Planetary Health Report Card

2023 Resultater för Karolinska Institutet

Workshop om hållbar utveckling, SDGs, klimatmedicin, hållbar sjukvård och planetär hälsa

Lärardagen 27:e september 2023

Kontakt: nikolaus.mezger@stud.ki.se
Who are we?

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Judy Fabienne Kool³,⁴, Niels Krämer², Nikolaus Mezger MD³, Viivi Sairanen MD¹,⁴

¹: Medical programme; 2: PhD student; 3: Global Master’s student; 4: KI alumnus
Why are we here?

"Issues around climate change can be overwhelming and people can feel powerless to do anything to address this issue. Health care professionals are no different in that sense."

Darcy Freedman, PhD, MPH
The medical students' perspective: Campaign "Vår hälsa brinner"

- Our survey: medical students experience lack of knowledge on climate change
- We believe that ...
  - The priority should be higher
  - The subject should be more *integrated* in the education
- Clinical supervisors must be sufficiently prepared

https://nyheter.ki.se/var-halsa-brinner-kampanj-om-klimatforandringars-halsopaverkan
What did we do so far?
Open letter to KI leadership on education: 130 signatories

Stockholm, December 2022

Empowering KI students and teachers to lead transformational change in healthcare and beyond

A call for longitudinal implementation of planetary health and sustainability education at Karolinska Institutet

Authors: Clara Brune*1,2, Ester Gubi3, Judy F. Kool4,5, Nikolaus C.S. Mezger3,5,6,7, Viivi V. Sairanen1,5

*: alphabetical order
1: Medical Programme, Karolinska Institutet
2: International Federation of Medical Students Associations (IFMSA) - Sweden
3: Department of Global Public Health, Karolinska Institutet
4: Master’s Programme in Toxicology, Institute of Environmental Medicine (IMM), Karolinska Institutet
5: Students for Sustainable Development (SSD) at KI, Medicinska Föreningen
6: Fullmäktige (FuM), Medicinska Föreningen
7: German Alliance on Climate Change and Health (KLUG)

https://docs.google.com/document/d/1VMVbfhz4Avi6OBTu619i3QVGZhdzwVCdjms14vuGq0M
https://docs.google.com/spreadsheets/d/1cgZJKLlrJ-SHFBzVvzESX9gRrMPfWhEzHpDjfrtAcPA/edit
What did we do so far?
The Planetary Health Report Card (PHRC)

"The planetary health report card is a world-wide student-driven, faculty-supported initiative that seeks to evaluate medical universities’ performance using comparable and evidence-based metrics related to planetary health and sustainability“: [https://phreportcard.org](https://phreportcard.org)
### What is the PHRC?

#### Metrics/scoring system

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Planetary Health Curriculum

Commentary of student report
Stockholm, 2023-05-31

Department
Study program in Medicine

KI and the Planetary Health Report Card initiative

KI is appreciative of our students’ participation in this valuable work, intended to strengthen teaching of sustainability and planetary health. We have thus facilitated their work by providing some of the data, which regrettably is not exhaustive, due to an ongoing mapping process.

As stated, we are in the process of implementing a new curriculum, which first started in 2021. The current report, covering 2022-2023, mainly reflects late parts of the old curriculum (semesters 4-11) and only the two first years of the new curriculum.

Compared to the prior one, the new curriculum will have more pronounced sustainability-related learning outcomes and the planetary health report card may prove helpful in providing ideas for future learning activities. We aspire to reach higher scores in the years to come and encourage our students to follow up on this work.

Ass. Professor Marie Dahlin
Program Director
Medical Program
Karolinska Institutet

Ass. Professor Karin Leander
Program Coordinator of Global and equal health and healthcare competencies
Medical Program
Karolinska Institutet
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- Currently, planetary health is discussed in one course ("Public Health and Environmental Medicine"):
  - In depth: heat and air pollution
  - In brief: mental health, extreme weather, food insecurity, inequity

- Health co-benefits of a plant-based diet are briefly covered in one course.
- KI offers one elective course: "Sustainable Health and Development"
- Carbon footprint of the health care system is not covered
Planetary Health Curriculum

• No education in specific subjects e.g., internal medicine, obstetrics, paediatrics, physiology, ethics, ...

• No education on environmental impact and mitigation strategies
  • surgical health care
  • anaesthetic gases
  • metered dose inhalers
  • medical waste production
  • over-medicalisation, over-treatment and over-diagnosis

• No education on having conversations with patients on climate change

• Very little education on environment + health co-benefits of non-pharmaceutical interventions e.g. exercise/biking for NCDs, "good for your health and the environment"
Changes in the new 6-year medical program

examples that we know of, according to our latest information

• Following the new national medical syllabus, some aspects on climate change and health, and on sustainable healthcare are being included:

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<tr>
<td>Activity</td>
<td>2.5 hours</td>
<td>Climate change and health</td>
<td>-</td>
<td>15 minutes Negative impacts of pharmaceutics and pharmaceutical waste on climate</td>
<td>Antrimicrobial resistance</td>
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<tr>
<td>Activity</td>
<td>(planned) Environmental impact on pharmacokinetics</td>
<td>-</td>
<td>-</td>
<td>(planned) Communicating health promotion and health benefits</td>
<td>-</td>
<td>(planned) Sustainable healthcare</td>
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Planetary Health in the new curriculum: Some suggestions for the 6-year program

- **longitudinal** integration of planetary health across the entire medical program
- Integrate sustainable healthcare systematically in **existing courses**
  - ex 1, **physiology**: discuss heat waves and biological adaptation, altered pharmacokinetics of drugs, vulnerable populations, public health adaptation strategies
Planetary Health in the new curriculum:
Some suggestions for the 6-year program

• **longitudinal** integration of planetary health across the entire medical program

• integrate sustainable healthcare systematically in **existing courses**
  • ex 2, **medical ethics**: discuss role of health professionals, communication with patients, advocacy for health-oriented climate policy, implications of health care's carbon footprint
Planetary Health in the new curriculum:
Some suggestions for the 6-year program

• **longitudinal** integration of planetary health across the entire medical program

• integrate sustainable healthcare systematically in **existing courses**
  • ex 3, **pulmonology**: integrate air pollution, public health mitigation strategies, metered dose inhalers
Planetary Health in the new curriculum: Some suggestions for the 6-year program

• **longitudinal** integration of planetary health across the entire medical program

• integrate sustainable healthcare systematically in **existing courses**
  • ex 4, **surgery**: discuss medical waste in the operating room, waste reduction strategies, phasing out single-use plastics, circular economy in health care, anaesthetic gases
Takeaway messages – PHRC KI 2023

- KI offers many activities including education related to planetary health, however they are scattered and optional
- KI needs to bridge the implementation gap
- KI could become a leader in planetary health
Karolinska Institutet — spearheading planetary health education?

Empower today's students to lead tomorrow's change by providing them:

• **values** for healthy humans on a healthy planet
• **confidence** to advocate for well-being of current and future generations
• **transformative skills** to lead change towards climate-resilient health care systems

CanMeds Roles for health professionals, proposed 2005:

Planetary Health Report Card

2023 Results for Karolinska Institutet
Kontakt: nikolaus.mezger@stud.ki.se

Open letter on education to KI leaders
https://docs.google.com/spreadsheets/d/1cgZJKLlrJ-SHFBzVvzESX9gRrMPlWhEzHpDjfrtAcPA/edit

2023 PHRC results for KI
Appendix
Interdisciplinary Research in Health and the Environment

• KI is home to academic researchers with a primary focus on planetary health such as IMM, GPH, CESH, CHC
• KI has hosted conferences with a focus on sustainability in health care, awarded grants to planetary health researchers
• The departments of medicine in Huddinge and Solna barely have a planetary health or sustainable healthcare focus (exception: nephrology department)

Recommendations
• Include a sustainability section in research proposals
• All departments should consider planetary health aspects in their research
• Include planetary health aspects to existing KI prizes, grants and conferences
• The medical school has not organised events primarily for the public, nor cooperated with community organisations
• KI dedicates some space to planetary health in its internal communications
• KI intends to include climate and health issues in all its major cooperations including the region of Stockholm, community projects and health care by 2024

Recommendations
• Collaborate with public organisations to disseminate research findings
• Advocate for the implementation of research-based policies
Support for Student-Led Planetary Health Initiatives

• KI supports student-led sustainability initiatives with infrastructure, online presence and faculty support
• Students advise KI on work related to planetary health and sustainability
• No KI funding is available
• The department of medicine does not actively support student-led initiatives

Recommendations:
• The medical department should actively support student-led initiatives, with a focus on co-creative activities
• KI should fund student-led initiatives
• KI intends to lower its carbon footprint by 50% from 2019 until 2030
• There is no net-zero target
• It is likely KI invests in fossil fuels\(^1,2\)
• There are staff members employed to lead sustainability efforts
• KI has optional recommendations to make daily operations more sustainable

Recommendations
• KI should investigate its monetary flows and divest from fossil fuels
• KI should make sustainability recommendations for daily operations mandatory

1: [https://fossilfrittsverige.se/aktorer/](https://fossilfrittsverige.se/aktorer/)
2: [https://medarbetare.ki.se/ki-stiftelser-fonders-utlysningslista](https://medarbetare.ki.se/ki-stiftelser-fonders-utlysningslista)
Resources

EDUCATION FOR SUSTAINABLE HEALTHCARE
A curriculum for the UK

https://www.medschools.ac.uk/media/2949/education-for-sustainable-healthcare_a-curriculum-for-the-uk_20220506.pdf
Resources

**Articles**

**Faculty development and partnership with students to integrate sustainable healthcare into health professions education**

San Yu May Tun, Caroline Wellbery & Arianne Teherani

Published online: 07 Aug 2020


**National Planetary Health learning objectives for Germany: A steppingstone for medical education to promote transformative change**

Katharina Wabnitz, Eva-Maria Schwienhorst-Stich, Franziska Asbeck, Cara Sophie Fellmann, Sophie Gepp, Jana Leberl, Nikolaus Christian Simon Mezger, Michael Eichinger

Published online: 06 Aug 2020


**Consortium Statement**

**AMEE Consensus Statement: Planetary health and education for sustainable healthcare**

Emily Shaw, Sarah Walpole, Michelle McLean, Carmen Alvarez-Nieto, Stefi Barna, Kate Bazin

Published online: 19 Feb 2021


**Envisioning planetary health in every medical curriculum: An international medical student organization’s perspective**

Omnia El Omrani, Aaa Dafallah, Bianca Paniello Castillo, Bianca Quintella Ribeiro Corrêa Amaro, Sanjana Taneja, Marouane Amzil

Published online: 06 Aug 2020

PHRC Presentation of results: Council for Environment and Sustainable Development

8th September 2023

Summary of Findings

Overall evaluation
C

Curriculum (40 out of 72 points)
C+
- Limited integration of environmental and sustainability themes throughout the curriculum.
- Some courses have specific modules or projects on sustainability, but these are not mandatory or well-integrated.
- Recommendation: Integrate sustainability themes across the curriculum to enhance student understanding and engagement.

Interdisciplinary Research (13 of 17 points)
B+
- Limited collaboration between different departments on sustainability-related research.
- Some research projects show promising results, but more integration and coordination are needed.
- Recommendation: Encourage more interdisciplinary research collaborations to address complex environmental challenges.

Community Outreach and Advocacy (5 of 14 points)
D
- Limited community engagement and advocacy initiatives.
- Some initiatives exist, but they are not well-organized or sustained.
- Recommendation: Increase community engagement and advocacy efforts to raise awareness and promote sustainable practices.

Support for Student-Led Initiatives (8 of 15 points)
C
- Some student-led initiatives are supported, but they could benefit from more resources and guidance.
- Recommendation: Increase support and resources for student-led initiatives to foster student leadership and engagement.

Campus Sustainability (10 of 32 points)
D
- Limited progress in reducing carbon footprint and implementing sustainable practices.
- Some initiatives are in place, but they need to be scaled up and implemented more effectively.
- Recommendation: Increase focus and resources on campus sustainability initiatives to achieve the Paris Agreement targets.
Why are we here?

Earth ‘well outside safe operating space for humanity’, scientists find

First complete ‘scientific health check’ shows most global systems beyond stable range in which modern civilisation emerged

September 2023: https://www.science.org/doi/10.1126/sciadv.adh2458
Why are we here?

http://www.lancetcountdown.org
Why are we here?