

The Women's Health Strategy

Submission from:

[Alliance for Cancer Prevention](#)
[From Pink to Prevention](#)
[The Lincolnshire Cancer Project](#)
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4. Maximising women's health in the workplace

The main way to maximise women's health is to be proactive on preventing ill health by taking a precautionary approach. This is especially applicable in workplace. Unfortunately, existing health and safety laws do not adequately protect women workers and the foetus. They are based on old, outdated science and many exposure limits are set by extrapolating impacts on male bodies. Occupational cancer is a good example of the old school thinking.

Occupational cancers are the primary cause of work-related deaths in industrialised societies, with more than 100,000 people losing their lives each year through exposure to carcinogens in their workplace. Latest estimates set the share of [work-related cancers at 8%](#) of all new cancer cases (6 - 12% for men and 3 - 7% for women) but the real figure is likely to be three times higher. Long latency times and lack of work history records means associations between occupational cancer and workplace exposures go unrecorded. According to the European Trade Union Institute (ETUI) work-related cancers costs between €270 and €610 billion a year in the EU-28.

The scale of occupational cancer has been denied for three decades and women's work and workplaces have escaped regulation due to the perception of them being safe. Research relies too heavily on epidemiology, which is only capable of seeing widespread, long-established problems amongst large numbers of workers, employed for long periods of time, in large workplaces such as mines, mills and manufacturing¹.

This is totally unsuitable for today's smaller, gender diverse and fast evolving workplace with more complex, cumulative and multiple exposures. Research based on these outdated theories about exposures at work and gender blindness will continue to contribute to the rising number of work-related cancers. It is incapable of picking up high risk exposures affecting smaller groups of workers.

What is needed is a massive proactive and preventive enforcement of elimination, and an abandonment of the use of cost-benefit analysis in setting exposure limit for carcinogens in UK. There are no safe levels for exposure to carcinogens including Endocrine Disrupting Chemicals (EDCs)¹.

The approach to women's cancers where there can be a *triple jeopardy* effect for women with exposures happening daily not only in the workplace, but also in the home and then again in the wider environment, is largely ignored. Some examples are those working with cleaning or personal

¹ EDCs (endocrine disrupting chemicals), also known as hormone disrupters, are chemicals that are not hormones but can interfere with the endocrine or hormone system – which is the bodies messenger system, responsible for every aspect of life. An endocrine disruptor is exogenous chemical or mixture that interferes with any aspect of hormone action.

care products or in agriculture. When it comes to occupational cancers disease, compensation systems are based on a single factor and non-gendered approach of carcinogenesis, ignoring differences between men and women in complex occupational exposure situationsⁱⁱ.

REACH and associated European workers health and safety rights and directives ⁱⁱⁱ complemented, and had a positive impact, on the workplace and the health of workers and the environment. The UK should aim to retain and build on existing health and safety regulations and all regulations related to chemical safety in the workplace. This should be linked to the Women's Health Strategy.

Current regulations do not go far enough to safeguard the reproductive capacity of women and men, especially in the workplace. With protection only kicking in after the first three months of pregnancy when foetal exposure to toxic chemicals at critical windows of development in the first three months can set the individual up for a lifetime of ill-health ^{xii}. There is also a lack of sex and gender disaggregated data, which means that legislation fails to account for the fact that women are disproportionately affected by exposure to chemicals ^{vii}.

A more sex and gender-based approach is needed. This approach must support the prevention of occupationally related adverse health impacts, especially in relation to cancer prevention and reproductive health.

Research has shown that:

- Studies found that women who worked for 10 years in jobs where they were exposed to high levels of chemicals that were identified as either mammary carcinogens or EDCs increased their risk of breast cancer by 42%. For women working in the automotive plastics industry the risk increased by 400%. For those working in food canning it was 500%^{iv}.
- Women working as flight attendants, in the medical profession, in some production positions, sales and retailing, and science technicians, all had elevated risk of breast cancer^v.
- Women are also more likely to be in poorly paid, less well-regulated work or more likely to be affected by night shift work.
- In Canada, the plastics industry has the highest proportion of women workers at 37% and in the US, almost 30% of workers in the industry are women. Studies have reported increased breast cancer risk in women working in plastics processing, rubber, and plastics products production, and in occupations involving exposures to synthetic textile fibers^{vi}.
- Globally and in the USA women of colour are even more at risk from the potential health effects of chemical exposure, not only because they disproportionately work in chemical-heavy industries but also because they are more likely to live in neighbourhoods with high levels of pollution. Studies show that communities of colour are more often situated next to highways and big polluting industries, such as oil refineries, meat processing plants, agricultural fields, and toxic waste dumps ^{vii}.

Workplace recommendations for the women's health strategy

- A thorough new assessment of workplace chemicals and other exposures is needed to quantify current health risks especially in relation to women.
- Previous estimates of occupational cancer risk are outdated and should no longer be used by government or industry.

- Occupational health research to adequately include women's exposure and any exposures to the reproductive system, in both paid and unpaid workplaces.
- Include, collate, and collect sex and gender disaggregated data on all health and safety issues.
- Consideration needs to be given to women in the workplace who are disproportionately exposed to chemicals because of their prevalence in chemical-heavy industries, their poorer working conditions relative to men, and biological factors^{vii}.
- Chemical exposure assessments should use biomarkers^{viii} such as umbilical cord blood and breast milk taken pre-conception and post-birth to lay down safety standards which protect the most vulnerable, women, the embryo, and the foetus, and so protect all.
- The Women's Health Strategy should be linked to the UK Chemical Strategy and the UK National Action Plan for the Sustainable Use of Pesticides making the connection between exposure to toxic chemicals, pesticides, and adverse health outcomes.
- There must be a requirement for companies to ensure safe working conditions throughout their supply chain, including in waste and recycling processing. This must include extending current workplace legislation on carcinogens and mutagens^{ix} to include reprotoxic substances.
- The UK government should support the initiative to make Health and Safety a fundamental human right^x.

Recommendations for the Medical establishment on women occupational health

- All doctors and cancer specialists should receive training in how to recognise pesticide poisoning and identify adverse effects from other workplace and environmental exposures, especially in areas where exposure is most likely.
- Occupational history needs to form an integral part of questioning and recorded as a crucial part of the patient's background.
- Information about home environments need to be collected to capture the impact of environmental exposures over time.
- Education on environmental and occupational insults for all cancer specialists.
- A thorough review of patients treated with Selectron radiation therapy used for cervical, uterine, and other cancers of the female reproductive system.
- Recognition of Pelvic Radiation Disease as a condition and action to increase funding and research into current cases and prevent future harm.

Recommendations on Refugee and Migrant worker Health

- For refugees and migrant women workers, targeted health policy and culturally sensitive practices are needed to address a broad range of issues around NCDs, mental, physical and occupational health. Adequate housing and sanitation should be fundamental rights to lead a dignified life free of racism, and discrimination.
- Many risk factors related to lifestyle disproportionately affect vulnerable groups, and persistent inequalities in health outcomes linked to the social determinants of health need to be addressed.
- Health is a fundamental human right and needs to form the bedrock of any initiative that seeks to protect vulnerable and exploited workers.

5. Ensuring research, evidence, and data support improvements in women's health

Impacts on women and children's health from exposure to toxic chemicals in particulate endocrine disrupting chemicals (EDCs) need to be address in the women's health strategy.

Women and children's health is indicative of the state of our environment and can be used to indicate the health and well-being of our world. But for this to happen women's health needs to be taken seriously. Women are not just the default male.

The lack of investment, interest, and ignorance of research by governments, the medical establishment and those who have vested interests has meant that many of the illnesses and diseases that affect women are still as mysterious as dark matter, despite millions suffering chronic pain and life changing symptoms.

Different immune systems mean women are more prone to auto immune diseases such as lupus, and rheumatoid arthritis, with women making up to 80% of those affected^{xi}. They may also suffer with several different AI diseases at the same time.

Scientific and medical experts from the World Health Organization, UNEP and others have concluded that EDCs pose a risk to the health of humans and wildlife ^{vii}. Implicated in the rise of breast and other cancers, obesity, reproductive and neurological disorders, auto immune diseases, asthma, and allergies. The science could not be any clearer, there is more than enough evidence to demonstrate that endocrine disrupting and other toxic chemicals are seriously affecting our health and the health of wildlife and the planet^{xii}. Waiting to act on this association puts the health of current and future generations at risk.

Taking breast cancer as an example in relation to research spending. In the UK, breast cancer prevention research gets between 3-4% of the total 6% spend on cancer prevention. When this paltry amount is broken down further into headings such as public health and hormones, which could be taken to mean exposure to exogenous factors like chemicals, they receive less than 10% of the spend. And much of the resulting work focuses on health promotion and wellbeing type studies and hormone levels. According to the National Cancer Research Institute (NCRI) the most funded cancer research aspect is diet and nutrition ^{xiii}. So effectively there is little or no research on environmental or occupational risk factors which could contribute to up to 60% of breast cancer cases.

Initiatives to tackle public health seem to have shifted from preventing disease, prolonging life, and promoting human health through organised efforts and informed choices of society, organisations, public and private, communities and individuals, to one of placing the emphasis on the individual to choose healthy behaviour and make healthy choices ^{xiv}. All of which appear futile when faced with the current levels of toxic air and chemical pollution and weakened health and safety legislation and enforcement.

Breast cancer

"Breast cancer is not only a disease of abnormal cells but also of communities that we create and live in." (Dr. Ted Schettler)

"As seen from women's standpoint, breast cancer risk is not solely a biomedical phenomenon residing in the body, determined by genetics or lifestyle choices, but is experienced by women

in a nested set of social, cultural and political relationships. Increased understanding and collaborative partnerships between medical science and social science would improve breast cancer prevention strategies, particularly where risks are related to involuntary, environmental exposures^{xv}.

Many may think, because of the overarching focus by the cancer charities that breast cancer is all down to so called lifestyle risk factors such as poor diet, over consumption of alcohol, lack of exercise and family history. Although nobody contests these risk factors may contribute to 40% of breast cancer cases. The question remains about the other 60% of cases which are thought to be linked to the chemicals and substances we are exposed to daily in our homes, workplaces and in the wider environment. Breast cancer is a multifactorial disease with many different types and causes, but it could almost be viewed as blatant discrimination to focus all the attention for breast cancer on less than half the cases while ignoring the other 60%.

Many of the everyday chemical's women are exposed to in their homes and workplaces, present in plastics, personal care and cleaning products or pesticides are linked to increased risk or poor prognosis for breast cancer. Effects from pre-birth and early life exposure can manifest in breast cancer later in life, showing timing of exposure maybe more important than the amount of chemical one is exposed too^{xxiii, xxi}. For an endocrine disruptor pesticide such as *Dichlorodiphenyltrichloroethane (DDT)* (which was banned in the 1980s) depending on when the exposure happened pre or post birth, exposure can lead to breast cancer pre or post menopause 40 years after the original exposure^{xvi}.

In the UK according to the Office of National Statistics, data shows breast cancer incidence rates have almost doubled since 1971. Even those with a genetic predisposition, the BRCA2 mutation, who were born after 1958 have a 46% risk of breast cancer whereas those born before that date have an 11% risk^{xvii}. So, what happened in 1958?

There is little recognition or acknowledgment of the higher rates of breast cancer associated with certain occupations, jobs where women are potentially exposed to carcinogens and endocrine disruptors or where they do night shift work.

An elevated risk of breast cancer was found in women who reported being in fields during or shortly after pesticide applications and among women who had ever been employed in fruit and vegetable farming. More significantly, elevated risk of breast cancer has been found in female agricultural workers and the risk increased with duration of employment^{xviii}. And it is not just workers who are at risk but also women living close to pesticide application areas in hight arable farmed areas such as Lincolnshire^{xix}. The use of several organophosphate insecticides was associated with elevated breast cancer risk among farmers wives^{xix}.

This public health crisis will not be averted by encouraging women to change their personal lives. One of the main risk factors for breast and other cancers that is rarely mentioned is a lack of political will. This lack of will, fuelled by the cancer establishment and industry who consistently seek to undermine, ignore, and create doubt around any science which links cancer to environmental and occupational risk factors, fuels and condones a serious health crisis with irreversible impacts on health and the environment for generations to come.

Research has shown:

- Effects from pre-birth and early life exposure can manifest in breast cancer later in life, showing timing of exposure maybe more important than the amount of chemical one is exposed too^{xx,xxi}
- In the last 25 years in the UK rates of breast cancer have risen from 1 in 12 to 1 in 7.
- Incidence risen by 72% in the last 50 years.
- Up to 70% of cases have no known cause – 30% attributed to lifestyle risk factors + genetic predisposition.
- Breast cancer deaths in England are more common in females living in the most deprived areas.
- Ethnic variations - patients known to be Black are younger, less likely to be screen-detected and have worse prognosis tumours.
- Because of thinner skins, slower to detox, more fat tissue women are more likely to be affected by exposure to EDCs linked to breast cancer.
- Research identified 216 chemicals that are linked to mammary tumors^{xxii}.
- Breast cancer has been linked to exposure to over 15 different families of chemicals, both industrial and agricultural including air pollution, which impact the breast adversely pre-birth, during puberty, and pre and post-menopause^{xxiii, xxiv}.
- Women have a lifetime of hormonal changes ie puberty, pregnancy, menstruation, and menopause. More fat tissue - allowing the storing of more fat-soluble toxic chemicals. Affected differently by chemicals and pollution.
- Denser breast tissue found in women living in cities – denser breasts are linked to greater risk of breast cancer, yet we are not informed of this when encouraged to exercise^{xxv}.
- There is a strong connection between pesticides and breast cancer rates in women, and almost 100 pesticides have been identified as potentially contributing to increased risk of breast cancer. Of these, 63% have been shown to have estrogenic effects in laboratory studies^{xxvi}.

Recommendation for breast cancer for the Women’s Health Strategy

- Strategy should recommend increasing the spending on research into the primary prevention of cancer from under 5% to 35%.
- To protect women’s health there needs to be a complete revision and refocusing of all cancer plans and strategies to incorporate environmental and occupational risk factors (determinants) for cancer with definitive targets for action and appropriate funds allowed.
- The inclusion of the precautionary principle as one of the foundation stones in the Women’s Health Strategy.
- Take a more human rights-based approach to cancer factoring in environmental justice principles and the right to a clean and safe environment in all cancer plans^{xxvii}.
- Harmonisation of the language in relation to cancer ensuring that references to the environment and primary prevention are universal and defined in terms of stopping cancer before it starts.
- Support and include actions from the European Beating Cancer Plan when updating strategies on cancer.
- A target to eliminate all toxic and man-made chemicals which are found in breast milk and cord blood.
- There should be a clearer understanding of the process for determination of cancer risk factors, and publicly available information on how decisions are made, by who and where.
- Information on substances linked to cancer which people may be exposed to daily should be provided alongside information on so called lifestyle risk factors. All should be fully referenced.

- Researchers need to gather data on pre-versus postmenopausal breast cancer, hormone-receptor status, and the variations of these different breast cancer subtypes among women of different races and ethnicities.

Menstruation

Menstruation is one of the most natural and healthy parts of life and many cultures celebrate the first period. But for many it is associated with pain and negativity, shrouded in secrecy and silence. Despite some advances, many products are still designed to reinforce the taboos surrounding our monthly bleed, and they enforce the misconception that periods smell, or even hide the very fact that we are menstruating at all. Menstrual blood is itself somehow seen as 'other'. Menstrual taboos or period shaming has a massive impact on the products we use, and how we dispose of them. Certain menstrual products can affect our health, end up in landfill, on our beaches, or pollute our oceans for decades.

Could changing social and cultural attitudes towards menstruation affect the way we experience our periods? Would it affect the choices we make about menstrual products and how we dispose of them, which could have a major impact on our health and environment?

Given that in 2019, 1.64 million women (aged 15+) in the UK used 25 or more menstrual pads per month, this is an important health issue for all women, girls and people who menstruate.

Research has shown that:

- The work we do can impact on our periods. Women working in semiconductor fabrication and microelectronics have increased risk of spontaneous abortions and congenital malformation and reduce fertility^{xxviii}.
- Women exposed to chemicals in e-waste such as heavy metals, flame retardants, PCBs, and phthalates may suffer from anaemia, foetal toxicity, hormonal effects, menstrual cycle irregularities, endometriosis, autoimmune disorders, and cancers of the reproductive system^{xxix}.
- A subsequent examination of reproductive risks among female microelectronics workers aged 20 – 39 years old found a significantly higher risk for spontaneous abortion and menstrual aberration^{xxx}.
- A range of hazardous chemicals have been detected in menstrual products, such as pesticides, phthalates, and solvents^{xxxi}.

Recommendations for the women's health strategy on menstruation:

- Specific legislation is needed on the affordability, sustainability and safer of all period products reusable and disposable.
- Strategy to push for increased transparency from the period product manufacturers including intentionally and unintentionally added chemicals.
- Recognition of the fact that if some of the fragrance additives in period products are [at levels](#) which would require mandatory labelling if they were in cosmetics. Yet there is no regulation or information for period products^{xxxii}.
- Removal of the 'tampon tax' from all reusables including period pants.
- Each period can cost on average £10, that's £130/year and £4940/lifetime, using a reusable such as a menstrual cup can save up to £3700 over a lifetime^{xxxiii}.

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- ^x ILO: World's leading experts call for occupational health and safety to be made a fundamental right, March 2021 <https://www.ituc-csi.org/experts-call-for-occupational-health-and-safety>
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