



Planetary Health Report Card:

Pharmacy

University College London



2023-24 Contributing Team:

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Statement of Purpose

Planetary health is human health.

The Planetary Health Alliance describes planetary health as, “a solutions-oriented, transdisciplinary field and social movement focused on analysing and addressing the impacts of human disruptions to Earth’s natural systems on human health and all life on Earth”[1]. This definition is intentionally broad, intended to encompass the multitude of ways that the environment can affect health, including water scarcity, changing food systems, urbanisation, biodiversity shifts, natural disasters, climate change, changing land use and land cover, global pollution, and changing biogeochemical flows. The health of humanity is dependent on our environment and our environment is changing rapidly and in disastrous ways. Although the World Health Organization has called climate change “the single biggest health threat facing humanity”[2] many pharmacy schools’ institutional priorities do not reflect the urgency of this danger to human health. Fossil-fuelled electricity and gas and medical or pharmaceutical products used in healthcare account for around 8% of the total global greenhouse gas footprint of healthcare[3] with pharmaceutical waste also providing a dangerous contaminant to our water systems [4]. Metered dose inhalers contribute 500g CO₂eq per dose [5], whilst air pollution causes 7 million deaths per year worldwide and exacerbates chronic respiratory disease [6]. Pharmacy therefore has a direct and detrimental impact on planetary health and this contradiction in patient care must be addressed and actioned.

As future health professionals, we must be prepared to address the impacts of human-caused environmental changes on our patients’ health. This preparation is in the hands of the institutions providing our pharmacy training. It is imperative that we empower those who are educating pharmacy students about the health impacts of climate change and other anthropogenic environmental changes, generating research to better understand health impacts and solutions, supporting related student initiatives, embracing sustainable practices as much as possible, and engaging with surrounding communities that are most affected by environmental threats, and hold those who are not accountable. Because climate change and environmental threats disproportionately affect vulnerable populations [7] (for example, communities of colour, older adults sensitive to health threats, and individuals in low-resource settings), these issues are inherently ones of equity and justice.

With the purpose of increasing planetary health awareness and providing recommendations and opportunities for improvement among pharmacy schools, we have created a Planetary Health Report Card that pharmacy students internationally can use to grade and compare their institutions on an annual basis. This pharmacy-student-driven initiative aims to compare pharmacy schools nationally and internationally on the basis of discrete metrics in five main category areas: 1) planetary health curriculum, 2) planetary health research, 3) university support for student planetary health initiatives, 4) community outreach centred on environmental health impacts, and 5) pharmacy school campus sustainability.

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the *Planetary Health Alliance* as “a solutions-oriented, transdisciplinary field and social movement focused on analysing and addressing the impacts of human disruptions to Earth’s natural systems on human health and all life on Earth” [1]. For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional ‘environmental health’ examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of pharmacy school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term “planetary health” to satisfy the metric.
- **Education for Sustainable Healthcare (ESH):** is defined as “the *process of equipping current and future health professionals with the knowledge, values, confidence and capacity to provide environmentally sustainable services through health professions education. We define a health professional as a person who has gained a professional qualification for work in the health system, whether in healthcare delivery, public health or a management or supporting role and education as ‘the system comprising structures, curricula, faculty and activities contributing to a learning process’* [8]. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge about planetary health is required to fully understand the necessity of sustainable healthcare. It is also part of the broader knowledge needed to fully protect and promote health.
- **Pharmacy School vs. Institution:** When “pharmacy school” is specified in the report card, this only refers to the curriculum and resources offered by the school of pharmacy and does not include offerings from other parts of the university (for example, undergraduate departments [USA], other related departments e.g. Public Health, Population Health departments). In contrast, when “institution” is specified in the report card, we are referring to the university more broadly. Any resource reasonably accessible by pharmacy students, no matter where in the institution the resource comes from or if it is specifically targeted for pharmacy students, can meet this metric.
- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the

institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.

Summary of Findings

Overall	C+
Curriculum	C+
<p>UCL School of Pharmacy covers some elements of sustainable healthcare in the curriculum, but there is room for further improvement. Recommendations: this baseline assessment can be used to identify areas for improvement in terms of addition of new material, together with better signposting of the existing elements relating to sustainability to enable students to more easily identify and make connections between these.</p>	
Planetary Health Research	C
<p>There is some research under way in relation to planetary health research, and some members of staff with an interest in this area. Recommendations: to build on current practice to conduct and share further research in this field.</p>	
Community Outreach and Advocacy	C
<p>UCL School of Pharmacy has little community outreach linked to planetary and environmental health. Recommendations: more community partnerships relating to planetary health and environmental health in UCL pharmacy school</p>	
Support for Student-Led Initiatives	B
<p>There is some good support for student-led initiatives at UCL. Recommendations: to encourage students at UCL School of Pharmacy to get further involved with these initiatives.</p>	
Campus Sustainability	B
<p>There are some elements of good practice in relation to sustainability within the buildings at UCL in general and UCL School of Pharmacy in particular. Recommendations: to have more local ownership of sustainability plans at the School of Pharmacy in particular</p>	

Planetary Health Curriculum

Section Overview: This section evaluates the integration of planetary health topics into the pharmacy school curriculum. Today's pharmacy students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that pharmacy students understand planetary health issues and principles.

1. Does your pharmacy school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.
<i>No evidence identified for this item</i>	

2. Does your pharmacy school curriculum address the environmental impact of medicines in terms of their pollution, ecological impact and contamination of water systems?	
3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.

0	This topic is not covered.
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Explored in a lecture and associated workshop in the first year (PHAY004), led by Dr Sudax Murdan -only newly introduced in the last two years. These sessions include how pharmaceuticals can make their way into the water cycle, and considers the contributions of pharmaceutical production, usage, and behaviour and what can be done about each of these. These include approaches based on green chemistry, reducing unnecessary use, and addressing medicines waste.

3. Does your pharmacy school curriculum address the health effects of pharmaceutical industry- and manufacturing-related environmental toxins?

3	This topic is explored in depth by the core curriculum.
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2	This topic is briefly covered in the core curriculum.
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1	This topic is covered in elective coursework.
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0	This topic is not covered.
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Explored in a lecture and associated workshop in the first year (PHAY004), led by Dr Sudax Murdan - newly introduced in the last two years. These sessions include how pharmaceuticals can make their way into the water cycle, and considers the production of toxins and how they can make their way into the environment.

4. Does your pharmacy school curriculum address the carbon footprint of healthcare systems?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.
<p><i>This is briefly covered in the year 1 induction in the first week delivered by Professor Bryony Franklin, and then in more detail in a lecture and associated workshop in the first year (PHAY0004), led by Dr Sudax Murdan. This includes the impact of pharmaceuticals on the NHS carbon footprint and those medicines / types of formulation with the highest impact.</i></p>	

<p>5. Does your pharmacy school curriculum address the impact of climate change on the changing patterns of infectious diseases and increased antimicrobial resistance?</p>	
3	These topics are explored in depth by the core curriculum.
2	These topics are briefly covered in the core curriculum.
1	These topics are covered in elective coursework.
0	These topics are not covered.
<p><i>Covered briefly in year 1 in module PHAY 0004 (“Making Safe and Effective Medicines”) - in relation to the need to think globally in relation to designing effective medicines - and then again in year 3 in module PHAY0010 (“Communicating Science and Practice”)</i></p>	

which includes lectures on global health that refer to this topic (with assigned reading: Lancet Commission on Climate Change [https://www.thelancet.com/article/S0140-6736\(21\)01787-6/fulltext#](https://www.thelancet.com/article/S0140-6736(21)01787-6/fulltext#)), as well as lectures on bacterial infections and malaria that refers to the likely impact of climate change on such conditions). Both PHAY0004 and PHAY0010 are core modules.

6. Does your pharmacy school curriculum address the respiratory health effects of climate change and air pollution?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.

Covered in year 3 in module PHAY0010 (“Communicating Science and Practice”) which includes several teaching sessions on asthma and COPD that refer to pollution exacerbating these conditions.

7. Does your pharmacy school curriculum address the cardiovascular health effects of climate change, including increased heat?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.

1	This topic is covered in elective coursework.
0	This topic is not covered.
<i>Covered in year 3 in module PHAY0010 (“Communicating Science and Practice”) which includes teaching on cardiovascular diseases.</i>	

8. Does your pharmacy school curriculum address the relationship between climate change and allergies?	
3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.
<i>Covered in year 3 in module PHAY0010 which includes reference to the effects of climate on respiratory allergies.</i>	

9. Does your pharmacy school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
3	This topic is explored in depth by the core curriculum.

2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.
<i>No evidence identified for this item</i>	

10. Does your pharmacy school curriculum address the unequal regional health impacts of climate change nationally and globally, including the impact of social inequality?	
3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic was not covered.
<i>Covered in year 3 in module PHAY0010 (“Communicating Science and Practice”) which includes lectures on global health that refer to the inequitable impact of climate change on a global basis.</i>	

11. Does your pharmacy school curriculum address the relationship between climate change and social determinants of health (e.g., reduced nutritional value of food)?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.
<i>No evidence identified for this item</i>	

12. Does your pharmacy school curriculum address the environmental and health co-benefits of a plant-based diet?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic was not covered.

No evidence identified for this item

13. Does your pharmacy school curriculum cover these components of sustainable clinical practice? (1 point each)

1	Waste production within the healthcare system and strategies for reducing waste in clinical activities such as single use plastic and packaging.
1	Patient counselling on safe disposal of medications. For example, what can be disposed of and how to locate recycling schemes, in addition to certain drugs or drug classes that are most important to dispose of properly (e.g. hormonal contraceptives, drugs that are excreted unchanged/active metabolites).
1	The impact of extreme heat, on patients on medications which can interfere with thermoregulation
1	The impact of anaesthetic gases on the healthcare carbon footprint.
1	The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively, teaching on de-prescribing where clinically appropriate and its environmental and health co-benefits would fulfil this metric.
1	The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes for obesity. This is commonly known as social prescribing in the UK.

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| 1 | The impact and benefits of benign by design pharmaceuticals through exploring medicinal chemistry concepts and/or discussing implications of excretion of active metabolites/unchanged drug products on ecological systems |
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Please highlight all metrics that apply to your pharmacy school and insert explanations below.

Score explanation:

- *Managing waste is covered in 1st year (PHAY0004)*
- *Patient counseling on disposal is covered in core module PHAY0058 in year 4 as well as in more depth in year 3 Option (PHAY 0013-A3) - Climate Change (drivers, causes and interventions) -Green Pharma case studies - Rational prescribing + campaigns to return medicines to pharmacy rather than flushing down toilet etc.*
- *Impact of heat on relevant medical conditions is covered in PHAY0058 in year 4*
- *Impact of anaesthetic gases covered in the sustainability induction in year 1*
- *Benefits of non-pharmacological management covered in PHAY0010 in year 3 and PHAY0058 in year 4*

All are in core (compulsory) modules.

14. Does your pharmacy school curriculum discuss the environmental implications of various dosage forms, medication delivery devices, and/or excipients?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.

0	This topic is not covered.
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Explored in a lecture and associated workshop in the first year (PHAY004), led by Dr Sudax Murdan - newly introduced in the last two years. These sessions include how pharmaceuticals can make their way into the water cycle, and considers the impact of different formulations and the different ways in which both the ingredients and the manufacturing process can affect the environment.

15. In training for patient communication, does your pharmacy school's curriculum introduce strategies for having conversations with patients about the health effects of climate change?

3	Yes, there are clear and detailed strategies introduced for having conversations with patients about climate change in the core curriculum.
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2	Yes, having conversations with patients about climate change is briefly mentioned in the core curriculum.
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1	Yes, there are some examples of having conversations with patients about climate change in elective coursework.
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0	No, there are not strategies or examples for having conversations with patients about climate change
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No evidence identified for this aspect.

16. Does your pharmacy school curriculum guide students to consider the environmental impact of medications as a factor in addition to safety, efficacy, cost, and pill burden when comparing equivalent therapies?

3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.
0	This topic is not covered.

Covered briefly in sustainability lecture in year 1 delivered by Bryony Dean Franklin

17. Is your pharmacy school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?

4	Yes, the school is currently in the process of making major improvements to ESH/planetary health education.
2	Yes, the school is currently in the process of making minor improvements to ESH/planetary health education.
0	No, there are no improvements to planetary health education in progress.

A member of staff (Professor Bryony Dean Franklin) was given the responsibility of incorporating ESH into the MPharm curriculum last year, with minor improvements made so far, including a sustainability related introduction in year 1. Some interdisciplinary learning is also being piloted this year with UCL audiology students on the topic of sustainability in healthcare..

18. Does your pharmacy school have a member of faculty to incorporate planetary health and sustainable healthcare as a theme throughout the curriculum ?

4 Yes, there is/are a member(s) of faculty whose role is directly responsible for the incorporation of planetary health and sustainable healthcare as a theme throughout the curriculum

2 Yes, there is/are member(s) of faculty who are incorporating planetary health and sustainable healthcare as a theme throughout the curriculum as well as doing their principle role

0 There are no members of faculty who are incorporating planetary health and sustainable healthcare as a theme throughout the curriculum

A member of staff (Professor Bryony Dean Franklin) was given the responsibility of incorporating ESH as a theme within the MPharm curriculum last year as part of her existing role.

19. Does your pharmacy school curriculum offer clinical practice experiences (for example, IPPE/APPE rotations in the U.S. or placement opportunities in the UK) that allow for the exploration of planetary health topics?

3	There are multiple clinical practice experiences/placements that allow for direct exposure to planetary health topics.
2	There is one available clinical practice experience/placement that allows for direct exposure to planetary health topics.
1	There are available clinical practice experiences/placements that allow for indirect exposure to planetary health topics.
0	No, there are no such clinical practice experiences/placements available through the pharmacy school.
<p><i>Clinical hospital placements may include some aspects of planetary health, depending on the hospital site and their level of maturity in relation to sustainable healthcare. Some final year projects based in clinical practice are also on topics specifically focused on planetary health and sustainability.</i></p>	

<p>20. Does your pharmacy school curriculum acknowledge a disparity in the effects of climate change? Specifically, does your curriculum address groups more vulnerable to environmental impacts, such as BIPOC, immigrant groups, low income populations, children, elderly, persons with disabilities, persons with pre-existing or chronic medical conditions?</p>	
3	This topic is explored in depth by the core curriculum.
2	This topic is briefly covered in the core curriculum.
1	This topic is covered in elective coursework.

0	This topic is not covered.
Covered briefly in the sustainability induction lecture in year 1 delivered by Bryony Dean Franklin	

Section Total (36 out of 66)	54.54%
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Are there additional curriculum resources offered at your school or institution not yet asked about that you would like to describe? If so, please do so below.

Planetary Health Research

Section Overview: *This section evaluates the quality and quantity of planetary health research at the school and with the broader institution. Interactions between health and the environment are complex and multifactorial. While climate change has been extensively studied from an environmental science perspective, planetary health is an emerging field. Pharmacy schools should support research in areas such as the health effects of climate change, adaptive measures and pharmacy's environmental impact.*

1. Are there researchers engaged in planetary health research and healthcare sustainability research at your pharmacy school?	
3	Yes, there are faculty members at the School of Pharmacy who have a primary research focus in planetary health or healthcare sustainability.
2	Yes, there are individual faculty members at the School of Pharmacy who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.

1 There are planetary health and/or healthcare sustainability researchers at the institution, but none associated with the pharmacy school.

0 No, there are no planetary health and/or healthcare sustainability researchers at the institution or pharmacy school at this time.

On Profiles UCL's new public profiles system neither planetary health or healthcare sustainability are tags to filter results nor are they fields of research to sort. However there are some researchers at UCL School of Pharmacy doing some research in this field, eg Michael Heinrich (Professor of Ethnopharmacology and Pharmacognosy) who is doing research on plants as medicines. [Professor Michael Heinrich | UCL School of Pharmacy - UCL – University College London](#) and Bryony Dean Franklin (Professor of Medication Safety) who is supporting research on pharmacy students' motivations to learn about their role in environmental sustainability and medicines management in public health emergencies such as those due to climate change [Bryony Franklin Profile | University College London \(ucl.ac.uk\)](#)

Elsewhere in the institution there are several research groups focused on planetary health research including:

People and Nature Lab [UCL – People and Nature Lab - University College London](#) has a research theme of human health and wellbeing, exploring the relationship between accessible green spaces and mental health, and how societal inequalities can impact how people access and interact with nature. There is also the MSc Ecology, Climate Change and Health looking at the intersections between biodiversity, climate change and public health [Ecology, Climate Change and Health MSc | Prospective Students Graduate - UCL – University College London](#)

The Lancet Countdown: tracking progress on Health and Climate Change hosted by UCL working to ensure that health is at the centre of how governments understand and respond to climate change [Lancet Countdown: Tracking Progress on Health and Climate Change | Institute for Global Health - UCL – University College London](#). Researchers from UCL include Professor Anthony Costella (professor of global health and sustainable development) and Dr Marina Romanello (Climate Change and Health researcher).

Recent project - CCCEHN (Community collective action to respond to climate change influencing the environment- health nexus exploring how volunteer-based, local groups self-organise to respond to climate change and its environmental impacts to contribute to health system. The key researcher was Professor Ilan Kelman (professor of Disasters and

Health) [Dr Ilan Kelman | UCL Institute for Risk and Disaster Reduction - UCL – University College London](#)

HEROIC: Health and Economic impacts of Reducing Overheating in Cities exploring the health and economic impacts of urban scale interventions. Key researchers include Dr Clare Heaviside (associate professor in Climate Change, Health and Cities), Mike Davies (Professor of Building Physics and the Environment) and Dr Oscar Brousse (Urban Meteorology and Environmental Modelling) part of the Bartlett School of Environment, Energy and Resources. [HEROIC: Health and Economic impacts of Reducing Overheating in Cities | UCL Institute for Environmental Design and Engineering - UCL – University College London](#)

2. Has your institution recently provided extra curricular talks or learning opportunities on topics related to planetary health?

4	Yes, the pharmacy school has hosted at least one opportunity for extra learning on topics related to planetary health in the past year.
3	Yes, the institution has hosted at least one opportunity for extra learning on topics related to planetary health in the past year.
2	Yes, the institution has provided at least one opportunity for extra learning on topics related to planetary health in the past three years.
1	The institution has not hosted anything directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted anything on topics related to planetary health in the past three years.

Examples include

- 1) a seminar on “How to make UCL a more environmentally sustainable university”, hosted at UCL School of Pharmacy on 25 January 2024 (both online and in person) <https://www.eventbrite.co.uk/e/how-do-we-make-ucl-a-more-environmentally-sustainable-university-tickets-772170652207?aff=oddtcreator>
- 2) Interprofessional Education initiative in Sustainability and Healthcare provided as an option for second year MPharm Students

3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your pharmacy school?

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| 3 | Yes, there is a process in which community members impacted by climate and environmental injustice have decision-making power in the climate + environmental research agenda. |
| 2 | Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda. |
| 1 | No, but there are current efforts to establish a process for community members to advise or make decisions on the research agenda. |
| 0 | There is no process, and no efforts to create such a process. |

No evidence identified for this item

Section Total (5 out of 10)

50.00%

Are there additional research resources offered at your school or institution not yet asked about that you would like to describe? If so, please do so below.

Community Outreach and Advocacy

Section Overview: *This section evaluates pharmacy school engagement in community outreach and advocacy efforts associated with planetary health. Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities most affected by environmental health harms. Although climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on under-resourced populations and communities of colour. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.*

1. Does your pharmacy school partner with community organisations to promote planetary and environmental health?

3 Yes, the pharmacy school partners with multiple community organisations to promote planetary and environmental health to share opportunities for student involvement.

2	Yes, the pharmacy school partners with one community organisation to promote planetary and environmental health to share opportunities for student involvement.
1	The institution partners with community organisations, but the pharmacy school is not part of that partnership.
0	No, there is no such meaningful community partnership.

Score explanation:

Healthy Planet UCL [Healthy Planet UCL - 2019 Winner of the Sustainability Impact Award / Sustainable UCL - UCL – University College London](#) is a student-led volunteering society operating within the UCL Student's Union. It is part of a broader network aiming to raise awareness about the impact of climate change on health. [It's time to make change possible at UCL. / Sustainable UCL - UCL – University College London](#)

Specifically, Healthy Planet UCL is connected with Healthy Planet UK, an organization dedicated to increasing understanding of the ways in which climate change affects human health. Within its scope of activities, Healthy Planet UCL's project focuses on delivering workshops to local primary schools. These workshops cover topics such as climate change, pollution, and their implications for health. By engaging with local schools, Healthy Planet UCL seeks to educate and empower young students to become more informed and proactive about environmental issues, promoting a healthier and more sustainable future for both individuals and communities

Students were not aware of any opportunities at UCL School of Pharmacy..

Recommendations: students at UCL School of Pharmacy commented that they would love to have more volunteering opportunities and internships within the pharmacy school to help local communities.

2. Does your pharmacy school have coverage of issues related to planetary health and/or sustainable healthcare in their update communications?

2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
0	Students do not regularly receive communications about planetary health or sustainable healthcare.

Score explanation:

In 2023, there was a special divisional seminar on sustainability at the Division of Medicine Rayne Institute. This information could be found under the 'news' section on the pharmacy school webpage (<https://www.ucl.ac.uk/medicine/news/2023/sep/new-climate-why-we-need-act-and-what-we-need-do-professor-hugh-montgomery>).

Topics related to sustainability are sometimes included in school-wide emails.

Students commented that although they did not receive many communications regarding planetary health from pharmacy school, they noticed that UCL soundcloud had covered topics such as COP28 and SDGs.

Recommendations: students suggested that the pharmacy school should provide information related to planetary health and sustainable healthcare in the department newsletters on a monthly basis.

3. Is your pharmacy school a member of a national or international planetary health or ESH organisation?

1	Yes, the school is a member of a national or international planetary health or ESH organisation
0	No, the school is not a member of such an organisation

UCL School of Pharmacy is a member of the Sustainability in Pharmacy Education group for the UK [Education \(pharmacydeclares.co.uk\)](http://pharmacydeclares.co.uk) as listed as a member in their Terms of Reference [Terms of Reference 1.4.pdf - Google Drive](#)

Section Total (3 out of 6)

50.00%

Are there additional community engagement and advocacy resources offered at your pharmacy school or institution not yet asked about that you would like to describe? If so, please do so below.

Support for Student-Led Planetary Health Initiatives

Section Overview: *This section evaluates institutional support for student-led planetary health initiatives, such as funding, fellowships, programming, and student groups. Planetary health is a young field and, as young people facing a future deeply shaped by climate change, students are often some of the first at an institution to engage with it. Institutions should provide support for students to engage in sustainability quality improvement (QI) initiatives, discover mentors in their area of interest, and receive funding for planetary health projects.*

1. Does your institution offer opportunities for pharmacy students to do research related to planetary health and/or sustainable healthcare?

2 The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.

1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare but these require student initiative to seek these out and carry them out in their spare time.
0	There are no opportunities for students to engage in planetary health/sustainable healthcare research.

The external research project pursued in the final year of the MPharm degree provides several options that represent an opportunity for students to explore sustainable healthcare topics. During academic year 2023/2-24 these included a study of recycling practices in a hospital pharmacy, and a narrative review of educational interventions to increase undergraduate healthcare students' engagement in sustainability.

2. Does the pharmacy school provide access for students to specific information related to planetary health and/or sustainable healthcare activities and mentors within the school? For example, a web page detailing projects achieved, current initiatives underway at the pharmacy school and/or contact information for potential mentors.

2	The pharmacy school provides specific information related to planetary health or sustainable healthcare that includes up-to-date information on relevant initiatives and contact information of potential mentors.
1	The pharmacy school provides some information on projects and mentors within planetary health and sustainable healthcare within the school, but it lacks key information.
0	There is no pharmacy school specific access to planetary health and/or sustainable healthcare projects or mentors.

The School of Pharmacy has detailed information about previous achievements such as claiming three Sustainability awards in 2020 (for sustainable labs and library) and

activities such the Medicinal Garden Project in 2017. However there is a lack of up-to-date information about any new initiatives for students to be informed and participate in.

<https://www.ucl.ac.uk/pharmacy/news/2020/aug/sustainability-efforts-ucl-school-pharmacy-win-three-awards>

<https://www.ucl.ac.uk/sustainable/events/2017/feb/ucl-school-pharmacy-medicinal-garden-project>

3. Does your University have registered student groups dedicated to fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?

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|---|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | Yes, there is a student organisation with faculty support at my University dedicated to planetary health or sustainability in healthcare. |
| 1 | Yes, there is a student organisation at my University dedicated to planetary health or sustainability in healthcare but it lacks faculty support. |
| 0 | No, there is not a student organisation at my institution dedicated to planetary health or sustainability in healthcare. |

No evidence identified for such groups supported by faculty advisors.

4. In the past year, has the institution had one or more extra-curricular planetary health programs or initiatives in the following categories? (1 point each)

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|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects. |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)

There are opportunities to gain experience organic agriculture at UCL eg [agriculture-biodiversity / UCL Research Domains - UCL – University College London](#)

The sustainability hub at UCL [Sustainability Hub / Students Union UCL](#) provides examples of volunteering [Sustainability / Students Union UCL](#), campaigning [Home / People & Planet \(peopleandplanet.org\)](#), that students can get involved with, and seminars / events aimed at students [Sustainability Hub / Students Union UCL](#).

The hiking club provides hiking trips in the outdoors [Hiking Club / Students Union UCL](#)

UCL hosts initiatives such as “28 days of sustainability” [28 Days of Sustainability 2024 / Sustainable UCL - UCL – University College London](#)

Section Total (8 out of 12)	66.67%
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Are there additional student-led initiative resources offered at your school or institution not yet asked about that you would like to describe? If so, please do so below.

Campus Sustainability

Section Overview: *This section evaluates the support and engagement in sustainability initiatives by the pharmacy school and/or institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive endeavour, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinising every aspect of how our systems operate, from where we source our energy, to how we build our infrastructure, to what companies we invest in. Our pharmacy schools and institutions must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.*

1. Does your University have an Office of Sustainability?

- | | |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the pharmacy school. |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of pharmacy.
1	There are no salaried sustainability staff, but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<p><i>There is a sustainability department at UCL About Us / Sustainable UCL - UCL – University College London but no specific member in charge of the School of Pharmacy</i></p>	

2. How ambitious is your pharmacy school/institution's plan to reduce its own carbon footprint?	
4	The institution has a stated goal of carbon neutrality by 2030 or earlier and the pharmacy school has a well-defined and adequate plan in place to achieve this goal.
3	Yes, there is a stated carbon neutrality goal by at least 2040 and the school has a well-defined and adequate plan in place to achieve this goal.
2	Yes, there is a stated carbon neutrality goal by at least 2040, but the pharmacy school has not created a plan to reach that goal or the plan is inadequate.
1	There is a CO2 emission reduction goal, but it is not one of carbon neutrality.
0	There is no stated goal for reduction of CO2 emissions.

UCL has a goal [Commitments and Strategy / Sustainable UCL - UCL – University College London](#) but not specifically for pharmacy as far as we are aware

3. Does your pharmacy school have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?

2 Yes, the pharmacy school has both compost and recycling programs accessible to students and faculty.

1 The pharmacy school has either recycling or compost programs accessible to students and faculty, but not both.

0 There is no compost or recycling program at the pharmacy school.

There are good recycling facilities at the School of Pharmacy for items such as paper and glass, but not for organics / food items.

4. Does your pharmacy school provide paperless teaching? e.g. lecture materials, exam papers, hand-outs

3 The whole course is delivered using online modalities of assignment, lecture, and examination delivery.

2 The majority of the course is delivered using online modalities with exception to few assignments where paper is still encouraged.

1	Some of the course is delivered using online modalities, but the majority of assignments and examinations are on paper.
0	None of the coursework is delivered using online modalities and paper printing is widespread.
<p><i>Since the pandemic, the majority of teaching has been paperless, with material provided via the online learning platform for download to students' own devices. Some workshops still use paper workbooks.</i></p>	

5. Does your pharmacy school have programs and initiatives to assist with making lab spaces more environmentally sustainable?

2	Yes, the school has programs and initiatives to assist with making lab spaces more environmentally sustainable.
1	There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are no efforts at the school to make lab spaces more sustainable.
<p><i>Many labs at UCL School of Pharmacy either have, or are working towards, LEAF accreditation LEAF - Laboratory Efficiency Assessment Framework / Sustainable UCL - UCL – University College London</i></p>	

6. Does your institution have a strategy or timeline for divestment from fossil fuels?

4	The institution has fully divested from fossil fuels
3	Yes, the institution has solid divestment plans and a set timeline in which to divest by
2	The institution has committed to divestment but does not have a set strategy or timeline
1	The institution has mentioned divestment but doesn't have a strategy or timeline
0	No, there are no plans nor mention of divestment from fossil fuels
<p><i>UCL has fully divested from fossil fuels UCL divests from fossil fuels as it launches bold new sustainability strategy / UCL News - UCL – University College London</i></p>	

Section Total (13 out of 18)	72.22%
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Are there additional sustainability resources offered at your school or institution not yet asked about that you would like to describe? If so, please do so below.

Grading

Section Overview

This section focuses on the grading of the report card. The institution received a grade for each of the individual sections as well as an overall institutional grade. Section point totals were tallied, divided by the total points available for the section, and converted to a percentage. The overall institutional grade is a weighted average of the section grades, with curriculum receiving

a higher weight owing to its larger number of metrics. Letter grades for each section and the institution overall were then assigned according to the table below.

Letter Grade*	Percentage
A	80% - 100%
B	60% - 79%
C	40% - 59%
D	20% - 39%
F	0% - 19%

Planetary Health Grades for the University College London, School of Pharmacy

The following table presents the individual section grades and overall institutional grade for the University College London, School of Pharmacy on this pharmacy-school-specific Planetary Health Report Card.

Section	Raw Score	Letter Grade
Planetary Health Curriculum (59%)	$(36 / 66) \times 100 = 54.54\%$	C+
Planetary Health Research (9%)	$(5 / 10) \times 100 = 50.00\%$	C
Community Outreach and Advocacy (5%)	$(3 / 6) \times 100 = 50.00\%$	C
Support for Student-led Planetary Health Initiatives (11%)	$(8 / 12) \times 100 = 66.67\%$	B
Campus Sustainability (16%)	$(13 / 18) \times 100 = 72.22\%$	B
Institutional Grade	$(55 \times 0.59) + (50 \times 0.09) + (50 \times 0.05) + (67 \times 0.11) + (72 \times 0.16) = \mathbf{58.34\%}$	C+

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