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## **Background Paper**

# **Planetary Health Promotion and Indigenous World Views and Knowledges**



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**May 2023**

**"the state of the planet is broken. Humanity is waging war on nature. This is suicidal.**

**Making peace with nature is the defining task of the 21st century. It must be the top, top priority for everyone, everywhere."**

Antonio Guterres, UN Secretary General,  
at Columbia University's World Leaders Forum, December 2<sup>nd</sup> 2020 (1)

**"Protect and preserve the source of human health: Nature".**

Prescription 1, WHO Manifesto for a Healthy Recovery from Covid-19, 2020 (2)

**"A healthy planet is essential to the health and well-being of current and future generations and for enabling all to flourish. Well-being societies . . . [are] "committed to achieving equitable health now and for future generations without breaching ecological limits."**

The Geneva Charter for Well-being, December 2021 (3)

**"Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their [...] lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard"**

Article 25 of the United Nations Declaration on the Rights of Indigenous Peoples  
(4)

**"...Indigenous knowledge, distilled over millennia of close and direct contact with nature, can help to point the way. . . . it is time to heed their voices, reward their knowledge and respect their rights."**

UN Secretary General Antonio Guterres, 2020 (1)

**"We cannot have good health without a clear, healthy, and strong environment...We should endorse indigenous human rights. We should enable whanau and families to flourish. We should support community initiatives. We should keep our skies clean and fresh. We should protect our lands. We should safeguard our rivers and oceans. We should preserve our native forests. We should restore Nature's balance."**

Sir Mason Durie

IUHPE 2019 World Conference on Health Promotion, Rotorua, Aotearoa New Zealand (5)

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It does not necessarily reflect the views of the IUHPE, which are represented by the Position Statement approved by the IUHPE Executive Board following its meeting of May 18, 2023, available [here](#).

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## INTRODUCTION

The IUHPE's 23rd global conference was held in Rotorua, Aotearoa New Zealand, in 2019. The theme for the conference was 'WAIORA: Promoting Planetary Health and Sustainable Development for All'. Reflecting the important role of the Māori people as co-hosts of the conference, there was a strong emphasis on Indigenous perspectives and knowledge throughout the conference. This was also reflected in the use of the Māori word 'Waiora' in the title (see text box for an explanation of the term) and in the adoption of an Indigenous Peoples' Statement (Appendix 1) as well as the Conference Statement (Appendix 2).

In the Conference Statement (6)

*"participants call on the global community to urgently act to promote planetary health and sustainable development for all, now and for the sake of future generations",*

while the Indigenous Peoples' Statement (7) noted

*"We call on the health promotion community and the wider global community to make space for and privilege Indigenous peoples' voices and Indigenous knowledges in taking action with us to promote the health of Mother Earth and sustainable development for the benefit of all."*

One result of the conference was the creation of the IUHPE Global Working Group on Waiora Planetary Health and Human Wellbeing (Waiora GWG).

The GWG's aims are:

To enhance a planetary consciousness in health promotion;

To contribute an eco-social understanding of human wellbeing into health promotion;

To value indigenous ways of knowing about the world, including spirituality and reverence for nature;

To collaborate and share knowledge with other GWGs within IUHPE, and external groups working in the field of planetary health;

To contribute to the research, teaching, policy-making and practice of planetary health in health promotion;

### **Waiora and Planetary Health**

**"Planetary health** is the health of humanity and the natural systems of which we are part. It builds on Indigenous peoples' principles of holism and interconnectedness, strengthening public health and health promotion action on ecological and social determinants of health. It puts the wellbeing of people and the planet at the heart of decision-making" - *Rockefeller-Lancet Commission on Planetary Health (9)*

**"Waiora** is an Indigenous concept of our host country, Aotearoa New Zealand, which expresses the interconnections between peoples' health and the natural environment, and the imperative of sustainable development." - *Rotorua Statement (1, and see Appendix 2)*

To contribute to the translation of planetary health in health promotion into practical applications at all levels, from the global to the local.

As part of its Mission, the Waiora GWG has prepared a Position Statement and this supporting Background paper. (See Appendix 3 for a list of related publications and presentations by the Waiora GWG and its members.)

The Position Statement is consistent with and supports the IUHPE's 2021 – 2026 Strategic Plan (Figure 1), which identifies three strategic priorities, the first of which is "determinants of health, planetary health and the sustainable development goals" (8). It is also consistent with the IUHPE World Health Day 2022

statement (Appendix 4) and with the *Tiohtià:ke* (Montreal Conference) Statement, with its focus on decolonization, privileging Indigenous peoples' voices and knowledge, and putting well-being, the health of the planet, and equity into all policies (9).

Two of the five objectives for the first IUHPE strategic priority speak directly to the theme of planetary health:

Enhance a planetary consciousness in health promotion, and

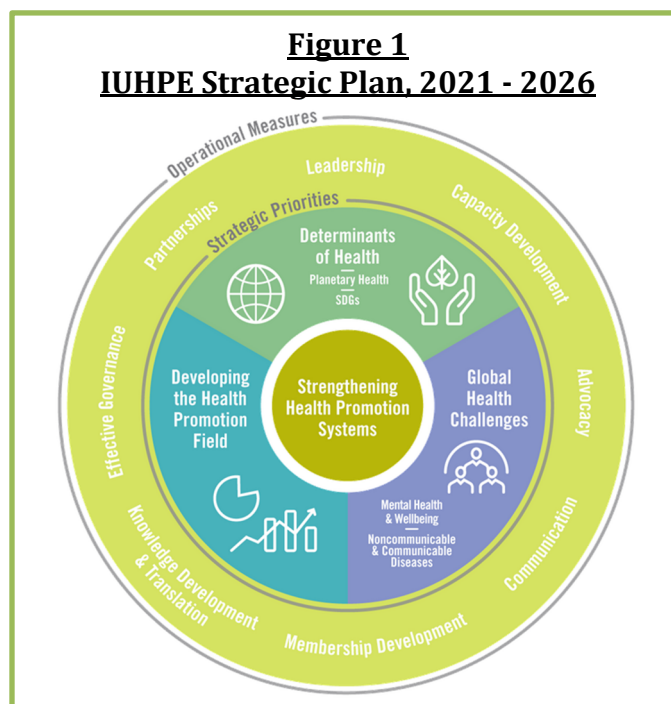
Incorporate an eco-social understanding of human

wellbeing into health promotion, making it transformative and more effective.

The intent of the Position Statement and this supporting Background Paper is to:

1. Present the evidence on the growing threats to human wellbeing posed by human-induced damage to global ecological systems.
2. Discuss the imperative of Indigenous worldviews and knowledges in understanding and addressing the global challenges we face as a human society.
3. Explore the implications of points 1 and 2 above for health promotion and education.
4. Propose a set of priority actions for planetary health promotion and education, from the global to the local levels.

In doing so, we aim to enhance a planetary consciousness in health



promotion, and incorporate an eco-social understanding of planetary health into health promotion, making it transformative and more effective.

We require a profound shift in frameworks and models of health promotion that recognizes the intrinsic value of our ecological environment as an integral part of our health and wellbeing. **Planetary health in our perspective is more than an “approach” to ecological change and health promotion. It fundamentally redefines our relationships with each other and the planet.**

## THE ECOLOGICAL DETERMINANTS OF HEALTH AND PLANETARY HEALTH

In its rather short list of prerequisites for health, the Ottawa Charter for Health Promotion (10) included “a stable ecosystem and sustainable resources”, the first time that the WHO recognized these ecosystem functions as determinants of health. The Charter also stated “The inextricable links between people and their environment constitutes the basis for a socio-ecological approach to health” and that “the protection of the natural and built environments and the conservation of natural resources must be addressed in any health promotion strategy”. And in its ‘Commitment’ section, participants pledged, among other things, to “address the overall ecological issue of our ways of living”.

But with the advent of population health in the early 1990s, the focus shifted to the *social* determinants of health; population health was “largely silent on ecological issues” (11) and in effect “mainstream population and public health has become largely ecologically blind” (12).

All that began to change in 2015, with the publication of two reports, both of which are rooted in and driven by the findings of Earth system science that the Earth “behaves as a single, self-regulating system comprised of physical, chemical, biological **and human** components” (13, emphasis added).

The first, by a working group of the Canadian Public Health Association (14), sought to bring the ecological determinants of health into the discussion on population health. The intent was not to replace the focus on the social determinants but to expand the focus, arguing for an eco-social approach to health promotion that recognizes that the ecological and the social are completely intertwined (see figure 2).

The report noted that “we depend on ecosystems for the very stuff of life”:

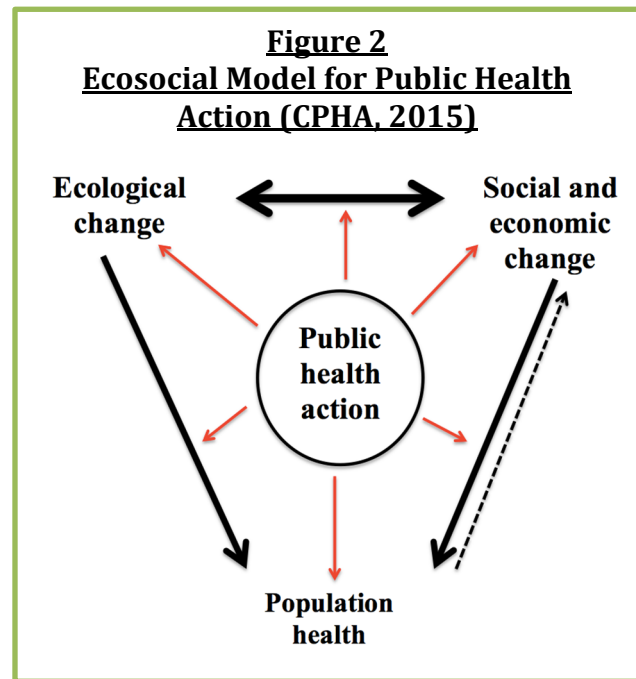


- Air
- Water
- Food
- Fuel and materials
- Protection from UV radiation
- Waste recycling and detoxification and
- A relatively stable and livable climate.

But the report noted a number of global ecological changes, including not only climate and atmospheric change but pollution and ecotoxicity, resource depletion and loss of species and biodiversity, pose threats to the wellbeing of humanity as a whole – and especially the more disadvantaged and vulnerable populations – and indeed to the wellbeing and survival of a myriad of other species.

Moreover, these global ecological changes are driven by human activity, and in particular by the activities of high-income countries and people, and these in turn are driven by a set of values that are not fit for purpose in the 21<sup>st</sup> century. As UN Secretary General Antonio Guterres has noted (1):

*“Let’s be clear: human activities are at the root of our descent towards chaos. But that means human action can help solve it”.*



The second report in 2015 came from the Rockefeller-Lancet Commission on Planetary Health, which defined planetary health as “the health of human civilisation and the state of the natural systems on which it depends” (15) – again, clearly, requiring an eco-social approach. Having clearly laid out the challenges we face (see Text Box) the Commission ended its Executive Summary as follows:

*Humanity can be stewarded successfully through the 21st century by addressing the unacceptable inequities in health and wealth within the environmental limits of the Earth, but this will require the generation of new knowledge, implementation of wise policies, decisive action, and inspirational leadership.*

**Rockefeller Foundation–Lancet Commission on Planetary Health**

*“By unsustainably exploiting nature’s resources, human civilisation has flourished but now risks substantial health effects from the degradation of nature’s life support systems in the future. Health effects from changes to the environment including climatic change, ocean acidification, land degradation, water scarcity, overexploitation of fisheries, and biodiversity loss pose serious challenges to the global health gains of the past several decades and are likely to become increasingly dominant during the second half of this century and beyond. These striking trends are driven by highly inequitable, inefficient, and unsustainable patterns of resource consumption and technological development, together with population growth.” (9)*

Since 2015 there has been a growing awareness of the importance of the ecological determinants of health and the field of planetary health has grown rapidly. There is a global [Planetary Health Alliance](#) and a journal ([Lancet Planetary Health](#)) and as noted at the outset, planetary health was the theme of the 2019 IUHPE conference, and is one of three priorities in IUHPE’s 2021 – 2026 strategic plan.

Most recently, the ecological determinants of health and the topic of planetary health were an important focus of the WHO’s 10<sup>th</sup> Global Health Promotion Conference and the Geneva Charter for Well-being (3) that resulted from the conference. Sustainable well-being societies, the Charter notes, are “committed to achieving equitable health now and for future generations without breaching ecological limits”, making the Charter a clear call for an eco-social approach to health promotion.

## Welcome to the Anthropocene

The power with which humanity now disrupts and harms the Earth’s natural systems is immense – so much so that it has been proposed that we are now entering a new geological epoch, the Anthropocene (16), so named not because it is the age of and for humans – *anthropos* being the ancient Greek word for human - but because it is a geological epoch created by

humans. We have become a disruptive force at planetary scale. So the Anthropocene is not about us, it is because of us.

It is important to understand both the scale and the rapidity of the changes we have created and continue to create, because they are key to determining the scale and urgency of the health promotion actions that must be taken if we are to protect and promote planetary health. A brief summary of some key aspects of the Anthropocene can be found in Appendix 5, while a fuller description can be found in the Waiora GWG's article in *Global Health Promotion* and in the related supplementary file "70 years back, 70 years ahead: human wellbeing and planetary health in 1950, today and in 2090/2100" (17).

Importantly, as the UN Environment Programme (UNEP) notes:

"Climate change, loss of biodiversity, land degradation, and accumulating chemicals and waste reinforce each other and are caused by the same indirect drivers" (18).

The implications for societies and the global population of these human-driven ecological changes were summed up succinctly by the Executive Director of the UNEP in a recent report:

"Loss of biodiversity and ecosystem integrity, together with climate change and pollution will undermine our efforts on 80 per cent of assessed SDG Targets, making it even more difficult to report progress on poverty reduction, hunger, health, water, cities and climate." (18)

In his foreword to that same report, the UN Secretary General was blunt:

"Humanity is waging war on nature. This is senseless and suicidal. The consequences of our recklessness are already apparent in human suffering, towering economic losses and the accelerating erosion of life on Earth."

The health and health equity implications of these statements should be self-evident and provide all the justification needed to make planetary health a priority focus for health promotion.

## The health and health equity implications of the Anthropocene

The health implications of the Anthropocene were covered well in the 2015 reports of the Canadian Public Health Association and the Rockefeller-Lancet Commission on Planetary Health and have been elaborated upon since then; they are not covered at length here. (Some further details can be found in the GWG's article in *Global Health Promotion* (17), among other sources.)

But if we take the three key crises of climate change, biodiversity loss and pollution identified by the UNEP (18), we can find the following recent observations of their health and health equity implications:

*We face a "triple planetary crisis" that's been caused by the climate emergency – "that is killing and displacing ever more people each year" – biodiversity loss – which threatens "more than three billion people" – and pollution and waste, "that is costing some nine million lives a year".*

UN Secretary General Antonio Guterres, Stockholm + 50 conference, June 2022

- The WHO's *Special Report on Climate Change and Health* (19) prepared for the October 2021 United Nations Climate Change Conference (COP26) states

"Climate change is the single biggest health threat facing humanity. And while no one is safe from the health impacts of climate change, they are disproportionately felt by the most vulnerable and disadvantaged."

- This same report also notes:

"Healthy human societies are dependent upon biodiversity and healthy ecosystems - as the source of clean air, water, healthy soils, shelter, medicines, food, pollination and for the regulation of pests, disease, climate and extreme weather events. Human pressures . . . all undermine these services".

Moreover, a report from the Secretariat of the Convention on Biological Diversity (20) notes:

"The projected decline in biodiversity will affect all people, but it will have a particularly detrimental effect on indigenous peoples and local communities, and the world's poor and vulnerable, given their reliance on biodiversity for their wellbeing".

- The Lancet Commission on Pollution and Health (21) found not only that "Diseases caused by pollution were responsible for an estimated 9 million premature deaths in 2015 - 16% of all deaths worldwide"

but that this is “almost certainly” an underestimate. Moreover, this pollution

“disproportionately kills the poor and the vulnerable. Nearly 92% of pollution-related deaths occur in low-income and middle-income countries and, in countries at every income level, disease caused by pollution is most prevalent among minorities and the marginalized”,

with children being particularly vulnerable.

It should be obvious from the previous section that we cannot exceed the carrying capacity of the Earth for very long without its natural resources, at some point, becoming exhausted and its natural systems collapsing, posing an enormous threat to health. Yet that is how we are living, especially in high-income countries. In 2018, for example, 48 high-income countries had, on average, an ecological footprint (global hectares per person – gha/person) equivalent to 3.8 planets and a carbon footprint of 4.1gha/person, while 36 low-income countries had, on average, an ecological footprint equivalent to 0.7 planets and a carbon footprint of 0.2 gha/person (22).

This constitutes a form of eco-social injustice, with people in high-income countries generally living well and with good health (there are of course economic, social and health inequalities in these countries), while using far more than their fair share of the Earth’s limited resources. Meanwhile, the health of low-income countries and populations is jeopardized because they get far less than their fair share of natural resources and the wealth that results, while often getting more than their fair share of pollution and ecological harm.

Moreover, high-income countries and people also deprive future generations of their fair share, thus violating the fundamental principle of sustainable development, which is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (23). Or as the Rockefeller-Lancet Commission on Planetary Health noted, in population health terms we are “mortgaging the health of future generations to realise economic and development gains in the present” (15).

This raises the issue of inter-generational equity and the need to think, plan and act with the wellbeing of future generations in mind, an approach that has particular resonance for many Indigenous peoples that use such an approach. If we look ahead 70 years, approximately two generations and almost to the end of the 21<sup>st</sup> century, which is within the projected global life expectancy of an infant born now (WHO estimated a global life

expectancy of 73.4 years in 2019<sup>1</sup>), many of the projections of global ecological change – in particular, climate change – are very troubling. (See Appendix 6 for a more detailed discussion.)

These eco-social health inequities, as well as the issue of inter-generational equity, have important implications for the practice of health promotion at all levels from the local to the global.

## **INDIGENOUS PEOPLES' VOICES AND KNOWLEDGES IN PLANETARY HEALTH<sup>2</sup>**

Much of the ecological devastation caused by unsustainable economic development across the world is founded on the erroneous human construct that humans are separate from the environment, which is seen as an unlimited resource to be exploited. This is the opposite of the Indigenous wisdom that there is an inseparable interaction and contiguity between humanity and the natural environment (24, 25); the part cannot undermine the whole upon which it depends, and of which it is a part.

The global challenges we face have raised greater awareness across the world of this inherent interdependence of all forms of life, and the planet as one system. But this reality is not new to the 476 million Indigenous peoples of the world (26). In fact, viewing humanity as deeply connected with the environment is a central element of Indigenous knowledge systems.

The two Legacy Statements of the 2019 IUHPE World Conference on Health Promotion echo this understanding, with the Waiora Indigenous Peoples' Statement (7) observing:

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<sup>1</sup> <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/ghe-life-expectancy-and-healthy-life-expectancy>

<sup>2</sup> For a more in-depth discussion see Tuitahi et al., (12), from which this section is adapted.

*"Core features of Indigenous worldviews are the interactive relationship between spiritual and material realms, intergenerational and collective orientations, that Mother Earth is a living being – a 'person' with whom we have special relationships that are a foundation for identity, and the interconnectedness and interdependence between all that exists, which locates humanity as part of Mother Earth's ecosystems alongside our relations in the natural world."*

Meanwhile, its companion, the Rotorua Statement (6) noted that planetary health

*"builds on Indigenous peoples' principles of holism and interconnectedness, strengthening public health and health promotion action on ecological and social determinants of health. It puts the wellbeing of people and the planet at the heart of decision-making".*

After centuries of colonisation and oppression, Indigenous Peoples and their knowledge are increasingly recognized as valuable contributors to the future of humanity and the global challenges it is now facing (see Text Box).

Furthermore, in keeping with the challenge of the United Nations Declaration on the Rights of Indigenous peoples (27), the reclamation, restoration and celebration of Indigenous culture, identity and belonging is essential; these principles must underpin the future of health promotion.

***'heed their voices, reward their knowledge and respect their rights'***

*"...Indigenous knowledge, distilled over millennia of close and direct contact with nature, can help to point the way. Indigenous peoples make up less than 6 per cent of the world's population yet are stewards of 80 per cent of the world's biodiversity on land. Already, we know that nature managed by indigenous peoples is declining less rapidly than elsewhere. With indigenous peoples living on land that is among the most vulnerable to climate change and environmental degradation, it is time to heed their voices, reward their knowledge and respect their rights." (1)*

UN Secretary General Antonio  
Guterres (2020)

## THE PLACE OF SPIRITUALITY IN PLANETARY HEALTH

Spirituality is another facet of human life that offers pathways to re-engage with humanity's deep connection with the natural world (28) and to foster environmental awareness, activism and wellbeing in ways that can enhance both health promotion and planetary health. Four-fifths of the world's population practices an established religion or a spiritual tradition (29), which to varying degrees shapes values and behaviour.

Spirituality also relates to the Indigenous perspective noted above, where spirituality is central to holistic wellbeing. As noted earlier, the 2019 Waioara Indigenous Legacy Statement recognized, "Core features of Indigenous worldviews are the interactive relationship between spiritual and material realms..." and that "Mother Earth is a living being" (7). In keeping with Indigenous worldviews, and often counter to the disconnection created by colonial norms, experiences of the natural world continue to inspire spiritual wellbeing.

Many religious traditions have acknowledged and harnessed this spiritual connection with the earth – from hunter-gatherers' worship of nature, to the Indigenous personification of land and sky (30), and formal religions' recognition of the sacredness of the land (31). More recently we have seen many faiths coming together to address climate change and other ecological crises (e.g. GreenFaith - <https://greenfaith.org/>), often with an explicit linkage with long-standing concerns with social justice (e.g. Faith for the Climate - <https://faithfortheclimate.org.uk/>).

Seldom in mainstream health promotion and planetary health action do we work with the spiritualities of Indigenous and other peoples and their institutions, which can work to empower communities and contribute to advancing the health and wellbeing of all, including the health of the environment (32). Proactively highlighting eco-spiritual approaches has the potential to affect fundamental values and behaviour.

A pro-spiritual lens will draw on many of the values that health promotion espouses, such as interdependence, equity, love and kindness (33), that offer hope for a sustainable planet. We need to take this seriously and make spiritualities explicit and ecologically responsible in the new planetary health promotion framework.



## IMPLICATIONS FOR HEALTH PROMOTION

What then should health promotion do in the face of these existential threats to the health of humanity? And what should IUHPE do?

- First, we need to recognize, document and promote the health co-benefits of more sustainable societies and communities, with the recognition that the planet's health and human health are deeply interconnected.
- Second, we can take inspiration from the Geneva Charter, the product of the 10<sup>th</sup> Global Health Promotion Conference, which was held in December 2021. The Charter "expresses the urgency of creating sustainable well-being societies, committed to achieving equitable health now and for future generations without breaching ecological limits" (3).
- Third, as was highlighted at the IUHPE Rotorua conference in 2019, and as has been emphasized in this Background Paper and the Position Statement, we can learn from the values, knowledges and spiritual frameworks of the world's Indigenous people and incorporate them in health promotion practice and education.
- Fourth, we must work with the world's health promotion and education professionals and others to make an eco-social approach to wellbeing a core competency for health promotion and disease prevention.
- Fifth, health promoters must work to ensure equity, well-being and planetary health are at the centre of all decision-making and governance processes. Among other things, this requires the creation of a well-being economy supported by well-being budgets and the development of [healthy public policy for the common good](#)

# Health co-benefits of sustainable societies and communities

Fortunately, there are many health co-benefits of a more sustainable, 'One Planet' way of life and some of these are noted here. While best documented for climate change action (see Text Box), there are health benefits from pollution reduction, more sustainable resource use, preservation of biodiversity, and protection and restoration of nature, among others. These are all areas in which health promotion and public health workers are already active in many communities.

1. **A low/net zero carbon energy system** not only results in large health co-benefits due to reduced global warming but the reduced air pollution results in reductions in respiratory, cardio-vascular and other diseases. The potential gains from reducing or eliminating fossil fuel use are considerable, given that WHO's Special Report on Climate Change and Health states: "The combustion of fossil fuels . . . is a major contributor to air pollution, which kills 7 million people every year" (19).
2. **Active transportation and public transit** (and a "smart growth" or New Urbanist urban form that supports such a system) results in a wide range of health co-benefits including reduced greenhouse gases, reduced air pollution, reduced motor vehicle crash deaths and injuries, increased physical activity and reduced obesity, as well as mental and social health benefits. (34, 35, 19 - section 6).

## The health co-benefits of climate action

"A large body of evidence now shows that climate action aligned with Paris Agreement targets would save millions of lives due to improvements in air quality, diet, and physical activity, among other benefits. . . . The scientific and economic rationale for health co-benefits from climate adaptation and mitigation action is well established, and ranges from reductions in air pollution to more resilient health services, from reduced loss of life from extreme weather events to more active populations, to protected work conditions and increased productivity, from preserved cultural practices to strengthened food security." (19)

*COP26 special report on climate change and health (WHO, 2021, p 21)*

3. **An ecologically sustainable low-meat diet**, as proposed by the EAT Lancet Commission on a healthy and sustainable diet, “confers both improved health and environmental benefits” (36).

While agri-food systems are not strictly speaking a local or community issue, many of the proposals for changing to this more healthy and sustainable diet focus on the importance of local food systems, including local food policy councils, community gardens and community-based agriculture (see e.g. 37).

4. **Increased ‘greening’ of communities**, enabling greater contact with nature, results in many physical, mental, social and spiritual wellbeing benefits (38, 39, 40), as became apparent during the Covid-19 pandemic, when people were encouraged to be outdoors (41,42).

5. **Reduced pollution**: In addition to air pollution, which is largely but not entirely related to fossil fuel combustion, the Lancet Commission on Pollution and Health (21) also addressed both chemical pollution, and soil pollution. The former “is a great and growing global problem”, although the Commission notes “the effects of chemical pollution on human health are poorly defined and its contribution to the global burden of disease is almost certainly underestimated”. (See also 18)

6. **Increased biodiversity** –WHO has recognized the importance of biodiversity and ‘ecosystem services’ for the health of the population for many years (43). In particular, it has in recent years worked with the Secretariat of the Convention on Biological Diversity to explore

**Healthy, sustainable, and resilient food systems.#**

“Currently, our food systems are making us ill with approximately 1 in 5 deaths - 11 million deaths every year - associated with unhealthy diets, as well as an additional 2.7 million deaths each year from zoonoses directly linked to our food systems. The numbers are staggering: 690 million people are hungry, 2 billion people have micronutrient deficiencies, and there are over 670 million adults with obesity.

A food production transformation would require, on average, a more than doubling of the consumption of nutritious foods, while reducing the consumption of unhealthy foods and beverages by more than half.” (19)

*COP26 special report on climate change and health (WHO, 2021, p 47)*

“Chemical events arising from technological incidents, natural disasters, conflict and terrorism, polluted environments, and contaminated foods and products are common and occur worldwide. Between 2000 and 2020, there were over 1000 technological incidents involving chemicals worldwide, affecting over 1.85 million people.”

*WHO Compendium on Health and Environment -*

<https://www.who.int/tools/compendium-on-health-and-environment/chemicals>

and understand this issue (44) and has established a Joint Work Programme.<sup>3</sup>

As Chivian and Bernstein put it: “human beings are an integral, inseparable part of the natural world. . . our health depends ultimately on the health of its species and on the natural functioning of its ecosystems” (45).

This is by no means an exhaustive list, but these are areas in which large health and environmental co-benefits can be expected, and where much activity is already underway in many communities around the world. Other areas of importance include conservation and restoration of natural habitat; management, control and elimination of toxic materials; reduction in consumption of ‘stuff’ and a move to zero waste, and protection of watersheds and water quality. All of these changes will benefit both the environment and the health of the community, making them legitimate and important areas of work for planetary health promoters.

“Biodiversity has many more strong links to health; examples include the prevention of infectious disease outbreaks and pandemics, nutritional diversity and food security, and the provision of medicines. Ecosystems and biodiversity are directly threatened by human activities such as land use change, overexploitation of resources, climate change, pollution and invasive alien species. Reducing pressure on the natural environment, from deforestation to intensive and polluting agricultural practices, to unsafe management and consumption of wildlife, will protect the environment that humans rely on, for their health and ultimately their economy”.

*WHO Compendium on Health and Environment -*

<https://www.who.int/tools/compendium-on-health-and-environment/nature-and-health>

## Create sustainable well-being societies and communities

*Well-being societies provide the foundations for all members of current and future generations to thrive on a healthy planet, no matter where they live.*

*“A healthy planet is essential to the health and well-being of current and future generations and for enabling all to flourish. Well-being societies prioritize a rapid, just transition to a low-carbon economy . . . provide access to clean energy for all, enhance biodiversity, reduce resource depletion and pollution, support harmonious relations between humans and Nature, and center Indigenous knowledge and leadership.”*

***The Geneva Charter for Well-being, December 2021 (3)***

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<sup>3</sup> <https://www.who.int/news/item/01-01-2020-biodiversity-and-health-the-who-cbd-joint-work-programme>

The massive and rapid global ecological changes that we have created across multiple Earth systems constitute the greatest threat to the health of humanity – and to health equity - in the 21<sup>st</sup> century, right up there with nuclear war and a challenge far greater than the Covid-19 pandemic. This is a global existential crisis.

Addressing this challenge will require profound changes to the dominant economic and social development model that is the cause of these problems – and in the underlying values that drive this model, and that are not fit for purpose in the 21<sup>st</sup> century. In fact, this is the focus of the Geneva Charter for Well-being (3), which notes that creating well-being societies requires coordinated action in five areas, the first two of which are the need to

- Value, respect and nurture planet Earth and its ecosystems
- Design an equitable economy that serves human development within planetary and local ecological boundaries.

**“Well-being societies** provide the foundations for all members of current and future generations to thrive on a healthy planet, no matter where they live. Such societies apply bold policies and transformative approaches that are underpinned by:

- a positive vision of health integrating physical, mental, spiritual and social well-being;
- the principles of human rights, social and environmental justice, solidarity, gender and inter-generational equity, and peace;
- a commitment to sustainable low carbon development grounded in reciprocity and respect between humans and making peace with Nature;
- new indicators of success beyond GDP that take account of human and planetary wellbeing and lead to new priorities for public spending;
- the focus of health promotion on empowerment, inclusivity, equity, and meaningful participation.

*Geneva Charter for Well-being (3)*

The importance of creating a new social and economic model was famously made by Bhutan as long ago as 1972 in its development of Gross National Happiness as a replacement for GDP ([Centre for Bhutan and GNH Studies](#)). A new economics focused on wellbeing is needed (46, 47). Interestingly, Aotearoa New Zealand is one of the first countries to actually develop a [Wellbeing budget](#). Also needed are new legal, political and even spiritual understandings; the breadth and depth of changes needed in the core societal values and norms that underlie these systems are profound. (48)

Planetary health and the necessary ethical, social, economic and other changes must therefore be the primary focus of health promotion- “the top, top priority”, as Mr Guterres put it - in the 21<sup>st</sup> century, at all scales from the global to the local.

### *Local action*

*"Make all urban and other habitats inclusive, safe, resilient, sustainable and conducive to health and wellbeing for people and the planet".*

*(One of four key action areas highlighted in the Rotorua Statement, IUHPE, 2019)*

For many whose lives and work are more locally-based, the question is not how we change global or national systems, but what we can do in our own backyards, both in our work lives and in our lives as citizens and community members. How do we take the global concepts discussed above and apply them locally, and what does it mean for health promotion practice?

For almost 40 years, WHO has been putting the principles of health promotion into practice at the local level through its Healthy Cities and Communities initiative. Rooted as it is in the Ottawa Charter for Health Promotion, with its reference to ecosystem stability and resource sustainability, the Healthy Cities approach had as the second parameter of a healthy city "an ecosystem which is stable now and sustainable in the long term" (49).

A 1996 WHO Europe book was focused on "*Policies and Action for Health and Sustainable Development*" (50) and this focus has become more prominent with time (51, 52). More recently, IUHPE'S GWG on Waiora Planetary Health has addressed this issue:

"Local health promotion in the 21st century needs to incorporate the concept of planetary health promotion and its application in the creation of healthy 'One Planet' communities and must become part of the emerging network of community organisations and individuals working to create sustainable, just and healthy communities." (53)

Many of the co-benefits noted in the previous section are very relevant to local action, with municipal governments playing a pivotal role with respect to urban planning and development, transportation, parks, public works and other activities. Clearly, health promoters need to strengthen their links with municipal governments as well as with local community organisations working to create more healthy, just and sustainable communities. (For examples see (53), as well as articles published in the journal *Cities and Health*.)

## **Incorporate Indigenous knowledges and spiritual dimensions<sup>4</sup>**

*"We call on the health promotion community and the wider global community to make space for and privilege Indigenous peoples' voices and Indigenous knowledges in taking action with us to promote the health of Mother Earth and sustainable development for the benefit of all."*

Waiora – Indigenous Peoples' Statement, *IUHPE 2019* (7)

The UN Department of Social and Economic Development Affairs (54) acknowledges 'the crucial role of Indigenous knowledge for achieving the Sustainable Development Goals (SDGs) and for addressing the most pressing global problems is gaining international traction. Additionally, Indigenous knowledge also "offers tremendous opportunities in such areas as land management, conservation, and scientific, technological and medical research."

Referring to our collective effort to counter Covid-19, the UN Secretary General also pointed out that, averting climate cataclysm and restoring our planet "is an epic policy test. But ultimately this is a moral test". (8) Indigenous knowledges offer myriad lessons for this moral test, especially spiritual dimensions (as discussed above), and also underscore the benefits of disrupting harmful patterns across numerous domains (55, 56, 57, 24, 32, 54, 58).

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<sup>4</sup> This text is largely taken from Tuitahi et al., 2021, with some revisions and additions

Indigenous health promotion models (59, 32) show that as custodians, humans not only should live sustainably within the environment, but they must also adopt a collaborative and equitable approach in their relationship with fellow human beings. In fact, that cuts both ways, as Canada's Truth and Reconciliation Commission (60) has noted with respect to reconciliation between non-Indigenous and Indigenous people: "reconciliation will never occur unless we are also reconciled with the earth" (see text Box).

This is why fundamental guiding principles such as reciprocity, love, respect, humility and justice are pivotal to the worldview and daily, practical living of Indigenous peoples.

A key task for health promotion in the 21<sup>st</sup> century is to create spaces where Indigenous Peoples can be recognized as leaders, inspiring and informing ways to incorporate these values, principles and ways of knowing into health promotion practice. Indigenous leadership is

offering new opportunities for the health promotion community to fulfill its obligations to the future (61, 62).

Health promotion can offer an exemplar of leadership by promoting values that privilege the long-standing wisdom of Indigenous worldviews and re-establishing a reverence for nature. As already noted – but it bears repeating – the UN Secretary General recently stated with respect to Indigenous people in the context of the growing ecological crises, "it is time to heed their voices, reward their knowledge and respect their rights" (1).

### ***Reconciliation with the natural world***

*"Reconciliation between Aboriginal and non-Aboriginal Canadians, from an Aboriginal perspective, also requires reconciliation with the natural world. If human beings resolve problems between themselves but continue to destroy the natural world, then reconciliation remains incomplete.*

*This is a perspective that we as Commissioners have repeatedly heard: that reconciliation will never occur unless we are also reconciled with the earth. Mi'kmaq and other Indigenous laws stress that humans must journey through life in conversation and negotiation with all creation. Reciprocity and mutual respect help sustain our survival."*

The Truth and Reconciliation Commission of Canada (2015) *What We Have Learned: Principles of Truth and Reconciliation*. (p's 122 – 123)

## **Make an eco-social approach to wellbeing a core competency for health promotion**

The creation of Well-being societies, as called for in the Geneva Charter for Health Promotion (3) requires the recognition of the importance of both the social and the ecological determinants of health. As already noted, these are not separate but inter-related determinants; to change the ecological



conditions of the Earth, we have to change the social conditions of society, since it is the latter that have precipitated the ecological crises we face.

If health promotion is “the process of enabling people to increase control over, and to improve, their health”, as the Ottawa Charter states (10), then in an age of planetary health – which is after all “the health of human civilisation and the state of the natural systems on which it depends” (15) - this means that people, both individually and collectively, must be able to influence and shape both the social and ecological determinants of their health. This requires an integrated eco-social approach at all levels from the personal to the global.

Enabling this to happen is the task of health promotion. Which argues for health promoters in the 21<sup>st</sup> century to be as competent in their knowledge of the ecological determinants of health and of planetary health as they are of the social determinants of health, to understand their interactions, and to have the competencies needed to apply an eco-social approach to wellbeing at all levels from the personal to the global.

## Ensure equity, well-being and planetary health are at the centre of all decision-making

The third action area in the Geneva Charter for Well-being (3) is to [develop healthy public policy for the common good](#) (see Text Box)

1. Place an eco-social understanding of human wellbeing at the centre of all decisions and measure progress in terms of sustainable human and social development.

2. Create a Well-being budget in which a social foundation is met for all, within the ecological constraints of planetary boundaries. In particular:

- Measure wealth in terms of inclusive wealth, in particular incorporating the value of nature into assessments of national wealth
- Replace GDP as the measure of economic progress with an

### Develop healthy public policy for the common good

*“In a well-being society, governments are the stewards of all society’s assets for a healthy, sustainable, equitable planet on behalf of current and future generations. Governments are accountable to their people and ensure their participation in governance. Well-being forms a new social contract and provides a compass for public policy, including budgetary and regulatory decisions, to achieve better outcomes for individuals, communities and society. Governance at all levels, from local to global, is committed to realizing the Sustainable Development Goals, pursuing multisectoral policies for health and a fair global distribution of health-enabling resources. Elimination of all forms of structural discrimination and injustice, including marginalization, which impact people in multiple ways, is essential for ensuring the right to health for all. Partnerships with a vibrant civil society are nourished to strengthen the social fabric and social solidarity locally and internationally.” (3)*

Geneva Charter for Well-being  
(WHO, 2021)

- alternative such as the GPI
- In particular press for the adoption at all levels of the recommendations in the WHO's Manifesto for a Healthy Recovery (2), the WHO Special Report on Climate Change and Health (19) and the WHO recommendations for action on World Health Day (63) [See Appendices 7, 8 and 9]

## ACTION AGENDA

The IUHPE Action Agenda for Planetary Health Promotion and Indigenous Knowledge includes:

- IUHPE's own commitments to action
- IUHPE's recommendations for action to:
  - Health promotion practitioners
  - Health promotion educators and researchers
  - National governments
  - WHO and other UN organisations.

### **IUHPE's commitments to action**

1. As recognised in the Ottawa Charter and affirmed in the Geneva Charter, the IUHPE recognises that health is eco-social in nature and that the health of humanity depends upon ensuring an adequate social foundation for everyone while living within the ecological limits of the Earth. Accordingly, IUHPE joins with the WHO in calling for the creation of Well-being societies "committed to achieving equitable health now and for future generations without breaching ecological limits".

2. The IUHPE's 2021 – 2026 Strategic Plan identifies the "determinants of health, planetary health and the sustainable development goals" as the first of three strategic priorities. Within that priority, the following two objectives speak directly to the theme of planetary health, and the IUHPE thus commits itself to:

- Enhancing a planetary consciousness in health promotion, and
- Incorporating an eco-social understanding of human wellbeing into health promotion, making it transformative and more effective.

3. The IUHPE commits to:

3.1: Incorporating into the IUHPE competencies and standards an eco-social approach to planetary health and human wellbeing, including:

- a. Incorporating Indigenous values, knowledges, teachings
- b. Incorporating a reverence for nature and a recognition of the place of spirituality in planetary health.

3.2: Ensuring that planetary health is an integral part of IUHPE policies, initiatives and resources, such as its regional and world conferences. This includes

- a. Ensuring that planetary health is a stream at all IUHPE conferences
- b. Incorporating Indigenous values, knowledges and teachings in IUHPE policies, initiatives and resources, such as its regional and world conferences
- c. Incorporating a reverence for nature and a recognition of the place of spirituality in planetary health in IUHPE policies, initiatives and resources, such as its regional and world conferences

3.3: Establishing a pool of educational resources on planetary health for the teaching of health promotion across the world

- a. Incorporate Indigenous values, knowledges, teachings
- d. Incorporate a reverence for nature and a recognition of the place of spirituality in planetary health.

3.4: Supporting the development of local and national hubs of a movement for planetary health

- a. Incorporate Indigenous values, knowledges, teachings
- e. Incorporate a reverence for nature and a recognition of the place of spirituality in planetary health

4. IUHPE will advocate for the creation of a UN or WHO Global Commission on Planetary Health and for the adoption by governments of the Well-being society concept and approach.

5. IUHPE will explore the need for an IUHPE GWG on Health Promotion and Spirituality.

### **IUHPE's recommendations for action to health promotion practitioners**

1. Learn about the ecological determinants of health and planetary health, how the ecological and social determinants of health interact, how they manifest in the places where you work and in the context of a Well-being society or community, and how to apply an eco-social approach to your work.
2. Learn about the concept of a Well-being society, as defined in the WHO's Geneva Charter and elsewhere, and consider the implications for action where you work.
3. Learn about Indigenous values, knowledges and teachings, reach out to and work with Indigenous people if they are present in the region where you work, and where possible incorporate Indigenous

values, knowledges and teachings, and a reverence for nature, in your work.

4. Advocate for the incorporation of these concepts, values and principles in public policy at all levels,

- In particular press for the adoption at all levels of the recommendations in the WHO's Manifesto for a Healthy Recovery, the WHO Special Report on Climate Change and Health, and the WHO recommendations for action on World Health Day (see Appendices 7, 8 and 9).

### **IUHPE's recommendations for action to health promotion educators and researchers**

1. Incorporate into the core curriculum learning about:

- The ecological determinants of health and planetary health, how the ecological and social determinants of health interact, and how to apply an eco-social approach in health promotion.
- The concept of a Well-being society, as defined in the WHO's Geneva Charter and elsewhere, and the implications for health promotion action.
- Indigenous values, knowledges and teachings (taught by and with Indigenous people wherever possible), and a reverence for nature.

2. Undertake research into the same three areas identified above.

### **IUHPE's recommendations for action to national governments**

1. Place wellbeing and planetary health at the centre of all decisions and measure progress in terms of sustainable human and social development.

- Engage with and learn from Indigenous people in this process
- Monitor, assess and report regularly on the ecological and social determinants of health and the state of planetary health.

2. Create a Well-being budget in which a social foundation is met for all, within the ecological constraints of planetary boundaries. In particular:

- Measure wealth in terms of inclusive wealth, in particular incorporating the value of nature into assessments of national wealth
- Replace GDP as the measure of economic progress with an alternative such as the GPI

3. Develop healthy public policy for the common good at all levels, with particular reference to the recommendations in the WHO's Manifesto for a Healthy Recovery, the WHO Special Report on Climate Change and Health, and the WHO recommendations for action on World Health Day (see Appendices 7, 8 and 9).
4. Prioritise, fund and support research into the safeguarding of planetary health and the creation of a well-being society
5. Engage the public in the process of understanding and addressing the ecological, social, economic and cultural challenges of the 21<sup>st</sup> century.

### **IUHPE's recommendations for action to WHO and other UN organisations**

Recognising the strong leadership of the UN Secretary General on 'making peace with nature', the WHO's strong leadership on climate change and health and the UNDRIP and various UN organisations that have emphasized the value and importance of Indigenous worldviews and knowledges, IUHPE recommends:

1. WHO should extend its leadership on climate change and health to issues of planetary health
  - In particular, the UN or WHO should establish a Global Commission on Planetary Health
2. The various UN organisations that have emphasized the value and importance of Indigenous worldviews and knowledges and partnership with Indigenous people must continue to do so.
3. The UN Secretary General ensure that planetary health and 'making peace with nature' are central to the continued work of the UN.
  - In particular, the UN Secretary General should ensure that planetary health and 'making peace with nature' are central to the planned Summit of the Future in 2024.

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63. WHO (2022) *What can you do to protect our planet and our health?* (Recommendations from WHO for World Health Day 2022: Our Planet, Our Health) <https://www.who.int/campaigns/world-health-day/2022/recommended-actions-to-protect-our-planet-our-health>

## Appendix 1: Key excerpts from “Waiora – Indigenous Peoples’ Statement for Planetary Health and Sustainable Development”

[https://www.iuhpe.org/images/CONFERENCES/world/2019/Indigenous\\_People\\_statement\\_final.pdf](https://www.iuhpe.org/images/CONFERENCES/world/2019/Indigenous_People_statement_final.pdf)

Core features of Indigenous worldviews are the interactive relationship between spiritual and material realms, intergenerational and collective orientations, that Mother Earth is a living being

Understanding our place in the natural world in relational ways leads us to consider how access to the natural environment shapes human health and wellbeing, the impacts of our activities on the environment, and our inalienable collective responsibilities of stewardship which will benefit future generations. Within Indigenous worldviews our relationship with the natural world is characterised by reverence and values that include sustainability, guardianship and love. Planetary health is understood as the health and wellbeing of Mother Earth and of humanity as an inextricable part of natural ecosystems.

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Core features of Indigenous worldviews are the interactive relationship between spiritual and material realms, intergenerational and collective orientations, that Mother Earth is a living being – a ‘person’ with whom we have special relationships that are a foundation for identity, and the interconnectedness and interdependence between all that exists, which locates humanity as part of Mother Earth’s ecosystems alongside our relations in the natural world.

Understanding our place in the natural world in relational ways leads us to consider how access to the natural environment shapes human health and wellbeing, the impacts of our activities on the environment, and our inalienable collective responsibilities of stewardship which will benefit future generations. Within Indigenous worldviews our relationship with the natural world is characterised by reverence and values that include sustainability, guardianship and love. Planetary health is understood as the health and wellbeing of Mother Earth and of humanity as an inextricable part of natural ecosystems.

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Ecological collapse is the greatest threat to human health and survival globally. Health promotion (policy, research, education and practice) needs to change to effectively respond to the challenges of the anthropocene and bring intergenerational health equity into its systems and frameworks. Engaging with indigenous worldviews and bodies of knowledge provides opportunities to find solutions to this most pressing threat and ways forward to promote the health of Mother Earth and sustainable development.

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## Appendix 2: Key excerpts from “Rotorua Statement - WAIORA: Promoting Planetary Health and Sustainable Development for All”

[https://www.iuhpe.org/images/CONFERENCES/world/2019/Rotorua\\_statement\\_final.pdf](https://www.iuhpe.org/images/CONFERENCES/world/2019/Rotorua_statement_final.pdf)

Planetary health is the health of humanity and the natural systems of which we are part.<sup>1</sup> It builds on Indigenous peoples’ principles of holism and interconnectedness, strengthening public health and health promotion action on ecological and social determinants of health. It puts the wellbeing of people and the planet at the heart of decision-making, recognising that the economy, as a social construct, must be a supportive tool fit for this purpose in the 21st century.

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Urgent action is needed because mounting evidence tells us that the current economic and social development paradigm of infinite growth and endless exploitation of limited natural resources is unjust and unsustainable, leading to inequities within and among countries and across generations.

### **Conference participants call for immediate action from the global community in four key areas.**

- 1. Ensure health equity throughout the life course, within and among countries, and within and across generations.*
- 2. Make all urban and other habitats inclusive, safe, resilient, sustainable and conducive to health and wellbeing for people and the planet.*
- 3. Design and implement effective and fair climate change adaptation strategies.*
- 4. Build collaborative, effective, accountable and inclusive governance, systems and processes at all levels to promote participation, peace, justice, respect of human rights and intergenerational health equity.*

## Appendix 3: Related publications and presentations by the Waioara GWG and its members

### Publications

#### GWG publications

Tuitahi, Sione; Watson, Huti; Egan, Richard, Parkes, Margot and **Hancock, Trevor** (2021) Waioara: The importance of Indigenous worldviews and spirituality to inspire and inform Planetary Health Promotion in the Anthropocene. *Global Health Promotion* 28(4): 73 –82 (Special supplement for the IUHPE 2022 Conference, Montreal, on behalf of the IUHPE's Global Working Group on Waioara Planetary Health)

<https://doi.org/10.1177/1757975921106226>

<https://journals.sagepub.com/doi/pdf/10.1177/17579759211062261>

Hancock, Trevor (2021) Towards Healthy One Planet Cities and Communities: Planetary Health Promotion at the Local Level *Health Promo Int'l* 36(Supp 1): i53–i63 (Special supplement for the WHO Global Health Promotion Conference, Dubai, on behalf of the IUHPE's Global Working Group on Waioara Planetary Health)

<https://doi.org/10.1093/heapro/daab120>

#### GWG members' publications

Aragón de León, Emilia; Shriwise, Amanda; Tomson, Göran; Morton, Stephen; Simão Lemos, Diogo; Menne, Bettina and **Dooris, Mark** (2021) Beyond building back better: imagining a future for human and planetary health. *Lancet Planet Health* 5: e827–39

Hancock, Trevor (2022) "Gaia – The Ultimate setting for health promotion" - 2 chapters in Kokko, S and Baybutt, M (Eds) *Handbook of Settings-based Health Promotion* Springer

- Chapter 14: Gaia and the Anthropocene – The ultimate determinant of health
- Chapter 15: Health promotion in the Anthropocene

Redvers, Nicole; Faerron Guzmán, Carlos A and **Parkes, Margot W** (2023) Towards an educational praxis for planetary health: a call for transformative, inclusive, and integrative approaches for learning and relearning in the Anthropocene. *Lancet Planet Health* 7: e77–85

Webb, Jena; Raez-Villanueva, Sergio; Carrière, Paul D; Beauchamp, Audrey-Anne . . . **Parkes, Margot** et al. (2023) Transformative learning for

a sustainable and healthy future through ecosystem approaches to health: insights from 15 years of co-designed ecohealth teaching and learning experiences. *Lancet Planet Health* 7: e86–96

GWG presentations

Waiora: A 70-70 vision for planetary health promotion with an Indigenous framing

Presented as part of the IUHPE's 70th Anniversary webinar series, 6 December 2021

<https://www.youtube.com/watch?v=X43BUU-t-yM>

Promoting Planetary Health and Human Wellbeing for Our Survival - Waiora  
Planetary Health Global Working Group

Presented at the Nova Annual Conference—Thursday 2 December, 2021

<https://www.youtube.com/watch?v=XxpFOgxedsc>



## Appendix 4: IUHPE World Health Day 2022 statement



*Written by Dr. Trevor Hancock, member of the IUHPE Global Working Group on Waiora Planetary Health and Human Wellbeing.*

<https://www.iuhpe.org/index.php/en/iuhpenews/1414-iuhpe-whd>

### **Our Planet, Our Health, Our Health Promotion Task**

Today, April 7<sup>th</sup>, we join people around the world in celebrating World Health Day, marking the 74<sup>th</sup> anniversary of the founding of the World Health Organization (WHO). This year WHO has chosen the theme of '[Our Planet, Our Health](#)', in order to "focus global attention on urgent actions needed to keep humans and the planet healthy and foster a movement to create societies focused on well-being."

This reflects a growing global concern about what we are doing to the Earth, and what that means for the well-being of humanity – and the wellbeing, indeed the very survival in many cases, of all the other species with whom we share the Earth. Our actions were summed up bluntly and succinctly by Antonio Guterres, the UN Secretary General, in December 2020: "Humanity is waging war on nature . . . this is suicidal."

On its World Health Day 2022 website, the WHO is equally clear and blunt:

*"WHO estimates that more than 13 million deaths around the world each year are due to avoidable environmental causes. This includes the climate crisis which is the single biggest health threat facing humanity. The climate crisis is also a health crisis."*

The IUHPE has recognised the importance of planetary health for some years. The theme for our 2019 Global Conference on Health Promotion,

held in Rotorua, Aotearoa New Zealand, was 'WAIORA: Promoting Planetary Health and Sustainable Development for All'.

Reflecting the important role of the Maori people as co-hosts of the conference, there was a strong emphasis on Indigenous perspectives and knowledge throughout the conference. This was also reflected in the use of the Maori word 'Waiora' in the title; the word "means water in its purest, life-giving form" but "is linked more specifically to the natural world and includes a spiritual element that connects human wellness with cosmic, terrestrial and water environments. It is a call to share knowledge from our diverse cultural systems for the wellbeing of the planet and humanity."

In the [Conference Statement](#)

*"participants call on the global community to urgently act to promote planetary health and sustainable development for all, now and for the sake of future generations",*

while the [Indigenous Peoples' Statement](#) noted:

*"We call on the health promotion community and the wider global community to make space for and privilege Indigenous peoples' voices and Indigenous knowledges in taking action with us to promote the health of Mother Earth and sustainable development for the benefit of all."*

One result of the conference was the creation of the IUHPE Global Working Group on Waiora Planetary Health and Human Wellbeing (Waiora GWG). The GWG is helping IUHPE and the health promotion field focus on planetary health, and to recognise and pay attention to Indigenous peoples' voices and Indigenous knowledges in working to protect and heal Mother Earth and promote the wellbeing of people and the myriad species with whom we share this small planet that is our one and only home.

Thus IUHPE strongly supports the theme of 'Our Planet, Our Health', having made planetary health part of our strategic priorities for its [2021 – 2026 Strategic Plan](#). IUHPE is determined to enhance a planetary consciousness in health promotion, and to incorporate an eco-social understanding of planetary health and human wellbeing into health promotion, making it transformative and more effective.

We strongly encourage the health promotion field, and indeed governments and societies as a whole, to embrace the concept of planetary health and to heed WHO's call in the Geneva Charter to create Well-being societies that are "committed to achieving equitable health now and for future generations without breaching ecological limits".

IUHPE is convinced planetary health is central to health promotion policy and practice in the 21<sup>st</sup> century, and that it must become a core subject not

only in the education and training of health promotion practitioners but all health practitioners. And it must be linked to the social determinants of health, recognising both that social values drive social and economic development and thus ecological change, but that social and ecological injustice co-exist and must be addressed together.

Finally, IUHPE encourages health promoters and other health professionals around the world to [take the Planetary Health Pledge](#). A shortened version, based on [the Pledge in the Lancet in 2020](#), has been developed by Doctors for Planetary Health – West Coast. They suggest making a video of yourself taking the pledge - alone or together with colleagues, - and posting it to social media, with the hashtags

#PlanetaryHealthPledge #HealthierTomorrow #ClimateJustice #OneHealth #ActNow

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### Further reading

- Tuitahi, Sione; Watson, Huti; Egan, Richard, Parkes, Margot and Hancock, Trevor (2021) Waioara: The importance of Indigenous worldviews and spirituality to inspire and inform Planetary Health Promotion in the Anthropocene. *Global Health Promotion* 28(4): 73 – 82 (Special supplement for the IUHPE 2022 Conference, Montreal, on behalf of the IUHPE's Global Working Group on Waioara Planetary Health) <https://doi.org/10.1177/1757975921106226>

<https://journals.sagepub.com/doi/pdf/10.1177/17579759211062261>

- Hancock, Trevor (2021) Towards Healthy One Planet Cities and Communities: Planetary Health Promotion at the Local Level *Health Promo Int'l* 36(Supp 1): i53–i63 (Special supplement for the WHO Global Health Promotion Conference, Dubai, on behalf of the IUHPE's Global Working Group on Waioara Planetary Health) <https://doi.org/10.1093/heapro/daab120>

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### Useful links

- **World Health Day 2022 - Our planet, our health**

<https://www.who.int/campaigns/world-health-day/2022>

- **WHO - What can you do to protect our planet and our health?**

<https://www.who.int/campaigns/world-health-day/2022/recommended-actions-to-protect-our-planet-our-health>

- **WAIORA: Promoting Planetary Health and Sustainable Development for All (Rotorua Statement)**

[https://www.iuhpe2019.com/PicsHotel/iuhpe/Brochure/Rotorua%20Statement%20For%20Closing%20Plenary%20Revised%20\(1\).pdf](https://www.iuhpe2019.com/PicsHotel/iuhpe/Brochure/Rotorua%20Statement%20For%20Closing%20Plenary%20Revised%20(1).pdf)

- **Waiora – Indigenous Peoples’ Statement for Planetary Health and Sustainable Development**

<https://www.iuhpe2019.com/PicsHotel/iuhpe/Brochure/Indigenous%20Statement%20for%20Plenary%20Revised.pdf>

- **IUHPE Strategic Plan: 2021-2026**

<https://www.iuhpe.org/index.php/en/iuhpe-activities/strategy-and-governance/1411-governance-2>

- **Planetary Health Alliance**

<https://www.planetaryhealthalliance.org/>

## Appendix 5: The Anthropocene

The information below is drawn from the Waiora GWG's article in *Global Health Promotion* and in the related supplementary file "70 years back, 70 years ahead: human wellbeing and planetary health in 1950, today and in 2090/2100" (Tuitahi, Watson, Egan, Parkes and Hancock, 2021).

- ***The Anthropocene is much more than just climate change, important though that is.*** We have crossed or are approaching planetary boundaries that should not be transgressed in a number of key Earth systems (Steffen, Richardson, Rockström et al, 2015)
- ***These massive changes have occurred very recently, in ecological or geological terms.*** The Anthropocene Working Group of the International Stratigraphic Commission (2019) has proposed the mid-20<sup>th</sup> century as the start of the Anthropocene. This is only 70 years ago, within the lifetime of many people alive today – and about the time that IUHPE was created, which was 1951.
- ***Since the mid-20<sup>th</sup> century there has been a 'Great Acceleration' in the trends of both socio-economic and Earth System conditions,*** with the former growing swiftly while the latter have declined equally swiftly (Steffen, Broadgate, Deutsch et al, 2015).
- ***Overall, humanity's Ecological Footprint*** - the amount of biocapacity we use as resources, to extract resources and to dispose of wastes – ***exceeded the biocapacity of the one and only planet we have to live on in about 1970;*** it is now equivalent to 1.7 Earths annually (Global Footprint Network, 2019).
- At the same time, and really as a result of this massive and rapid increase in humanity's appropriation of ecosystems goods and services and its impact on natural systems, ***the Living Planet Index (LPI) has declined precipitately since 1970.*** The LPI, which monitors almost 20,811 populations of 4,392 species of land, freshwater and marine vertebrates (mammals, birds, fish, amphibians, reptiles), has ***declined 68% between 1970 and 2016,*** the latest date for which data is available (WWF, 2020).
- ***The decline in the LPI is even more dramatic and alarming in some regions and ecosystems.*** It has declined 94% in the tropical sub-regions of the Americas, while the Freshwater Living Planet Index has declined by an average of 84% (WWF, 2020).
- The UN Environment Programme notes ***"Pollution causes some 9 million premature deaths annually*** and millions more die every year from other environment-related health risks"

- The Secretariat of the Convention on Biological Diversity (2020) notes ***“Biodiversity is declining at an unprecedented rate, and the pressures driving this decline are intensifying”***, while, the chair of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) stated:  

“The health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever. ***We are eroding the very foundations of our economies, livelihoods, food security, health and quality of life worldwide***” (Watson, 2019).
- ***We have triggered a sixth Great Extinction*** (Ceballos, Ehrlich and Raven, 2020), thereby depriving many other species of their rights to even exist.
- In 2018, 48 high-income countries had, on average, an ecological footprint (global hectares per person – gha/person) equivalent to 3.8 planets and a carbon footprint of 4.1gha/person, while 36 low-income countries had, on average, an ecological footprint equivalent to 0.7 planets and a carbon footprint of 0.2 gha/person (York University Ecological Footprint Initiative & Global Footprint Network, 2022).
- The International Resource Panel (2017) reports that global resource use more than tripled between 1970 and 2017, “with high-income countries consuming ten times more per person than low-income countries”.

## APPENDIX 6: Looking ahead 70 years

This text is drawn from the Waiora GWG's article in *Global Health Promotion* and in the related supplementary file "70 years back, 70 years ahead: human wellbeing and planetary health in 1950, today and in 2090/2100" (Tuitahi, Watson, Egan, Parkes and Hancock, 2021) - [sj-docx-2-ped-10.1177\\_17579759211062261.docx](#)

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This Position Statement comes at a time when IUHPE has just celebrated its 70<sup>th</sup> anniversary, taking us back to the mid-20<sup>th</sup> century, which is also the suggested start date for the Anthropocene. But we should also look forward 70 years, approximately two generations and almost to the end of the 21<sup>st</sup> century, because many of the projections of global ecological change – in particular, climate change, extend that far.

Moreover, 70 years ahead is within the projected global life expectancy of an infant born now (WHO estimated a global life expectancy of 73.4 years in 2019<sup>5</sup>), so they can be expected to be alive in 2100, and to experience whatever legacy we leave for them. In addition, we know it is going to take many years, indeed decades and even generations, to bring about the changes that might enable them to experience a high level of wellbeing while living in balance with the Earth.

Admittedly, it is difficult if not impossible to predict where we will be in another 70 years. To get some sense of the challenge, try to imagine predicting, in 1950, the internet, Google and Twitter; the extent of climate change, micro-plastic pollution of the ocean and species extinction in 2020; or the rejection of smoking and the acceptance of gay marriage in many parts of the world. Many of these were then in the realm of science fiction!

Nonetheless, we can be reasonably sure that population growth will continue at least until 2050, and probably until 2100, as will urbanization and economic development. As a result, states the UNEP's GEO-6 Environmental Outlook, "the demand for food, water and energy will strongly increase towards 2050" (19, p.486).

GEO-6 finds that for 9 of the 10 natural resource base areas of concern, not only will the target for improvement by 2050 not be met, the trend is in the wrong direction and the situation is actually expected to be worse – often, far worse – than the situation in 2020. This will have profound implications for health; if ecosystems decline or collapse, all bets about the future health of the population are off! (for more detail, see the supplementary

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<sup>5</sup> <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/ghe-life-expectancy-and-healthy-life-expectancy>

file “70 years back, 70 years ahead: human wellbeing and planetary health in 1950, today and in 2090/2100” associated with the Waiora GWG’s article in *Global Health Promotion* (Tuitahi, Watson, Egan, Parkes and Hancock, 2021).

As Mother Earth is the sustainer of all life, the health sector and health promotion are therefore obliged to seek solutions to address these concerns. In responding to this call, we view attention to Indigenous voices and spirituality as critical to next-generation health promotion practice.



## APPENDIX 7: Recommendations from WHO Manifesto for a Healthy Recovery from COVID-19

<https://www.who.int/publications/m/item/who-manifesto-for-a-healthy-recovery-from-covid-19>

### **1) Protect and preserve the source of human health: Nature.**

Economies are a product of healthy human societies, which in turn rely on the natural environment - the original source of all clean air, water, and food. Human pressures, from deforestation, to intensive and polluting agricultural practices, to unsafe management and consumption of wildlife, undermine these services. They also increase the risk of emerging infectious diseases in humans – over 60% of which originate from animals, mainly from wildlife<sup>iv</sup>. Overall plans for post-COVID-19 recovery, and specifically plans to reduce the risk of future epidemics, need to go further upstream than early detection and control of disease outbreaks. They also need to lessen our impact on the environment, so as to reduce the risk at source.

**2) Invest in essential services, from water and sanitation, to clean energy in healthcare facilities.**<sup>[1]</sup> Around the world, billions of people lack access to the most basic services that are required to protect their health, whether from COVID-19, or any other risk. Handwashing facilities are essential for the prevention of infectious disease transmission, but are lacking in 40 % of households<sup>v</sup>. Antimicrobial-resistant pathogens are widespread in water and waste and their sound management is needed to prevent the spread back to humans.

In particular it is essential that health care facilities be equipped with water and sanitation services, including the soap and water that constitutes the most basic intervention to cut transmission of SARS-CoV-2 and other infections, access to reliable energy that is necessary to safely carry out most medical procedures, and occupational protection for health workers.

Overall, avoidable environmental and occupational risks cause about one quarter of all deaths in the world. Investment in healthier environments for health protection, environmental regulation, and ensuring that health systems are climate resilient, is both an essential guardrail against future disaster, and offers some of the best returns for society. For example, every dollar that was invested in strengthening the US Clean Air Act has paid back 30 dollars in benefit to US citizens, through improved air quality and better health<sup>vi</sup>.

### **3) Ensure a quick healthy energy transition.**

Currently, over seven million people a year die from exposure to air pollution – 1 in 8 of all deaths. Over 90% of people breathe outdoor air with pollution levels exceeding WHO air quality guideline values<sup>vii</sup>. Two-thirds of this exposure to outdoor pollution results from the burning of the same fossil fuels that are driving climate change<sup>viii</sup>. At the same time, renewable energy sources and storage continue to drop in price, increase in reliability, and provide more numerous, safer and higher paid jobs. Energy infrastructure decisions taken now will be locked in for decades to come.

Factoring in the full economic and social consequences, and taking decisions in the public health interest, will tend to favour renewable energy sources, leading to cleaner environments and healthier people. Several of the countries that were earliest and hardest hit by COVID-19, such as Italy and Spain, and those that were most successful in controlling the disease, such as South Korea and New Zealand, have put green development alongside health at the heart of their COVID-19 recovery strategies. A rapid global transition to clean energy would not only meet the Paris climate agreement goal of keeping warming below 2C, but would also improve air quality to such an extent that the resulting health gains would repay the cost of the investment twice over<sup>ix</sup>.

#### **4) Promote healthy, sustainable food systems.**

Diseases caused by either lack of access to food, or consumption of unhealthy, high calorie diets, are now the single largest cause of global ill health. They also increase vulnerability to other risks - conditions such as obesity and diabetes are among the largest risk factors for illness and death from COVID-19<sup>x</sup>.

Agriculture, particularly clearing of land to rear livestock, contributes about 1/4 of global greenhouse gas emissions<sup>xi</sup>, and land use change is the single biggest environmental driver of new disease outbreaks<sup>xii</sup>. There is a need for a rapid transition to healthy, nutritious and sustainable diets. If the world were able to meet WHO's dietary guidelines, this would save millions of lives, reduce disease risks, and bring major reductions in global greenhouse gas emissions.

#### **5) Build healthy, liveable cities.**

Over half of the world's population now lives in cities, and they are responsible for over 60% of both economic activity and greenhouse gas emissions<sup>xiii</sup>. As cities have relatively high population densities and are traffic-saturated, many trips can be taken more efficiently by public transport, walking and cycling, than by private cars. This also brings major health benefits through reducing air pollution, road traffic injuries – and the

over three million annual deaths from physical inactivity<sup>xiv</sup>.

Many of the largest and most dynamic cities in the world, such as Milan, Paris, and London, have reacted to the COVID-19 crisis by pedestrianizing streets and massively expanding cycle lanes - enabling “physically distant” transport during the crisis, and enhancing economic activity and quality of life afterwards.

## **6) Stop using taxpayers money to fund pollution.**

The economic damage from COVID-19 and the necessary control measures, is very real, and will place huge pressure on Government finances. Financial reform will be unavoidable in recovering from COVID-19, and a good place to start is with fossil fuel subsidies.

Globally, about US\$400 billion every year of taxpayers money is spent directly subsidizing the fossil fuels that are driving climate change and causing air pollution<sup>xv</sup>. Furthermore, private and social costs generated by health and other impacts from such pollution are generally not built into the price of fuels and energy. Including the damage to health and the environment that they cause, brings the real value of the subsidy to over US\$5 trillion per year- more than all governments around the world spend on healthcare – and about 2,000 times the budget of WHO.

Placing a price on polluting fuels in line with the damage they cause would approximately halve outdoor air pollution deaths, cut greenhouse gas emissions by over a quarter, and raise about 4% of global GDP in revenue<sup>xvi</sup>. We should stop paying the pollution bill, both through our pockets and our lungs.

## APPENDIX 8: WHO's 10 Action Steps on Climate Change and Health (Recommendations from WHO Special Report on Climate Change and Health, COP26, October 2021)

<https://www.who.int/publications/i/item/9789240036727>

The WHO's *Special Report on Climate Change and Health*, prepared for the October 2021 United Nations Climate Change Conference (COP26) includes ten recommendations that highlight the urgent need and numerous opportunities for governments to prioritize health and equity in the international climate regime and sustainable development agenda.

1. **Commit to a healthy recovery.** Commit to a healthy, green and just recovery from COVID-19.
  1. **Align climate and health goals.** Align COVID-19 recovery efforts with the Paris Agreement goals and the WHO Manifesto for a healthy and green recovery.
  2. **Support a fossil-free recovery.** Commit to 100% green stimulus spending and an end to all fossil fuel subsidies, while also ensuring energy access for all.
  3. **Prevent and prepare for the next pandemic.** Improve the global capacity for pandemic prevention, preparedness, and response.
  4. **Include health in all policies.** Strengthen and support implementation of the Health-in-All-Policies approach at the national and subnational level.
  5. **Commit to vaccine equity.** Commit to vaccine equity and address the inequalities that lie at the root of the current climate and health crises.
2. **Our health is not negotiable.** Place health and social justice at the heart of the UN climate talks.
  1. **Close the 1.5°C gap to stay alive.** Lead a step-change in ambition and submit ambitious, healthy climate plans.
  2. **Scale up finance for vulnerable countries to tackle the climate and health crises.** Rebuild trust in the Paris process by delivering on the USD 100 billion/ year climate finance goal.
  3. **Step up support for adaptation and resilience.** Operationalise the global goal on adaptation.

4. **Increase action on loss and damage.** Address the loss of life and damage to health that vulnerable countries and communities are facing.
5. **Finalise the Paris Agreement Rulebook.** Operationalise the most powerful global agreement to protect people and planet.
3. **Harness the health benefits of climate action.** Prioritize those climate interventions with the largest health, social and economic gains.
  1. **Maximise and measure the health co-benefits of climate action at all levels of governance.** Commit to promote, account for, and monitor the health co-benefits from climate interventions and reflect them in decision making.
  2. **Honour everyone's right to health.** Recognise the human right to a safe, clean, healthy, and sustainable environment, and adopt policies and processes that safeguard this right.
  3. **Bolster the science of health and climate change.** Help close knowledge gaps and build capacity to research the health impacts of climate change and the health co-benefits of climate action.
4. **Build health resilience to climate risks.** Build climate resilient and environmentally sustainable health systems and facilities, and support health adaptation and resilience across sectors.
  1. **Regularly assess health vulnerabilities and adaptation capacities.** Conduct iterative climate change and health vulnerability and adaptation assessments (V&As).
  2. **Develop and implement an evidence-based adaptation plan for health.** Regularly assess health vulnerabilities and adaptation capacities and develop an ambitious Health National Adaptation Plan (HNAP).
  3. **Strengthen the climate resilience and environmental sustainability of health systems and facilities.** Improve access to, and affordability of, climate-resilient and environmentally sustainable care while strengthening the capacity of health systems and facilities to protect and improve the health of all people in an unstable and changing climate.
  4. **Close the financing gap for health adaptation and resilience.** Invest in health adaptation and resilience and help close the health financing gap.
  5. **Protect health and advance climate justice by implementing health-promoting interventions in other sectors.** Develop synergies between health, climate change, and other development goals by investing in health-determining sectors, such as water, energy, and food and agriculture.
5. **Create energy systems that protect and improve climate and health.** Guide a just and inclusive transition to renewable energy to

save lives from air pollution, particularly from coal combustion. End energy poverty in households and health care facilities.

1. **Phase out polluting fossil fuels.** Avoid environmental, health and economic damage by delivering sustainable energy for all.
2. **Let us breathe clean air.** Adopt WHO air quality guidelines and tackle air pollution.
3. **Invest in clean solutions for household energy.** Bring clean heating, lighting, and cooking solutions to the billions of people who currently lack them.
4. **Power the health sector with clean energy.** Ensure all health systems and facilities have access to renewable energy.
5. **Ensure a just transition for workers and communities.** Provide support, training, and opportunities for those transitioning out of the fossil fuel sector and ensure occupational health and social safeguards for workers in the clean energy sector.
6. **Reimagine urban environments, transport and mobility.** Promote sustainable, healthy urban design and transport systems, with improved land-use, access to green and blue public space, and priority for walking, cycling and public transport.
  1. **Phase out the internal combustion engine and reduce private car use.** End the sale of petrol and diesel vehicles and support a shift away from private car use.
  2. **Prioritise walking, cycling and public transport.** Prioritise walking and cycling as healthy low-carbon modes of transport.
  3. **Create people-centred cities.** Integrate health and equity and nature considerations into urban and transport planning to create compact and future-proof cities.
7. **Protect and restore nature as the foundation of our health.** Protect and restore natural systems, the foundations for healthy lives, sustainable food systems and livelihoods.
  1. **End our destruction of nature.** Halt the destruction and degradation of biodiversity and carbon-rich ecosystems as soon as possible.
  2. **Protect and restore the ecosystems we all depend on.** Commit to protecting at least 30% of the land and sea by 2030, prioritizing areas of high importance for biodiversity and the delivery of ecosystem services.
  3. **Recognise the interconnections between human, animal and ecosystem health.** Integrate a One Health approach to ensure prevention and early detection of health risks

4. **Promote nature-based solutions and a nature-based recovery.** Avoid additional harm to nature and build forward better from the pandemic through nature-based solutions that jointly support biodiversity, health, and climate action.
5. **Protect people and planet by implementing new global biodiversity framework.** Commit to reversing biodiversity loss by 2030 and develop ambitious plans and programmes to support an ambitious post-2020 global biodiversity framework.
8. **Promote healthy, sustainable and resilient food systems.** Promote sustainable and resilient food production and more affordable, nutritious diets that deliver on both climate and health outcomes.
  1. **Nourish our future.** Improve access to diets that are nutritious, sustainable, and affordable.
  2. **Remove harmful agricultural subsidies.** Remove financial and other incentives that support high emission, unhealthy food options and agricultural practices.
  3. **Support a just agricultural transition.** Prioritise a rapid transition away from unsuitable farming practices that damage the environment and risk human health.
  4. **Mainstream biodiversity for nutrition and health.** Mainstream biodiversity interventions in food systems to strengthen resilience, increase food security, improve nutrition, lower emissions, and protect our vital natural resources.
9. **Finance a healthier, fairer and greener future to save lives.** Transition towards a wellbeing economy.
  1. **Stop funding pollution.** End harmful subsidies for fossil fuels, both domestically and abroad.
  2. **Close the health financing gap.** Invest in health adaptation and resilience and help close the health financing gap.
  3. **Ensure public finance does no harm.** Prevent investments in unsustainable and polluting activities that threaten communities' health and wellbeing.
  4. **Provide debt relief to vulnerable nations.** Show global solidarity for those most impacted.
10. **Listen to the health community and prescribe urgent climate action. Mobilize and support the health community on climate action.**
  1. **Train the health workforce to respond to climate change.** Update health curricula and provide training and support to prepare health workers.
  2. **Take climate action in the health care sector.** Transition to climate-resilient and sustainable health care.

3. **Enable health professional advocacy on climate change and health.** Support peers and colleagues to effectively communicate on climate change and health.
4. **Protect the health of future generations.** Support youth and vulnerable populations to protect the health of future generations.



## **APPENDIX 9: Recommendations from WHO World Health Day 2022: Our Planet, Our Health**

### ***What can you do to protect our planet and our health?***

<https://www.who.int/campaigns/world-health-day/2022/recommended-actions-to-protect-our-planet-our-health>

#### **Governments:**

- Prioritize long-term human wellbeing and ecological stability in all decision-making.
- Prioritize wellbeing in all businesses, organizations, social and ecological goals.
- Keep fossil fuels in the ground. Stop new fossil fuel exploration and projects and implement policies on clean energy production and use.
- Stop fossil fuel subsidies. Re-invest fossil fuel subsidies in public health.
- Tax the polluters. Incentivize carbon reduction.
- Implement the WHO air quality guidelines.
- Electrify health care facilities with renewable energies.
- Tax highly processed foods and beverages high in salt, sugars and unhealthy fats.
- Implement policies to reduce food wastage.
- Repurpose agriculture subsidies towards sustainable and healthy food production.
- Build cities with green spaces that promote physical activity and mental health.
- Take the pledge! Adopt WHO's green manifesto.
- Tobacco pollutes the planet and our lungs. Create smoke free cities and tax tobacco.
- Devise policies on waste and plastic reduction.
- Integrate mental health and psychosocial support with climate action and policies to better prepare for and respond to the climate crisis.

#### **Corporations:**

- Switch off lights after working hours.
- Support teleworking when possible.

- Remove highly processed and packaged foods from the workplace.
- Reduce the greenhouse gas emissions of your activities.
- Protect, promote and support breastfeeding. Breastfeeding is healthy and sustainable food for babies.
- Ensure safe water is accessible for workers.

**Health workers and health facilities:**

- Support efforts to reduce health care waste.
- Provide sustainably grown local food and ensure healthy food choices by reducing sodas and highly processed and packaged food in health facilities.
- Decarbonize health facilities.
- Identify opportunities to save energy.
- Ensure safe clean water at health facilities.
- Support purchase of environmentally friendly products that are easily recyclable or reusable.
- Advocate for health to be at the centre of climate change policies

**Mayors promote:**

- Promote energy efficient buildings.
- Engage low-carbon public transport.
- Build new bike lanes and footpaths.
- Protect biodiversity and create new parks and gardens.
- Switch to renewable energy for municipal operations.
- Ensure low-income households and health care facilities have access to clean, affordable energy.
- Partner with the local business community to support sustainability.
- Regulate the marketing of unhealthy foods and beverages in public spaces.

**Individuals:**

- Share your story: our planet, our health.
- Raise your voice and demand climate actions to protect your health.
- Take action, inspire others” – join our five-point plan:
  - Walk or pedal to work at least one day a week. Choose public transport.

- Change to a renewable energy provider; don't heat your rooms over 21.5C; turn off the light when not in the room.
- Buy your fresh groceries from local producers and avoid highly processed foods and beverages.
- Tobacco is a killer and a polluter. Stop consuming tobacco.
- Buy less plastic; use recyclable grocery bags.