



UNIVERSITIES ALLIED FOR ESSENTIAL MEDICINES

# 2020 U.S. University Report Card

## White Paper





## **2020 U.S. University Report Card: Global Equity in Biomedical Research**



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## Executive Summary

The *2020 U.S. University Report Card: Global Equity in Biomedical Research* (also known as the U.S. University Report Card) was created to evaluate the top research universities by public funding in the United States on their contributions to research into neglected global health needs and access to medical treatments worldwide. Taxpayer funding through grants and other programs from government agencies supports university research in novel health technologies and treatments. One analysis found that funding from the National Institutes of Health (NIH) contributed to published research associated with every drug approved by the U.S. Food and Drug Administration (FDA) between 2010 and 2016.<sup>1</sup> In our current biomedical research and development (R&D) system, universities are often the first and major drivers of medical innovation, with at least one-third of new medicines originating in a university lab.<sup>2</sup> Furthermore, according to one study and consistent with results of previous research on NIH-funded research, more generally, about half of new molecular entities approved from 2000-2009 have citation links to Academic Medical Centers<sup>3</sup>. As a result, universities hold influence to leverage their significant contribution in biomedical research to advance global access to essential medicines and health technologies. However, the size and scope of this impact depends on critical decisions about where to focus research, how to share new discoveries, who will be able to access them, and what to teach a rising generation of young global health leaders. At the university level, policies at the university level promote affordable access to publicly-funded health technologies that can change the course and incentives of the R&D pipeline downstream.

This report is also being launched one year into the COVID-19 pandemic, an international health crisis that has tested national and global health systems to innovate and distribute life-saving therapeutics and vaccines. Much of the foundational research that has led to the development of these public health solutions for the pandemic, including the various vaccines, have their origins in university labs.<sup>4&5</sup> But at the time of this report's publication, just ten countries have received over 75% of the world's supply of vaccines, leaving the other 130

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<sup>1</sup> Cleary EC, Beierlein JM, Khanuja NS, McNamee LM, Ledley FD. Contribution of NIH funding to new drug approvals 2010–2016. *PNAS*. 2018;115(10):2329-2334. <https://www.pnas.org/content/115/10/2329>.

<sup>2</sup> Kneller R. The importance of new companies for drug discovery: Origins of a decade of new drugs. *Nature Reviews Drug Discovery*. 2010;9(11):867-882. <https://www.nature.com/articles/nrd3251>.

<sup>3</sup> Bhaven N Citations in Life Science Patents to Publicly Funded Research at Academic Medical Centers. *American Society for Clinical Pharmacology & Therapeutics*. 2015 <https://doi.org/10.1111/cts.12361>.

<sup>4</sup> Allen A. For billion-dollar COVID vaccines, basic government-funded science laid the groundwork. *Scientific American*. November 18, 2020. <https://www.scientificamerican.com/article/for-billion-dollar-covid-vaccines-basic-government-funded-science-laid-the-groundwork/>.

<sup>5</sup> Universities Allied for Essential Medicines, Student National Medical Association, American Medical Student Association. Tracking Public Investment in Global COVID-19 Research & Development. May 18, 2020. <https://publiclyfundedcovid.squarespace.com/>.

countries and billions of their residents without access, highlighting a global inequality perpetuated by the for-profit incentives and decisions of the current R&D system.<sup>6</sup> So, as we surpass the morbid milestone of 500,000 deaths in the U.S. and over 2.5 million deaths worldwide due to COVID-19, universities have a responsibility to prioritize global access to the publicly-funded vaccines and treatments developed on their campuses to address an ongoing global pandemic effectively.

The politics surrounding the way in which R&D for COVID-19 is playing out is emblematic of a larger, systemic challenge of how universities and the pharmaceutical industry rely upon federal funding and the licensure of their developments but choose to prioritize profit maximization over access. As such, this report seeks to draw attention to the policies universities currently enforce to promote access to medicines and identify where meaningful improvements can be made that will lead to greater health equity worldwide.

This is the third edition of the U.S. University Report Card. The areas assessed include Access, Innovation, and Empowerment, as well as, this year, Transparency and COVID-19 sections detailed below.

## Section 1: Access

This section assesses universities' commitments to ensuring that medical treatments developed in their labs remain accessible and affordable. When universities openly publish their data and specifically commit to promoting access and affordability, they significantly increase accessibility to information and new technologies that can benefit people around the world. For example, **only 22% (13) schools have publicly committed to specific licensing strategies that promote access and affordability of their medical discoveries.** Of these 13 universities, only seven use language that prioritizes generic production of medicines developed on campus for low and lower-middle-income countries.

## Section 2: Innovation

Universities can use their unique positions as largely publicly funded research institutions to prioritize research on global diseases neglected by for-profit R&D and pioneer new treatments to benefit millions in the developing world. This section assesses the extent to which universities are prioritizing research on global health needs and diseases neglected by for-profit R&D. **Most institutions dedicate between one to five percent of their total research funding to global health research, training, and collaborations. In contrast, a total of 15% of universities do not devote any of their medical research funding budgets to these issues. And out of all their medical research funding, twelve schools devote over two percent to neglected diseases research.**

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<sup>6</sup> Andrew S. More than 130 countries don't have a single COVID-19 vaccine, while 10 countries have already dispersed 75% of all vaccines, the UN says. *CNN*. February 18, 2021.

<https://www.cnn.com/2021/02/18/world/united-nations-130-countries-no-vaccine-trnd/index.html>.

### Section 3: Empowerment

Not only do universities occupy a unique position with regard to tackling global access to medical challenges, they can also play a critical role in educating students about these critical issues, including the intersection between intellectual property and access to medicines. The questions in this section aim to assess the **efforts universities are making to educate students about the impact that academic institutions can have on global health through their biomedical research and licensing activities**. Universities that allocate specific funding and provide educational opportunities towards the exploration of global health tend to inspire discourse and interest in this field. All of the universities evaluated in this study offer access to a global health education program or engagement program, and 90% of these institutions also offer courses that address the prevalence of and/or lack of research on neglected diseases.

### Section 4: Transparency

Data transparency will help hold research institutions accountable for public funding received and will help track the distribution of taxpayer dollars and the benefits yielded from publicly-funded research. This section aims to assess how universities promote transparency in their clinical trial results and whether universities are being transparent in how much public funding goes towards their clinical trials research. Clinical trial reporting rates varied from as low as 21% to 61% between 2006-2015. Eighteen percent of schools reported over 61% of clinical trial results during this time period. **However, no schools reported over 81% of clinical trial results. None of the universities reported having policies that require researchers to publish all the results of their clinical trials**, internal review processes to prevent duplication of failed research, or policies to help facilitate researchers in accessing and publishing clinical trial data in registries. Additionally, no universities have signed the WHO's Joint statement on public disclosure of results from clinical trials.

### Section 5: COVID-19

The newest section of the U.S. University Report Card assesses whether universities have publicly committed to making their intellectual property, knowledge, and data related to COVID-19 R&D freely available for the purpose of minimizing the global impact of the pandemic. Half of the universities have made zero public commitments to open access approaches when licensing COVID-19 therapeutics developed in their labs. Likewise, not a single university has signed the Open COVID Pledge (OCP) or the World Health Organization's COVID-19 Technology Access Pool (C-TAP), two internationally-recognized gold standards of open-access COVID-19 commitments.

## Top Ten Key Findings

- Only 22% of universities committed to specific global access licensing strategies.
- Only 12% of schools adopted licensing that prioritizes generic production of university-researched medicines for lower-income countries.
- Fifteen percent of universities devoted no research funding to global health research; most devote 1-5%.
- Fifteen percent of schools devoted no medical research funding to neglected diseases; most devote 0.51-1.0%.
- Between 11% and 30% of university biomedical research is published in open-access journals.
- Ninety percent of schools offer at least one graduate-level course that addresses the policy/legal context of biomedical R&D; another 90% offer at least one course that addresses neglected disease research.
- NONE of the universities reported having policies that require researchers publish all the results of their clinical trials.
- Only 15% of schools required that the protocols/planned outcomes for clinical trials be made public before the trial begins.
- Half of the universities have made no commitments to equitable COVID-19 biomedical licensing practices.

### And:

Despite ranking in the “Overall Top Ten” and accepting millions of dollars of public funding for COVID-19, the following universities have made ZERO public commitments to equitable COVID-19 biomedical licensing. **Essentially, there will be limited to no protection for the public, access to it, and/or affordability of COVID-19 innovations developed on these campuses.**

- **The University of North Carolina at Chapel Hill**
  - Twenty-six COVID-19 research projects and **\$91,322,135**<sup>7</sup> total public funding
- **University of Washington, Seattle**
  - Three COVID-19 projects, **\$21,473,537**<sup>8</sup> total public funding
- **Case Western Reserve University**
  - Four COVID-19 projects, **\$3,020,526**<sup>9</sup> total public funding funding

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<sup>7</sup> UAEM, Student National Medical Association, American Medical Student Association. *Tracking Public Investment in Global COVID-19 Research & Development*. <https://www.publicmeds4covid.org>.

<sup>8</sup> Ibid

<sup>9</sup> Ibid

## Abbreviations

Acronym	Full terminology
AIDS	Acquired Immunodeficiency Syndrome
AMR	Antimicrobial Resistance
AUTM	Association of University Technology Managers, Inc.
C-TAP	COVID-19 Technology Access Pool (World Health Organization)
FDAAA 2007	Food and Drug Administration Amendments Act of 2007 and the Final Rule
HIC	High-Income Countries
HIV	Human Immunodeficiency Virus
IP	Intellectual Property
LMICs	Low- and Middle-Income countries
OCP	Open COVID Pledge
NIH	National Institutes of Health
NTDs	Neglected Tropical Diseases
R&D	Research and Development
TB	Tuberculosis
UAEM	Universities Allied for Essential Medicines
WHO	World Health Organization
WIPO	World Intellectual Property Organization

## 2020 U.S. University Report Card

### Background

An estimated two billion people worldwide do not have access to essential medicines, leading to a cascade of preventable deaths by effectively excluding people from the benefits of modern medicine.<sup>10</sup> Additionally, nearly 10 million people die each year simply because they can not get access to life-saving medicines that already exist – often because those treatments are just too expensive.<sup>11</sup> Furthermore, more than 1 billion people worldwide suffer from “neglected diseases” – illnesses rarely researched by the private sector because most of those affected are perceived to be too poor to provide a market for new drugs.<sup>12</sup>

As students in medicine, law, and health-related fields, we know our universities play a critical role in developing medicines and treatments that can save lives; for example, universities have contributed to the development of one in four HIV/AIDS treatments.<sup>13</sup> Our universities can leverage their unique positions as largely publicly-funded research institutions to address global challenges. By prioritizing research on diseases neglected by for-profit R&D, they can pioneer new treatments that will benefit millions in low and middle-income countries. Moreover, by sharing their medical breakthroughs under open, non-exclusive licenses or licenses that promote lower prices in these regions, universities can help poor people worldwide access new, life-saving treatments. Universities also have a critical role in educating their students about these issues.

While some universities are already taking key steps, **few have tried to measure their contributions in this vital area systematically.** UAEM’s University Report Card aims to fill that gap. The first iteration of the Report Card was released in 2013 and then again in 2015. Understanding that it takes time for students and universities to implement change on campuses, notwithstanding the amount of work involved in the project, we chose a five-year interim between the release of reports. In this 2020 version, the methodology questions were adjusted where appropriate to reflect the changing landscape. Additionally, a new transparency section was added to evaluate to what extent universities are publishing their clinical trial results. Lastly, given the ongoing COVID-19 pandemic and the challenges with access to vital diagnostics, therapeutics, and vaccines, we added an additional section aimed at assessing measures taken to promote equitable and global access to relevant health solutions.

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<sup>10</sup> Chen M. *Ten Years in Public Health 2007-2017*. Geneva: World Health Organization; 2017. <https://apps.who.int/iris/bitstream/handle/10665/255355/9789241512442-eng.pdf>.

<sup>11</sup> World Health Organization. Equitable access to medicines: a framework for collective action. *Policy Perspectives on Medicines*. Geneva, Switzerland: World Health Organization. 2004;8:1-6. <https://apps.who.int/iris/handle/10665/68571>.

<sup>12</sup> Hotez PJ, Molyneux DH, Fenwick A, Kumaresan J, Sachs SE, Sachs JD, et al. Control of neglected tropical diseases. *N Engl J Med*. 2007;357(10):1018-27. <https://doi.org/10.1056/NEJMra064142>.

<sup>13</sup> Sampat B. Academic patents and access to medicines in developing countries. *American Journal of Public Health*. 2009;99(1):9-17. <https://dx.doi.org/10.2105%2FAJPH.2007.128769>.



## Universities and Global Equity in Biomedical Research During COVID-19

Just like other life-saving therapies, access to COVID-19 testing, treatment, and vaccines should not depend on an individual's immigration status, zip code, or disposable income. While it may seem rudimentary to ensure that COVID-19-related medical technologies developed in U.S. universities are made accessible to lower-income individuals, it is not guaranteed. As the COVID-19 factsheet illustrates, **only half of the universities** have made public commitments regarding the accessibility of their COVID-19-related intellectual property. **Even those universities who have agreed to adopt COVID-19 open-access licensing principles have only committed to vaguely worded time-bound agreements,**<sup>14</sup> meaning that once a set period of time has passed, the terms that promote equitable access worldwide will be allowed to expire. Universities who *have* open-sourced COVID-19 innovations (Boston and Harvard) have selectively chosen which technologies to release after they have been developed, instead of committing to equitable licensing principles for all COVID-19 developments, including future ones.

Now more than ever, we are witnessing how an era of groundbreaking medical research has innovated solutions to curb our current COVID-19 public health crisis. The recent mobilization of massive amounts of public U.S. funds to research COVID-19 (over \$16 billion spent as of January 2021 from agencies like the National Institutes of Health (NIH) and the U.S. Department of Health and Human Services (HHS)<sup>15</sup>) reminds us that the money and infrastructure needed to back innovative biomedical research exists. In fact, the technology behind several vaccine candidates, including the Moderna and Pfizer/BioNTech vaccines, resulted from federally-funded research.<sup>16</sup> Universities and publicly-funded research institutes must ensure that the infrastructure and expertise, especially that gained as a result of COVID-19, is shared with others in future research. Ensuring that these developments are globally accessible is one of the great moral issues of our time.

COVID-19 has shown us that while our maps may have borders, illness and death know no such territorial distinctions. We live in a global ecosystem; the health of one person can affect the life of another, despite living continents apart. If our universities value the individual health of Americans, they must also work to secure the collective health of communities everywhere. Individual health is public health, and public health is global health. If universities do not prioritize global health during a pandemic, when will they ever? Over 2.5 million people have already died worldwide due to COVID-19, including over 530,000 Americans.<sup>17</sup> It is time for universities to live up to their missions and lead.

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<sup>14</sup> Specifically either the [COVID-19 Technology Access Framework](#) and/or AUTM's [COVID-19 licensing guidelines](#).

<sup>15</sup> UAEM, Student National Medical Association, American Medical Student Association. *Tracking Public Investment in Global COVID-19 Research & Development*. May 18, 2020. <https://publiclyfundedcovid.squarespace.com/>.

<sup>16</sup> Allen A. For billion-dollar COVID vaccines, basic government-funded science laid the groundwork. *Scientific American*. November 18, 2020. <https://www.scientificamerican.com/article/for-billion-dollar-covid-vaccines-basic-government-funded-science-laid-the-groundwork/>.

<sup>17</sup> Coronavirus Disease (COVID-19) Dashboard. World Health Organization. <https://covid19.who.int>. Accessed February 24, 2021.



## 2020 U.S. University Report Card

# Overall Findings

### Overview

Universities were assigned numerical scores based on how many points they received out of the total possible number of points. These numerical scores were then calculated to percentages, and then percentages were turned into letter grades using the grading scheme below.

### How does your weighting work?

The overall grade a university receives is a combination of each of their section grades, with each section weighted based on the breakdown to the right. Section weights were assigned based on their relative ability to increase access to medicines and address neglected diseases in LMICs.

### Overall Statistics

Average Score:	D-
Highest Score:	B-
Lowest Score:	F

### Section Weights

Access	25%
Innovation	25%
Empowerment	10%
Transparency	20%
COVID-19	20%

**UAEM's 2020 U.S. University Report Card at [globalhealthgrades.org](http://globalhealthgrades.org) shows that the majority of the leading research universities in the U.S. are falling short on promoting global equity in biomedical research.**

### Key Findings:

- Two-fifths of the universities received an **F**, despite the liberal grading scheme.
- Twelve universities (20%) collaborated by self-reporting data for one or more of the U.S. Report Card sections. Nine of the ten top-scoring universities were among those who submitted self-reports.
- While most universities performed best in *Empowerment*, they are not implementing what they teach on campus. Most struggled with *Access*, *Transparency*, and *COVID-19 Response*.
- On average, universities that scored well in *Access* outperformed others across the board. All eight universities that received a passing grade in *Access* made it into the Overall Top Ten.
- Despite ranking in the Overall Top Ten, The University of North Carolina at Chapel Hill, University of Washington--Seattle, and Case Western Reserve University **have made NO public commitments to equitable COVID-19 biomedical licensing.**

### Grading Scheme

A+	80 - 100%
A	75 - 79%
A-	70 - 74%
B+	65 - 69%
B	60 - 64%
B-	55 - 59%
C+	50 - 54%
C	45 - 49%
C-	40 - 44%
D+	35 - 39%
D	30 - 34%
D-	25 - 29%
F	≤ 24%



## 2020 U.S. University Report Card

# Access

*Summary of findings*

### Section Overview

Questions in the **Access section** assess universities' commitments to ensuring that medical treatments developed in their labs remain physically and financially accessible.

### Section Statistics

Average Score: F  
Highest Score: A-  
Lowest Score: F

### Why is Access important?

The way that universities license and publish their findings has a direct impact on the accessibility of medicine around the world. When universities publish and license their innovative medical breakthroughs, they have the ability to do so in ways that make the information freely available to everyone, reducing the barriers to access and helping to better ensure that people in LMICs have affordable access to new technologies.

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### Licensing agreements

Only **THIRTEEN** schools (22%) have publicly committed to **specific access licensing strategies** that promote access to the affordability of their medical discoveries in low and lower-middle-income countries.

***Why this matters:*** Without specific licensing agreements that promote global health and neglected health issues, the products of biomedical research remain out of reach of individuals living in LMICs, creating global health inequity.

Of these **THIRTEEN** schools, **SEVEN** (Emory University, UC Davis, UC Irvine, UC San Diego, UC San Francisco, UCLA, and Yale University) **adopted language that prioritizes generic production** of university-researched medicines for lower-income countries.

***Why this matters:*** Prioritizing the production of generics is crucial in making these treatments financially accessible, as brand-name drugs are often priced exorbitantly high.

Most universities did not report committing to **non-exclusive licensing agreements**. However, Harvard, Case Western, The University of North Carolina at Chapel Hill (UNC), Vanderbilt, and the University of Washington--Seattle (UW) have all signed some, with Harvard committing to non-exclusive agreements on 66% of its recent health technology licenses (see Table 1, below).

***Why this matters:*** Non-exclusive licensing agreements are important in promoting global access to health products because they allow for more than one company to use

the products of certain biomedical research, thus disincentivizing pharmaceutical monopolies.

**Table 1 - Percentage of universities' health technology licenses signed in the past year, which were non-exclusive agreements**

University	Reported %	Associated grading category
Harvard University	66%	51-70% (4 points)
Case Western Reserve University	37%	31-50% (3 points)
The University of North Carolina at Chapel Hill	15%	11-30% (2 points)
Vanderbilt University	15%	
University of Washington--Seattle	10%	0-10% or no data (1 point)
Duke University	0%	
Georgetown University	0%	
Johns Hopkins University	0%	

\* All other universities did not self-report data.

## Open-access publications

The percentage of biomedical research **publications released by universities in open-access journals is universally low, between 11-30%.**

**Why this matters:** Publishing under open access ensures that medical developments are accessible to researchers across the world, particularly those affiliated with institutions that cannot afford expensive journal database subscriptions. Alternatively, publishing research findings behind a paywall means that critical medical knowledge and potential therapeutics remain accessible to only those who can afford to pay for them—a key factor contributing to containing, treating, and eradicating diseases, viruses, and other illnesses.

## International medical patent pools

**Only Johns Hopkins University has submitted a patent to the Medicines Patent Pool.** Not a single university has submitted intellectual property to the World Intellectual Property Organization's Re: Search partnership (**WIPO Re: Search**).

**Why this matters:** [The Medicines Patent Pool](https://medicinespatentpool.org/) is a United Nations-backed organization that works to promote global access to life-saving medicines in low- and middle-income countries by collecting and sharing biomedical intellectual property and prioritizing the production of generics.<sup>18</sup>

<sup>18</sup> About Us. Medicines Patent Pool. <https://medicinespatentpool.org/>.

WIPO Re: Search is an international project that works to foster global health collaboration by accelerating the discovery and development of biomedical technologies for Neglected Tropical Diseases (NTDs), Malaria, and Tuberculosis by sharing medical intellectual property with the global health research community.<sup>19</sup>

Submitting patents to either of these pools indicates that the university is not seeking commercial gain in the licensing of their medical innovation but instead is prioritizing global access to this treatment in LMICs.

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<sup>19</sup> About WIPO Re:Search. World Intellectual Property Organization. <https://www.wipo.int/research/en/about/>.



## 2020 U.S. University Report Card **Innovation**

### *Summary of findings*

#### **Section Overview**

Questions in the **Innovation section** assess the extent to which universities are investing in innovative biomedical research that addresses the neglected health needs of low-and middle-income countries.

#### **Section Statistics**

Average Score: D+  
Highest Score: B+  
Lowest Score: F

#### **Why is Innovation important?**

The **Innovation section** helps assess whether universities are allocating their publicly-funded grants to support innovative biomedical research in key neglected health areas. By engaging in research on neglected tropical diseases (NTDs) and other contemporary neglected global health concerns, universities can help reduce inequities in the distribution of biomedical research.

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#### **Funding global health research**

Most schools dedicate **between one to five percent of their total research funding** to global health research, training, and collaborations. Nine schools (15%) devoted nothing (zero) of their medical research funding budget to these issues (see Table 2, below).

**Why this matters:** The low allocation of funding resources towards global health research and training shows that **universities are not actively prioritizing neglected global health needs in their biomedical research.**

Out of all their medical research funding, **a small number of schools (12) devoted over two percent to neglected disease research.** Three schools (five percent) dedicated none of their medical funding to researching neglected diseases (see Table 3, below).

**Why this matters: Neglected Tropical Diseases (NTDs)** are parasitic, viral, and bacterial diseases that cause significant illness for over 1 billion people globally.<sup>20</sup> If universities invest in NTD research, they can help reduce the burden of illness on individuals in LMICs, ending the cycle between poverty and disease.

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<sup>20</sup> Neglected Tropical Diseases. Centers for Disease Control and Prevention. January 28, 2021. <https://www.cdc.gov/globalhealth/ntd/index.html>.

**Table 2 - Percent of university research funding dedicated to global health**

% of total research funding dedicated to global health research	Number of universities
≥ 41%	0
21-40%	1
11-20%	3
6-10%	2
1-5%	45
0%	9

**Table 3 - Percent of university medical research funding dedicated to neglected diseases**

% of total medical research funding dedicated to neglected diseases	Number of universities
>2.0%	12
1.51-2.0%	8
1.01-1.50%	8
0.51-1.0%	16
0.01-0.5%	13
0%	3

### PubMed contributions

The University of North Carolina at Chapel Hill had the highest percentage of medical PubMed publications dedicated to **global health**, at close to twenty percent.<sup>21</sup> All other universities stood between one and ten percent. The University of Kentucky had the highest percentage of medical PubMed publications dedicated to **neglected diseases, diseases with recorded outbreaks, or epidemics/pandemics**, at roughly twenty percent.<sup>22</sup> All other universities were between one and ten percent.

**Why this matters:** PubMed contributions serve as a reflection on the research output of a university or university-affiliated hospital. A low average percentage of publications devoted to global health and/or neglected diseases and epidemics indicates that **universities are NOT prioritizing global health needs in their innovative biomedical research schemes.**

### Campus research centers

Ten universities (17%) have **research centers dedicated to neglected diseases AND one or more HIV/AIDS, TB, Malaria, or Antimicrobial Resistance (AMR) centers.** Forty-eight universities (80%) have one or more centers dedicated to HIV/AIDS, TB, Malaria, and/or AMR. Dartmouth College has plans to open a neglected disease center in the future.

**Why this matters:** Having a research center or institute dedicated specifically to neglected diseases and/or HIV/AIDS, TB, Malaria, or AMR is important as it indicates a long-term commitment to studying these issues. Establishing dedicated research centers can attract specialized researchers and funding, allowing for greater opportunity for biomedical innovation.

<sup>21</sup> This places The University of North Carolina at Chapel Hill in the scoring category of “11%-30%” (2 points).

<sup>22</sup> This places the University of Kentucky in the scoring category of “11%-30%” (2 points).



## 2020 U.S. University Report Card

# Empowerment

*Summary of findings*

### Section Overview

Questions in the **Empowerment section** assess the efforts universities are making to educate students about the impact that academic institutions have on global health through their biomedical research and licensing activities.

### Section Statistics

Average Score: B  
Highest Score: A+  
Lowest Score: F

### Why is Empowerment important?

Universities can and should empower students to learn about global health by incorporating it into their educational course listings. Focusing on global health and neglected diseases in classes, offering global health programs, and providing adequate financial and institutional support to individuals choosing to study in this field are all important ways to equip the next generation of leaders to tackle global health issues. By emphasizing neglected health needs, universities encourage discourse on the topic, which generates interest and advancement in global health and neglected disease research.

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### Education in global health

All of the universities evaluated in this study offer access to a **global health education program** or engagement program

Thirty-two universities (53%) offer graduate **degrees in global health**, and an additional fourteen (23%) offer graduate degrees with a major or concentration in global health. Only The University of Texas MD Anderson Cancer Center and Oregon Health and Science University do not offer any graduate academic offerings or undergraduate majors in global health (see Table 4, below).

**Why this matters:** Universities are responsible for training the next generation of leaders in global and public health. Offering global health education programs is a fundamental first step in this process, as this specialized training will inform future leaders to recognize the importance of equity through a global perspective.



**Table 4 - Number of universities offering degrees, concentrations, specializations, certifications, and etc in global health.**

Academic offerings	Number of universities
At least one global health graduate degree	32
At least one global health graduate major/concentration	14
At least one global health graduate focus/specialization	8
At least one global health graduate certificate	4
A global health undergraduate major	0
No global health degree, academic track, or certificate	2

**Fifty-four universities (90%)** offer at least one graduate-level course that addresses the policy and legal context of biomedical R&D and the impact that intellectual property policies have on global access to medicines. Similarly, **fifty-four universities (90%)** offer at least one course that addresses the prevalence of and/or lack of research on neglected diseases (see Table 5).

**Why this matters:** Educating students on the impact of biomedical R&D and licensing teaches future medical leaders about the ways these legal frameworks encourage and/or prohibit access to biomedical developments for LMICs.

**Table 5 - Universities' course offerings in key areas of concern in global health**

	Graduate courses on the <b>impact of IP policies</b> on global access to medicines	Undergraduate or graduate courses on <b>neglected diseases</b> <sup>23</sup>
11+ courses, with at least one specializing in the subject	12	2
6-10 courses, with at least one specializing in the subject	7	8
1-5 courses, with at least one specializing in the subject	9	22
6+ courses, but none that specialize	7	3
1-5 courses, but none that specialize	19	19
No courses offered	6	6

\* Numbers reflect the total number of universities that fall into each category.

<sup>23</sup> Including neglected aspects of HIV, TB, AMR, and/or Malaria.



## 2020 U.S. University Report Card

# Transparency

*Summary of findings*

### Section Overview

Questions in the **Transparency section** assess how universities promote transparency in their clinical trial results and whether universities are being transparent in how much public funding goes towards their clinical trials research.

### Section Statistics

Average Score: D  
Highest Score: B  
Lowest Score: F

### Why is Transparency important?

Maintaining a culture of transparency is fundamental to ensuring institutions are held accountable to the public regarding the use of taxpayer funds but to build trust with the community at large whose lives may depend on the research. Complete and consistent reporting of clinical trial results during research and development (R&D) for medical innovations allows for transparency around research outcomes. Such transparency is crucial for defining the direction of biomedical innovation and enabling access to safe and effective medicines for people.

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### Overall university response rates

In total, 12 universities (20%) responded to our 2020 U.S. University Report Card surveys, allowing them to self-report data for specific questions. Each university was given multiple opportunities to answer the survey for each Report Card section. Broken down by section, response rates were as follows:

- Eight universities (13%) completed *Access* surveys
- Eight universities (13%) completed *Innovation* surveys
- Six universities (10%) completed *Empowerment* surveys
- Three universities (5%) completed *Transparency* surveys
- Five universities (8%) completed *COVID-19 Response* surveys

**Why this matters:** Responding to public requests for information, making data publicly available for review, and engaging with public interest groups like UAEM indicate that a university is willing, to be honest, upfront, and transparent in how they are conducting their business and research. **Administrators and leaders at all 60 of the universities being graded were contacted multiple times via email and their offices and were encouraged to complete the standardized surveys.** For *Access*, *Innovation*, *Empowerment*, and *Transparency* surveys, universities were contacted at least three separate times and given over a year to respond to the standardized questions. For the *COVID-19 Response* section, universities were each contacted twice and given over three weeks to respond to the short questionnaire.

## Privately-commissioned research

The **majority of schools engaged in commissioned research from private companies**; however, only two (3%) engaged in commissioned research that allows the private company to insert clauses affecting or preventing data publication.

**Why this matters:** A majority of schools, both private and public institutions, are engaging in commissioned research from private companies. As institutions that receive millions in public funding annually, universities must ensure that corporate interests do not outweigh the institution's commitment to the public good. While it remains unclear what proportion of research funding is commissioned from private companies, universities must ensure that private interests do not prevent universities from publishing the data collected during this research. Publishing data gathered via commissioned research promotes public access to accurate, complete, and bias-free medical research.

## Clinical trials transparency

Clinical trial **reporting rates varied from as low as twenty-one to as high as sixty-five percent** between the years 2006-2015, capturing a decade's worth of the most recent public information available at the time of data collection for this report. Eleven schools (18%) reported over sixty-one percent of clinical trial results during this time period, and **no schools reported over eighty-one percent of clinical trial results**. In 2007, the U.S. Congress passed the [Food and Drug Administration Amendments Act of 2007 and the Final Rule \(FDAAA 2007\)](#), requiring clinical trial sponsors to report clinical trial results publicly. Since its implementation in 2018, many universities in this report have significantly increased their disclosure of trial results.<sup>24</sup> UAEM's [Clinical Trials Transparency](#) report, in partnership with TranspariMED, sheds more light on the recent improvements of universities on this metric. Nevertheless, the data and findings reported in this U.S. University Report Card stand to highlight the longstanding deficiency in the transparency of clinical trials that have defined the modern biomedical R&D system and which necessitates laws like FDAAA 2007.

Fifty-two universities (87%) have **online public statements in support of clinical trial data transparency** and the need to publish all clinical trial results.

Forty-five schools (75%) recommend or require researchers to **prospectively register all clinical trials** before subjects are enrolled. However, of these forty-five schools, only eight also require that the protocols and planned outcomes for trials be made public before the trial begins.

**NO universities self-reported having policies that require researchers to publish all the results of their clinical trials**, internal review processes to prevent duplication of failed

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<sup>24</sup> In 2007, the US Congress passed the Food and Drug Administration Amendments Act (FDAAA), requiring universities to post the results of clinical trials on Clinicaltrials.gov (a public database of clinical trials) within a year of trial completion. By law, since 2017, America's top research universities have had to post the results of 450 clinical trials. UAEM's 2019 Clinical Trial Transparency report identified 25 universities to be noncompliant with the FDAAA law and 140 missing clinical trials from public registry. UAEM will release an updated Clinical Trial Transparency report in 2021 that will highlight improvements in reporting since implementation of FDAAA and identify universities that still remain non-compliant with the federal law.

research, or policies to help facilitate researchers in accessing and publishing clinical trial data in registries.<sup>25</sup>

Fifty-six institutions (93%) have policies or mechanisms in place to disclose some or all portions of their **clinical trials funding**. Baylor College of Medicine discloses the most information, including private, public, philanthropic, and individual funding and grants.

**Why this matters:** Clinical trials are experiments that evaluate medical treatments' impact — positive, negative, or neutral — on the health of people. Transparency and accountability in clinical trials therefore extremely important to ensure the safety and efficacy of new drugs, vaccines, and medical devices. The U.S. Congress has acknowledged this importance, and as of 2017,<sup>26</sup> requires universities to publicly post the results of some of their clinical trials within a year of trial completion.<sup>27</sup>

The **timely disclosure** of results helps to improve public health outcomes by reducing waste in research, increasing efficiency in the use of resources, limiting reporting bias, and contributing to enhanced decision-making by patients, providers, and researchers. Mandating researchers publish all the results of clinical trials is crucial in ensuring that data obtained from clinical trials are made public and accessible. It can also prevent public and private institutions from blocking the publication of “negative” or “undesired” results and the accidental duplication of research. According to the [FDAAA 2007](#), sponsors of applicable clinical trials are legally mandated to report trial results to the [ClinicalTrials.gov](#) database within one year of the study's completion. Additionally, the [WHO](#) and [Cochrane and Transparency International](#) suggest it is best practice for universities to publish all clinical trial results within a year of the research completion date.<sup>28</sup>

**NONE of the universities signed the WHO's *Joint statement on public disclosure of results from clinical trials***<sup>29</sup> or publicly endorsed the Institute of Medicine's [Sharing Clinical Trial Data: Maximizing Benefits, Minimizing Risk](#) report.<sup>30</sup>

**Why this matters:** Public commitments to clinical trial data transparency are important, but by not formally signing or endorsing relevant public frameworks, there is not much incentive for universities to consistently adhere to these principles or to not change their stance on the issue.

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<sup>25</sup> Based on institutionally-reported data.

<sup>26</sup> Note that this is **after** the data collection period assessed in this report.

<sup>27</sup> The Final Rule of the *Food and Drug Administration Amendments Act*, in effect since January 18, 2017, <https://clinicaltrials.gov/ct2/manage-recs/fdaaa>.

<sup>28</sup> Universities Allied for Essential Medicines. *Clinical Trial Transparency at US Universities: Compliance with U.S. Law and Global Best Practices*. March 25, 2019. <http://altreroute.com/clinicaltrials/assets/download/UniversityTransparencyReport2019.pdf>.

<sup>29</sup> World Health Organization. *Joint statement on public disclosure of results from clinical trials*. May 18, 2017. <https://www.who.int/news/item/18-05-2017-joint-statement-on-registration>.

<sup>30</sup> Institute of Medicine. *Sharing Clinical Trial Data: Maximizing Benefits, Minimizing Risk*. Washington, DC: The National Academies Press; 2015. <https://doi.org/10.17226/18998>.



## 2020 U.S. University Report Card **COVID-19 Response**

*Summary of findings*

### **Section Overview**

Questions in the **COVID-19 Response** section assess whether universities have publicly committed to making their intellectual property, knowledge, and data related to COVID-19 research and development freely available for the purpose of minimizing the global impact of the pandemic.

### **Section Statistics**

Average Score: F  
Highest Score: B-  
Lowest Score: F

### **Why is COVID-19 Response important?**

Controlling the spread of a pandemic and treating those affected is an international issue. Our globalized society further demands an international approach, as the health of one person in one continent can affect the life of another across an ocean. Ensuring that COVID-19 therapeutics are accessible to everyone everywhere is the only way to fight the virus.

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### **COVID-19 biomedical technology licensing agreements**

**Thirty universities (50%) have made ZERO public commitments** to adopt open access approaches when licensing COVID-19 therapeutics developed in their labs (see Figure 1, below).

**Why this matters:** As publicly funded research institutions, universities should ensure global access to their COVID-19 innovations. COVID-19 is a worldwide pandemic; ensuring equitable global access to treatment and vaccination is the only way to end the virus.

**ZERO universities have signed the [Open COVID Pledge \(OCP\)](#) or the World Health Organization's [COVID-19 Technology Access Pool \(C-TAP\)](#).**

Ten universities (17%) have signed the [COVID-19 Technology Access Framework](#), and twenty-six (43%) have signed AUTM's [COVID-19 licensing guidelines](#) (see Figure 2, below).

**Why this matters:** The [Open COVID Pledge \(OCP\)](#) and [C-TAP](#) are the gold standards of open-access COVID-19 commitments. AUTM's [COVID-19 licensing guidelines](#) and the Harvard/MIT/Stanford [COVID-19 Technology Access Framework](#) are not as comprehensive as OCP or C-TAP because they are time-limited agreements that use vague language without providing a draft licensing agreement. Only OCP, which provides a legally-binding license, and C-TAP, which makes IP readily available globally,

ensure complete unrestricted and free access to COVID-19 biomedical data and innovations.

**Figure 1 - 2020 U.S. University Report Card universities that have NOT made public commitments to equitable COVID-19 biomedical licensing**

<b>Universities with NO public commitments to equitable COVID-19 biomedical licensing</b>	
Baylor College of Medicine	University of Florida
Case Western Reserve University	The University of Iowa
Columbia University	University of Massachusetts Medical School
Emory University	University of Miami
Icahn School of Medicine at Mt. Sinai	The University of North Carolina at Chapel Hill
Medical College of Wisconsin	University of Pennsylvania
New York University	University of Pittsburgh
Penn State University	University of Rochester
University of California, Davis	University of South Florida, Tampa
University of California, Irvine	The University of Texas M.D. Anderson Cancer Center
University of California, San Francisco	The University of Texas Southwestern Medical Center
Uniformed Services University of the Health Sciences	University of Washington--Seattle
The University of Alabama, Birmingham	Wake Forest University
University of Cincinnati	Washington University in St. Louis
University of Colorado, Denver, and Anschutz	Yeshiva University

**Figure 2 - 2020 U.S. University Report Card universities who are signatories of the Harvard/Massachusetts Institute of Technology/Stanford COVID-19 Technology Access Framework**

<b>COVID-19 Technology Access Framework signatories<sup>31</sup></b>	
1. Cornell University *	7. Stanford University *
2. Dartmouth College	8. University of Maryland, Baltimore
3. Georgetown University *	9. The University of Texas Health Science Center at San Antonio *
4. Harvard University *	10. Yale University *
5. The Ohio State University	
6. Oregon Health and Science University *	

\* Indicates universities who have also signed the AUTM COVID-19 Licensing Guidelines.

<sup>31</sup> As of February 6, 2021. In: Stanford University Office of Technology Licensing. COVID-19 Technology Access Framework. Stanford University. <https://otl.stanford.edu/covid-19-technology-access-framework>.

## Other institutional efforts

Three schools (5%) reported other efforts to make COVID-19-related biomedical technologies publicly accessible, including the **S.J. Quinney College of Law at The University of Utah**, which supports OCP despite the university not being a signatory (see Figure 3, below).

**Why this matters:** Efforts to openly share COVID-19-related intellectual property and technologies deserve to be recognized, even if they are outside the standard joint agreements. Additionally, pressure from intraorganizational bodies (like university law schools) can help persuade university administrators to sign on to OCP or C-TAP.

**Figure 3 - Other efforts made by 2020 U.S. University Report Card universities to make COVID-19-related biomedical technologies publicly accessible**

Specific efforts made by universities
<ul style="list-style-type: none"><li>• The University of Utah's Law School publicly endorses OCP.</li><li>• Boston University has released the FDA-approved COVID-19 testing protocols developed in their labs for free online.<sup>32</sup></li><li>• Harvard has released an open-source <a href="#">Medical Student COVID-19 Curriculum</a>, which includes information on the epidemiological principles of COVID-19, training for COVID-19-related clinical roles, and a section on global innovation and collaboration that highlights LMIC-specific issues.</li></ul>

<sup>32</sup> McAlpine KJ. Facing dire shortages, 50 Boston collaborators develop their Own FDA-approved coronavirus test. *The Brink*. March 25, 2020. <http://www.bu.edu/articles/2020/crem-coronavirus-test/>.

## University Rankings (Descending Order)


1	Georgetown University	B-	21	UCLA	D-	41	University of Massachusetts Medical School	F
2	Harvard University	B-	22	The University of Utah	D-	42	University of Wisconsin-Madison	F
3	Case Western Reserve University	C	23	University of Virginia, Charlottesville	D-	43	Indiana University-Purdue University Indianapolis	F
4	University of Washington, Seattle	C-	24	University of Illinois, Chicago	D-	44	Icahn School of Medicine at Mount Sinai	F
5	Johns Hopkins University	C-	25	Oregon Health and Science University	D-	45	UC Irvine	F
6	The University of North Carolina at Chapel Hill	C-	26	Baylor College of Medicine	D-	46	The University of Alabama, Birmingham	F
7	Duke University	C-	27	University of Florida	D-	47	University of Pittsburgh	F
8	Yale University	C-	28	University of Michigan, Ann Arbor	D-	48	Medical College of Wisconsin	F
9	Stanford University	C-	29	UC Davis	D-	49	University of Minnesota, Twin Cities	F
10	Vanderbilt University	C-	30	University of Pennsylvania	D-	50	University of Miami	F
11	UC San Diego	D+	31	Boston University	D-	51	Yeshiva University	F
12	The Ohio State University	D+	32	New York University	D-	52	University of Kentucky	F
13	Emory University	D	33	University of Southern California	D-	53	Penn State University	F
14	Cornell University	D	34	The University of Chicago	D-	54	SUNY, University at Buffalo	F
15	UC San Francisco	D	35	University of Colorado, Denver and Anschutz	D-	55	The University of Iowa	F
16	Washington University in St. Louis	D	36	University of Rochester	D-	56	University of Cincinnati	F
17	Northwestern University	D	37	The University of Texas Health Science Center at San Antonio	F	57	Wayne State University	F
18	University of Maryland, Baltimore	D	38	The University of Texas Southwestern Medical Center	F	58	Uniformed Services University of the Health Sciences	F
19	University of South Florida, Tampa	D	39	Columbia University	F	59	Wake Forest University	F
20	Dartmouth College	D	40	The University of Arizona	F	60	The University of Texas M.D. Anderson Cancer Center	F



## About UAEM

We are a global network of university students who believe that our universities have an opportunity and a responsibility to improve global access to public health and life-saving medicines, especially those developed on our campuses.


### Other related UAEM publications


 [Tracking Public Investment in Global COVID-19 Research & Development](#) (2020), in partnership with the Student National Medical Association and the American Medical Student Association

 [Re: ROUTE - A map of the alternative biomedical R&D landscape](#) (2017)


 [Clinical Trials Transparency: U.S. Universities Performance & Trends](#) (2017)

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## Supplemental Information

### Explore the 2020 U.S. Universities Report Card

 Visit the 2020 U.S. University Report Card online: [globalhealthgrades.org](http://globalhealthgrades.org)

 Read our full 2020 U.S. University Report Card full methodology: [online](#)

 Email the 2020 U.S. University Report Card team: [reportcard@uaem.org](mailto:reportcard@uaem.org)

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