

Government's role in healthcare
Spring 2023
1374

Over 28 million people around the United States do not have access to healthcare insurance (Peterson, 2022). Roughly 9.2% of the world's population was uninsured. In 2021, 27.5 million people didn't have access to healthcare (Tolbert, 2022). Which was a drastic increase from 2019. Citizens uninsured have less access to care than people who are insured. Recent studies demonstrate that uninsured people are less likely to receive preventive care and services for major health conditions. The uninsured population of the United States has also shown to be less likely to receive necessary follow-up screenings. Which gives them an increased risk of being diagnosed at later stages of fatal diseases such as cancer, creating higher mortality rates than those with insurance. The importance of considering the implications of new technological advancements and the result of new knowledge has grown in recent years. Following the "successful" motion of telehealth, citizens have been able to access health-related services via the internet. Additionally, when uncovering new scientific data, the general public is often "scared" because new knowledge can change strongly held beliefs which leads us to the main question of what role the government should play in the healthcare coverage of its citizens. Because of the fatal effects that can be created in uninsured populations, the government should support the acquisition of new knowledge, and develop new health technologies that can boost the life expectancies, all of which the government can enact on the population, scientifically speaking.

New knowledge

One of the most beneficial roles the government can play in healthcare is to implement and support the addition of new scientific theories and knowledge that can eventually transform the healthcare coverage of citizens. According to Larry L. Hench, a professor of biomedical engineering, at the Florida Institute of Technology "today more than ever, patients outlive their replacement parts". "Thirty years of research and development of new biomaterials, new device designs, rigorous quality controls, and government regulations has only limited success in extending the lifetime of most prostheses". Therefore, another effective method is needed to replace tissues. Not a while ago, a new method came into light. This method is called regenerative medicine. Regeneration heals portions of damaged tissue and stimulates the new growth of tissue. In this approach, the human body uses its own healing mechanisms to create new tissues. Based on the knowledge and stance Dr. James Thompson, professor at the University of Wisconsin lays out, Robert Langreth and Matthew Herper support his claim by saying, "stem cells are the fountain of youth". Dr. James Thompson has founded the biotech company, Cellular Dynamics International. When they generate the heart cells using the stem cells, they are able to check the cardiac toxicity of cancer drugs in potentially earlier stages. This could be a life-changing effect, if a bone-marrow match couldn't be found. As opposed to Thompson, Langreth, and Herper, according to the Forbes article, a world-wide global media company proposes the following questions: "Will stem cells be the basis for new therapies"? - "new drugs"? Contradicting the two previous claims, there are many positive effects of stem-cell technology. This technology also has been proven to be slightly dangerous, since much more testing and trials are needed. However, if the government can play its role and support new incoming knowledge it can positively impact and change the lives in terms of the healthcare coverage over time of citizens due to this new data. Additionally, most insurance companies like Medicare will pay for the consultation with your doctor. There are many

perspectives circling around the potential of stem-cell research for better or for worse. However, since this research is not fully acquired, it might take some time to be fully trusted. With the government playing its role to support this knowledge over time there will be a positive impact on the uninsured populations of the country.

New technology

Another role the US government can successfully play is to create and evaluate new innovations and technologies. According to Reed V. Tuckson, M.D., "The Department of Health and Human Services estimates that more than 60% of all health care institutions and 40 to 50% of all hospitals in the United States currently use some form of telehealth." Telehealth is an upcoming and new revolutionizing source of healthcare. Telehealth is the exchange of medical information and advice via the internet. Telehealth technology allows you to share medical concerns through the comfort of your home. Telemedicine technologies currently include Dermatology, radiology, and more. With enough support from the government, telehealth technology can expand their horizons, and be active in more places insurance companies around the country. Another new and upcoming technology is robot assisted surgery. According to the medical department of the University of Hong Kong, "Robotic surgery is also widely used in other surgical specialties including general surgery, gynecology, and head and neck surgery." Robots in surgery are mainly used in cardiology and orthopedics. Over the past few years, robot sales have dramatically increased (Bertolini). Japan has been driven towards robots. The Ministry of Economy Trade and Industry (METI) has announced Japan's robot strategy to "improve Japan's productivity, enhance companies' earning power, and raise wages". Robots in surgery still have to go through many trials here in the United States to be fully incorporated into day to day surgical operations. According to a research study conducted by the University of Ontario "A substantial portion of the research (48%) concentrates on the application of blockchain in the management of electronic medical records." Blockchain was generally started with Bitcoin, but since then it has evolved to help multiple sources of technologies. The results of the study show that blockchain technology has many uses in the healthcare society including "the electronic management of medical drugs, biomedical research and education, remote patient monitoring, health data analytics, among others." In an overall picture, there are many new and upcoming technologies including blockchain technology, robots in surgical environments, and telehealth that the government should support to positively impact the healthcare coverage of its citizens.

Gone Wrong

Despite the numerous trials of successful experiments and technologies, there are times where innovations have gone wrong. According to David M. Cutler, a professor at Harvard University, "The fourfold increase in opioid deaths between 2000 and 2017 rivals even the COVID-19 pandemic as a health crisis for America." These pain relievers fixed mental health ailments, and more. Soon however, opioid deaths started to occur. Opioid soon became illegal. This is one example of a new innovation that was once supported by the government that turned out to impose negative effects. In addition to Cutler's statements, Nicoleta Stoicea states "Physicians have complied with the appropriate management of acute and chronic pain; however, this short or long-term opioid exposure provides opportunities for long-term opioid misuse and abuse, leading to addiction of patients who receive an opioid prescription and/or diversion of this pain medication to other people without prescription." A research study discussed by Nicoleta and her colleagues show that over 66% of total overdose episodes in

2016 in the United States were opioid-related. There are over 100 million (almost ⅓ of the population) of the United States that suffer from acute and chronic pain. This drives opioid users to abuse opioids. According to the Center for Disease Control (CDC), "drug overuse, abuse, and overdose are a growing and alarming problem within the United States causing opioid overdose deaths in particular, that have quadrupled since 1999." What exactly are opioids? Opioids are also known as opiates, they reduce the intensity of pain before the signals reach the brain. If used correctly and efficiently opioids are not dangerous.

In conclusion, the role of the government in healthcare is crucial in ensuring that all citizens have access to quality and affordable healthcare services. The government can support the acquisition of new technology and knowledge in the healthcare industry by funding and conducting research, implementing and regulating new innovations and technologies, and providing financial coverage to those in need. The government should also support the development of regenerative medicine and telehealth, because they have the potential to improve the health and life expectancies of citizens. The government can play a vital role in improving the health of all citizens, regardless of socioeconomic status.

Works cited

Agbo, C. C. (2019, April 4). Blockchain Technology in Healthcare: A Systematic Review. MDPI. <https://www.mdpi.com/2227-9032/7/2/56>

Bertolini, A. (2016, March 3). On Robots and Insurance. SpringerLink. https://link.springer.com/article/10.1007/s12369-016-0345-z?error=cookies_not_supported&code=9021f899-723d-416e-97d8-d0dd295f34f5

Cutler, D. M. (n.d.). When Innovation Goes Wrong: Technological Regress and the Opioid Epidemic. American Economic Association. <https://www.aeaweb.org/articles?id=10.1257/jep.35.4.171>

Kennedy, Jae. "Unfilled Prescriptions of Medicare Beneficiaries: Prevalence, Reasons, and Types of Medicines Prescribed." *Journal of Managed Care Pharmacy, J Manag Care Spec Pharm*, July 2008, <https://www.jmcp.org/doi/abs/10.18553/jmcp.2008.14.6.553>.

New Materials and Technologies for Healthcare. (2011). <https://books.google.com/?hl=en>

Pros and Cons | Stem Cells | University of Nebraska Medical Center. (n.d.). <https://www.unmc.edu/stemcells/educational-resources/prosandcons.html>

Schofield, K. (2016, June 26). Preventing Opioid Overuse in Workers' Compensation. OnePetro. <https://onepetro.org/ASSPPDCE/proceedings-abstract/ASSE16/All-ASSE16/ASSE-16-574/77094>

Stoicea, Nicoleta, et al. "Current Perspectives on the Opioid Crisis in the US Healthcare System: A Comprehensive Literature Review." *Medicine, U.S. National Library of Medicine*, May 2019, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6531094/>.

Tuckston, Reed V. "Telehealth | Nejm - New England Journal of Medicine." Telehealth, 19 Oct. 2017, <https://www.nejm.org/doi/full/10.1056/NEJMSr1503323>.

"Nearly 30 Million Americans Have No Health Insurance." Peter G. Peterson Foundation, 29 Nov. 2022, <https://www.pgpf.org/blog/2022/11/nearly-30-million-americans-have-no-health-insurance#:~:text=In%202021%2C%20as%20the%20coronavirus,report%20from%20the%20Census%20Bureau>.

"Key Facts about the Uninsured Population." KFF, 19 Oct. 2021, <https://www.kff.org/uninsured/issue-brief/key-facts-about-the-uninsured-population/>

Venkatesh, V., Zhang, X., & Sykes, T. A. (2011). "Doctors Do Too Little Technology": A Longitudinal Field Study of an Electronic Healthcare System Implementation. *Information Systems Research*, 22(3), 523–546. <http://www.jstor.org/stable/23015593>