

CASE STUDY

Spotlighting pharmaceutical pollutants and antimicrobial resistance in Parliament

2022 - 2023

University of Exeter | Environment and Sustainability Institute

RESEARCH DIGEST

Pharmaceutical overuse, misuse and improper disposal increase environmental concentrations of active pharmaceutical ingredients (APIs), contributing to antimicrobial resistance (AMR) and threatening public health and biodiversity. Recognised as a One Health and Planetary Health challenge, pharmaceutical pollution requires research into its sources and mitigation.

Despite this, UK healthcare policy has largely overlooked pharmaceutical pollution. While NHS England's post-COP26 strategies address carbon reduction and climate resilience, they give limited attention to APIs in the environment, unlike NHS Scotland's approach.

Funded by the British Society for Antimicrobial Chemotherapy, ESI researcher Dr Emily Stevenson and Dr Julze Alejandre of Glasgow Caledonian University, undertook PhD parliamentary internships to raise awareness of pharmaceutical pollution among UK policymakers.

Working with Green Party Peer Baroness Bennett, Dr Stevenson co-authored a policy brief exploring how eco-directed and sustainable prescribing could reduce pharmaceutical pollution. The brief was launched at an event hosted by Baroness Bennett at the House of Lords.



IMPACT

Through consultation with academics, industry experts, government stakeholders and civil society organisations, the researchers developed 15 policy recommendations to reduce pharmaceutical pollution in the UK. These focus on four key areas:

Increase investment in non-pharmacologic interventions like public health and social care infrastructure

Increase stakeholder's awareness of this issue and create wider engagement to promote more sustainable healthcare

Introduce environmental and sustainability criteria in healthcare decision making processes around the UK

Invest in extended environmental risk assessment of human pharmaceuticals

The policy brief also features contributions from University of Exeter researchers Dr Kelly Thornber and Ed Wilson, and ESI academic Dr Aimee Murray, who served as one of three sectoral reviewers.

During her parliamentary internship, Dr Emily Stevenson supported Baroness Bennett in raising pharmaceutical pollution in House of Lords debates, bringing greater political and public attention to the issue. Her research and the resulting policy brief have elevated the profile of pharmaceutical pollution and helped bring antimicrobial resistance (AMR) back onto the political agenda.



PUBLICATIONS

Alejandre, J.C., Stevenson, E.M., Fady, P-E., and Bennett, N. 2023. Eco-directed and Sustainable Prescribing of Pharmaceuticals in the United Kingdom. Policy Brief. Prepared by the Office of Baroness Bennett of Manor Castle, House of Lords, Parliament of the United Kingdom.

ENGAGEMENT

July 2023 | University of Exeter Press Release: Policy brief to tackle pharmaceutical pollution launched at House of Lords.

July 2023 | Devon Live: Policy brief to tackle pharmaceutical pollution launched at House of Lords.

April 2023 | BSAC: Helping to keep AMR on the political agenda.





TEAM

- Dr Emily Stevenson, University of Exeter
- Dr Julze Alejandre, Glasgow Caledonian University
- Dr Paul-Enguerrand Fady, King's College London
- Baroness Bennett of Manor Castle

FUNDERS AND PARTNERS

- British Society for Antimicrobial Chemotherapy

POLICYMAKER

- National

GEOGRAPHY

- UK

RELEVANT SDGs

3 GOOD HEALTH AND WELL-BEING

6 CLEAN WATER AND SANITATION

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

17 PARTNERSHIPS FOR THE GOALS