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Can Universal Healthcare Improve Health Outcomes in the United States?

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ABSTRACT

Health outcome disparities exist in the United States (U.S.) among different social, racial, and geographic populations as a result of gaps in insurance coverage and social determinants of health (SDOH). These disparities highlight the inequities within the U.S. healthcare system. Universal healthcare remains a highly debated topic in presidential elections due to its potential to address these gaps and improve overall health outcomes. A single-payer system could reduce financial barriers to care, thus enhancing access and outcomes. However, critics argue that implementing universal healthcare in the U.S. may result in unintended consequences, such as longer wait times and a shortage of healthcare infrastructure, potentially worsening health outcomes. Factors beyond insurance coverage – such as socioeconomic status, health literacy, geographic location, and systematic racism – need to be considered when drafting healthcare reforms. This review article aims to assess disparities in healthcare access and outcomes in the U.S., explore the roots of these disparities, and evaluate whether universal healthcare can effectively reduce health outcome disparities.

Introduction

Health outcomes disparities are fundamental in the United States (U.S.) as they are a testament to the inequities of the U.S. healthcare system [1]. Health disparities limit the nation's overall health, increase costs, and reduce productivity [2]. Health outcomes can be positive such as prolonged life expectancy and good mental, physical, and social functioning, or negative like death, loss of function, and poor well-being [3]. Metrics such as mortality rates, life expectancy, and chronic disease prevalence are commonly used to assess health outcomes [3]. However, significant disparities in these outcomes manifest among different racial, ethnic, and geographic populations. As of 2022, Black Americans had an average life expectancy of 72.8 years, 4.7 years shorter than White Americans (77.5 years) [4]. The infant mortality rates for Black (10.9 per 1,000) and American Indian or Alaska Native (AIAN) infants (9.1 per 1,000) were more than double that of White infants (4.5 per 1,000) [4]. Moreover, Black (39.9 per 100,000) and AIAN (32 per 100,000) women also faced higher pregnancy-related mortality rates compared to White (14.1 per 100,000) women [4].

Major chronic diseases (e.g. heart disease, cancer, diabetes, obesity, hypertension) affect approximately 129 million Americans, with the highest prevalence in the Southeast, an area characterized by a sparse population, older residents, socioeconomic disadvantages, and a higher proportion of Black or AIAN residents [5]. It is reported that diabetes rates for Black (16%) and Hispanic (13%) adults are higher than for White adults (11%) [4]. Residents in communities with the highest prevalence of chronic diseases also had to travel substantially longer distances to access healthcare than people in areas with the lowest prevalence [5]. Moreover, rural populations experience worse health outcomes compared to urban populations. In 2014, the death rate in rural areas was 830.5 per 100,000 people, higher than the urban rate (704.3 per 100,000) [6]. Rural Americans are also at higher risk for opioid overdose deaths (45% higher), heart disease, stroke, and cancer compared to their urban counterparts [6, 7].

These disparities in health outcomes are closely linked to unequal access to healthcare and the social determinants of health (SDOH). The American healthcare system is complex, with loosely coordinated interactions between patients, healthcare providers, and health insurance companies [8]. The U.S. operates a multi-payer system with healthcare financed through a mix of public and private sectors. Public insurance programs like Medicare, Medicaid, and Children's Health Insurance (CHIP) cover low-income, disabled, elderly, and pediatric populations, while others must purchase private insurance [9]. As of 2023, 36.1% of Americans were covered by public insurance, 65.6% by private insurance, and 10.8% were uninsured [10]. Health insurance coverage improves healthcare access, but not everyone in the U.S. can afford it, leading to worsened health incomes for the uninsured.

Universal healthcare offers a potential solution to these outcomes. As a single-payer system, universal healthcare entitles all citizens to free healthcare services [11]. Most developed countries have established government-run universal healthcare systems funded by taxes, such as the United Kingdom's Beveridge model, established in 1942, and Japan's statutory health insurance system (SHIS) which covers 70% of the medical bill for citizens [9, 12, 13]. Despite the U.S. spending 17.8% of GDP on healthcare in 2021 – a more expensive healthcare system than the U.K. (11.9%) and Japan (11.1%) – the U.S. has worse health outcomes, such as a shorter life expectancy (77.0 years) compared to the U.K. (80.4 years) and Japan (84.7 years) [14]. Universal healthcare could ensure that all Americans are expected to receive necessary healthcare without the fear of medical debt, thus improving overall health and outcomes; however, some studies highlight potential limitations

This review will examine disparities in healthcare access and outcomes in the U.S., identify the underlying causes of health outcomes disparities, assess the potential benefits and drawbacks of universal healthcare, and discuss future directions for addressing unequal health outcomes.

Causes of Disparities in Health Outcomes

The determinants of health are the factors that influence the health and well-being of individuals and communities [15]. These determinants include social, economic, and physical environments, as well as personal characteristics [15]. Disparities in these factors lead to unequal health outcomes among different groups of people. Health behaviors, which are actions that impact health positively, are influenced by these determinants, especially social and economic factors [16].

Socioeconomic Determinants

The social determinants of health (SDOH) are the conditions in which people are born, raised, and live, including factors like socioeconomic status (SES), physical environment, healthcare accessibility, education, food, housing, neighborhood, and more [4].

Socioeconomic Status (SES) and Healthcare Accessibility

SES significantly impacts health outcomes, with lower SES linked to lower life expectancy, increased chronic conditions, and worse health outcomes [17]. Individuals with lower SES often lack health insurance, fear medical debt, and face inadequate housing and food insecurity, all of which affect healthcare access.

Lack of health insurance: The U.S. health insurance system has numerous gaps. Employer-based insurance is common, but not all employees are offered coverage, or they cannot afford their share of the premium [18]. Approximately 60.7% of non-elderly uninsured employees worked for an employer who did not offer health benefits [18]. Some limited-income individuals do not qualify for Medicaid but cannot afford private insurance [18]. In 2023, premiums for singular coverage averaged $23,968 per year; this had increased by 7% compared to 2022 [19]. However, the

median household income had a 2.3% decline [20]. High costs force many low-income individuals to remain uninsured, resulting in delayed healthcare, which leads to poorer health outcomes [21].

The Affordable Care Act (ACA) by former President Obama lowered the uninsured rate by expanding Medicaid and allowing young adults to stay on a parent's plan until 26 years of age [22]. The uninsured rate among the non-elderly population had decreased from 17.8% in 2010 to 9.6% in 2022, an all-time low [18]. Although the percentage of uninsured Americans is decreasing, the percentage of underinsured Americans is increasing. Underinsured individuals have health insurance; however, out-of-pocket medical costs still represent at least 10% of their household income [23]. The percentage of underinsured adults under the age of 65 in 2005 was 9% and increased to approximately 23% in 2018 [24].

Lack of health insurance contributes to the disparities in healthcare accessibility. Without health insurance, a doctor's visit will cost between $300 and $600 [25]. In 2022, 47.4% of non-elderly uninsured adults reported not seeing a doctor in the last 12 months and 29% reported delaying or not receiving care [18]. This leads to delayed diagnosis of an advanced illness that could have been preventable if these individuals received healthcare earlier. Treatment for chronic diseases such as obesity, diabetes, cardiovascular diseases, and arthritis is one of the most costly health expenses. Chronic diseases occur frequently and may lead to long-term disability, reduced quality of life, hospitalization, or possibly death. According to Raghupathi's report in 2018, approximately 45%, or 13 million Americans suffered from at least one chronic disease in their lifetime [26]. An estimated 75% of healthcare spending was accounted towards treatment for chronic illnesses and diseases, which cost approximately $5,300 per person [26]. These high prices have pressured many Americans to skip doses of needed drugs and medication such as insulin and forgo cancer treatment [24]. An American Hospital Association report claimed that the "high rate of uninsured [patients] puts stress on the broader health care system" since uninsured people "put off needed care and rely more heavily on hospital emergency departments, resulting in scarce resources being directed to treat conditions that often could have been prevented or managed in a lower-cost setting." [27].

Fear of Medical Debt: Medical debt is the money owed by individuals for medical expenses. Medical expenses for an uninsured or underinsured American add up quickly during a medical emergency. The U.S. health industry focuses on profit and often overcharges for basic services, resulting in medical debt for Americans regardless of insurance coverage. More than 100 million Americans, approximately 41% of adults, deal with unpaid medical bills, making medical debt the leading cause of bankruptcy [27, 28]. In 2017, about 33% of Americans with medical bills reported that they were unable to pay for basic necessities like food, and housing [27]. Fear of medical debt prevents individuals from seeking necessary healthcare, further worsening health outcomes.

Other SES Factors: Food, Housing, and Neighborhood: Other SES factors, such as food availability, housing, and neighborhood, also affect health. For instance, the availability of alcohol and fast food in low-income neighborhoods contributes to unhealthy behavior [29]. Substandard housing can lead to lead exposure, causing low cognitive function and stunted physical development in exposed children [29]. Children in socioeconomically disadvantaged neighborhoods face more challenges to health status and health-promoting behaviors. They are more likely to live in an environment with inadequate housing, lower availability of fresh produce, concentrated fast-food outlets, and lack of access to parks, sidewalks, recreation centers, etc [16]. People living in food deserts – neighborhoods and communities with limited access to nutritious foods – often resort to meals from fast-food restaurants and convenience stores, further exacerbating health disparities.

Additionally, environmental factors like pollution and allergens in disadvantaged neighborhoods contribute to higher rates of asthma and other health issues [29].

Health Literacy

Health literacy – the ability to understand and use health information and services – is crucial for positive health outcomes [30]. Patients need to interact with healthcare providers regarding their health, weigh different treatment

options, and understand their medication and treatment. High health literacy is associated with better health outcomes, while low health literacy leads to less use of preventative services, more hospitalizations, higher mortality, and increased medical costs [30]. Individuals with low health literacy are less capable of self-managing their diseases and illnesses, receiving medical attention, and are more likely to have an advanced disease, leading to delayed treatment and poorer health outcomes. Based on the results from the National Assessment of Adult Literacy Survey, 36% of American adults have basic or low health literacy, and non-white populations, the elderly, and non-native English speakers are more likely to have low health literacy, further widening health disparities [30].

Geographic Factors

Geographic location plays a significant role in disparities in healthcare access and health outcomes in the United States. People in rural areas face more challenges in accessing healthcare, including fewer healthcare providers, longer travel distances to healthcare facilities, and higher rates of uninsured residents. Primary care health professional shortage areas (PC-HPSAs) – areas where the population overwhelms the number of healthcare providers – are predominantly rural [31]. Rural communities often face shortages of healthcare professionals such as physicians, nurse practitioners, dentists, and social workers [7]. Only 12% of physicians practice in rural communities, and numerous rural hospitals had to be closed in the last decade due to low patient volume and staff shortages [7]. In 2013, rural areas had 55.1 physicians and 30 specialists per 100,000 residents compared to 79.3 physicians and 263 specialists per 100,000 residents in urban areas [6]. State legislation has further contributed to the disparities in healthcare access in rural areas by prohibiting nurse practitioners and physician assistants from working independently from a licensed physician [31]. This downplays the roles of nurse practitioners and physician assistants in filling in the gaps in rural healthcare [31]. As a result, rural Americans experience worse health outcomes compared to urban Americans, including higher rates of stroke, heart disease, cancer, and chronic lung disease [7].

Systematic Racism and Discrimination

Health disparities are also evident among different racial populations, particularly between Black and White Americans. Black individuals tend to fare worse than their White counterparts in health outcomes, including lower life expectancy, higher rates of maternal mortality, asthma, and more [4]. This partly stems from the disparities in the SDOH between races. Compared to their White counterpart, Black and Hispanic individuals are more likely to have lower education attainment and less wealth, live in crowded housing, and experience food insecurity [4]. These factors influence various health behaviors, resulting in unbalanced health outcomes between different racial populations.

Racism and discrimination further drive disparities in healthcare which lead to unequal treatment and poor health outcomes in non-White Americans [4]. Around 18% of Black adults, 11% of Hispanic adults, and 10% of Asian adults have reported being treated with disrespect or unfairly by their healthcare provider due to their ethnic background [4]. Moreover, there are misconceptions that Black patients have "thicker skin or less sensitive nerve endings," resulting in patients with darker skin tones receiving inadequate pain management [32]. Minority patients, regardless of insurance status, medical condition, or age, are less likely to receive high-quality medical care for conditions like cancer, stroke, and diabetes compared to White patients [33].

How Would Universal Healthcare Improve Health Outcomes?

A universal healthcare model could be a viable solution to numerous problems associated with the current U.S. health insurance system. It could potentially improve health outcomes by addressing major barriers such as lack of insurance and fear of medical debt. These financial barriers often prevent individuals from seeking necessary care, leading to

worsened health outcomes. A universal healthcare system could enable all Americans to have access to healthcare services regardless of SES status.

Due to the emotional stress and burden, fear of medical debt is a significant deterrent, with 41% of American adults reporting medical debt [34]. While medical debt still exists in countries with universal healthcare, the incidence is much lower. For instance, only 2% of the population in the U.K. experienced "catastrophic" health spending [35].

Without the fear of medical debt, more people would seek preventive care and early treatment, leading to better health outcomes and reducing the prevalence of chronic diseases. Uninsured individuals delay going to the doctor, resulting in a delayed diagnosis which may ultimately lead to a preventable death. Currently, the U.S. has the highest rate of avoidable deaths (336 per 100,000 population) among high-income countries: the U.K. (194 per 100,000), Canada (171 per 100,000), and Japan (137 per 100,000); which could be mitigated with universal healthcare [14].

Universal healthcare also correlates with a healthier population with longer life expectancy [36]. The U.S. is the only high-income country without guaranteed health coverage for its citizens, resulting in lower life expectancy (77.0 years) compared to countries with universal healthcare like Japan (84.7 years), Canada (81.7 years), and the U.K. (80.4 years) [14]. Additionally, universal health coverage is linked to lower child mortality, lower depression rates, and a high general sense of well-being [27]. The U.S. also lagged behind in other health outcome metrics. For example, the U.S. had higher infant mortality rates (5.4 deaths per 1,000 live births) and maternal mortality (23.8 deaths per 1,000 live births) than the U.K. (3.6 and 6.5 per 1,000, respectively), Canada (4.5 and 8.4 per 1,000, respectively), and Japan (1.8 and 2.7 per 1,000, respectively) [14]. Similarly, suicide rates and the prevalence of chronic conditions were higher in the U.S. compared to these countries. The suicide rate was 14.1 deaths per 100,000 people in the U.S. compared to 8.4 in the U.K. and 10.5 in Canada [14]. The adults aged 18 and above in the U.S. were more likely to have multiple chronic conditions (30.4 per 100 people) than adults in the U.K. (22.4) and Canada (25.6) [14].

In summary, with universal healthcare, patients may be relieved from medical debt and gain better access to health services, leading to improved health outcomes.

What Problems Could Not Be Solved by Universal Healthcare?

Hypothetically, universal healthcare would improve health outcomes by eliminating financial barriers to healthcare, but critics argue that it could worsen the health of Americans – the opposite of its intended purpose.

The main concern is that increased demand for basic healthcare services, driven by the affordability of universal healthcare, would outpace the supply of healthcare infrastructure. Healthcare infrastructure encompasses everything from medical facilities and equipment to information technology, the healthcare workforce, and public health systems. The government will need to build more hospitals and train more healthcare providers to keep up with the increasing demand. According to the Congressional Budget, increased demand for basic healthcare services will lead to increased wait times for basic healthcare services and procedures [27]. This issue has been observed in countries with universal healthcare like Canada and the U.K. In 2017, Canadians were on waiting lists for over one million procedures with a median wait time of 20-52 weeks for arthroplastic surgery [37]. Similarly, in the U.K., the average wait time for hospital-based services was 46 days, with some patients waiting over a year [37]. While universal healthcare would make healthcare services more affordable, it does not guarantee timely access, potentially leading to deteriorated health outcomes.

Another limitation of universal healthcare is that it does not address the SDOH beyond the ability to afford health insurance, such as health literacy, geographic disparities, and systematic racism. Health literacy, the ability to understand and use health information, is crucial for effective healthcare utilization. However, universal healthcare alone does not improve health literacy. In countries like Canada and the U.K., where universal healthcare is provided, low health literacy remains a significant issue [38]. In Canada, 60% of adults and 88% of seniors lack health literacy

[38]. Similarly, 10 million adults in the U.K. struggle with health literacy [39]. To address this, additional health education programs are needed [38].

Geographic disparities between urban and rural populations are another issue that universal healthcare cannot resolve. Rural areas often suffer from a shortage of healthcare providers and long travel distances to medical facilities, limiting access to care [7]. In Canada, rural males had a lower life expectancy than their urban counterparts (74.0 versus 76.8 years), and rural areas experienced more deaths than urban areas (792 versus 668 deaths per 100,000 population) [40]. The U.K. faced similar challenges, with life expectancy being slightly higher in rural areas than in urban areas and rural residents having longer travel times to hospitals [41]. Universal healthcare does not inherently address these geographic disparities, which require targeted solutions like expanding telehealth services as Canada does and increasing healthcare infrastructure in underserved areas.

Moreover, a universal healthcare system cannot eliminate the racism and discrimination faced by minorities in the healthcare system. Implicit biases among healthcare providers lead to lower-quality care for minorities, which universal healthcare alone cannot rectify [32]. In Canada, Black adults were more than twice as likely to have diabetes as White adults and Indigenous people have also been subject to significant discrimination in healthcare settings [42, 43]. In the U.K., 65% of Black people reported experiencing prejudice from doctors [44]. These systematic issues require broader efforts to address implicit biases and ensure equitable care for all.

Lastly, some populations have better health outcomes despite lower insurance coverage. For example, although Hispanics (18%) and Blacks (10%) were more likely to be uninsured than Whites (7%), Hispanics had a longer life expectancy than Whites (80.0 versus 77.5 years). Additionally, both Blacks (6%) and Hispanics (4%) had lower rates of heart disease or heart attack than Whites (8%) [4]. This suggests that factors other than insurance coverage also play a role in determining health outcomes, highlighting the need for a multifaceted approach to healthcare reform.

Conclusion

In summary, the disparities in health outcomes in the U.S. are deeply rooted in socioeconomic, geographic, and racial factors. These disparities are driven by unequal access to healthcare, differences in health literacy, and systemic racism and discrimination. A universal healthcare system has the potential to reduce financial barriers to care; however, it does not guarantee improved health outcomes due to potential increases in wait times, persistent geographic disparities, low health literacy, and ongoing systemic racism. Addressing these challenges requires a comprehensive approach that goes beyond simply providing insurance.

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