BERKELEY VENTURE CAPITAL (BVC)

LXXII
SEVENTY-SECOND SESSION

LETTER FROM THE CHAIR

Hi delegates!

My name is Maia Hernandez, and I'm going to be your Head Chair for Berkeley Venture Capital BMUN 72. I'm currently a sophomore intending a Public Health major with an English minor, and I'm excited to debate about public health and basic business with you all. I have a keen interest in medicine, especially in regards to its development and accessibility, and I wanted to explore its global impact this year. Especially after the pandemic, demands in the medical field are at an all time high, whether its healthcare workers, vaccines, or hospital supplies.

Although healthcare is considered a human right, it is easier in theory than it is in practice. Many countries struggle with affording necessities in medicine. Together, we can take one step forward to improve the lifestyles and healthcare of people globally, since, at the root of it, healthcare is designed by people for people. Furthermore, it is also great to learn how to monetize your innovative ideas. I hope this helps you familiarize yourself with the business world while helping others!

In high school, I was a delegate for BVC—and I absolutely loved the creativity and unorthodox MUN-style of the committee—so I decided to bring it back this year! Other than MUN, I love paddleboarding, long day trips to the beach, and tropical fruits. My Vice Chairs and I will assist you throughout the research and entrepreneurial process. You can learn more about them below. I can't wait to meet you all in March, and feel free to email any questions to bvcbmun72@bmun.org!

Sinchana Srinivas is a senior studying Public Health and Data Science and one of the two Vice Chairs on this committee. She's really excited to be a BVC Vice Chair this year and can't wait to see the thoughtful, creative, and innovative solutions you come up with for addressing today's issues. In her free time, she enjoys trying new coffee shops, going on walks, and spending time with friends and family, as well as trying new recipes.

Nadine Kei Inara is a freshman from Jakarta, Indonesia, intending to study Data Science and Economics. She is passionate about public speaking and she believes that MUN is a great platform for students to discover something new about themselves and develop their perspective of international issues. Apart from MUN, she enjoys writing songs, making matcha, drinking boba and reading books. As a Vice Chair of BVC, she is excited for you all to get a taste of entrepreneurship, while looking to solve one of today's most pressing problems: healthcare accessibility. She looks forward to seeing you all in conference!

Best,

Maia Hernandez

Head Chair of BVC
Email: mhernandez@bmun.org

TOPIC: IMPROVING HEALTHCARE ACCESSIBILITY

COMMITTEE STRUCTURE

Berkeley Venture Capital (BVC) is BMUN's Shark Tank committee, where delegates formulate and pitch business ideas to combat international issues and improve public welfare. As opposed to a position paper, delegates will be expected to create the foundations of a business tackling the topic at hand; then, the delegates will utilize committee time to collaborate with other delegates. Over the course of the committee, delegates can choose to merge with delegates who have similar ideas or create an entirely different innovation. Delegates are encouraged to consider sustainability, uniqueness, and practicality into their business, such as recycling waste, facilitating their business through a smart phone app, or building a

segue to capitalize further on their business. At the end of the committee, the groups of delegates must pitch their business ideas to the dais, who will then quote how much they are willing to invest.

In terms of the committee's logistic operations, BVC will hold a consistent unmoderated caucus to promote innovation, change, and partnerships; however, there will be occasional moderated caucuses to provide an opportunity for delegates to discuss developments to their business plans, collaborations and crises, and a chance for business groups to persuade delegates to join. Since BVC has an unorthodox MUN structure, BVC is a full-tech committee

for research and easier collaboration. That being said, BVC is best done with integrity and from your own creativity and research. Using ChatGPT to make/develop a business is not allowed, especially during the conference. If ChatGPT is seen in the committee, the full-tech privileges may be revoked. Furthermore, the dais will be open to questions throughout the committee, and if there are any current questions about the committee's format, feel free to reach out to the dais beforehand.

WHAT MAKES QUALITY HEALTHCARE INACCESSIBLE?

What Makes Quality Healthcare Inaccessible?

Healthcare innovation is growing rapidly all over the globe, thanks to artificial intelligence, social media and online communities, technological advancements, and more (Copeland). With how widespread quality healthcare is, there is an expectation that this healthcare is accessible to anyone; however, there are many obstacles that inhibit healthcare's development in our modern world. Ultimately, there are five generally agreed upon standards used to improve healthcare in general: accessibility, affordability, availability, accommodation, and acceptability.

Figure 1: Five dimensions of healthcare improvement

Many of these five dimensions often overlap and can be tackled with one stone (e.g. in order to access essential health services, it must ideally be affordable). The quality of healthcare—measured by these dimensions—varies throughout the world, in each respective country, and impacts different demographics unevenly.

By a more formal definition, healthcare access is "the ability to obtain healthcare services such as prevention, diagnosis, treatment, and management of diseases, illness, disorders, and other health-impacting conditions" (MU School of Medicine). Bottom line: for healthcare to be wholly accessible, there are many bases that need to be covered, including but not limited to location, pharmaceuticals, physicians, and instruments. Due to the volume of areas needed to improve healthcare inaccessibility, BVC encourages specialization and focus areas when formulating a business plan.

Distance

The spatial distance of hospitals can challenge the access to quality healthcare, which can also be extended to travel time, transportation, road networks, geography, and more. Among United States' veterans, the

travel distance is a prime indicator of poorer retention and typically exacerbates alcoholism, abuse, and more, due to the lack of immediate access (Buzza, Colin, et al.).

In response to this, there has been an increase in demand for mobile clinics, a motor vehicle that travels to provide healthcare for more compromised communities. Furthermore, for veterans, the United States' Veteran Affairs have fixed healthcare sites, separate from the parent facility, known as Community Based Outpatient Clinic (CBOCs) that are planted to serve patients' needs. Despite the efforts, mobile clinics have their own limitations, such as structural constraints and fragmentation of care (Yu). Fragmentation of care is a dangerous phenomenon that is characterized by miscommunication between healthcare providers that can lead to increased hospital costs, unnecessary testing, and incorrect prescriptions (Mathematica).

Geographic inaccessibility takes a larger role in developing countries as well; paved roads allow for easier travel and drug distribution among communities, yet it is a rarity in rural areas (Amoah-Nuamah). An area that is considered well-supplied and prepared for disaster would be considered a served area whereas countries that lack supplies and are susceptible to disaster are underserved. Globally, around 3.41 billion people live in rural areas compared to 3.42 billion in urban areas, which totals the rural population to be almost 50% of the total population. In Mozambique, 90.2% of the population is considered underserved when considering walking travel, with Maputo City (69.8% underserved) having the greatest healthcare coverage. When considering driving travel, Mozambique is deemed to be 66.9% served—and Maputo City has 100% coverage while only 6% of Mozambique is underserved; however, due to little infra-

structure and motorized transport services, not many people have their own vehicles or public transportation (Cabral). In Ghana's Kpandai District, around 139 of the rural communities, which is representative of 50.5% of the communities in Ghana, failed the World Health Organization (WHO)'s distance threshold standard, meaning that the population in these communities have to travel for more than five kilometers to access primary healthcare services. As of July 2021, the health systems are limited, as there are only 25 health facilities—including one district and private hospital—and 201 total workers that serve the 275 sparsely distributed communities that make up Kpandai. The rainy season in Ghana further intensifies the issue, as citizens are reluctant to travel the lengthy roads when they are sick and drivers often upcharge visiting the rural communities due to poor weather.

Many governments have worked towards the establishment of public clinics and hospitals to alleviate the distance and improve healthcare access, but these efforts are often undermined by staffing issues, lack of advanced equipment, and medical instruments and drugs (Peters). These public institutions must also compete with the private market, which generally has more convenient open hours and better responsiveness and flexibility.

Distance is not only an issue due to rural or geographical obstacles, but also due to a decline in public transportation leading to a reliance on private transportation. The lack of public transportation in suburban areas can considerably inhibit easy travel to healthcare facilities and providers. In Southwest England, many individuals lack access to a car, despite suburban areas having relatively high car ownership rates (Jordan). Typically, this is due to families only owning one vehicle, which is used for work; however,

this is not a given. Among more vulnerable groups—the poor, the elderly, and single women—more than two-thirds of the households do not have access to a car. Citizens have taken to other modes of transportation, such as "lift-giving," and "voluntary taxis" like Uber, yet these systems are not available everywhere (Jordan).

Accommodations

Ironically, hospitals have many areas to improve upon when it comes to accommodations, which are attitudinal barriers, communication barriers, physical barriers, and social barriers. In fact, there is a great disparity in minority healthcare; minorities have more barriers to healthcare access and generally have poorer health conditions. Recently, in 2023, a United States-based study was published based on health data by ethnicity, where it was shown that Black, Hispanic, and Asian adults were less likely to receive mental health services and roughly six in ten Hispanic, Black, and American Indian and Alaskan Natives (AIAN) did not receive the flu vaccine compared to less than half of their white counterparts, and those same aforementioned groups have shorter life expectancies that decline by the year (Hill). Minority patients often benefit from having a minority doctor, as many minorities have a deep distrust in the healthcare system and can therefore at least be at ease with the racial familiarity (Huerto); however, medicine is a longstanding white-dominated field (AAMC).

The disproportionate attitudes among healthcare personnel is a long withstanding systemic issue. Stereotyping, stigma, and discrimination run rampant in United States healthcare, as more than 70% of physicians are unsure as to what qualifies as "reasonable accommodations" for people with disabilities and more than a third of physicians know little about their legal

responsibilities under the Americans with Disabilities Act (ADA) (Massachusetts General Hospital). There have been situations where patients who are deaf or hard of hearing request accommodations, like a sign language interpreter, and there is no follow-up on the physician's part. People with mobile disabilities report having been examined in wheelchairs as opposed to a proper examination table, which results in delayed diagnoses and substandard care (CDC). Others have also mentioned the lack of a weight scale that accommodates wheelchairs and mammograms that do not require women with mobility impairments to stand. As a result, there have been calls to subject physicians to further training on ADA laws in medical school to combat this systemic ableism.

Cost & Insurance

Although healthcare systems vary globally, the establishment of private and public insurance maintains the same general concept in each country, as the UN recognizes adequate health and living standards as a human right (UN). Private insurance is offered by privately-run companies and purchased by individuals whereas public insurance is typically free-of-cost and facilitated by the government. The incentive of private insurance is the provision of a wider variety of options based on personal circumstances and shorter waiting periods. Employers can also provide insurance to boost retention, recruitment, and maintaining a healthy work environment (RSS).

There are five main types of healthcare systems: universal government-funded healthcare, universal public insurance healthcare, universal private-public insurance healthcare, universal private insurance healthcare, and non-universal insurance healthcare.

Universal government-funded healthcare, otherwise known as a single payer system, is where one entity

is billed for healthcare services. This is often used to avoid administrative waste for governments and excessive paperwork for civilians. Canada is a popular example of the single payer system. In Canada, healthcare is publicly funded via high civilian taxes. The single payer system is not to be confused with socialized medicine (Health Insurance), a rare, centralized healthcare system owned and regulated by the government, which employs the professionals and pays for the services. Countries with universal public insurance healthcare are where the government withholds wages as a part of an employee's social insurance; however, those who are unemployed are ineligible for such insurance. Japan's universal public insurance, as of 2020, has insured 59% of the population through employment-based plans, and to combat the ineligibility, Japan even offers residence-based insurance plans for individuals 74 and under as well as elderly insurance plans for over 75 (Commonwealth Fund). Universal private-public insurance healthcare is where purchasing nationwide private insurance is necessary (enrolled through the government, but administration is handled by non-governmental insurers). In Germany, this is known as statutory health insurance (SHI), funded by civilian gross wage contributions. For those who make under EUR 60,750 (USD 77,985), insurance is automatically covered by SHI, while those who exceed the threshold can opt out of SHI for a different private insurance (Commonwealth Fund). Similarly, universal private insurance healthcare is where governments mandate investing in private insurance and subsidize the cost for those who can't afford it. Non-universal insurance healthcare is where there are a mix of insurance types among the population within a country and used by the United States. The result is some with private insurance, some with public if eligible, and some even uninsured.
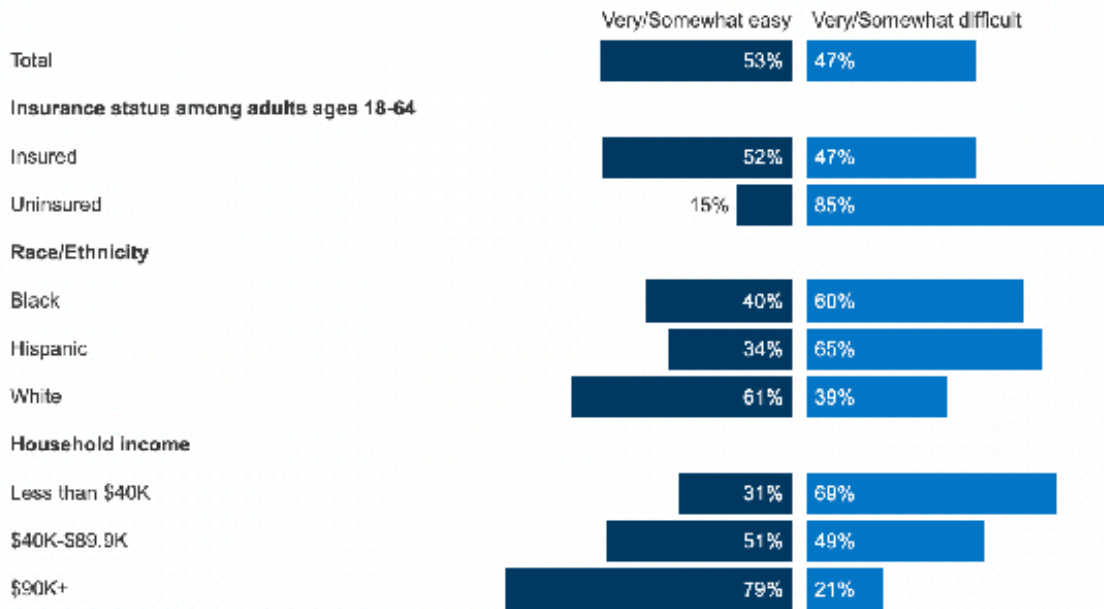
With various types of healthcare systems globally, it begs the question of why healthcare is so unattainable worldwide. In countries like the United States, private healthcare insurance is costly, out-of-pocket bills are excessive, and public insurance is a rarity. In general, each healthcare insurance system has its caveat. For example, universally government-funded insurance in Canada has resulted in high taxes, and universal public insurance healthcare in Japan has led to those who are unemployed not eligible for free healthcare.

Among Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States, adults in the United States are more likely than those in the 10 other countries to go without needed health care because of costs (Healthy People 2030); however, the United States excels in timely access to specialists, conversations with physicians about leading a healthy life, and coordinated hospital discharge planning.

Half Of Adults Say It Is Difficult To Afford Health Care Costs, Including Large Shares Of The Uninsured, Black And Hispanic Adults, And Those With Lower Incomes

In general, how easy or difficult is it for you to afford your health care costs?

	Very/Somewhat easy	Very/Somewhat difficult
Total	53%	47%
Insurance status among adults ages 18-64		
Insured	52%	47%
Uninsured	15%	85%
Race/Ethnicity		
Black	40%	60%
Hispanic	34%	65%
White	61%	39%
Household income		
Less than $40K	31%	69%
$40K-$89.9K	51%	49%
$90K+	79%	21%

NOTE: See topline for full question wording.
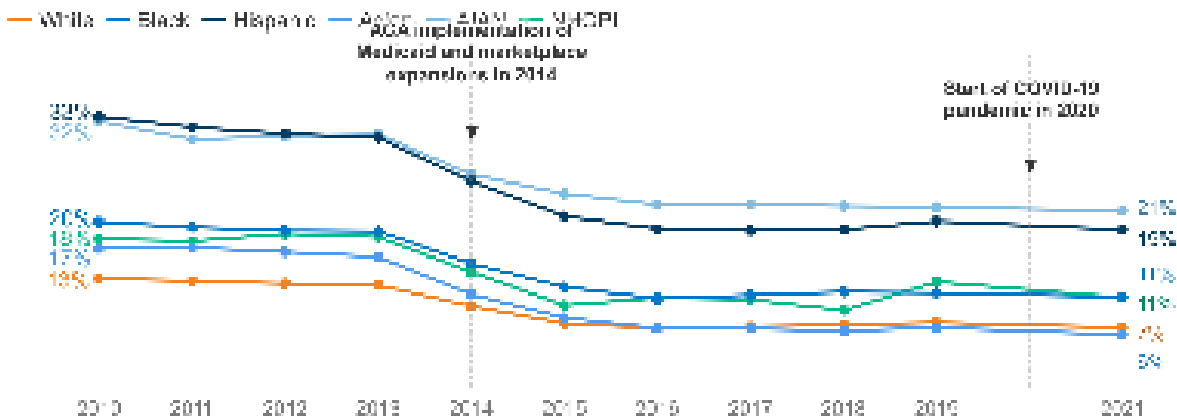SOURCE: KFF Health Care Debt Survey (Feb. 25-Mar. 20, 2022) • PNG

KFF

Figure 2: Polls which show that half of adults struggle to afford healthcare costs, mainly uninsured Black, Hispanic, and lower-income adults

As appealing as insurance is, about one in ten people in the United States do not have health insurance, and they are less likely to have a primary care provider. Furthermore, they cannot afford the service and medication they need. In 2014, the United States' Affordable Care Act (ACA) Medicaid and Marketplace coverage began expanding, servicing and covering large racial and ethnic groups. Despite the efforts, the healthcare disparities persisted. Nonelderly AIAN and Hispanics hold the highest rates of uninsured healthcare with Native Hawaiian and Other Pacific Islanders (NHOPI) and Black people close behind. Preventative care and chronic illness treatment are two of the many strategies stressed to increase insurance coverage rates.

Figure 3: Rates of uninsured, nonelderly populations by race/ethnicity

In 2017, the World Bank and WHO confirmed that around 800 million people spend 10% of their budget on health expenses, an amount enough to push 100 million of that demographic into extreme poverty, and that half the world still lacks access to essential health services. In the wealthiest fifth of households, 74% of mothers and children were able to receive six out of seven basic maternal and children services, while in the lowest and lower-middle fifth of households, only 17% of mothers and children received the six out of seven maternal and children services (WHO). While there have been improvements in some key services like family planning and immunization, which have led to fewer people tipping into poverty, the progress is disproportionately distributed, specifically in Sub-Saharan Africa, South Asia, and Southeast Asia; however, people in affluent areas like Eastern Asia, Europe, and Latin America still struggle to pay out-of-pocket health costs.

INTERNATIONAL HEALTHCARE OVERVIEW

The conversation of universal healthcare has been a hotly debated topic internationally, and different countries have adapted to the universal right accordingly; due to financial crises, however, many developing countries are at an poor, uneven advantage when it comes to access to hypothetical universal healthcare.

Healthcare Access and Quality Index, 2015

The Healthcare Access and Quality (HAQ) Index is measured on a scale from 0 (worst) to 100 (best) based on death rates from 32 causes of death that could be avoided by timely and effective medical care (also known as 'amenable mortality').

Our World in Data

No data   0   10   20   30   40   50   60   70   80   90   100
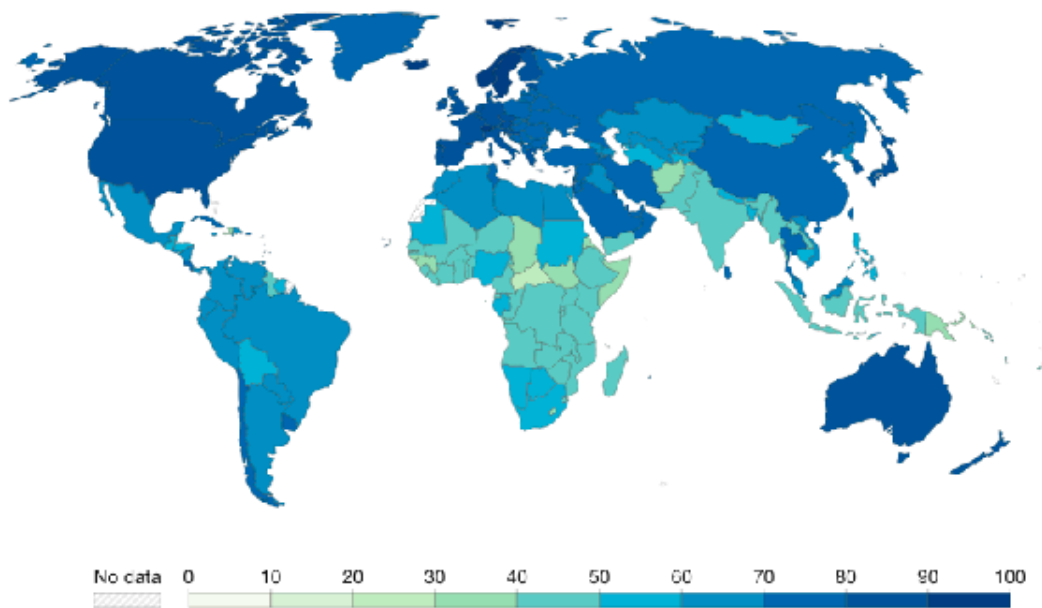
Source: Institute for Health Metrics and Evaluation (2017)   OurWorldinData.org/financing healthcare • CC BY

Figure 4: Measurement of the healthcare access and quality of 2015 globally

Equipment and professionals is the essence of healthcare; advanced medical equipment and experienced professionals make for high quality healthcare whereas shabby equipment and lazy professionals make for an uneasy visit to the doctor's. State-of-the-art medical instruments aid doctors and nurses in diagnoses, treatment, and rehabilitation, and access to decent healthcare supplies is challenging for developing and middle-income countries. WHO estimates that 50–80% of medical supplies in developing countries are not functional enough for use, leading to a critical shortage of quality medical supplies. Due to shortages, nurses in South Africa have to make use of as well as maintain insufficient, low-quality instruments, which can subsequently lead to legal implications for the hospital, impacted patient care and delivery, and discouragement from the nursing profession (Moyimane). Medical devices require spare parts

and reliable power, like water, energy, and technical expertise. There is a severe lack of designing medical devices that consider a developing country's conditions in mind (Malkin). Insufficient and substandard equipment can also affect nurses-in-training as well, and they risk providing malpractice and negligence. Overall, the public hospitals in South Africa received a score below 50% in a national healthcare facility audit in 2012, and as expected, the shortage is higher in rural areas. In fact, most African countries experience shortages of medical equipment.

Unfortunately, equipment is not the only medical essential facing a shortage (Mensik). Healthcare staff shortages are a global issue, worsened by the pandemic, as WHO predicts a shortfall of 10 million healthcare personnel in 2030 in low- and lower-middle income countries (WHO). Poor education, reluctance to be stationed in rural areas, and budgetary constraints make it all the more difficult to maintain a strong health workforce. Much like WHO, the Association of American Medical Colleges (AAMC) states that the United States risks a shortage of up to 124,000 physicians by 2034 and 48,000 of which are primary care physicians. Long hours, rigorous labor, and stressful demands have played a large role in the decrease in healthcare personnel—especially nurses—so many lawmakers look to the educational pipeline of nurses. In Vermont, nurse educators make around USD 65,000, which is half of what a hospital nurse makes. Generally in the United States, to obtain a Bachelor's of Science in Nursing (BSN), it ranges from USD 80,000 to even over USD 100,000, while the entry-level salary for a nurse is an average of USD 70,000, which decreases its appeal for potential nurses (Brusie). Lawmakers have then voted on expanding nurse faculty loan repayments and advocating for university-hospital partnership to create training opportunities. For developing countries, a common

phenomenon explaining a lack of professionals would be known as the Geographic Brain Drain. The brain drain is where professionals who are certified in their home country (often low-income or developing) leave to work in a first-world country where they are offered higher standard of living, better benefits and supplies, stable political conditions, and more (Burtler). This leaves their home country in short supply of labor, loss of skill and investment in education, and reduced accessibility in essentials. It is also a factor as to why healthcare advancements are disproportionate around the world.

Due to COVID-19, the price for medical equipment, such as N95s and gowns, surged (WHO). Severe hoarding, rising demands, and panic-buying throughout the pandemic disrupted the supply chains and put lives at risk. WHO went on to ship nearly half a million sets of personal protective equipment (PPE) to 47 countries to alleviate the depletion and collaborated with the Pandemic Supply Chain Network to boost production and improve allocation for at-risk countries. Medical technology has also improved in the past years thanks to machine learning and artificial intelligence. In the internal-facing side of healthcare, there are more efficient diagnoses and easier access to hospital inventory as well as protocol, and in the external-facing side of healthcare, patients are able to instantly schedule appointments and receive answers in regards to basic prescription questions (National Library of Medicine). However, even highly urbanized countries like Brazil must import technological goods to develop modern healthcare services (Banta). Many of these technologies and other imported expenses are then often misused by unfamiliar hands which drain resources.

Hospitals, to combat these shortages, are advised to practice managing demand. Hospital management

is encouraged to forecast short-term demands and coordinate resources. Understanding the intertwined systems between demand and consequences prevents possible fragmentation of care. For example, the demand for baby delivery rooms also implies a demand for neonatal and postpartum services, and shortening stays for patients when the Intensive Care Unit (ICU) reaches full capacity only increases demand for the ICU due to the massive readmission rates (Harvard Business Review).

Profit vs. Provision

Healthcare inaccessibility's complex issue is also rooted in the global pharmaceutical industry, commonly referred to as "Big Pharma" (Negus). While pharmaceutical companies are heavily state-facilitated, pharmaceutical companies find a lucrative business in developing countries due to less competition and the subsequent ability to raise drug prices (ITEP).

Quality healthcare especially is dependent on top-grade medicine, and medical innovation has a lengthy cost: countless trials and refinements with limited test subjects. As a result, many pharmaceutical companies run clinical trials in different countries for vaccines and medicine, which are later approved by the United States for distribution and usage. Between 2012 and 2014, the U.S. Food and Drug Administration (FDA) approved 34 novel drugs on the basis of 818 trials held in the United States and 70 other countries (Cummings). Countries that hosted clinical trials received approval for distribution later on; however, only 5 out of the 34 drugs (15%) were approved in those countries. Out of the 70 countries, five countries (7%) received market access to the drugs within a year and 22 countries followed within five years of its initial approval. Higher income countries like Germany and Canada were approved the fastest whereas

countries in Africa had the lowest access. Other than South Africa, which received 24% of the drugs after five years, no drugs were available throughout the continent. This showcases Big Pharma's bias to sell to wealthier countries as opposed to developing countries because of its emphasis on profit. The distribution among the participant countries is obviously inequitable and calls to improve modern research ethics. Researchers suggest that governments should create a definitive market application and timeline for the drugs, which would be required for pharmaceutical companies to commit to before testing in the country. Countries are also encouraged to adopt policies through which the FDA is unable to test products in countries it does not intend to sell to.

In terms of COVID-19, out of the 1.8 billion COVID vaccines promised, only 261 million were delivered to developing countries by affluent nations and pharmaceutical companies (Oxfam International). It is around 14% of what was expected, thus exacerbating the vaccine inequity. Pharmaceutical companies already struggle to meet vaccine production demands, yet many corporations prioritize wealthier customers as opposed to the developing countries. As of 2021, the United Kingdom's government had inhibited countries like India and South Africa from making their own vaccines all the while securing half a million doses for U.K. citizens. The United Kingdom ultimately donated less than 10% of the 100 million vaccines promised, Canada donated 8%, Germany 12%, and France donated 9% of what the country promised. The control of vaccines is in the hands of private pharmaceutical companies (e.g. Johnson & Johnson, Moderna, AstraZeneca, and Pfizer) who prioritize profit instead of altruism. The People's Vaccine Alliance (composed of 77 members such as ActionAid, the African Alliance, UNAIDS, and more) advocated for the suspension of

intellectual property (IP) rights for COVID related treatments, the investment in decentralized manufacturing hubs for developing countries to have easy access to vaccines, equitable distribution of medicine, and transparency in COVID discoveries, information, and data. In the end, a compromise was reached that watered down the initial proposal to patents on vaccines and protected, regulated clinical trial data (National Library of Medicine).

Improper drug donations from affluent countries have been a problem since before COVID-19. In the past, expired pharmaceuticals have been repackaged and counterfeits have been forged, only to be shipped to low-and middle-income countries. International guidelines state that the donated drugs must at least have one year of shelf life upon arrival and that correspond to the health needs of the recipient country, yet many typically send expired drugs or mass shipments of unwanted drugs that require disposal. This results in large stockpiles of expired and incorrect medication in countries like Uganda, which has a terrible environmental impact. During the 2001 earthquake in Gujarat, India, there were excessive donations, and in Tanzania, there were insufficient donations. These countries have been advised to strengthen medicine management (i.e. forecast reliable products and better facilitate inventory),

strengthen drug donation regulation, invest in proper drug disposal, and more (Kamba).

Recently, WHO refined its drug donation guidelines to prevent further improper donations, which introduces four principles: donations should benefit the recipient as much as possible, the donations must adhere to the recipient's guidelines and policies, there must be effective communication between the donor and recipient, and there should be no fault in quality (BioMed Central). Pharmaceutical companies are encouraged to partner with public institutions and NGOs to facilitate better coordination and create transparency about newfound information and recently developed technologies, allow the spread of compulsory licenses to alleviate the protectiveness of pharmaceutical patents, or intellectual property rights (IP/R), and price drugs properly to improve access (Frontiers). Yet again, in 2018, pharmaceutical companies were caught profiting off of business in low-income countries. For example, United States companies labeled themselves as foreign to evade American taxes on IP. While the revenue loss was impactful in the States, it was a greater loss to lower income countries, who had to fill the budget holes (ITEP). Corporation counterproductiveness greatly slows the effectiveness of donation efforts.

PAST & CURRENT UN INITIATIVES/RESOLUTIONS

The Global Health and Foreign Policy resolution was endorsed by the United Nations general assembly in 2012 that encouraged countries to aim for universal healthcare coverage (i.e. the idea that everyone everywhere should have access to quality and affordable healthcare), including primary healthcare and social protection (UHC2030).

Later, in 2015, the 2030 Agenda for Sustainable Development adopted the goal of universal health coverage by 2030, which includes the 2012 ideals with financial risk protection. Then, a third resolution was passed in 2017 on Health for the Most Vulnerable.

The resolution called on the Member States to target the vulnerable within society and strengthen their relationship with the stakeholders. This includes private sectors, academia, and civil society.

Finally, in 2019, a UN conference titled Universal Health Coverage: Moving Together to Build a Healthier World was held to enhance the initial missions to accelerate overall progress (UN). Unfortunately, there has been little change in healthcare worldwide due to differences in economic and political opinions, but the official establishment of the UN's resolutions are a step forward.

CASE STUDIES

Philips Community Life Centers (CLC)

Philips Community Life Centers (CLC) is a community-driven platform that aims to boost primary healthcare in Sub-Saharan Africa (Philips). These CLCs offer clinical and medical device training, provide solar units, waste storage containers, and LED area lighting. It combines renewable energy sources, energy-efficient designs, and local medical devices to improve waste management while also maintaining the safety of the community. CLCs also provide maintenance to ensure the quality and responsiveness of facilities.

The parent company, Philips & Co, was founded in the Netherlands in 1891 by Fredrik Philips and his son. Philips recognized the rising use of electricity and pioneered the idea for a cost-effective and reliable electric light bulb. The company grew in its electric success, but it was not until 1914, when the first Philips laboratory was created, that Philips & Co involved itself in health technology, as the company was experimenting with light and eventually made a breakthrough in X-ray tubes. Philips & Co dabbled in broadcasting, sound, and vision until the 1990s, when technology had comfortably settled into society. Philips & Co then adopted a human-centric approach to technology that involved improving patient experience. It called this approach "Design for Life." Today, its improving health technology portfolio speaks for itself.

Through patient monitors, imaging devices, and EMRs, Philips & Co utilizes AI to transform clin-

ical data into insights on patients, providers, and consumers. These informatics and service solutions also improved operational forecasting and therefore productivity. Philips & Co' business model consists of three dimensions: organic growth, patient-centric innovation, and reliability in patient safety, execution, and quality. In 2022, approximately 70% of their sales came from image guided therapy, ultrasound, monitoring, and personal health. It aims to scale its enterprise informatics business, improvement in diagnostic imaging, and restore sleep and respiratory care.

In 2014, Philips & Co launched its first African Community Life Center in Kiambu County, Kenya. Within 18 months of its opening, Kiambu County CLC's number of outpatients increased from 900 to 4,800, its number of children quadrupled from 533 to 2,370, and before-natal care grew fifteen-fold from 13 to 188 patients each month. After establishing Africa Innovation Hub, Philips & Co progressed its focus on developing low-resource medical solutions and plans to scale the innovations further. The technologies implemented in Kenya are relevant to the locals, such as the wind-up fetal heart monitor which enables easy monitoring in the absence of electricities or batteries, the children's automated respiration monitor that accurately detects pneumonia (which accounts for 15% of children's deaths under five), and ultra-mobile ultrasound that is portable yet produces high-quality images. In Mandela County, Philips & Co partnered with the local governments, as well as the United Nations Population Fund (UNFPA) and AMREF Flying Doctors to train staff. From then on, Philips went on to launch centers in South Africa, Namibia, and DR Congo.

MAP Internationals

MAP Internationals is a Christian organization that provides health supplies, medicine, and volunteers globally. Albeit an NGO and a non-profit, MAP Internationals is noteworthy due to its fiscally responsible tactics, accredited efficiency and effectiveness in the healthcare field, and overall donation facilitation. MAP so far has served 68 years providing millions in 72 countries and, in the past three fiscal years, has given around two billion dollars in medicine and health supplies with under USD 48 million in cash expenses. MAP spearheads countless programs that address detailed issues: Chronic Disease Program, Bringing Children Health: Pediatric Antibiotics Program, Domestic Medicine Program, Long-term Health Program, Rare Disease Program, Mental Health Program, Neglected Tropical Disease Program, and more.

After hearing the stories of neglect from missionary doctors, Ray Knighton—an administrator at the Christian Medical Society—spread the word and received 11 tons of medicine from Schering Drug Co. In 1954, MAP Internationals was then in play.

Today, MAP Internationals partners with both individuals and corporations, donating more than USD 500 million worth of medicine and health supplies. As an incentive to corporations, MAP Internationals provides a tax break. Thanks to its partners, MAP receives generous donations from pharmaceutical companies and purchases products from cash donations. Next, it organizes its products in its distribution center in Georgia, where it is based, and works with domestic and international NGOs to determine the quantity and mix of products needed. Then, MAP ships out to its global partners via air or sea freight. Not only does MAP aids the most vulnerable, it also succeeds in disaster relief responses and sustainable programs (MAP).

CONCLUSION

Although the five dimensions of healthcare accessibility lay the groundwork for improvement, it is evident that the application is easier said than done. The complexity of the issue lies within differing priorities between corporations and countries, substandard personnel and instruments provided, and poor academia. There have been constant refinements to progress towards universal healthcare coverage with little to show for it. Furthermore, there is great work to be done to improve the environmental impact of the healthcare field.

This topic synopsis aims to act as a foundation for building a proper, well-rounded business idea that will also ideally guide healthcare to a more sustainable path. Feel free to research personal interests from the synopsis that you can build your business out of, such as a focus on transportation, and transform it into something that has a positive, tangible impact globally.

QUESTIONS TO CONSIDER

1. Based on what you read, are private sector donations as helpful or as deteriorating as they seem? How can governments regulate privatized healthcare without breaching certain laws or overextending its power? Consider how private sectors primarily control healthcare supplies and provision, as well as its relationship to its relative government.

2. Healthcare facilities are known for producing mass amounts of waste (with United States' patients producing around 6 million tons of waste annually). How can your business keep an environmentally-conscious lens while also maintaining profit?

3. Healthcare personnel shortage has a strong impact globally, especially in developing countries. Why do you think this is? What factors contribute to the decline in nurses, doctors, and physicians? How can governments and companies improve staff shortages?

4. While long-term solutions are valuable and preferred in your business model, what possible short-term solutions—to provide immediate access to healthcare—can your business implement in times of need (i.e. COVID-19)?

ENTREPRENEURIAL PROCESS

Now that the topic has been established, it is time to delve into what sets BVC apart from the rest of BMUN: its entrepreneurship and fundamental business aspects. This section will introduce you to the beginnings of venture capital, the basics of business, and the logistics and challenges of implementation. This is an overview of what your position paper should mimic and provide an opportunity for you to organize your thoughts. Throughout the weekend of the committee, the dais will also present slideshows to boost your understanding and hopefully further develop your ideas.

Ideation

What problems do you want to solve? How can you solve it? What prevents you from doing so? Ideation encapsulates these three questions as the first step of the business process. It requires brainstorming all the possible ideas and solutions in-depth; for now, you can focus on the quantity of ideas as opposed to the quality, as the ideation phase will sort through the practicality of each proposed solution. Jot down any questions or possible solutions that you have when reading the topic synopsis. When you brainstorm, focus on aspects of healthcare accessibility that may be overlooked or not as well-addressed, which will allow you to compare your creative solutions to your obvious ones.

You should build your business ideas through identifying your ideal customer, the problem at hand, and a viable as possible solution to follow up (Fonseca). Empathize with the recipients of your business idea

and research thoroughly to solidify the needs. Then use the synthesis of your gathered information to formulate a solid statement that you can leverage in your initial solution (Interaction Design Foundation). For example, Ugandan residents (users/ target audience) in rural countries need correct and sufficient medication (target audience's need) because international drug donations are substandard to the health expectations and millions of unneeded stockpiles pollute the environment (overall insight). A common way to compartmentalize this process is by utilizing a point-of-view template.

Figure 5: POV template for reference and use

Detailed ideas often have more to work with, are more applicable to the real world, and will be favorably looked upon by the dais during the committee's funding round.

Market Research

Who wants to buy your product? Is there another company that provides the same service? Market research is absolutely fundamental. Your research will gauge how impactful your product is in the marketplace—and if you poorly conduct your research and your audiences' needs, it can lead to an unsuccessful business. There are two key essentials when conducting market research: customers and competition.

Customers are vital to your business' performance. You can begin by identifying and quantifying your customers. It is important to note that one group of customers do not define the general industry.

By defining a focus region and audience for your product or service, you can work out the specifics and conduct research more easily. To make your business stand out from the rest of the industry and to your users, you need to have indispensable innovations; however, newer innovations in fields that already have outstanding progress tend to fail due to pre-existing competition and oversaturation. Sift through the market, find a sector that is comparatively lacking to others, and target that area first. A good start is to measure and compare the price of your product. That is not to say you are required to make your business wholly unique. Successful businesses have successful strategies. Research into successful businesses in similar industries as yours to boost your foundation and

accelerate your company's growth. Analyzing your competition is key to a breakthrough in the market as a start-up. Here is where innovation thrives. By having an edge over the competitive market, investors are more likely to choose your business over others.

The SWOT analysis helps organize the fundamentals of your business and is a marketing tool that identifies your weaknesses, advantages, and the industry. SWOT stands for strengths, weaknesses, opportunities, and threats. While strengths and weaknesses are internal-facing (focusing on your company), opportunities and threats are external-facing (focusing on the greater market).

Figure 6: SWOT analysis template

Implementation & Funding

Deducing your implementation plan and the potential success of your business is the last step in the process and arguably the most difficult. Venture capital funding is a set amount of money invested into your company that is often not renewed. As a start-up company, you are responsible for utilizing the investment to generate a successful long-term business. Many venture-capital funded businesses fail due to the inability to produce successful, guaranteed returns. This means you need to prioritize your money and allocate it carefully, and this can be tricky if you plan to implement your business in developing countries. For example, if you were to provide telehealth to rural Mozambique to alleviate traveling difficulties, your business would not be profitable due to an insufficient amount of technology and electricity to support this. There are additional problems such as distribution, especially since unpaved and rigorous roads are an alarming aspect of why healthcare is inaccessible.

When the dais presents you with their proposed investment fund, you also need to account for necessary expenditures, like the cost of the product, cost of implementation, and cost of time. Resourceful allocation budgets in your proposal will help you to gauge how much you want for your start-up and help the dais judge how strategic and practical you are with your funds.

As aforementioned, your business will be centered around a sample or focus region. This area and its inhabitants will be the basis and the main beneficiaries of your product or service. It will allow you to conduct an in-depth analysis of the environment, current relationship with healthcare, and other specific, useful information. Take note that various regions will have different barriers to healthcare access, economy, and traditions, so it is imperative that your product or service is the most beneficial to this certain area to start off. By building a detailed plan, the dais—also your investors—will have greater trust in your future success and are likely to invest more.

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