THE LANCET

The Global Syndemic of Obesity, Undernutrition and Climate Change: The *Lancet* Commission report







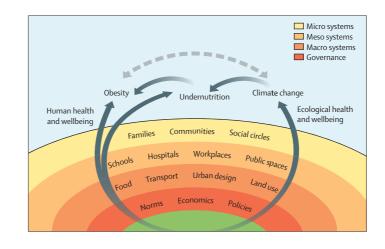
Milken Institute School of Public Health The george washington University

A Policy Brief for national and municipal governments, civil society, funders, businesses, and international agencies

| Background | The Report of the <i>Lancet</i> Commission on Obesity demonstrates that the pandemics of obesity, undernutrition, and climate change represent the paramount challenge for humans, the environment and our planet. As we describe below, these interacting pandemics represent The Global Syndemic with common, underlying drivers in the food, transport, urban design, and land use systems. Strong and concerted efforts are required by multiple actors to implement double-duty and triple-duty actions to address the systems that drive The Global Syndemic. These synergistic actions will be essential to achieve planetary health, which we define as the health and wellbeing of humans and the natural environments we depend on. |
|---|---|
| Societal Costs of The Global Syndemic | The health gains achieved over the past 50 years of global economic development could be reversed over the next 50 years due to the consequences of climate change. Other non-monetised costs, such as the loss of human potential, social inequities, societal disruption, environmental damage, and loss of biodiversity, are enormous and overshadow the economic costs. The societal costs of The Global Syndemic are extensive and disproportionally affect poor people and low-income countries. |
| | Obesity: Excess body weight affects over 2 billion people worldwide and accounts for approximately 4 million deaths annually. The current estimated economic costs of obesity are approximately 2.8% of the world's gross domestic product (GDP). |
| | Undernutrition: In Asia and Africa, undernutrition costs 4-11% of GDP. In 2017, 155 million children were stunted and 52 million children were wasted. Two billion people suffer from micronutrient deficiencies, and 815 million people are chronically undernourished. |
| | Climate change: Estimates of the future economic costs of climate change are 5-10% of the world's GDP, with costs in low-income countries that may exceed 10% of their GDP. |
| Policy Inertia | The policy responses from national governments to obesity, undernutrition and climate change as separate problems have been slow and inadequate. This policy inertia stems from the reluctance of political decision-makers to implement effective policies, powerful opposition by vested commercial interests, and insufficient demand for change by the public and civil society. Undernutrition is declining too slowly to meet global targets, no country has reversed its obesity epidemic, and comprehensive policy responses to the threat of climate change have barely begun. |
| The Global Syndemic Narrative | Malnutrition in all its forms, including undernutrition, obesity, and other dietary risks for non-communicable diseases (NCDs), is by far the biggest cause (19%) of ill-health and premature death globally. In the near future, the health impacts of climate change will significantly exacerbate this high health burden. We view climate change as a pandemic (global epidemic) because of its rapid increase and extensive damage to planetary health. These three pandemics—obesity, undernutrition, and climate change—represent The Global Syndemic that affects most people in every country and region worldwide. A syndemic is a synergy of pandemics that co-occur in time and place, interact with each other, and share common underlying societal drivers. For example, food systems not only drive the obesity and undernutrition pandemics but also generate 25-30% of greenhouse gas emissions (GHGs), and cattle production accounts for over half of those. Car-dominated transportation systems support sedentary lifestyles and generate between 14-25% of GHGs. Underpinning all of these are weak political governance systems, the unchallenged economic pursuit of GDP growth, and the powerful commercial engineering of overconsumption. |

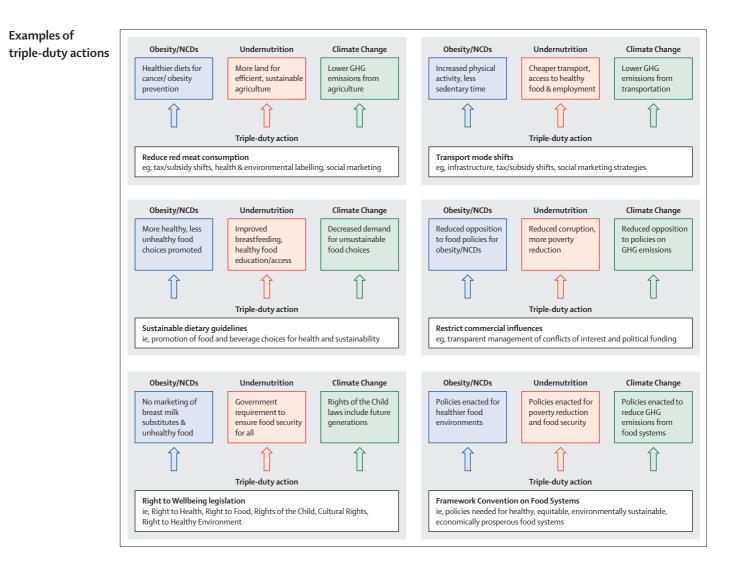
Full **report** available at https://www.thelancet.com/commissions/global-syndemic

The figure below shows that the common drivers of The Global Syndemic arise from within food, transport, urban design, and land use systems, which in turn draw from the natural systems and are shaped by the policies, economic incentives and disincentives, and norms established through governance mechanisms. The outer layers are the settings and social networks through which people engage. The outcomes of obesity, undernutrition, and climate change interact. For example, climate change will increase undernutrition through increased food insecurity from extreme weather events, droughts, and shifts in agriculture. Likewise, fetal and infant undernutrition increases the risk of adult obesity. The effects of climate change on obesity and vice versa are currently uncertain. Actions that re-orient the underlying systems (eg agriculture policies for health and sustainability) or the governance levers (eg redirection of taxes and subsidies) will be the double-duty and triple-duty actions necessary to address The Global Syndemic.



Double-duty and Triple-duty Actions

Many current recommendations to reduce obesity and undernutrition will also be beneficial for climate change mitigation and adaptation, and vice versa. However, to seriously address The Global Syndemic, action will be needed to address its underlying societal, political, socio-economic, and commercial drivers. These are doubleduty or triple-duty actions (see examples below) because they can influence multiple parts of the syndemic simultaneously. Such actions, which seek to re-orient major systems of food and agriculture, transport, urban design, and land use that drive The Global Syndemic, need to occur locally, nationally, and globally. Implementation of actions to address these deeper drivers is politically more difficult to achieve and their outcomes are more uncertain compared to downstream actions such as health promotion programs or healthcare service provision. However, their implementation is essential for transformative, systemic changes.



The Path Forward The Commission is under no illusion that the implementation of double-duty and triple-duty solutions will be easy to achieve. Indeed, a transformative social movement, building through the local, national, and global levels, is needed to overcome the policy inertia described above. Conceptualizing the three pandemics as The Global Syndemic, with common systemic drivers and complex interactions may contribute to the new narrative needed to catalyse that social movement. We believe that articulating the need for and benefits of double-duty and triple-duty actions will also lead to innovative insights and strategies that can be spread and scaled.

| Actions for All | Think in Global Syndemic terms to focus on common systemic drivers that require collective actions by multiple actors. Create the narrative of common systemic drivers and double-duty or triple-duty actions to underpin the social movements at local, national and global levels. |
|----------------------------|--|
| | 2 Create collaborative platforms to join up the current silos of effort into local, national and global networks working on double-duty and triple-duty actions. • Link initiatives to connect the silos at local (eg, health and non-health organisations), national (across health, education, social affairs, agriculture, and climate change ministries), and global levels (eg, UN Framework Convention on Climate Change and Decade of Action on Nutrition) to foster systemic thinking, share innovative solutions, and synergise efforts. |
| Actions for Nations and | 3 Reduce poverty and inequities to reduce the toll of The Global Syndemic, which will disproportionately impact poor people. |
| Municipalities | • Implement strategies to achieve the UN's Sustainable Development Goal 1 as a priority for all countries. |
| | Fully implement human rights obligations to protect socially disadvantaged populations, especially children and women, and mobilise actions to create healthy and active environments for all people. Incorporate the rights recognised by international law, including the right to health, the right to food, cultural rights, the rights of the child, and the implied right to a healthy environment, into national constitutions and laws under the umbrella of the Right to Wellbeing. |
| | 5 Reduce the influence of large commercial interests in policy development processes to enable governments to implement policies in the interests of public health, equity, and planetary sustainability. Institutionalise clear and robust conflicts of interest management for policy development. Strengthen democratic institutions such as freedom of information laws, declarations of political donations, independent ombudsman and commissioner positions, and platforms for civil society engagement in public policy decision-making. |
| | 6 Eliminate subsidies for products that contribute to The Global Syndemic and redirect funding to actions that mitigate it. |
| | Increase awareness of the impact of subsidies on the true costs of food and car use to build support for sustainable agriculture and sustainable modes of transportation. |
| | Redirect existing government subsidies for beef, dairy, sugar, corn, rice, and wheat (about \$US0.5 trillion a year) to sustainable farming for healthful foods. |
| | Redirect subsidies for fossil fuels (about \$US5 trillion a year) to renewable energy and sustainable transportation systems. |
| | 7 Provide clear and understandable information to consumers on the health and environmental impacts of food products to enable informed choices and create a demand-driven market shift for products that support sustainable food systems. Use nutrition labelling to alert consumers to products high in sugar, salt, and saturated fat, and stimulate industry reformulation. Add sustainability indicators, such as carbon and water footprints, to food labels to help consumers make sustainable choices. |

| | 8 | Expand municipal actions on air pollution and traffic congestion to include action on healthy and resilient urban transport and food systems. Invest in urban design and transportation systems to foster walking, cycling, and public transport and build urban food systems for resilience, health and equity. Strengthen national and international networks of cities to share resources and innovative strategies to address The Global Syndemic. |
|------------------------------|----|--|
| | 9 | Support community coalitions to mobilise action at the local level and to create pressure for national policies that reduce The Global Syndemic. Support systems-oriented, community-based interventions that create healthy, resilient and sustainable local environments and advocate for supportive national policies. |
| | 10 | Re-orient business models to produce beneficial outcomes for people, the planet, and profits so that business shifts its focus from short-term, profit-only outcomes to sustainable models that explicitly include benefits to society and the environment. Incorporate the costs of damage to health and the environment from business processes and products into the costs of doing business rather than onto taxpayers or future generations. |
| | 11 | Accelerate national commitments to achieve the UN Sustainable Development Goals to create the broad, cross-sectoral efforts needed to address The Global Syndemic. Establish specific, measurable, achievable, relevant goals and a timetable for achieving them. Build in accountability systems for achieving these goals. |
| Actions for Civil Society | 12 | Act to increase demand for policies to address The Global Syndemic. Build civil coalitions to advocate for specific policies, eg healthy food in schools or public transport infrastructure, and for deeper, more transformative changes, eg restricting commercial influences in public policy-making and enacting human rights legislation. |
| | 13 | Monitor policy implementation to increase independent accountability for actions to mitigate The Global Syndemic. Combine existing food policy monitoring platforms with new monitoring platforms for physical activity and climate change Use policy monitoring evidence to hold governments and corporations to account for addressing The Global Syndemic. Prioritize research for policy-relevant, empirical and modelling studies on the dynamics of The Global Syndemic and the impacts of double-duty and triple-duty actions. |
| Actions for Funders | 14 | Use development aid and loans as a mechanism to encourage double-duty or triple-duty actions to address The Global Syndemic. |

• Incorporate policy development to improve governance, food systems, and land use to address The Global Syndemic as an essential component of technical assistance and loans from funders such as the World Bank, development agencies, and other funders.

| 15 Develop a global 'Food Fund' to support the efforts of civil society organisations to increase pressure to create healthy, sustainable, equitable food systems. In addition to calls for a US\$70 billion dollar investment over 10 years to achieve the global targets to reduce undernutrition, philanthropic investors should invest US \$1 billion dollars to strengthen the social advocacy from civil societies to demand complementary policy actions to tackle The Global Syndemic. |
|---|
| 16 Fund research on indigenous and traditional knowledge to understand the paradigms, practices and products that promote optimal planetary health. Establish a 'Seven Generations Fund' based on the Iroquois concept of decision-making for seven generations hence so that indigenous knowledge and worldviews can be researched, recognized internationally, and incorporated into policies that impact on human and environmental health. |
| 17 Establish a Framework Convention on Food Systems as the comprehensive, legal framework to bind countries to collectively create food systems that promote health, equity, environmental sustainability, and economic prosperity. Use the constitutional provisions of UN agencies and/or regional bodies (eg, European Union, Pacific Forum) to develop a Framework Convention on Food Systems for Member States to ratify and enact nationally. 18 Monitor the implementation of policies recommended by the UN and other authoritative bodies to address obesity, undernutrition, climate change and their determinants. |
| |

• Work with researchers, civil society organisations and governments to build independent accountability systems for the actions of governments and the private sector to mitigate The Global Syndemic.

Lancet Commission on Obesity: Commissioners and Fellows

Boyd A Swinburn, MD

Co-Chair. Professor, School of Population Health, University of Auckland, New Zealand

William H Dietz, MD

Co-Chair. Professor, Milken Institute School of Public Health, George Washington University, USA

Steven Allender, PhD

Professor and Director, Global Obesity Centre, Deakin University, Australia

Vincent J Atkins, MSc

Technical Advisor, Caribbean Community (CARICOM) Secretariat, Barbados, West Indies

Phillip I Baker, PhD

Alfred Deakin Postdoctoral Research Fellow, Institute for Physical Activity and Nutrition, Deakin University, Australia

Jessica R Bogard, PhD

Nutrition Systems Scientist, Commonwealth Scientific and Industrial Research Organisation, Australia

Hannah Brinsden, BSc Head of Policy, World Obesity Federation, UK

Alejandro Calvillo, BA Advisor, El Poder del Consumidor, Mexico

Olivier De Schutter, PhD

Professor, Institute for Interdisciplinary Research in Legal Sciences, Catholic University of Louvain, Belgium

Raji Devarajan, MSc

Researcher, Centre for Chronic Disease Control, India

Majid Ezzati, FMedSci

Professor, School of Public Health, Imperial College London, UK

Sharon Friel, PhD

Professor, School of Regulation and Global Governance, Australia National University, Australia

Shifalika Goenka, PhD

Professor, Public Health Foundation of India, India

Ross A Hammond, PhD

Senior Fellow, Center on Social Dynamics & Policy, The Brookings Institution, USA

Gerard Hastings, PhD

Professor Emeritus, Institute for Social Marketing, University of Stirling, Scotland, UK Corinna Hawkes, PhD Professor and Director, Centre for Food Policy, City University, University of London, UK

Mario Herrero, PhD Chief Research Scientist, Commonwealth Scientific and Industrial Research Organisation, Australia

Peter S Hovmand, PhD Professor, Brown School, Washington University in St Louis, USA

Mark Howden, PhD Professor, Climate Change Institute, Australian National University, Australia

Lindsay Jaacks, PhD Assistant Professor, Harvard T.H. Chan School of Public Health, Harvard University, USA

Ariadne Kapetanaki, PhD Senior Lecturer, Hertfordshire Business School, University of Hertfordshire, UK

Matt Kasman, PhD Assistant Research Director, Center on Social Dynamics & Policy, The Brookings Institution, USA

Vivica Kraak, PhD Assistant Professor, Department of Human Nutrition, Foods, and Exercise, Virginia Tech, USA

Harriet Kuhnlein, PhD Professor Emerita, Centre for Indigenous Peoples' Nutrition and Environment, McGill University, Canada

Shiriki Kumanyika, PhD Research Professor, Dornsife School of Public Health, Drexel University, USA

Baghar Larijani, MD Professor, Endocrinology and Metabolism Research Institute, Tehran University of Medical Sciences, Iran

Tim Lobstein, PhD Director of Policy and Programme, World Obesity Federation, UK

Michael W Long, SD Assistant Professor, Milken Institute School of Public Health, George Washington University, USA

Victor KR Matsudo, MD

Scientific Director, Physical Fitness Research Laboratory of Sao Caetano do Sul, Brazil Susanna DH Mills, PhD Researcher, Institute of Health & Society, Newcastle University, UK

Gareth Morgan, PhD Founder, The Morgan Foundation, New Zealand

Alexandra Morshed, MS Researcher, Brown School, Washington University in St. Louis, USA

Patricia Nece, JD Board member, Obesity Action Coalition, USA

An Pan, PhD Professor, Tongji Medical College, Huazhong University of Science and Technology, China

David W Patterson, LLM Consultant, International Development Law Organization, The Netherlands

Gary Sacks, PhD Associate Professor, Global Obesity Centre, Deakin University, Australia

Meera Shekar, PhD Global Lead, Health, Nutrition and Population Global Practice, The World Bank, USA

Geoff L Simmons, BCom Advisor, The Morgan Foundation, New Zealand

Warren Smit, PhD Researcher, African Centre for Cities, University of Cape Town, South Africa

Ali Tootee, MD Researcher, Endocrinology and Metabolism Research Institute, Tehran University of Medical Sciences, Iran

Stefanie Vandevijvere, PhD Senior Research Fellow, School of Population Health, University of Auckland, New Zealand

Wilma E Waterlander, PhD Researcher, Academic Medical Center, University of Amsterdam, The Netherlands

Luke Wolfenden, PhD

Associate Professor, School of Medicine and Public Health, University of Newcastle, Australia