

**Incorporating planetary health concepts into physiology.**

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Introduction: There are increasing calls for planetary health to be included in health professional education (McLean et al., 2020). This can be a challenge in a busy curriculum, and as such, considerations must be made regarding effective methods that can accomplish this (Moro et al., 2022). **Aims:** We sought to embed planetary health concepts within a first-year physiology subject. The initial offering was to provide relevant facts, without having any formal teaching on planetary health. This project aimed to assess if this approach was an appropriate first step in developing student awareness and insights into planetary health considerations. **Methods:** A single planetary health fact (*Did you know?*) was embedded into the lecture slides each week throughout a first-year health science and medicine Physiology subject at an Australian university. The weekly fact was directly relevant to the content, for example, in week 12, the session introducing muscle physiology included a slide describing the potential impact of warming global temperatures on athletic performance. No formal introduction to the concept of planetary health was provided to the class, and no substantial time was devoted to explaining the embedded facts. After completing the 12-week course, participant perceptions of the planetary health inclusions were recorded using a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*), where higher scores indicated a positive perception. Four voluntary open-ended questions were employed to identify if students appreciated the inclusions, whether they took note of the inclusions, if they sought additional information on any of the topics, and whether they perceived any benefit in having more (or less) planetary health content incorporated within other subjects. Part of the survey also assessed whether participants could provide a comprehensive definition of planetary health, based on the Whitmee et al., (2015) definition of planetary health, and this was graded between 0-2 (2 being the most comprehensive). **Results:** Participants ($n = 44$) rated their perceptions of the planetary health initiative highly, particularly in terms of gaining an understanding of why it is important to human physiology, and the importance of protecting the environment, both personally and professionally. Students also reported they would like to see more planetary health concepts included in other subjects. However, lower scores resulted when participants were asked if they followed up on planetary health concepts discussed in class and if they would be happy for questions on the planetary health facts to be included in assessment. Of those participants that provided a definition of planetary health without looking up the definition ($n = 38$), it was found that 71% of students achieved a score of at least 50% (pass), however, only 1% could provide a comprehensive definition. **Conclusions:** In the absence of any formal instruction, the simple addition of planetary health 'facts' to a subject was largely ineffective. Whilst the content was of interest to students and did present some relevant insights, the results highlighted the requirement for at least some formal instruction. Although including additional teaching may present challenges for subjects with a crammed curriculum, it does mean that this important information can be relayed to students in an effective way.

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Whitmee, S., Haines, A., Beyrer, C., Boltz, F., Capon, A.G., de Souza Dias, B.F., et al. (2015). Safeguarding Human Health in the Anthropocene Epoch: Report of the Rockefeller Foundation-Lancet Commission on Planetary Health. *Lancet.* **386**(10007), 1973-2028.