

Review of Planetary Health integration within the University of Aberdeen medical school curriculum

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Aim

This project aims to review the depth of incorporation of Planetary Health (PH) across the University of Aberdeen (UoA) medical curriculum.

The importance of incorporating sustainability and PH into undergraduate medical education is gaining increased recognition.

The GMC 'Outcomes for Graduates' document recognises the need to 'incorporate planetary health... into clinical decision making.'⁽¹⁾

The Planetary Health Report Card (PHRC) is a globally recognised student led organisation (2). Students complete an evaluation of PH content in the curriculum. Since joining in 2020 the University of Aberdeen (UoA) has submitted an annual report.

Methods

This project has reviewed the findings of each annual report card since the University of Aberdeen first contributed in 2020 (3-7). To complete the PHRC, students and faculty score the extent of curriculum coverage of over 20 topics. The PH curriculum is divided each year into between 20 and 22 sections with points available for each. The curriculum parameters have been updated each year to adapt to emerging requirements. The total points available has varied each year therefore comparison has been made through percentage of PH curriculum coverage.

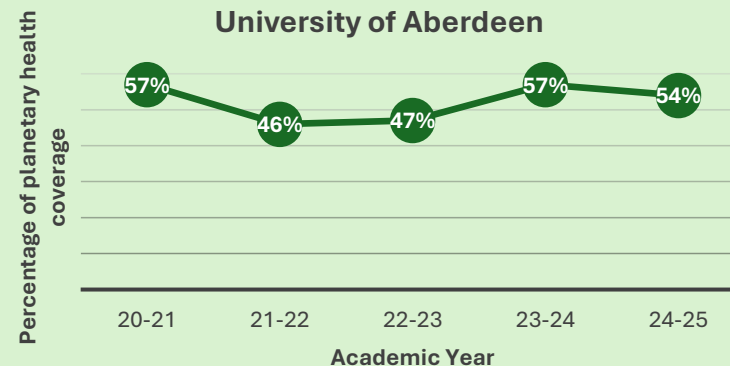
Topics are scored based on whether they were 'not covered', 'covered in elective coursework', 'briefly covered in the core curriculum' or 'explored in depth by the core curriculum'. The total score and individual topic scores for each year were reviewed to identify trends. Each curriculum parameter was compared to subsequent years in each of the 5 reports to identify topics repeatedly identified as lacking coverage in the curriculum. Topics which were consistently found to be covered in depth were identified.

Results

The graph below shows that the highest scoring years for PH curriculum coverage were in the 2021 and 2024 reports with 57% incorporation both years. The lowest year scored 46% in the 2022 report. The average score across the 5 years was 52%.

As seen in the tables below, 12 topics were repeatedly identified as either repeatedly lacking in depth exploration within the curriculum or only briefly covered in the curriculum. Brief coverage of topics includes incorporation in only elective coursework.

Integration of Planetary Health within undergraduate medical curriculum at the University of Aberdeen



Topics not covered / covered in elective coursework only

- Importance of Indigenous knowledge in PH solutions
- Outsized impact of climate change on marginalised populations
- Relationship between extreme heat, health risks and climate change
- Environmental impact of surgical healthcare and how this can be mitigated
- Relationships between health, food and water security, ecosystems and climate change
- Mental health effects of environmental degradation and climate change

Topics briefly covered in the core curriculum

- Environmental and health co-benefits of a plant based diet
- Strategies introduced for having conversations with patients about climate change
- Impact of anaesthetic gases on the healthcare carbon footprint
- Impact of extreme weather events on healthcare systems and individuals
- Unequal regional health impacts of climate change
- Impact of climate change on changing patterns of infectious diseases

Topics covered in depth in the core curriculum

- Health and environmental co-benefits of avoiding over-medicalisation
- Waste production within healthcare
- Carbon footprint of healthcare systems
- Environmental impact of pharmaceuticals and co-benefits of deprescribing
- Impact of inhalers on healthcare carbon footprint and environmental benefit of dry powder inhalers over metered dose inhalers

Conclusion

There has been an improving trend in the PHRC overall score in the last 2 years however there is still a significant deficit in numerous topics. Topics which have been identified which as not covered or only covered in elective study for 5 consecutive years should be areas of focus for implementation of changes to the current medical curriculum. Improvements in the breadth of PH coverage would bring the UoA medical curriculum teaching closer to meeting the GMC outcomes for Graduates recommendations regarding PH.

References

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