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Building Climate-Resilient, Environmentally Sustainable and Low-Carbon Health Supply Chains:

Key Priorities for Collective Action

This paper is based on discussions from the Expert Consultation on Climate-Resilient and Environmentally Sustainable Health Supply Chains, organized by WHO and Unitaid from 2-4 October, 2024, as a contribution to the Alliance for Transformative Action on Climate and Health (ATACH) and the Global Framework on Chemicals for a world free of harm from chemicals and waste.

This consultation brought together 80 representatives from over 40 organizations with supply chain responsibilities. This paper describes the shared priorities and action areas needed to address climate and environmental risks while reducing the climate impacts of global health care supply chains, aligning them with global net zero targets.

Our shared understanding of climate impacts and risks for health care supply chains

Health care supply chains are the backbone of global health systems, providing lifesaving medicines, diagnostics, and other essential health care products to millions of people every day. However, as climate change intensifies, with increasing heat and more frequent and more severe extreme weather events, the disruption to these supply chains increases. Complex supply chains are vulnerable to these disruptions, and essential health products may degrade before reaching those in need – or may not reach them at all. This disproportionately affects the most vulnerable populations, exacerbating health inequities.

The health sector is responsible for approximately 5% of global greenhouse gas emissions[1], with supply chains contributing roughly 70% of this footprint. Beyond emissions, supply chains are linked to other forms of environmental harm, from plastic waste to chemical pollutants associated with the production, distribution, and disposal of health products. In response to these concerns, WHO has prioritized climate change and health as the first strategic objective in its 14th Global Programme of Work for 2025-2028, with the goal of mainstreaming climate resilience, low-carbon, and environmental sustainability within health systems, including health care supply chains.

Created to address country needs to implement the commitments made in the run-up to COP26 to build climate-resilient and low-carbon sustainable health systems, **Alliance for Transformative Action on Climate and Health (ATACH)** led by WHO, aims to increase climate change and health action at country level and provides a platform for collaboration and the sharing of best practices for climate-resilient low-carbon, sustainable supply chains among member states and various partners, including the private sector. Additionally, risks associated with chemicals and wastes in supply chains are regarded as integral to the **Global Framework on Chemicals for a planet free of harm from chemicals and waste** and relevant provisions being negotiated for a future international legally binding instrument to end plastic pollution.

1 https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)01822-1/fulltext

Key principles for accelerating action towards climate-resilient, environmentally sustainable health supply chains

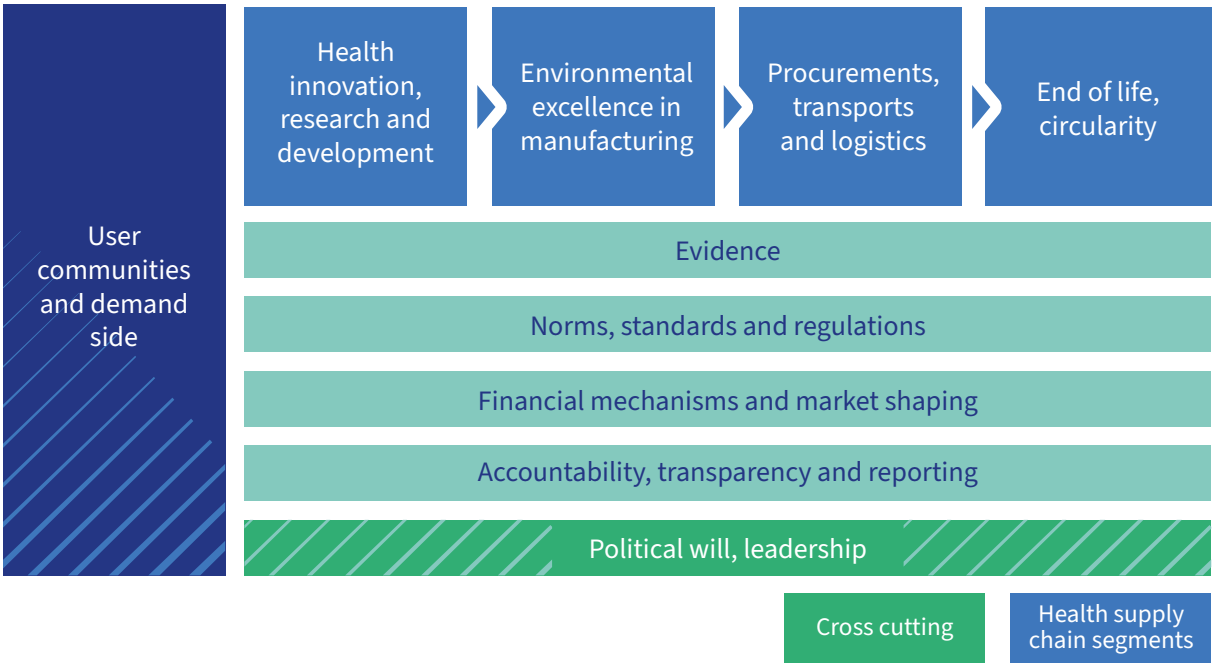
- **Focus on priorities and hotspots:**[2] Identify and prioritize the most significant climate and environmental impacts and risks within supply chains. By targeting these priorities, we can implement strategic interventions that yield the highest benefits in reducing carbon emissions and enhancing resilience.
- **Act now and adapt:** Embrace a proactive approach by initiating actions while maintaining a high level of ambition. Pilot programs and small-scale interventions can provide valuable insights and early impact, fostering a culture of incremental improvement and adaptation as we learn from both successes and setbacks.
- **Collective accountability:** Foster a shared responsibility among procurement and supply chain stakeholders through ATACH; establish accountability and transparency mechanisms; promote cross-sector and multi-agency collaboration for sustainable procurement; and align standards and reporting within the health care sector.
- **Holistic approach:** Adopt a comprehensive perspective that integrates climate mitigation and adaptation, focusing on reducing emissions across the lifecycle, and addressing the health and environmental impacts of plastics and chemicals. This approach should also consider climate and environmental risks to health care supply chains and aim to identify synergies and make informed trade-off decisions.
- **Context-specific strategies:** Recognize that health care supply chains vary significantly across products and geographies, each with unique challenges and opportunities. Tailor strategies to fit the specific context and maturity of each supply chain.
- **Prioritize equity and health outcomes:** Ensure that all communities, especially marginalized populations, have access to climate-resilient, low-carbon and environmentally sustainable health care products and services. Addressing disparities in health access contributes to overall resilience and sustainability.
- **People at the center:** Place the needs and perspectives of people – especially health workers, patients, and communities – at the forefront in supply chain strategies, ensuring that these systems are designed to serve and respond to those they impact most.

2 **Environmental and climate hotspots in the supply chain** refer to specific stages, processes, locations, or components within a supply chain that are disproportionately responsible for environmental degradation or are highly vulnerable to climate-related risks. These hotspots can negatively impact the overall sustainability and resilience of the supply chain, contributing to emissions, resource depletion, pollution, or operational disruptions due to climate events.

Framework of shared priorities

This framework of priorities reflects the collective insights of more than 80 representatives from 40 organizations that participated in the Expert Consultation. It emphasizes the key themes and takeaways identified by these partners as vital for advancing climate-resilient, low-carbon, environmentally sustainable health supply chains, as advocated by the Alliance for Transformative Action on Climate Change (ATACH) and the Global Framework on Chemicals. The framework is designed to inspire collaboration, convey urgency, and drive action, providing guidance from a united group of stakeholders committed to build a more sustainable future for global health systems.

Priority areas for low-carbon, climate-resilient, environmentally sustainable health supply chains



1. Health innovation, research and development

- **Collaborative research:** Accelerate collaborative research and strengthen partnerships between public, private, and academic sectors to drive innovative materials, green chemistry and energy solutions that mitigate climate impacts and enhance resilience.
- **Product and material development investments:** Prioritize R&D investments focused on low-carbon, less toxic, reusable and environmentally sustainable practices ensuring waste minimization and circularity in health product development, care models, and service delivery.
- **User-centered approaches:** Integrate user-centered eco-design and actively involve end-users (health care professionals and patients) throughout the innovation process, from concept to market and end of use/life.

2. Environmental excellence in manufacturing

- **Green manufacturing excellence:** Adopt and disseminate green manufacturing practices that reduce waste and resource consumption while supporting lower environmental footprints.
- **Transparency, accountability and standards:** Enhance manufacturers' accountability by standardized reporting requirements to show commitment and verify progress toward achieving net-zero goals, phasing out chemicals of concern, and maintaining high environmental standards.
- **Lifecycle assessment:** Promote standardized lifecycle assessments to measure and improve the health and environmental impact of health products and services, as well as climate risks and vulnerabilities.
- **Regional manufacturing:** Promote regional and local manufacturing that prioritizes environmentally sustainable, low-carbon, and climate-resilient practices and standards. Assist local manufacturers through capacity-building initiatives to help them meet the highest environmental standards and contribute to more diversified and climate-resilient supply chains.

3. Procurement, transport and logistics

- **Promote sustainable procurement:** Advocate for procurement policies and incentives that prioritize low-carbon, climate-resilient and environmentally sustainable products and supply chains in public purchasing. Set out company-level and product-level requirements for emissions disclosure, target setting and emissions reduction plans. Give priority to product alternatives that provide similar benefits but have a lower environmental impact and greater resilience.
- **Strengthen buyers' collaboration:** Enhance collaboration among national, regional, and international stakeholders to align procurement standards and pool procurement strategies that promote low-carbon and climate-resilient products and service delivery. Leverage the power and influence of United Nations procurement agencies and initiatives including by leveraging WHO's mandate for setting standards for pharmaceuticals and medical devices, which are widely used by other UN agencies and health systems globally.
- **Encourage sustainable transportation:** Promote the use of sustainable transportation options and optimized routes for low-carbon, climate-resilient supply chain logistics from production to point of consumption and end of use.

4. User communities and demand-side

- **Promote access and health equity:** Ensure that communities have access to climate-resilient, lower-carbon health products and services, prioritizing marginalized populations while maintaining affordability and ensuring quality of care.
- **Awareness and training:** Increase knowledge and capacity of communities, patients, health workers and procurement officers on climate and environmental impacts, risks and safer, sustainable alternatives and reuse of the products they use through awareness raising and training activities.
- **Engage stakeholders proactively:** Involve stakeholders in demand creation and foster collaboration between health care providers, patients, and policymakers to stimulate demand for low-carbon solutions.
- **Context-sensitive trade-offs:** Acknowledge that health care professionals often operate under significant pressure, requiring sustainability initiatives to be adaptable and tailored for their specific contexts.

5. End of life: waste management and circularity

- **Waste avoidance, reusability and repairability:** Foster procurement and supply chain management principles that emphasize fulfilling essential needs without excess, reducing waste generation across the product lifecycle, and enhancing repairability/reusability, thereby cultivating a culture of waste avoidance and sustainability.
- **Eco-design and circularity:** Incorporate circular economy principles – supporting reuse, remanufacturing and recycling – from product design through procurement to end-of- or extension-of-life, ensuring products are designed, procured, and delivered for durability/reusability and reduced waste, identifying and putting in place the infrastructure and training needed to scale circular solutions across health care.
- **Safe, environmentally sustainable low-carbon disposal:** Promote consistent approaches for the environmentally responsible disposal of health products.

6. Transformative evidence

- **Identify priorities:** In the short term, focus on building evidence in the most critical areas with the highest toxicity and carbon emissions and risk to the supply chain, prioritizing essential products and services and high-impact opportunities.
- **Evidence as a public good:** Disseminate relevant datasets, evidence, and best practices as public goods for major product and service categories, offering critical information on product and supply chain footprints and vulnerabilities.
- **Focus on impact and solution-oriented studies:** Prioritize research and studies that assess the climate and environmental impacts and risks related to health products and service delivery, along with pathways to achieve environmentally sustainable, less toxic, lower carbon emissions and enhanced resilience.
- **Develop metrics for assessing the effectiveness of green initiatives within health supply chains:** Measure the impact of initiatives in reducing emissions, chemicals of concern and other pollutants within the supply chains.
- **Investigate cost implications:** Consider the cost of inaction and explore potential cost efficiencies or financial implications associated with the greening of products and supply chains.

7. Norms, standards and regulations

- **Integrate sustainability criteria:** Develop climate-resilient, low-carbon, and environmental sustainability criteria and ensure their consistent integration into norms, standards, regulatory frameworks, procurement standards, and (pre- and post-market) product approvals. These criteria should prevent greenwashing, double standards and include verification mechanisms, such as independent assessments of manufacturers and suppliers.
- **Align global standards and methods:** Harmonize global standards including through collaboration among regulators internationally and methods supporting implementation and reporting of environmental sustainability practices in health products.
- **Advocate for "green regulatory highways":** Promote the rapid adoption of regulatory policies that facilitate inclusion of environmentally sustainable, low-carbon and climate-resilient practices and products across the health sector. Unitaid and WHO will further strengthen their joint efforts to advance norms, standards, and regulations for broader environmental sustainability as a key outcome of the consultation.

8. Financial mechanisms and market shaping

- **Support market shaping:** Implement a market shaping approach that prioritizes climate and health goals with broader environmental sustainability objectives including preventing harm from chemicals and wastes.
- **Push-pull incentives:** Develop push-pull incentive, stimulus packages and financial schemes that support adoption and acceleration of greener practices and avoid incentives for carbon-intensive products and practices throughout health supply chains.
- **High-impact decarbonization and sustainability interventions:** Form coalitions and develop ecosystem-level strategies for impactful market interventions that focus on decarbonizing and detoxifying large product markets and use procurement levers collaboratively to decarbonize and detoxify supply chains.
- **Unlocking new sources of financing:** Explore and direct innovative funding mechanisms that can support sustainable supply chains.

9. Accountability, transparency and reporting

- **Sustainability reporting:** Require organizations to transparently disclose their environmental sustainability commitments and progress towards detoxification, decarbonization, net-zero goals and climate adaptation, while developing and reporting on appropriate indicators and criteria for this purpose, through existing initiatives such as the UN supplier code of conduct, ATACH and the Global Framework on Chemicals.
- **Promote transparency:** Facilitate the sharing of relevant product and supply chain data, with a focus on their environmental impacts and risks and materiality within the health sector such as through the ATACH Community of Practice.
- **Accountability standards:** Implement mechanisms to ensure stakeholders are held accountable for achieving sustainability goals, ensuring alignment and avoiding duplication with existing reporting frameworks.

10. Political will and leadership

- **Political and financial commitments:** Lead by example. Advocate for strong political and financial commitments to prioritize detoxified, decarbonized and climate-resilient health care supply chains at international, regional, and national levels in line with global health and climate priorities.
- **Country ownership:** Ensure full integration of environmentally sustainable, low-carbon and climate-resilient supply chain initiatives into national climate plans (e.g., Nationally Determined Contributions and National Adaptation Plans) through ATACH, and the work of all relevant partners, and implementation of the Global Framework on Chemicals and Waste.
- **Coordinated approach:** Establish coordinated roadmaps and shared leadership models via the ATACH platform to align priorities, enhance initiative coordination, and facilitate structured dialogues at the intersection of climate and health supply chains. Strengthen linkages and include implementation activities in the Global Framework on Chemicals.

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About Unitaid:

We save lives by making new health products available and affordable for people in low- and middle-income countries. We work with partners to identify innovative treatments, tests and tools, help tackle the market barriers that are holding them back, and get them to the people who need them most – fast. Since we were created in 2006, we have unlocked access to more than 100 groundbreaking health products to help address the world's biggest health challenges, including HIV, TB, and malaria; women's and children's health; and pandemic prevention, preparedness and response. Every year, more than 300 million people benefit from the products we've helped roll out.

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