Plastics and health

An urgent enviromental, climate, and health issue

Health Care Without Harm

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Executive summary

Plastic pollution is a global health threat

As the world develops and adopts an international legally binding instrument on plastic pollution, health needs to remain a central part of the discussion.

- There must be NO exemptions for plastics in health care along the treaty.
- Health care represents almost 10% of the global economy, and will continue to increase to provide equitable access to health care to the world's growing population.
- The health care sector can model how to transition away from fossil fuels, toxic chemicals, and unethical employment practices for the rest of the global economy.
- The whole life cycle must be considered. Plastic harms human health and the environment at each stage of its life cycle.
- As part of the core obligations and control measures of a new Treaty devoted to plastic pollution, health care products, supply chain, and waste need to be considered.
- Restrictions already in place for plastic products like toys need to be extended to medical devices, and made global to ensure equity of protection.
- Increasing plastic production, consumption and disposal is fuelling the climate crisis, proliferating the use of fossil fuels and undermining climate and health goals; denying our need for nature conservation.
- When we move away from single use plastics, we not only support innovation, but help address the massive plastics pollution problem that has not only invaded our oceans and waterways, and our bodies.

The COVID-19 pandemic has not only exacerbated the production, trade and use of single use plastics in health care but has evidenced the power this sector has. Key actions can be taken by the health care sector - including ministries, hospitals, manufacturers, suppliers, health professionals, and others - to solve the health care plastics crisis.

Some of the priority actions are: a) reducing and redesign health care plastics, b) enable a circular economy for plastics, c) achieving environmentally sound management and recycling of plastic waste, and d) elevate the voices of health professionals as trusted messengers.

Health Care Without Harm offers tools, resources, data, existing knowledge platforms, our Global Green and Healthy Hospitals, and 26 years of experience. The power of health care professionals already engaged in mobilizing the sector towards a more sustainable and resilient one, is ready to join the effort.

Plastics and health

Introduction

As the world develops and adopts an international legally binding instrument on plastic pollution, health needs to remain a central part of the discussion. The COVID-19 pandemic has not only exacerbated the production, trade, and use of single use plastics in health care but also it has shown the world the power of this sector. Health care represents almost 10% of the global economy[1], and will continue to grow to provide equitable access to health care to the growing population worldwide. If the sector continues to expand its reliance on single use and toxic plastics, it will undermine efforts to reduce plastic pollution.

Health care has a significant role to play, or risks becoming an ever bigger part of the problem. It is sometimes argued that health care should be exempted from environmental rules and restrictions. However, the extreme sensitivity of many of the users, and the necessarily rigorous procedures needed for medical products to enter the market means that measures need to be stronger and action needs to start sooner. There are key actions for solving the health care plastics crisis listed at the end of this document.

> Health Care Without Harm is calling for the Plastics Treaty to support and amplify measures to reduce the impact of unsafe and unsustainable medical products. Bans and restrictions need to have global scope to prevent the migration of dirty technologies and products to parts of the word where controls are less strict[2], to help overcome barriers to bringing innovative and safer products onto the global market[3]. Unless the Treaty clearly marks the path to safer and more sustainable plastics, manufacturers, especially smaller ones, will be forced to continue to follow the status quo.

Health Care Without Harm has worked over the past 26 years to drive the health care sector from within to lead broader societal change. Our work seeks to share positive examples of health care action on sustainability with the world. We do so through regional offices in North America, Europe, and South East Asia, a Latin America team, and country-level partnerships with national organizations in multiple countries including Australia, Brazil, China, India, Nepal, and South Africa.

We manage Global Green and Healthy Hospitals (GGHH) - a network of 1,600 institutional members in 78 countries representing more than 62,000 hospitals and health centers. GGHH is the implementation arm of Health Care Without Harm's work to educate, disseminate information, and to provide a learning hub and a peer-learning platform, all to scale innovative policies and transform the sector.

We can contribute to the mainstreaming of established best practices and the development and demonstration of new ones through the work with health professionals, hospitals, health systems, ministries of health, and UN agencies as part of our network. Cooperation and coordination are at the core of our global performance.

Health Care Without Harm can help to identify and share priorities, needs, challenges, and barriers relating to ending plastic pollution in the health care sector on the ground at the local and national levels. Through our publications, tools and resources, we offer our existing knowledge platform to provide information that might assist policymakers in the development of this new international treaty.

Plastic pollution is a global health threat

Severing the health care sector's dependency on single use (and mostly unsafe) plastics will send a powerful signal by demonstrating that transformational change is possible in all sectors, as there are specific barriers to reducing plastic use in health care: ease of use, low investment cost and an often misplaced belief that single use items are necessary for infection prevention and control. At the same time, many opportunities for reduction of unnecessary plastic use and for switching to safe reusable items exist in health care and solutions are already in place in hospitals across the world (reusable medical textiles, reusable sterilization containers, reusable surgical instruments, to name a few). Manufacturers can also contribute to this change by bringing new and more sustainable products to market.

The health care sector's dependency on plastics directly harms human health, as many plastic health care products contain toxic chemicals, which have endocrine disrupting or carcinogenic, mutagenic and reprotoxic properties[4]. Recent studies have identified microplastics in human tissue, including the lungs[5], placenta[6], and in blood[7]. There is no consensus on a "safe" or "tolerable" level for endocrine-disrupting chemicals (EDC) exposure, so a precautionary approach therefore dictates that exposure to these chemicals should be minimized, especially at key moments of development because the most vulnerable groups to plastic's health risks are fetuses, neonates, infants, and children.

Plastic harms human health and the environment at each stage of its life cycle. Fossil fuel extraction and plastic refining and manufacturing are highly polluting, often directly impact the most vulnerable communities, and contribute to globally circulating contamination[8,9].

A recent article in the American Chemical Society's Journal concluded that chemical pollution has crossed a "planetary boundary[10]", threatening the stability of global ecosystems upon which humanity depends. Chemical pollution also "poses a global threat to human rights, including to our right to reproductive health."[11]

In parallel, increasing plastic production, consumption and disposal is fueling the climate crisis, proliferating the use of fossil fuels and undermining climate and health goals. With the petrochemical and plastic industries planning a massive expansion in production, the problem is on track to get much worse.

The global carbon footprint of plastic has doubled since 1995 and currently accounts for 4.5 per cent of global greenhouse gas emissions[12].

According to the Centre for International Environmental Law (CIEL) "If plastic production and use grow as currently planned, by 2030, these emissions could reach 1.34 gigatons per year -equivalent to the emissions released by more than 295 new 500-megawatt coal-fired power plants"[13].

Adverse impacts on health and human rights are associated with poor waste management practice in the health care sector[14,15], including exposure to infectious pathogens and toxic substances through the illicit reuse and recycling of medical plastics[16]. Significant investment is needed to reach minimum standards in much of the world[17], and this needs to be supplemented by increased attention and diligence to avoid unnecessary and toxic plastics use in the sector[18].

The whole life cycle must be considered

The health sector contributes more than 4.4% of net global greenhouse gas emissions[19]. As much as 71% of emissions derive from making, transporting, using and disposing of products for health care- including fossil fuel derived products like plastics. Fossil fuel-based plastics have become indispensable in the health care sector, facilitating the work of health care professionals all over the world. But the low price of plastic and its relative ease of manufacturing have led to an overuse of plastic products and packaging in health care, often in situations where they are not needed[20].

It is estimated that 5.9 million tonnes of health care waste is generated globally[21]. At least 15-35% of this will be infectious, toxic, or radioactive[22, 23] and if it is not segregated at source, all of it must be treated as hazardous. Current health care waste management practices further compound the negative environmental impacts of plastic use, as one third of health care facilities globally lack basic waste management facilities[24]. Consequently, the majority of health care waste is either burned or dumped.

Many vulnerable people are part of the informal waste economy, either seeking out medical waste to resell, or living off whatever they can find at these open-air dumps, and risk contracting serious and life-limiting diseases from health care waste. Some items, like syringes may even be repackaged for illicit sale[25, 26].

Additionally, in the absence of sanitary landfills, incorrect disposal of waste is also related to land damage. From these sites, plastics can enter the wider environment, posing a threat to wildlife[27] or breaking down into microplastics, which have come to contaminate every corner of our planet.

During incineration, and other stages in the life cycle, a huge range of harmful pollutants are emitted in the atmosphere: particulate matter (eg PM2.5), persistent organic pollutants (eg dioxins and furans), volatile organic compounds and other hazardous substances (benzene, toluene, ethylbenzene, xylene, carbon monoxide, hydrogen sulfide, ozone, sulfur dioxide and heavy metals)[28, 29].

Waste disposal accounts for 5-10% of the CO_2 emissions of the sector, so reducing waste burning and incineration will help mitigation strategies[30, 31].

No exemptions for plastics in health care

Plastic has become ubiquitous in health care, with a dramatic shift towards single-use items in recent decades. Estimates suggest that in the United States, 25% of health care waste is plastic[32]. Data from the National Health Service in the UK shows similar amounts of plastic waste (22.7% of total waste or 2,565 tonnes a day)[33]. In South East Asia, results from waste audits by Health Care Without Harm in hospitals in the Philippines and Indonesia have shown that 46-72% of waste is plastic[34]. Similar waste audits in Europe showed that some waste streams from health care can comprise up to 83% plastic[35].

> The health care sector helps to sustain the single use plastic industry as it is a major consumer of (medical) textiles, most of which are single use plastics, and of medical and non medical products (intravenous administration systems -including solution bags-, gloves, syringes, disposable protective clothing, products for patient care, food contact materials and packaging).

Global estimates on plastic consumption identify packaging and textiles as two of the top three end markets for single use plastics (SUPs). Packaging is the largest[36]. Much plastic packaging is non-recyclable, either because it is made from a polymer which is not widely accepted by the recycling industry, or because it is a mixture of materials, which cannot be separated.

Health care continues to seek exemptions to laws that protect our health and environment. There is a long history of health care products being excused from environmental legislation. For example, the EU has successfully requested a five-year global exemption to continue using perfluorooctanoic acid (PFOA) in medical textiles, despite the wide availability of existing alternatives to this extremely persistent, bioaccumulative and toxic chemical. Other examples of efforts to avoid environmental and health regulation to apply to the health care sector are the application for an exemption for lead use in PVC in medical sensors[37], or the exemption for DEHP and other phthalate use in medical devices in Europe.

In 1999, the European Union[38] banned phthalates from children's toys because of the risks that they posed to health. However, it is still legal to use these same chemicals in medical devices, despite the well established harm that they do and the existence of many safer alternatives[39, 40],

Medical devices used in neonatal intensive care units (NICU) are the main source of plasticizers' exposure to newborns, a study shows: "the medical devices used for respiratory assistance, infusion therapy, enteral nutrition and transfusion were the main sources of exposure. The elevated levels of DEHP (di-(2-ethylhexyl)phthalate) metabolites in NICU patients are still alarming[41]."

This must end, and the entire sector subjected to the same rigor as other industries. As part of the core obligations and control measures of a new Treaty devoted to plastic pollution, health care products, supply chain and waste need to be considered. Restrictions already in place for products like toys need to be extended to medical devices, and made global to ensure equity of protection.

Solutions for the health care plastics crisis

The health care sector can model how to transition away from fossil fuels, toxic chemicals, and unethical employment practices for the rest of the global economy. We also reduce the emissions from fossil fuels, which contribute to millions of lives lost each year from air pollution. At the same time, we can design resilient health care systems and supply chains.

> When we move away from single use plastics, we not only support innovation, but help address the massive plastics pollution problem that has not only invaded our oceans and waterways, but also our bodies.

Key actions that can be taken by the health care sector and ministries of health to solve the health care plastics crisis can include:

- Ensure that the health sector is **required to comply with the very highest standards**, without exemptions or delays, in all aspects of plastics pollution prevention;
- Enforce **extended producer responsibility** for manufacturers to shift the burden of dealing with unsustainable plastics from the consumers to those who created the products.
- Set **legally binding standards,** accompanied by suitable penalties for non-compliance;
- Put in place **sound policies** to eliminate, substitute, or reduce plastics consumption;
- Ban **toxic polymers and additives**, whether their hazardous impacts manifest in the use phase or any other part of the life cycle;
- Redesign **plastic medical products and their packaging**, including making them from alternative materials, making them reusable, repairable, and suitable for recycling at the end of their useful lives;
- Improve **understanding of plastics in health care** through monitoring, research, and increased transparency, including through mandatory product labeling to disclose polymer and additive content;
- Educate health care professionals on the **impacts of plastics on public and environmental health**, and how to reduce it during their working lives;
- Audit **plastics use** and create a plan to reduce plastic consumption and unsustainable use and disposal practices[42].
- Set **procurement policies** to favor the most sustainable plastic products, and review procurement practices, based on the latest guidance on best practices[43].
- Work with **suppliers and retailers** to identify the most sustainable products for each application and avoid hazardous plastics, and reduce overall consumption and wastage.
- Educate and influence **shops and food businesses** catering to hospitals to replace plastic packaging of food and other items being brought in to health care facilities.
- Track plastics **consumption and disposal** as part of your climate impact reduction strategy[44, 45],
- Track waste generation, recycling, treatment and disposal[46], and set targets to **increase recycling and reduce burning** and incineration.
- Join professional networks like the **Global Green and Healthy Hospitals** network to share experiences and expertise with others.

Reducing and redesign health care plastics

Many of the plastic products used in the global health care sector are not necessary. There has been a large shift towards single use and individually packaged products, although research shows that this does not necessarily lead to better surgical outcomes. A study comparing emissions from cataract operations between hospitals in India and the UK found that in the UK 30 times more $kgCO_2e$ were emitted than in India. This was due to the fact that in India more efficient systems were in place and much of the equipment was reusable. The infection rates from cataract operations are also lower in India, where reusable materials are commonly used, than in the UK where single-use is the norm. Some items, especially critical ones (that come in contact with blood or normally sterile tissue) such as syringes and IV lines do not have reusable alternatives, but many other non-critical or semi-critical items can be safely reusable.

Non-woven plastics often a form of spun polypropylene, are being used to wrap sterile surgical instruments, make personal protection equipment (PPE), gowns, and even curtains. Kitchens and catering services are switching to throw-away foodware, and plastic water and drinks bottles generate huge amounts of waste.

Eliminating some products can be part of delivering wider benefits. If health care facilities provide drinking water free of charge, it will eliminate the need for plastic bottles and can improve the health of communities where other water sources may not be safe.

Since the beginning of 2020, unprecedented quantities of PPE have been manufactured, used, and discarded. 25,000 tonnes have reached the oceans[47]. Almost half of the PPE supplied via the UN system was unnecessary, partly because standard packs included items like hair or shoe covers, which were not needed. The amount of unnecessary PPE can be reduced, through safe and rational use, as per WHO recommendations.

Another example of poor packaging was seen in gloves; when one glove was pulled from a box, several would come out, and be wasted.

Further waste comes from using gloves where they are not needed, and hand washing is preferable. Overuse of gloves can cause dermatitis in medical staff, so better guidance on glove use would reduce plastic waste and benefit workforce health. Great Ormond Street Hospital in the UK has reduced their glove use by approximately 40% by raising awareness on when gloves are needed and when not, and improving hand hygiene practices.

Innovation is key. We need to work together with researchers and suppliers to develop and trade health care products, and to show the availability and properties of alternative materials that don't have the environmental impact of plastics.

Enable a circular economy for plastics

A circular economy is just and transparent, and based on products which are necessary, climate-smart, non-toxic and non-polluting, designed for reuse and long life, easily recycled, and with safe final disposal options.

Some reductions in plastic consumption can be achieved comparatively simply, whereas others may require rethinking laundry or catering practices, but can still be accomplished by health care facilities accessing products that are already widely available.

Other changes will be dependent on innovations in industry to provide the products and services, or measures to promote existing preferential products. Decisions should be based on the whole life cycle, not just the use phase. In the same way that the Minamata Convention required the phase out of mercury-containing thermometers and sphygmomanometers, the Plastics Treaty must mandate the replacement of polymers whose life cycles are not consistent with circular economy principles.

For example, PVC use in medical devices is known to carry health risks, and some alternatives have been designed, including PVC-free blood bags[48]. However, PVC blood bags remain ubiquitous, and other PVC-free devices also have limited market penetration or availability.

Policy and economic measures are needed to make the shift to these products and to mandate the development of new ones, such as PVC-free IV systems, and reusable PPE.

Before plastic swamped health care systems, health care facilities would disinfect or sterilize products for reuse in-house. In many parts of the world, that continues: certified device reprocessing companies will clean and disinfect products, extending their useful lives and reducing costs for customers. Hospitals using reprocessed devices in Europe, US, and Canada can save yearly more than $400 million USD and 5,000 tonnes of waste[49]. Many of these disinfection services are focused on metal items like surgical instruments, but can be expanded to cover more plastic items. In many cases, this will require product redesign, such as the use of more resilient polymers, and labeling to identify whether they are made from heat-stable polymers. For example, PVC oxygen masks are disposable, but silicon ones can be steam disinfected and reused.

> Safe reusable alternatives already exist for many health care products and are widely used in hospitals across the world. Single-use non-woven fabrics can represent up to 10% of the total plastic waste in some hospitals and this could be significantly reduced by adopting reusable alternatives.

Laboratories are another source of large quantities of waste plastic as many tools and products, including sample containers, pipettes, petri dishes, which used to be reusable glass, are now single use plastic, as are test kits. Modern laboratory washing glass washing machines will help in some aspects, but process and product redesign will be required to significantly reduce consumption in this sector.

Achieve environmentally sound management and recycling of plastic waste

Even as efforts progress to reduce the least sustainable plastic products in health care, some will remain essential and single use. Some examples are surgical gloves, syringes and IV lines. While single-use plastic products will exist, their components need to be recyclable and non-toxic.

> Only around 9% of all the plastics ever produced have been recycled[50]. In a circular economy, this percentage should be as high as possibl, to retain the embodied value of the plastic. Expansion of capacity will be needed, but also the elimination of non-essential products and the redesign of non-recyclable essential products.

Mechanical recycling, a process which keeps the polymer in the same chemical form, is the most efficient. Products are cleaned, shredded and melted, as feedstock for new products. In Nepal, one hospital recycled over 11.2 metric tonnes of plastics[51]. Almost half of this was syringes and IV bottles. These are made from polyethylene and polypropylene, which are the most easily and sustainably recyclable polymers. Syringe recycling is safe because the medical staff cut off the needle at the point of use, and the syringe bodies are disinfected in an autoclave. With billions of single-use syringes being used in vaccination campaigns and curative applications, expanding recycling capacity to health care systems could convert a problematic waste stream to a resource that can feed into local industries.

In the United States, single use textiles (blue wrap) is widely used to wrap sterile items for surgeries. Reusable sterilization containers and reusable textiles, or alternative packaging (i.e., peel pouches) are preferred instead of blue wrap, and these strategies need to be considered before implementing a recycling program. Blue wrap recycling requires a dedicated collection, bailing, and hauling to a recycler, but is helpful in trying to bend the curve of the circular economy of blue wrap.

Investment to collect and recycle plastics should be provided by the manufacturers, as a sector. This is especially urgent in the case of essential products for which there are few recycling facilities, such as nitrile gloves. An extended producer mechanism, covering collection (reverse logistics), recycling and final disposal should be part of plastics pollution treaty to finance capacity expansion and shift the economic structure of the industry, so that it becomes cheaper to produce long-lived than short-lived products.

Critical to environmentally sound recycling is the exclusion of plastics which contain hazardous additives. These will contaminate products with legacy toxics, perpetuating the hazards that they pose.

Some processes described as recycling are, however, false solutions which do not preserve the plastic material and so waste all the energy and effort that went into creating it. “Chemical recycling” uses heat to break polymers into small fragments, often similar to a crude oil. This has little value chemically or economically and should not be classified as disposal rather than recycling.

Burning waste to generate energy also needs to be phased out, as perpetuates our dependence on the fossil carbon as a source of fuel, and is the most polluting form of energy generation [52].

Empower health professionals’ voices

The power of the health care sector is also in its people: nurses, doctors, and all professionals working directly with patients everyday play a key role in mobilizing the sector towards a more sustainable and resilient one. Health professionals are usually the most trusted voices in their communities. Country leadership looks to them for advice, families confide in them, and citizens want to adhere to what the country’s leading medical professionals have to say about their health. When doctors, nurses, hospitals, and health systems take public stances on climate change, environmental health, and plastics it can reframe these issues as questions of public health and help move public opinion and policy.

Yet contentious issues like plastic pollution can also become easily politicized as the problem is often deeply rooted in established economic development models. Health professionals’ voices can help depoliticize the debate, educate a broader public constituency, bolster campaigns for just sustainable choices, and ultimately affect policy decisions.

Health care professionals at all levels have an essential role in reducing the impact of the plastics that they use and dispose of. They can also be a role model for their local community and share lessons from their own experience to advise and inspire wider changes.

Resources and tools developed by Health Care Without Harm and its partners

- Health Care Without Harm Europe (2021). Measuring and reducing plastics in the health care sector.
- Health Care Without Harm and Arup (2019). Health Care’s Climate Footprint. How the health sector contributes to the global climate crisis and opportunities for action.
- Health Care Without Harm Asia (2019). Mobilizing health care to prevent plastic pollution: A plastics toolkit for hospitals.
- Health Care Without Harm Asia (2019). Plastics in health care: Health professionals as advocates to reduce plastic pollution technical report.

Health Care Without Harm experience on plastics reduction

Latin America and the Caribbean

In this region, the work on plastics has been approached from sustainable procurement and waste perspectives. The focus is on the reduction and minimization of the generated waste, and the selection of products and inputs that are not single-use or disposable, such as in the case of PPEs. Also, the team has been working on promoting the recycling of the recyclable portion of waste. Some examples from members in the region:

- Development of a ponderation matrix for injectable drugs, where the type of the secondary packaging and the quantity and composition of its accessories are considered. Products with fewer accessories or secondary packaging and constituted - as much as possible - by cardboard have been prioritized.
- One institutional policy of banning the use of single-use plastics, except for the isolation area.
- Replacement of disposable face masks made of polyvinyl chloride (PVC) with silicone masks. The selected alternative masks are 100% silicone-based and reusable, allowing up to 100 reuses. This is equivalent to five to six months of lifespan, depending on the demand.

Nepal

Health Care Without Harm and partners promote safe recycling as a central part of sustainable health care waste management. As much as one third of the waste can be recycled, and another third is organic and can be biodigested, leaving only one third needing to be landfilled. Hospitals using this method have been able to completely stop incinerating waste. The process is as follows:

- Wastes are segregated at source, and with the needles being cut off syringes so that they can no longer cause injury.
- At the hospitals' waste treatment center, non-hazardous wastes are sorted for recycling. Infectious wastes are treated with high temperature steam in autoclaves then transferred to the recycling center for sorting.
- Trusted recycling agents collect the waste from the hospitals. Plastics provide much of the income from recycling, which helps subsidize the whole waste management process.

Europe

Health Care Without Harm Europe is conducting the project "Towards plastic-free healthcare in Europe," with funding from the Flotilla Foundation. The long-term objective of this project is to reduce the negative impact that plastics from the European health care sector have on both human health and the environment. This project aims to transform current practices so that plastic use is reduced within the European health care sector, and to support the sector in transitioning to a circular economy model. As facilitator of the project, Health Care Without Harm Europe works together with European health care providers to assess the plastic use in their facilities and raise awareness on plastics and circular healthcare. Through the project, we also aim to start discussions on problem solving for single-use plastics (medical and non-medical) and unsustainable disposal methods and mobilize demand for sustainable plastic and packaging alternatives within European markets.

This project is divided into three pillars of action:

- **Research:** Plastic waste audits to investigate the use of plastic and to reveal the opportunities and barriers for increasing circularity and reducing plastic use.
- **Building capacity:** Educate healthcare professionals and procurers on the environmental and health impacts of plastics and promote solutions in line with the waste hierarchy.
- **Scaling up:** Expand the plastic-free healthcare movement by disseminating project results and launching a communication campaign that targets priority plastics products for substitution or reduction, e.g. gloves, incontinence products, personal protective equipment.

South East Asia

Health Care Without Harm had conducted health facility waste audits before the pandemic, and has been carrying on even at the height of the COVID-19 pandemic. In collaboration with the Department of Health, Health Care Without Harm has audited five government-controlled hospitals in 2020, and two hospitals in 2022.

Consistently, audits revealed that plastic has been the top products that health facilities are generating as waste. Single-use plastic bottles represent their top non-essential plastic waste. On the other hand, gloves are the top essential single-use product that hospitals discard. Lessons learned also inform not just the strategy of the Plastic Program but also the ways forward of both Climate and SHIPP Programs.

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Health Care Without Harm works to transform health care worldwide so that it reduces its environmental footprint, becomes a community anchor for sustainability and a leader in the global movement for environmental health and justice.

The Health Care Without Harm Global Network is composed of regional offices in Europe, South East Asia, and the United States / Canada; a Latin America regional team; strategic partner organizations in Australia, Brazil, China, India, Nepal, and South Africa; and a global secretariat.

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