

WHAT'S NEW IN AMEE BASEL 2024

FRIDAY
11 OCT
2024

13:00 - 16:00 น.

HYBRID
ONSITE + ONLINE

ห้องประชุม 201
อาคารศรีนครินทร์ ชั้น 2

Meeting ID : 944 1307 1450
Passcode : 143389

- 13.00 น. ท้าวเมืองาน โย กุมาลวณิช อัครวิญญู
- 13.10 น. ก.นพ.อรรถชัย อัครวิญญู
Overview of AMEE 2024 and ASPRE Award
Inspiration and Innovation
- 13.20 น. รศ.ดร.นพ.ถาวรชัย พิณพิฑิต
From Competency-based medical education (CBME)
to Competency-based faculty development (CBFD)
- 13.30 น. รศ.นพ.รัฐพล ดวงทอง
Planetary Health: Crisis to Sustainable Health Care
Curriculum and Technology in Medical Education
- 13.40 น. รศ.นพ.อรรถชัย พิณพิฑิต
Self-regulated learning, Micro-learning, and Micro
assessment: A Paradigm Shift in Medical Education



- 13.50 น. รศ.ดร.นพ.เชิดศักดิ์ โยมนศิริวัฒน์
Learner Handover (HO) renewal
- 14.00 น. รศ.ดร.สมบุญ สุวรรณรัตน์ กุญชรวิญญู
Visual Thinking Strategies
- 14.10 น. รศ.ดร.นพ.อรรถชัย พิณพิฑิต
AI in Future of Medical Education
- 14.20 น. รศ.ดร.นพ.สุจิตราภรณ์ ชัยนารถ
AI Transformative Power
- 14.30 น. อ.ดร.นพ.ดวงจิตต์ กนิษฐานนท์
AI in Clinical Reasoning
- 14.40 น. อ.นพ.กฤษณ์ อธิระการ
Transparency in Assessment /
AI Simulation and Data

- 14.50 น. รศ.นพ.สุประพัฒน์ ศุภพลาภิรักษ์
Faculty Development
- 15.00 น. รศ.นพ.สุภัทฏกานา อัมมวิท
Quality of Postgraduate Education
- 15.10 น. รศ.นพ.อรรถชัย อัครวิญญู
Activating the Art Museum to Build Connections
and Personal Growth
- 15.20 น. รศ.ดร.สมบุญ กุญชรวิญญู
Cohs
- 15.30 น. Q & A



ลงทะเบียนเข้าฟังบรรยาย
เพื่อสะสมชั่วโมง CPD

SCAN NOW

สอบถามเพิ่มเติม

งานบริการทางวิชาการ ตึกออกฤกษ์ศรีนครินทร์ ชั้น 6

02-419-6419, 02-419-6421 โทรสาร: 02-419-6445

ME EDUCATION
Medical Education Association



AMEE BASEL 2024

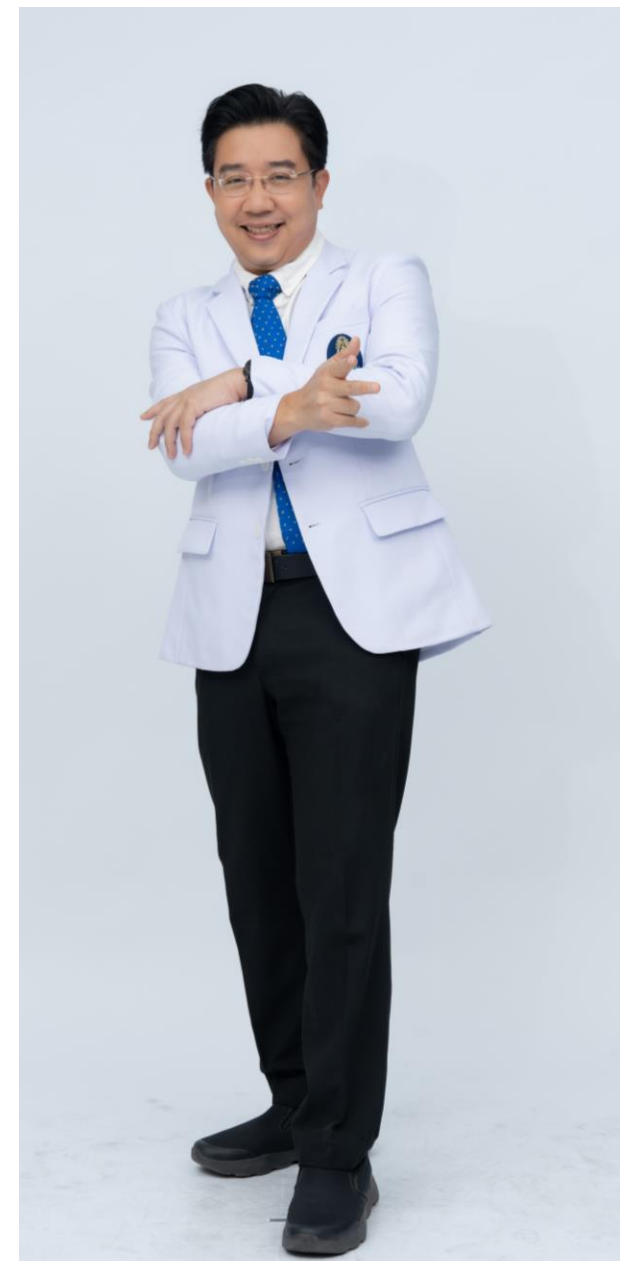
10 mins

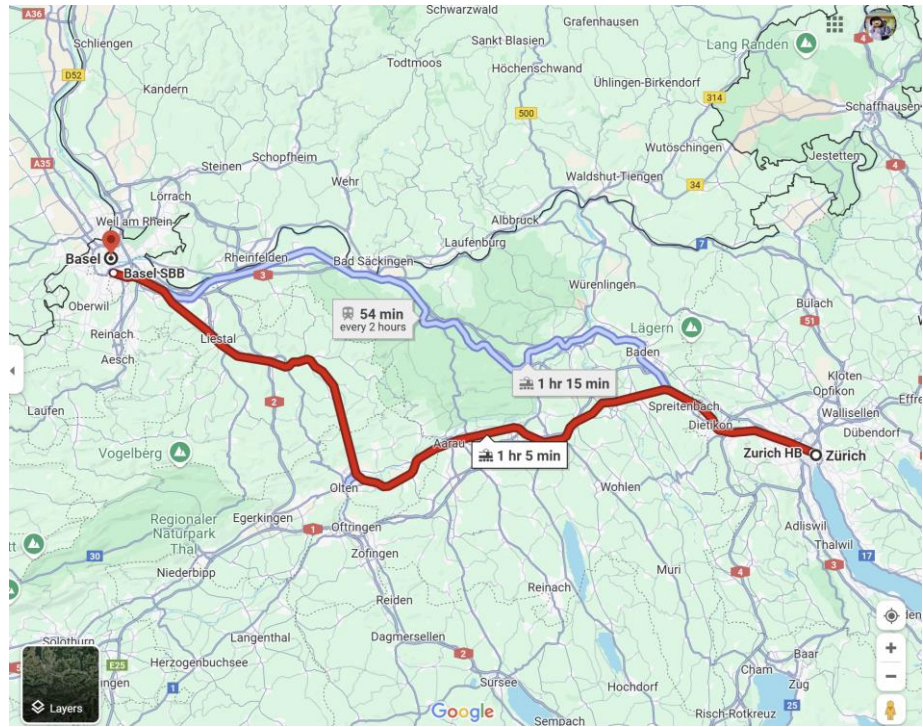
Update AMEE 2024 : Planetary health crisis to Sustainable Health Care Curriculum and Technology in Medical Education

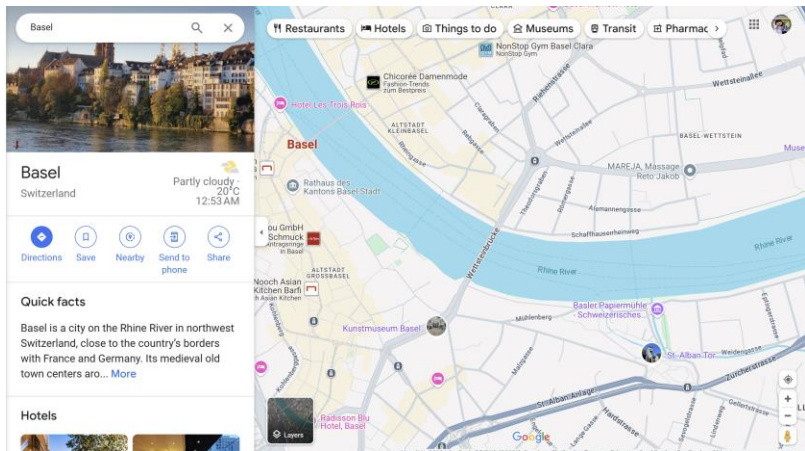
รศ.นพ.รัฐพล ตวงทอง Si 100

PhD Candidate in Biomedical Engineering, Mahidol University

- Board of Internal Medicine 
- Board of Dermatology 
- Fellowship in Dermatology UCLA and Upenn
- Head of Division of Hair disorders and Hair transplantation, 
- Siriraj Hospital, Mahidol University, Thailand
- President of Thai Society of Hair Restoration Surgery 
- ประธานวิชาการสมาคมแพทย์ผิวหนังแห่งประเทศไทย
- อนุกรรมการวิชาการราชวิทยาลัยอายุรแพทย์แห่งประเทศไทย
- รองคณบดีฝ่ายกิจการนักศึกษาศิริราช
- ประธานเครือข่ายกิจการนักศึกษาแห่งประเทศไทย
- กรรมการแพทย์สมาคมแห่งประเทศไทย 
- ผู้ช่วยเลขาธิการแพทยสภา 







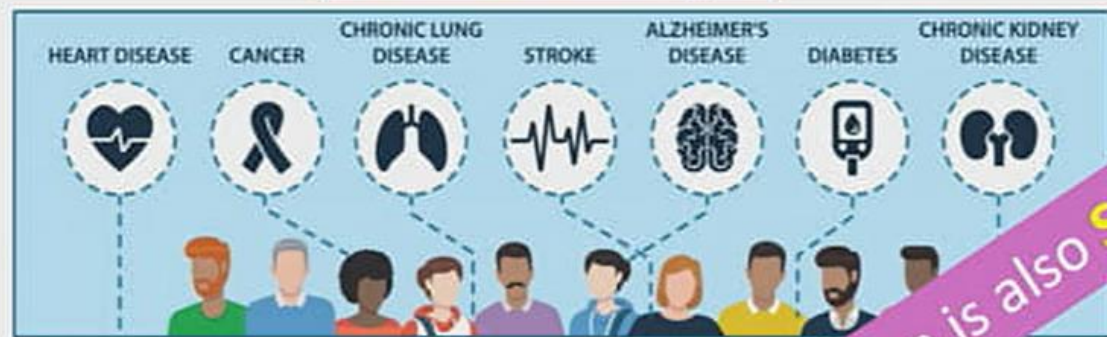
Rhine River

- 
1. ทำไมถึงต้องบรรจุเรื่อง **Planetary Health Crisis** ลงใน **Curriculum** ?
 2. สอน ถ่ายทอด อย่างไรดี ?
 3. ผลเป็นอย่างไร ?

Nurses, Environment and Human



Mother Earth is Sick



Human is also Sick

Who should Nurses Care for?

Climate change is one of the greatest threats to public health in the 21st century

¹The effects of increased CO2 levels ...



Rising temperature



Rising sea levels



Increasing extreme weather events

... directly influence health outcomes (*examples below*)



Extreme weather events

- Injuries
- Fatalities
- Mental health effects
- Mass migration events



Heat stress

- Heat-related illness and death



Air quality

- Exacerbations of asthma and other respiratory diseases
- Respiratory allergies
- Cardiovascular disease
- Lung cancer



Water quality and quantity

- Campylobacter infection
- Cholera
- Cryptosporidiosis



Food supply and safety

- Undernutrition
- Foodborne diseases
- Mycotoxin effects



Vector distribution and ecology

- Chikungunya
- Dengue
- Malaria
- Encephalitis (various forms)



Social factors

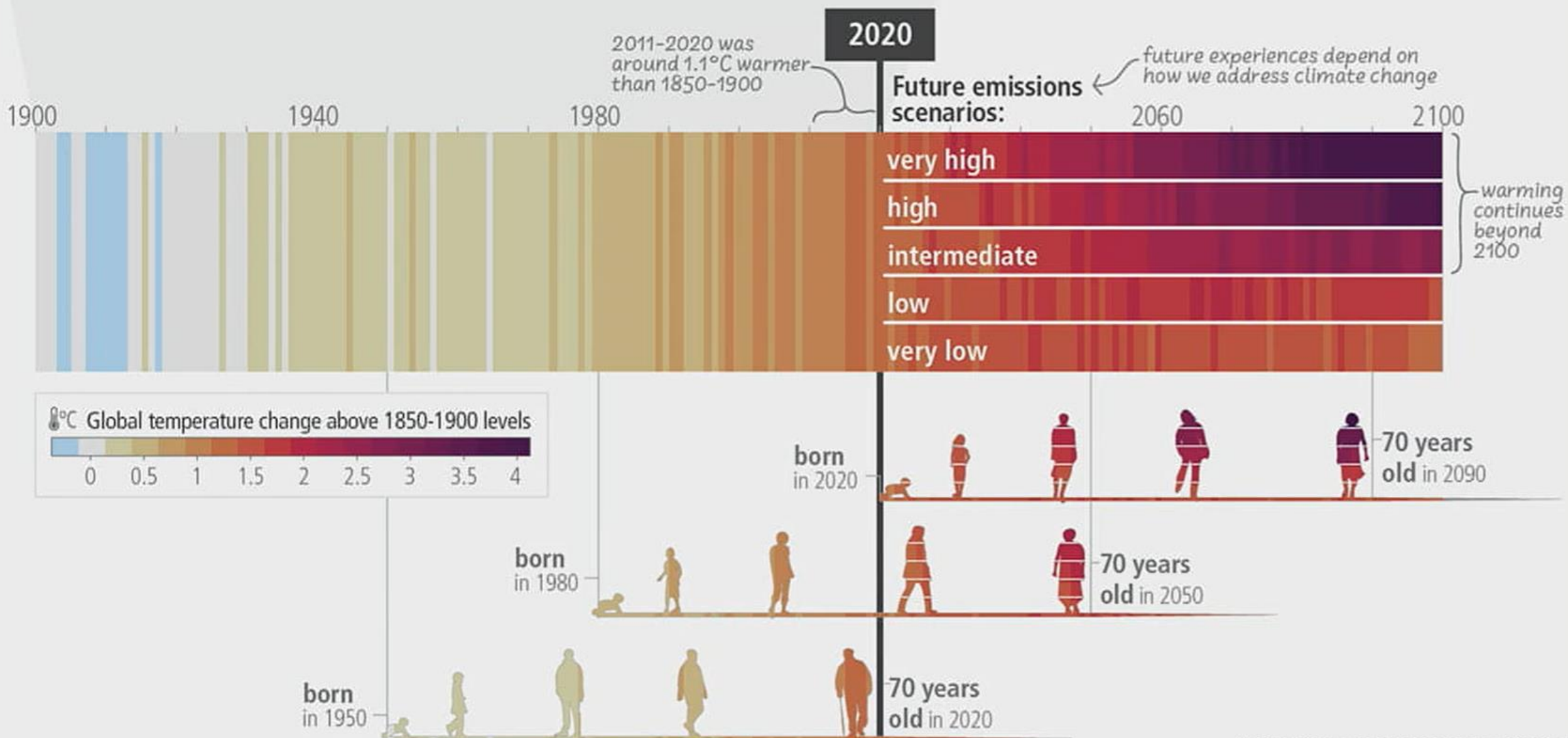
- Physical and mental health effects of violent conflict and forced migration (complex and context-specific risks)

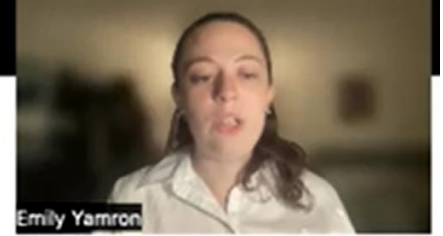


Wildfires

- Injuries
- Fatalities
- Mental health effects
- Displacement

c) The extent to which current and future generations will experience a hotter and different world depends on choices now and in the near-term





Background

- Climate change represents a major threat to health and wellbeing
 - 250,000 excess deaths expected worldwide by 2050¹
- Health care workers are trusted sources of information
 - Over 90% of people identify their health care workers as trusted sources of information²
 - Presenting climate change by discussing its health impacts is an effective way to engage people on the issue³
- While accreditation standards for British medical schools recently incorporated planetary health⁴, US medical schools have no such requirements
 - Efforts to incorporate planetary health into medical school curricula in the US are largely student-driven⁵



Research Article

AMEE Consensus Statement: Planetary health and education for sustainable healthcare

Emily Shaw, Sarah Walpole, Michelle McLean, Carmen Alvarez-Nieto, Stefi Barna, Kate Bazin, Georgia Behrens, Hannah Chase, Brett Duane, Omnia El Omrani, Marie Elf, Carlos A. Faerron Guzmán, Enrique Falceto de Barros, Trevor J. Gibbs, Jonny Groome, Finola Hackett, Jeni Harden, Eleanor J. Hothersall, Maca Hourihane, Norma May Huss, Moses Ikiugu, Easter Joury, Kathleen Leedham-Green, Kristin MacKenzie-Shalders, Diana Lynne Madden, Judy McKimm, Patricia Nayna Schwerdtle, Sarah Peters, Nicole Redvers, Perry Sheffield, Judith Singleton, SanYuMay Tun & Robert Woollard

Published online: 19 Feb 2021

Download citation



Full Article

Figures & data

PDF | EPUB

Patricia Nayna Schwerdtle, Sarah Peters, Nick

... show less

Published online: 19 Feb 2021

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Further reading

Recommended articles

Cited by

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

SanYuMay Tun (May Sanyu Tun) et al. Medical Teacher

Published online: 7 Aug 2020

Rethinking health professions' education leadership: Developing 'eco-ethical' leaders for a more sustainable world and future



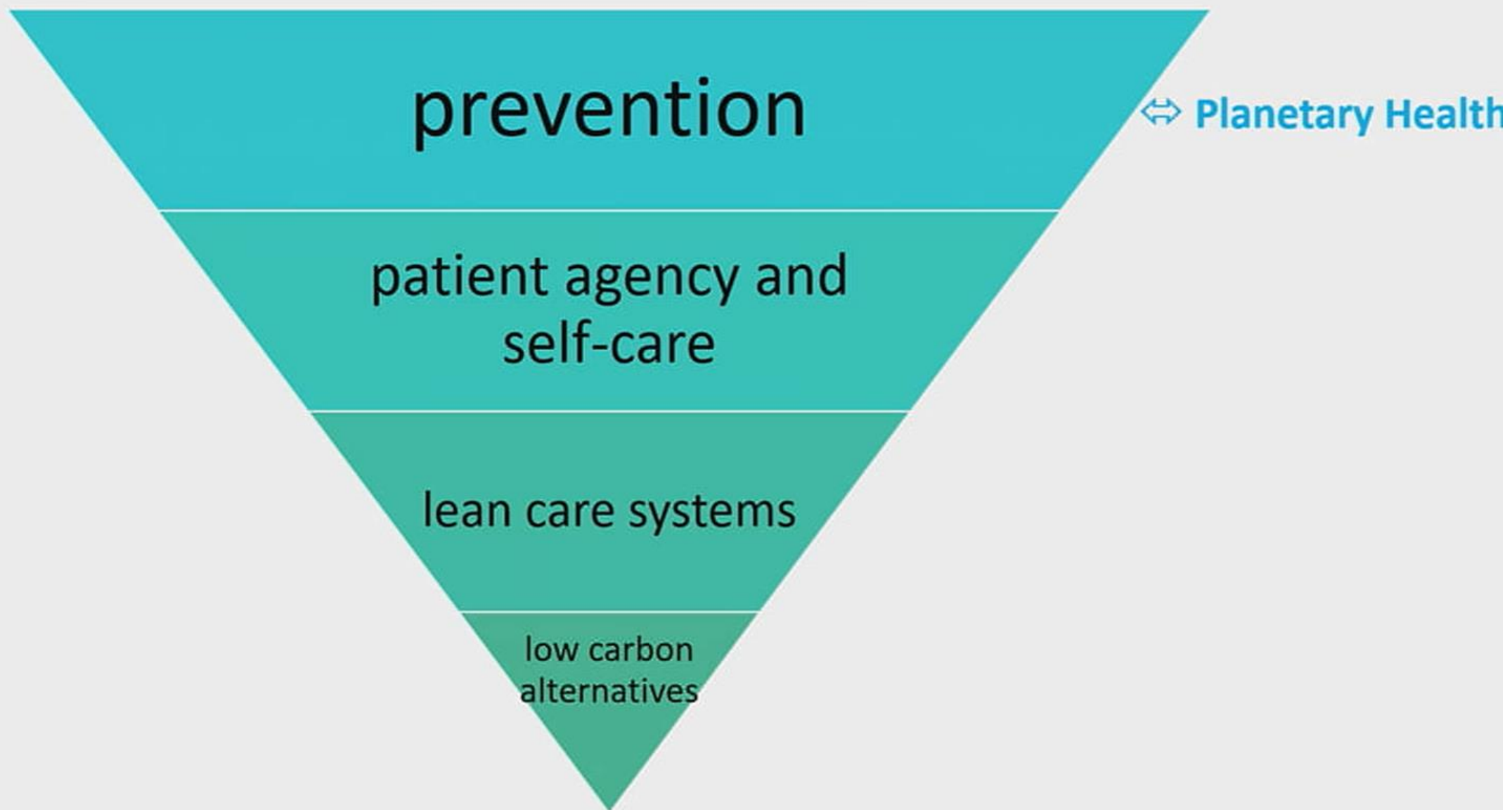
education for sustainable healthcare

Practical recommendations for implementing and evaluating education for sustainable

Abstract

The purpose of this Consensus Statement is to provide a global, collaborative, representative and inclusive vision for educating an interprofessional healthcare workforce that can deliver sustainable healthcare and promote planetary health. It is intended to inform national and global accreditation standards, planning and action at the institutional level as well as highlight the role of individuals in transforming health professions education. Many countries have agreed to 'rapid, far-reaching and unprecedented changes' to reduce greenhouse gas emissions by 45% within 10 years and achieve carbon neutrality by 2050, including in healthcare. Currently, however, health professions graduates are not prepared for their roles in achieving these changes. Thus, to reduce emissions and meet the 2030 *Sustainable Development Goals* (SDGs), health professions education must equip undergraduates, and those already qualified, with the knowledge, skills, values, competence and confidence they need to sustainably promote the health, human rights and well-being of current and future generations, while protecting the health of the planet.

Principles of sustainable healthcare



- 
1. ทำไมถึงต้องบรรจุเรื่อง **Planetary Health Crisis** ลงใน **Curriculum** ?
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 3. ผลเป็นอย่างไร ?

An international overview of adapting and adopting a Planetary Health and Sustainable Healthcare curriculum



SanYuMay Tun
United Kingdom



Nicolas Senn
Switzerland



Wentao Zhou
Singapore



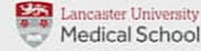
Eva-Maria
Schwienhorst-Stich
Germany



James Irlam
South Africa



Felicity Connolly
United Kingdom



AMEE 2024 Basel

Symposium

26 August 2024



Develop Your Educational Career

> CONNECT > GROW > INSPIRE

24 - 28 August 2024



www.amee.org



An innovative Planetary Health and Sustainable Healthcare curriculum

Adaptable for differing contexts

Fully endorsed by Medical Schools Council and General Medical Council

Freely available

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 Emma O'Neill
 Anna Jones

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

EDUCATION FOR SUSTAINABLE
HEALTHCARE
A curriculum for the UK

Endorsed by the Medical Schools Council



Contents include

Approaches to curriculum design

Key foundations of ESH

Health impacts of climate and ecosystem crisis

Impact of the crisis on healthcare systems

Healthcare's impact on the environment

Sustainable clinical practice, medical specialisms

Professionalism, leadership and achieving structural change

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Contents include

Approaches to

Key foundations

Health impact

Impact of the

Healthcare's impact

Sustainable clinical

Professionalism

Nuts and Bolts....

From 2019-20

Year 1

- Integrated new ESH ILOs into existing **PBL Scenarios** to introduce the concepts
- **Lecture** on Environmental Ethics
- Year 1 **student selected module (SSM)** on environmental ethics

Year 2

- Integrated new ESH ILOs into existing **PBL Scenarios**
- Added a climate change angle to:
 - **Health Inequalities module**
 - **Health Promotion in Schools** module: students deliver a lesson to Year 6 primary school pupils about healthy and low carbon lifestyles affecting cardiovascular health.
- Year 2 **student selected module (SSM)** on Sustainable Healthcare and Planetary Health

Y3 Module: Planetary Health and Sustainable Healthcare

Managing Long Term Conditions Rotation

- **Plenary Lecture:** Introduction to Planetary Health and Sustainable Healthcare
- **Coursework/VLE pre-reading** 1 week for exploration of scenarios and resources
- **Small Group Workshops** facilitated by GP SCLs/CTFs in Primary Care Clinical Teaching:

Scenarios:

1. Health Benefits of Low Carbon Lifestyle
2. Principles of Sustainable Clinical Practice
3. Waste: pharmaceuticals, clinical waste, food
4. Climate Change Advocacy: what is the doctor's role?

Year 5

GP and Primary Care Rotation

- Small group teaching
- GP Clinical Teaching Fellow 1.5 hour facilitated group discussion

Royal College of General Practitioners (RCGP): Green Impact for Health

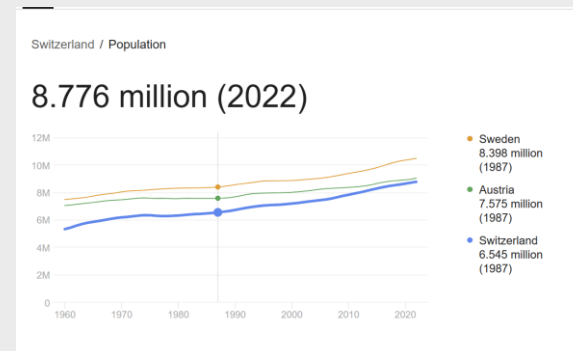
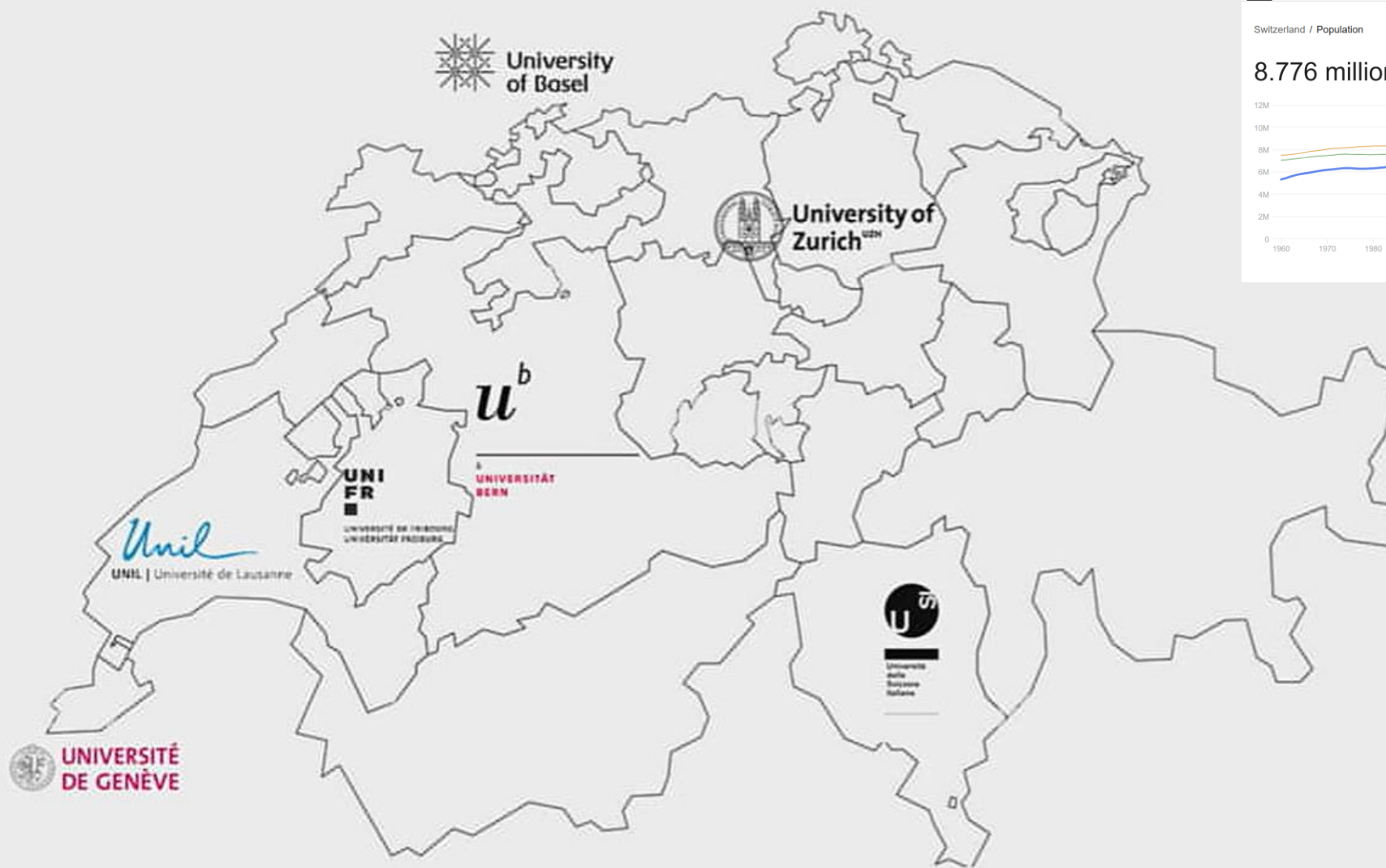
<https://www.greenimpact.org.uk/giforhealth>

Greener Practice

<https://www.greenerpractice.co.uk/>



Swiss universities with medical schools



At the university of Lausanne



The screenshot shows the website for the 'Plateforme durabilité et santé' at the University of Lausanne. The header includes the UNIL logo and navigation links: UNIL, L'Actu, L'Agenda, Campus pratique, MyUNIL, Facultés, and Centres. A search bar is located in the top right corner. Below the header, the page title is 'Faculté de biologie et de médecine' and 'Plateforme durabilité et santé'. A navigation menu contains links for 'Présentation', 'Formation', 'Événements', 'Recherche', and 'Plus d'infos'. The main content area features a colorful geometric pattern of overlapping circles in shades of blue, green, and orange. To the right of this pattern, the text reads: 'Santé et durabilité : un nouvel appel à projet Interface', 'Interface lance un appel à projets Voltface sur la thématique de la santé articulée aux enjeux de durabilité', and a 'Lire plus' button.

Since 2023, a longitudinal curriculum on sustainability and health was implemented in the medical school (coordination: *Dr Julia Gonzalez*)

Platform sustainability and health:
coordinate and promote all teaching and research activities at the Faculty of Biology and Medicine

unisanté



The graphic features a close-up of white computer keyboard keys with a small green sprout growing from between them. The text 'le savoir vivant' is visible in the top right corner. Below the image, a yellow banner contains the text: 'Plateforme durabilité et santé', a QR code, 'ENSEIGNEMENT DE LA DURABILITÉ', 'DANS LE CURSUS DE MÉDECINE', and the UNIL logo. At the bottom, it states 'Avec le soutien du Centre de compétences en durabilité' and 'Faculté de biologie et de médecine'.

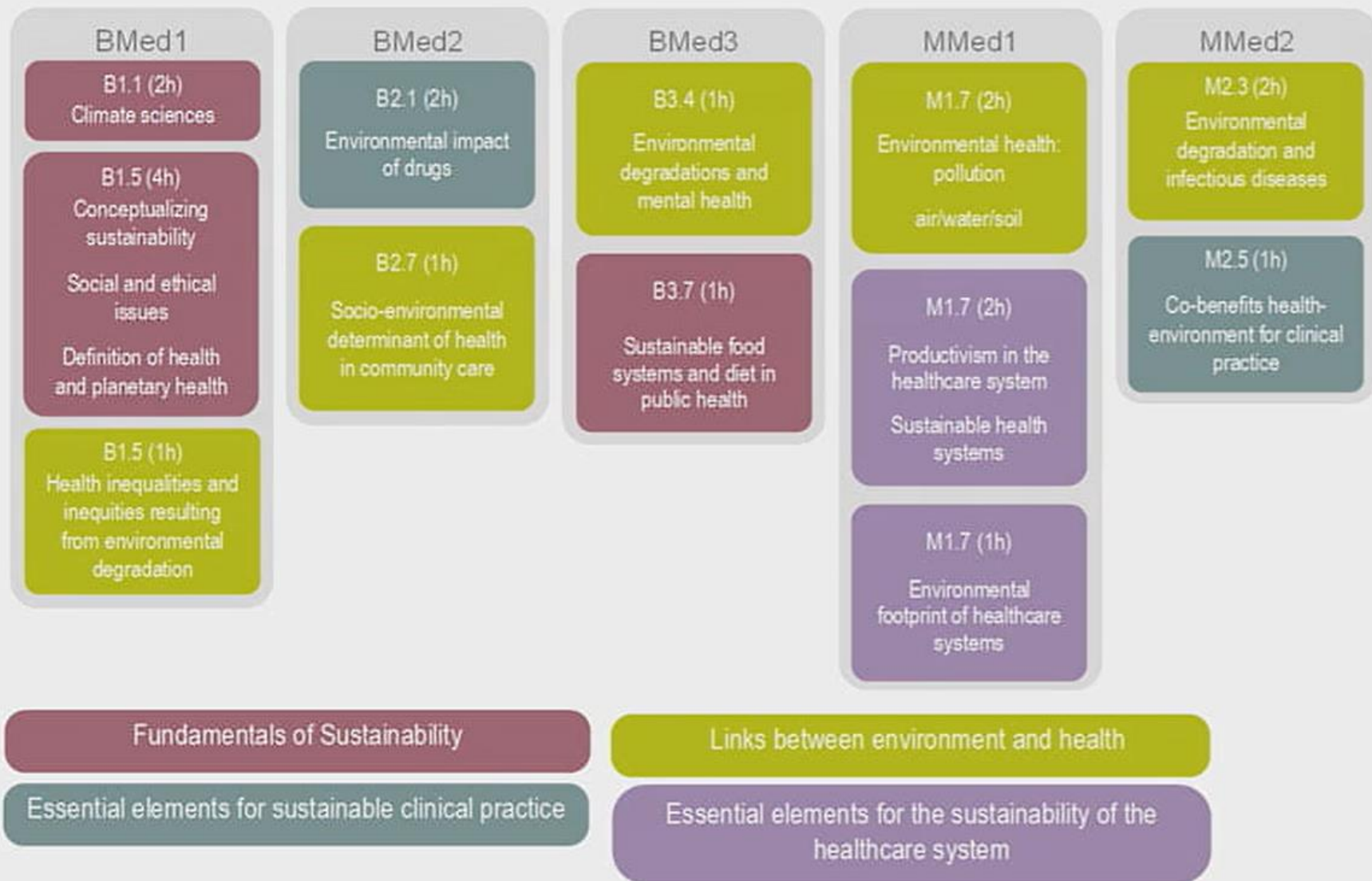
Overall aim of the curriculum

Provide students with the necessary knowledge, competences and knowhow on the complex interplay between health & the environment and sustainability principles for their future medical career

Three types of lectures

1. > 20 hours **compulsory lectures** (+ 20 hours self-learning) embedded in different modules with evaluations (approx. 2 credits): ex-cathedra and TBL format
2. Elements of sustainability in various **medical specialities** (cardiology,...)
3. **Optional courses** of 36 hours each, in year 3/4 (health & environment, pollution, environmental risk assessment)

Compulsory lectures



Specificities of the curriculum in Lausanne

- Interdisciplinarity (social sciences, public health, engineering, envir. sciences...)
- Integrated to existing modules
- Takes a broad view on sustainability and health, the healthcare system and clinical practice
- Adopts a critical perspective
- Collaboration with the Sustainable Competences Center (University)
- Strong support by the Deanship
- Link with post-graduate training (Plateform)

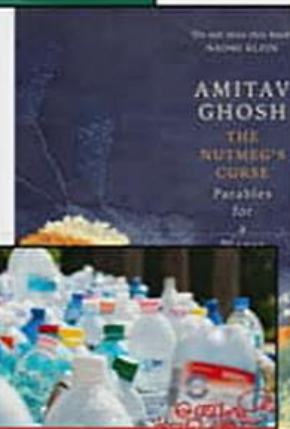


CAPITALISME, MONDIALISATION, SUREXPLOITATION

La colonisation c'est aussi l'épanouissement du capitalisme

Le processus a démarré au 16^e s (Amitav Ghosh, *The Nutmeg's curse*, 2021) et s'est accéléré durant la période de colonisation moderne et... poursuivi dans le post-colonial

→ Transformation des pratiques de nouvelles cultures, culture d'intensification de la production, accroissement des mobilités humaines surtout du côté des plus précaires



Faculté de biologie et de médecine
Centre de compétences en durabilité

DATE : 10 OCT 2024
DE 10H15 À 13H15
COORDONNÉES : 12b15-13b15 | Auditorio de la Maternité, CHUV, Lausanne

SANTÉ ET ENVIRONNEMENT : NOTRE SANTÉ DE PLASTIQUE

- 10 OCT 2024 • Pollution plastique : sources, impact environnemental et conséquences pour la santé humaine
DrSc. Julien Brucher - Environmental Action Lausanne
- 10 OCT 2024 • Régimes globaux à la pollution plastique : perspectives et implications du traité international sur la pollution plastique
DrSc. Sarah Perreard - Environmental Action Lausanne
- 10 OCT 2024 • Complexité toxicologique des microplastiques - de l'environnement à l'exposition humaine
DrSc. Myriam Borgatta - Université et DrSc. Florian Bröder - CHUV
- 14 OCT 2024 • Measuring and reducing plastics in the healthcare sector
Astrid Gergely et Clara Schöberl - Hochschule Witten/Herdecke
- 17 OCT 2024 • Soigner sans nuire ? le dilemme des plastiques en néonatalogie
Drsc. Céline J. Fischer Fumeaux et Drsc. Myriam Bickler Graz - CHUV
- Des innovations frugales pour réduire les plastiques : de la formation aux pratiques en santé
DrSc. Raquel Becerra et Pierre-André Favez - HESAV

Informations : unisanté@unil.ch
Publications : www.unil.ch/unisanté
Durabilité : www.unil.ch/durabilite



Nursing Education and Planetary Health (Informal and Formal Education)

2022



2023



2024



Sigma Speaks the Chapter

Evidence-Based Framework for Achieving Health Workforce Wellbeing



Free Admission

Dr. Christine Pabian
PhD, RN, NE-BC, FAAN
Director of American Nurses Credentialing Center (ANCC) Pathway to Excellence Program

Felicia Harsh
BSN, RN
Senior RN Specialist, Pathway to Excellence Program

Date: 21 September 2023 (Saturday)
Time: 9:00-10:00 AM Singapore (GMT+8)
Zoom Webinar Registration: <https://www.sigmaitalia.com/2023/09/21/>
SNO CPE Point for Singapore Nurses

Food Waste-Related Factors That Impact Health



Tutorial Group A Subgroup 5

SDG 12: Responsible Consumption & Production

Sigma Speaks the Chapter

Planetary Health: Where Nurses Should Position Ourselves?



FREE ADMISSION

Professor Trudy Potter
School of Nursing
University of Minnesota

Co-lead: Health Professionals for Healthy Planet
Key member: Alliance of Nurses for Healthy Environments, and American Academy of Nursing Environment and Public

Date/Time: 1 July 2022 at 9:00am Singapore Time (GMT+8)
Zoom Webinar Registration: <https://www.sigmaitalia.com/2022/07/01/>
SNO CPE Point will be awarded to Singapore Nurses

Sigma Speaks the Chapter

Planetary Health Actions: A-Z Strategies for Healthcare Providers



FREE ADMISSION

Jenise Hawkins
Clinical Associate Professor
DNP Nurse Executive Program Director
EAI Duquesne University, USA

Sigma United Nations Liaison in Special Consultative Status with the Economic and Social Council.

Date: 22 October 2022 (Saturday)
Time: 9:00-10:00 AM Singapore (GMT+8)
Zoom Webinar Registration: <https://www.sigmaitalia.com/2022/10/22/>
SNO CPE Point for Singapore Nurses

Harmony in Health: Navigating Planetary Health, Sustainable Healthcare, and The future of Health Professional Education

Dr SanYuMay Tun
Lead for Education for Sustainable Healthcare
in the Medical Sciences Division
University of Oxford

29 Jan 2024



Nursing Education Initiatives (5Rs) for Planetary Health

Hospital practice

Expand current individual hospital initiatives to nationwide campaign

- Recycle IV bags, plastic bottles, E-waste, food waste in clinical areas
- Reproduce uniforms into tote bags

Recycling competitions among health clusters

- Incentives for winning cluster



Recycle Project

Water related to health



Safe drinking water



Water quality management



Water sustainability



Emergency preparedness



Remind for Action

Effects of Heat Exposure on Cardiovascular Incidents Among Elderly in Asia: A Systematic Review and Meta-analysis

Abstract (200 words)

Background: Heatwaves have adverse impacts on the health of the public, but research on the effect on the elderly above the age of 65 in Asia is scarce, even though this is a high-risk group.

Aim: Study the effect of heatwaves on cardiovascular incidents among the elderly above 65 in Asia.

Methods: We searched 6 electronic databases, grey literature and reference lists for published and unpublished articles in English up to October 2022. The Joanna Briggs Institute checklist for observational studies and Grading of Recommendations, Assessment, Development and Evaluation system were used to assess the individual studies and overall evidence. We conducted a random-effects meta-analysis to investigate the relative risk of cardiovascular disease due to heatwaves among elderly above 65 in Asia.

Results: 14 time-series observational studies were included in the review. The pooled relative risk was 1.10 among 1,230,351 elderly from 31 Chinese and 7 Korean regions. Subgroup analysis revealed a significantly higher relative risk of cardiovascular hospitalisation than death due to

significantly higher risk when using relative heatwave definitions compared to absolute. Methodological quality assessment independently conducted by two reviewers revealed that 6 studies were high quality, 7 were intermediate and 1 low. The overall evidence was low.

Research

Importance of Understanding Sustainable Cities for Nurses

(Taminatti et al., 2023)

- Public Health Promotion:** Nurses play a crucial role in promoting public health within sustainable cities.
- Environmental Risks and Health:** Nurses need to grasp how environmental factors impact health.
- Community Engagement and Empowerment:** Nurses advocate for community health within sustainable cities.
- Disaster Preparedness and Response:** Nurses must be prepared to respond to emergencies in urban settings.
- Health Equity and Social Justice:** Nurses address disparities in urban health and advocate for equity.

Relate back to Nursing

A theory-based approach to designing interventions for Planetary Health




Figure 1. A Planetary Health Framework. Source: Adapted from Brusselle and McDavid (2022): 175.

Brusselle, A., McDavid, J., Curran, M., Leutenberg, R., Dunbar, B., & Ney, T. (2022). A theory-based approach to designing interventions for Planetary Health. *Evaluation, 28*(3), 330-355.

Redesign Nursing Curriculum

Resources Used to Support for Planetary Health Education



Alliance of Nurses for Healthy Environments

MISSION

Promoting healthy people and healthy environments by educating and leading the nursing profession, advancing research, incorporating evidence-based practice, and influencing policy.

VISION

ANHE is a transformational alliance preparing and engaging nurses to assure the environmental health of all people, overcome environmental health disparities, and to heal our communities and the earth for present and future generations.

<https://envirn.org/>

Environmental Health in Nursing 3rd Edition



Editors:

Ruth McDermott-Levy, PhD, MPH, RN, FAAN
Kathryn P. Jackman-Murphy, EdD, MSN, RN, CHSE
Joanne Leffers, PhD, RN, FAAN
Adelta G. Cantu, PhD, RN, FAAN



Alliance of Nurses for
Healthy Environments



DEM DEUTSCHEN VOLKE

A) N° 5: Transformative competencies



Examples
Transdisciplinary
learning



Communication
skills

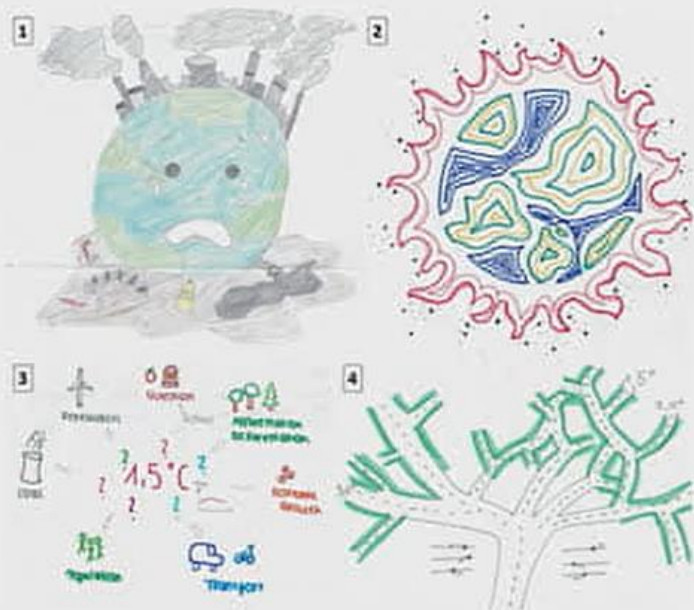


Plant-based
cooking skills



A) N° 6: Space for reflection and resilience building

Learners need space for guided and self-guided reflection in and outside the classroom.
PHE needs to promote resilience in learners, as they are facing dire future scenarios



Schwienhorst-Stich et al. 2024

Reflective drawing



Arts for project planning
and communication skills



Nature connection exercises

C) PHE courses at medical schools in Germany: Overview

Mixed methods study

- Structured Interviews 2021-2022
- Online Survey 2023

Results

responses from 35 / 39 medical schools in Germany

- 138 Planetary Health related courses
- Median of 2 per medical school
- Steady increase since 2021
- 1/3 curricular/mandatory and 2/3 electives!

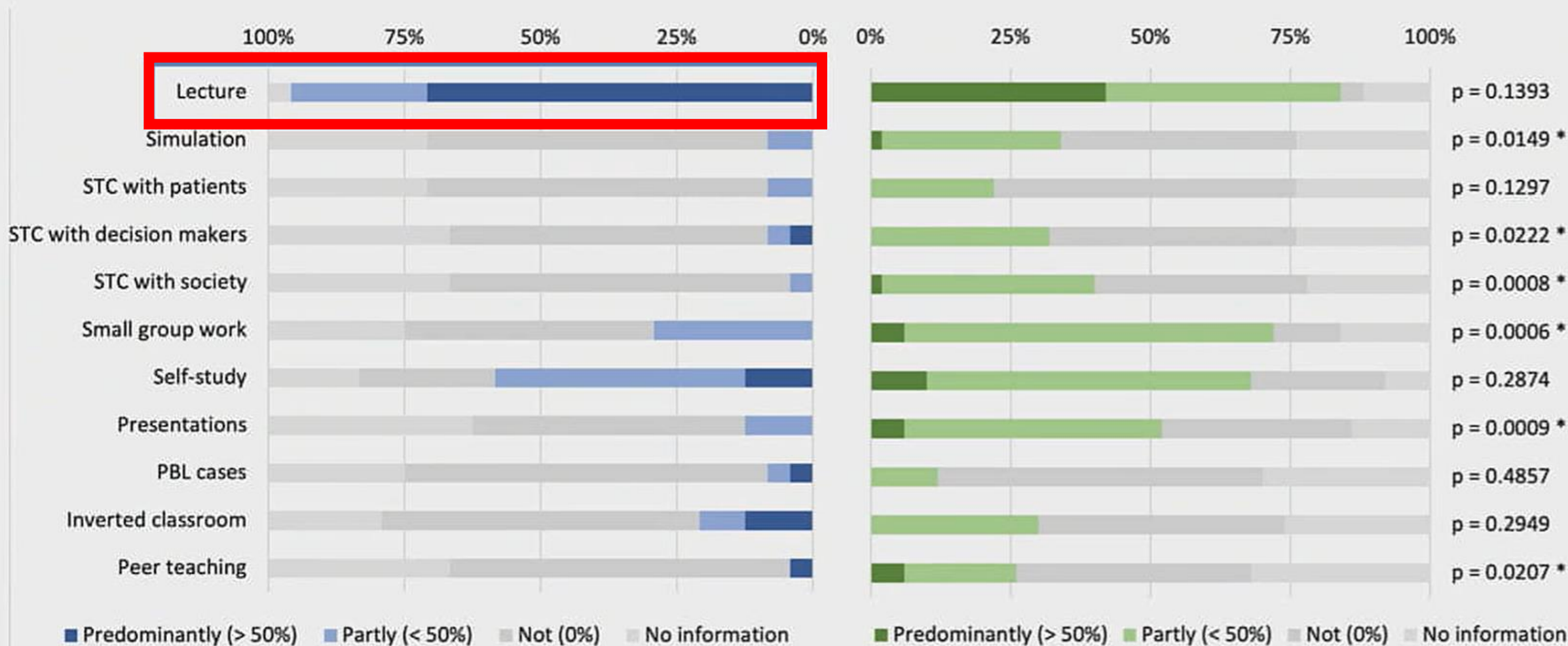
C) PHE courses at medical schools in Germany: Teaching methods

* statistically significant ($p < 0.05$)

Online survey:

Mandatory courses (n = 24)

Elective courses (n = 50)



C) PHE courses at medical schools in Germany

Assesment methods & conclusion

Assessment methods

- ▶ 75% multiple choice exams
- ▶ No mandatory OSCEs! (one in Jena now)

Conclusion

- ▶ Increase in PHE at medical schools in Germany
- ▶ Mainly elective courses, fewer mandatory
- ▶ Lack in innovative and transformative teaching methods
- ▶ Lack in competency-based assessment methods

D) SOPHEA project:

Strengthening

One Health and

Planetary

Health in

Eastern

Africa

Partnership between universities in Germany and East Africa
Results applicable worldwide

funded by:

DAAD

Deutscher Akademischer Austauschdienst
German Academic Exchange Service

D) Planetary Health Education Toolbox



A) Didactic skills

> Welcome to the Planetary ...

> How to use th... **Highlighted**

> A) SOPHEA Didactic Skills ...

> B) Good Practice Examples...

> 1. Introduction to Planetary...

> 2. Ecosystem & Biodiversity

> 3. Heat

> 4. Pollution

> 5. Agriculture

> 6. Nutrition

> 7. Animal Health

> 8. Infectious Diseases & Pa...

> 9. Non-Communicable Dis...

> 10. Child Health

B) Good Practice Examples and Case Studies

C) 20 Sections with

- Background reading
- Slide material
- Videos & recorded webinars

Home > Open Universität Würzburg

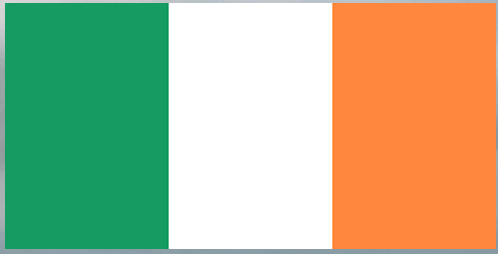
i | Planetary Health Education Toolbox - SOPHEA

It aims to

- empower users to teach/train on planetary health topics
- empower students to lobby for integration of planetary health into their curricula
- inspire people for transformative action



Currently growing and open to your contributions!
Wide dissemination in 2025
planetaryhealth@ukw.de



Ireland



Module assignment

- Recognition of need to '*embed environmental sustainability into the core of pharmacy education*' (Mathers *et al* 2023)
- New MPharm undergraduate programme
- First iteration of Year 2
- A number of optional/elective modules
- 5ECT credit module on to start September 2023



Aim(s) of module



To develop an 'eco-literacy' ethos among students on the impact of climate change & strategies to address issues

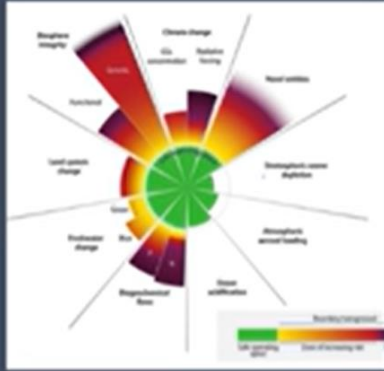
To understand the impact of healthcare on climate change and on the health of populations

To equip future healthcare professionals with knowledge and skills to become advocates for change

To become advocates for the adoption of adaptation and mitigation strategies within the health care system



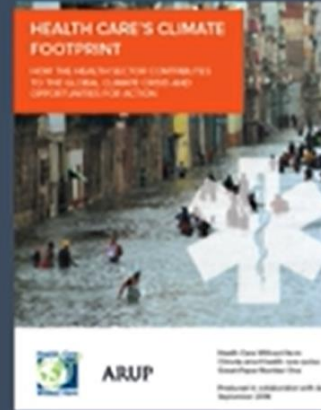
Core pillars



Planetary health & climate change



Health impacts of climate change



Healthcare's contribution to climate change



Medicines manufacture & use & climate change



Educational references



Module themes – deciding ‘what’ to teach



CHIME curriculum outcomes



- Introduction to planetary health
- Climate change impacts, exposures & vulnerabilities
- Mitigation actions & health co-benefits
- Adaptation, planning & resilience for health
- Public & Political engagement

Planetary Health

Education for Sustainable Healthcare

Values	Knowledge
Harmony with nature* (SDG 13B)	Interconnection of human & earth
Respect for human rights & dignity* (SDG 4.7)	Anthropocene & ecological crisis
Equity & social justice*	Urgency & scale (SDG 13.3)
Responsibility for ethical resource use (SDG 12B)	Differential impacts of ecological crisis
Challenging inequity & misuse of power	Need for mitigation & adaptation
Professional duty to protect health	Complexity & unintended consequences

What? Content of sessions



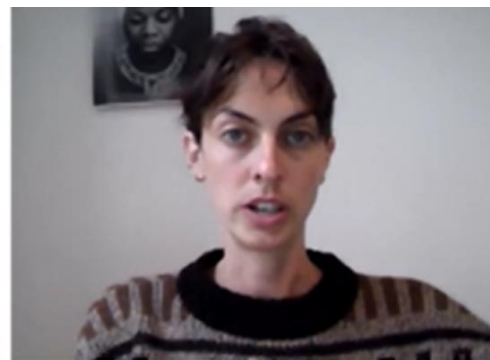
Session	Content
1	Introduction Planetary health; science of climate change; key players
2	Key impacts Extreme weather – heat & floods; pollution – air; pollution – chemicals
3	Key impacts Food security, migration, mental health, infectious diseases, AMR
4	How we eat, live, learn, work and play Changing the climate of climate change – mitigation & adaptation strategies, greenwashing
5	Field trip
6	Guest lecturers
7	Impact of healthcare and mitigation strategies, circular economy principles (LCA)
8	Impact of medicines use (upstream & downstream) and mitigation strategies
9	Pharmacists and pharmacy profession – guidance, students as advocates





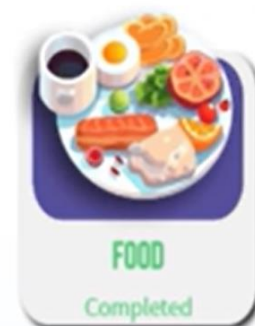
Funded by the
Erasmus+ Programme
of the European Union

ePlanet – a serious game for Planetary Health



CATEGORIES

HOW TO PLAY



Select a category

Puzzle Selection and Case



HEALTH CHECKUP



HEALTH SECTOR EMISSION



DIGGING DEEP



NCD DISEASE BURDEN



As a conscientious healthcare professional, you find yourself amidst a dilemma where the very sector you serve contributes to 4.4% of global greenhouse gas emissions. Your oath to do no harm compels you to spearhead a sustainable transformation within the health sector, aligning it with the EU Green Deal's objective of reducing emissions by 55% compared to 1990 levels until 2030.

PLAY



BACK

CHALLENGE THREE

The healthcare sector, while being a cornerstone of societal wellness, ironically fuels the climate crisis, a predicament exacerbating health issues worldwide. A cycle where health care's carbon footprint undermines its noble mission unfolds before you. With a targeted reduction in greenhouse gas emissions, your quest ventures into revamping the supply chain, the infrastructure, and the delivery of health care services.

GOALS



Health Care Sector Emissions reaches 15 or below.



You have 6 turns.



START

GO TO FULLSCREEN

Microlearnings



GHG Emissions of the Health Sector

The health sector is a critical player in advancing good health and well-being in the sense of sustainable health care. On the one hand, the health care sector is confronted with handling the direct health impacts of climate and environmental change. On the other hand, the health sector itself has a massive ecological footprint, as it is responsible for 4.4% of the total greenhouse gas emissions world-wide. Emissions arise directly from the operation of health care facilities (Scope 1), their energy supply (Scope 2) or indirectly from the supply chain of the production of health care goods (Scope 3). The components of Scope 3 depicted in purple are unmeasured. Many health systems do not calculate or report the factors of Scope 3.



Many components of scope 3 are "unmeasured" and are not fully captured in the 71% of total emissions. These are depicted in purple.



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An international health student community inspiring institutional change.

Recruitment for the 2024/25 Cycle now open!

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Check out the 2024 Planetary Health Report Cards.

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[PHARMACY](#)

[PHYSIOTHERAPY](#)





2024 PHRC RESULTS MEDICINE


AUSTRALIA

(Click the school name to read their full report)

		Overall	Planetary Health Curriculum	Interdisciplinary Research	Community Outreach & Advocacy	Support for Student-led Initiatives	Campus Sustainability
1.	University of Queensland, Australia	B	B	B-	C+	B	B
2.	University of Melbourne	B-	C+	B+	C	B	B
3.	The University of Tasmania	C	C	C-	C-	D-	A
4.	Monash University	C	C	C+	F	B-	C
5.	University of Wollongong	C-	C-	C+	F-	C	C
6.	Curtin University	D	C-	D-	F-	D	F

80-100% = A, 60-79% = B, 40-59% = C, 20-39% = D, 0-19% = F

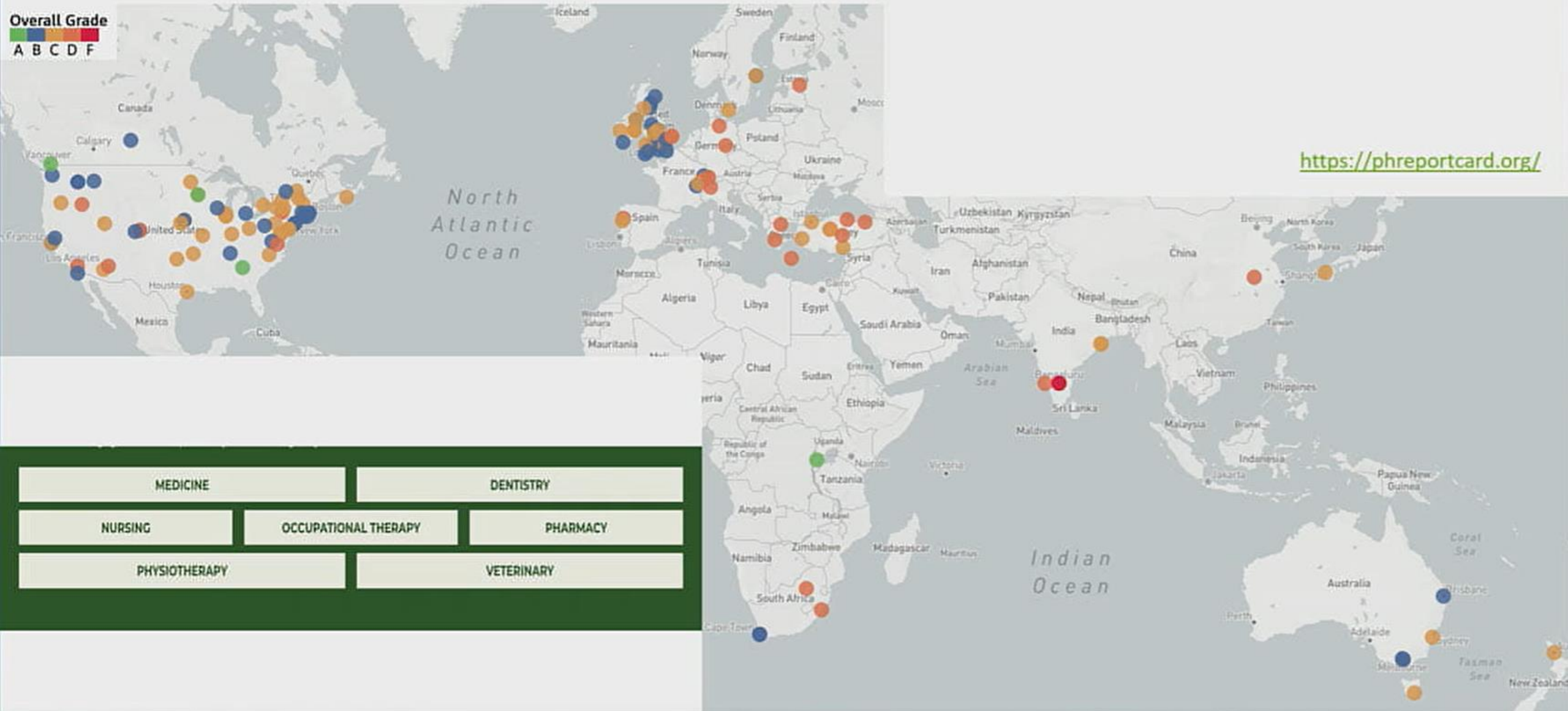
Scores within top or bottom 5% awarded + or -, respectively

 = Overall score improved from 2022-2023 to 2023-2024



PLANETARY HEALTH REPORT CARD

Overall Grade
A B C D F



<https://phreportcard.org/>

MEDICINE

DENTISTRY

NURSING

OCCUPATIONAL THERAPY

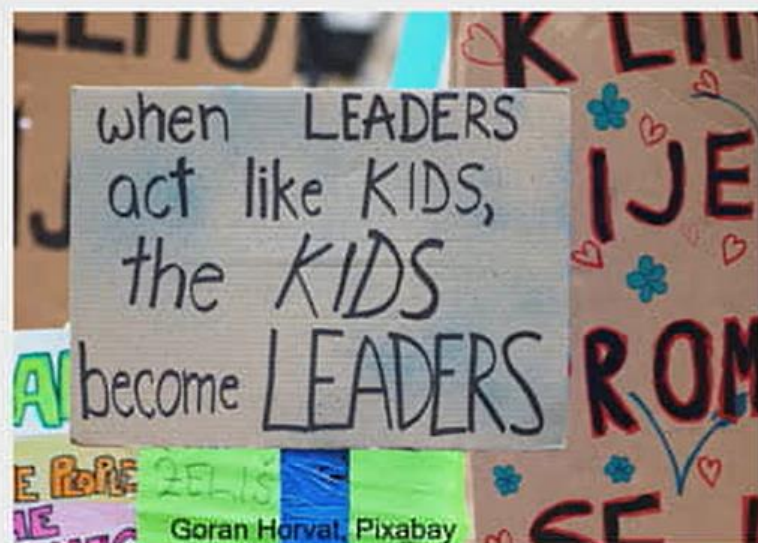
PHARMACY

PHYSIOTHERAPY

VETERINARY

- 
1. ทำไมถึงต้องบรรจุเรื่อง **Planetary Health Crisis** ลงใน **Curriculum** ?
 2. สอน ถ่ายทอด อย่างไรดี ?
 3. ผลเป็นอย่างไร ?

B) Emotions and Planetary Health Education



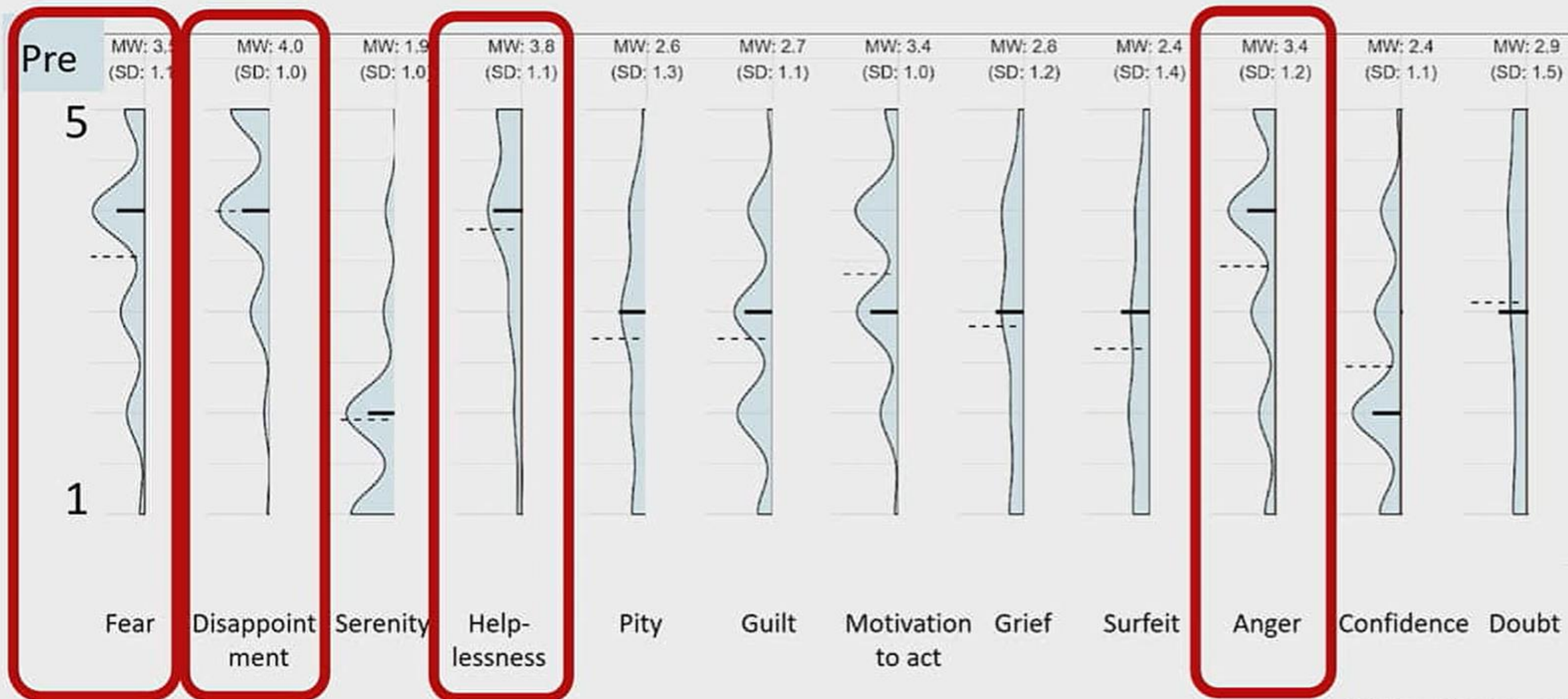
The student generation is well informed and already alarmed about the climate & ecological crises:

What are the emotions of our (medical) students about climate change before they hear about Planetary Health (PH) in class?

How does our PH education affect their emotions and motivation to act?

B) Emotions of medical students towards climate change: lecture

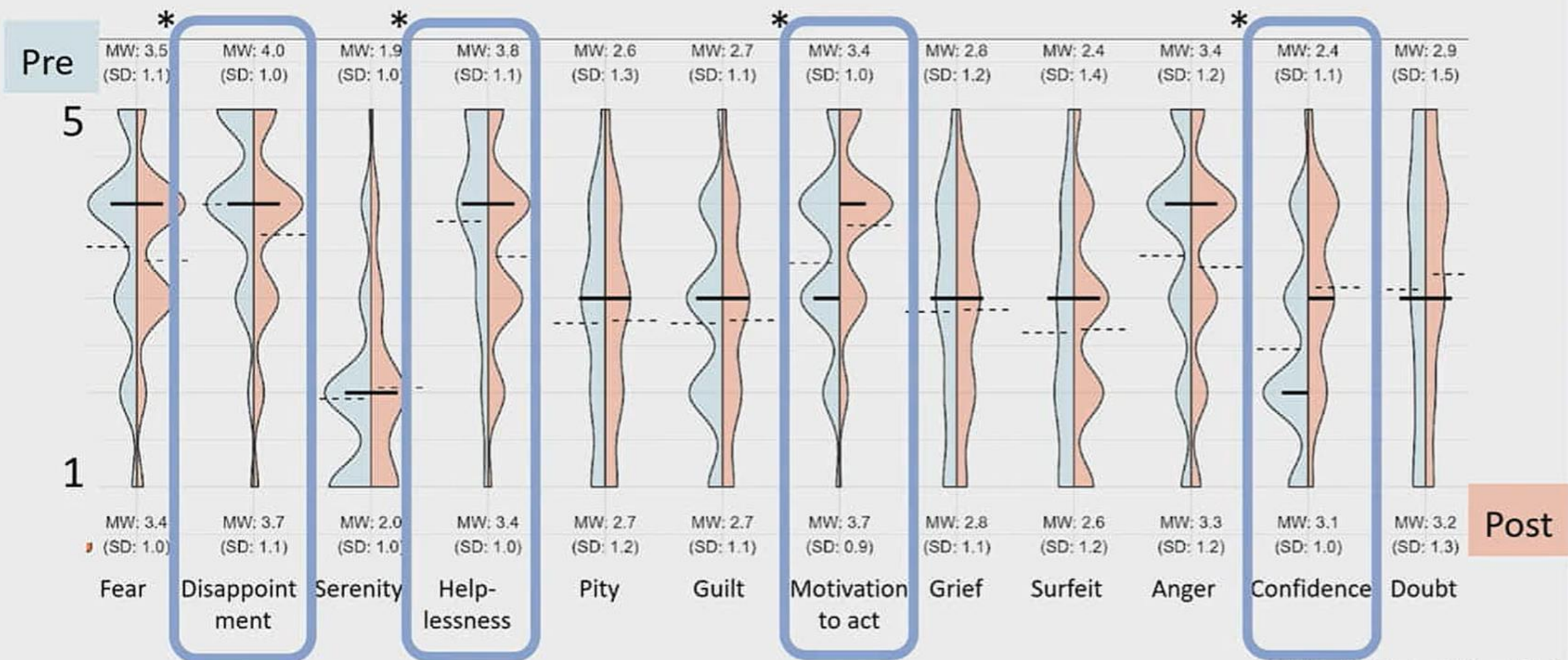
curricular lecture of 3 units, 4 student cohorts 2021-2023



B) Emotions of medical students towards climate change: lecture

curricular lecture of 3 units, 4 student cohorts 2021-2023

* statistically significant ($p < 0.05$)



Schlittenhardt & Schwienhorst-Stich, unpublished



10 mins

Update AMEE 2024
: Planetary health crisis to
Sustainable Health Care
Curriculum and Technology
in Medical Education



Chang Gung Medical Foundation

Taiwan
長庚醫療財團法
Chang Gung
Medical Education Research Center

NBME

Maastricht University

NBME

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AROUND THE WORLD
THROUGH ASSESSMENT

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一起努力

Improving Health Care
Around the World
Through Assessment

MyProgress by MyKnowledgeMap

amee

Faculty of Health Professions

Maastricht University

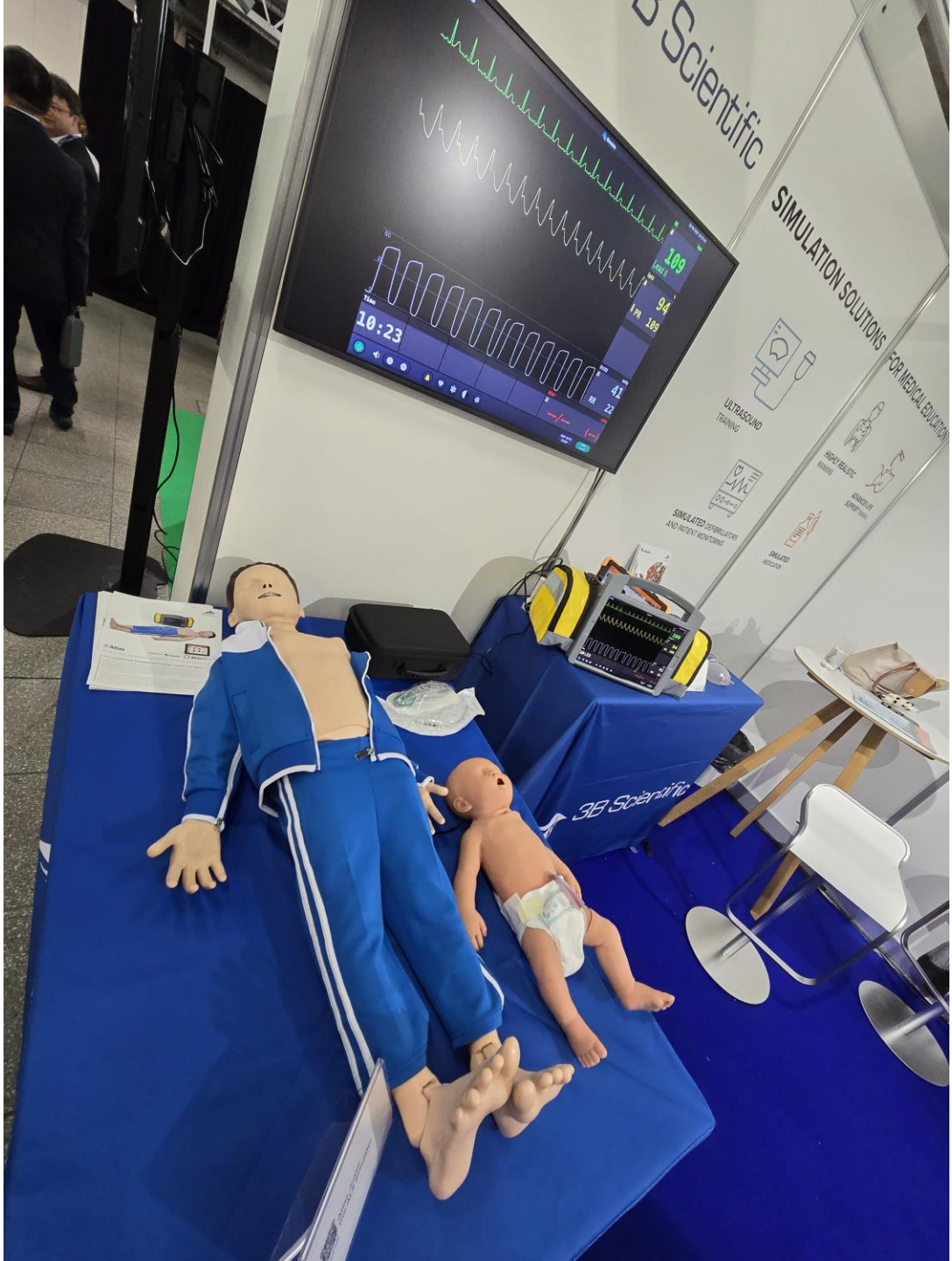
1. Smart Mannequin

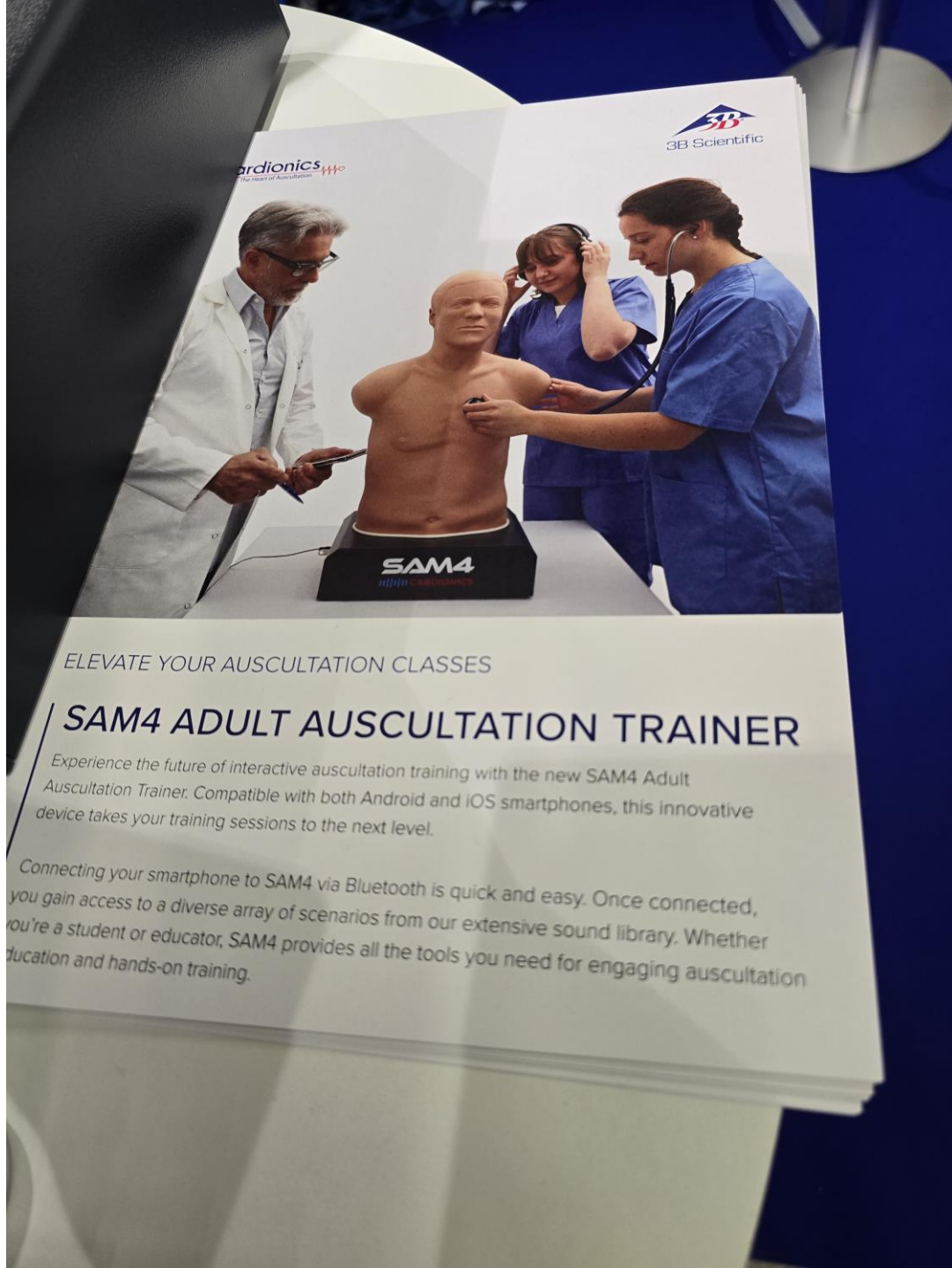




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REALITY360

ATLAS is the first AI-powered member of the REALITY360 family of products. It is designed to help medical professionals train and improve their skills in a safe and controlled environment. The AI algorithm is trained with ATLAS, which supports and improves the REALITY360 experience.





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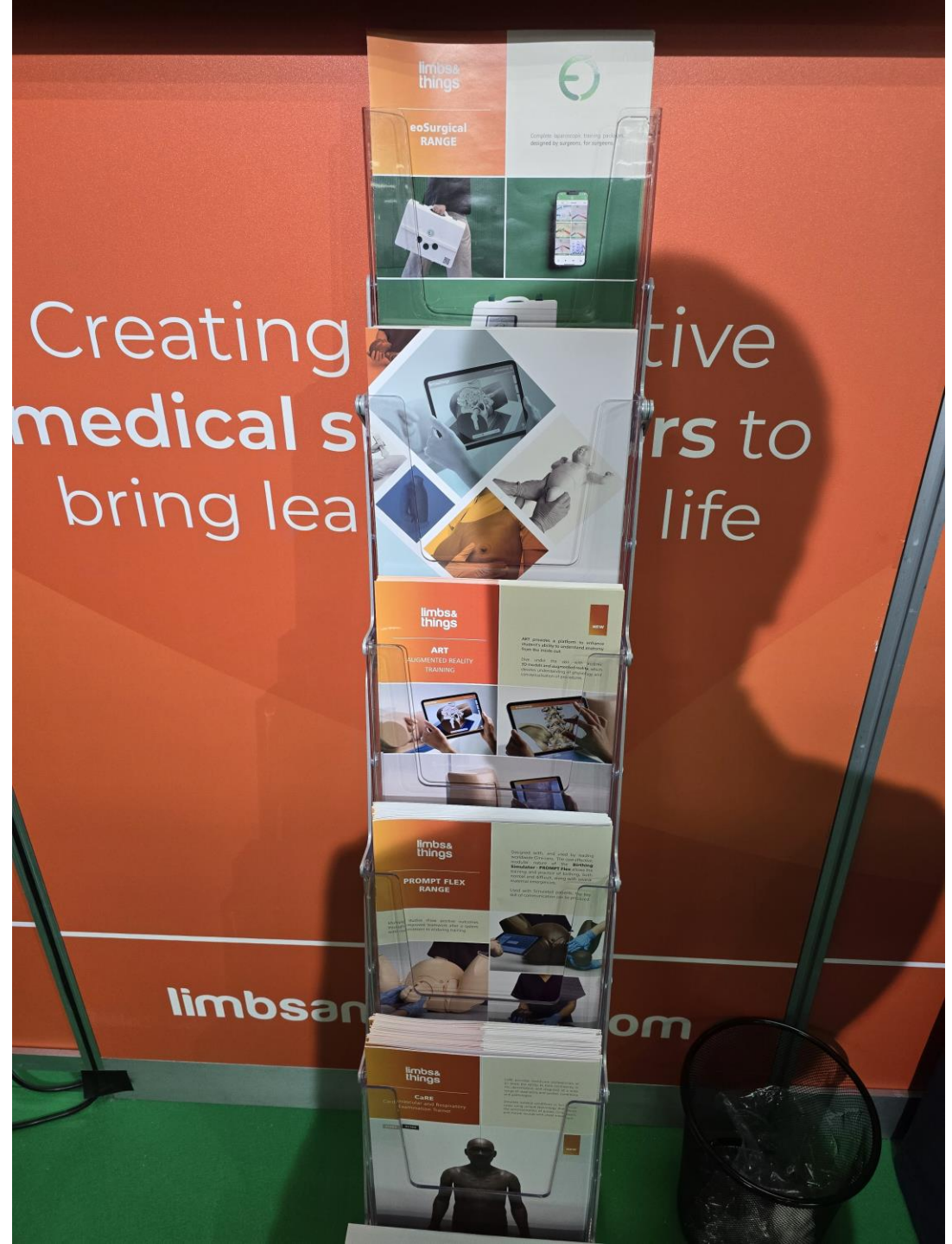
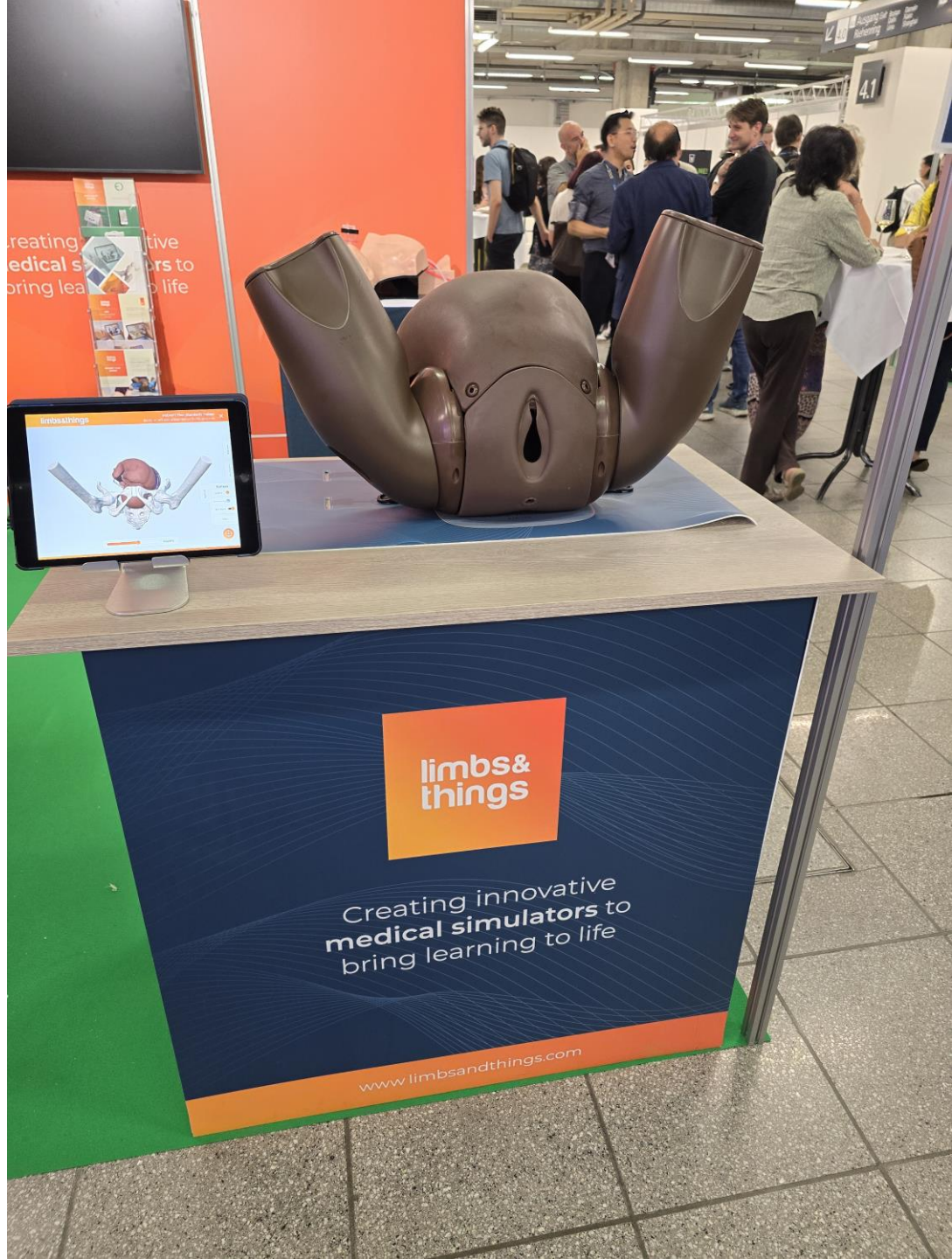






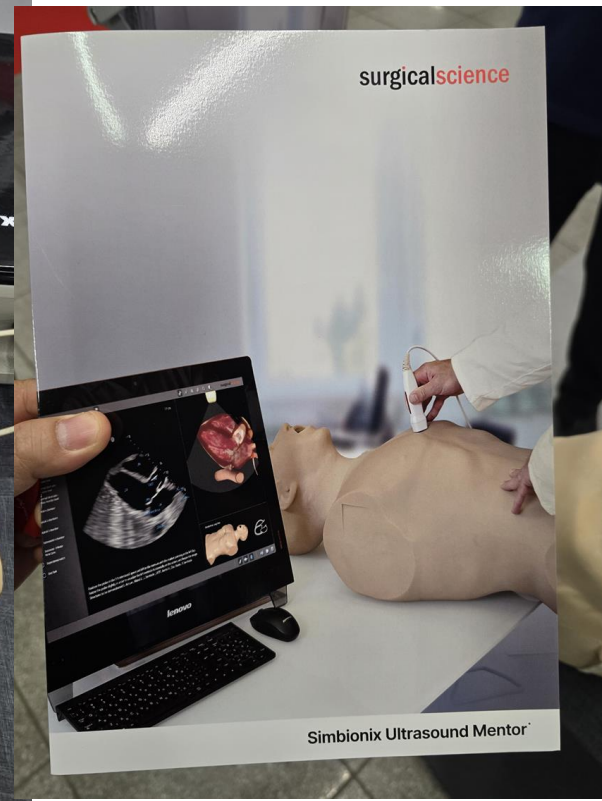




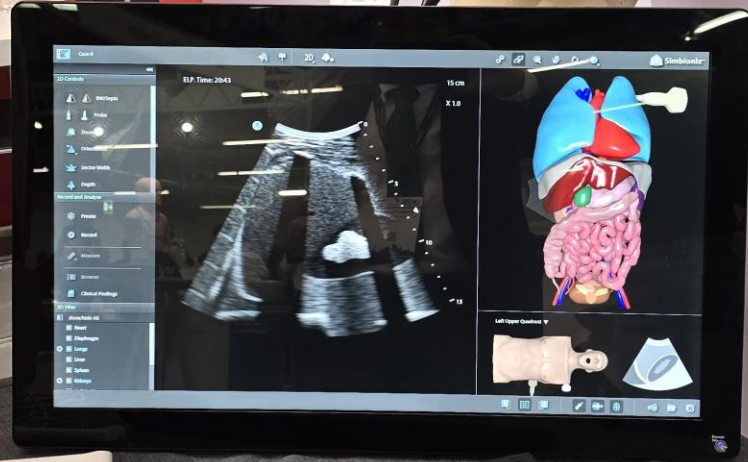
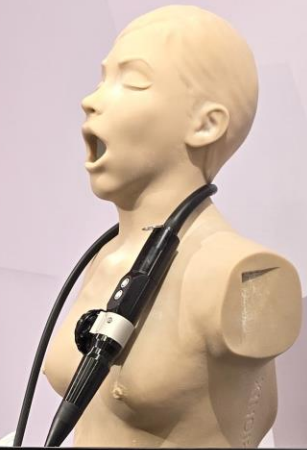
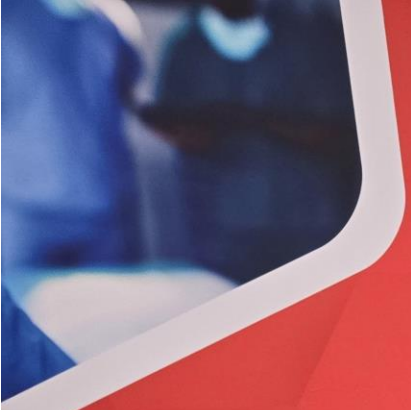


2.Simulation



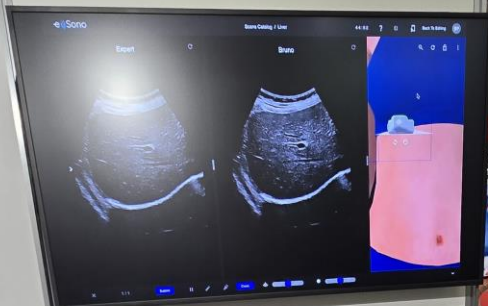


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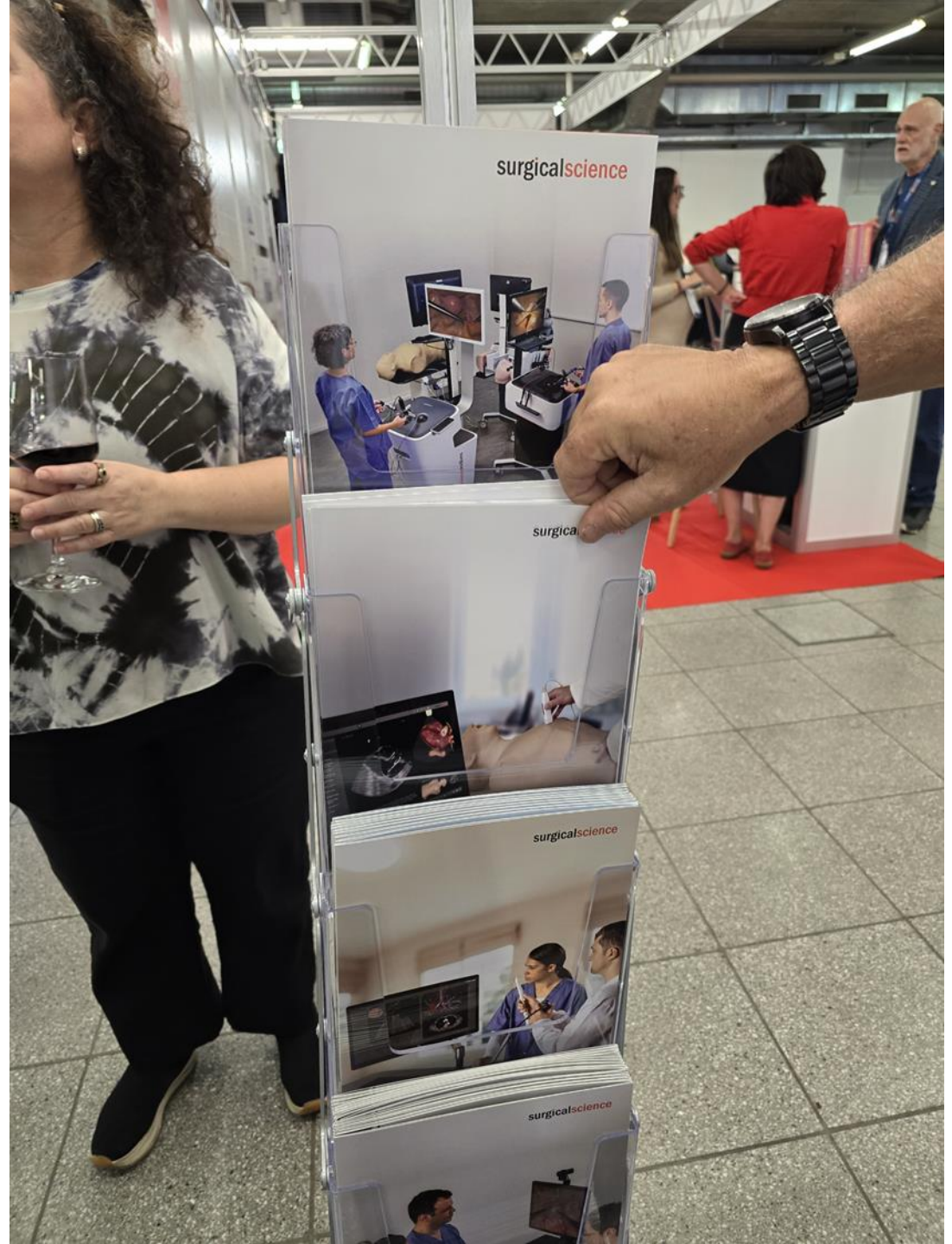

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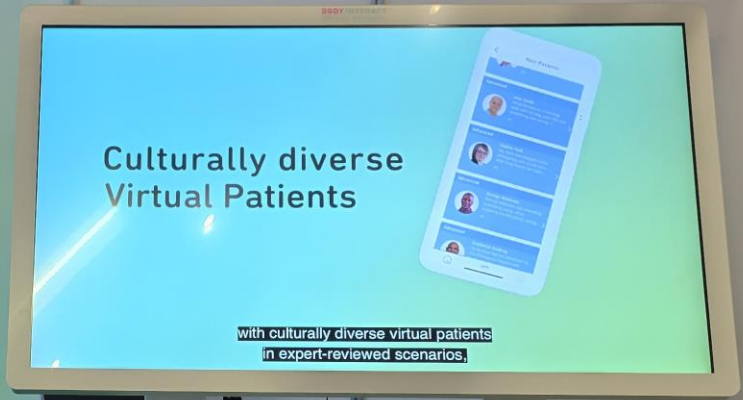
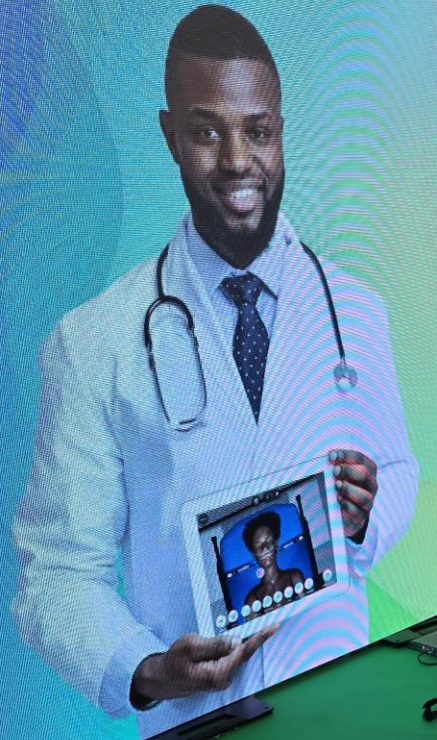
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MIND RAMATHIBODI

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XR ANATOMY

MIXED REALITY (MR)

Lower Limb AR 3D

ARM

BODY

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AUGMENTED REALITY (AR)

Learning Mode

Next

Lower Limb

ARM

BODY

LUNGS

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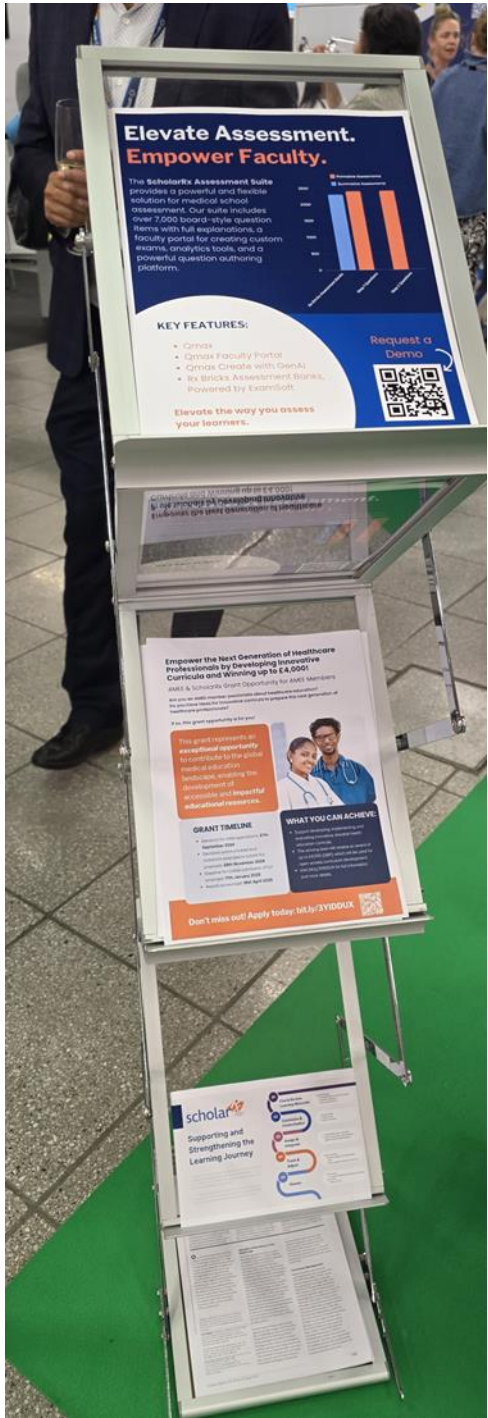
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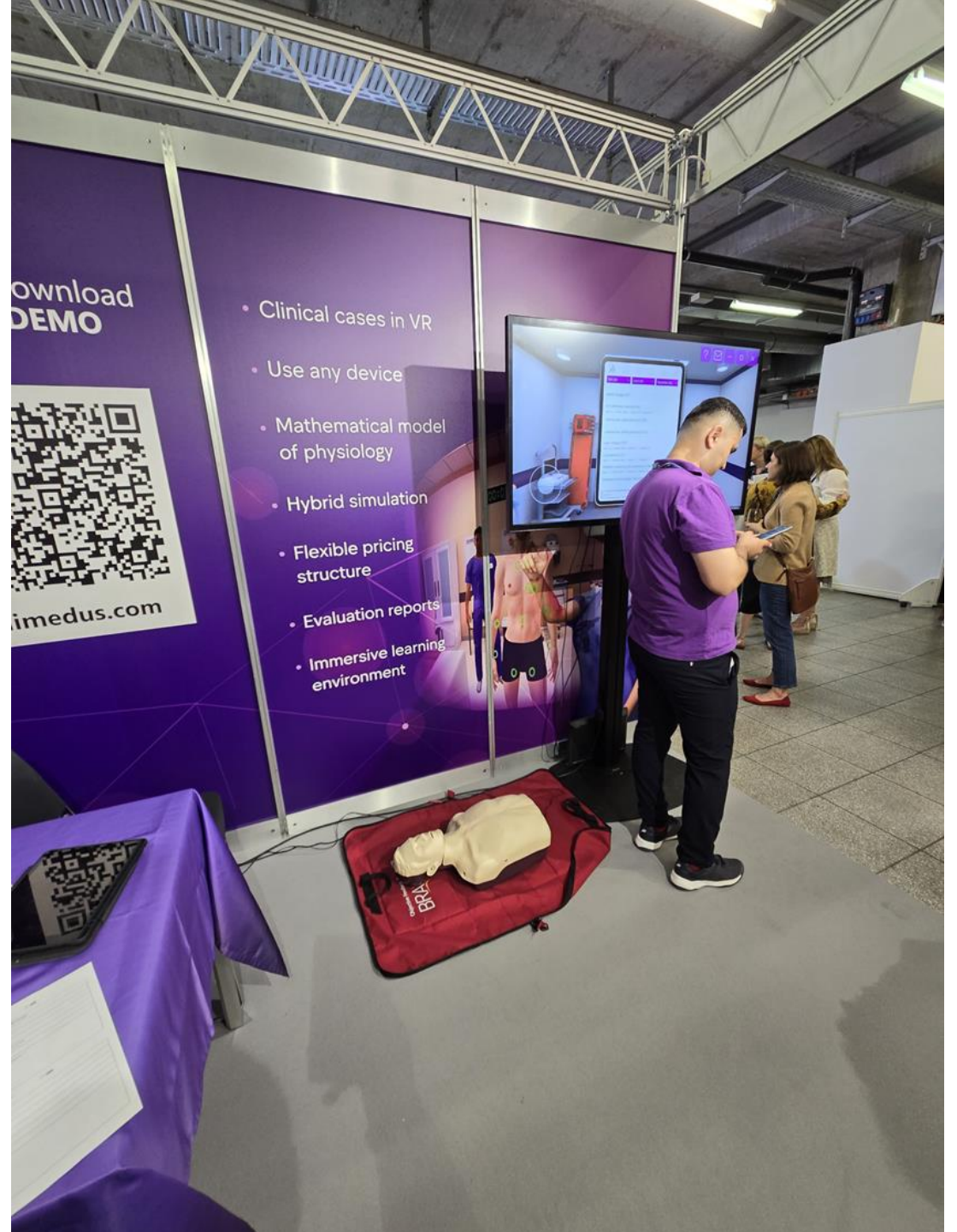
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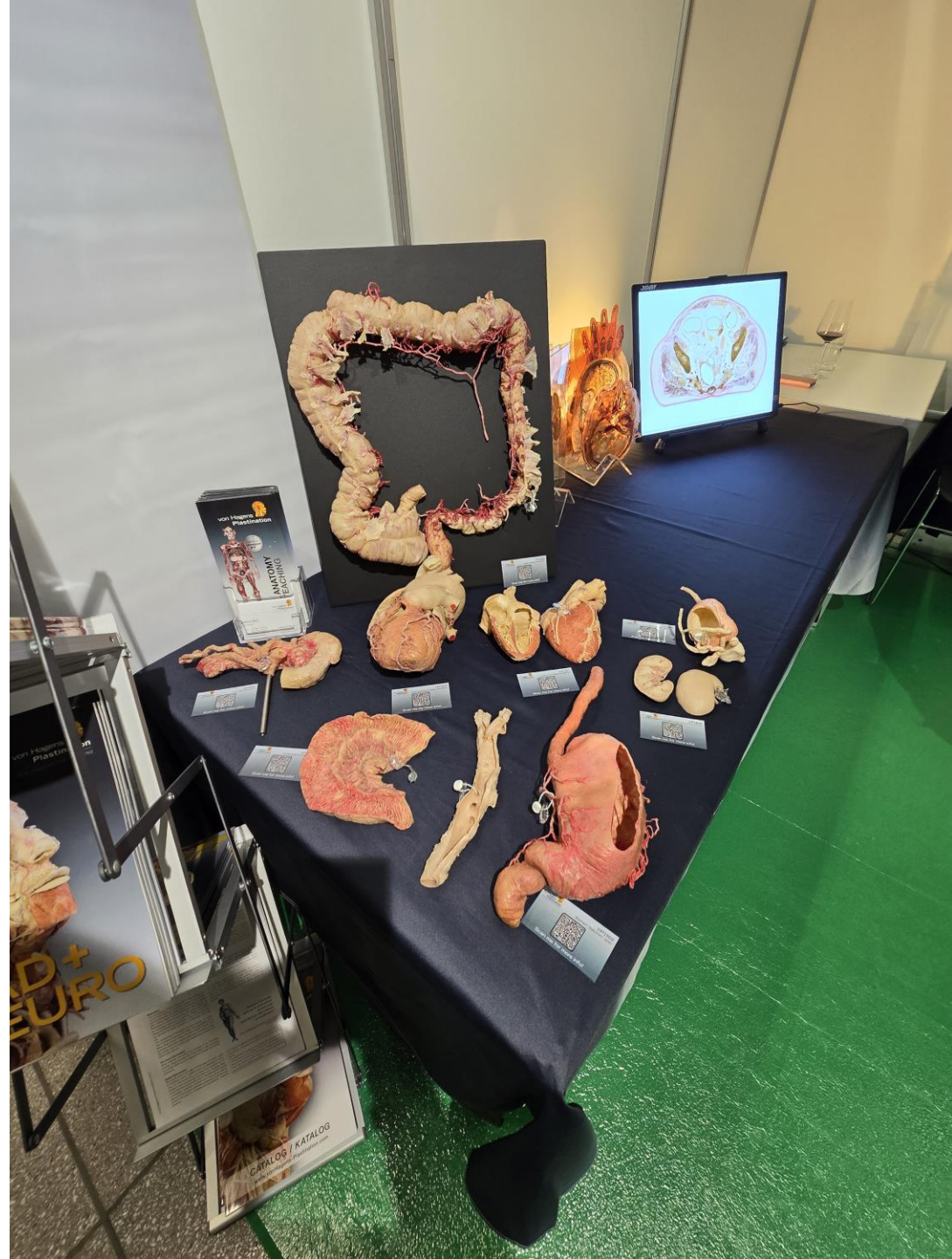


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Experience
ANATOMY
UP CLOSE
OPENING HOURS

PLASTINARIUM
Experience
ANATOMY
UP CLOSE
OPENING HOURS
Friday to Sunday
10 bis 6 pm
keine schmerzen

von Hage
Plastination
ALL ANATOMY
TEACHING

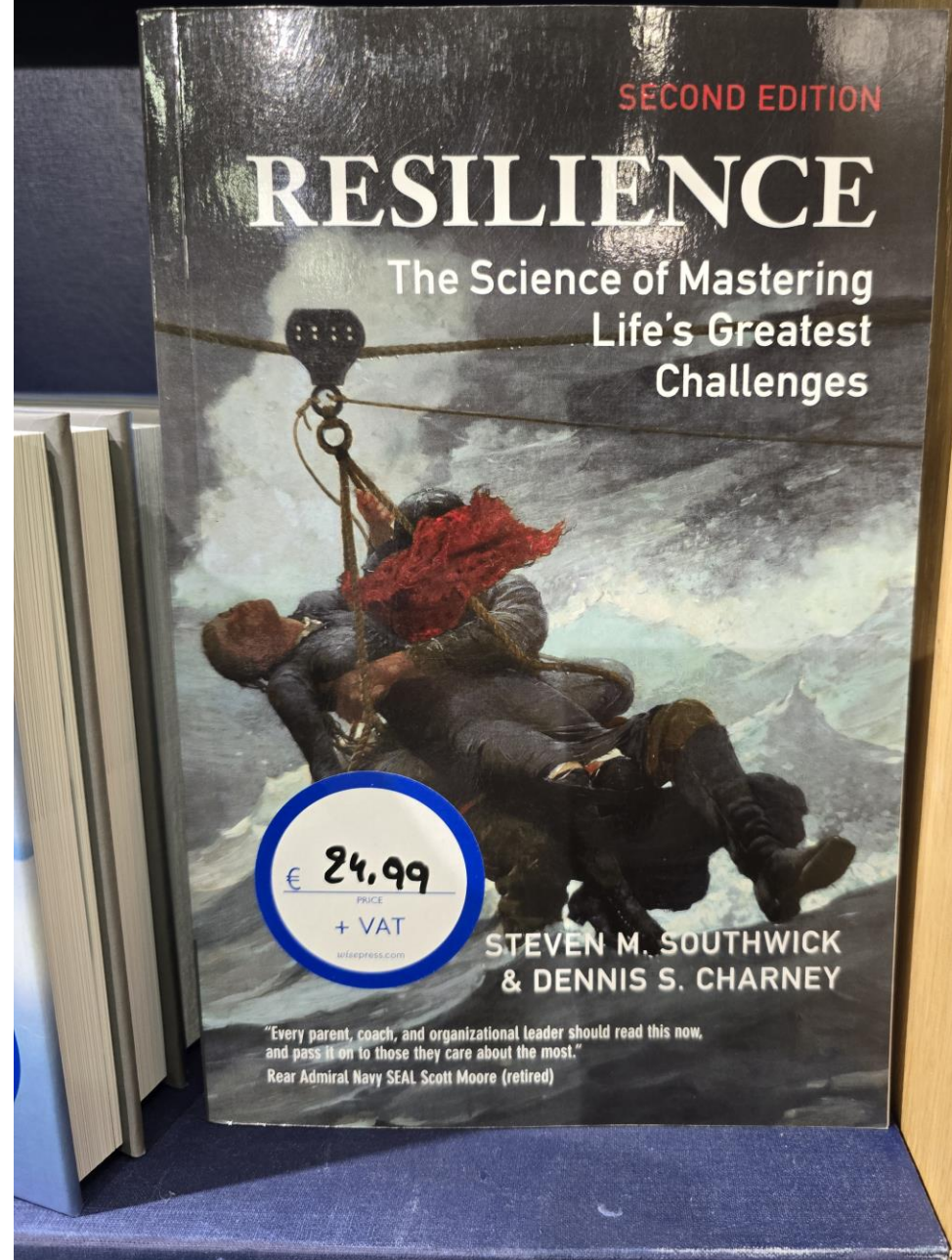
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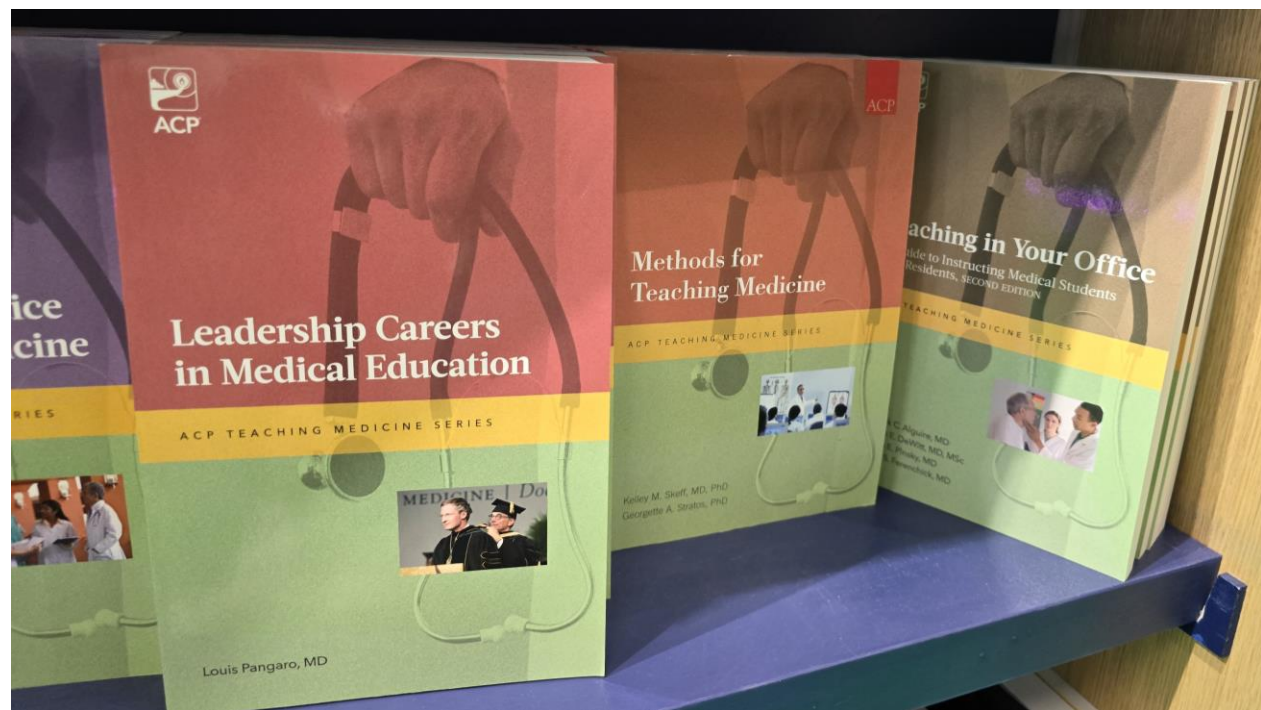
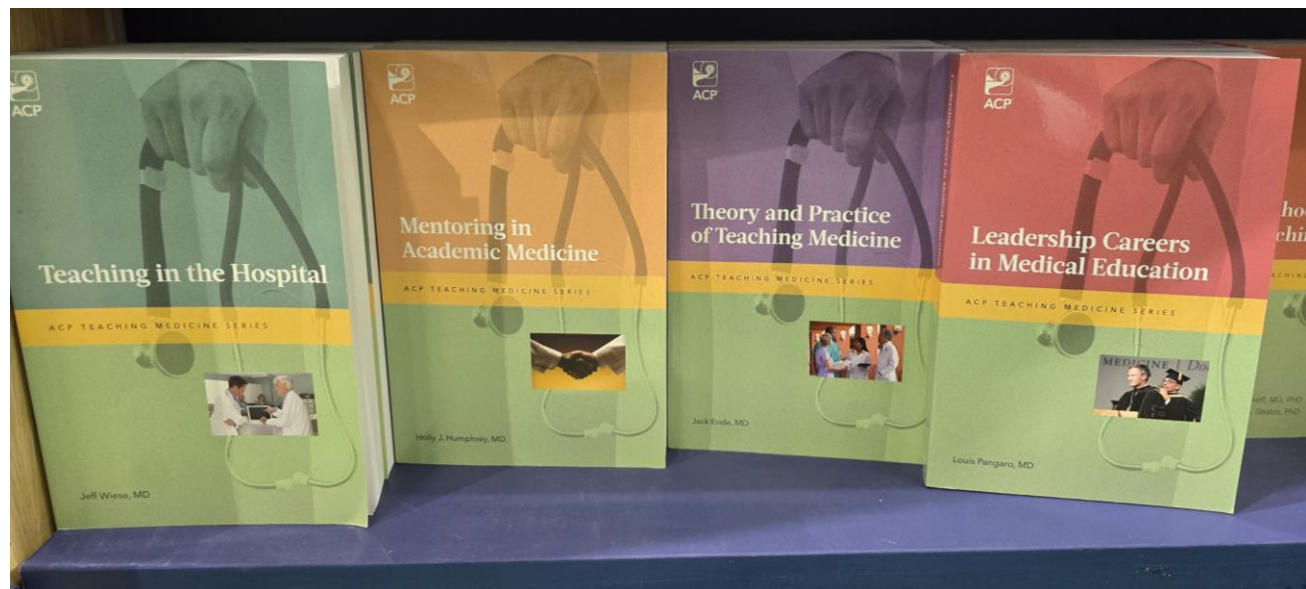


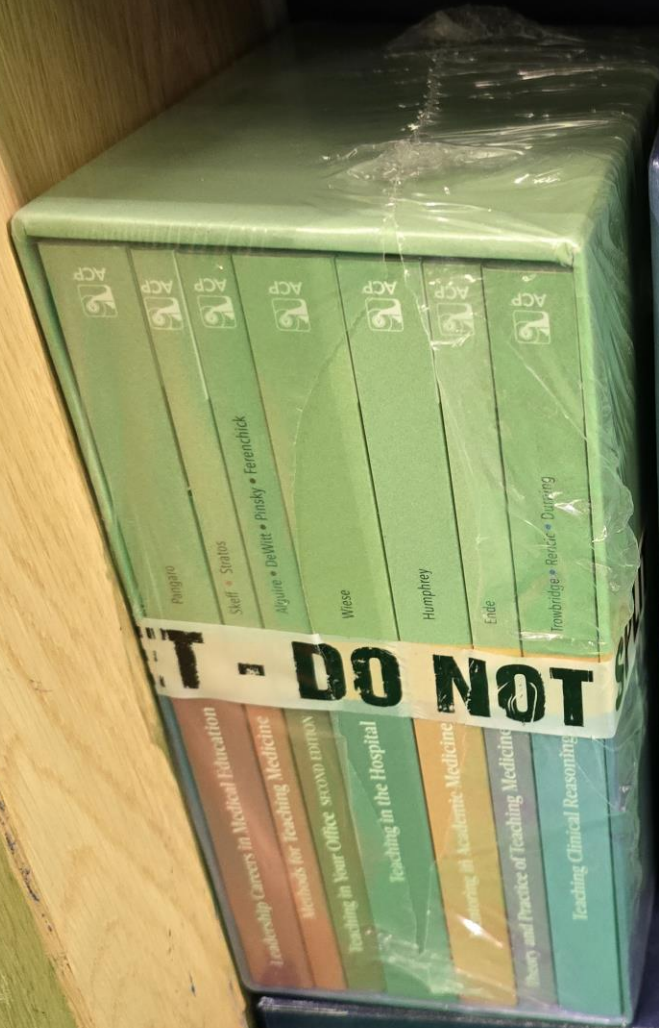


5. Books

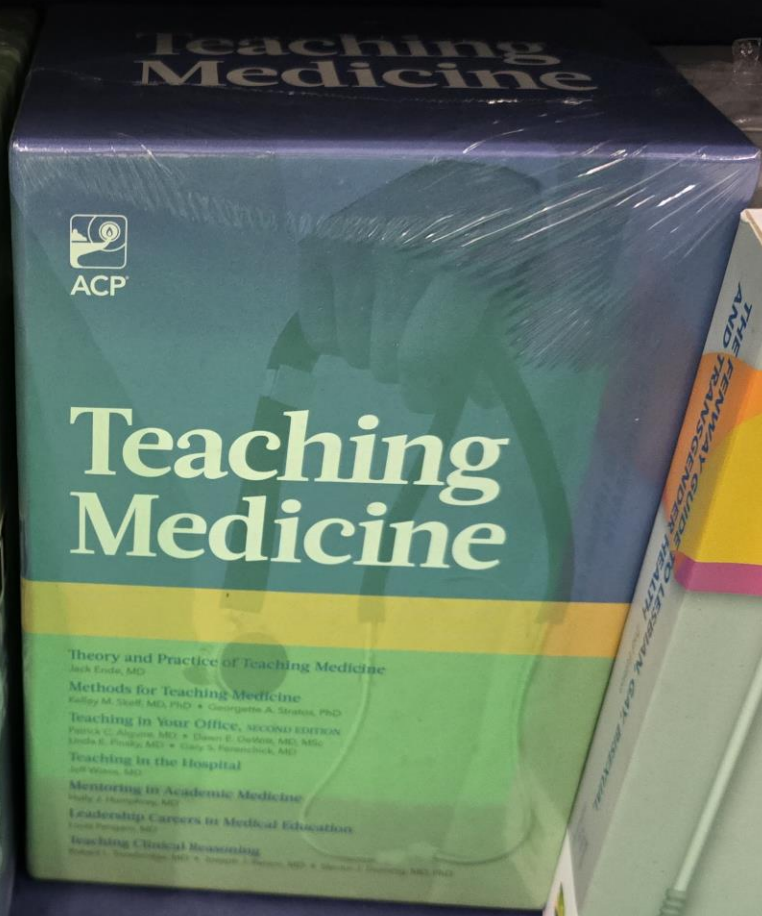








DO NOT



Teaching Medicine



Teaching Medicine

Theory and Practice of Teaching Medicine
Jack Ende, MD
Methods for Teaching Medicine
Kulley M. Skoff, MD, PhD • George A. Stratos, PhD
Teaching in Your Office, SECOND EDITION
Patricia C. Alguire, MD • Dawn F. Carlson, MD, MS
Linda E. Fosdy, MD • Gary S. Frenschick, MD
Teaching in the Hospital
Jeff Wilens, MD
Mentoring in Academic Medicine
Wally A. Humphrey, MD
Leadership Careers in Medical Education
Loren Parson, MD
Teaching Clinical Reasoning
Richard J. Davidson, MD • Joseph J. Berlin, MD • Jackson J. Goring, MD, PhD



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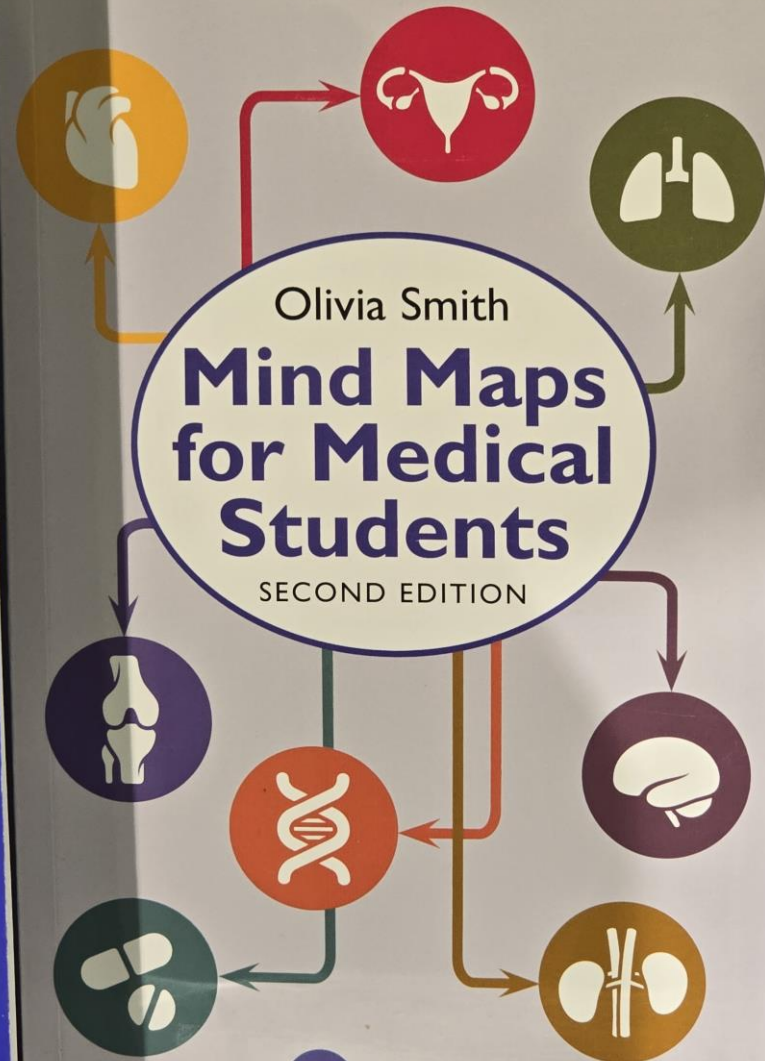
THE FENWAY INST

INTERVIEWS FOR MEDICAL SCHOOL

Multiple Mini
Interview (MMI)
Practice



Thanthullu Vasu, Shreya Shyam &
the RISE Foundation Leicestershire



CRC CRC Press
Taylor & Francis Group

Peripheral Neuropathy & Neuropathic Pain

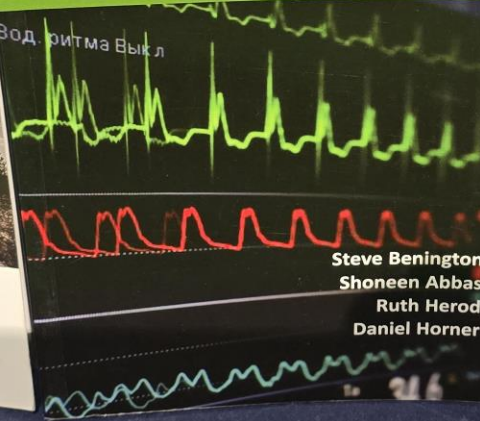
Into the Light

Written by one of the
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Gérard Said



Intensive Care Medicine MCQs

Multiple Choice Questions with Explanatory Answers



Steve Benington
Shoneen Abbas
Ruth Herod
Daniel Horner

Critical Care MCQs

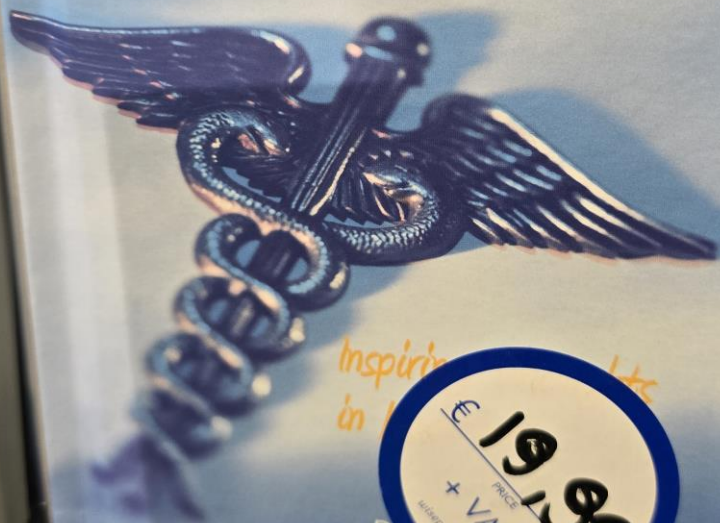
A Companion for Intensive Care Exams



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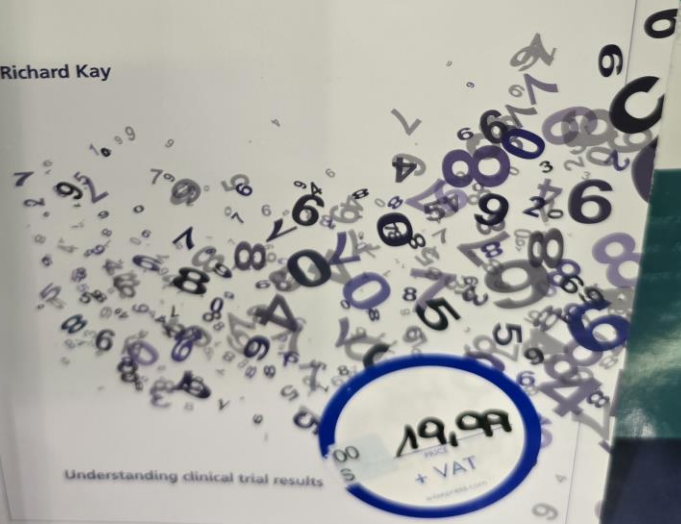
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