teams can do this by highlighting good ideas, positive developments, being accessible to people and groups that need proportionately more support, ensuring that evidence backs the intervention, and seeking to spread good practice.

Applying these principles to cancer prevention – all public services recognise the force of Christie's proposals – could save many lives and cost us all much less.²

1. Commission on the future delivery of public services, 2011 (Christie Commission) <http://www.gov.scot/resource/doc/352649/0118638.pdf>

2. Renewing Scotland's Public Services: Priorities for reform in response to The Christie Commission, 2011 <http://www.gov.scot/Resource/Doc/358359/0121131.pdf>



Alcohol, Cancer and a 50p MUP

The Scottish Parliament passed a bill in 2012 to bring in a 50p minimum unit price (MUP) for alcohol in Scotland.¹ The measure has been subject to a legal challenge by the alcohol industry² but in October 2016 the policy was found to be compatible with EU law by the Scottish Court of Session.³ Previous research has shown that this policy will reduce average consumption in Scotland by 3.5% (0.5 units/week) and annual alcohol attributable mortality by 7.4% (121 deaths/year) by the year 2020.⁴

A **recent study** commissioned by the Policy Research Centre for Cancer Prevention (PRCP), Cancer Research UK⁵, showed that a 50p minimum unit price in England would result in the following over the next 20 years:

- Reduce all alcohol-attributable deaths by 7,200, including cancer deaths by 670
- Reduce all alcohol-attributable hospital admissions by 386,000, including 6,300 for cancer admissions
- Reduce healthcare costs by £1.3 billion

These findings are a strong reminder of why population level alcohol interventions are vital for the sustainability of the health service. The data presented in this report clearly show that MUP is an effective measure for preventing not only cancer, but also other alcohol attributable harms to society.

For more information please contact Dr Gillian Rosenberg gillian.rosenberg@cancer.org.uk

1. Alcohol (Minimum Unit) Pricing Act 2012.

2. <http://www.alcoholfocus-scotland.org.uk/news/swa-will-appeal-to-uk-supreme-court/>

3. Lord Carloway. Opinion of the court delivered by Lord Carloway, the Lord President in the reclaiming motion the Scotch Whisky Association and others against the Lord Advocate and the Advocate General. First division, Inner House, Court of Session., 2016.

4. Angus C, Holmes J, Pryce R, Meier P, Brennan A. Model-based appraisal of the comparative impact of Minimum Unit Pricing and taxation policies in Scotland. An adaptation of the Sheffield Alcohol Policy Model version 3: University of Sheffield, 2016.

5. Angus C, Holmes J, Pryce R, Meier P, Brennan A. Alcohol and cancer trends: Intervention Studies: University of Sheffield and Cancer Research UK, 2016.

"1 in 3 Cancers" campaign

Kathy Chapman, Director, Cancer Programs Division, Cancer Council NSW

In Australia, Cancer Council NSW is excited to launch a new cancer prevention campaign, addressing ways people can reduce their cancer risk through healthier lifestyle choices.

The "1 in 3 Cancers" campaign is based on the strong evidence linking modifiable lifestyle behaviours to cancer risk, and draws on research published in 2015 in the Australian and New Zealand Journal of Public Health; Cancers in Australia in 2010 Attributable to Modifiable Risk

Factors. Findings from Cancer Council's 2016 NSW Community Survey on Cancer Prevention showed a low level of awareness of the cancer risk associated with being inactive, being overweight or obese, not eating enough fruit and vegetables, eating too much red and processed meat and drinking too much alcohol. By providing clear, evidence-based information about how lifestyle factors can influence cancer risk in the population, the campaign hopes to help

people make positive changes to reduce their risk of cancer.

The campaign will run across NSW TV, digital and social media channels for six weeks. All campaign resources, including the 60 second TVC, can be viewed on the campaign website www.1in3cancers.com.au. A Cancer Risk Quiz is also available on the campaign website, helping users to understand their cancer risk status and gain tips for reducing their cancer risk.

Women have lots to gain in cancer prevention

The number of cancer cases in Scotland is projected to rise by 33% between 2008-2012 and 2023-2027.¹ Much of this increase can be attributed to an ageing population but for some of the most common cancers there appears to be a gender story emerging. The age-standardised incidence rate per 100,000 population for males is projected to remain fairly stable with only a slight rise between 2008-2012 and 2023-27. For females, the rate is projected to increase from 590 per 100,000 population in 2008-12 to 650 per 100,000 in 2023-27.

Lung cancer is the commonest cancer in Scotland with 25,475 new diagnoses between 2008 and 2012. New cases of lung cancer are projected to increase by 20% between 2008-2012 and 2023-2027. However, for females, the percentage increase is predicted to be 29% (compared to 12% for males). The number of cases of lung cancer in females is predicted to be more than in males for the first time in 2023-17. Smoking is the principal cause of lung

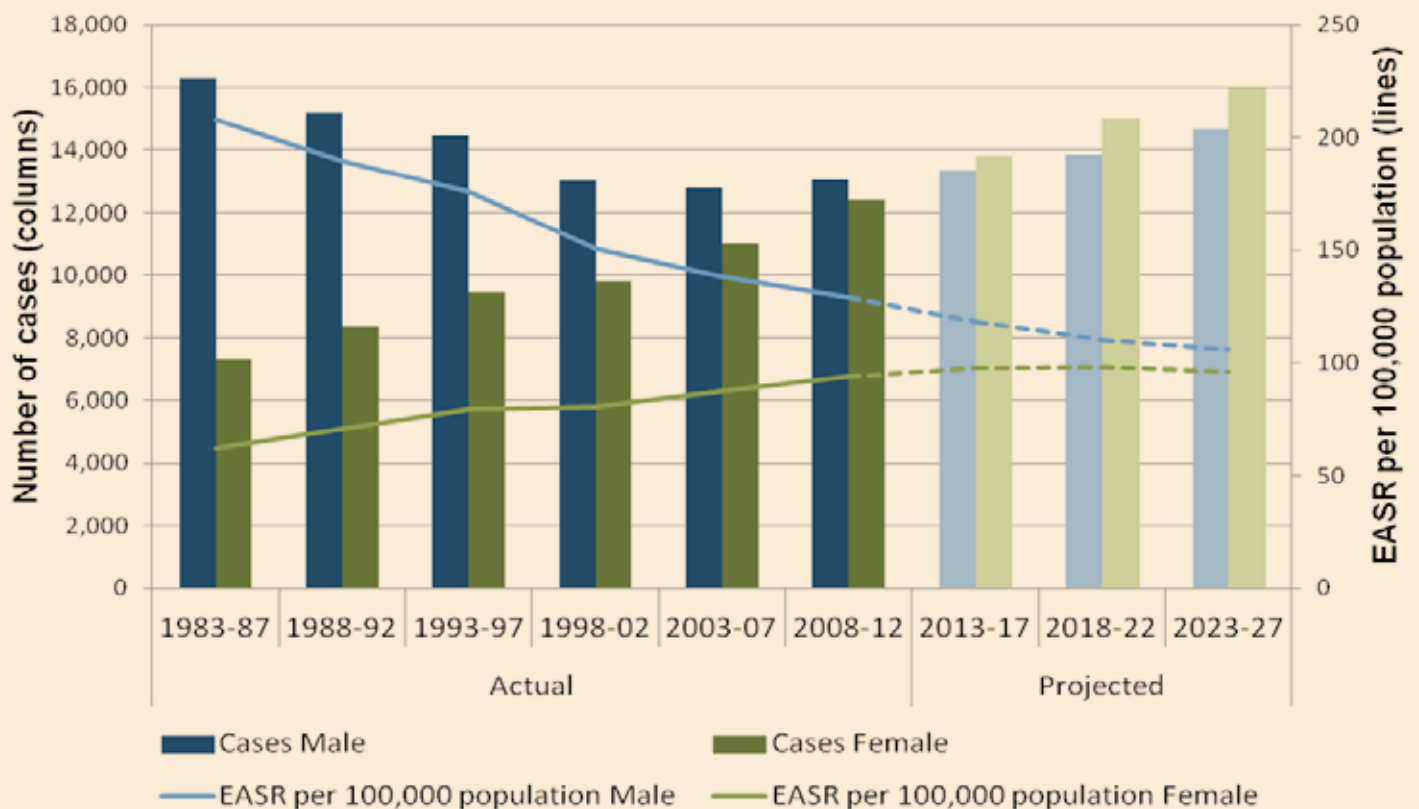
cancer. It is thought to be responsible for 85% of cases. This gender imbalance is thought to mirror the smoking patterns of the population with male smoking having seen a decline over recent years but there has been a rise in women smokers.

Cancers of the head and neck is the fifth most common type of cancer in Scotland. The number of new cases is projected to increase by 37% between 2008-12 and 2023-27, however, the projected increase in females (57%) far outweighs the 28% predicted increase for males. The age-standardised incidence rate is also projected to increase for both males and females over this period, but the increase in the rate for females is expected to be larger than for males (6% increase for males and 31% for females). This may again be a reflection of the changing culture in women's drinking and smoking. The evidence that alcoholic drinks are a cause of cancers of the mouth, pharynx, and larynx is convincing.² The risk is multiplied when drinkers of alcohol also smoke tobacco. Non-starchy vegetables, fruits, and also

foods containing carotenoids probably protect against these cancers. It has been estimated that up to half of these cancers are preventable by appropriate diets and associated factors.

Similarly, cancer of the kidney is projected to rise by 85% in women compared to 63% in men. Smoking is a cause of kidney cancer. Both current and former smokers have an increased risk of renal cell cancer compared to people who have never smoked. The *Continuous Update Project*³ also concluded that there was convincing evidence that greater body fatness is a cause of kidney cancer and estimated that about 19% of kidney cancer cases could be prevented in the UK if everyone had a healthy weight.

Women have lots to gain from making lifestyle changes to lower their risk of cancer and we as policy makers, health professionals, cancer charities and academics all have a role to play in facilitating and supporting that change.



1. Cancer Incidence Projections for Scotland 2013-2027 (2015), Information Services Division, NHS National Services Scotland.

2. World Cancer Research Fund / American Institute for Cancer Research. Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective. Washington DC: AICR, 2007

3. World Cancer Research Fund International/American Institute for Cancer Research. Continuous Update Project Report: Diet, Nutrition, Physical Activity and Kidney Cancer. 2015. Available at: wcrf.org/kidney-cancer-2015



Examining The Impact Of Multi-morbidity Across The Cancer Care Continuum Using SPIRE Data: A Feasibility Study

Dr Christine Campbell, University of Edinburgh

Background: Living with more than one long-term health condition (multi-morbidity) is common in Scotland. It is present in most people aged 65 years and older, and occurs 10–15 years earlier in people living in the most deprived areas. We suspect that multi-morbidity has the potential to affect many stages in the cancer care continuum, from participation in screening, recognition of potential signs and symptoms of cancer, suitability and response to treatment, and how long people survive.

Aim: This project is examining the impact of multi-morbidity on the cancer diagnostic pathway, treatment, and survivorship in Scotland for lung and colorectal cancer.

What is actually being done: We are examining anonymised patient data from linked datasets from the Scottish Cancer Register, hospital records, prescribing data, the bowel screening programme and a national primary care database (SPIRE) to look for associations between multi-morbidity and participation in bowel screening, stage at cancer

diagnosis, type of treatment given, and patient survival. We will look to see if there is any difference between men and women, by age group, and by level of deprivation.

What information will the study provide: Detailed information about how multi-morbidity impacts on the cancer journey of patients with lung and colorectal cancer in Scotland.

When will we hear the results: We are currently analysing the data and expect to have results by the end of 2017.

Have you seen this paper?

Adherence to Diet and Physical Activity Cancer Prevention Guidelines and Cancer Outcomes: A systematic review

Kohler LN, Garcia DO, Harris RB et al *Cancer Epidemiology, Biomarkers and Prevention* (2016) Vol. 25, Issue 7 (Pages 1018-1028)

<http://cebp.aacrjournals.org/content/25/7/1018.long>

Why is this paper important?

Although the public are aware of smoking as a risk factor for cancer, many people are sceptical that the cancer prevention effects of diet and activity actually have an impact. After all, the healthiest and fittest still seem to get the disease. There are no guarantees that following a “cancer prevention” lifestyle

will mean you will be forever disease free BUT this systematic review of 12 studies from across Europe, Canada and America provides some of the best evidence yet.

People highly adhering to either WCRF (<https://www.wcrf-uk.org/uk/preventing-cancer/ways-reduce-cancer-risk>) or ACS recommendations for diet and activity were consistently and significantly associated with a decrease in overall cancer incidence and mortality. In terms of cancer incidence the reductions ranged from 19 to 60% for breast cancer and 27 to

52% for colorectal cancer (in both men and women).

Main take home messages

Cut the risks by working on diet quality (fibre, wholegrains, pulses, vegetables and little red meat) AND quantity (watch the calories) AND physical activity (all types, but achieving 150 minutes moderate activity a week is a good start) AND alcohol (as little as possible) AND body weight. They all count!

Bottom line You can't outrun a bad diet AND you can't outdiet poor activity levels.

Expert Insight



Bob Steele, SCPN Co-director, Professor of Surgery at the University of Dundee and chair of the UK National Screening Committee

This is because:

- The test which is available for use in screening, Prostate-Specific Antigen (PSA), is neither very specific nor very sensitive, and is unable to distinguish between slow-growing and fast-growing cancers.
- There is therefore a risk that a national screening campaign would lead to a high number of false positives.
- There are major harms to treating men who incorrectly test positive. These include impotence, incontinence and rectal problems.
- There is currently no viable alternative test to the PSA, although evaluation is currently taking place which could have the potential to improve the accuracy of PSA testing to identify men at greater risk of fast-growing prostate cancers.
- Thus, the Committee felt that the risk of administering unnecessary and harmful treatments in the case of false positives outweighed the potential reduction in prostate cancer deaths.

The Committee continues to monitor the findings from large trials (the PROTECT study most recently) to see if improvements in tests and treatments will shift the balance of harms and benefit of PSA testing in favour of screening.

In the meantime, the National Institute for Health and Care Excellence (NICE) guidelines for Suspected cancer: recognition and referral (June 2015) is available to help GPs assess when it is appropriate to refer patients for suspected cancer, including prostate cancer. The guidelines are available on NICE's website at www.nice.org.uk/guidance/ng12.

The UK National Screening Committee (UK NSC) advises ministers and the NHS in the four UK countries about all aspects of screening and supports implementation of screening programmes. In 2016, Prof Bob Steele (Director of Centre for Research into Cancer Prevention and Screening, University of Dundee) was appointed independent chair of this committee. We asked him a few questions about topical issues in cancer screening.

Many men are offered prostate specific antigen (PSA) testing by their GP to test for prostate cancer - how near are we to having a national prostate screening programme?

The UK NSC reviewed the evidence for screening men for prostate cancer last year at its November meeting. Whilst it found that the evidence suggests that prostate screening does reduce prostate cancer deaths, the Committee's overall recommendation was that population screening for prostate cancer should not be offered at this time.

The most recent statistics show that around 600 women in Scotland are diagnosed with ovarian cancer per year. Is there an easy way this can be detected early through screening?

Yes, a combination of the circulating tumour marker CA125 (a blood test) and an ultrasound does appear to detect ovarian cancer early. However, the UK Collaborative Trial of Ovarian Cancer Screening has yet to demonstrate that this will prevent deaths from ovarian cancer if it were used in a national screening programme. The UK NSC will wait for further data before a review of the recommendation can be made.

Is there a concern that current lung cancer screening trials might result in a "health certificate" effect for people who smoke but do not have a positive diagnosis?

Yes, this is a concern, and it is important that "quit rates" are analysed in the ongoing trials of lung cancer screening.

Sometimes we forget how great the NHS is in offering free bowel cancer screening. People with positive tests are offered a free colonoscopy - how much might this cost in the private sector?

Costs in the NHS and in the private sector are not strictly comparable and charges for private procedures are highly variable, but a rough estimate would put the cost of a colonoscopy at around £1800.

Cancer and lifestyle – research round up

Physical activity communication between oncology providers and patients with early stage breast, colon and or prostate cancer

Nyrop KA et al. *Cancer* (2016) Volume 122, Issue 3, Pages 470–476

<http://onlinelibrary.wiley.com/doi/10.1002/cncr.29786/full>

We all know that physical activity is good but how often is this endorsed by health care staff? A recent study from the USA analysed 361 verbal communications between patients

diagnosed with early stage cancer and clinical staff (doctors, nurses and assistants). The researchers then checked patient's charts for any evidence of a physical activity communication. In total, 35% of the consultations showed an indication that physical activity had been mentioned. Medical Oncologists were more likely to mention activity (55% of consultations) compared to other health care staff (20%). Interestingly, physical activity was more likely to be mentioned as age increased and if the patient was under surveillance having

chemotherapy or endocrine treatment than during radiation treatment or surgery.

The authors conclude that it is feasible to have physical activity discussions during clinic visits but more work is needed to increase the reach. Physical activity reminders and "smart phrases" in electronic case records is one route to explore.

How good are we in Scotland at getting a conversation about the benefits and practicalities of physical activity into our NHS consultations?

Recreational physical activity and risk of triple negative breast cancer in the Californian Teachers study

Ma H et al. *BMC Breast Cancer Research* (June 2016)

<http://breast-cancer-research.biomedcentral.com/articles/10.1186/s13058-016-0723-3>

During 1995 and 1996 female Californian teachers aged 22 to 79 with no history of breast cancer were invited to complete a baseline questionnaire which collected detailed information on physical activity. Participants filled out a follow up questionnaire in 2005 to 2008. By 2012, 5882 women were diagnosed with invasive breast cancer. Women who engaged in strenuous recreational

physical activity (at baseline or follow up) were less likely to have invasive cancer – notably in women with triple negative cancer who were former users of HRT at baseline. Women who consistently maintained high levels of strenuous activity (>3.51 h/week/year) had the lowest risk of breast cancer.

A reminder that it's never too late to start getting active and making some of those moderate minutes more intense.

Wholegrain consumption and risk of cardiovascular disease, cancer and all cause and cause specific mortality: systematic review and dose-response meta-analysis of prospective studies

Aune D et al. *BMJ* (2016) 353:i2716

<http://www.bmj.com/content/353/bmj.i2716.long>

It is not possible to do long term (maybe even life time) intervention studies of diet and cancer risk so we rely heavily on observational data. This study pooled the results from 45

studies so it as robust as they come in this field.

The authors report that the relative risk of coronary heart disease, stroke and cardiovascular disease was significantly reduced per three servings of wholegrains per day (90g/day). In studies involving 640065 patients, total cancer risk was significantly decreased (summary relative risk was 0.87, (CI 0.83 to 0.92) per 90g of wholegrains per day) as was all cause mortality. Reductions in disease risk were observed up to 210 to 225g of wholegrains per day. It is also notable that there was little evidence of an association between refined grains

(white bread, white rice) and positive health outcomes.

The government recently changed our national recommendations to increase dietary fibre intake to 30g per day. Start with wholegrain cereals. Three servings of wholegrains equal two slices wholegrain bread plus a bowl of cereal... Add in wholemeal pasta, brown rice, barley and life starts to look good! For more information see our twitter campaign #WholegrainsForHealth and our #souponsaturday recipes <http://www.cancerpreventionscotland.org.uk/resources/souponsaturday/>