

## **CHEM Trust - Written evidence (PRT0025)**

### **About us and reason for submitting evidence:**

1. CHEM Trust is an environmental charity that works to prevent synthetic chemicals from causing long-term damage to wildlife or humans.
2. We are experts in chemicals that interfere with the hormone system: endocrine disrupting chemicals. Increased risk of pre-term births in humans is one of many health concerns that have been associated with exposure to endocrine disrupting chemicals (EDCs). This submission focuses on the measures needed to reduce exposure to EDCs, which should be part of a prevention strategy for reducing preterm births. For details of our work, see <https://chemtrust.org/policy/>; for more on endocrine disrupters, see <https://chemtrust.org/endocrine-system/>

### **Background:**

#### **About EDCs:** [1]

1. The endocrine system is made up of hormones, organs and glands. These control essential functions, including the growth of the body, brain and nervous system. Our hormones regulate sexual and reproductive development and are critical to the body's metabolism, production of insulin, blood pressure, sleep patterns and weight.
2. Some synthetic chemicals, called endocrine disrupting chemicals (EDCs), can interfere with the endocrine system. They do this in a number of ways: some change the amount of hormones in our blood; others change our sensitivity to hormones; other EDCs block hormones from doing their job; and others even mimic the body's natural hormones.
3. EDCs are found in everyday products – from furniture, food, toiletries and electronic goods to water and till receipts.

4. In humans, EDCs have been linked to many health impacts, including infertility and reproductive problems, endometriosis, early puberty, obesity, diabetes, heart disease, and breast, testicular and prostate cancers.

#### **Exposure in the European population:**

5. Between 2017 and 2022, 28 European countries took part in a joint European research programme called HBM4EU, which established a network of laboratories across Europe to conduct biomonitoring studies. It measured Europeans' exposure to harmful chemicals, their impacts on health and made policy recommendations from these findings. [2]
6. The research project found widespread exposure to 18 priority substances/substance groups, some of which (such as bisphenols and phthalates), have endocrine disrupting properties. [3] [4]

#### **Connection between EDCs and pre-term births:**

7. Scientific research points to an association between environmental factors and increased risk of preterm births, such as exposure to endocrine disrupting chemicals (EDCs).
8. A 2015 statement by the International Federation of Gynaecology and Obstetrics (FIGO) highlighted the role of environmental factors in increases in non-communicable diseases (NCDs), including pre-term births: *The global rise in the rate of NCDs encompasses increases in diseases and conditions related to the endocrine system, e.g., low-semen quality, genital malformations, pre-term birth and low birth weight, neurobehavioral disorders associated with thyroid disruption, endocrine-related cancers, early onset of breast development in young girls, and type 2 diabetes. These trends have occurred in a timeframe inconsistent with the much slower pace of changes in the human genome, indicating that our environment has shaped these disease patterns.* [5]

9. A 2015 review of over 1300 scientific papers by the Endocrine Society on the impacts of EDCs concluded the following on female reproductive health: *Although the data are not always consistent between experimental and epidemiological studies, they suggest that EDCs may adversely affect the structure and/or function of the uterus, vagina, and anterior pituitary and that they may be associated with abnormal puberty, irregular cyclicity, reduced fertility, infertility, PCOS, endometriosis, fibroids, pre-term birth, and adverse birth outcomes.* [6]
10. In 2024, a report published by the International Pollutants Elimination Network (IPEN) and the Endocrine Society provides an update on the state of science around EDCs. On pre-term births, it states the following: *'The preterm birth rate in the U.S., U.K., and Scandinavia has increased by more than 30% since 1981, an outcome associated with increased rates of neurological disorders, respiratory conditions, and childhood mortality, as well as obesity, type 2 diabetes, and cardiovascular disease in adulthood. Data from human, animal, and cell-based studies have generated considerable evidence linking EDC exposure to these and other human health disorders.'* [7]
11. One group of chemicals where exposure during pregnancy has been associated with increased risk of preterm birth are phthalates. Phthalates are a large group of chemicals commonly added to plastics to increase their durability and flexibility. [8] For example, one pooled analysis of 16 studies in the US, comprising 6045 pregnant individuals, suggested exposure to certain phthalates increased the odds of preterm birth by up to 16%. [9]

### **Inadequate policy on EDCs:**

12. The UK Government has yet to make a commitment to reducing UK exposure to EDCs and are taking a weaker approach to the regulation of these substances in comparison to the EU. (The UK left

the European Union and its chemical management system, REACH, at the end of the transition period in 2021.)

13. In 2023, the UK Government decided not to match new hazard classes introduced in the EU for known and suspected endocrine disrupting chemicals for the classification, labelling and packaging (CLP) of substances. In addition to ensuring better classification and labelling of these substances and enhancing their transparency in supply chains and the need for substitution, these new classifications will make it easier to regulate them. [10]
14. The knock-on impact on other areas of legislation is significant. The EU is in the process of revising the Toys Regulation, extending an automatic ban on CMRs (carcinogenic, mutagenic and reprotoxic substances) in toys to known and suspected endocrine disrupting chemicals, meaning they will automatically be banned from toys when identified under these new hazard classes in the EU CLP regulations. [11]
15. International organisations, such as FIGO and the Endocrine Society, have called for policies to prevent exposure to toxic chemicals such as EDCs due to concern about their health impacts, including on reproductive health. [5] [12]
16. We are calling on the UK Government to protect UK citizens from EDCs by including a plan in its upcoming Chemicals Strategy to minimise and phase out exposure to these substances, as well as a ban on EDCs in consumer products. [13] As a first step, this would require introducing new hazard classes for known and suspected endocrine disrupters into the GB Classification, Labelling and Packaging of substances regulation.
17. The UK should match the ambition of the EU on EDCs, as well as European countries, including France, Sweden and Denmark, who have national action plans to reduce the exposure of their

populations to EDCs. These have included information campaigns. As far back as 2006, the Danish Government launched an information campaign providing advice for pregnant women on how they can reduce their exposure to EDCs. [14]

18. For the UK Government to achieve its ambition of reducing the preterm birth rate to 6% of live births by 2025, reducing exposure to endocrine disrupting chemicals needs to feature in their plans.

## References

- [1] <https://chemtrust.org/endocrine-system/>
- [2] <https://www.eea.europa.eu/en/about/who-we-are/projects-and-cooperation-agreements/hbm4eu-parc>
- [3] [https://chemtrust.org/hbm4eu\\_conference/](https://chemtrust.org/hbm4eu_conference/)
- [4] [https://chemtrust.org/hbm4eu\\_conference/](https://chemtrust.org/hbm4eu_conference/)
- [5] doi: [10.1016/j.ijgo.2015.09.002](https://doi.org/10.1016/j.ijgo.2015.09.002)
- [6] doi: [10.1210/er.2015-1010](https://doi.org/10.1210/er.2015-1010)
- [7] <https://www.endocrine.org/-/media/endocrine/files/advocacy/edc-report2024finalcompressed.pdf>
- [8] <https://chemtrust.org/phthalates/>
- [9] doi: [10.1001/jamapediatrics.2022.2252](https://doi.org/10.1001/jamapediatrics.2022.2252)
- [10] [https://chemtrust.org/uks\\_approach\\_edcs/](https://chemtrust.org/uks_approach_edcs/)
- [11] [https://single-market-economy.ec.europa.eu/publications/proposal-regulation-safety-toys\\_en](https://single-market-economy.ec.europa.eu/publications/proposal-regulation-safety-toys_en)
- [12] <https://www.endocrine.org/advocacy/accomplishments-and-champions/better-regulation-of-edcs>
- [13] <https://chemtrust.org/12-key-asks-uk-chemicals-strategy/>

[14] <https://www.pan-europe.info/sites/pan-europe.info/files/public/resources/reports/measure-against-endocrine-disrupting-chemicals-june2016.pdf>

*26 March 2024*