



HOW TO REDUCE THE IMPACT OF PLASTICS IN HEALTHCARE

SESSION ON PLASTICS, HARMFUL CHEMICALS, AND HEALTH NEXT WEEK

From nurses to parents: reducing
plastic and harmful chemical
exposure to children

- 7 December, 16:00 – 17:30 CET



INTERNATIONAL CONTINUING NURSING EDUCATION CREDITS (ICNECS)

- Continuous education credits available for nurses participating in these webinars
 - 1.5 credits / webinar
- Reach out to us if you are a nurse and you need to receive credits for attending this training



ABOUT US

We are a network of thousands of hospitals, healthcare leaders, and healthcare professionals, with members across Europe and partners across the globe.

Together we prove that it's possible to deliver the highest quality of care in a way that's sustainable environmentally and financially.

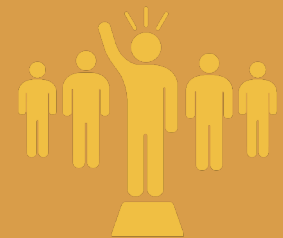


OUR ACTION NETWORKS

GLOBAL GREEN AND HEALTHY HOSPITALS



SUSTAINABLE HEALTHCARE
LEADERS' NETWORK



HEALTHCARE MARKET
TRANSFORMATION NETWORK



GLOBAL GREEN AND HEALTHY HOSPITALS

THE HEALTHCARE
PROVIDERS AT THE
HEART OF OUR
ORGANISATION



146 members in 25 countries
across the WHO Europe region

A person wearing a white lab coat and a hairnet is adjusting a face mask. The image is overlaid with a blue tint. The text "PLASTICS: ENVIRONMENTAL AND HEALTH IMPACTS" is centered in white, bold, uppercase letters.

PLASTICS: ENVIRONMENTAL AND HEALTH IMPACTS

THE OVERCONSUMPTION OF PLASTIC

PLASTIC CONSUMPTION IS PROJECTED TO TRIPLE IN THE NEXT 40 YEARS

- Plastic is made from fossil fuels (oil, gas, coal)
- Impacts on health and environment at all stages of its lifecycle
- Most plastic is incinerated, landfilled, or 'lost' in the environment
- The healthcare sector is following the same linear models of consumption



THE IMPACT OF PLASTIC

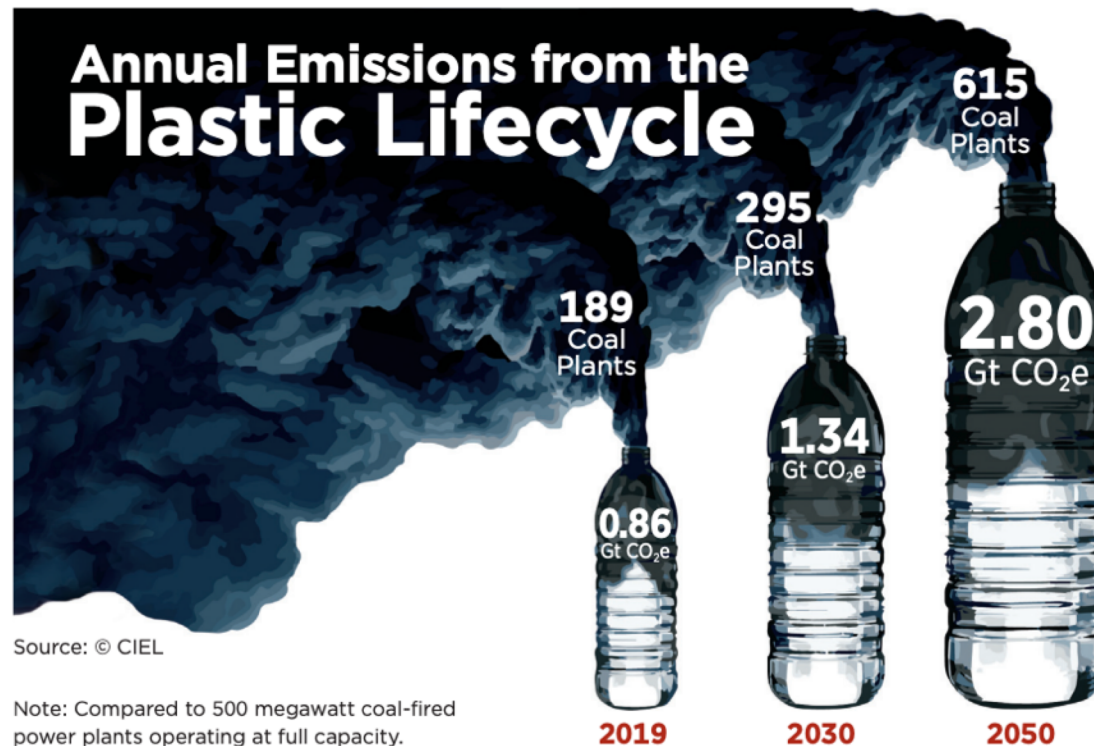
ON THE ENVIRONMENT



NO NET ZERO WITHOUT ADDRESSING PLASTIC PRODUCTION

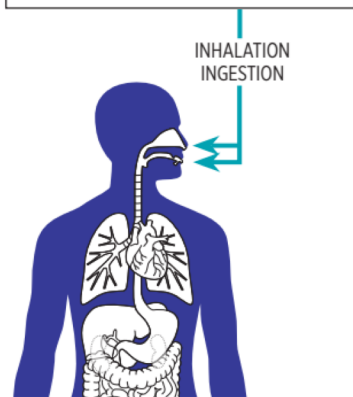
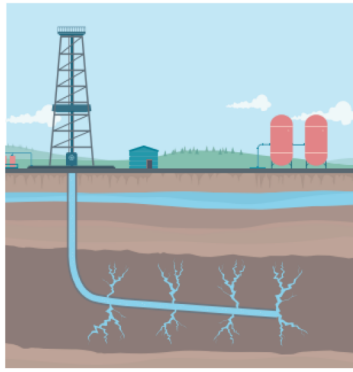
FIGURE 2

Emissions from the Plastic Lifecycle



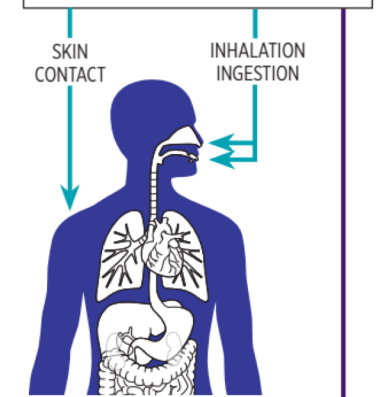
CIEL (2019), Plastic and climate: The hidden costs of a plastic planet

Extraction & Transport



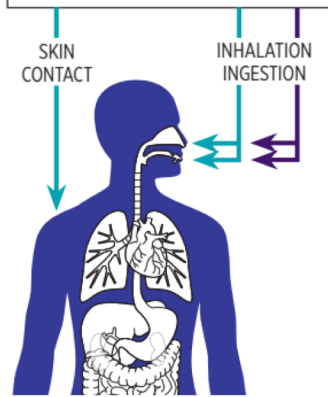
- **Emissions:** include Benzene, VOCs, and 170+ toxic chemicals in fracking fluid
- **Exposure:** inhalation and ingestion (air and water)
- **Health:** affects the immune system, sensory organs, liver, and kidney, impacts include cancers, neuro-, reproductive, and developmental toxicity

Refining & Manufacture



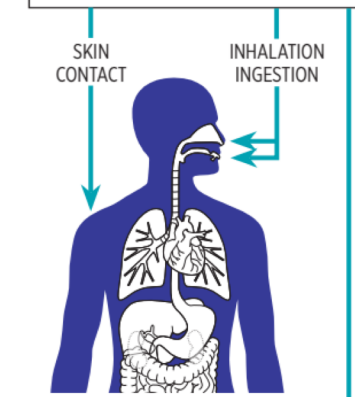
- **Emissions:** include Benzene, PAHs, and Styrene
- **Exposure:** inhalation, ingestion, skin contact (air, water, and soils)
- **Health:** impacts can include cancers, neuro-toxicity, reproductive toxicity, low birth weight, and eye and skin irritation

Consumer Use



- **Emissions:** include heavy metals, POPs, carcinogens, EDCs, and microplastics
- **Exposure:** inhalation, ingestion, and skin contact
- **Health:** affects renal, cardiovascular, gastrointestinal, neurological, reproductive, and respiratory systems; impacts include cancers, diabetes, and developmental toxicity

Waste Management



- **Emissions:** include heavy metals, dioxins and furans, PAHs, toxic recycling
- **Exposure:** ingestion and inhalation (air, ash, slag)
- **Health:** impacts include cancers, neurological damages, and damages to immune, reproductive, nervous, and endocrine system

CHEMICAL EXPOSURE IN HOSPITALS

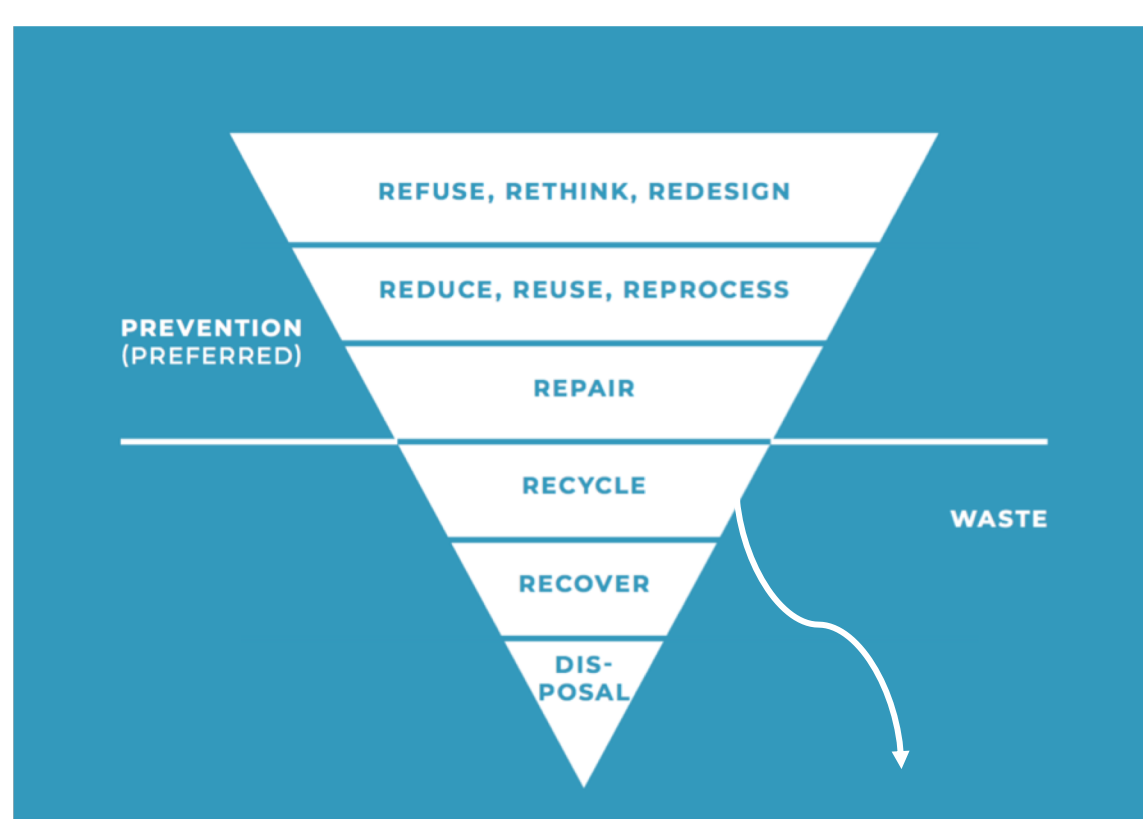
- Patients are exposed to endocrine disrupting chemicals (e.g. phthalates, bisphenols) through medical plastics.
- Infants (especially premature babies) and children are particularly vulnerable.
- PVC one of the most toxic materials
 - DEHP, a phthalate used to make PVC IV bags and tubes more flexible, [can increase mortality and the risk of breast cancer relapse.](#)





THE WASTE HIERARCHY

THE WASTE HIERARCHY



The waste hierarchy [Adapted from Zero Waste Europe's Zero-waste hierarchy]

Recycling is not
waste reduction!

Phase out of harmful
chemicals /
replacement with
toxic-free alternatives

THE MYTH OF PLASTIC RECYCLING IN THE CIRCULAR ECONOMY



Only 14% of plastic waste estimated to be recycled each year in Europe

- Insufficient capacity
- Downcycling
- Low cost of virgin materials
- (Illegal) waste shipments – passing our responsibility to other countries
- Toxic chemicals that remain in the new products

WASTE EXPORTS

September 21, 2022

“It’s As If They’re Poisoning Us”

The Health Impacts of Plastic Recycling in Turkey

NETHERLANDS PIVOTAL IN GLOBAL EXPORT OF PLASTIC WASTE TO NON-WESTERN COUNTRIES REPORT FINDS

Despite regulations to protect vulnerable countries, plastic waste flow more than doubled between 2020 and 2021

Research by Plastic Soup Foundation has shown that The Netherlands despite its small size plays a major role in the shadowy trade in plastic waste. For example, in 2021 our country was EU's largest exporter of plastic waste to non-OECD countries.

‘Waste colonialism’: world grapples with west’s unwanted plastic

Germany and UK are big exporters of plastic, much of which lies rotting in ports in Turkey, Vietnam and other countries

Trashed: how the UK is still dumping plastic waste on the rest of the world

The UK is a major contributor to the world’s plastic crisis, generating more plastic waste per person than any other country except the USA. Our recycling system is already overwhelmed by plastic waste. Now our waste is overwhelming other countries’ recycling systems too, causing serious harm to their citizens and environment, particularly in India, Indonesia and Malaysia.

APPLYING THE WASTE HIERARCHY



Replace (products containing harmful chemicals):

Does the item contain harmful chemicals? Can it be replaced with a toxic-free alternative? [Check [European healthcare's phase out list for chemicals of concern](#)]

Refuse: Is this item truly needed?

Reduce: Is it sometimes used unnecessarily; can its use be reduced?

Reuse, repair, reprocess: Are durable, reusable and non-toxic alternatives available? Can the item be reprocessed?

Recycle: Can this item be recycled locally? Is there full transparency in the process? Does the recycled item provide any value?

RESOURCES FROM HEALTH CARE WITHOUT HARM EUROPE

<https://noharm-europe.org/towards-plastic-free-healthcare>



SPEAKERS



Prof. Mahmood Bhutta

Professor of Sustainable Healthcare
at Brighton and Sussex Medical
School, Honorary Consultant and
Clinical Green Lead for University
Hospitals Sussex



Nicola Wilson

Lead Practice Educator, Great
Ormond St. Hospital,



Federica Pirro

Anaesthetic nurse



NO HARM

Thank you!

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