

# Planetary Health Report Card (Medicine):

# Norwich Medical School



2023-2024 Contributing Team:

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## **Summary of Findings**

| Overall   | С   |
|---|---|
| <u>Curriculum</u>   | С   |
| University of East Anglia adopts a novel approach to its curriculum with the PBL model being used as the basis of Several mentions of planetary health was covered in the curriculum most frequently in the first and second years, t health economics and public health lectures allow the effect of a changing global climate on individual health to be by students.   | learning.<br>he in depth<br>discovered                                      |
| <b>Recommendations:</b> Introducing conversations about planetary health in the later years of medical school. More le objectives should be created that has planetary health as its main focus as opposed to a subsection of the objective. of a planetary health student selected component allowing a more diverse choice for individual student choice of to  | arning<br>Introduction<br>opic.   |
| Interdisciplinary Research  | С   |
| The university of East Anglia has been a bastion for planetary health research for many years, with high quality research constantly produced by the school of environmental sciences With the climate UEA initiative, UEA has solidified its foothold in the realm of planetary health research, the links and support it receives from regional movers and stakeholders have only aided in the fruitfulness of UEA's research output on planetary health.<br><b>Recommendations:</b> UEA is not a member of any international planetary health or ESH organisation, membership of these organisations will serve to improve UEA's research links and their ability to liaise with other reputable organisations in the field of planetary health. A planetary health conference to be health is also recommended. |   |
| Community Outreach and Advocacy   | D   |
| The University of East Anglia promotes and organises planetary and environmental health within the communities the medical school is not directly involved in most of these events. Also, neither the medical school nor affiliated the hospitals offer patients materials regarding both environmental health exposures and health impacts of climate chara <b>Recommendations</b> : There should be an initiative from the medical school to form relationships with community of to promote planetary and environmental health. The medical school and affiliated teaching hospitals should develot information leaflets to introduce patients to the topics of environmental health exposures and the impacts of climat health.   | . However,<br>eaching<br>nge.<br>organisations<br>op patient<br>e change on |
| Support for Student-Led Initiatives   | В   |
| The University of East Anglia is passionate about planetary health and through ClimateUEA have dedicated resources, researchers and events that students can get involved with. There are also a number of student-led societes supported by the UEASU dedicated to sustainability and planetary health however this must come from the student's initiative and there is no funding available for such.<br><b>Recommendations</b> : We recommend the medical school offers increased support to students interested in sustainable initiatives by, for example, encouraging students to participate in Sustainability QI projects and updating the Public Health website to enable students to find mentors and opportunities to participate in research.  |   |
| <u>Campus Sustainability</u>  | С   |
| Norwich medical school and UEA have achieved a full divestment from fossil fuels and has an ongoing committee<br>ensuring all building on campus are carbon neutral by 2045. Constant revamping of old building to increase sustain<br>improve energy utilisation.<br>Recommendations: individual initiative by the medical school to improve its own sustainability separate to UEA. A<br>sustainability guidance should be produced by the medical school to cater to events held by the medical school alo<br>increased need to ensure a greater usage of renewable energy sources by the medical school and its associated sites  | ent to<br>nability and<br>An<br>ng with an<br>S.                            |
|   |   |

#### **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." 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 greatest threat to global health in the 21st century," many medical school's institutional priorities do not reflect the urgency of this danger to human health.

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 medical training. It is imperative that we hold our institutions accountable for educating medical 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. Because climate change and environmental threats disproportionately affect vulnerable populations (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 accountability among medical schools, we have created a Planetary Health Report Card that medical students internationally can use to grade and compare their home institutions on an annual basis. This medical-student-driven initiative aims to compare medical schools nationally and internationally on the basis of discrete metrics in five main category areas: 1) planetary health curriculum, 2) interdisciplinary research in health and environment, 3) university support for student planetary health initiatives, and 4) community outreach centred on environmental health impacts 5) medical school campus sustainability.

#### **Definitions & Other Considerations**

#### **Definitions:**

- Planetary Health: is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." 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 medical 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.
- Sustainable Healthcare: As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.
- Education for Sustainable Healthcare (ESH): is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
  - 1. Describe how the environment and human health interact at different levels.

2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.

3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

• Medical School vs. Institution: When "medical school" is specified in the report card, this only refers to curriculum and resources offered by the School of Medicine and does not include offerings from other parts of the university (e.g. 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 medical students, no matter where in the institution the resource comes from or if it is specifically targeted for medical students, can meet this metric.

- Environmental history (Metric #19 in Curriculum Section): This is a series of questions providers are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution.
- Elective: The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Clerkship:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations or placements.

#### **Other considerations:**

• If there are more than one "tracks" at your medical school with two different curricula (for example, Harvard Medical School has a Pathways and HST curriculum track), you can choose to fill out a report card for each track, or fill out just one report card and average the scores received by each track in cases where the scores are different (see the 2021 Harvard or Oxford report cards as examples).

Added to our resources in 2022, the Planetary Health Report Card <u>Literature Review</u> <u>by Metric</u> collates the evidence behind each of the metrics in the Planetary Health Report Card. It serves as a collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

#### **Planetary Health Curriculum**

<u>Section Overview:</u> This section evaluates the integration of relevant planetary health topics into the medical school curriculum. Today's medical students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that medical students are trained to understand the health effects of these changes, as well as planetary health issues and principles more broadly. Topics like the changing geography of vector-borne diseases, the health consequences of air pollution, environmental health inequities, and disaster response principles must be part of every medical school's core curriculum.

#### Curriculum: General

**1.1.** Did your <u>medical school</u> offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?

| 3 | Yes, the medical school has offered more than one elective whose primary focus is |
|---|---|
|   | ESH/planetary health in the past year.  |

- 2 Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year.
- 1 The medical school does **not** have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a **lecture** on planetary health.
- 0 No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.

This year, Norwich Medical School has offered two elective courses engaging students in ESH and Planetary health; there is a Public Health elective course under the Student Selected Component (SSC) offered to year 1 and year 3 students. This course involves the appraisal of literature around a topic the student has chosen relating to epidemiology and the effectiveness of public health actions. Norwich Medical School has also offered a Sociology elective course under SSC with two main themes; in year 1 the theme is "The Sociology of Inequalities in Health" and in year 3 the theme is "Improving Equity in Health". Within those learning objectives lack of planetary health awareness has been mentioned as an linking factor that has been associated with poorer health inequalities.

#### Curriculum: Health Effects of Climate Change

| <b>1.2.</b> Does your <u>medical school</u> curriculum address the relationship between extreme heat, health risks, and climate change? |  |
|---|--|
| 3   | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2   | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1   | This topic was covered in <b>elective</b> coursework.                  |
| 0   | This topic was <b>not</b> covered.                                     |

Norwich Medical School uses Problem based learning model and students are given weekly learning objectives along with clinical scenarios related to the certain theme of the week and the specialty that each module covers. The learning objectives are discussed and covered by the students in their groups every week. There are learning objectives which are more open to interpretation by students themselves due to the learning objectives being more subjective.

There have been learning objectives under the Public Health theme covering environment and health. One of the learning objectives is to discuss the bi-directional links between the environment and healthcare. This is open to students if they wish to think of climate change and extreme heat. There is another learning objective to ask students to outline about environmental hazards to health & strategies to minimise risk.

Due to the change in the curriculum, the original learning objectives that were related to this topic were removed, which included:

Discuss the impact of climate change on human health.

Discuss how environmental factors can contribute to disability.

Relationship of extreme heat and IV exposure on skin disease

For the gateway year curriculum, there is a learning outcome that is related to this topic:

Consider the effects of climate change on the health of the British nation and on the Health Care systems in the UK and globally.

#### **1.3.** Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?

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

There is no learning objective that covers this topic specifically in the core curriculum for Medical School. Students can choose an elective Public Health Student Selected Component (SCC) which they can cover this topic if the student wishes to learn more. There is one learning outcome in gateway year regarding climate change on health of the British nation and on the Health Care systems in the UK and globally.

#### **1.4.** Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?

3 This topic was explored **in depth** by the **core** curriculum.

| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum. |
|---|--|
| 1 | This topic was covered in <b>elective</b> coursework.                |
| 0 | This topic was <b>not</b> covered.                                   |

There is no learning objective in the core curriculum specifically covering the link between climate change on infectious disease. But there is a chance of covering this topic through research on an optional elective Public Health SCC. There is mention of the increasing temperature in northern europe and the spread of malaria in a lecture series in 1st year.

# **1.5.** Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?

| 3  | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
|--|--|
| 2  | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1  | This topic was covered in elective coursework.                         |
| 0  | This topic was <b>not</b> covered.                                     |
| There is a learning outcome for Cateway year negarding about air quality on health which is: |  |

There is a learning outcome for Gateway year regarding about air quality on health, which is: Consider the impact of air quality on health in 20th Century Britain and compare and contrast this to the impact of air quality on 21st Century health.

In second year the respiratory module had lectures describing the effects of high air pollution and the risk of developing chronic lung conditions such as COPD, the focus of the lectures were more medical in nature as opposed to environmental.

Although it is not specifically addressing respiratory health, students may link this learning outcome to respiratory health.

# **1.6.** Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?

| 3  | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
|--|--|
| 2  | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1  | This topic was covered in <b>elective</b> coursework.                  |
| 0  | This topic was <b>not</b> covered.                                     |
| For the gateway year curriculum, there is a learning outcome that students may link to this topic which depends on their own thoughts: |  |

Consider the effects of climate change on the health of the British nation and on the Health Care systems in the UK and globally.

There is also an option of choosing Public Health SSC and students can explore this topic through research if they are interested in Year 1 and 3.

**1.7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?** 

| 3  | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
|--|--|
| 2  | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1  | This topic was covered in <b>elective</b> coursework.                  |
| 0  | This topic was <b>not</b> covered.                                     |
| This topic is not mentioned in any learning objectives within public health, psychiatry or any other |  |

modules.

**1.8.** Does your <u>medical school</u> curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?

| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
|---|--|
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 |  |

0 This topic was **not** covered.

Originally there was a learning outcome in Year 1 Public health that encourages students to explore the relationship between health and the environment, climate change and health, and the concept of health inequalities and determinants of health.

Since the change in curriculum, this learning outcome has been deleted.

There are a few learning outcomes that may be relevant in the Gateway year:

Consider how the actions of individuals can mitigate against climate change.

Consider the effects of climate change on the health of the British nation and on the Health Care systems in the UK and globally.

Consider whether our healthcare system is contributing to global health.

# 1.9. Does your <u>medical school</u> curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of color, Indigenous communities, children, homeless populations, and older adults?

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

Explain the concepts of health inequities and how inclusive healthcare practices can affect outcomes for vulnerable groups and marginalised populations

| 1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?  |  |
|---|--|
| 3   | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
| 2   | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1   | This topic was covered in elective coursework.                         |
| 0   | This topic was <b>not</b> covered.                                     |
| For the gateway year curriculum, Students are encouraged to consider the unequal regional health<br>impacts of climate change through the learning objectives:<br>Consider the effects of climate change on the health of the British nation and on the Health Care<br>systems in the UK and globally.<br>Meanwhile, students may also cover about this topic under a learning objective in Year 1 Public |  |

health: Explain the concepts of health inequities and how inclusive healthcare practices can affect outcomes for vulnerable groups and marginalised populations.

#### Curriculum: Environmental Health & the Effects of Anthropogenic Toxins on Human Health

# **1.11.** Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?

| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
|---|--|
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in <b>elective</b> coursework.                  |
| 0 | This topic was <b>not</b> covered.                                     |
|   |  |

This topic is not mentioned in the learning objectives or lectures in Gynecology or urology modules and cannot be found in any part of the curriculum. There were reports from previous years' 4 th year students that the topic was briefly discussed in some lectures.

# **1.12.** Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?

| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
|---|--|
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |
| 1 | This topic was covered in elective coursework.                         |
| 0 | This topic was <b>not</b> covered.                                     |

There is a learning objective in Gateway year that may be relevant to this topic and is under Public Health Project:

Demonstrate an awareness of current public health issues relevant to the UEA campus context. Issues covered within this module include carbon footprint, increased pollution and its affect on health of surrounding communities.

There are also other university student-run societies like Student's for Global Health and ClimateUEA that address the topic.

# **1.13.** To what extent does your <u>medical school</u> emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?

| 3 | Indigenous knowledge and value systems are <b>integrated throughout</b> the medical school's planetary health education                          |
|---|--|
| 2 | Indigenous knowledge and value systems as essential components of planetary health solutions are included <b>briefly</b> in the core curriculum. |
| 1 | Indigenous knowledge and value systems as essential components of planetary health solutions are included in <b>elective</b> coursework.         |
| 0 | This topic was <b>not</b> covered.   |
|   |  |

There is no specific learning objective that covers this topic in the core curriculum.

# 1.14. Does your medical school curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults? 3 This topic was explored in depth by the core curriculum. 2 This topic was briefly covered in the core curriculum. 1 This topic was covered in elective coursework. 0 This topic was not covered.

#### Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?

| 3 | This topic was explored <b>in depth</b> by the <b>core</b> curriculum. |
|---|--|
| 2 | This topic was <b>briefly</b> covered in the <b>core</b> curriculum.   |

| 1 | This topic was covered in elective coursework. |
|---|--|
| 0 | This topic was <b>not</b> covered.             |

While no explicit mention was made regarding the environmental benefits of a plant based diet in the nutrition lectures held during first year, a slide listing the different benefits patients could be informed of mentioned lower carbon emissions as a benefit of a plant based diet.

#### 1.16. Does your medical school curriculum address the carbon footprint of healthcare systems?

| 3 | This topic | was explored i | in depth | by the | core curriculum |
|---|------------|----------------|----------|--------|-----------------|
|   |            |                |          | ~      |                 |

2 This topic was **briefly** covered in the **core** curriculum.

| 1 | This topic was covered in elective coursework. |
|---|--|
|---|--|

0 This topic was **not** covered.

While different health systems were covered in the core curriculum especially in the learning objective of: Describe the main ways in which health care systems around the world are organised and funded. No mention was given to how global carbon footprints are affected by different healthcare systems. Students when choosing the public health SCC are able to explore a topic of their choice to address the above topic..

| 1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each) |  |  |  |
|---|--|--|--|
| 2   | The health <b>and</b> environmental <b>co-benefits</b> of <b>avoiding</b> over-medicalisation, over-investigation and/or over-treatment  |  |  |
| 2   | The environmental impact of <b>pharmaceuticals</b> and over-prescribing as a cause of climate health harm. Alternatively teaching on <b>deprescribing</b> where possible and its environmental and health co-benefits would fulfil this metric.  |  |  |
| 1   | The health <b>and</b> environmental <b>co-benefits</b> of <b>non-pharmaceutical management</b> 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. This is commonly known as social prescribing in the UK. |  |  |
| 1   | Environmental impact of <b>surgical</b> healthcare on planetary health and the climate crisis, and how can it be mitigated   |  |  |
| 1   | The impact of <b>anaesthetic</b> gases on the healthcare carbon footprint and ways to reduce<br>anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less<br>environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions   |  |  |
| 1   | The impact of <b>inhalers</b> on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.  |  |  |
| 1   | <b>Waste production</b> within healthcare <b>clinics</b> and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)   |  |  |

*Score explanation:* 

- 1) In Year 1, Norwich Medical School focuses on the impact of polypharmacy and the risks it can pose. This is covered in the PBL LO "Describe the principles of prescribing and deprescribing in the elderly".
- 2) In Year 1, Norwich Medical School focuses on the impact of polypharmacy and the risks it can pose. This is covered in the PBL LO "Describe the principles of prescribing and deprescribing in the elderly".
- 3) Throughout the curriculum, Norwich Medical School emphasises suggesting conservative management throughout all the modules during our primary care placement. When practising communicating with patients, we suggest conservative measures throughout the years for various diseases, such as: using the facilities provided in parks for exercises for osteoarthritis and making lifestyle changes for a better diet to manage diabetes better. We are also taught to explore barriers in accessing these schemes.
- 4) There is no focus on the latter points in the NMS core curriculum.

Source: https://mapping.uea.ac.uk/login

#### **Curriculum:** Clinical Applications

**1.18.** In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change? Yes, there are strategies introduced for having conversations with patients about climate char

- 2 Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum.
- 1 Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework.
- 0 No, there are **not** strategies introduced for having conversations with patients about climate change

Whilst there are no direct strategies taught to students about linking health problems with climate change, we are taught to explore the impact of environmental factors on the patient's health and well-being when taking a social history. We are taught to explore this by asking about a patient's occupation and hobbies they engage in. This was particularly emphasised during Module 4 (dermatology) and Module 5 (respiratory medicine).

| 1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?                                  |  |  |
|---|--|--|
| 2   | Yes, the core curriculum includes strategies for taking an environmental history.          |  |
| 1   | Only elective coursework includes strategies for taking an environmental history.          |  |
| 0   | No, the curriculum does <b>not</b> include strategies for taking an environmental history. |  |
| Norwich medical school emphasises asking about a patient's occupation and hobbies and gauge how much exposure the patient has to potential risks. Students are even taught to ask patients about safe |  |  |

practices too, such as applying sun cream when staying out in the sun. It is emphasised to students to ask these screening questions and this is assessed during OSCEs.

Source: <u>https://mapping.uea.ac.uk/login</u> + UEA lecture slides from respiratory history taking.

#### Curriculum: Administrative Support for Planetary Health

# **1.20.** Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?

- 4 Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education.
- 2 Yes, the medical 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.

In feedback forms disseminated to students at Norwich medical school, no comment was asked to students about planetary health and sustainability in medicine. The relatively small volume of planetary health teaching with little lectures with a primary focus of environmental lectures meant that there is little way for UEA to collate student feedback and improve based upon that.

| <b>1.21.</b> How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum? |  |  |  |
|--|--|--|--|
| 6  | Planetary health/ESH topics are well integrated into the core medical school curriculum.   |  |  |
| 4  | <b>Some</b> planetary health/ESH topics are appropriately integrated into the core medical student curriculum.   |  |  |
| 2  | Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s).  |  |  |
| 0  | There is <b>minimal/no</b> education for sustainable healthcare.   |  |  |
| UEA<br>the re<br>indus<br>otolo<br>emiss<br>mech<br>in se  | 's spiral learning curriculum emphasises how different body systems interact with one another. In<br>espiratory module in second year the link between environmental exposure to pollutants and<br>strial chemicals with the development of obstructive lung disease was explored in depth. The<br>gical manifestations of smoking in a household with children and childhood exposure to industrial<br>sions was mentioned briefly in a problem based learning case in second year, in third year the<br>panism of how these substances produce otitis media were covered based on the knowledge built up<br>cond year. |  |  |

While planetary health was integrated into the curriculum in a spiral learning model there is still more to be done to ensure full integration of more planetary manifestations of specifically more mention is needed to describe the manifestations of climate change on the different disease demographics in the UK.

1.22. Does your medical school employ a member of faculty to specifically oversee and take

responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?

- 1 **Yes,** the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
- 0 No, the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.

Whilst no specific staff member at norwich medical school is currently responsible for the integration of planetary health and sustainable healthcare at UEA, UEA's sustainability statement places a focus to have a representation from every department to aid in achieving sustainability integration in every faculty.

Section Total (33 out of 72)

45.8%

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#### **Interdisciplinary Research**

<u>Section Overview:</u> This section evaluates the quality and quantity of interdisciplinary planetary health research at the medical school and 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. As leading health institutions with talented researchers and research resources, medical schools should fund research studying the health effects of climate change and anthropogenic environmental toxins. This obligation is particularly strong because the public and policymakers are more attentive to climate change when its implications for human health are emphasised.

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>medical school</u>?

- 3 Yes, there are faculty members at the **medical school** who have a **primary r**esearch focus in planetary health **or** healthcare sustainability.
- <sup>2</sup> Yes, there are individual faculty members at the **medical school** 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 medical school.
- 0 No, there are **no** planetary health and/or healthcare sustainability researchers at the **institution** or **medical school** at this time.

UEA has a heavy involvement with environmental and sustainability research, however the researchers and faculty members are not associated with the medical school.

# **2.2.** Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?

| 3   | There is <b>at least one</b> dedicated department or institute for interdisciplinary planetary health research.  |  |
|---|--|--|
| 2   | There is <b>not currently</b> a department or institute for interdisciplinary planetary health research, but there are <b>plans</b> to open one in the next 3 years. |  |
| 1   | There is an <b>Occupational and Environmental Health department</b> , but no interdisciplinary department or institute for planetary health research.                |  |
| 0   | There is <b>no</b> dedicated department or institute.  |  |
| In September 2019, UEA established the research umbrella 'Climate UEA' which encompasses 18 schools across all 4 faculties of UEA and has partnership across the Norwich Research Park (NRP), |  |  |

In September 2019, UEA established the research umbrella 'Climate UEA' which encompasses 18 schools across all 4 faculties of UEA and has partnership across the Norwich Research Park (NRP), Centre of Environment Fisheries and Aquaculture Science (CEFAS) and Anglian Water. Climate UEA includes institutes such as the Climatic Research Unit (CRU) and Tyndall Centre for Climate Change. In 2008, Earth and Life Systems Alliance (ELSA) was established in NRP – which covers a wide range of themes from biodiversity and global environmental change to food security. Climate UEA-<u>https://www.uea.ac.uk/climate</u>

2.3. 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 <u>medical school</u>?

| 3   | Yes, there is a process in which community members impacted by climate and environmental injustice have <b>decision-making power</b> in the climate + environmental research agenda. |  |
|---|--|--|
| 2   | Yes, there is a process in which community members impacted by climate and environmental injustice <b>advise</b> the climate + environmental research agenda.                        |  |
| 1   | No, but there are <b>current efforts</b> to establish a process for community members to advise or make decisions on the research agenda.  |  |
| 0   | There is <b>no</b> process, and <b>no</b> efforts to create such a process.  |  |
| While no current process exists at the moment, UEA organises key stakeholder meetings endeavouring to ensure that the viewpoint from affected communities are taken into account when making decisions about research agenda, while this system is present in other faculties there is yet to be a system in place for Norwich medical school. NMS has expressed its interest to adopt a similar process to other |  |  |

2.4. Does your <u>institution</u> have a planetary health website that centralises ongoing and past research related to health and the environment?

faculties.

There is an easy-to-use, adequately comprehensive website that centralises various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.
There is a website that attempts to centralise various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.
The institution has an Office of Sustainability website that includes some resources related to health and the environment.
There is no website.

*(https://www.uea.ac.uk/climate)*. The website is user friendly and contains past, present and future research happening within the institute with opportunities to volunteer and work as appropriate. It is comprehensive and provides information about its initiatives, resources and guidance, events and policy.

# 2.5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?

4 Yes, the **medical school** has hosted at least one conference or symposium on topics related to planetary health in the past year.

| 3  | Yes, the <b>institution</b> has hosted at least one conference or symposium on topics related to planetary health in the past year.          |  |
|--|--|--|
| 2  | Yes, the <b>institution</b> has hosted a conference on topics related to planetary health in the past three years.                           |  |
| 1  | The <b>institution</b> has not hosted any conferences directly, but they have provided financial support for a local planetary health event. |  |
| 0  | No, the <b>institution</b> has not hosted a conference on topics related to planetary health in the past three years.                        |  |
| University of East Anglia hasn't hosted a conference on either planetary health or related topics in the |  |  |

University of East Anglia hasn't hosted a conference on either planetary health or related topics in the last three years. The latest conference was in 2019 held by Students for Global Health, called: Our Planet, Our Health.

# **2.6.** Is your <u>medical school</u> a member of a national or international planetary health or ESH organisation?

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

Norwich Medical School (part of UEA) is not a member of any national or international planetary health or ESH organisation.

Section Total (8 out of 17)

47.1%

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#### **Community Outreach and Advocacy**

<u>Section Overview:</u> This section evaluates medical 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.

## **3.1.** Does your <u>medical school</u> partner with community organisations to promote planetary and environmental health?

- 3 Yes, the **medical school** meaningfully partners with **multiple** community organisations to promote planetary and environmental health.
- 2 Yes, the **medical school** meaningfully partners with **one** community organisation to promote planetary and environmental health.
- 1 The **institution** partners with community organisations, but the medical school is not part of that partnership.
- 0 No, there is **no** such meaningful community partnership.

Norwich Medical School is not directly involved with organisations that promote planetary and environmental health. However, UEA partners with organisations that promote planetary and environmental health. These are Tyndall Centre for Climate Change Research, UK Universities Climate Network (UUCN), Centre for Environment, Fisheries and Aquaculture science (CEFAS), Anglian Water, Earlham Institute (EI), The Sainsbury Laboratory (TSL) and John Innes Centre (JIC).

## **3.2.** Does your <u>medical school</u> offer community-facing courses or events regarding planetary health?

| 3   | The medical school offers community-facing courses or events at least once every year.  |  |
|---|---|--|
| 2   | The <b>medical school</b> offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. |  |
| 1   | The <b>institution</b> has offered community-facing courses or events, but the <b>medical school</b> was not involved in planning those courses or events.    |  |
| 0   | The institution/medical school have not offered such community-facing courses or events.  |  |
| The medical school directly assists Students for Global Health UEA in setting up an event on Climate change and health. This event runs annually and is participable to the public through Facebook |   |  |

however it is primarily targeted towards the university students.

**3.3.** Does your <u>medical school</u> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?

| 2   | Yes, all students <b>regularly</b> receive communication updates dedicated to planetary health and/or sustainable healthcare. |  |
|---|---|--|
| 1   | Yes, planetary health and/or sustainable healthcare topics are <b>sometimes</b> included in communication updates.            |  |
| 0   | Students <b>do not</b> receive communications about planetary health or sustainable healthcare.                               |  |
| All UEA students receive weekly communications with some covering planetary health. |   |  |

The medical school occasionally sends out, via email, planetary health coverage.

3.4. Does the <u>institution</u> or <u>main affiliated hospital trust</u> engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?

| 2 | Yes, the <b>institution</b> or <b>main affiliated hospital trust</b> offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. |
|---|---|
| 1 | Yes, the <b>institution</b> or <b>main affiliated hospital trust</b> offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers   |
| 0 | There are <b>no</b> such accessible courses for post-graduate providers   |
|   |   |

No current CME courses on planetary health or sustainable health topics.

**3.5.** Does your <u>medical school</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about environmental health exposures?

- 2 Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients.
- 1 **Some** affiliated hospitals have accessible educational materials for patients.
- 0 **No** affiliated medical centres have accessible educational materials for patients.

No current medical centres affiliated with the medical school, or the medical school itself, have accessible educational materials for patients regarding environmental health exposures.

**3.6.** Does your <u>medical school</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change?

| 2   | Yes, the <b>medical school</b> or <b><u>all</u> affiliated hospitals</b> have accessible educational materials for patients. |
|---|--|
| 1   | Some affiliated hospitals have accessible educational materials for patients.  |
| 0   | No affiliated hospitals have accessible educational materials for patients.  |
| No current medical centres affiliated with the medical school, or the medical school itself, have accessible educational materials for patients regarding health impacts of climate change. |  |

Section Total (4 out of 14)

28.6%

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#### 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.

4.1. Does your <u>medical school</u> or your <u>institution</u> offer support for medical students interested in enacting a sustainability initiative/QI project?

- 2 Yes, the **medical school** or **institution** *either* offers grants for students to enact sustainability initiatives/QI projects or sustainability QI projects are part of the core curriculum.
- The **medical school** or **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate.
- 0 No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.

The university offers support for students wanting to undertake initiatives. However, there is no dedicated funding or grants available for sustainability initiatives or QI projects. Additionally, there is no requirement to participate in sustainability projects within the medical school curriculum.

# **4.2.** Does your <u>institution</u> offer opportunities for medical 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.

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 medical school hosts departments of research involved in planetary health and sustainable healthcare. Consequently, there are opportunities for medical students to perform research in these areas. However, these opportunities require student initiative.

Furthermore, students are mandated to undertake student selected components (SSC) in years 1 and 3. Students are able to have their SSC in Public Health where they can choose to make their project about a topic related to planetary health or sustainable healthcare. However, this will also come from the student's initiative.

4.3. Does the <u>medical school</u> have a webpage where medical students can find specific information related to planetary health and/or sustainable healthcare activities and mentors within the medical school? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.

| 2                                   | The <b>medical school</b> has a webpage with 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                                   | There is a <b>medical school</b> webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information.  |
| 0                                   | There is <b>no medical-school</b> specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.  |
| The research and t<br>In co<br>have | medical school has a webpage for researchers working in Public Health and Epidemiology where<br>have interests in planetary health/sustainable healthcare. However, the vast majority of<br>irchers do not work in this area. The webpage includes information on current/previous projects<br>their contact details.<br>Ontrast, UEA has a vast research network focused on Climate Change called ClimateUEA. They<br>an up-to-date database of researchers and their current projects. |

4.4. Does your <u>medical school</u> have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?

- <sup>2</sup> Yes, there is a student organisation with faculty support at my medical school dedicated to planetary health or sustainability in healthcare.
- 1 Yes, there is a student organisation at my medical school 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.

The medical school does not have a dedicated student society that looks at fostering a culture of planetary health engagement. The UEA Students for Global Health society exists, however, they are a transdisciplinary society and are not supported by the medical school faculty.

# 4.5. Is there a student liaison representing sustainability interests who serves on a <u>medical school</u> or <u>institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?

Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
 No, there is no such student representative.

The UEASU Campaigns and Democracy Officer, Serene Shilbi-Sexton, and the Environment Officer, Sophie Ciurlik Rittenbum, both serve on the UEA Sustainability committee.

| 4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)  |   |
|---|---|
| 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)  |
| Climate UEA has a blog on past and present initiatives called climate UEA and conferences which are/were available. Additionally, a number of community initiatives and societies are listed under the Sustainability section on the UEA website. The Sainsbury centre has had art installations related to planetary health. |   |

#### Section Total (11 out of 15)

73.3%

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#### **Campus Sustainability**

Section Overview: This section evaluates the support and engagement in sustainability initiatives by the medical 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 medical schools, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.

| 5.1. Does your medical school and/or institution 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 <b>at least one designated staff member</b> for sustainability at the hospital and/or medical school. |
| 2   | There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but <b>no specific staff member</b> in charge of medical school and/or hospital sustainability.  |
| 1   | There are <b>no salaried sustainability staff</b> , but there is a sustainability task force or committee  |
| 0   | There are <b>no</b> staff members <b>or</b> task force responsible for overseeing campus sustainability  |
| UEA has a Sustainability Committee, made up of 3 members of the university's executive team, dedicated to addressing how the community can respond to global climate and biodiversity crises. This team meets quarterly and reports to the UEA council (the executive governing body). However, there is no designated staff member responsible for the sustainability of the medical school. |  |
| SOURCE:   |  |

| 5.2. How ambitious is your <u>institution/medical school</u> plan to reduce its own carbon footprint?  |  |
|--|--|
| 5  | The institution/medical school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2030</b>  |
| 3  | The institution/medical school has a <b>written and approved plan</b> to achieve carbon neutrality by <b>2040</b>  |
| 1  | The institution/medical school has a stated goal of carbon neutrality by <b>2040</b> but has <b>not created a plan</b> to reach that goal or the <b>plan is inadequate</b> |
| 0  | The institution/medical school does <b>not</b> meet any of the requirements listed above   |
| UEA is committed to net-zero carbon dioxide emissions by 2045 or earlier as outlined in the NetZeroUEA plan. This plan includes the following steps: |  |

- Over 80% net zero campus emissions (Scopes 1 & 2) by 2030 against a 2015 baseline
- To be 100% net zero (Scopes 1, 2 & 3) by 2045 or earlier
- To pledge not to rely on offsetting for our carbon emission targets

Source:

https://www.uea.ac.uk/about/university-information/sustainability/strategy-policy-and-compliance/

https://www.uea.ac.uk/documents/20142/2953975/uea\_environmental\_and\_energy\_sustainability\_polic y\_2023\_signed.pdf/6793b9b0-874a-ed6a-56ec-b5f0ec498ff6?t=1685092463273

# **5.3.** Do buildings/infrastructure used by the <u>medical school</u> for teaching (not including the hospital) utilise renewable energy?

| 3 | Yes medical school buildings are 100% powered by renewable energy   |
|---|---|
| 2 | Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy.           |
| 1 | Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.           |
| 0 | Medical school buildings source <b>&lt;20%</b> of energy needs from off-site and/or on-site renewable energy. |
|   |   |

Norwich medical school sources its energy from the national grid and no information was obtained regarding energy derived from renewable sources.

5.4. Are sustainable building practices utilised for new and old buildings on the <u>medical school</u> campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?

- <sup>3</sup> Yes, sustainable building practices are utilised for new buildings on the medical school campus and the **majority** of old buildings **have been retrofitted** to be more sustainable.
- 2 Sustainable building practices are utilised for new buildings on the medical school campus, but most old buildings have **not been retrofitted.**
- 1 Sustainable building practices are **inadequately or incompletely** implemented for new buildings.
- 0 Sustainability is **not considered** in the construction of new buildings.

Most campus buildings are rated highly with an energy rating certificate of C and above including the medical school. Buildings for the medical school have been built utilising eco-friendly designs that represent and example of this is the Bob champion building built for the medical school has been built with sustainable building techniques in mind.

5.5. Has the <u>medical school</u> or <u>institution</u> implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental

| impa   | impact of commuting?  |  |
|--|---|--|
| 2  | Yes, the medical school or institution has implemented strategies to encourage and provide <b>environmentally-friendly transportation options</b> such as safe active transport, public transport, or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. |  |
| 1  | The medical school or institution has implemented <b>some</b> strategies to provide<br>environmentally-friendly transportation options, but the options are <b>unsatisfactorily</b> accessible<br>or advertised.  |  |
| 0  | The medical school or institution has <b>not</b> implemented strategies to encourage and provide environmentally-friendly transportation options.   |  |
| UEA endeavours to utilise specifically hired coaches to transport students to and fro placement locations in areas of England whereby public transportation networks may not be established. |   |  |

Providing transport in this manner prevents students from utilising cars to attend placement.

| 5.6. Does your <u>medical school</u> have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)? |   |
|---|---|
| 2   | Yes, the medical school has <b>both</b> compost <b>and</b> recycling programs accessible to students and faculty.   |
| 1   | The medical school has <b>either</b> recycling <b>or</b> compost programs accessible to students and faculty, but not both.   |
| 0   | There is <b>no</b> compost or recycling program at the medical school.  |
| 90%<br>gene<br>SOU  | of UEA's waste is diverted from landfill by recycling programmes and energy from waste ration. Bins for compost and recycling are easily accessible by students and faculty members.<br>RCE:<br>://www.uea.ac.uk/about/university-information/sustainability/sustainable-campus/recycling-and-w |

aste

5.7. Does the <u>medical school</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?

| 3 | Yes, the medical school has a <b>dequate s</b> ustainability requirements for food and beverages, including meat-free days or no red-meat, and <b>is engaged</b> in efforts to increase food and beverage sustainability. |
|---|---|
| 2 | There are sustainability guidelines for food and beverages, but they are <b>insufficient or optional</b> .<br>The medical school <b>is engaged</b> in efforts to increase food and beverage sustainability.               |
| 1 | There are sustainability guidelines for food and beverages, but they are <b>insufficient or optional.</b><br>The medical school is <b>not</b> engaged in efforts to increase food and beverage sustainability.            |
| 0 | There are <b>no</b> sustainability guidelines for food and beverages.   |

UEA has a sustainable food policy outlining their strategy for sustainable food practice on campus. Some points included in this policy are as follows:

- Mains water available at all central food outlets, self service of drinking water, and the use of reusable glassware when bottled water is necessary
- UEA has a local fruit and vegetable supplier, together they promote the use of seasonal fruits and vegetables
- Plant based and vegetarian meals are available in all services, the price of processed foods and meats is inflated to encourage a more sustainable diet

#### SOURCE:

https://www.uea.ac.uk/documents/20142/2955158/uea\_sustainable\_food\_policy\_2022\_23.pdf/958aed3 5-39cf-499c-e5bb-ec3835b5f9d3?t=1665504139777 https://www.uea.ac.uk/about/university-information/sustainability/sustainable-campus/sustainable-food

## 5.8. Does the <u>medical school</u> or <u>institution</u> apply sustainability criteria when making decisions about supply procurement?

| 3 | Yes, the medical school has <b>adequate</b> sustainability requirements for supply procurement <b>and</b> is <b>engaged</b> in efforts to increase sustainability of procurement.                            |
|---|--|
| 2 | There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> .<br>The medical school is <b>engaged</b> in efforts to increase sustainability of procurement.     |
| 1 | There are sustainability guidelines for supply procurement, but they are <b>insufficient or optional</b> .<br>The medical school is <b>not engaged</b> in efforts to increase sustainability of procurement. |
| 0 | There are <b>no</b> sustainability guidelines for supply procurement.  |
|   | reasonizes that over 60% of an organization's earlient amissions are generated through   |

UEA recognises that over 60% of an organisation's carbon emissions are generated through procurement. To mitigate the impact of this, UEA remains actively engaged in efforts to increase procurement sustainability by providing all staff (involved with spending university money) training on responsible procurement.

SOURCE:

https://www.uea.ac.uk/web/about/university-information/sustainability/strategy-policy-and-compliance/ecrp

| 5.9. Are there sustainability requirements or guidelines for events hosted at the medical school? |  |
|---|--|
| 2   | Every event hosted at the medical school <b>must</b> abide by sustainability criteria.                                   |
| 1   | The medical school <b>strongly recommends or incentivizes</b> sustainability measures, but they are <b>not required.</b> |
| 0   | There are <b>no</b> sustainability guidelines for medical school events.   |
| There are currently no sustainability guidelines for medical school events.                       |  |

# 5.10. Does your <u>medical school</u> have programs and initiatives to assist with making lab spaces more environmentally sustainable?

- 2 Yes, the medical 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 medical school to make lab spaces more sustainable.

No explicit initiative has been created to make lab spaces more sustainable.

#### 5.11. Does your institution's endowment portfolio investments include fossil-fuel companies?

| 4  | The institution is <b>entirely divested</b> from fossil fuels <b>and</b> has made a <b>commitment to reinvest divested funds</b> into renewable energy companies or renewable energy campus initiatives. |  |  |
|--|--|--|--|
| 3  | The institution is <b>entirely divested</b> from fossil fuels.   |  |  |
| 2  | The institution has <b>partially divested</b> from fossil fuel companies <b>or</b> has made a <b>commitment to fully divest</b> , but <b>currently</b> still has fossil fuel investments.                |  |  |
| 1  | The institution has <b>not divested</b> from fossil-fuel companies, but faculty and/or students are <b>conducting organised advocacy</b> for divestment.   |  |  |
| 0  | Yes, the institution has investments with fossil-fuel companies and there have been <b>no efforts</b> to change that.  |  |  |
| UEA completely divested from fossil fuels in 2017 and the Vice-Chancellor signed the NUS<br>Divest-Invest Commitment letter in 2019. Additionally, UEA alongside the Norfolk County Council<br>provide equity finance for small and medium enterprises in the East of England that contribute to low<br>carbon emissions via the Low Carbon Innovation Fund. |  |  |  |
| SOURCE: https://www.uea.ac.uk/about/university-information/sustainability/people-and-planet-university-league  |  |  |  |

#### Section Total (17 out of 32)

53.1%

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#### 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 |
|---------------|------------|
| А             | 80% - 100% |
| В             | 60% - 79%  |
| С             | 40% - 59%  |
| D             | 20% - 39%  |
| F             | 0% - 19%   |

\*Within each grade bracket, a score in the top 5% ( $_5$  to $_9$ %), receives a "+", and a score in the bottom 5% ( $_0$  - 4%) receives a "--". For example, a percentage score of 78% would be a B+.

#### Planetary Health Grades for the University of East Anglia School of Medicine

The following table presents the individual section grades and overall institutional grade for the University of East Anglia school of Medicine on this medical-school-specific Planetary Health Report Card.

| Section   | Raw Score %           | Letter Grade |
|---|-----------------------|--------------|
| Planetary Health Curriculum (30%)                               | (34/72) x 100 = 47.2% | С            |
| Interdisciplinary Research (17.5%)                              | (8/17) x 100 = 47%    | С            |
| Community Outreach and Advocacy<br>(17.5%)                      | (4/14) x 100 = 28.57% | D            |
| Support for Student-led Planetary<br>Health Initiatives (17.5%) | (11/15) x 100= 73.33% | В            |
| Campus Sustainability (17.5%)                                   | (17/32) x 100 = 53%   | С            |
| Institutional Grade   | 49.1%                 | С            |