

Written Evidence submitted by Breast Cancer UK

To the Department for Health and Social Care
in response to the Prevention Green Paper: Advancing our health: prevention in the 2020s.

Executive Summary

Breast Cancer UK welcomes the opportunity to respond to the Government's Prevention Green Paper. Given that an estimated 38% of cancer cases and at least 1 in 4 breast cancers are preventable, there is an urgent need to rebalance the focus of the UK's prevention policy through a broader commitment towards primary prevention.

Our greatest concern is that the Government continues to underestimate the impact of environmental pollutants and harmful chemicals on the nation's health. Despite mounting scientific evidence about the links between public health conditions and harmful chemicals, the Green Paper and existing UK cancer plans completely fail to acknowledge this. In our view, a healthier environment, as well as healthier lifestyles, is essential to reducing cancer incidence rates and protecting public health.

Breast Cancer UK believes that any prevention policy must treat public health and the environment as interlinked, rather than separate matters. This includes delivering a comprehensive action plan to address the role harmful chemicals (such as EDCs) play in increasing breast cancer incidence rates. The Government's Prevention strategy represents a unique opportunity to implement measures that ensure the UK moves to the forefront of research into the role EDCs play in increasing vulnerability to breast cancer and other public health conditions.

We support the Government's objective of achieving 5 extra years of healthy life expectancy by 2035 and welcome proposals to encourage healthy diets, incentivise breast feeding and improve product labelling. However, the Government needs to provide much firmer commitments if it is to provide the bold and ambitious steps necessary to tackle the primary drivers of ill-health and breast cancer risk.

Breast cancer itself is associated with numerous environmental and lifestyle risk factors, yet today we invest just a small proportion of our cancer research budget towards understanding the causes of the disease and how to prevent it.

Key Recommendations:

- **Acknowledge the public health risks of routine exposure to low levels of carcinogenic and EDCs used in everyday products and recognise them as potential cancer risk factors.**
- **Adopt a cross-governmental approach to chemicals management, with the DoH, DEFRA and BEIS working together on the development of the forthcoming Chemicals strategy to support the creation of a circular economy and a non-toxic environment.**
- **Introduce a National EDC Action Plan which encourages the phasing out of harmful chemicals and their replacement with safer alternatives, ensuring that public health and precaution are the cornerstones of such a strategy.**
- **Adhere to the EU's system of chemical regulations "REACH" post-Brexit, to maintain public health and environmental protections from harmful chemicals linked to cancer.**
- **Prioritise the primary prevention of breast cancer, by setting out new goals for education, research funding and policy interventions, thereby broadening the current focus beyond secondary prevention, early diagnosis and search for a cure.**

About Breast Cancer UK

1. Breast Cancer UK's mission is to prevent breast cancer through scientific research, collaboration, education and policy change. We educate and raise awareness of the preventable risk factors for breast cancer and provide practical information to help people reduce their risk. We campaign for policies that support prevention and we fund scientific research to better understand and address preventable risk factors.
2. Breast Cancer is the most commonly diagnosed cancer in the UK – Over 54,000 women and 370 men are diagnosed with breast cancer every year and countless more are affected in some way by the disease. Breast cancer incidence rates have increased by 25% in the UK over the last 20 years and are predicted to rise by a further 2% between 2014 and 2035¹. Despite welcome improvements in early diagnosis and treatment, efforts to prevent the disease have stalled.
3. An estimated 1 in 7 women are predicted to get breast cancer at some point in their lives. Yet over a quarter of breast cancer cases are considered preventable². That's over 13,000 breast cancer cases a year that could be prevented. We believe it's time for a fresh approach to prevention with a greater focus on addressing all environmental and lifestyle risk factors, including action to reduce public exposure to harmful chemicals linked to breast cancer and other public health conditions.

¹ Cancer Research UK (2019) '*Breast Cancer Statistics*' available at: <https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/breast-cancer#heading-Zero> [Accessed: September 27th 2019]

² Breast Cancer UK (2019) '*Background Briefing: Breast Cancer risk factors*' available at: https://cdn.breastcanceruk.org.uk/uploads/2019/08/BCUK_Breast_cancer_risk_factors_brief_v1_12.6.2019.pdf (Accessed: 27th September 2019)

Reducing Public exposure to harmful chemicals must form an explicit part of the Government's Prevention Strategy

Q: What other areas would you like future Government policy on Prevention to cover?

Q: What Government policies do you think have the biggest impact on people's mental and physical health?

Given the significant risks to public health caused by potentially harmful chemicals, Breast Cancer UK calls on the Government to:

- **Acknowledge the public health risks of routine exposure to low levels of carcinogenic chemicals and EDCs used in everyday products, and recognise them as potential risk factors for diseases such as breast cancer.**
- **Adopt a cross-governmental approach to chemicals management, with the DoH, DEFRA and BEIS working together on the development of the forthcoming Chemicals strategy to support the creation of a circular economy and a non-toxic environment.**
- **Introduce a National EDC Action Plan³ which encourages the phasing out of harmful chemicals and their replacement with safer alternatives, ensuring that public health and precaution are the cornerstones of such a strategy.**
- **Set legally binding targets to end the use of EDCs in consumer products and adopt a grouping approach to substance evaluation and chemical testing to reduce instances of "regrettable substitution"⁴.**
- **Take a precautionary approach and implement suitable criteria for identifying EDCs which includes regulation of chemical substances that 'may' cause adverse health effects.**
- **Give UK public health bodies responsibility for monitoring and researching the impact of chemicals on public health, and recommending restrictions and other controls on groups of problematic chemicals.**
- **Publish a comprehensive guide for pregnant women which explains the potential risk of *in utero* environmental exposures to EDCs as well as alcohol and cigarette smoke and their potential effects on unborn children.**
- **Adhere to the EU's system of chemical regulations "REACH" post-Brexit, to maintain public health and environmental protections from harmful chemicals linked to cancer and other public health conditions.**
- **Take immediate steps to create a UK chemicals regime that mirrors and copies across, future improvements in EU Chemical laws, in the event of a no-deal Brexit.**
- **Implement the recommendations of the Environmental Audit Committee's recent report on Toxic Chemicals in Everyday life without delay⁵.**

³ EDC-Free Europe (2018) 'Our Eight Demands for a European EDC Strategy' available at: <https://www.edc-free-europe.org/articles/position-paper/eight-demands-edc-strategy> (Accessed: 27th September 2019)

⁴ ChemTrust (2019) 'From BPA to BPZ a toxic soup? How companies switch from a known hazardous chemicals to one with similar properties, and how regulators could stop them' available at: https://chemtrust.org/wp-content/uploads/Final-CHEM-Trust-Reineke-Helsinki-Chemicals-Forum-2019-grouping_16_9.pdf (Accessed: 27th September 2019)

⁵ Environmental Audit Committee (2019) 'Toxic Chemicals in Everyday Life' 16th July 2019, HC 1805, 2017-2019

4. Breast Cancer UK has long been concerned that public exposure to harmful chemicals, in particular, hormone disrupting chemicals (known as endocrine disrupting chemicals or EDCs) is increasing vulnerability to breast cancer and is contributing to the significant rise in incidence rates of many public health conditions.
5. EDCs are substances that mimic, block or interfere with natural hormones in the body's endocrine system, resulting in harm to the health of the individual or that of subsequent generations⁶. Exposure to EDCs, even at low concentrations, can trigger chemical reactions in the body that increase the chances of suffering from lethal diseases and health disorders⁷. These include hormonal dependent cancers such as breast cancer, obesity, diabetes, cardiovascular disease, reproductive problems and neuro-behavioural and cognitive difficulties^{8,9}.
6. According to the UN's Global Chemicals Outlook, hazardous chemicals such as EDCs are now "ubiquitous in humans and the environment"¹⁰. EDCs end up in all of us - children and adults alike - contaminating our bodies without our consent or knowledge. They are commonly identified in different types of human body fluids and tissues. Bisphenol A (BPA), for example, is routinely found in human blood, breast milk, fat tissue and placenta¹¹. Phthalates, parabens, synthetic musks, pesticides and UV filters, have been measured in breast milk, and polychlorinated bisphenols, dioxins and methylmercury in placenta¹².
7. EDCs are everywhere in our daily lives: examples include parabens used as preservatives in food and cosmetics; restricted phthalates that are still found in one out of five toys; BPA and bisphenol substitutes in plastics and toxic flame retardants in upholstery, soft furnishings and electronics¹³. EDCs are routinely found in our environment, in rivers, soil, drinking water and air. We ingest them through food and drink, inhale them in the air we breathe and absorb them through our skin via exposure to soil and dust. According to the Endocrine Disruption Exchange,

⁶ The Endocrine Society (2015) 'EDC2: The Endocrine Society's Second Scientific Statement on Endocrine- Disrupting Chemicals' available at: <https://www.endocrine.org/publications/scientific-statements/edc2> (Accessed 27th September 2019)

⁷ WHO/UNEP (2012) 'State of the Science of Endocrine Disrupting Chemicals' available at: <https://www.who.int/ceh/publications/endocrine/en/> (Accessed 27th September 2019)

⁸ Breast Cancer UK (2019) 'Background Briefing: Endocrine Disrupting Chemicals' available at: https://cdn.breastcanceruk.org.uk/uploads/2019/08/BCUK_EDC_brief_v2_20.9.18.pdf (Accessed: 27th September 2019)

⁹ ChemTrust (2012) 'Review of the Science Linking Chemical Exposures to the Human Risk of Obesity and Diabetes' available at: <https://www.chemtrust.org/wp-content/uploads/CHEM-Trust-Obesity-Diabetes-Full-Report.pdf> (Accessed: 27th September 2019)

¹⁰ UN Environment Programme (2019) 'Global Chemicals Outlook II From Legacies to Innovative Solution: Synthesis Report' Implementing the 2030 Agenda for Sustainable Development, available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/27651/GCOII_synth.pdf?sequence=1&isAllowed=y (Accessed: 27th September 2019)

¹¹ Jalal N, et al (2018) 'Bisphenol A (BPA) the mighty and the mutagenic' Toxicology Reports 5: 76-84 available at: <https://doi.org/10.1016/j.toxrep.2017.12.013> (Accessed: 27th September 2019)

¹² Leino, L (2013) 'Pollutant concentrations in placenta' Food Chem Toxicol Apr;54:59-69, available at: <https://www.ncbi.nlm.nih.gov/pubmed/22056334> (Accessed: 27th September 2019)

¹³ ECHA (2018) 'Forum Ref-4 Project Report Harmonised Enforcement Project on Restrictions' available at: https://echa.europa.eu/documents/10162/13577/ref_4_report_en.pdf/b53f5cd9-64a4-c120-1953-e9e176b9c282 (Accessed: 27th September 2019)

over 1,400 compounds are known or suspected EDCs¹⁴. A report from the charity ChemTrust has concluded that “*the reality (is) that we are constantly exposed to a cocktail of chemicals, something which is ignored by chemical safety laws*”¹⁵.

8. Additionally, a growing body of science illustrates that certain groups are particularly vulnerable to the health impacts of endocrine disruption. Evidence suggests that the “critical windows of sensitivity” are during development in the womb, early infancy or into puberty and early childhood¹⁶. Exposure to harmful chemicals, at these times, could also be increasing the manifestation of disease and cancer risk in later life. This has raised serious concerns amongst health professionals. In 2015, over 100 national societies of obstetricians and gynaecologists worldwide called on policymakers to prioritise action to reduce public exposures as an important means of disease prevention¹⁷.
9. The Royal College of Obstetricians and Gynaecologists has also highlighted¹⁸ that there is no antenatal advice or guidance available for women who are pregnant, on managing the potential risks that chemicals could pose to their baby’s health. Baskut Tuncak, the UN Special Rapporteur on Toxins has warned of children being born pre-polluted, as studies have discovered banned flame retardants in the umbilical cord of new-borns and breast milk¹⁹.
10. Prenatal exposures are believed to be most harmful, when tissues are developing. Changes induced by exposures to EDCs during early development may also cause so-called “epigenetic changes” that can be passed on to future generations. Such disruption may lead to diseases such as cancer or even Alzheimer’s, in later life²⁰. Studies have also demonstrated EDCs effects on the

¹⁴ Endocrine Disruption Exchange (2019) ‘List of potential Endocrine Disruptors’ available at: <https://endocrinedisruption.org/interactive-tools/tedx-list-of-potential-endocrine-disruptors/updates> (Accessed: 27th September 2019)

¹⁵ ChemTrust (2017) ‘No Brainer the impact of chemicals on children’s brain development: a cause for concern and the need for action’ available at: <https://www.chemtrust.org/wp-content/uploads/chemtrust-nobrainier-mar17.pdf> (Accessed: 27th September 2019)

¹⁶ Gluckman, P. D. et al. (2007) ‘Early Life Events and Their Consequences for Later Disease: A Life History and Evolutionary Perspective’. American Journal of Human Biology 19: 1-19. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17160980> (Accessed: 27th September 2019)

¹⁷ Di Renzo, C, G et al (2015) ‘International Federation of Gynecology and Obstetrics opinion on reproductive health impacts of exposure to toxic environmental chemicals’ International Journal of Gynecology and Obstetrics, available at: https://www.figo.org/sites/default/files/uploads/News/Final%20PDF_8462.pdf (Accessed: 27th September 2019)

¹⁸ Royal College of Obstetricians & Gynaecologists (2013) ‘Chemical Exposures During Pregnancy: Dealing with Potential, but Unproven, Risks to Child Health’ Scientific Impact Paper No.37, available at: https://www.rcog.org.uk/globalassets/documents/guidelines/scientific-impact-papers/sip_37.pdf (Accessed: 27th September 2019)

¹⁹ UN Environment Programme (2019) ‘Global Chemicals Outlook II From Legacies to Innovative Solution: Synthesis Report’ Implementing the 2030 Agenda for Sustainable Development, available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/27651/GCOII_synth.pdf?sequence=1&isAllowed=y (Accessed: 27th September 2019)

²⁰ Nilsson, E.E., Skinner, M.K (2015) ‘Environmentally induced epigenetic transgenerational inheritance of disease susceptibility’ Translations Research (165(1) 12-17. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/24657180> (Accessed: 27th September 2019)

immune system, central nervous system, reproductive system, urinary tract, thyroid function, behaviour and increased risk of miscarriage²¹

11. Countries such as France²², Sweden²³ and Denmark²⁴ have already adopted their own national action plans to reduce public exposure to EDCs, and the EU is conducting a fitness check roadmap²⁵ as part of its plans to develop a comprehensive legislative framework for EDCs^{26, 27, 28}. Since 2007, Chemicals have been regulated through the EU REACH system²⁹. REACH and associated regulations have successfully reduced exposure to harmful chemicals linked to breast cancer. REACH has protected public health, led to safer consumer products, healthier foods and a cleaner environment. Breast Cancer UK regards REACH as the 'gold standard' for chemicals regulations³⁰.
12. Accordingly, as the UK prepares to leave the EU, the Department for Environment, Food and Rural Affairs (DEFRA) and the Department of Health (DofH) must work together to ensure the UK retains an effective regulatory system for the management and control of chemicals. Maintaining and enhancing protections from harmful chemicals must be treated as a post-Brexit priority.
13. It is essential that the DofH does not dismiss the issue of public exposure to harmful chemicals as a key part of the prevention picture on the supposition that the science is inconclusive. Strengthening our understanding and knowledge of chemicals, and how they interact with our bodies, should be a core component of disease prevention.
14. A joint report by the United Nations and the World Environment Programme concluded that:
"Worldwide, there has been a failure to adequately address the underlying environmental causes

²¹ WHO/UNEP (2012) 'State of the Science of Endocrine Disrupting Chemicals' available at: <https://www.who.int/ceh/publications/endocrine/en/> (Accessed: 27th September 2019)

²² Buxton, L. (2019) 'France outlines priority areas for tackling EDCs' available at: <https://chemicalwatch.com/81622/france-outlines-priority-areas-for-tackling-edcs#overlay-strip> (Accessed: 27th September 2019).

²³ Kemi (2019) 'Action plan for a toxic-free environment 2015-2020' available at: <https://www.kemi.se/en/about-us/our-task/government-assignments/action-plan-for-a-toxic-free-everyday-environment> (Accessed: 27th September 2019).

²⁴ Ministry of Environment and Food of Denmark (2016) 'Towards A Non-Toxic Future' available at: https://en.mfvm.dk/fileadmin/user_upload/ENGLISH_FVM.DK/Focus_on/Chemicals_and_waste/13215_MF_Kemikonference_Rapport_A4_PRINT.pdf (Accessed: 27th September 2019).

²⁵ European Commission (2019) 'Harmful chemicals – endocrine disruptors, review of EU rules' available at: https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2019-2470647_en (Accessed: 27th September 2019)

²⁶ European Council (2019) 'Council conclusions on chemicals' available at: <https://www.consilium.europa.eu/en/press/press-releases/2019/06/26/council-conclusions-on-chemicals/> (Accessed: 27th September 2019)

²⁷ European Parliament (2019) 'Motion For a Resolution On towards a comprehensive European Union Framework on endocrine disruptors' available at: https://www.europarl.europa.eu/doceo/document/B-8-2019-0241_EN.html (Accessed: 27th September 2019)

²⁸ European Council (2019) 'The 8th Environment Action Programme – Turning the Trends Together Council Conclusions' available at: <https://www.consilium.europa.eu/media/40927/st12795-2019.pdf> (Accessed: 27th September 2019)

²⁹ Health & Safety Executive (2019) 'What is REACH?' available at: <https://www.hse.gov.uk/reach/whatisreach.htm> (Accessed: 27th September 2019)

³⁰ European Union Committee (2018) 'Brexit: chemical regulation' 7th November 2018, HL 215, 2017-2019

of trends in endocrine diseases and disorders... Healthcare systems do not have mechanisms in place to address the contribution of environmental risk factors to endocrine disorders. The benefits that can be reaped by adopting primary preventative measures for dealing with these diseases and disorders have remained largely unrealised”³¹.

15. The Government’s Prevention strategy and the forthcoming Chemicals strategy³² represent great opportunities for the UK to follow the example of EU countries and develop its own national action plan to protect human health and the environment from the detrimental effects of EDCs. Such a plan must set out legally binding targets for eliminating exposures and reflect the 2030 commitments set out in the UN sustainable development goals to “substantially reduce the number of deaths and illnesses from hazardous chemicals”³³.
16. Given the Green Paper’s recognition of the need for prevention in wider policies, it is vital that DEFRA, DoH and the Department for Business, Energy and Industrial Strategy (BEIS) adopt a cross-governmental approach to reduce public exposure to harmful chemicals. Such an approach would not only increase well-being by preventing diseases, but contribute towards reducing the rising costs of EDC-related illnesses which are estimated to be between €109 and €163 billion a year across Europe³⁴.
17. The Government must deliver new policy coherence and set a regulatory framework that builds the foundations for a non-toxic circular economy by encouraging industrial innovation through safer substitution of harmful chemicals. This will protect the vulnerability of future generations to diseases such as breast cancer and will complement the Government’s prevention objective to ensure that we are all enjoying at least five extra years of healthy, independent life by 2035³⁵.

³¹ WHO/UNEP (2012) ‘State of Science of endocrine disrupting chemicals’ available at: <https://www.who.int/ceh/publications/endocrine/en/> (Accessed: 27th September 2019)

³² DEFRA (2018) ‘A Green Future: Our 25 year Plan to Improve the Environment’ available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf (Accessed: 27th September 2019)

³³ United Nations Environmental Programme (2016) ‘The sound management of chemicals and wastes in the context of the Sustainable Development Goals’ available at: <https://www.unenvironment.org/resources/publication/sound-management-chemicals-and-wastes-context-sustainable-development-goals> (Accessed: 27th September 2019)

³⁴ Transade, L et al (2016) ‘Burden of disease and costs of exposure to endocrine disrupting chemicals in the European Union: an updated analysis’ available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5244983/> (Accessed: 27th September 2019)

³⁵ Department of Health and Social Care (2018) ‘Prevention is better than cure’ our vision to help you live well for longer available at: <https://www.gov.uk/government/publications/prevention-is-better-than-cure-our-vision-to-help-you-live-well-for-longer> (Accessed: 27th September 2019)

UK Cancer Prevention policy needs to prioritise the primary prevention of breast cancer

18. In our role to encourage and promote better prevention policies, Breast Cancer UK calls on the Government to:

- **Prioritise the primary prevention of breast cancer, by setting out new goals for education, research funding and policy interventions, thereby broadening the current focus beyond secondary prevention, early diagnosis and search for a cure.**
- **Acknowledge in national cancer strategies that exposures to environmental chemicals are preventable risk factors.**
- **Establish an independent taskforce to review national research efforts and develop a national strategy to address environmental and chemical causes of cancer/ill-health.**
- **Double cancer research funding over the next 10 years by NCRI research partners into “Exogenous Factors in the origin and cause of cancer” and prevention techniques.**
- **Expand Public Health England’s capacity and capability in the area of public exposure to carcinogenic and toxic chemicals to support the prevention of ill-health.**

19. Since 1989, we have seen welcome improvements in diagnosis and treatment which has reduced deaths rates from breast cancer by almost half³⁶. Despite this, incidence rates are still projected to rise to 210 cases per 100,000 females by 2035³⁷. As a result, Breast cancer is costing the economy over £1.5 billion annually with treatment estimated to cost the NHS over £500m per year^{38, 39}.

20. UK cancer prevention policy focuses primarily on raising awareness of symptoms, screening and early diagnosis. Whilst these are valuable initiatives, they have been incorrectly promoted to the public as the best form of prevention. Sadly, the Government and NHS bodies continue to conflate prevention with early diagnosis. Primary prevention, however, is about identifying and eliminating the causes of disease to stop it in its tracks, not just trying to catch it early. Given that 1 in 4 breast cancers are considered preventable⁴⁰, there is an urgent need for the DoH and NHS bodies to re-balance the scope of public health policy in favour of prioritising primary prevention.

21. If we are to prevent cancers, prevention strategies must also move beyond their primary focus on lifestyle factors, behaviour and genetics. To date, cancer prevention strategies have targeted

³⁶ The Guardian (2019) ‘Breast cancer deaths almost halved since 1989, UK figures show’ available at: <https://www.theguardian.com/society/2019/oct/04/breast-cancer-deaths-almost-halved-since-1989-uk-figures-show> (Accessed: 27th September 2019)

³⁷ Cancer Research UK (2019) ‘Breast cancer statistics’ available at: <https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/breast-cancer#heading-Zero> (Accessed: 27th September 2019).

³⁸ Oxford University (2012) ‘Cancer costs the UK economy £15.8bn a year’ available at: <http://www.ox.ac.uk/news/2012-11-07-cancer-costs-uk-economy-%C2%A3158bn-year> (Accessed: 27th September 2019)

³⁹ Laudicella, M. et al (2016) ‘Cost of care for cancer patients in England from populations-based patient-level data, *British Journal of Cancer*’ available at: <https://www.ncbi.nlm.nih.gov/pubmed/27070711> (Accessed: 27th September 2019)

⁴⁰ Brown, et al (2018) ‘The Fraction of cancer attributable to modifiable risk factors in England, Wales, Scotland, Northern Ireland and the United Kingdom in 2015’ available at: <https://www.nature.com/articles/s41416-018-0029-6> (Accessed: 27th September 2019)

alcohol consumption, encouraged active lifestyles, discouraged smoking and identified genetic predispositions to disease. Whilst these are all an important part of the prevention picture, they will only have a limited impact on hormonal cancers such as breast cancer. If real progress on prevention is to be achieved, it is vital that the DoH, Public Health England (PHE) and NHS England work together to promote a healthier environment, as well as healthy lifestyles.

22. Despite growing scientific concerns over the links between exposure to harmful chemicals and public health conditions, the green paper, national cancer plans⁴¹, the NHS Long-term Plan⁴² and Public Health England's strategic priorities⁴³ all fail to recognise this as part of the broader prevention picture. The result is a fundamental gap in cancer prevention policy, one which significantly weakens our battle against the disease. This gap must be recognised and addressed in future cancer prevention plans and the government's wider prevention strategy.
23. The majority of breast cancers appear to have no single cause, however, we know that the hormone oestrogen is an important factor in its development⁴⁴. Women with high levels of naturally occurring oestrogen have over twice the average risk of developing breast cancers. Similarly, exposure to oestrogen mimics, such as EDCs, is considered to increase breast cancer risk⁴⁵. The DoH must recognise and address this area, within public health policy, in the same manner as it approaches air pollution and lifestyle risk factors such as obesity and alcohol.
24. Current research funding into prevention is also inadequate. As the green paper notes, across Public Health we spend an estimated 60% of funding on cure and rehabilitation and just 5% on prevention⁴⁶. Specifically, in order to support cancer prevention, we are reliant on a good understanding of cancer causes, however, to date the UK invests a small proportion of its significant cancer research budget into understanding the exogenous causes of cancer⁴⁷. If we are to stop cancer before it starts, and make the 2020s the decade of prevention, cancer research funding towards prevention and aetiology must be prioritised.

⁴¹ Independent Cancer Taskforce (2015) 'Achieving World-Class Cancer Outcomes' A strategy for England 2015-2020' available at: https://www.cancerresearchuk.org/sites/default/files/achieving_world-class_cancer_outcomes_-_a_strategy_for_england_2015-2020.pdf (Accessed: 27th September 2019)

⁴² NHS England (2019) 'The NHS Long Term Plan' available at: <https://www.longtermplan.nhs.uk/publication/nhs-long-term-plan/> (Accessed: 27th September 2019)

⁴³ Public Health England (2019) 'PHE Strategy 2020-25' available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/831562/PHE_Strategy_2020-25.pdf (Accessed: 27th September 2019)

⁴⁴ Kelsey, JL (1993) 'Reproductive factors and breast cancer', available at: <https://www.ncbi.nlm.nih.gov/pubmed/8405211> (Accessed: 27th September 2019)

⁴⁵ Breast Cancer UK (2019) 'BCUK Background Briefing: Endocrine Disruptors' available at: https://cdn.breastcanceruk.org.uk/uploads/2019/08/BCUK_EDC_brief_v2_20.9.18.pdf (Accessed: 27th September 2019)

⁴⁶ Public Health England, CIPFA (2019) 'Evaluating preventative investments in public health in England' available at: <https://www.cipfa.org/policy-and-guidance/reports/evaluating-preventative-investments> (Accessed: 27th September 2019)

⁴⁷ National Cancer Research Institute (2019) 'Spend by Research and Disease site' available at: <https://www.ncri.org.uk/ncri-cancer-research-database-old/spend-by-research-category-and-disease-site/> (Accessed: 27th September 2019)

Additional Feedback from Breast Cancer UK

Maintaining A Healthy Weight

Q: How else can we help people reach and stay at a healthier weight?

25. Breast Cancer UK calls on the Government to:

- Introduce a 9pm watershed on adverts for HFSS products on TV and online and enact restrictions on price and location promotions in retail and out of home environments.
- Deliver a comprehensive programme to reduce sugar in food for infants and young children with ambitious targets set for the food industry.
- Support healthier food choices by introducing a mandatory colour coded, front of pack labelling scheme on all processed food and drinks for retailers and manufacturers.
- Introduce incentives for retailers to move junk food away from store entry and exit points.

26. Excess weight is associated with multiple diseases, including cancer, type 2 diabetes and heart disease. Higher body fat and adult weight gain are well-recognised breast cancer risk factors in post-menopausal women. Greater body fat is also associated with higher sex hormone levels, explaining why 8.3% of breast cancer cases can be attributed to being obese or overweight⁴⁸.

27. For post-menopausal women, one study found Breast Cancer is 13% higher per-5-unit body mass index increase⁴⁹. Breast Cancer risk is 50% higher in those with the highest waist-to hip ratio and may be higher in pre-menopausal women who gain weight during middle adulthood (40-50)⁵⁰. Male breast cancer risk is also 30% higher in men with the highest body mass index⁵¹.

28. The publication of Chapter 3 of the childhood obesity plan and the commitment to halve childhood obesity by 2030 are welcome. We eagerly await the Government responses on calorie labelling and introducing a 9pm watershed on TV advertising for food and drink products. However, progress has been far too slow in implementing Chapters 1 & 2 of the Childhood obesity plan⁵². Therefore, the DofH must speed up action if it's to meet its obesity targets.

⁴⁸ Brown KF, Rumgay H, Dunlop C et al (2018) 'The fraction of cancer attributable to known risk factors in England, Wales, Scotland Northern Ireland, and the UK overall in 2015' British Journal of Cancer, available at: <https://www.ncbi.nlm.nih.gov/pubmed/29567982> (Accessed: 3rd October 2019)

⁴⁹ Kyriou M, Kallala, I, Markozannes, Gm et al (2017) 'Adiposity and cancer at major anatomical sites: umbrella review of the literature' British Medical Journal:j477 available at: <https://www.ncbi.nlm.nih.gov/pubmed/28246088> (Accessed: 3rd October 2019)

⁵⁰ Suzuki R, Orsini N, Saji, et al (2009) 'Body weight and incidence of breast cancer defined by estrogen and progesterone receptor status- A meta-analysis' Int J Cancer 124(3): 698-712, available at: <https://www.ncbi.nlm.nih.gov/pubmed/18988226> (Accessed: 3rd October 2019)

⁵¹ Brinton LA, Cook MB, McCormack V et al (2014) 'Anthropometric and hormonal risk factors for male breast cancer: male breast cancer pooling project results' J Natl Cancer Inst. Mar 1;106(3):dj1465 available at: <https://www.ncbi.nlm.nih.gov/pubmed/24552677> (Accessed: 3rd October 2019)

⁵² Obesity Health Alliance (2018) 'The road to halving childhood obesity: scorecard' available at: <http://obesityhealthalliance.org.uk/wp-content/uploads/2019/06/Scorecard.pdf> (Accessed: 3rd October 2019)

29. We support the Green Paper's measures to promote physical activity and the new guidelines published by the Chief Medical Officer⁵³. Breast cancer risk is 13% lower in women with the highest level of physical activity⁵⁴ and there is strong evidence that physical activity boosts survival rates and reduces the risk of post-menopausal breast cancer⁵⁵. Moreover, being active improves the capacity of the immune system to protect us from cancer and reduces metabolic processes such as oxidative stress and inflammation, which increase cancer risk⁵⁶.
30. Given the links between weight, physical activity levels and increased breast cancer risk, Breast Cancer UK calls on the Government to implement the recommendations of the Obesity Health Alliance to address the environmental factors that encourage over-consumption and inactivity⁵⁷. Bold action is required to ensure that we transform our obesogenic environment into a health supporting one.

Promoting Breastfeeding

Q: How can we do more to support mothers to breastfeed?

31. Breast Cancer UK calls on the Government to:

- **Fully Implement the Global Strategy for Infant and Young Child Feeding⁵⁸ developed by the World Health Organisation and UNICEF which aims to revitalise efforts to promote, protect and support appropriate infant and young child feeding.**
- **Take action to promote, protect and support breastfeeding across all policy areas where breastfeeding has an impact including cancer prevention, wellbeing in the workplace and environmental sustainability.**
- **Include breastfeeding education in the curriculum at nursery, primary and secondary levels.**
- **Deliver evidence-based initiatives that support breastfeeding, including UNICEF UK's Baby Friendly Initiative⁵⁹.**
- **Legislate for breaks and suitable facilities in all workplaces to encourage breastfeeding.**

⁵³ Department for Health and Social Care (2019) 'Physical Activity guidelines: UK Chief Medical Officers' report', available at: <https://www.gov.uk/government/publications/physical-activity-guidelines-uk-chief-medical-officers-report> (Accessed: 3rd October 2019)

⁵⁴ Wu Y, Zhang D, Kang, S (2013) 'Physical activity and risk of breast cancer: a meta-analysis of studies' Breast Cancer Res Treat; 137 (3): 869-82 available at: <https://www.ncbi.nlm.nih.gov/pubmed/23274845> (Accessed: 3rd October 2019)

⁵⁵ Ibrahim, EM, Al-Homaidh A (2011) 'Physical Activity and survival after breast cancer diagnosis: meta-analysis of published studies' Med Oncol 28(3): 753-65 available at: <https://www.ncbi.nlm.nih.gov/pubmed/20411366> (Accessed: 3rd October 2019)

⁵⁶ Warburton, DE, Bredin SS (2016) 'Reflecting on Physical Activity and Health: What should we Recommend?' Apr31(4): 495-504 available at: <https://www.ncbi.nlm.nih.gov/pubmed/26995692> (Accessed: 3rd October 2019)

⁵⁷ Obesity Health Alliance (2019) 'Joint Policy Position on Obesity' available at: <http://obesityhealthalliance.org.uk/policy-and-resources/> (Accessed: 3rd October 2019)

⁵⁸ WHO (2019) 'Global Strategy for Infant and Young Child Feeding' available at: https://www.who.int/nutrition/topics/global_strategy/en/ (Accessed: 3rd October 2019)

⁵⁹ UNICEF (2019) 'The Baby Friendly Initiative' available at: <https://www.unicef.org.uk/babyfriendly/> (Accessed: 3rd October 2019)

32. Breast cancer risk is 16% lower in women who breastfeed, regardless of menopausal status⁶⁰ and this decrease is positively correlated with the total amount of time spent breastfeeding⁶¹.
33. The UK has one of the lowest breastfeeding rates in the world. Only 34% of babies are receiving any breast milk by six months compared to 49% in the US and 71% in Norway⁶². The prevalence of breastfeeding is particularly low among young mothers and disadvantaged socio-economic groups. There are multiple reasons why UK women do not breastfeed including cultural norms that discourage longer-term breastfeeding, a misconception that formula milk can replace breastmilk without any harm and a lack of postnatal care/trained support. Studies demonstrate however that interventions can increase the uptake and length of time women breastfeed^{63, 64}.
34. The Public health benefits of breastfeeding are clear: children who are breastfed for longer periods have higher intelligence, fewer infections and are less likely to be overweight or diabetic in later life. Studies indicate that breastfeeding could prevent over 20,000 breast cancer deaths worldwide a year⁶⁵. Accordingly, improving breastfeeding is a public health imperative to give every child across the UK the best start in life. The government, communities and families all have a crucial role to play in removing the educational and social barriers inhibiting breastfeeding.

Clear Product Labelling

35. Breast Cancer UK calls on the Government to:

- **Ensure that all consumer products containing substances of very high concern display a clear warning label to enhance public health and consumer protections.**
- **Support a ban on the use of BPA and other bisphenols in all food and drink packaging and replace these with safer alternatives.**
- **Take robust measures to identify and hold to account manufacturers who fail to comply with information required in order to protect consumers 'right to know' under REACH.**

⁶⁰ Unar- Munguia, M, Torres- Mejia G, Colchero M et al. (2017) 'Breastfeeding Mode and Risk of Breast Cancer: A Dose-Response Meta-Analysis' Journal of Human Lactation 33(2): 422-434

⁶¹ Islami, F et al (2015) 'Breastfeeding and breast cancer risk by receptor status – a systematic review and meta-analysis', Annals of Oncology 26: 2398:2407 available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4855244/pdf/mdv379.pdf> (Accessed: 3rd October 2019)

⁶² Lancet (2016) Webappendix 4: Lancet Breastfeeding Series Paper 1, Data Sources and estimates: countries without standardized surveys, p.17 available at: [www.thelancet.com/cms/ attachment/2047468706/2057986218/mmc1.pdf](http://www.thelancet.com/cms/attachment/2047468706/2057986218/mmc1.pdf) (Accessed: 3rd October 2019)

⁶³ Relton, C, Strong, M, Thomas, KJ et al (2018) 'Effect of Financial Incentives on Breastfeeding: A Cluster Randomized Clinical Trial' Jame Pedatra, Feb 5;172(2) available at: <https://www.ncbi.nlm.nih.gov/pubmed/29228160> (Accessed: 3rd October 2019)

⁶⁴ Paranjothy S, Copeland, L, Merret, L et al (2017) 'A novel peer-support intervention using motivational interviewing for breastfeeding maintenance: a UK feasibility study', Health Technol Assess Dec:21(77):1-138, available at: <https://www.ncbi.nlm.nih.gov/pubmed/29265999> (Accessed: 3rd October 2019)

⁶⁵ Lancet (2016) 'Webappendix 4: Lancet Breastfeeding Series Paper 1, Data Sources and estimates: countries without standardized surveys', p.17 available at: [www.thelancet.com/cms/ attachment/2047468706/2057986218/mmc1.pdf](http://www.thelancet.com/cms/attachment/2047468706/2057986218/mmc1.pdf) (Accessed: 3rd October 2019)

36. It is vital that consumers have access to the information they require to make informed purchasing decisions. In this context, we welcome the introduction of the UK voluntary nutritional labelling/ 'traffic light' labelling scheme⁶⁶ to enable consumers to make healthier food choices. However, in order to protect public health, labelling requirements need to extend beyond food and drink products. For consumers, it is unclear when products such as children toys, toothbrushes, cosmetics or even baby changing mats contain potentially harmful EDCs.
37. BPA, for example, is an EDC which is used in food and drink packaging and has an adverse effect on the development of breast tissue. There is sufficient evidence to suggest that diet is the main route of human exposure to BPA⁶⁷. Given the public health implications of BPA, the EU banned its use in baby bottles in March 2011⁶⁸ and formally identified it as a SVHC in 2017⁶⁹. France, Denmark and Belgium have all taken steps to restrict its use in products marketed at children⁷⁰, however, it is still permitted within food contact materials.
38. Under REACH, manufactures are only obliged to reveal whether their products contain substances of very high concern (SVHC), if a consumer writes to the manufacturer or retailer to request that information. However, not only do consumers have to wait 45 days, but tests by the European Consumer Organisation reveal that retailers are failing to meet their obligations under REACH, which is putting public health and consumer protection at risk⁷¹. Improved labelling of harmful chemicals and better enforcement are crucial to ensure that appropriate public health protections are in place and the consumers' 'right to know' is fulfilled.

Alcohol

39. Breast Cancer UK calls on the Government to:

⁶⁶ Department of Health (2018) 'The UK's Voluntary Front of Pack Nutrition Labelling Scheme' available at: https://ec.europa.eu/food/sites/food/files/animals/docs/comm_ahac_20180423_pres3.pdf (Accessed: 3rd October 2019)

⁶⁷ Wazir, U. and Mokbel, K. (2019) 'Bisphenol A: A Concise Review of Literature and a Discussion of Health and Regulatory Implications' *In Vivo*. 2019 Sep-Oct;33(5):1421-1423. doi: 10.21873/invivo.11619. available at: <https://www.ncbi.nlm.nih.gov/pubmed/31471387> (Accessed: 3rd October 2019)

⁶⁸ European Commission (2011) 'Bisphenol A EU ban on baby bottles to enter into force tomorrow' available at: https://europa.eu/rapid/press-release_IP-11-664_en.htm (Accessed: 3rd October 2019)

⁶⁹ Chemical Watch (2019) 'EU Court rejects second case against BPA SVHC Identification' available at: <https://chemicalwatch.com/82386/eu-court-rejects-second-case-against-bpa-svhc-identification> (Accessed: 3rd October 2019)

⁷⁰ Breast Cancer UK (2016) 'BCUK Background Briefing: BPA' available at: https://www.breastcanceruk.org.uk/app/uploads/2019/08/Background_Briefing_BPA_v.2_21_10_16_nw.pdf (Accessed: 3rd October 2019)

⁷¹ BEUC European Consumer Organisation (2015) 'Chemicals Companies & Consumers How much are we told' available at: <https://www.beuc.eu/publications/2011-09794-01-e.pdf> (Accessed: 3rd October 2019)

- **Deliver a comprehensive evidence-based Alcohol Strategy which implements the recommendations of the Alcohol Health Alliance’s Health First Strategy⁷² and the World Health Organisation’s Global Strategy to reduce the harmful use of alcohol⁷³**
- **Ensure that evidence-based health warnings are provided on alcohol products.**
- **Review the suitability of national guidelines for alcohol consumption which recommend limiting alcohol intake to as much as 14 units a week for women and men.**

40. Drinking alcoholic beverages is a risk factor for breast and many other forms of cancer as it interferes with hormones that may increase oestrogen levels. Alcohol consumption is attributed as the cause for more than 100,000 cases of breast cancer worldwide every year⁷⁴.

41. A woman drinking a daily average of two units of alcohol has an 8% increased risk of developing breast cancer compared to a woman who drinks an average of one unit per day⁷⁵. One study found that Breast cancer risk is 28% higher in those who have the highest intake of alcohol over their lifetime compared to those with the least intake⁷⁶. Drinking Alcohol during pregnancy also raises the lifetime risk of breast cancer in daughters⁷⁷.

42. Whilst the Green Paper contained a commitment to work with industry to increase availability of alcohol free and local alcohol products, it failed to deliver any concrete proposals to improve consumer protections or address the overall harm caused by alcohol. This is very disappointing given that over 10 Million people are drinking at levels above the Government’s official guidelines⁷⁸, which is a key factor in driving ill health and in increasing overall cancer risk.

Clean Air

Q: What could the Government do to help people live more healthily in homes and neighbourhoods; when going somewhere; in workplaces; in communities?

⁷² Alcohol Health Alliance (2019) ‘Health First An Evidence based- alcohol strategy for the UK’ available at: <http://12coez15v41j2cf7acjzaodh.wpengine.netdna-cdn.com/wp-content/uploads/2015/03/Health-First-An-evidence-based-alcohol-strategy-for-the-UK-condensed-download-size.pdf> (Accessed: 3rd October 2019).

⁷³ World Health Organisation (2010) ‘Global strategy to reduce the harmful use of alcohol’ available at: https://apps.who.int/iris/bitstream/handle/10665/44395/9789241599931_eng.pdf;jsessionid=9B16F2F4AD27269ADB81688EC205E4EA?sequence=1 (Accessed: 3rd October 2019)

⁷⁴ World Cancer Research Fund/American Institute for Cancer Research (2018) ‘Continuous Update Project Expert Report 2018. Alcoholic Drinks and the risk of cancer’ available at: <https://www.wcrf.org/sites/default/files/alcoholic-drinks.pdf> (Accessed: 3rd October 2019)

⁷⁵ Sheild K,D. et al (2016) ‘Alcohol Use and Breast Cancer: A Critical Review. Alcoholism, Clinical and Experimental Research’ 40 (6): 1166-1181, available at: <https://www.ncbi.nlm.nih.gov/pubmed/27130687> (Accessed: 3rd October 2019)

⁷⁶ Jayasekara H, Macinnis R, Room R, (2015) ‘Long-Term Alcohol Consumption and Breast, Upper Aero-Digestive Tract and Colorectal Cancer Risk: A Systematic Review and Meta-Analysis’ Alcohol and Alcoholism: 51 (3): 315-330. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26400678> (Accessed: 3rd October 2019)

⁷⁷ Stevens, R. G, Hilakivi-Clarke. L. (2001) ‘Alcohol exposure in utero and breast cancer risk later in life’ Alcohol and Alcoholism 36 (3): 276-277 available at: <https://academic.oup.com/alc/article/36/3/276/170149> (Accessed: 3rd October 2019)

⁷⁸ Department for Health and Social Care (2016) ‘New alcohol guidelines show increased risk of cancer’ available at: <https://www.gov.uk/government/news/new-alcohol-guidelines-show-increased-risk-of-cancer> (Accessed: 3rd October 2019)

43. Breast Cancer UK calls on the Government to:

- **Introduce a Clean Air Act which enshrines the right to breathe clean air into law, tackles the primary sources of air pollution and safeguards EU legal protections post-Brexit.**
- **Ensure the upcoming Environment (Principles and Governance) Bill⁷⁹ introduces legally binding targets in support of environmental objectives on air pollution and chemicals.**
- **Introduce legal limits for key air pollutants in line with WHO guidelines as part of the Environment Bill to be overseen by the proposed Office for Environmental Protection.**
- **Strengthen the regulations of chemicals found in household goods to address indoor air pollution, such as phasing out the use of toxic flame retardants in furniture.**

44. Air Pollution is the UK's leading environmental health risk and is thought to be a breast cancer risk factor⁸⁰. Common air pollutants such as particulate matter (PM) may contain carcinogens, such as benzene or EDCs, which are known to increase breast cancer risk. Road traffic fumes, industrial emissions and pesticides used in agriculture are known as the main outdoor contributors to poor air quality. Indoor air pollution is also a health hazard: for example, EDCs are found in everyday items such as cleaning products, air fresheners and furniture and furnishings.

45. The scale of the air pollution crisis is having a devastating impact on public health contributing to 40,000 early deaths every year⁸¹. PHE forecast that without any change in the law, air pollutants will cause a further 2.4 million cases of disease by 2035⁸². We, therefore, support PHE 5-year programme to ensure the Government has the best possible advice to address to indoor/outdoor air pollution and its campaigns to improve public awareness of pollution sources.

46. The Clean Air Strategy and its commitments to reduce exposure to PM, legislate to ban the most polluting fuels and regulate to reduce ammonia emissions are most welcome⁸³. However, the strategy failed to provide the legally binding targets, accountabilities and ambitious timelines necessary to reflect the urgency of our toxic air crisis. If the Government is serious about protecting public health, it must recognise the need to shake-up current air quality legislation.

⁷⁹ DEFRA (2018) 'Draft Environment (Principles and Governance) Bill 2018' available at:

<https://www.gov.uk/government/publications/draft-environment-principles-and-governance-bill-2018> (Accessed: 3rd October 2019)

⁸⁰ Anderson, Z, Satafoggia, M Weinmayr et al (2017) 'Long-term Exposure to Air Pollution and Incidence of Postmenopausal Breast Cancer in 15 European Cohorts within the ESCAPE Project' available at: <https://ehp.niehs.nih.gov/doi/pdf/10.1289/EHP1742> (Accessed: 3rd October 2019)

⁸¹ UK Health Alliance on Climate Change (2018) 'Moving Beyond the Air Quality Crisis' realizing the health benefits of acting on air pollution, available at: http://www.ukhealthalliance.org/wp-content/uploads/2018/10/Moving-beyond-the-Air-Quality-Crisis-4WEB-29_10-2018-final-1.pdf (Accessed: 3rd October 2019)

⁸² Public Health England (2019) 'Review of interventions to improve outdoor air quality and public health' available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf (Accessed: 3rd October 2019).

⁸³ DEFRA (2019) 'Clean Air Strategy 2019' available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770715/clean-air-strategy-2019.pdf (Accessed: 3rd October 2019)

Improving Health in the Workplace

47. Breast Cancer UK calls on the Government to:

- **Task Public Health England to carrying out a review on how workplace exposures to chemicals are assessed and evaluated.**
- **Develop a cross-governmental approach to address the potential public health implications of workplace exposure to chemicals of concern.**
- **Work with employer associations to deliver a workplace health strategy which provides businesses with guidance on how to promote good health and prevent disease.**

48. An area that requires further research is the link between occupational exposure and breast cancer, as such exposures are often preventable. Although relatively few studies have been carried out in the UK, research from the US found that women who have worked for 10 years or more in industry, where exposure to man-made chemicals is high, have a 42% increased risk of breast cancer⁸⁴. In particular, women working in the plastics, farming, food canning, and bar industry in Sweden are believed to have an elevated risk of breast cancer⁸⁵. Studies have also found that night shift work and exposure to light at night are potential breast cancer risk factors⁸⁶.

49. The International Agency for Research on Cancer recently confirmed its classification of night shift work as a Group 2A carcinogen, meaning it is probably carcinogenic to humans⁸⁷. The American Public Health Association have illustrated that *“despite significant scientific evidence about its known or suspected causes, research and prevention measures to identify and eliminate occupational and other environmental hazards and risk factors for breast cancer remain largely overlooked”*⁸⁸.

50. It remains unclear how the DoH and PHE interact and provide input into the discussion and policy making process of other bodies such as the Hazardous Substances Advisory Committee, Food Standards Agency, Health and Safety Executive or the Chemicals Stakeholder Forum. To

⁸⁴ Brophy, J.T et al (2012) ‘Breast Cancer risk in relation to occupations with exposure to carcinogens and endocrine disruptors: a Canadian case-control study’ Environmental Health 11:87 available at: <https://www.ncbi.nlm.nih.gov/pubmed/23164221> (Accessed: 3rd October 2019)

⁸⁵ Pollan M, Guastavesson, P. (1999) ‘High-risk occupations for breast cancer in the Swedish female working population 89 6): 875-91’ available at: <https://www.ncbi.nlm.nih.gov/pubmed/10358678> (Accessed: 3rd October 2019)

⁸⁶ Fenga, C. (2016) ‘Occupational exposure and risk of breast cancer’ Biomedical Reports 4 (3): 282-292, available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4774377/> (Accessed: 3rd October 2019)

⁸⁷ International Agency for Research on Cancer (2019) ‘IARC Monographs Meeting 124: Night Shift Work (4-11 June 2019) Questions and Answers’ available at: https://www.iarc.fr/wp-content/uploads/2019/07/QA_Monographs_Volume124.pdf (Accessed: 3rd October 2019)

⁸⁸ American Public Health Association (2014) ‘Breast Cancer and Occupation: The Need for Action’ available at: <https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2015/01/07/14/55/breast-cancer-and-occupation> (Accessed: 3rd October 2019)

support prevention in wider policies, the DoH and DEFRA must do more to address and advise on workplace exposure to carcinogenic and harmful chemicals.

51. Workplaces must also be encouraged to take a proactive approach to public health. Engaging with staff on the impact of work and health and intervening early to provide knowledge and support is linked with better health outcomes. The business case is clear, healthier workplaces are more engaged and more productive⁸⁹, yet employers still struggle to access occupational health advice. Accordingly, the government must work with employers to deliver a workplace health strategy which provides guidance on how to influence social norms, establish health-promoting policies, increase healthy behaviours and reduce exposure to harmful substances.

For more information please contact Kit Bowerin, Public Affairs Officer Breast Cancer UK at: kit.bowerin@breastcanceruk.org.uk or 07771539934

⁸⁹ CBI (2018) 'Front of Mind: prioritising health and wellbeing in your workplace' available at: <https://www.cbi.org.uk/articles/front-of-mind-prioritising-health-and-wellbeing-in-your-workplace/> (Accessed: 3rd October 2019)