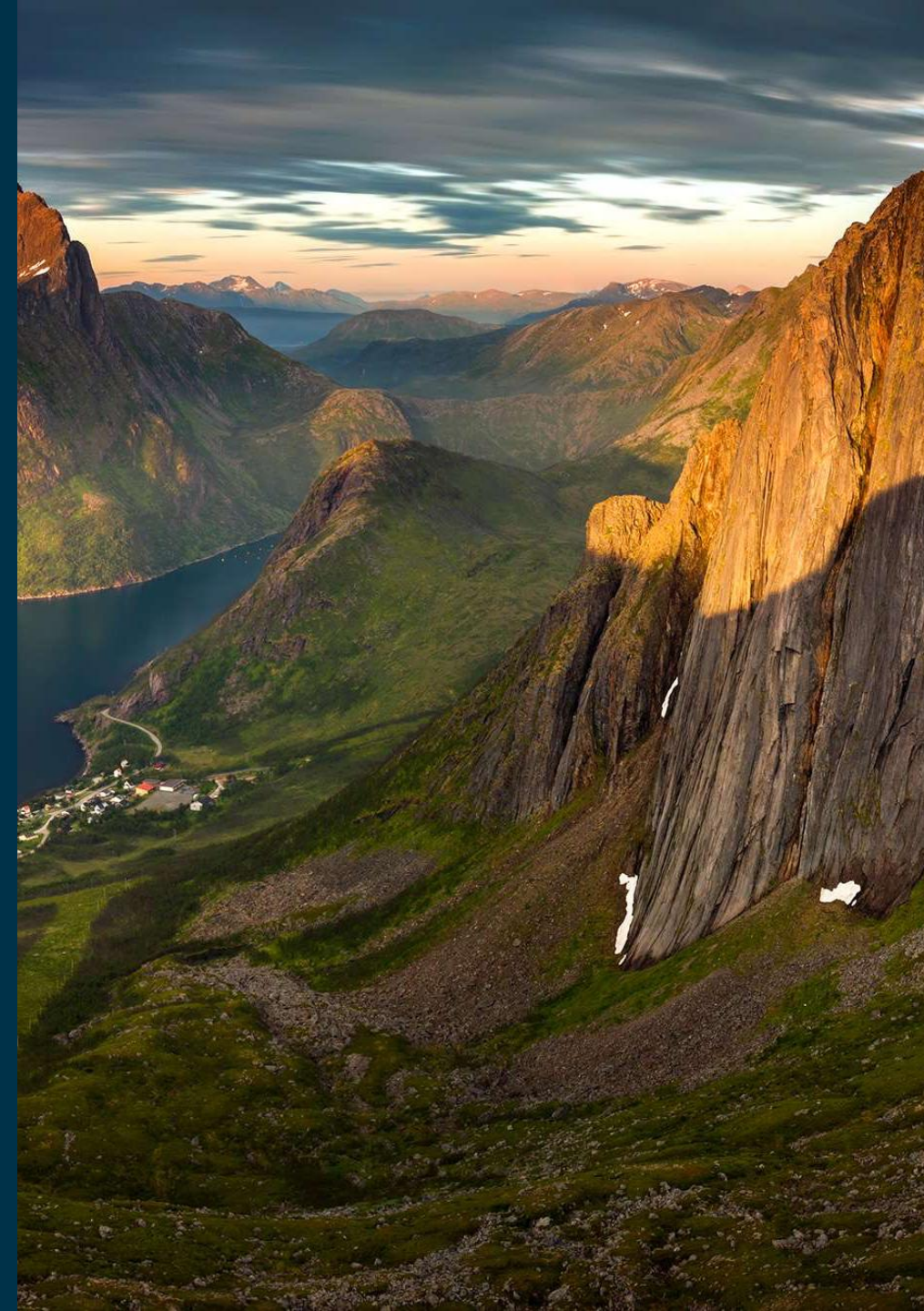


# Samfunn og folkehelse

## Planetary Health og bærekraftsmålene

Filip Maric (PhD)





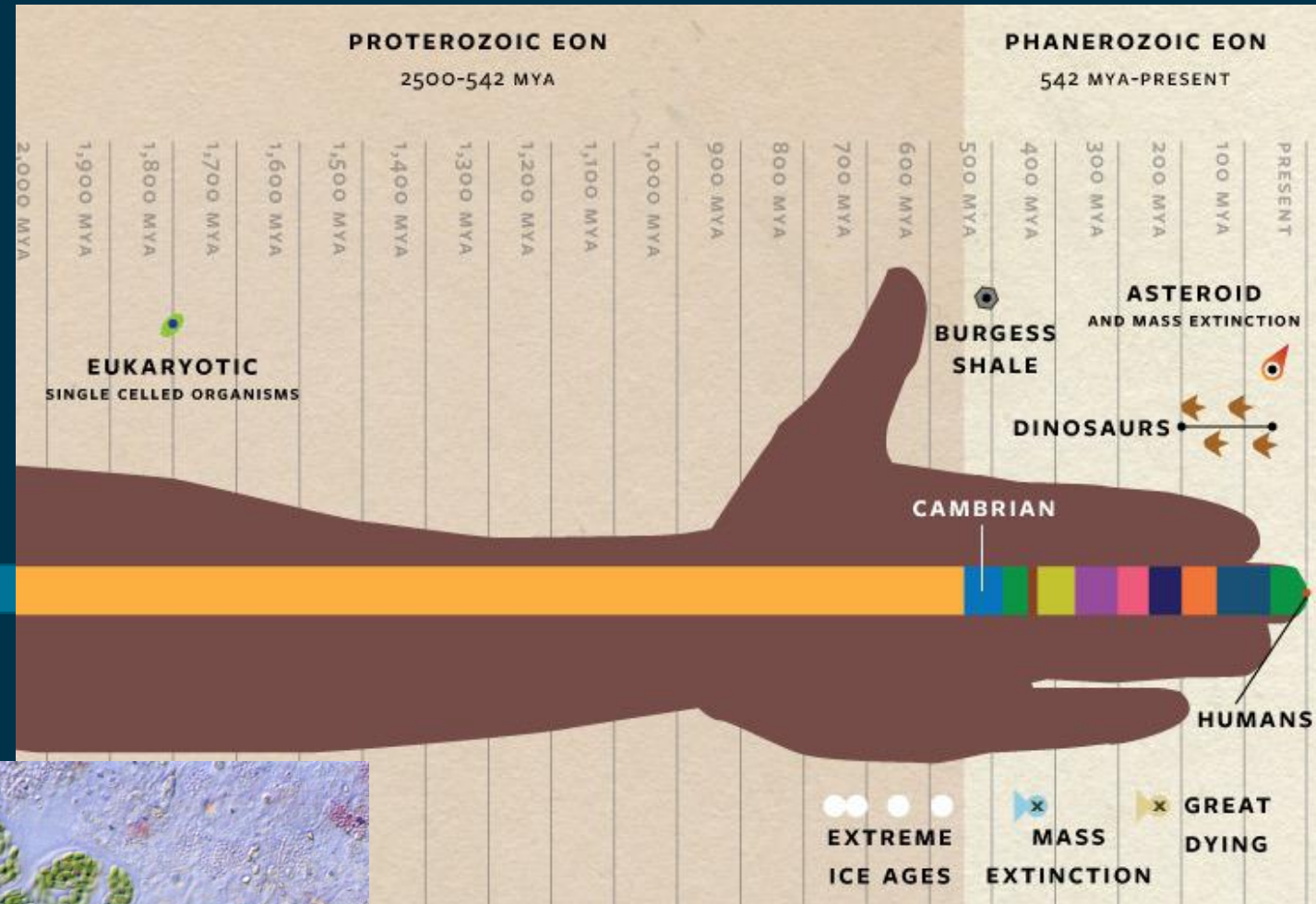
# YOU ARE HERE





# Jordens historie

4,500 MYA



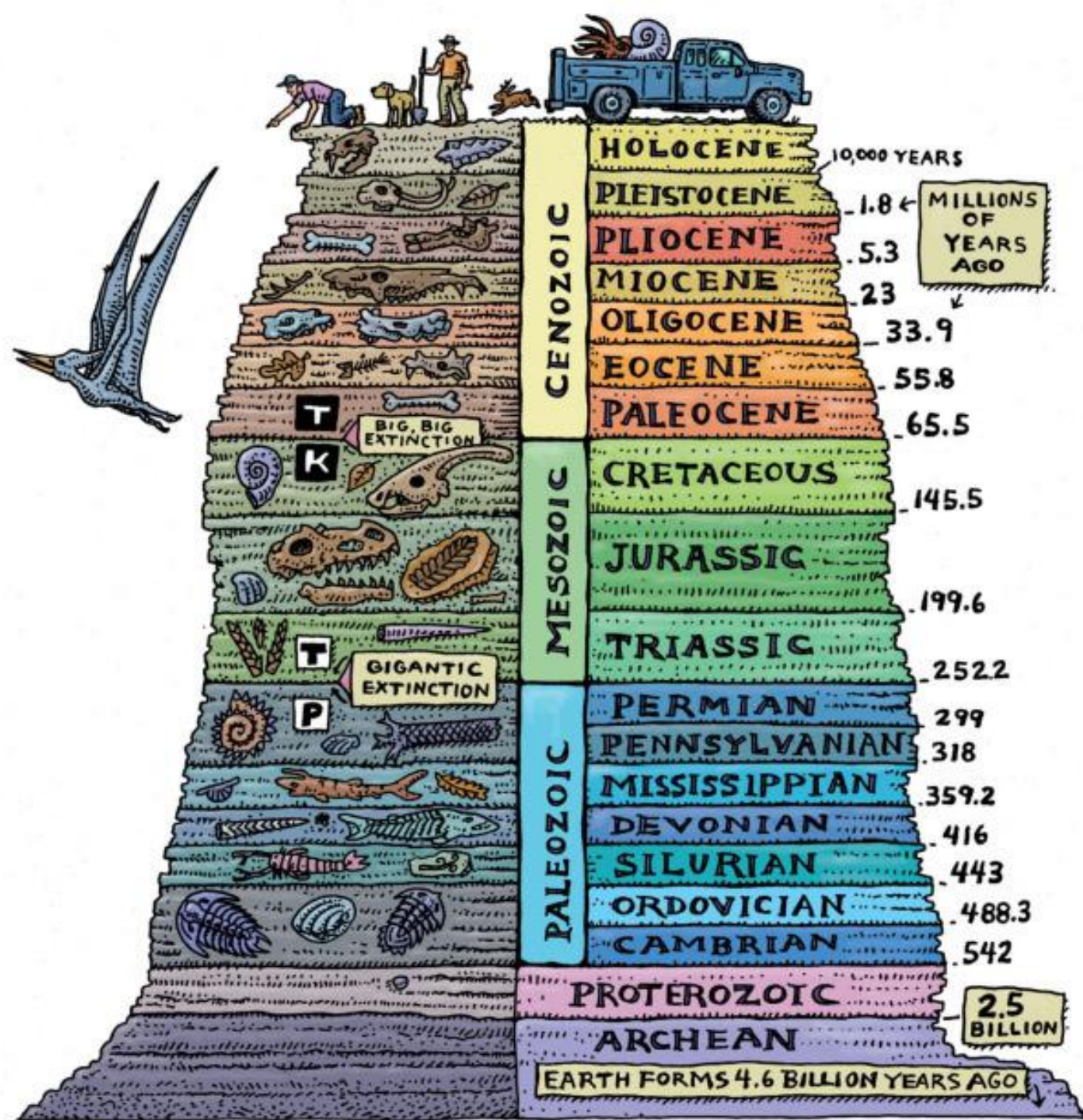


# Holocen-epoken

- Relativt varmt og stabilt klima
- Relativt stabil geologi
- Høy grad av biologisk mangfold
- Omfattende biodiverse habitater for plante-, dyre- og menneskeliv

Disse miljøforholdene muliggjorde overgangen fra nomadiske, jaktende og samlende livsstiler til utvikling av menneskelige bosetninger under landbruksrevolusjonen, utløst av den første systematiske menneskedriften av planter og dyr for rundt 10 tusen år siden.

De samme miljøforholdene blir også ansett som de eneste som muliggjør menneskeliv, helse og sivilisasjoner slik vi kjenner dem i dag, og de eneste miljøforholdene som kan opprettholde samfunnshelse slik vi kjenner det i dag.







# Natures contribution to people / ecosystem services

	Nature's contribution to people	50-year global trend
REGULATION OF ENVIRONMENTAL PROCESSES	1 Habitat creation and maintenance	↓ ↓ ↓ ↓
	2 Pollination and dispersal of seeds and other propagules	↓ ↓ ↓ ↓
	3 Regulation of air quality	↘ ↘
	4 Regulation of climate	↘ ↘
	5 Regulation of ocean acidification	→ →
	6 Regulation of freshwater quantity, location and timing	↘ ↘
	7 Regulation of freshwater and coastal water quality	↘ ↘
	8 Formation, protection and decontamination of soils and sediments	↘ ↘
	9 Regulation of hazards and extreme events	↘ ↘
	10 Regulation of detrimental organisms and biological processes	↓ ↓ ↓ ↓
MATERIALS AND ASSISTANCE	11 Energy	↘ ↘ ↘ ↘ ↘ ↘
	12 Food and feed	↓ ↓ ↓ ↓ ↘ ↘ ↘ ↘
	13 Materials and assistance	↓ ↓ ↓ ↓ ↘ ↘ ↘ ↘
	14 Medicinal, biochemical and genetic resources	↓ ↓ ↓ ↓ ↘ ↘ ↘ ↘
NON-MATERIAL	15 Learning and inspiration	↓ ↓ ↓ ↓ ↘ ↘ ↘ ↘
	16 Physical and psychological experiences	↓ ↓ ↓ ↓ ↘ ↘ ↘ ↘
	17 Supporting identities	↓ ↓ ↓ ↓ ↘ ↘ ↘ ↘
	18 Maintenance of options	↓ ↓ ↓ ↓ ↘ ↘ ↘ ↘





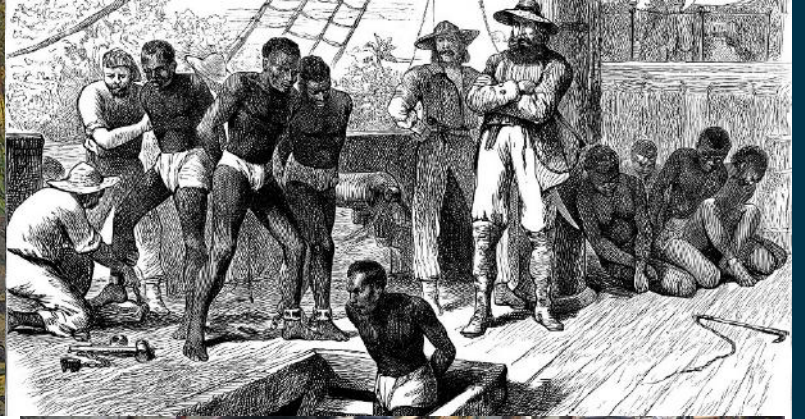
# Utgangspunktet av planetary health og bærekraftsmålene

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Et helsefremmende miljø er grunnleggende til menneskelig liv, helse og samfunn



# Problemet... menneskelig aktivitet gjennom holocene-epoken





# Globale miljøendringer i antropocen-epoken

- **Tap av biologisk mangfold** (68% reduksjon i størrelsen på populasjoner av pattedyr, fugler, fisk, reptiler og amfibier på litt over 40 år)
- **Global oppvarming**
- Forsuring av havet
- Avskoging (endring av 75% av landarealet)
- Tømming av ferskvann (tap på over 85% av de globale våtmarksområdene)
- Luft-, vann-, jord- og **plastforurensning**





The global amount of human-made mass is now (since 2020) greater than the overall mass of all living biomass combined



On average, for each person on the globe, anthropogenic mass equal to more than his or her bodyweight is produced every week (Elhacham et al., 2020; <https://doi.org/10.1038/s41586-020-3010-5>)



# Healthcare systems contribution to environmental degradation



If the global health sector were a country, it would be the 5<sup>th</sup> largest GHG emitter on the planet ([link](#))

Large quantities of **waste** generated by high volume of single-use plastics, disposable supplies and hazardous materials (e.g. pharmaceuticals, sharps, chemicals, infectious waste, and global-heating anaesthetic gases)

Use and innovation of technology depend on extraction of **natural resources**



A person with dark, wind-blown hair is shown in profile, coughing into their elbow. They are wearing a dark jacket. The background is a hazy, industrial landscape with smokestacks and power lines under a cloudy sky.

# Hvordan klimaendring påvirker helse

Climate change is **the biggest health threat** of the 21<sup>st</sup> century (Costello et al., 2009).

The burden of disease attributable to environmental issues is high and persistent, amounting to **13 million deaths each year = 1/4 of all deaths** (WHO, 2020)

**A quarter of the worldwide burdens causing diseases arise from environmental factors**, eg. air pollution, climate change, biodiversity loss or zoonoses (UN Environment Program, 2021)



**INCREASING**

NONCOMMUNICABLE DISEASES (NCDS)  
MALNUTRITION & FOOD INSECURITY  
INFECTIOUS AND VECTOR-BORNE DISEASE  
TRAUMA AND INJURY  
CLIMATE-RELATED DISPLACEMENT AND CONFLICT  
MENTAL HEALTH PROBLEMS

Extreme weather events

Pollen seasons - leading to worsening allergies and asthma

About 1/2 of the global disease burden from COPD is attributable to air pollution

53.7% increase in heat-related mortality in adults over 65yrs during the past 20 years (296.000 deaths in 2018)

Over 8mio deaths from fossil fuel pollution in 2018 (1/5 worldwide)

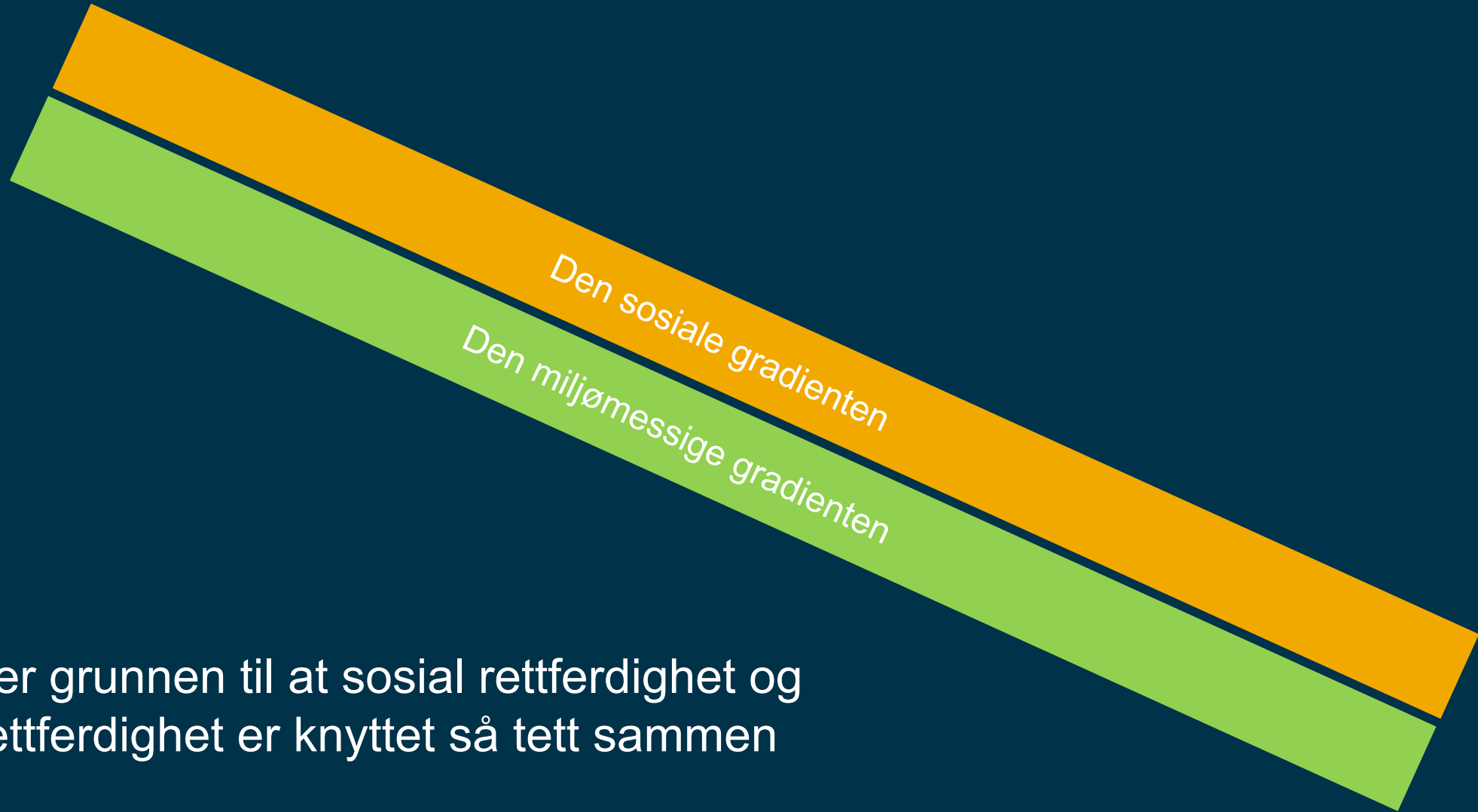
**PHYSICAL ACTIVITY**

VIA AIR POLLUTION, EXTREME TEMPERATURES,  
NATURAL DISASTERS AND INFECTIOUS DISEASES;  
ESPECIALLY AFFECTING ELDERLY, AND PEOPLE  
WITH CHRONIC CONDITIONS AND HIGHER  
BODY-MASS INDEX

**DECREASING**



Hvem driver miljøforringelse og hvem lider av det mest (for nå)?



Dette er grunnen til at sosial rettferdighet og miljørettferdighet er knyttet så tett sammen



Hva skal vi gjøre?





# WHO COP26 Special Report on Climate Change and Health: The Health Argument for Climate Action



## 4 Action points for the healthcare professions

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.



# Jakten etter løsninger

Voksende bevegelser over hele helsevesenet søker også å ta opp helse-, sosiale og miljømessige problemer i forbindelse, hver med opprinnelse fra forskjellige tradisjoner:

Indigenous and Local Knowledge (ILK) er særlig viktig for planetary health

Tropisk medisin → Folkehelse → Global helse  
→ Planetary Health & Bærekraftig Helse

Veterinærmedisin → One Health

Environmental/Ecosystems Health → EcoHealth

Geofysik, biologi & folkehelse → GeoHealth





# ENVIRONMENTAL PHYSIOTHERAPY ASSOCIATION

[www.environmentalphysio.com](http://www.environmentalphysio.com)

Det første internasjonale samarbeidsnettverket av mer enn 700 fysioterapeuter, studenter, forsker og lærer med fokus på utforskning og fremming av en miljøbevisst og miljøansvarlig fysioterapi



Environmental physiotherapy kommer nå inn i fysioterapiutdanning over hele verden via vår prosjekt [www.eptagenda2023.com](http://www.eptagenda2023.com) som dere er nå en del av også 😊



# Fra World Physiotherapy til Norge

World PT Education Framework inkluderer miljø og bærekraft som grunnleggende til helse og fysioterapien

- <https://world.physio/news/world-physiotherapy-publishes-framework-physiotherapist-education>

Under FNs klimakonferanse i Glasgow, COP26, har Norge i dag sluttet seg til klimakonferansens helseprogram:

<https://www.regjeringen.no/no/aktuelt/norge-lanserer-klimaforpliktelser-pa-helsefeltet/id2885909/>

1 JÁVKADIT  
GEAFIVUOĐA



2 JÁVKADIT  
NEALGGI



3 BUORRE  
DEARVVAŠVUOHTA



4 BUORRE  
OAHPPU



5 DÁSSEÁRVU  
SOHKABELIID  
GASKKA



6 BUHTES ČÁHCI JA  
SANITÁRADILIT



7 BUHTES ENERGIJA  
BUOHKAIDE



8 ÁVDDALAŠ BARGU  
JA EKONOMALAŠ  
OVDÁNEAPMI



9 INNOVAŠUVONA JA  
INFRASTRUKTUVRA



10 UNNIT  
EROHUSAT



11 GUODDEVAŠ GÁVPO-  
GAT JA SERVODAGAT



12 OVDDASVÁSTI-  
DEADDJI GEAVA-  
HEAPMI JA BUVTTAEAPMI



13 BISSEHIT  
DÁLKKÁDAT-  
RIEVDAMIID



14 EALLIN  
ČAZIS



15 EALLIN EATNAMA  
ALDE



16 RÁFI JA  
VUODIGALAŠ-  
VUOHTA



17 OVTTAS JOKSAT  
MIHTTOMERIID



ON GUODDEVAŠVUODA  
MIHTTOMEARIT

[Utdanning for bærekraftsmålene kommer nå til alle fire medisinske fakultetene i Norge](#)





# Utgangspunktet av planetary health og bærekraftsmålene

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Alt henger sammen

= en gammel  
urfolkskunnskap

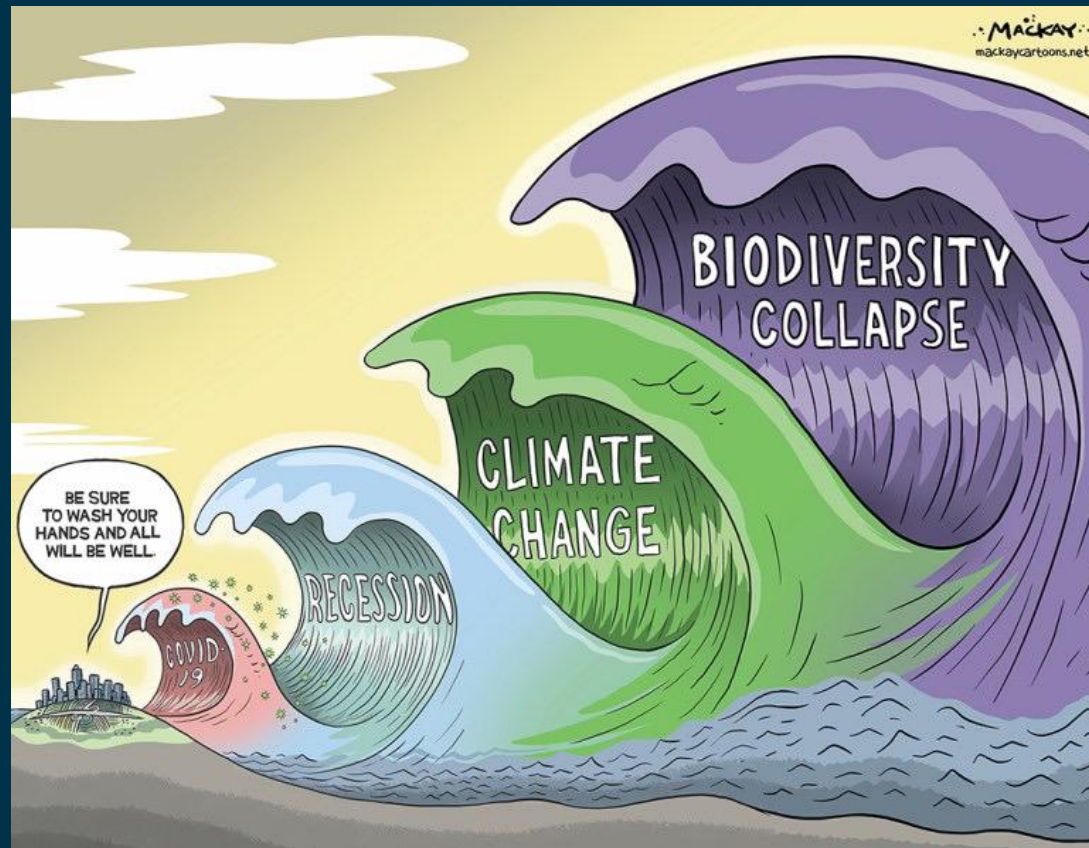
# Grunnleggende prinsipper

- Transdisciplinary collaboration
- Transdisciplinary collaboration
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- **Transdisciplinary collaboration**
- Transdisciplinary collaboration
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- Transdisciplinary collaboration



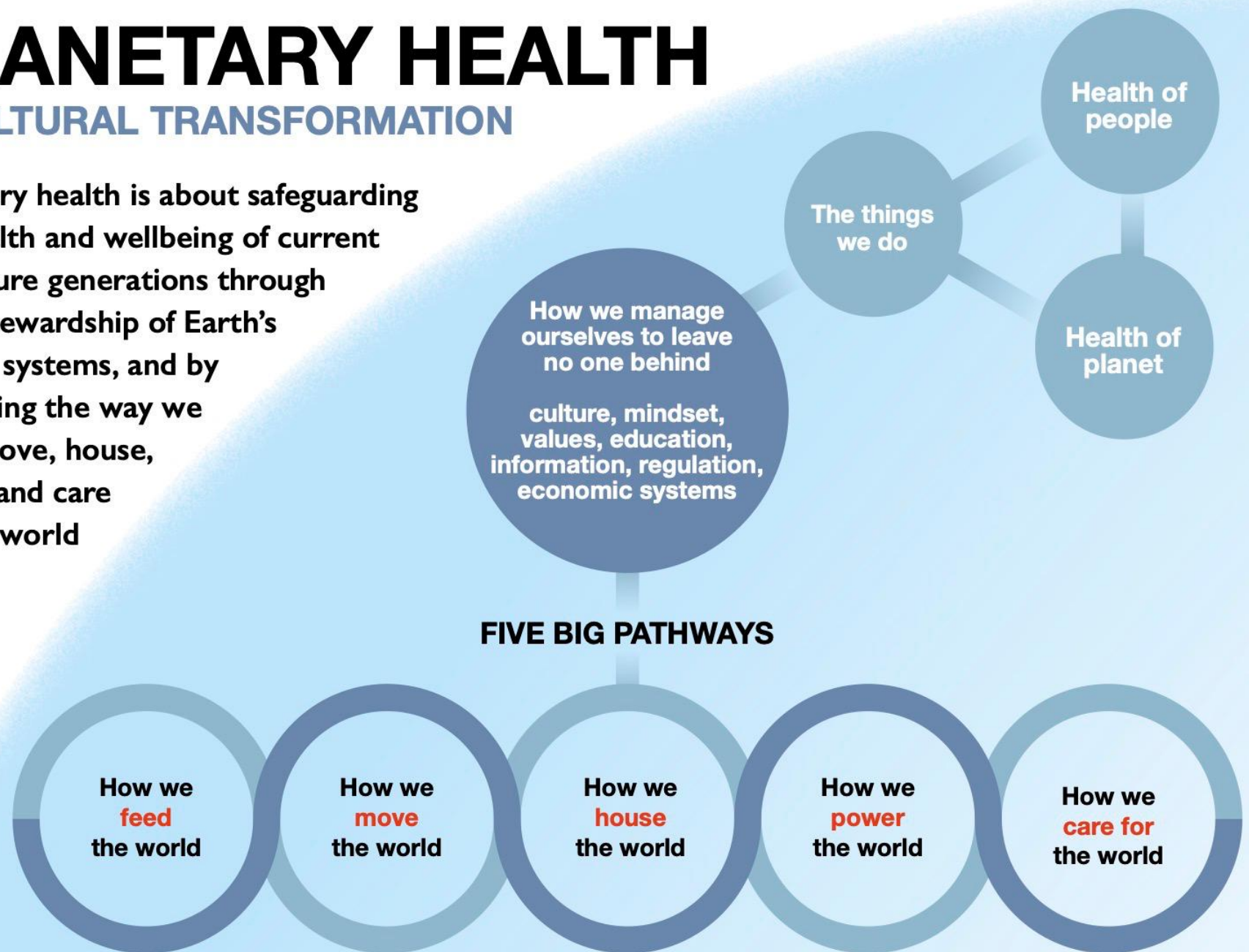
Nøkkelpunktet: God 'helse og velvære (SDG3)' kan bare oppnås hvis vi tar opp dagens miljø- og sosiale problemer i tett forbindelse med hverandre



# PLANETARY HEALTH

## A CULTURAL TRANSFORMATION

Planetary health is about safeguarding the health and wellbeing of current and future generations through good stewardship of Earth's natural systems, and by rethinking the way we feed, move, house, power and care for the world



**Our future depends on the health of our natural world**

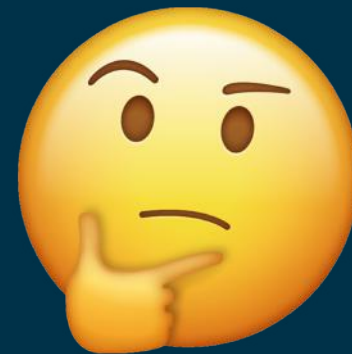
Noen av de foreslåtte fokusområdene



# ESSENSIELLT tillegg: How we think about the world

Noen spørsmål til fysioterapi – Hvordan forstår eller definerer vi

- Anatomi, fysiologi og kroppen
- Bevegelse og fysisk aktivitet
- Helse og sykdom
- Terapeutisk behandling
- OSV





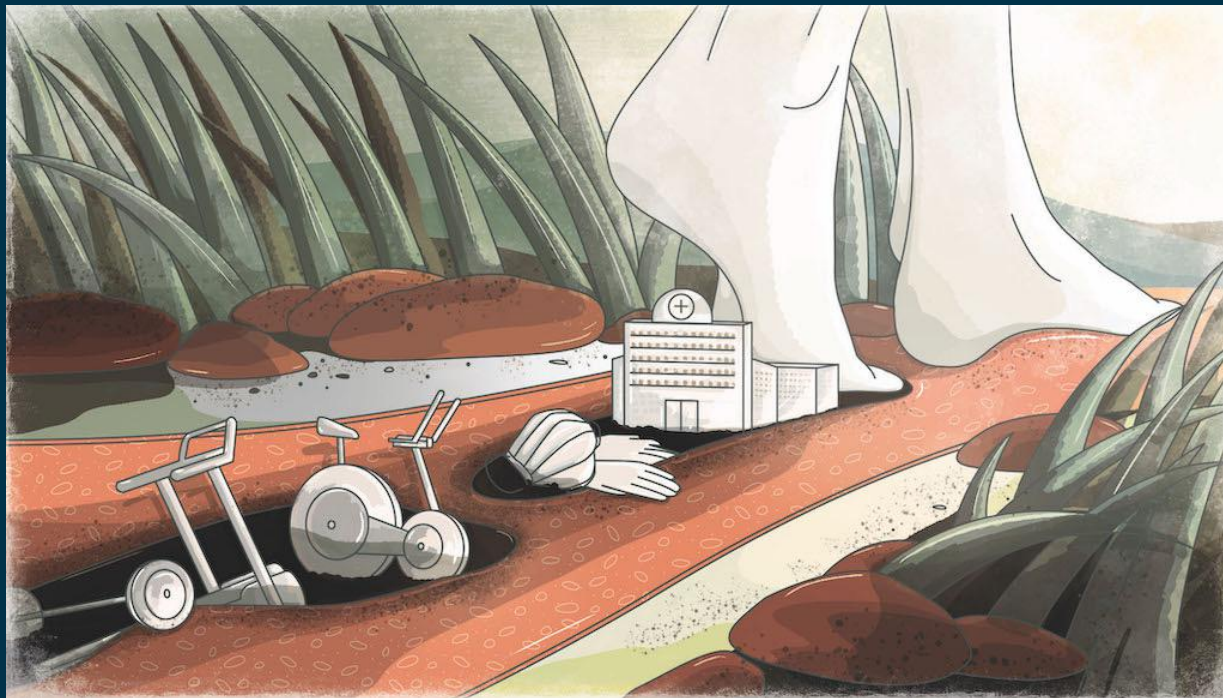
# Active transport and outdoor activity





# Bærekraftig helse

Å redusere helsevesenets miljøavtrykk



Integrate SDGs into healthcare decision-making

- How can healthcare (decisions) contribute to achieving the SDGs:
  - SDG3 health and well-being for all (equitable healthcare for present and future generations)
  - SDG5 Gender equality
  - SDG13 Climate action
  - SDG14, SDG11, ...



