International Report Highlights Environmental, Economic Costs of Single-Use Plastics in Healthcare Sector

Without action, annual plastic waste volumes and greenhouse gas emissions could rise by 35-40% by 2040, pushing costs for hospitals and health systems in Europe and North America up to over $76 billion per year.

New York, 10th September 2025 – A new report from global sustainability consultancies Systemiq and Eunomia warns that the healthcare sector's dependence on single-use plastics is driving up costs, waste, and greenhouse gas (GHG) emissions across Europe and North America – but also shows that proven solutions can deliver dramatic reductions. Released ahead of Climate Week NYC and following the UN Plastics Treaty negotiations in Geneva, the findings highlight the urgent need to bring healthcare further into global discussions on plastics, climate, and health.

In 2023 alone, healthcare in the two regions generated 2.1 million tonnes of single-use plastic waste, creating 9.3 million tonnes of CO_2e emissions and costing health systems close to $56 billion.

"This report presents the strongest evidence yet to galvanize the global healthcare community into urgent action on plastic waste," says Pallavi Madakasira, Managing Consultant at Eunomia. "It offers a common set of priority interventions and a data-driven roadmap to accelerate progress. Most importantly, it shows that safe, proven, and cost-saving solutions are already within reach."

The report, '*A Prescription for Change: Rethinking plastics use in healthcare to reduce waste, greenhouse gas emissions and costs*', quantifies the environmental and financial impacts of single-use plastics across seven high-volume product categories: gloves, fluid bags and tubing, rigid devices, rigid device packaging, PPE, wipes, and pharmaceutical packaging.

"Healthcare has become overly dependent on disposable plastics, locking hospitals into rising costs and increasing greenhouse gas emissions," says Yoni Shiran, Partner and Plastics Lead at Systemiq. "By redesigning products and procurement around circular economy principles, we can protect patients, protect budgets, and build resilience against future shocks. At a time where public budgets are under huge pressure, a wiser management of plastic in healthcare presents an opportunity to use public spending more efficiently."

The report highlights five practical, evidence-based circular economy strategies that hospitals and suppliers can scale today:

- **Refuse and reduce** unnecessary use (e.g. overuse of gloves).
- **Reuse** safe, durable alternatives such as gowns, trays, and masks.
- **Substitute** with paper-based or compostable materials where safe.
- **Improve recycling** through better design and segregation.
- **Procure low-GHG emissions** plastics from biobased or Carbon Capture and Storage (CCS)-derived sources.

If scaled across the system, these interventions could, by 2040, cut single-use plastics waste by 53%, reduce GHG emissions by 55%, and deliver annual savings of $18 billion (a 24% reduction) – compared to a Business-as-Usual scenario. But if no action is taken, costs could go up to over $76 billion per year by 2040. Realizing this "High-Ambition Scenario" will require decisive and coordinated action from all system actors, including regulators and policy makers, who have sometimes exempted healthcare plastics from past policies.

Examples already in practice show what is possible:

- In Canada, pilot projects at selected hospitals have shown that updating clinical protocols can cut glove use by more than 50%, reducing both waste and costs.
- In England, several NHS trusts have replaced single-use surgical trays with reusables, eliminating thousands of disposables each year while improving staff efficiency.
- In the US, one major health hospital recycled over 170,000 IV bags in 2023, diverting over 5.4 metric tonnes of PVC from landfill and proving large-scale recovery is feasible.
- Across industry, leading manufacturers are piloting redesigned medical device packaging that halves plastic content and improves recyclability.

"Protecting patient health is non-negotiable – but many plastics pose their own risks," says Will Clark, International Supply Chain Transformation Director at Health Care Without Harm, a global non-governmental organization that provided a health sector perspective on the findings. "This report shows we can safely reduce or replace plastics, cut costs and environmental harm, and still deliver high-quality care."

The report was produced by Systemiq and Eunomia in consultation with an independent panel of clinicians, hospital sustainability leaders, industry representatives, and academics from Europe and North America.

Professor Mahmood Bhutta, Chair of ENT Surgery at Brighton and Sussex Medical School, Director of the Green Healthcare Hub and a surgeon in the UK National Health Service, added: "The volume of disposable materials used in healthcare, including plastic, is staggering. Across Europe, hospitals are already showing that reusables and smarter product design can cut costs, carbon emissions, and plastics use – without compromising patient safety. This report provides the evidence and direction needed to help health systems make sustainable, low-waste care the norm."

The report is available for download at: https://eunomia.eco/reports/a-prescription-for-change/ and https://www.systemiq.earth/aprescriptionforchange.

The findings of this report will be discussed by an expert panel at an upcoming webinar you can register for here (North America focus) and here (European and UK focus).

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Notes to Editors

In the analysis, 'Europe' covers EU27 and the United Kingdom, and 'North America' covers the United States of America and Canada.

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About Systemiq
Systemiq is a systems change company that works with businesses, policymakers, investors, and civil society organizations to reimagine and reshape the systems that sit at the heart of society – energy, nature and food, materials, built environment, and finance – to accelerate the shift to a more sustainable and inclusive economy. Founded in 2016, Systemiq is a certified B Corp with offices in Brazil, France, Germany, Indonesia, the Netherlands, the UK, and the USA. Find out more at https://www.systemiq.earth/aprescriptionforchange or via LinkedIn.

About Eunomia

Eunomia is a leading global environmental and sustainability consultancy. We're a team of social-environmental problem-solvers and researchers - with a difference. Combining real world consulting experience and deep knowledge with an active role in policy, empowers us to provide pragmatic, science-led solutions that reduce human impact on the planet. We are a certified B-Corp business with 150+ employees across 5 offices, spanning three continents. For more information, visit https://eunomia.eco/reports/a-prescription-for-change/.