

CMGF 2023

Workshop



Planetary Health

How to integrate co-benefits into your practice?



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NO CONFLICT OF INTERESTS

Planetary Health

- *“field focused on characterizing the linkages between human caused disruptions of Earth’s natural systems and the resulting impacts on public health.*
- *It aims to develop and evaluate evidence-based solutions to safeguard an equitable, sustainable, and healthy world”*
- *Declaration Calling for Family Doctors of the World to Act on Planetary Health (WONCA), 2019*

DECLARATION CALLING FOR
FAMILY DOCTORS OF THE WORLD
TO ACT ON PLANETARY HEALTH



Risks of environmental change on health?

Increasing non-communicable disease burden

Declining nutrition

New infectious disease exposures

Increasing heat-related mortality

Mental health risks

Declaration Calling for Family Doctors of the World to Act on Planetary Health (WONCA), 2019

What can we do as family doctors ?

- 1. Learn more
 - 2. Communicate to patients that their health ultimately depends on the environment, both in their immediate vicinity and globally.
 - 3. Respond to emerging health challenges caused by environmental changes
 - 4. Prepare your own practice
 - **5. Advise patients about important co-benefits**
 - 6. Lead by example.
 - 7. Be active in advocating
 - 8. Join the WONCA Working Party on the Environment.
 - 9. Get involved in Clinicians for Planetary Health
- *Declaration Calling for Family Doctors of the World to Act on Planetary Health (WONCA), 2019*



What is a co-benefit ?

How would you define it ?



Please raise your hand !

Co-benefits

“Everyday choices and key changes that people/patients can make in their own lives to simultaneously benefit their own health and that of the environment.”

WONCA (World Organization of General Practitioners/Family Physicians)

Any examples?



Food choices

- Work in groups
- Group feedback
- Some theoretical notions



Health impacts :

- Prevalence of **chronic diseases on the rise** : diabetes, hypertension, high cholesterol,... from diets that become too high in calories, higher in refined sugars, meat and fats of animal origin or hydrogenated
- **Overweight and obesity**
- **Cardiovascular diseases** : leading causes of diet-related mortality, followed by cancers and type 2 diabetes.

Environmental impacts of food production:

- Major source of environmental degradation:
- Agriculture and livestock: **20 to 30%** of total greenhouse gases (**GHG**) emissions
- Conversion of natural habitats to agricultural land : **major cause of deforestation** (carbon sink), fragmentation of natural habitats and loss of biodiversity
- Impact of **agricultural practices and transport**
- Use of pesticides and fertilizers: **environmental pollution** (eg eutrophication), loss of biodiversity, effects on human health

Gonzalez Holguera J, Niwa N, Senn N. 2020. Cobénéfices: pourquoi introduire l'écologie dans la pratique clinique? Revue Médicale Suisse.

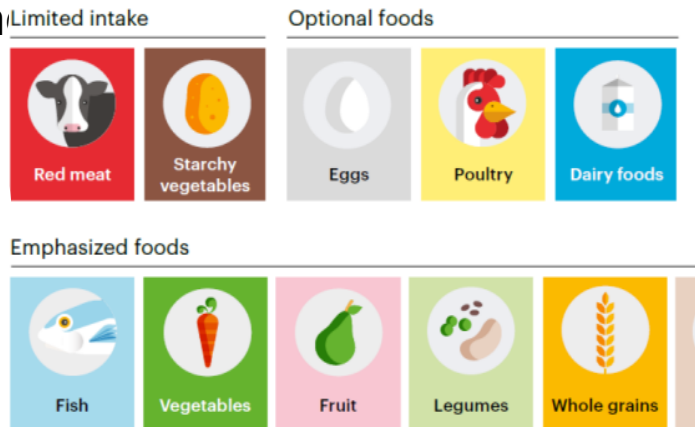
The Eat-Lancet commision

How to achieve planetary
health diets for nearly 10
billions of people by 2050?



1. Stimulate a healthy and sustainable diet

- EAT-Lancet Commission :
- advocates a diet that consists mostly of vegetables, fruits, whole grains, legumes, nuts and seeds, unsaturated fats
- less animal products and

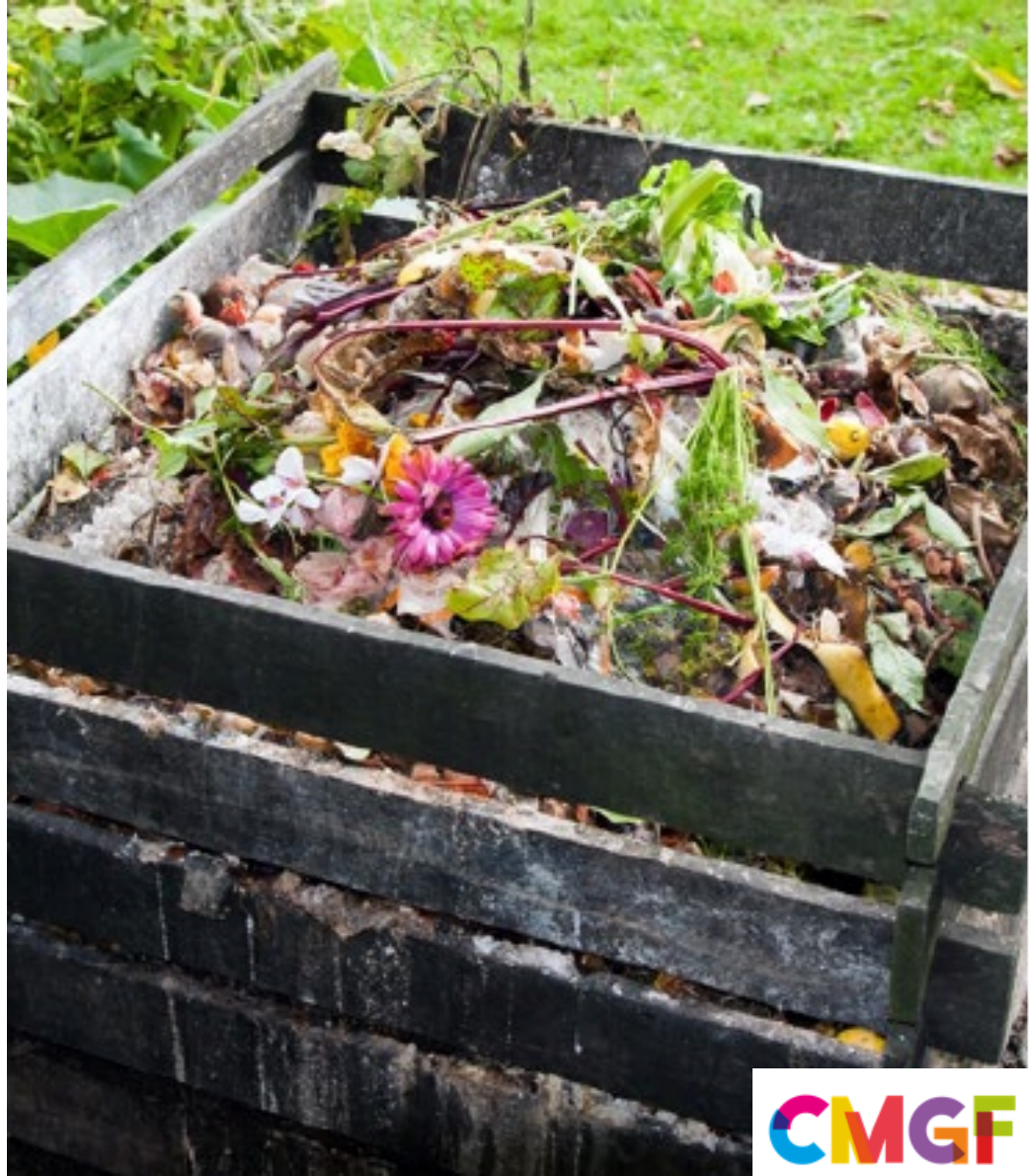


2. Dramatic reduction in food losses and waste

- FAO estimates that 20 to 30% of the food produced is wasted or lost in the supply chain or by consumers



- The food produced but not consumed thus uses almost 30% of the world's agricultural land, with a carbon footprint estimated around 4 gigatonnes of CO₂-eq per year⁹.



3. Major improvements in food production practices

- Encourages the consumption of products from respectful agricultural methods of the environment:
- limit the use of phytosanitary products and veterinarians (organic farming)
- Prioritize local products, seasonal and minimally processed
- Limits the consumption energy and GHG emissions related to the transport of foodstuffs, heating greenhouses or food refrigeration







			 GHG emissions	 Cropland use	 Water use	 Nitrogen application	 Phosphorus application	 Biodiversity loss
Food production boundary			5.0 (4.7-5.4)	13 (11.0-15.0)	2.5 (1.0-4.0)	90 (65.0-140.0)	8 (6.0-16.0)	10 (1-80)
Baseline in 2010			5.2	12.6	1.8	131.8	17.9	100-1000
Production (2050)	Waste (2050)	Diet (2050)						
BAU	Full waste	BAU	9.8	21.1	3.0	199.5	27.5	1,043
BAU	Full waste	Dietary shift	5.0	21.1	3.0	191.4	25.5	1,270
BAU	Halve waste	BAU	9.2	18.2	2.6	171.0	23.2	684
BAU	Halve waste	Dietary shift	4.5	18.1	2.6	162.6	21.2	885
PROD	Full waste	BAU	8.9	14.8	2.2	187.3	25.5	206
PROD	Full waste	Dietary shift	4.5	14.8	2.2	179.5	24.1	351
PROD	Halve waste	BAU	8.3	12.7	1.9	160.1	21.5	50
PROD	Halve waste	Dietary shift	4.1	12.7	1.9	151.7	20.0	102
PROD+	Full waste	BAU	8.7	13.1	2.2	147.6	16.5	37
PROD+	Full waste	Dietary shift	4.4	12.8	2.1	140.8	15.4	34
PROD+	Halve waste	BAU	8.1	11.3	1.9	128.2	14.2	21
PROD+	Halve waste	Dietary shift	4.0	11.0	1.9	121.3	13.1	19

Table 5

Various scenarios demonstrating the environmental impacts of implementing the action outlined in Table 4. The colors illustrate whether environmental impacts transgress food production boundaries: green - below lower range value; light green - below or equal to boundary but above lower range value; yellow - above boundary but below upper range value; red - above upper range value. BAU indicates business as usual scenario.

Food is the
strongest lever
to optimize
human health
and
environmental
sustainability
on Earth

- The Commission analyzed the potential impacts of dietary change on diet-related disease mortality using three approaches.
- All three approaches concluded that **dietary changes from current diets toward healthy diets are likely to result in major health benefits.**
- This includes preventing approximately **11 million deaths per year, which represent between 19% to 24% of total deaths among adults.**

Any questions?

Mobility

- Work in groups
- Group feedback
- Some theoretical notions



Health impacts of motorized mobility

- **Air pollution** responsible for cardiovascular and respiratory disease
- Reinforces the **sedentary lifestyle**, associated with a range of non-communicable diseases (type II diabetes, cardiovascular and respiratory diseases, and several cancers)
- **Infrastructures** contribute to urban heat islands, reduce green spaces and meeting places

• Environmental Impacts of motorized mobility on the environment

- Major source of **greenhouse gas emissions** (GHG)
- **Pollution** (NO_x, fine particles (PM₁₀ and PM_{2,5}), various volatile organic compounds that contribute to ozone peaks (O₃),...)
- Production phases of vehicles and infrastructure: use of **non-renewable resources**,
- **Fragmentation of natural habitats**

Stimulate active mobility

- active mobility = modes that use human energy as their main source of power (bicycle, walking)
- WHO: minimum of 150' of weekly moderate physical activity for adults
- > active mobilities can help to insert physical activity into the daily routine

- accompanied by structural measures

- *Gonzalez Holguera J, Niwa N, Senn N. 2020. Cobénéfices: pourquoi introduire l'écologie dans la pratique clinique? Revue Médicale Suisse.*

« All-Cause Mortality
Associated With Physical
Activity During Leisure
Time, Work, Sports, and
Cycling to Work »

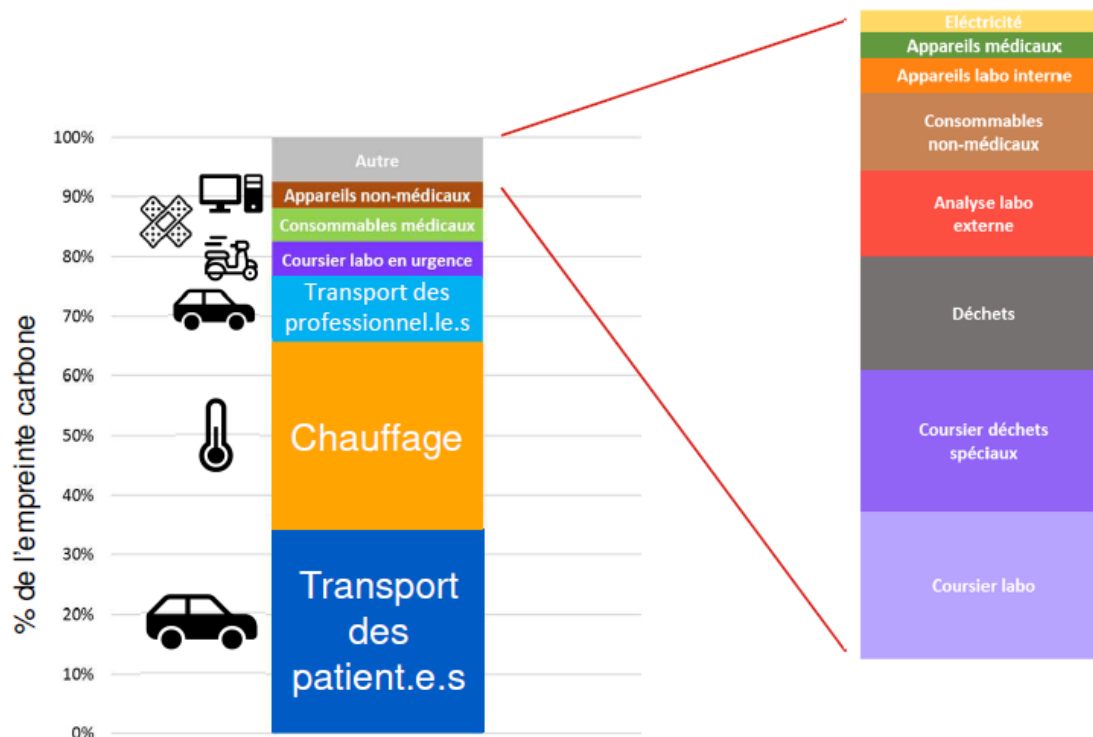
Arch Intern Med. 2000;160(11):1621-
1628.

doi:10.1001/archinte.160.11.1621

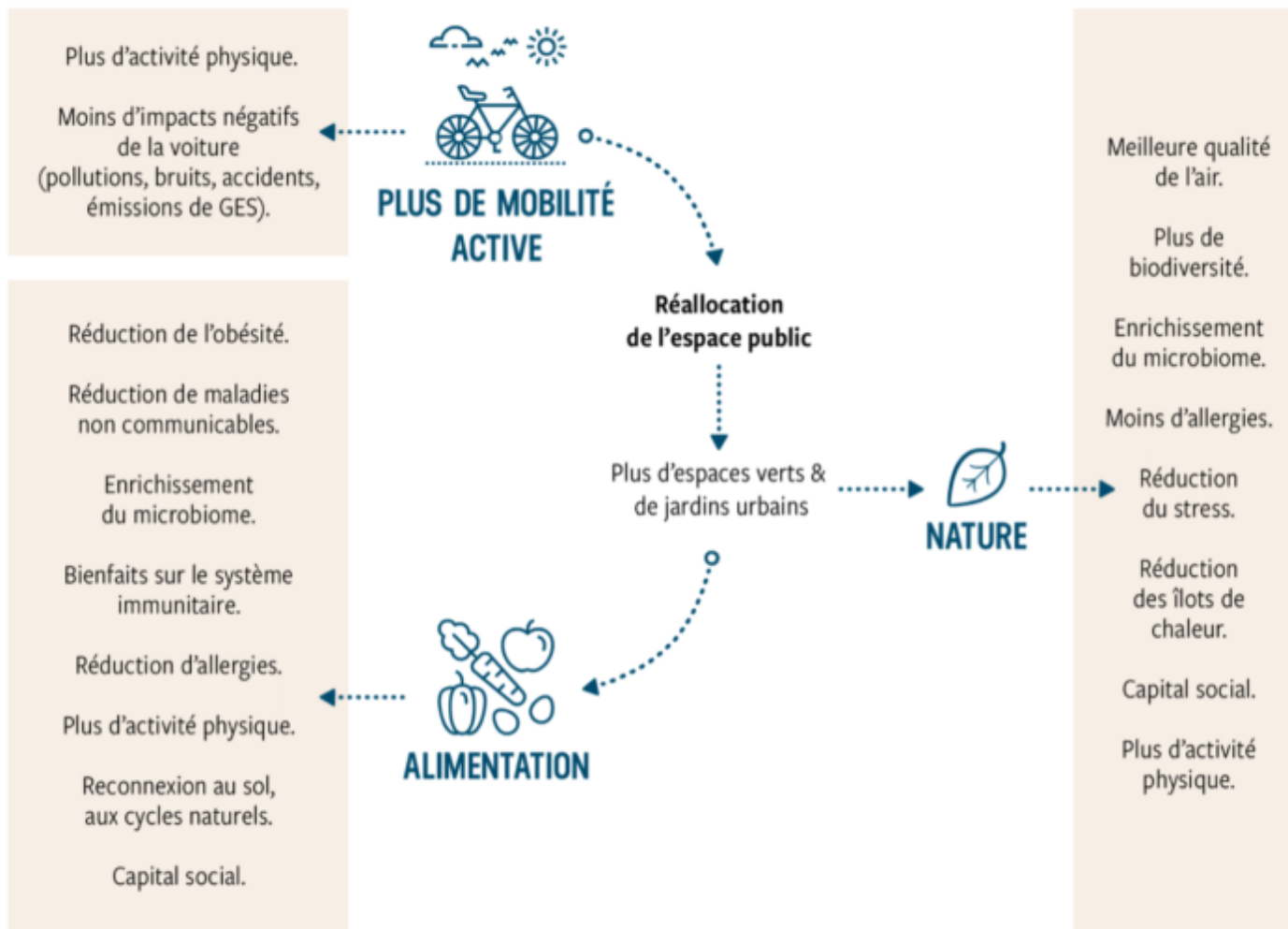
CYCLING TO WORK :
Mortality rate – 28%



Empreinte carbone du cabinet moyen *par sous-domaine*



Points de croisements entre la mobilité, l'alimentation et le contact avec la nature au travers de l'espace public.

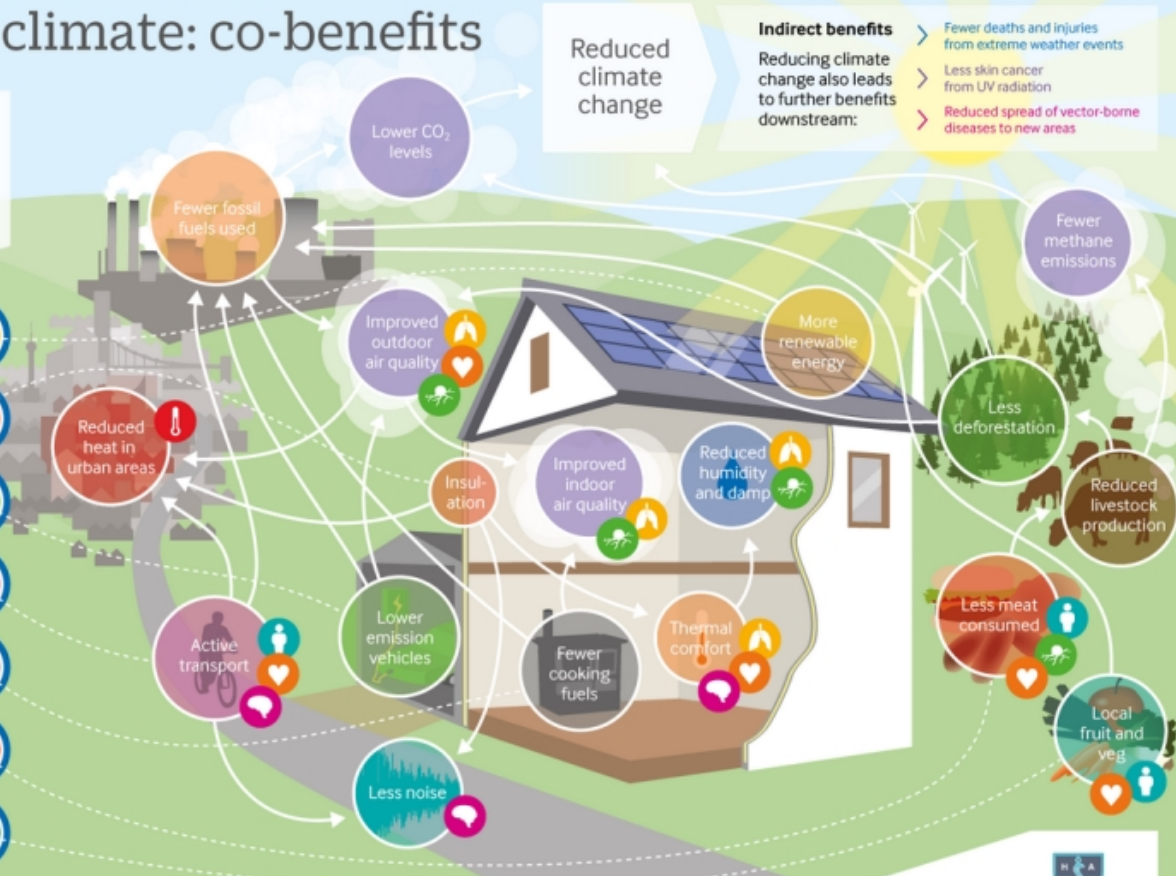


Health and climate: co-benefits

Example interventions

These interventions have benefits both for health and for reducing climate change (also known as *mitigation*)

- Produce more renewable energy
- Improve insulation in homes
- Encourage use of lower emission vehicles
- Promote active transport
- Reduce solid fuels used for cooking
- Less food from animal sources
- Encourage locally produced fruit and veg



Reduced climate change

Indirect benefits
 Reducing climate change also leads to further benefits downstream:
 > Fewer deaths and injuries from extreme weather events
 > Less skin cancer from UV radiation
 > Reduced spread of vector-borne diseases to new areas

Health benefits	Better mental health	Fewer deaths from extreme heat	Less cardiovascular disease	Less respiratory disease	Lower rates of cancer	Lower rates of obesity

Designed by: Will Stahl-Timmins
 Content: Nick Watts
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Questions?



Take home messages about co-benefits

- “Advise patients about important co-benefits — everyday choices and key changes that they can make in their own lives to simultaneously benefit their own health and that of the environment, including:
 - Food choices: A transition to a more sustainable plant-based diet — rich in fruits, vegetables, nuts, and legumes — ...
 - Active transport: Forms of transport that involve physical activity, such as cycling and walking, have the dual benefit of reducing emissions and protecting against multiple diseases.”
 - And others: energy choices, connecting to nature, reducing personal environmental impact,...
- *Declaration Calling for Family Doctors of the World to Act on Planetary Health (WONCA), 20*



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Your
feedback is
very important
to us!

Go on Wooclap.com
Code event: **CMGF**

