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Health and Sport Committee submission: Preventative Agenda – Detect Cancer Early Statement submitted from Prof Bob Steele and Prof Annie S. Anderson Co-directors

The Scottish Cancer Prevention Network (SCPN) is focused on moving evidence on cancer risk reduction into everyday life, practice and policy (<https://www.cancerpreventionscotland.org.uk/>). Whilst it is recognised that governments do much to support changing behaviours we also recognise that there is a need to increase capacity around cancer prevention and screening, and there is much more that agencies and government work streams can do to help to accelerate change. As an advocacy group we raise the profile of cancer prevention and screening research and action through a range of communication channels (newsletter, conference, workshops, social media and web-based activities) and support ongoing work in reducing the prevalence of cancer risk factors. The SCPN is funded by the Scottish Cancer Foundation charity (SCO28300).

The evidence base for actions to reduce cancer incidence and improve prognosis is provided by the WHO International Agency for Research in Cancer (IARC) who have also developed the European Code Against Cancer (<https://cancer-code-europe.iarc.fr/index.php/en/about-code>). It is estimated that 4 in 10 cancers can be prevented largely through lifestyle changes. Lifestyle plays an even greater role in the prevention of bowel cancer (47%) and breast cancer (38%) <https://www.wcrf-uk.org/uk/preventing-cancer/cancer-preventability-statistics>. The public remain generally unaware of major risk factors (e.g. obesity) and have little access to services to support behaviour change even although evidence shows that lifestyle alterations after the age of 50 (age screening for breast and bowel cancer commences) is associated with reduced risk of these cancers and other chronic diseases including diabetes and cardiovascular disease.

1. To what extent do you believe the Scottish Government's Detect Cancer Early Programme and the approach by Integration Authorities and NHS Boards is preventative?

It is widely recognised that we cannot treat our way out of the rapidly increasing cancer problem and that an integrated approach to prevention, early detection and treatment is required. We therefore welcome the opportunity to provide evidence on the preventative agenda and spend to this committee. The Detect Cancer Early (DCE) programme has 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 has no clear mandate or indeed budget for cancer prevention. Investment in the cancer prevention arena is notably absent from this programme and indeed negligible within the cancer strategy <http://www.gov.scot/Resource/0049/00496709.pdf>.

The potential to add preventive activities to the DCE campaign is considerable and has been brought forward by other European nations. For example, the Irish National Cancer Control Programme (NCCP) is developing a *Cancer Prevention and Early Detection Function* as part of their National Cancer Strategy and will lead in relation to the development and implementation of policies and programmes focused on cancer prevention (<http://health.gov.ie/wp-content/uploads/2017/07/National-Cancer-Strategy-2017-2026.pdf>)

Despite the absence of a prevention remit for DCE, however, the programme has successfully engaged with prevention in a number of ways and we feel it should be commended for this. Examples of DCE and Prevention work

Screening

A major emphasis for DCE has been to improve uptake of cancer screening. While the main remit of screening is early detection of cancer, because screening programmes do pick up pre-cancerous disease they also have a significant role in prevention, as treating such disease is highly effective in reducing cancer incidence. The bowel screening programme is an excellent example of this – a high proportion of people with a positive screening test have polyps in the bowel, and removing these at the time of the diagnostic colonoscopy makes a major contribution towards the prevention of bowel cancer. The newly introduced faecal immunochemical test (FIT) is more sensitive to polyps than the previous test, and is associated with better uptake, so now is an excellent time to focus on optimising uptake in this high-value area.

Currently the DCE contributes to general SCPN work, a DCE representative sits on our advisory board and we share social media materials.

We have also worked with DCE specifically on (small) proof of principle projects as follows:

- We have demonstrated that an SCPN developed magazine on lifestyle, screening and cancer given to women attending routine breast screening clinics resulted in almost 60% of respondents reporting an increased knowledge about breast cancer and lifestyle and felt motivated to find out more about cancer prevention. Furthermore, 40% expressed intentions to make lifestyle changes. These results showed no difference by social deprivation and suggest no increase in health inequalities. (Macleod et al, Euro J of Ca Care, 2018 *in press*)
- We have demonstrated that when men attending abdominal aortic aneurysm screening who had not completed bowel screening were given a brief intervention that 81% agreed to complete the FOBT and 49 % subsequently returned the test with a good response in from men living in the most deprived areas. (Quyn et al, Br J Surg, 2018 *in press*)

With the support of DCE we have two further on-going projects which are combining screening with prevention:

- Exploration of training nurses and AHP's re screening and cancer prevention
- Development and evaluation of a novel health promotion communication on cancer screening and prevention for men

2. Is the approach adequate or is more action needed and is the policy being delivered on the ground?

Much more work on cancer prevention is needed and combining this with Detect Cancer Early initiatives has the potential to be cost effective, acceptable and effective. The following evidence is noteworthy in respect of combining early detection with prevention.

- Cancer Screening succeeds in raising awareness of symptoms but offers no support for other risk factors (e.g obesity, physical activity) and is a missed opportunity for raising awareness and support for cancer prevention activities (Anderson et al, 2013)
- There is a danger of creating a health certificate effect when a negative cancer screening test is received (e.g. assumption that current lifestyle is low cancer risk). This may be particularly relevant for body weight, where a lack of guidance to obese patients may signal a lack of medical concern.(Berstad et al, 2014)
- In 2007, Fisher *et al* (2017) reported that most women attending breast screening clinics are interested in receiving lifestyle advice and an updated paper (Fisher *et al* 2016) reporting the view of 1803 women shows overwhelming support for receiving interventions through this setting

The following work from Scotland highlight the opportunities to be gained from investment in combining cancer prevention and detect cancer early initiatives

- Offering a lifestyle intervention to patients diagnosed with adenomas through the Scottish national screening programme results in high recruitment from men (hard to reach), decreased body weight, improved diet, physical activity and CVD risk with no difference in response by SIMD status. (Anderson AS et al, 2014))
- Offering a lifestyle programme to women attending routine breast screening clinics is acceptable and has good indicative outcomes on body weight and physical activity and has a good uptake from women living in low SIMD areas (Anderson et al, 2014)
- The current ActWELL pilot funded by Scottish Gvt Cancer strategy has seen almost 2000 women express an interest in the study of which over 170 have been randomly selected to take part in the trial. The study is on track to finish recruitment on schedule in August 2018 as planned (<http://actwellstudy.org/>)

We should like to emphasise that, although DCE is doing excellent work and has made a significant contribution to prevention, its remit has not included prevention. We feel that an integrated approach to early detection and prevention would pay significant dividends, but recognise that DCE is not set up to do this in its present form and with its current funding envelope. We would encourage consideration of expanding the remit and the funding of DCE to encompass prevention and thus allow delivery of a Prevent Cancer Deaths (PCD) programme.

3.Are the services and Detect Cancer Early Programme being measured and evaluated in terms of cost and benefit?

Our understanding is that the stage at diagnosis of the common cancers is being monitored, but do not know of an ongoing formal cost-benefit analysis.

4.Is enough being done to address existing health inequalities in the early detection of cancer?

Both SCPN, and to our knowledge, DCE, have health inequalities at the heart of their strategies. The examples of prevention projects embedded within screening highlighted above demonstrate that these approaches do not increase health inequalities, and may, indeed, go some way to ameliorating them. In the Bowel Screening Programme, it is notable that the introduction of FIT has led to a greater increase in screening uptake in deprived areas when compared to affluent areas, and it has also increased uptake in men even more than in women, addressing the marked gender imbalance that was seen previously. As far as the primary aim of DCE is concerned, the data gathered over the last five years has shown an overall increase in the proportion of cancers diagnosed at an early stage, and this increase is more marked in people from a socio-economically deprived background.

References

Anderson AS, Mackison D, Boath C, Steele RJC (2013) Promoting changes in diet and physical activity in breast and colorectal cancer screening settings- an unexplored opportunity for endorsing healthy behaviours. *Cancer Prevention Research, (Phila)*. 6(3):165-72

Anderson AS, Craigie A, Caswell S, Treweek S, Stead M, Macleod M, Daly F, Belch J, Rodger J, Kirk A, Ludbrook A, Rauchhaus P, Norwood P, Thompson J, Wardle J, Steele RJC (2014) The impact of a body weight and Physical Activity weight loss intervention (BeWEL) initiated through a national colorectal cancer screening programme. *BMJ*;348:g1823

Anderson AS, Macleod M, Mutrie N, Sugden J, Dobson H, Treweek S, O'Carroll RE, Thompson A, Kirk A, Brennan G and Wyke S (2014) Breast cancer risk reduction - is it feasible to initiate a randomised controlled trial of a lifestyle intervention programme (ActWell) within a national breast screening programme? *Int J Behav Nutr Phys Act.* 2014 17;11:156

Berstad, P., Løberg, M., Larsen, I. K., Kalager, M., Holme, Ø., Botteri, E., ... Hoff, G. (2014). Long-term lifestyle changes after colorectal cancer screening: Randomised controlled trial. *Gut*, **64**, 1268–1276. <https://doi.org/10.1136/gutjnl-2014-307376>

Fisher B, Dowding D, Pickett KE et al: (2007)Health promotion at NHS breast cancer screening clinics. *Health Promotion* 22(2):137-45

Fisher BA, Wilkinson L, Valencia A.(2016) [Women's interest in a personal breast cancer risk assessment and lifestyle advice at NHS mammography screening.](#) *J Public Health (Oxf)*. 2016 Jan 31. pii: fdv211.