



Newsletter

Scottish Cancer Prevention Network - Evidence to Practice and Policy

VOL 9. ISSUE 2



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.

Scottish Cancer Prevention Network Student Bursary

The SCPN student bursary has been awarded this year to Fergus Brown, a 4th year medical student from the University of Glasgow. Fergus is travelling to Cuba for a month's period of elective study in anaesthetics and primary care.

In his application Fergus said "I felt it would be a missed opportunity to spend time in the Cuban healthcare system without

gaining experience of the preventative healthcare it is renowned for. Cuba spends \$817 a year per head on healthcare, while the UK spends \$3,935. Yet, it has a cancer rate of 218.0 per 100000 compared to our 272.9. While of course environmental factors may play a large part in this difference, Cuba's preventative approach to healthcare no doubt does too."

Fergus' experiences of primary care in the UK have shown him that time

pressures and a lack of systemic emphasis on prevention mean that most consultations are not used as teachable moments, and that opportunities to promote cancer prevention behaviours are missed. The Cuban emphasis on a preventative role for primary care physicians means that with limited resources the country can provide an effective healthcare service, one he will learn a lot from in terms of cancer prevention.

Bon voyage and we look forward to hearing all about it.



Fergus Brown with student bursary award

Join our network

www.cancerpreventionscotland.org.uk/subscribe/

SCPN STUDENTS

www.cancerpreventionscotland.org.uk/students/join/

Follow us on Social Media

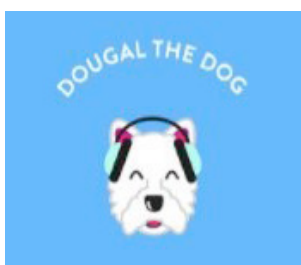


@thescpn

Introducing Dougal?

At this year's conference we had a very special delegate. He was Dougal, our lovable new mascot designed by the winners of last year's SCPN Art & Design prize. Since February you may have seen him working hard to get the cancer prevention message across – dancing in our social media campaign #dancercize and promoting

small changes to help prevent bowel cancer for bowel cancer awareness month. Hopefully you'll be seeing a lot more of him.



We gave each delegate a Dougal brooch so they can take him for a walk if they don't have a dog of your own.'



Have you seen these blogs?

If you are not already you really should follow our blog (<https://scpnblog.wordpress.com>). We write about all sorts of interesting topics relating to cancer prevention

– some serious, some humorous, but hopefully all thought provoking and interesting. Topics we have covered this year include *dancing*, *the SCPN's kitchen table talk*, *Ob s y is a cause*

of cancer, and the new *FIT test for colorectal screening* which has recently been rolled out across Scotland.

Put the kettle on (and stretch), then have a browse.

Art & Design prize 2018

Are you an art & design student? Applications are invited for our 2018 prize. Your work can be in any medium as long as it focuses on behaviours which are known to impact cancer risk. The winner receives a £250 award, but perhaps more importantly, has their design


publicised on social media and in our newsletter, which is circulated to several thousand individuals throughout Scotland and beyond, with the hope that good ideas can be taken further and used to help raise awareness of cancer prevention. Winners are provided with a certificate, and an SCPN prize seal,

which can be used on their portfolio site and/or printed materials to show visitors that their work is award winning. Our 2015 prize winner was featured on STV, and in several Scottish newspapers.

Look out on our *website* for more information and how to apply.

Healthy Meetings

www.cancerpreventionscotland.org.uk/what-we-do/healthy-meetings/



Scottish Cancer

Prevention Network

Have you noticed how difficult it can be to attain your daily health eating plan, activity goals and smart thinking on days when you have meetings greater than 4 hours that span lunchtimes?

The SCPN has developed a scorecard which focuses on ten highlights that regular meeting attendees agree represent important examples of good practice for healthy meetings. They do not include every aspect of a healthy diet, or active living, but provide a brief checklist to help support meeting organisations.

We are focusing on some specific aspects of meetings that can be relatively easily assessed, although there are other issues like portion size, avoiding sponsorship by food and drink companies, and sustainability considerations (e.g. plastic cutlery/ local food/minimal waste), that are also important. Good tone and adequate quantities mustn't be forgotten, and we also recognise the need to try and promote meetings that are held in places that are well served by public transport.

You can help support healthier meetings by:

- discussing the checklist with meeting chairs
- providing feedback (your scorecard) to the organiser of meetings
- sharing your experiences of good practice with the SCPN
- helping us to promote, disseminate and reward examples of good practice

Please tell us about your experience of any meetings lasting over 4 hours and encompassing lunch:

Name of meeting: _____ Date: _____

Venue: _____

Healthy Meeting - were the following checked?	Yes	No
1. Fresh drinking water available at all times		
2. Fresh fruit available for all (in easy to eat segments)		
3. Vegetables available for all (in easy to eat segments)		
4. Bread, grains, rice, pasta etc. (mostly in wholegrain form)		
5. No parties, deep-fried items, creamy sauces or dips		
6. Low calorie desserts (x10 columns e.g. VERY SMALL portions of traditional desserts or yoghurt and/or fruit)		
7. No sweets or sugary snacks (e.g. crisps)		
8. Directions to the meeting promoting ACTIVE travel (e.g. walking, cycling)		
9. Opportunities for healthy food "comfort breaks" (e.g. meeting, reading etc.)		
10. Chair encouragement to move, stand and/or stretch during the meeting (where feasible, not too disruptive and in keeping with participants' abilities and disabilities)		

Score: _____

Editorial

OB_S__Y is a cause of cancer.

Regular readers will be well aware of the links between excess body weight and cancer as described by the WHO International Agency for Research on Cancer (<http://www.nejm.org/doi/full/10.1056/NEJMs1606602>) but what a shock this message is to many parts of society who took the time to comment on the CRUK campaign of awareness raising.

How uncomfortable for us all, given we are so used to posters of happy children eating junk food, big burger smiles, strong girder drinks and smiling supplement users. Clearly stark posters with simple messages are just too offensive in our warm and safe marketing landscape. It has been quite some time since we saw the posters reminding us about tobacco harms, whether it be the pictures of lungs, stinky hair or dead horses. Now the images are kept for the cigarette packets whilst the rest of us can avoid such visuals. But for those of us with longer memories the messages on those posters about the harms of smoking were so clear. Collectively we all know smoking is bad health news...and the aim of those campaigns was never to outlaw smokers or create guilt but raise awareness and they succeeded!

The health risks associated with obesity are too big to ignore. There is a duty of care to communicate what the experts have identified to the public. I am not a believer in keeping science secrets- but we need to shame the causes of obesity not the people who suffer.

It is a pity that CRUK have not (yet) said a bit more about the increasing body of evidence that shows that losing excess weight can REDUCE risk of cancer. What we desperately need now are environments that support and help us to be active and market healthy foods and healthy portions.

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

Drink Wise, Age Well

Julie Breslin, Head of Programme, Drink Wise, Age Well Glasgow

Drink Wise, Age Well was established in 2014 to help people aged 50 plus make healthier choices about alcohol as they age.

We are a National Lottery funded programme operating in five UK "demonstration" areas including Glasgow.

In each area we offer a unique, age-appropriate, community based approach including:

- Delivering one-to-one support – including home visits - and group activities
- Prevention and campaigning
- Building resilience to alcohol misuse in individuals and communities
- Training to help practitioners, frontline staff and carers recognise and respond to problematic drinking in the over 50s

However, we also campaign nationally and provide advice and guidance at

www.drinkwiseagewell.org.uk for those further afield.

Our most recent campaign, 'Vintage Street', highlights the later life transitions that can trigger harmful drinking. The campaign aims to tackle the stigma around problem drinking in older adults, which we know prevents many people from getting help. The *campaign film* puts a magnifying glass on the lives of "empty-nesters" Derek and Jackie as well as recently retired Kevin, and Liz, who is struggling to cope with the loss of her husband.

Our post campaign survey found that of those who saw the film 83% are now more likely to believe that society should treat older adults with an alcohol problem with a more tolerant attitude.

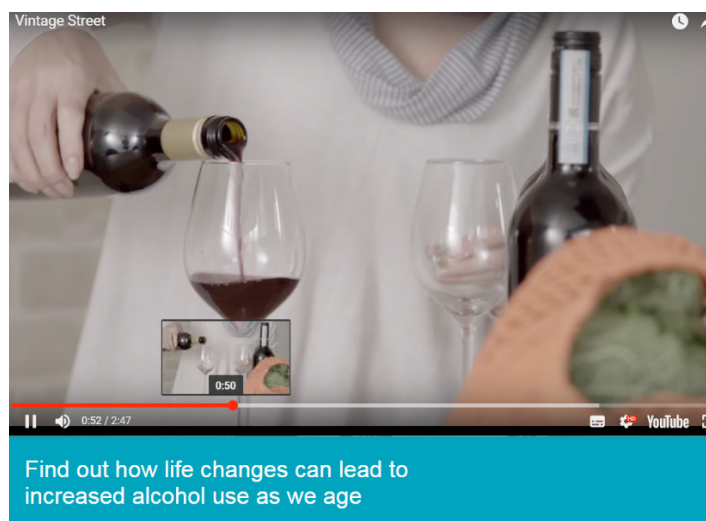
At the testing stage of the campaign one issue raised by the focus groups was the lack of awareness on the risks associated with alcohol so we also wanted to use the

campaign as an opportunity to educate people to the fact that alcohol is linked to seven different types of cancer including bowel and breast cancer (<https://thescpn.org/2FXblly>).

This is increasingly important in light of the recent *Cancer Research UK study* that shows 4 in 10 cancers are preventable. 12,000 cancers per year across the UK are linked with alcohol, which is 3.3% of

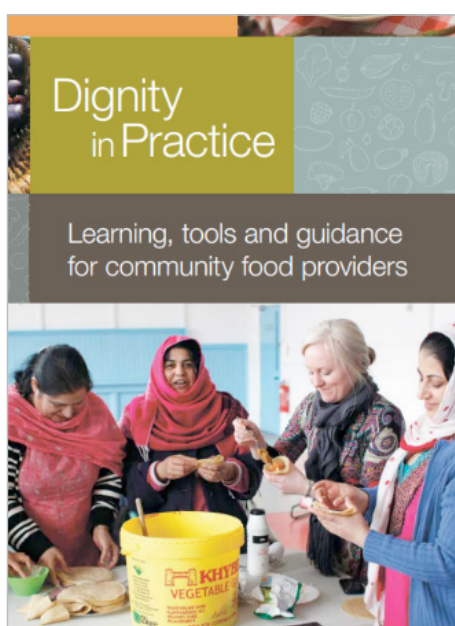
all cancers diagnosed in the UK. Our campaign evaluation showed that 84% of respondents said they are now more aware of the link between alcohol and cancer since watching the film.

It is vital that we continue to educate people around alcohol and its links to cancer, and seek partnerships and shared opportunities to do so.



Food poverty impacts on food choices and cancer risk

In Scotland, community food organisations are working on a range of projects way beyond food banks. Research on understanding how communities might aid dignity and wellbeing is long overdue. This recent report gives useful insight to ways forward (<http://www.nourishscotland.org/wp-content/uploads/2018/03/Dignity-in-Practice-Full-Report-March-2018.pdf>).



Dignity Principles in Practice

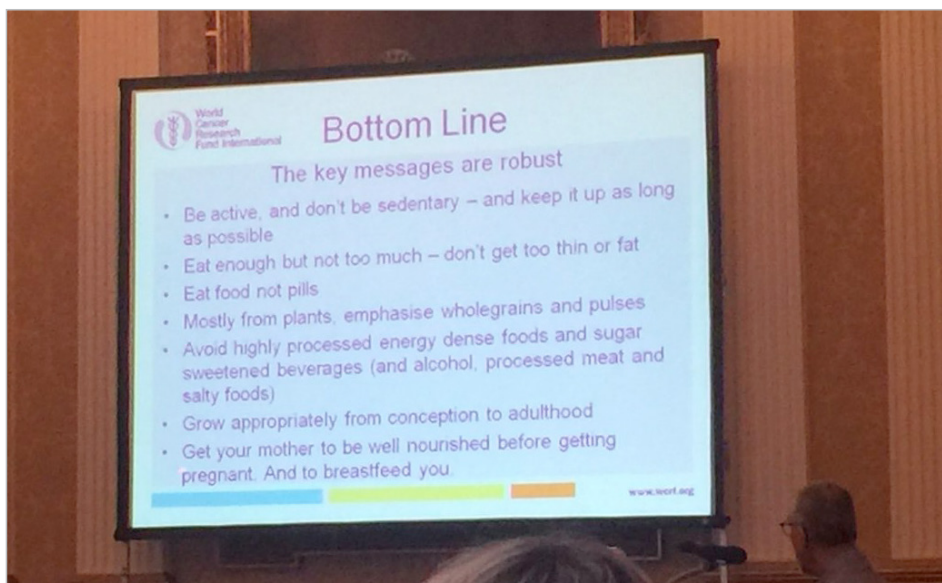
Community food initiatives can put dignity at the heart of their project by supporting everyone taking part to feel:

- ✦ **A sense of control**
Having power to make choices about what, where, when, how and with whom you eat.
- ✦ **Able to take part in community life**
Feeling able and welcome to take part in different aspects of community life, regardless of your financial situation.
- ✦ **Nourished and supported**
Being able to enjoy food and access support that meets your needs.
- ✦ **Involved in decision-making**
Feeling able to share your views and ideas and to have those views taken seriously in decision-making.
- ✦ **Valued and able to contribute**
Feeling recognised and valued as a whole person with knowledge, skills and experiences to share.

Conference Round-up

We had a great day on Monday 5th February celebrating World Cancer Day with our #WeCanICan conference. Held in Edinburgh, we had well over a hundred delegates gather to hear the experts present the latest evidence and practice to help the people of Scotland prevent cancer. If you weren't able to join us you can see the presentations on our website <https://www.cancerpreventionscotland.org.uk/events/scpn2018/>.

A particular highlight of conference was the judging of the Healthy Staff award we announced back in October '17. With a £500 cash prize, this award was set up to showcase and support the best health promoting activities by NHS boards in Scotland run for the benefit of their staff. We invited a short video (3 mins maximum) with written description (1000 words) of what each area was doing and a short written account (300 words) of what the winning prize money would be used for if successful. If videoing was not a possibility a PowerPoint presentation (max 3 mins) was equally acceptable.



We were delighted to receive 7 entries from north, south, east and west. The SCPN team and advisory board shortlisted entries, and the 3 finalists were shown at conference with delegates voting a winner. Huge congratulations to NHS Western Isles for their winning video. One of the smallest

Health Board areas, they had organised a step count challenge utilising mobile phone technology for participants to log their steps. The £500 prize money is on its way! You can view all the submissions on our website <https://www.cancerpreventionscotland.org.uk/healthy-staff-awards/>.

Beyond Individual Food Choice – thinking food systems

Excess body fat is linked with the development of 13 cancers and much research effort is devoted to identifying individual level factors than might be held responsible, especially those that are modifiable. However, a recent commentary in the Lancet <http://www.thelancet.com/pdfs/journals/lanpub/PIIS2468-2667%2818%2930021-5.pdf> highlights that the search for the causes of such epidemics as obesity requires "consideration of factors that have a mass exposure, are widely distributed, and act with short time-lags". One major aspect relates to changing food and agricultural policy. The authors highlight US data that shows that changes to US farm bills lead to a rapid increase in food production, increases in portion sizes, accelerated marketing, availability and affordability

of energy dense foods and widespread introduction of cheap and potent sweeteners. Whilst it is easy to capture individual level factors like genetic predisposition, these do not explain why obesity should have increased across the population... our genes have not changed!

Throughout history, food production and distribution has worked hand in hand with nutrition policy to feed a population for health, wellbeing and strength. Indeed such policies have never been more carefully crafted than during periods of warfare. Today, the warfare is much more about dealing with chronic diseases and there is still a need to think about our larger food system beyond individual diets. The Scottish Food Coalition are working on new laws for our food system and encouraging

everyone to think about what issues are important in our everyday life and what we would like to see government do on a wider scale. Here is a time for voices to be heard.

For more information please see <http://www.foodcoalition.scot/kitchen-table-talks.html>. Comments are welcome and people are encouraged to host local discussions (kitchen table talks) and report in on a very simple web form. There is more information on our guest blog: <https://scpnblog.wordpress.com/2018/02/18/shape-the-future-of-food-in-scotland/>.

Please see our website for the comments that the SCPN kitchen table top produced: <https://www.cancerpreventionscotland.org.uk/wp-content/uploads/2018/03/Final-kitchen-table-talk.pdf>.

There are so many things we need to do on smoking and health, but if I had to choose three....

Sheila Duffy, Chief Executive ASH Scotland

Scotland's five year national tobacco strategy ended in March. Rightly there are plans for a follow-up and I'd suggest that the main challenge should be in deciding between the long list of possible actions for reducing the huge public health burden of smoking. But if a public health genie were to grant me three wishes I'd be tempted to ask for the following.

There are over 500,000 people in Scotland who want to stop smoking, so that improving the encouragement and support offered to these people must be a public health priority. We see these people all the time – they are the most likely to be in GP waiting rooms, attending out-patient clinics or sitting in our hospital wards. Too many opportunities are being missed and will continue to be missed unless we place a duty on all public bodies to make every contact count, to plan for and report on how they support patients and clients who want to stop smoking.

There are statutory obligations on community planning partnerships to address drug and alcohol use, which kill far fewer people, so why not smoking?

It is not surprising that so many people reach for cigarettes and view them as a coping mechanism for stress, money worries and boredom. We need to see more conditions attached to the remarkably liberal rules on selling tobacco – it is a sad fact that cigarettes, our most harmful consumer product, are widely available in almost all convenience stores and are viewed as cheap coping strategies by consumers and as routine products by many retailers. By introducing more stringent conditions for registration we could, for example, remove the right to sell tobacco from anyone previously caught selling cigarettes to children.

Amongst the recent shift in public awareness and concern over single-use

plastic, it is odd that we have heard very little about the most common piece of plastic waste found on our streets and beaches. Cigarette filters are the most pervasive form of litter and are made of fibres of cellulose acetate, a form of plastic. What is not well known is that filters do not provide any health benefits – in fact by making cigarettes easier to smoke their effect will be quite the opposite. If we can ban plastic cotton buds and drinking straws should we not also act against single-use plastic filters that do not reduce the harm from cigarettes and are the single biggest source of plastic pollution?

As we wait to see what will be in Scotland's next tobacco strategy – expected to be published in May/June this year, ASH Scotland would love to hear from you what you would like to see as your top priorities for the next Scottish tobacco reduction strategy? Let us know at enquiries@ashscotland.org.uk

Scottish Cancer Foundation & Give As You Live

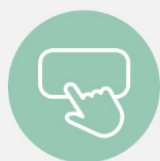


Give as you Live®

The Scottish Cancer Foundation, our parent charity is now one of the charities that you can support through Give as you Live. For further information and to register please

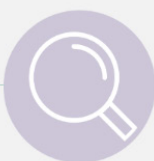
visit <http://scottishcancerfoundation.org.uk/help/> and feel free to share with others who you think may be interested in supporting us.

How Give as you Live works



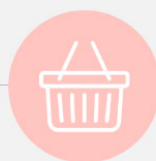
Join

Join for free, it only takes a few minutes



Browse

We have over 4,200 participating retailers



Shop

Use our links to visit a retailer and shop as normal



Raise

We turn the retailer commission into a donation for charity

Dancercise- #Justdance

Last year we produced our highly popular #kettlecise campaign and cards <https://www.cancerpreventionscotland.org.uk/resources/kettlecise/>. Now look out for our new posters (see below).

This year we have teamed up with lots of dancing friends, including Wendy Timmons who is Programme Director of the MSc Dance Science and Education at the University of Edinburgh, to produce resources to encourage #dancercise as a fun form of increasing physical activity.

The European Code Against Cancer <https://cancercode-europe.iarc.fr/index.php/en/> recommends that we should 'Be physically active in everyday life'.

A recent systematic review and meta-analysis <https://www.ncbi.nlm.nih.gov/pubmed/29270864> on the effectiveness of dance interventions compared to other forms of physical activity reported that dance interventions significantly improved body composition, blood biomarkers, and musculoskeletal function. The authors concluded that undertaking structured dance of any genre is equally and occasionally more effective than other types of structured exercise for improving a range of health outcome measures. Furthermore, a recent pilot randomised trial of ballroom dance in breast cancer survivors from Pisu, Demark-Wahnefried et al. DOI: [10.1007/s11764-016-0593-9](https://doi.org/10.1007/s11764-016-0593-9) reported significant positive effects on physical activity and

quality of life with couples appreciating the opportunity to spend time and exercise together.

We have lots of dancing ideas.... check out our blogs

- From our codirector 'My career as a dancer' <https://scpnblog.wordpress.com/2018/03/01/my-career-as-a-dancer/>
- Men dance too <https://scpnblog.wordpress.com/2018/03/08/men-dance-too-at-any-age/>
- A little boogie goes a long way Boogie <https://scpnblog.wordpress.com/2018/03/19/a-little-boogie-goes-a-long-way/>
- Dance like nobody's watching <https://scpnblog.wordpress.com/2018/03/27/dance-like-nobodys-watching/>

Here are some suggestions to get you moving

#Dance Breaks

- Always good to get up from your desk and have a stretch, why not have a dance?
- Dance breaks are especially good when you are working from home, no one is in and no one is watching, get up and put on a favourite track and have a good old dance, hairbrush karaoke permitted!
- If you need dance inspiration and feel like having a wiggle, you could always look to popular classics for inspiration

e.g. Macarena, YMCA

Gifs... <https://www.ranker.com/list/best-80s-dance-moves/marc-cuenco>

And watch out for our #dancercise cards..... coming soon



POSTER AVAILABLE contact scpn@cancerpreventionscotland.org.uk

**Be physically active in everyday life.
Limit the time you spend sitting.**

says the European Code Against Cancer (cancercode.eu). During busy days in the office or at home, how often do we find the time to stretch or be active? How much exercise can we fit in the time it takes for the kettle to boil? The SCPN has developed a set of 13 simple kettlecises to keep you healthy and active throughout the day - and have a bit of fun while you're at it!

thescpn.org/kettlecise

@thescpn #kettlecise

Chocolate Quinoa Brownies

Kellie Anderson, MSc kelliesfoodtoglow.com



Serves: 15. Difficulty: easy

- 100g best dark chocolate, chopped
- 120g butter
- 100g cashew or almond butter
- 250g cooked quinoa (leftover or packet is fine)

- 70g cocoa powder
- 2 medium eggs, room temperature
- 2 tsp pure vanilla extract
- 1/4 tsp bicarbonate of soda
- 120ml date syrup or maple syrup (maple is sweeter)

Method

1. Preheat the oven to 180C fan/200C/400F/ Gas mark 6. Fully line a brownie pan (26 x 20) with overhanging baking paper.
2. Gently melt the chocolate, nut butter and butter in a bain-marie. Let it cool for five minutes.
3. Pop everything into the bowl of a food processor and blend. Don't

worry about making it smooth as it won't do so, and it gives a great "popping candy" texture.

4. Pour the mixture into the lined tin, tap it hard on the counter to even it out, and pop in the heated oven for 18-20 minutes. If you have a hot oven definitely pull it out at 18. They should feel slightly tacky to the touch. Let the brownies cool before lifting out by the paper and cutting the brownies into 15 pieces with a serrated knife.

To screen or not to screen with PSA alone?

Prof Bob Steele, Co-director SCPN

The recently published CAP study (1) has a stark message – screening for prostate cancer using a single PSA test doesn't work - it has no effect on mortality from the disease. This reinforces what we already know from previous trials. True, there is one European trial of repeated PSA testing that has shown a reduction in prostate cancer deaths, but at the cost of having to treat 28 men to prevent one death. As the treatment for prostate cancer causes significant morbidity in the form of urinary and sexual dysfunction, the UK National Screening Committee along with all other competent international organisations, do not recommend PSA screening for

prostate cancer.

The problem is that, although PSA testing detects cancer, most cases do not progress and are therefore not destined to cause death. Indeed, aggressive prostate cancer often presents in the face of a normal PSA. To compound the problem, symptoms are a very poor indicator of cancer – most men with frequency, urgency and poor stream have benign prostatic enlargement. Of course, some will have cancer as well, picked up by well-meaning PSA testing and subsequent biopsy, and these men will go on to have radical treatment despite the fact that

few will benefit.

So what can we do? The message cannot be "don't screen", it must be "don't offer screening with PSA alone". Given that, in the absence of PSA testing, most aggressive cancer presents with metastatic disease, we need something else that can pick up early significant disease without exposing many men to unnecessary morbidity. Where this will come from is not yet clear, but there is promising ongoing work looking at the value of different levels of PSA, specific age ranges and combining PSA testing with advanced MRI scanning.

1. Effect of a Low-Intensity PSA-Based Screening Intervention on Prostate Cancer Mortality: The CAP Randomized Clinical Trial (2018) JAMA Mar 6;319(9):883-895 <https://www.ncbi.nlm.nih.gov/pubmed/29509864>

Scottish Government: Preventative Agenda

Sounds promising a prevention agenda for change! The SCPN were delighted to be invited to provide evidence to the Scottish Government Health and Sport Committee on this very topic which is a major part of their current business ("To seek evidence on and analyse preventative spend through a series of short inquiries on specific health-related topics"). The SCPN were however surprised to learn this evidence request was focussed around the Detect Cancer Early (DCE) programme because DCE have a clear remit to "improve survival for people with cancer in Scotland to amongst the best in other European countries by diagnosing

and treating the disease at an earlier stage" but no mandate (or budget) for cancer prevention. However, we did make the point in our evidence statement that more investment in cancer prevention is needed and combining this with Detect Cancer Early initiatives has the potential to be cost effective and acceptable. (<https://tinyurl.com/y7sxu8ag>)

Of the six organisation who provided written evidence (or attended the committee discussion) all noted that the remit of DCE was not prevention. A full transcript of the evidence session is available at [https://](https://tinyurl.com/y7sxu8ag)

tinyurl.com/y7sxu8ag and the reader will see that most of the discussion was inevitably on early detection not on preventative spend.... However, the minute of the meeting ends with the consensual conclusion that "it might be said that we should continue to be ambitious on detection, but do a good deal more on prevention".

How sensible it would be to join DCE activities with prevention activities and budget!! After all, no matter how early a cancer is detected there isn't a single patient who doesn't wish that it could have been prevented. I guess we watch this space.....

Expert Insight



We asked Professor Callum G Fraser to share his expert insight on the recently rolled out Faecal Immunochemical Test (FIT). Callum set up the laboratory for the Scottish arm of the UK Colorectal Cancer Screening pilot and continued to direct the Scottish Bowel Screening Centre Laboratory until pilot screening rounds evolved to a fully rolled out programme. He continues to participate in research on uses of FIT. He was a Founding Member of the Expert Working Group on FIT, Colorectal Cancer Screening Committee, World Endoscopy Organization. He has authored many publications on faecal testing.

FOBT is the acronym for Faecal Occult Blood Test, a test for the presence of “hidden” blood in faeces. Traditional gFOBT were based on detection of peroxidase activity, a property of the haem component of haemoglobin, as blue colour developing when peroxide was added to the faecal samples on the guaiac containing test card. Randomised controlled trials showed that these could be used very successfully in bowel screening. The newer FIT tests detect even smaller amounts of haemoglobin using antibodies specific to the globin component and have many superior performance characteristics which improve bowel screening.

1. The new FIT only requires one faecal sample, but the older

traditional FOBT used two samples from each of three faeces: are we decreasing the chances of picking up any intermittent bleeding?

The use of one sample for FIT versus two or three samples has been studied in depth. In fact, there seems little benefit in collecting two or three samples, although clinical sensitivity is increased somewhat. At low faecal haemoglobin concentration cut-offs, FIT detects smaller amounts of blood than traditional gFOBT and this might explain the much improved screening performance of one sample FIT over gFOBT. FIT has many positive attributes, including that the use of one only specimen collection device increases participation, especially in the “hard to reach” groups. Most FIT-based screening programmes use one only sample. And more tests per participant are more costly!

2. Are we sure that the cut-off for detecting blood in the faeces is the right one?

Deciding the faecal haemoglobin concentration cutoff(s) to apply in asymptomatic population bowel screening is difficult. As the cut-off is increased, the detection rate of cancer and higher-risk adenoma falls, while the positive predictive value and interval cancer proportion rise. Most importantly, the positivity rate and, in consequence, the colonoscopy demand fall. Many programmes, including those in Scotland, New Zealand, Ireland and The Netherlands, decide the cut-off based on the availability of colonoscopy. As colonoscopy capacity increases, and referrals to secondary care fall due to use of FIT in assessment of patients presenting in primary care with symptoms, the cut-off used in screening can be decreased, making for an investigation that detects more colorectal disease.

3. Are the new tests significantly more costly than the old FOBT and how can this be justified?

Although the cost of the one FIT test is higher than one gFOBT card, the test itself is a small fraction of the overall cost of a screening programme. A thorough cost benefit analysis was done as part of the positive case for the introduction of FIT as a firstline test in Scotland.

4. How soon do you think FIT will be superseded by newer, more sophisticated technology for population screening purposes?

There are many emerging possibilities involving identifying alterations in genetic, epigenetic, protein and volatile organic markers. There is a “multi-target” test involving detection of a number of faecal biomarkers, including hemoglobin, which is now marketed quite successfully in the US. There are also a number of “blood tests”, either available now or in research, but these seem rather poor at detecting early cancers. These faecal and blood tests are relatively costly and seem unlikely to be widely used in population-based screening in resource limited countries for some considerable time.

5. How long does the test last? If I wait six months to complete and return it, will it still work?

Usually, yes. A participant's test cycle is based on the “use by” date, which is on the label of the FIT specimen collection device. A participant who returns a kit after that date is sent a letter explaining that the device has expired and a new FIT invitation is issued. Of course, in Scotland, reminders are posted six weeks after initial invitation if the specimen collection device has not been returned.

ActWELL Study: An RCT to assess the impact of a lifestyle intervention in women invited to NHS breast screening

Stephanie Gallant, Trial Manager, ActWELL study

The ActWELL study is recruiting well across four Scottish sites - Aberdeen, Dundee, Glasgow and Edinburgh. We are over half way towards our recruitment goal of 552 women and on target to finish recruitment later this year. All women attending for routine breast screening are offered information on the study by their mammographer and

our team of research nurses are seeing new participants for baseline and follow up visits over 12 months. ActWELL is a successful collaboration between several organisations including universities, NHS breast screening services and clinical research facilities. In addition, we have had many wonderful Breast Cancer Now volunteers

who have undertaken ActWELL training to become lifestyle coaches, delivering the ActWELL lifestyle intervention to women at community leisure centres across the four cities. Focussing primarily on diet and physical activity, coaches are working with women to make positive lifestyle changes to help them manage weight, become more active and

reduce their risk of cancer. For more information please visit the study website www.actwellstudy.org



Scottish Prostate Cancer Statistics

Andrew Deas, Information Services Division, NHS National Services Scotland

Incidence

Prostate cancer is the most commonly diagnosed cancer in Scottish men. One in five of all cancers diagnosed in men are prostate cancers. It is also the fourth most commonly diagnosed cancer overall after lung, breast and colorectal cancers. Over 3,000 men are diagnosed with prostate cancer each year. Almost three-quarters of these cancers are diagnosed in men over the age of 65.

The age-adjusted incidence rate for prostate cancer has remained relatively stable over the last ten years; however the number of cases has increased from approximately 2,700 cases in 2006 to over 3,000 cases in 2015.

Projected incidence

The number of cases of prostate cancer is projected to increase by 35% between 2008-2012 and 2023-2027 (figure 1).

It is estimated that an average of over 4,000 men will be diagnosed with prostate cancer each

year in the period 2023-2027. The main reason for this projected increase in cases is the expected increase in the size and age of the Scottish population in the years to 2027.

Mortality and survival

Prostate cancer is the second most common cause of death from cancer in Scottish men after lung cancer. Approximately one in ten deaths from cancer in men is due to prostate cancer. In 2016, 894 men died from the disease. Overall, prostate cancer is the fourth most common cause of death from cancer in Scotland behind lung, colorectal and breast cancer.

The age-adjusted mortality rate for prostate cancer has fallen by over 7% over the last ten years. Five-year survival has increased from 53% for men diagnosed in 1987-1991 to 84% for men diagnosed in 2007-2011.

Although the age-adjusted mortality rate for prostate cancer has decreased over the last decade,

the actual number of deaths has not (figure 2). This largely reflects an increase in older age groups

within the population and the fact that most prostate cancers are diagnosed in older men.

Further Information

All statistics are based on publications on the ISD website.

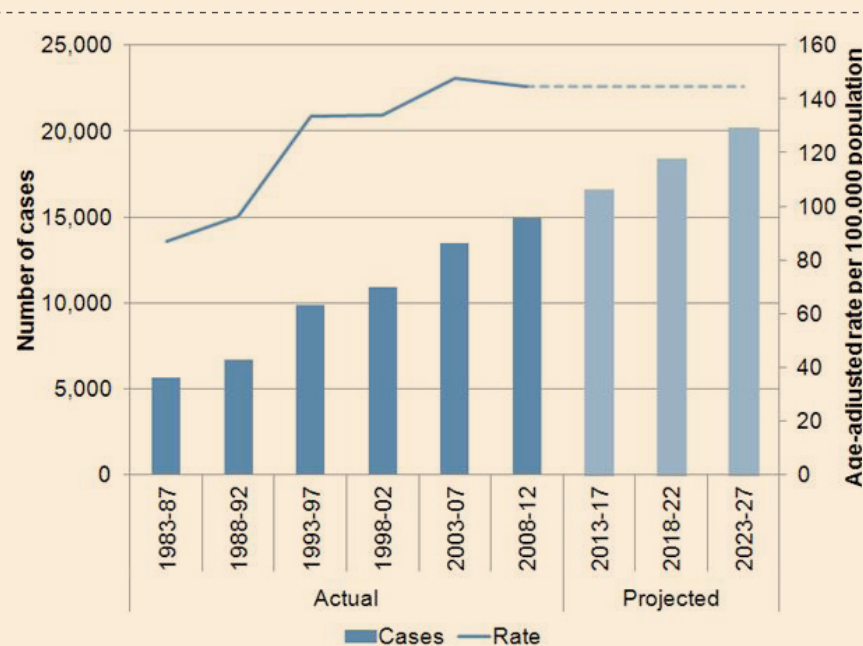


Figure 1. Prostate cancer, number of cases and age-adjusted incidence rate, Scotland, 1983-87 to 2023-27.



Figure 2. Prostate cancer, number of deaths and age-adjusted mortality rate in Scotland, 2007-2016

- <https://www.isdscotland.org/Health-Topics/Cancer/Publications/2017-04-25/2017-04-25-Cancer-Incidence-Report.pdf>
- <https://www.isdscotland.org/Health-Topics/Cancer/Publications/2015-08-18/2015-08-18-Cancer-Incidence-Projections-Report.pdf>
- <https://www.isdscotland.org/Health-Topics/Cancer/Publications/2017-10-31/2017-10-31-Cancer-Mortality-Report.pdf>
- <https://www.isdscotland.org/Health-Topics/Cancer/Publications/2015-03-03/2015-03-03-Cancer-Survival-Report.pdf>

Have you seen this paper?

Accelerating the pace of cancer prevention – right now

Colditz GA and Emmons KM (2018) Cancer Prevention Research DOI: 10.1158/1940-6207.CAPR-17-0282

This paper argues that there is sufficient evidence to convince us that more than 50% of cancers can be prevented by applying knowledge we have previously gained to reduce tobacco use, inactivity and obesity. However the authors suggest that evidence based prevention strategies are inconsistently applied across the US and we could probably argue the UK is no different. Furthermore there is some evidence that failure to implement prevention programmes widens health inequalities as it is the cancers which are most impacted by lifestyle choices that have the greatest differences in mortality rates between the

more and less deprived.

What can be done to accelerate the implementation of cancer prevention? This paper presents data on prevention strategies for five cancers – lung, colorectal, breast, cervical and liver which include medical, behavioural, social and policy level interventions. An estimate of the magnitude of preventative benefit is also presented.

Research into the implementation of cancer prevention strategies is rarely funded but is critical if we are to systemically adopt these strategies. Implementation science may be a useful tool in this arena as it offers “innovative approaches to identify, understand and develop solutions to barriers to the adoption, adaptation, integration, scale up and sustainability of interventions, tools, policies and guidelines.”

Brownson et al. (1) categorises critical

steps, learnt from other chronic diseases that could be applied to cancer prevention, as:

1. Start with environmental and policy interventions
2. Think across multiple levels of influence
3. Make better use of existing implementation tools
4. Understand local context
5. Build new and non-traditional partnerships
6. Conduct more and better policy research

We can see from the successes of tobacco control that when the prevention agenda is implemented well and systematically, over time there is a significant population gain. We can achieve reductions in cancer burden right now by implementing what we already know.

1. Tehranifar P, Neugut AI, Phelan JC, Link BG, Liao Y, Desai M, et al. Medical advances and racial/ethnic disparities in cancer survival. *Cancer Epidemiol Biomarkers Prev* 2009;18:2701–8.

Scottish Cancer Prevention Research

Over the last 5 years the SCPN has developed a research portfolio around cancer prevention and screening communications with funding from the Scottish Government and the Scottish Cancer Foundation. Here are some of the on-going activities.

1. Better Living, Better Health (a “women’s magazine” style) communication on screening and prevention was produced for use in routine breast screening clinics in Glasgow (static and mobile clinics). The evaluation was overwhelmingly positive with around 60% of respondents reporting an increased knowledge about breast cancer and lifestyle and motivation to find out more about cancer prevention. In addition, 40% expressed intentions to make lifestyle changes after reading the magazine and these results were the same by socio-

demographic background. The results were recently published in the *European Journal of Cancer Care* (<https://onlinelibrary.wiley.com/doi/epdf/10.1111/ecc.12823>).

2. Further work was then undertaken in Inverness and Irvine with excellent feedback from mammography staff and clients - results are currently being collated. An on-line version of the resource is also being tested for use and feedback.
3. Funding has been awarded to explore the development and evaluation of resources to improve awareness of cancer screening and prevention behaviours for Scottish men. The team are currently undertaking work to explore the information needs, interest, knowledge, current behaviours and intentions of middle-aged men from a range of socio-demographic

circumstances and identify plausible minimal contact communication formats and settings. This work complements funding received from the Evelyn Ferris Mudie Trust which is aimed at exploring and testing ways to engage men in lifestyle communications and develop interventions utilising two settings (Urology Clinics and Worksite health programmes).

4. With help from the team at the office of the Chief Nursing Officer a study has started on an investigation into the teaching on cancer screening, prevention and lifestyle in nurse and AHP undergraduate curriculum. This will be followed by exploring teaching for occupational health nurses.

For further details, please contact Prof Annie S. Anderson (a.s.anderson@dundee.ac.uk).

Cancer and lifestyle – research round up

Effects of physical exercise on breast cancer related secondary lymphedema: a systematic review

Baumann FT et al. (2018) *Breast Cancer Research and Treatment* DOI: [10.1007/s10549-018-4725-y](https://doi.org/10.1007/s10549-018-4725-y)

Improvements in the early detection, diagnosis, and treatment of breast cancer over recent years has improved survival rates significantly. With increasing numbers of survivors attention must be paid to reducing the long term side effects of the disease and

its treatments. Breast cancer related lymphedema (BCRL) is one of the commonest morbidities and results from an accumulation of fluid in the interstitial tissue due to damage to the lymphatic system. Patients experience a swollen upper limb, associated weakness and pain and if persistent impacts negatively on quality of life. Overweight and obesity are risk factors for developing BCRL therefore weight loss and increased physical activity are desirable to reduce the risk of developing BCRL and managing the condition. This review aimed to examine the effects of various

types of exercise in women with BCRL. Included were 11 intervention studies (n=458) comprising several modes of exercise: resistance exercise, aerobic training, water-based exercise, Yoga, Tai Chi etc. Most studies found a significant improvement in lymphedema, grip strength and arm disability, shoulder strength, flexion and range of movement and weight loss. From this review of the evidence it can be concluded that physical exercise is not contraindicated for women with BCRL and may in fact be beneficial.

Consumption of ultra-processed foods and cancer risk: results from NutriNet-Santé prospective cohort

Fiolet T et al. (2018) *BMJ* DOI: [10.1136/bmj.k322](https://doi.org/10.1136/bmj.k322)

The consumption of ultra-processed foods has dramatically increased over recent decades and it is estimated that these foods may contribute up to 50% of total daily energy intake. This is concerning because ultra-processed foods often have a higher content of total fat, saturated fat, and added sugar and salt, along

with a lower fibre and vitamin density making them obesogenic but also the processing itself may cause the formation of carcinogenic compounds. Additionally some contain carcinogenic additives and packaging.

This prospective cohort study examined the association between ultra-processed food intake and risk of overall, breast, prostate, and colorectal cancer. Repeated web based food recall diaries were used to gather data on participants' usual consumption for 3300 different food items. 104 980 participants (78.3% women) were included in the

study and the median follow-up period was 5 years.

Results showed ultra-processed food intake was associated with increased risks of overall cancer ($P<0.001$) and postmenopausal breast cancer ($P=0.04$). Specifically ultra-processed fats and sauces ($P=0.002$) and sugary products ($P=0.03$) and drinks ($P=0.005$) were associated with an increased risk of overall cancer, and ultra-processed sugary products were associated with risk of breast cancer ($P=0.006$). No association was statistically significant for prostate and colorectal cancers.

Preoperative exercise halves the postoperative complication rate in patients with lung cancer: a systematic review of the effect of exercise on complications, length of stay and quality of life in patients with cancer

Steffens D et al (2108) *British Journal of Sports Medicine* DOI: [10.1136/bjsports-2017-098032](https://doi.org/10.1136/bjsports-2017-098032)

Preoperative exercise, 'prehabilitation', has been suggested as a way to improve postoperative recovery. This paper reports a systematic review of 13 RCTs testing preoperative exercises interventions in patients undergoing oncological surgery and what effect they have on postoperative complications, length of hospital stay and quality of life. Seventeen articles were included involving 806 individual participants and 6 tumour types (colon, liver resection

for colorectal metastatic disease, oesophageal, lung, mouth and prostate).

The authors found moderate-quality evidence that preoperative pulmonary rehabilitation was effective in reducing postoperative complications and length of hospital stay in patients undergoing lung cancer surgery. For other cancers results were uncertain due to the limited number of trials included and the low quality of evidence.