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Who deserves to be healthy?

The easy answer is, "Everyone." The harsh reality is "How?"

By Diana Bean '81
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When Nicole Hassoun notes that 18 million people die every year from easily preventable, poverty-related causes — and she cites that statistic often — she does so with a hint of despair, as if the enormity of the number stuns her each time.

It's easy to say that people with treatable illnesses should have access to affordable drugs. What's complicated is deciding who provides such medicines: Governments? Healthcare providers? Non-governmental organizations?

Many fingers point to the pharmaceutical industry. A lot of those fingers belong to doctors, lawyers, economists, politicians, social scientists, philanthropists, nonprofits and governments, all with their own ideas about how medicines should flow from the businesses that make them to the people who need them.

"There are lots of different prizes, funds and ideas that people have," says Hassoun, associate professor of philosophy at Binghamton. "For example, you could have compulsory licensing — countries requiring companies to provide the medicine at low cost — or differential pricing, where companies voluntarily lower their prices for different markets."

PHOTO ILLUSTRATION

The Global Health Impact Index is an online source of information about the availability of drugs to treat TB, HIV/AIDS and malaria.

She decided to take a different approach. About six years ago, she began developing a methodology and gathering data that she hopes will motivate the pharmaceutical industry to increase affordable access to medicines for impoverished people.

In January, Hassoun unveiled the Global Health Impact Index, a means of evaluating the efforts of pharmaceutical companies by the effects that their medicines have in different countries. The index focuses on three diseases — tuberculosis (TB), malaria and HIV/AIDS — and the medicines that are known to treat them.

The intent, she says, is to give pharmaceutical companies an incentive for improving global health by "pulling back the curtain" and showing stakeholders — companies, governments and aid organizations — what proportion of need has been alleviated and what proportion remains.

The index is sorted into four categories:

1. The country index measures the amount of disease burden in each country that is relieved by specific drugs.

2. The company index ranks the pharmaceutical companies by the impact of a drug on which they hold the patent.

3. The drug index measures the impact of a company's product on the global burden of disease, which includes years of life lost to death and disability (expressed as a disability adjusted life year, or DALY).

4. The disease index looks at the size of the drugs' impact on each of the diseases.

"All of these models are based on three pieces of information: The need for the drugs, access to them and their effectiveness. Most all of this is in the public domain," Hassoun says.

Gloria Meredith, founding dean of the School of Pharmacy and Pharmaceutical Sciences, appreciates the scientific rigor of the index and the questions it raises.

"I think this is a needed resource for the world because it tracks whether companies are providing drugs, where they're providing drugs and which drugs are making a difference," she says. "I believe that it also shows which companies are providing the most assistance and which ones the least."

Philosophy and science intersect

If the Global Health Impact Index sounds more like the work of an economist than a philosopher, Hassoun agrees. She's a world traveler, having been to about 70 countries. She has hiked though Nicaragua and volunteered in the Philippines. She has seen poverty that most Americans will never know, and it has become a focus of her career.

While her most recent article, "God and Love," was published in the *Australasian Journal of Philosophy* — "No one can question that it's pure philosophy," she says with a laugh — it was a departure from the work she is most passionate about.

"This project in global health has come to take up more of my attention both in the scientific aspects as well as the philosophical," she says. Her 2012 book, *Globalization and Global Justice: Shrinking Distance, Expanding Obligations* (Cambridge University Press) received an honorable mention for the American Philosophical Association Book Prize. Her next book is tentatively titled *Global Health Impact: Extending Access on Essential Medicines for the Poor*, and she's using empirical data to address ethical questions. "If you do good science, you have to have a clear idea of what you're doing and why it matters," she says.

In April, Hassoun's Global Health Impact organization and the Binghamton chapter of Universities Allied for Essential Medicines held a Human Rights and Global Health Conference. Speakers included healthcare professionals, lawyers, economists, leaders of NGOs and pharmaceutical executives.

Throughout the day, there was no shortage of statistics, ideas and lessons learned about global health issues, from midwifery to neglected diseases to law. There were also plenty of suggestions — and criticisms — for the pharmaceutical industry.

Pharmaceutical representatives from Sanofi, Pfizer and Novartis joined the discussion, addressing industry efforts to balance financial and philanthropic pressures and responsibilities. Their companies happen to be the three that score best on Hassoun's index. But, as the representatives acknowledged, that index is just one of many ways in which their companies are measured and scrutinized by myriad special-interest groups.

"We welcome new ways to objectively measure the impact that our industry has on expanding access to medicine and reaching more patients," says Charlie Hough, Novartis vice president and global head of strategy, corporate responsibility.

John Spinnato, Sanofi vice president of corporate social responsibility for North America, says he appreciates that the academic community is challenging the company to be more effective in its mission. "Sanofi is grateful to have been included in the Global Health Impact Index," he says. "We believe that indices of this nature demonstrate how we are making a difference by measuring impact and outcomes."

This was the first time Hassoun had direct contact with the pharmaceutical companies regarding the index.

"It was great to see the pharmaceutical reps talking with people from the civil society organizations like Public Citizen and trying to respond to their concerns," she says. "Everyone gave us feedback on the index and how we can develop it over time."

The information on the companies is the most controversial part of the index, Hassoun acknowledges, and there are plenty of disclaimers and explanations about how to interpret the data. For example, it's the patent holder of a drug that is evaluated, not the company that might have developed the drug. Also, new drugs come to market and diseases become drug-resistant, so the index is a snapshot in time — 2010, to be exact, because that's the year of the most recent data available.

When the index's numbers are tallied, the results are not about a company winning or losing a popularity contest, but about people winning or losing their lives.

"We aren't looking at policies, we're looking at impact," Hassoun says. "Companies can evaluate the impact on death and disability, which for me is what matters. I care about the number of lives saved."

About the Global Health Impact Index

Find it at: global-health-impact.org

Diseases measured: Tuberculosis, malaria and HIV/AIDS, which have some of the biggest impacts on death and disability around the world. There are plans to include neglected tropical diseases and a better picture of the pharmaceutical supply chain in the future.

Data source: Most from 2010, with the biggest sources being the World Health Organization and United Nations AIDS databases.

Choose your data: Sort by country, company, drug or disease.

What's a DALY? It stands for disability adjusted life year and is a measure of overall disease burden. Instead of measuring only deaths, a DALY accounts for the number of years lost due to ill health or disability.

Drug company scores: Those with the highest drug-impact scores for the three diseases are Sanofi, Novartis and Pfizer. Those with the lowest drug-impact scores are Eli Lilly, Kyorin Pharmaceutical Co. and Bayer Healthcare.

Who's behind the website? Nicole Hassoun has 10 to 15 volunteers helping enter data and maintain the website. A small grant helped pay for its launch.

Advisors and collaborators: Include Aidan Hollis, professor of economics at the University of Calgary and vice president and director of Incentives for Global Health; Lawrence Gostin, director of the O'Neill Institute for National and Global Health Law at Georgetown University; and researchers and academics involved in bioethics, law, medicine, global justice and geospatial technology.

Research team: Has included current and former students at Binghamton University, Carnegie Mellon University, University of Pittsburgh, Rochester Institute of Technology and Yale University with degrees or majors in philosophy, graphic arts, information technology, business, public health policy, neuroscience, biochemistry, economics and data science.

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