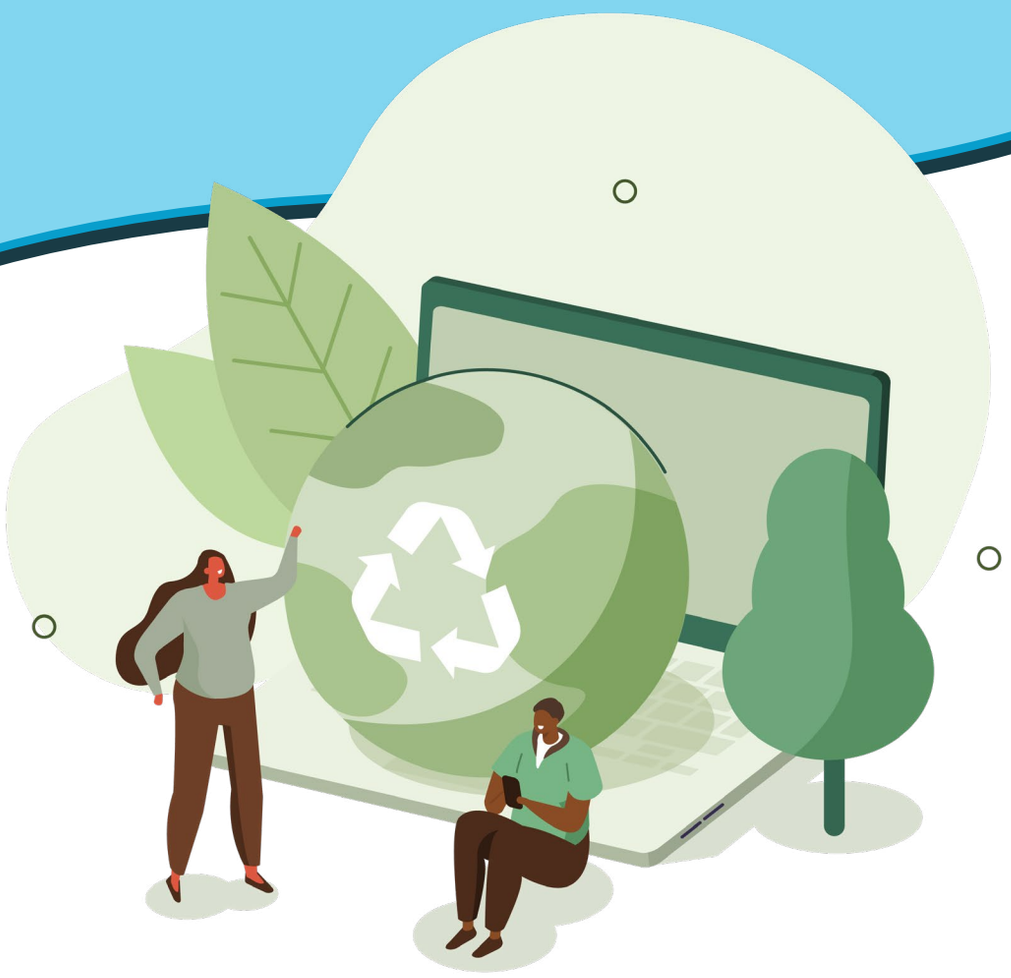
SUSTAINABILITY & GREEN INNOVATIONS IN PHARMA & HEALTHCARE

2024



Introduction

We are delighted to bring you this new addition to Oxford Global's bi-monthly eBook series where we spotlight the critical theme of sustainability and green innovations in pharma and healthcare.

Greener pharma and healthcare practices are paramount, not only for meeting ethical obligations to safeguard the environment and global health but also for ensuring long-term resilience, cost-effectiveness, and the ability to address emerging health challenges. We invite you to read insights into how these can be achieved and navigated in clinical trials and wider R&D, emphasizing ethical and eco-friendly approaches to research.

Additionally, we address the pivotal role of optimizing supply chain procurement in fostering sustainability and uncover strategies to streamline procurement processes while aligning with green initiatives, ensuring a responsible and efficient supply chain in pharmaceutical and healthcare operations.

The eBook also features invaluable insights into the realm of reducing the clinical carbon footprint: read about actionable steps and strategies to minimize the environmental impact of healthcare practices, paving the way for a more sustainable and responsible future.

Join us on this dynamic exploration where sustainability, innovation, and healthcare converge, guiding us toward a greener and healthier tomorrow.

Eszter Sutowski Nagy,
Director of Editorial & Event Content,
Oxford Global

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A Method for Carbon Footprint for Clinical Trials

Paula Williamson, Professor of Medical Statistics, University of Liverpool

Paula Williamson, a Professor of Medical Statistics at Liverpool University, presented insights on a groundbreaking project regarding carbon footprinting in clinical trials. The project, an NIHR-funded initiative, collaborates with various institutions, aiming to address environmental impacts within the healthcare research sector.

The primary focus lies in evaluating and reducing the carbon footprint associated with clinical trials, recognizing the pivotal role of clinical trials units (CTUs) as control centers delegated with trial responsibilities by sponsors, typically universities or NHS trusts.

The origins of this initiative trace back to Ian Roberts' work in 2007, examining carbon footprints in international trials, which expanded in 2009, but subsequent progress in public sector carbon footprinting has been limited. However, the MRC's significant funding into trials methodology research has spurred a focus on improving trial quality and efficiency, prompting considerations of potential environmental benefits.

The NIHR-funded project aims to develop a comprehensive process map, methodology, and testing procedures for carbon footprint assessment at each stage of the trial process. Transparent reporting of assumptions, data, and methodologies used in the carbon footprint calculations is a key aspect emphasized in their approach.

Two cancer trials were presented as case studies, revealing variations in carbon footprints due to trial-specific factors like data capture methods, monitoring approaches, and patient assessments. Notably, the footprint includes research-related activities and not standard care procedures.

The analysis emphasized the importance of scrutinizing these footprints and their implications. For instance, a smaller carbon footprint now might lead to significant environmental benefits in the future, such as reduced use of certain medical interventions if research proves their effectiveness.

The project's progress involves collaborating with several CTUs across diverse clinical areas, aiming to expand footprinting trials, understand the time investment, and diversify the types of trials analysed. Moreover, efforts are underway to integrate carbon footprint considerations into grant application evaluations, potentially influencing research funding.

The broader objective is to embed carbon footprint assessments into routine clinical trial practices, extending beyond traditional randomized trials to include data science activities, central labs, and phase one trials.

Highlighting the disparity in environmental initiatives between laboratory-based and clinical research, the project aligns with recommendations urging government attention to enhance environmental considerations in clinical research.

Ultimately, the endeavour seeks to foster transparent reporting, engage patients in research agendas, and minimize wasteful research practices, potentially leading to more efficient and environmentally conscious clinical trials. As an invitation to the scientific community, the project aims to address the lack of focus on carbon footprinting in clinical trial conferences, aiming for tangible impact in this critical area of research.

Delivering a Net Zero NHS in Partnership with Suppliers: A 3-Year Update

Sarah Ouanhnon, Head of Net Zero Delivery & Partnerships, NHS England

The presentation at Oxford Global's InnovatePharmaHealthcare conference, titled 'Delivering A Net Zero NHS In Partnership with Our Suppliers: A 3-Year Update,' delivered by Sarah Ouanhnon, Head of Net Zero Delivery and Partnerships, NHS England, highlighted the critical intersection between climate change, healthcare, and the responsibilities of the NHS in addressing these challenges.

Sarah began by emphasizing the urgent connection between climate and health, illustrating the tangible impacts of climate change on public health, citing examples like the recent heatwave in the UK leading to thousands of excess deaths among the elderly. Additionally, she pointed out the direct implications for healthcare delivery, such as the closure of overheated operating theaters and disruptions caused by adverse climate events.

Recognizing the healthcare system's contribution to climate change, Sarah outlined the NHS's commitment to reaching Net Zero by 2040 and defined specific targets for emissions under direct control and extended scope. Importantly, the NHS acknowledged the need for interim targets, aiming for an 80% reduction in emissions within the next 10 years.

The NHS structured its Net Zero program to be integrated into all aspects of its functioning, mirroring the structure of hospitals and NHS instructions. Sarah delved into the efforts over the past three years focused on working with suppliers, particularly in the pharmaceutical and supply chain sectors.

The NHS's carbon footprint was presented, emphasizing the substantial impact of the supply chain, which accounts for nearly 70% of the NHS's emissions. Specific attention was given to anaesthetic gases and Metered Dose inhalers, representing 5% of the footprint and requiring focused initiatives.

Sarah outlined the steps taken in the past years, including the establishment of a clear roadmap in 2021. The roadmap involved embedding Net Zero criteria into tenders, setting a minimum of 10% scoring for net zero and social value. This initiative aimed to ensure that suppliers align with the NHS's sustainability goals and commit to additional efforts beyond existing practices.

Despite the challenges in implementing the policy, Sarah stressed the importance of tailoring the approach to each contract and fostering engagement with suppliers. The NHS sought supplier input through surveys, webinars, and a checking service, demonstrating a commitment to collaboration.

Milestones in the roadmap included asking for carbon reduction plans for contracts over £5 million per annum, focusing initially on scope one and a subset of scope three emissions. The NHS planned to expand these requirements to cover all scopes of emissions and, by 2028, to include product-level emissions.

To recognize and incentivize suppliers exceeding minimum requirements, the NHS introduced the Evergreen sustainable supplier assessment. This initiative aimed to provide a broader range of sustainability criteria, covering social value and modern slavery, and encouraged suppliers to demonstrate increasing maturity in their sustainability efforts.

Sarah concluded by acknowledging the global nature of the supply chain and announced the NHS's partnership with the WHO within the Attach Alliance, a global initiative for sustainable healthcare systems. Collaborative efforts included working on procurement standards and developing international standards for product-level emissions.

In summary, the NHS's three-year update highlighted the comprehensive approach taken to embed Net Zero principles into its operations, particularly in collaboration with suppliers. The roadmap, supplier engagement initiatives, and partnerships underscored the NHS's commitment to addressing the intersection of climate change and healthcare sustainability.

Environmental Sustainability in Clinical Research

Jason Laroche, Director, Focus Area Lead, Janssen Clinical Innovation,
The Janssen Pharmaceutical Companies of Johnson & Johnson

In a presentation at the InnovatePharmaHealthcare conference by Oxford Global, Jason Laroche, Director at Janssen Clinical Innovation, discussed the crucial role of environmental sustainability in clinical research. The pharmaceutical industry, responsible for about 4.5-4.6% of global greenhouse gas emissions, faces an opportunity to mitigate its impact by focusing on sustainability in clinical trials.

Laroche emphasized the need to reduce reliance on acute care, which significantly contributes to greenhouse gas emissions in healthcare. The presentation aimed to provide insights into the efforts at Janssen to develop more sustainable care pathways, potentially leading to more eco-friendly clinical trials.

The journey towards environmental sustainability in clinical research at Janssen began about two years ago, with a focus on understanding the climate footprint of their operations. The lack of published data on the environmental impact of clinical research prompted Janssen to initiate this exploration. Regulatory pressures and governmental expectations, especially from the NHS, are driving the industry towards assessing and reporting on the climate footprints of clinical operations.

Laroche detailed the methodology applied in their analysis, focusing on a representative sample of clinical studies. Phase three studies were selected for a detailed examination, considering recently completed trials to ensure accurate data collection. The scope included various factors such as office facilities, employee activities (including remote work), drug manufacturing, clinical trial sites, and patient travel.

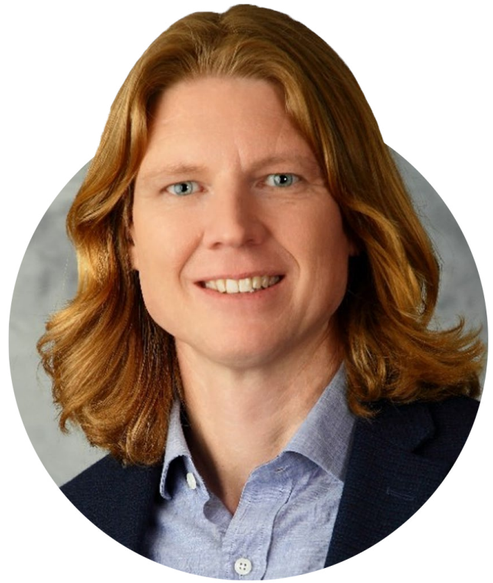
The analysis of three phase three studies revealed significant climate hotspots in the trials. Surprisingly, the investigational product (drug product) accounted for 52% of emissions, challenging assumptions about the environmental impact of biologics. Drug product waste, especially in late-stage oncology studies, emerged as a notable concern.

Clinical trial management, driven by monitoring visits, presented another substantial emission source, particularly in countries like the US, Australia, Brazil, and Russia, where monitors had to cover vast distances. Lab kits, including the production of dry ice for sample shipments, and patient travel were identified as additional major contributors to the carbon footprint.

The presentation highlighted specific measures to address these hotspots. Strategies include reevaluating the necessity of front-loading sites, reducing unnecessary lab sample shipments, exploring the use of local depots, and rethinking patient travel. The commitment to set quantifiable goals for reducing the climate footprint in the coming years was emphasized.

In the Q&A session, Laroche addressed questions about the influence of site selection and the impact of working from home on the carbon footprint. He discussed the complexity of the issue, considering factors like regional energy mix and highlighted the challenges in controlling the climate footprint of employees' homes.

In conclusion, Jason Laroche's presentation provided a comprehensive overview of Janssen's journey towards environmental sustainability in clinical research. By identifying and addressing significant climate hotspots, the pharmaceutical industry can contribute to global efforts in reducing greenhouse gas emissions, aligning with regulatory expectations and stakeholder demands for a more sustainable future.



Speaker biography:

Jason LaRoche has over 19 years of experience working in Pharma, 15 years of which have been with Janssen. For the last 7 years, he has been a member of Janssen Clinical Innovation where he applies his strong technical and collaboration skills and global project leadership in delivering transformational innovation projects that have the goal to shape the future of clinical trial operations at Janssen. Jason is the Focus Area Leader for Environmental Sustainability in Clinical Research and is leading the transformation of Janssen's global clinical operations towards sustainability.

Conducting Sustainable Clinical Trials

Mairéad Lyons, Group Lead, Novartis

Mairéad Lyons, Group Lead at Novartis, articulated a comprehensive plan to drive sustainable practices in clinical trials during her presentation. She emphasized the necessity to move from ideation to execution in creating more eco-friendly processes within the pharmaceutical industry.

Addressing the Declaration of Helsinki, which underscores the importance of minimizing environmental harm in medical research, Lyons highlighted the challenges in implementing significant changes across existing procedures. Her initial realization of the excessive destruction of lab kits and drug supplies during her time as a CRA prompted a pivotal shift in perspective. Clinical trial teams began recognizing the urgency to mitigate such wastage, leading to the inception of sustainable clinical trials.

Lyons detailed the genesis of her involvement in this movement, starting with feedback about the absence of discussions on sustainable clinical trials at a Congress. This propelled her into action, despite her limited prior experience in the field. Collaborating with global teams at Novartis, Lyons formed a collective effort to brainstorm and reduce the company's carbon footprint.

Their strategy revolved around creating sustainability principles, developing guidance, and integrating sustainable processes into the operational excellence execution plan. The Green Trials and Insights initiative, a culmination of their efforts, demonstrated significant achievements in reducing waste, optimizing protocols, and minimizing environmental impact.

Key milestones included the establishment of a guidance document for all Novartis associates, training materials, a dedicated SharePoint platform, and a network of experts providing ongoing support. Moreover, collaborations with external organizations like Kits for Life aimed to repurpose unused clinical trial materials, fostering a circular economy model.

Lyons underscored the need for a paradigm shift in the pharmaceutical industry towards greener practices. Their focus involved reducing unnecessary shipments of trial materials, managing kits more efficiently, and repurposing unused supplies to minimize wastage.

The presentation highlighted the success of interventions, such as implementing a seven-day window from screening to randomization, which significantly reduced drug wastage. Lyons emphasized the correlation between lowering carbon footprints and reducing costs, a motivating factor for organizations to embrace sustainable clinical trial practices.

The future of sustainable clinical trials, Lyons noted, hinges on collaborative efforts, digital solutions, regulatory adaptations (like integrating environmental considerations in trial protocols), and continued improvement of existing processes.

In closing, Lyons urged the audience to sustain the momentum gained from the congress, emphasizing the need for concerted efforts across the industry to bring about tangible change.

Facilitating & Reducing Clinical Carbon Footprint

Fanny Burrows, Senior Lead, Net Zero Research & Innovation, Greener NHS Programme, NHS England

Fanny Burrows, R&D Lead at the NHS, recently addressed a gathering, shedding light on the NHS's initiatives within the Green NHS Programme to integrate sustainability into research and innovation, particularly focusing on greening clinical trials.

The Green NHS Programme aims to revolutionize research innovation by incorporating sustainability criteria across all NHS research programs. They seek to stimulate innovation that supports the NHS's transition to achieving net zero emissions by 2045. To accomplish this, they're identifying research priorities and fostering collaborations between academic and NHS staff to drive future research toward a net-zero healthcare system.

Burrows outlined five key pillars for sustainable research: integrating sustainability criteria, understanding carbon-intensive practices in biomedical research, reviewing evidence for sustainable clinical practices, collaborating internationally for research, and engaging patients in sustainability efforts.

In terms of clinical trials, the NHS is keen on achieving the best patient outcomes while considering the environmental impact. Efforts are directed at reducing carbon emissions across various NHS operations, thereby influencing how clinical trials are conducted. Initiatives include workforce engagement, sustainable procurement strategies, minimizing travel-related carbon emissions, and optimizing energy usage within NHS facilities.

Additionally, Burrows emphasized the importance of understanding the carbon footprint associated with clinical trials and designing them with minimal emissions. She highlighted the need for a collaborative approach involving regulators, authorities, research funders, journals, government bodies, the private sector, and patient advocacy to support and implement lower carbon clinical trials.

Moreover, she shared a successful case study demonstrating the collaborative efforts between the NHS and academic health science networks, aiming to implement changes driven by evidence-based research.

Burrows underscored the critical need for assessing and applying carbon reduction principles at the start of clinical trial designs, questioning the necessity of certain trial activities to minimize environmental impact. She stressed the necessity of strong leadership, collaboration, and rethinking trial design strategies to achieve a lower carbon footprint in healthcare.

In summary, Burrows highlighted the urgent need to address the environmental impact of healthcare, particularly clinical trials, and emphasized a collaborative, evidence-based approach to integrate sustainability into research and innovation within the NHS.

Navigating the Low Carbon Future: Insights from Novartis at InnovatePharmaHealthcare

Jürgen Wieland, Global Drug Development Environmental Sustainability Lead at Novartis

In a compelling presentation at the InnovatePharmaHealthcare conference, Jürgen Wieland, Global Drug Development Environmental Sustainability Lead at Novartis, underscored the urgent need for action in addressing climate change's impact on human health. Wieland emphasized the critical link between human and planetary health, citing the latest United Nations stocktake that deems business as usual unsustainable.

With a commitment to limiting the global temperature increase to 1.5 degrees Celsius, Wieland stressed the necessity of immediate action, highlighting the implementation gap in short-term strategies. The healthcare sector, responsible for 4-5% of global emissions, is a pivotal player in the journey towards sustainability.

Wieland discussed the WHO's coalition, uniting over 70 countries to create low-carbon health systems. As pharma constitutes a significant contributor, the focus has expanded to address the clinical trial footprint, with collaborative efforts through organizations like the Sustainable Market Initiative and Novartis.

The presentation delved into Novartis' efforts, particularly its November 2022 publication, which assessed the carbon footprint of clinical trials. While acknowledging challenges, Wieland shared insights into the three major contributors: manufacturing, clinical samples, and patient visits/trial monitoring.

Highlighting a holistic approach, Wieland discussed Novartis' sustainable trial setup and execution guidance. By analyzing hundreds of trials, they identified hotspots, leading to the creation of a green window approach for patient identification, reducing waste and optimizing shipments.

The speaker outlined specific initiatives, such as reducing medication shipments by consolidating them quarterly, introducing reusable shipper boxes, and minimizing oversupply of trial materials. Novartis demonstrated a commendable achievement—a 33-35% reduction in carbon footprint related to these activities between 2019 and 2022.

Addressing audience questions, Wieland acknowledged the initial resistance within the organization but noted a paradigm shift. By showcasing positive impacts and transitioning from pilot projects to standard sustainable practices, Novartis has garnered broader support. The operational execution plans, including a sustainability chapter, underscore the organization's commitment to embedding sustainable practices into its operations.

Wieland concluded by encouraging industry-wide collaboration through initiatives like the Sustainable Market Initiative and engaging with organizations like Pistoia, Allianz, and Health Care Without Harm. The presentation left a resonating call to action, urging stakeholders to prioritize sustainability in clinical trials for a healthier and more environmentally conscious future.

Prescribing for a Healthier Planet: Insights from the One Health Breakthrough Partnership

Introduction:

Sharon Pfleger, a Consultant in Pharmaceutical Public Health and Co-founder of the One Health Breakthrough Partnership, presented at Oxford Global's InnovatePharmaHealthcare conference. Despite grappling with an asthma exacerbation, Pfleger engaged the audience in a discussion on the intersection of pharmaceuticals, environmental impact, and public health.

One Health Breakthrough Partnership:

The One Health Breakthrough Partnership, a pioneering collaboration initiated six years ago, brings together key stakeholders including the Environment Protection Agency, Scottish water utility company SEPA, NHS, Environmental Research Institute, and the Centre for Expertise for Water. The partnership's mission is to address pharmaceutical pollution in the environment, focusing on the entire lifecycle of pharmaceuticals, from development to waste.

Research Initiatives:

Pfleger discussed the partnership's research initiatives, starting with a study of water in and around Caithness General Hospital. The findings revealed pharmaceutical compounds entering rivers through hospital effluent, highlighting the environmental impact of healthcare facilities. Subsequently, the partnership became the first globally to achieve accreditation from the Alliance for Water Stewardship, emphasizing the need for responsible water management in healthcare settings.

Data Integration and Analysis:

The partnership undertook a comprehensive assessment of research and monitoring data from various water matrices in Scotland. Identifying 60 substances, the study raised concerns about eco-toxic risks, particularly regarding commonly used drugs like ibuprofen and antibiotics. The partnership then pioneered the integration of national monitoring data with community-level prescribing data, creating a GIS tool to explore relationships between prescriptions and environmental impact.

Policy Advocacy:

The One Health Breakthrough Partnership actively engaged with policymakers, contributing to Scotland's climate, emergency, and sustainability strategy. Pfleger emphasized the importance of including environmental considerations in

formulary decision-making, urging a shift toward a more sustainable and eco-directed model of prescribing.

Prescribing for a Healthier Planet Initiative:

Building on their successes, the partnership secured a grant from the UKRI Medical Research Council to develop a framework that integrates environmental considerations into NHS decision-making. Focus groups with prescribers and patients aimed to gauge awareness of pharmaceutical pollution and inform the development of sustainable practices.

Global Impact and Future Directions:

The potential impact of the partnership extends globally. By changing prescribing practices and fostering collaboration between healthcare and pharmaceutical industries, the initiative aims to create a more sustainable and environmentally conscious healthcare system. The partnership is expanding its focus to address antimicrobial resistance, microplastics, and veterinary medications, recognizing the interconnectedness of various environmental challenges.

Call to Action:

Pfleger concluded her presentation with a call for collaboration, inviting industry experts to join the One Health Breakthrough Partnership and contribute to its interdisciplinary efforts. She highlighted the importance of a collective approach in addressing the complex challenges posed by pharmaceutical pollution and emphasized the ongoing need for partnerships and expertise.

Conclusion:

Sharon Pfleger's presentation showcased the remarkable achievements of the One Health Breakthrough Partnership in bridging the gap between pharmaceuticals, environmental impact, and public health. Their pioneering initiatives underscore the importance of collaborative efforts in creating a sustainable healthcare system that prioritizes both patient and planetary health.

Speaker biography:

Sharon Pfleger works for NHS Highland in Inverness as a Consultant in Pharmaceutical Public Health. She combines a degree in Pharmacy and training and registration in Public Health to consider the use of pharmaceuticals (medicines) at a population level. In this role she provides professional leadership and highly specialist advice on pharmaceutical public health (PPH) issues, is responsible for leading the development and implementation of PPH policy and long term strategy for NHSH by defining the pharmaceutical needs of the population and develop, implement and evaluate interventions and services for health improvement/gain.

Essentially, she's working at strategic level to support improved health of our public if medicines are required ensuring that they are used in a safe and effective manner. This can cover many aspects from defining what the needs of the population are with respect to medicines, planning the rollout of the COVID vaccination programme, medicines governance, pandemic planning and sustainable healthcare services and teaching the next generation of pharmacists. Her portfolio at present is focussed on reducing the environmental harm caused by healthcare, especially pharmaceuticals in the environment.

Navigating the Intersection of Sustainability & Health

Sonja Haut, Head of Impact Valuation at Novartis

In a thought-provoking presentation at Oxford Global's InnovatePharmaHealthcare conference, Sonja Haut, Head of Impact Valuation at Novartis, shed light on the intricate relationship between sustainability and health. Addressing a diverse audience of sustainability advocates, Haut emphasized the need for collaboration in steering towards a future that prioritizes both well-being and environmental consciousness.

Haut commenced her keynote by establishing a common understanding of sustainability, emphasizing its core principle of making decisions with long-term implications for the well-being of the environment, society, and the economy. Drawing parallels between sustainability and health, she highlighted the symbiotic relationship between a healthy environment and individual well-being, underlining the impact of factors like air pollution and renewable energy sources on public health.

Crucially, Haut delved into the role of innovation in shaping the future of both health and sustainability. She underscored the pervasive effects of climate change on human health, citing statistics from the World Health Organization predicting increased deaths and substantial economic costs by 2030. However, Haut remained optimistic, emphasizing the power of individual choices in influencing positive change.

The central theme of Haut's discourse was the concept of longer-term value creation, intrinsic to sustainability, and how it permeates various facets of the health industry, from research and development to production facilities. She encouraged a shift towards long-term thinking, asserting that the health sector, with its focus on innovation and value creation, is well-positioned to lead the charge towards greater sustainability.

Addressing the practical aspects of sustainability, Haut illustrated the importance of measuring impacts, introducing the IOI model (Input, Output, Outcome, Impact) as a framework for evaluating the consequences of business decisions. She stressed the significance of not only measuring but also managing intended and unintended consequences, offering examples from Novartis' journey in capturing social, environmental, and economic impacts across their value chain.

Highlighting the gaps in existing methodologies,

Haut discussed Novartis' proactive approach in filling these voids by publishing papers and case studies to aid practitioners. These materials provide insights into measuring environmental impacts along the supply chain and assessing the social impact of innovative medicines.

Novartis' commitment to impact measurement is evident in the regular capture of their operational and supply chain impacts, disseminated through reports, fact sheets, and dashboards. Haut emphasized the transformative power of impact valuation, attributing it to the success of businesses in driving top and bottom-line performance, managing risks, and engaging stakeholders.

Haut also shared Novartis' efforts to bridge the gap between sustainability professionals and the language of business, exemplified by her book, "The Case for Impact." This publication compiles examples from various industries, demonstrating how measuring and valuing impact can enhance performance and stakeholder engagement.

In the Q&A session, Haut responded to queries about Novartis' commercial strategies, emphasizing the role of awareness and the gradual integration of sustainability thinking into mainstream business practices. She acknowledged the challenges ahead but underscored the power and responsibility of the industry to measure and track progress.

Concluding her presentation, Haut urged the audience to embrace the notion that individual choices can make a significant difference in moving towards a healthier and more sustainable future. She expressed confidence in the industry's ability to overcome challenges and encouraged continued collaboration for meaningful impact.

Sustainable Markets Initiative: Standardised Framework for Sustainable Clinical Trials

Fiona Adshead, Chair, Sustainable Healthcare Coalition & Jürgen Wieland, Sustainability Lead, Novartis

In a comprehensive dialogue between Fiona Adshead and Jürgen Wieland, leaders in the Sustainable Healthcare Coalition, the discussion revolved around their concerted efforts towards making healthcare practices more sustainable, particularly by addressing the environmental impact linked to clinical trials. The conversation shed light on the coalition's inception, evolution, and its pivotal role in spearheading initiatives for a greener healthcare system.

Adshead, the Chair of the Sustainable Healthcare Coalition, commenced the conversation by tracing back the coalition's roots, elucidating how it was established over a decade ago by the NHS. This formation was catalyzed by the realization that the healthcare sector's carbon footprint was intricately linked to its supply chain. Over the years, the coalition evolved significantly, delving into strategies for measuring and managing the carbon footprint associated with medicines, devices, care pathways, and now, clinical trials.

The focal point of the discussion was the coalition's collective efforts to tackle the environmental impact of clinical trials, an area previously overlooked. Recognizing the substantial ecological repercussions of such trials, the coalition embarked on devising methodologies to accurately measure and subsequently mitigate the carbon footprint linked with these crucial medical investigations.

Central to their efforts was the commitment made at COP 27, emphasizing the commencement of reporting on phase two and three clinical trials by 2025, along with a pledge to reduce emissions by 2030. Collaborative ventures involving academia, industry giants like Novartis, Janssen, AstraZeneca, among others, were instrumental in the coalition's initiatives.

One of the coalition's pivotal strategies involved developing a standardized framework. This framework aims to facilitate the measurement and assessment of carbon-heavy elements inherent in clinical trials. Through comprehensive methodologies and tools, the coalition seeks to create a standardized approach that accurately reflects the environmental impact of such trials.

Wieland, from Novartis, emphasized the collaborative nature of these initiatives. He highlighted the importance of diverse collaborations, where insights from different stakeholders including pharmaceutical companies, hospitals, and regulatory bodies, converge. This diverse mix of expertise contributes to a more comprehensive understanding of the ground realities and aids in implementing sustainable practices effectively.

The dialogue emphasized the coalition's intent to release guidance and tools in the coming months. These resources will provide practical assistance in measuring and implementing environmentally sustainable practices in clinical trials. Wieland stressed the urgency of action, emphasizing that with global environmental concerns escalating, time is of the essence.

In essence, the conversation between Adshead and Wieland underscored the coalition's commitment to fostering a sustainable healthcare ecosystem. Their collaborative endeavors, with a focus on clinical trials' environmental impact, signal a significant stride towards a greener, more responsible healthcare landscape.

The Push for Optimising Supply Chain Procurement & Incentivising Partners to Create a Sustainable Supply Chain

Batu Berkok, Head of Supply Chain Sustainability at Roche

The push for sustainable clinical trials is gaining momentum as Batu Berkok, Head of Supply Chain Sustainability at Roche, acknowledged the need to reduce its environmental impact within the pharmaceutical industry. The journey from ideation to implementation of sustainable practices within clinical trials has been an evolving process.

Batu Berkok highlighted the lack of attention given to the environmental consequences of clinical trial processes, such as the destruction of lab kits and drug supplies at the end of trials. This sparked the need for change within the industry.

The initiative for sustainable clinical trials at Roche began with a call to address the absence of discussions on sustainable practices in medical research forums. It led to the formation of a global team dedicated to brainstorming ways to reduce the company's carbon footprint.

Their approach involved establishing sustainability principles a few years ago, which evolved into concrete guidance and processes within Roche's operational excellence execution plan. The focus ranged from redesigning protocols to execution, aiming to embed green practices into the trial lifecycle.

The Green Trials and Sights initiative was born from this effort, emphasizing collaboration and education across Roche. This included launching a guidance document for all associates, developing training materials, maintaining a resourceful SharePoint, and establishing a network of experts (Greenshaw Network) within the company.

Efforts were made to optimize trial processes, such as reducing unnecessary drug shipments by implementing a seven-day window from screening to randomization. The initiative showcased significant reductions in costs alongside carbon footprint reductions, emphasizing the financial benefits of going green.

Moreover, there was an ongoing endeavor to repurpose unused trial devices and reduce wastage, collaborating with Kits for Life to redirect unused medical kits to areas in need, thereby supporting a circular economy model.

One critical area addressed was the staggering wastage of lab kits, sometimes as high as 70% during the pandemic, highlighting the need for collaboration with vendors to reduce this waste.

The future of sustainable clinical trials was seen as a collaborative effort involving industry-wide cooperation. Digital solutions were also proposed to reduce unnecessary travel and resource wastage. Initiatives like suggesting questions on carbon footprint reduction in ethics committee discussions were discussed, aiming to plant seeds of change in trial practices.

Batu Berkok emphasized that collaboration, digital innovation, and continuous improvement are essential for the future of sustainable clinical trials. The drive for greener pharmaceuticals requires concerted efforts from various stakeholders and continual evaluation of strategies to ensure their effectiveness.

Ultimately, Batu Berkok underscored the importance of collective action and ongoing commitment from the pharmaceutical industry to embrace sustainable practices, reducing harm to the environment while providing vital medical treatments.