Frontiers in Health Informatics
ISSN-Online: 2676-7104
www.healthinformaticsjournal.com
2024; Vol 13: Issue 8
Open Access

A Study Project To Illuminated The Impact Of The Economic And Demographic Information Inequalities On Medical Services Utilization And Assessments In The Elderly

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Cite this paper as: Yin Chao, Idris Adewale Ahmed, Joo Jie Ching (2024) A Study Project To Illuminated The Impact Of The Economic And Demographic Information Inequalities On Medical Services Utilization And Assessments In The Elderly". *Frontiers in Health Informatics,* (8), 5399-5408

ABSTRACT

With the world experiencing such fast and widespread urbanization, worries about population decrease and aging pose severe threats to sustainability in the long run. This perspective provides a rationale for their partnership by (a) recognizing the opportunities and challenges that ageing and shrinking urban populations present to attaining the United Nations' Sustainable Development Goals (SDGs), and (b) exploring novel approaches to capitalise on opportunities and reduce risks to sustainability. Countless technical, economic, institutional, and governance initiatives, each one designed for a specific setting, will be required to take advantage of and protect against the negative effects of an urban population that is becoming older without sacrificing long-term sustainability. These days, it's hard to imagine modern living without the internet and all the resources it provides. Using cross-national panel data using the World Health Organization's Health Equity Analysis Toolkit (HEAT), this study examines the relationship between Internet access and health inequities by socioeconomic status. The study shows that having internet access greatly improves overall health and reduces health disparities. Furthermore, this study examines the social and economic factors that influence healthcare access using GBD database data from various nations. In instance, having access to the internet both lessens and greatly improves the detrimental effects of wealth disparity on healthcare accessibility.

Keywords: *Disparities in health Availability to healthcare, Industrial disparity, Demographic aging, Demographic Information Inequalities.*

1. INTRODUCTION

In the early 1900s, real GDP per capita was less than one-sixth of what it is now, and the average life expectancy was much lower than 40 years. Several key determinants that propelled economic progress during this time are well described in the economics literature (Mennini et al., 2024). The impacts on health of environmental variables, personal behaviors, and medical treatments are well-established. But there's still a lot of researchers don't know about the connections between health and economic development. This link is difficult to depict since health impacts economic development via several social and economic channels while economic success encourages improved health via a reciprocal causal channel. Furthermore, prosperous economies and healthy people are outcomes of technological and institutional framework advancements. Real identification and traceable scientific models are made more challenging by several difficulties. A robust positive relationship between GDP and health

was found in the research. The "Preston curve," a correlation analysis, reveals that nations with greater per capita GDP also tend to have better health. Certainly, this isn't quite revolutionary; in fact, it has long been recognized that a nation's ability to advance depends on the health of its citizens. The concept of public health was born out of this epiphany. The World Health Organization's Commission on The Study of Macroeconomics and Health report, published in 2001, provided fresh impetus for this realization when it showed that improving health can be viewed as a crucial strategy for raising income and reducing poverty in low- and middle-income nations. In 2005, after this study was completed, statistics about the effect of health on the economy in high-income countries, especially the EU, were reviewed. Increasing investments in human capital is crucial for Europe to become more competitive on the global stage, and newer studies demonstrate substantial financial advantages to healthcare expenditure. Healthcare costs should be considered both a social burden and an economic development engine, according to all of the studies. Although there is a significant disparity in the distribution of health throughout society, most studies investigating the correlation between the two have concentrated on average health (Lee, 2021).

2. BACKGROUND OF THE STUDY

This work fills a crucial knowledge gap by conducting a cross-national investigation of the effects of the Internet on health inequalities and access to medical treatment. This study begins by looking at how various socioeconomic brackets fare when it comes to health disparities caused by a lack of Internet connection. research that shows how more Internet access improves health overall and decreases health disparities. More individuals having access to the Internet may help reduce the income gap in health. After controlling for a plethora of potential confounding factors that affect health inequality estimates, the trend remains. Second, the economic and social factors that affect healthcare access are examined in this research. Income inequality, Internet access, and their interplay as well as the other variables included in the estimate are the specific implications that Researchers focus on. Income disparity makes healthcare more difficult to get, according to studies, but when internet speeds are greater, the converse is true. Internet use also lessens the impact of economic inequality on healthcare access, according to (OECD, 2022). This study primarily presents three key points. This research provides the first explanation of the connection between the Internet and significant health implications. In this paper, Researchers demonstrate that Internet connection significantly affects health disparities and access to medication. Students research indicates that expanding Internet access and lowering obstacles to health information accessibility might have a positive impact on public health initiatives. This research stands out in a number of ways, one of which is its examination of the Internet's function in clarifying the link between economic disparity and healthcare accessibility. Students results highlight the critical role of the Internet in influencing health outcomes by demonstrating that access to the Internet lessens the adverse effects of wealth disparity on healthcare access. Thirdly, health inequalities and healthcare accessibility are better understood because of this study's utilization of representative data. Using cross-country panel data spanning over 20 years and including a wide number of rich and developing nations, this study

provides an empirical evaluation. Researchers can fully use the differences over time and between nations in the calculations because of the broad and thorough data. Future studies on historical health inequalities and technological solutions to public health gaps may benefit from this resource (Kovacs et al., 2023).

3. PURPOSE OF THE RESEARCH

Examining the impact of socioeconomic inequalities on healthcare use and health outcomes among the elderly is the primary objective of this research. This research examines how factors like education level, income, and access to healthcare impact health metrics of older individuals in order to identify disparities in healthcare access and outcomes. Ultimately, the study aims to educate lawmakers and healthcare professionals on the essential linkages between inequality and health to establish targeted initiatives that enhance healthcare accessibility and health outcomes for older persons.

4. LITERATURE REVIEW

In this article, two genres of literature are explored. As it pertains to Internet access, the first group of research looks at how health and economic growth are related. The second body of literature includes studies that investigate healthcare accessibility, health disparities, and the factors that influence and quantify these issues. The Internet has changed the way people communicate and do business by making information easily accessible and exchangeable no matter where they are (Garg et al., 2022). In addition to providing a vast array of goods and services, the Internet's powerful and pervasive capabilities enable access to electronic data for many uses. Thanks to technical advancements in the last few decades, the price per unit of data processing has dropped significantly, and networking speeds have improved noticeably. Although there are still significant geographical differences, the expansion of Internet access was considerably boosted by this enhanced performance and the corresponding decreases in cost throughout the 1990s. The interdependent character of dense networks, web services, and a plethora of applications has led to a greater degree of corporate integration in the modern Internet era. While large corporations and national economies have reaped the benefits of the technological revolution, the empowerment that the Internet has brought has mostly accrued to individuals and small companies. The Internet has far-reaching implications on people's health, in addition to its good benefits on the economy. People have access to health information from sources that were previously unthinkable, thanks to the advent of the Internet, which has significantly decreased informational barriers. Both patients and doctors now have less control over the disclosure of sensitive health information due to the widespread availability of electronic health data. The fact that a staggering number of individuals seek health-related information online is common knowledge. The fact that people's health outcomes are favorably correlated with their Internet access lends support to the view that the Internet is rapidly becoming a beneficial resource for health-related information (Ferreira et al., 2019).

5. RESEARCH QUESTIONS

- In what ways can demographic and economic disparities affect exercise engagement and health outcomes in aging populations?

6. RESEARCH METHODOLOGY:

6.1 Research design:

The analysis of quantitative information was conducted using SPSS version 25. The direction and degree of the statistical association were evaluated using the odds ratio and the 95% confidence interval. Researchers established a statistically significant threshold at $p < 0.05$. A descriptive analysis was used to identify the primary attributes of the data. Data acquired via surveys, polls, and questionnaires, or by the modification of existing statistical data using computing tools, is often assessed mathematically, numerically, or statistically via quantitative methods

6.2 Sampling:

Research participants filled out questionnaires to provide information for the research. Using the Rao-soft programme, researchers determined that there were 875 people in the research population, so researchers sent out 962 questionnaires. The researchers got 945 back, and they excluded 27 due to incompleteness, so the researchers ended up with a sample size of 918.

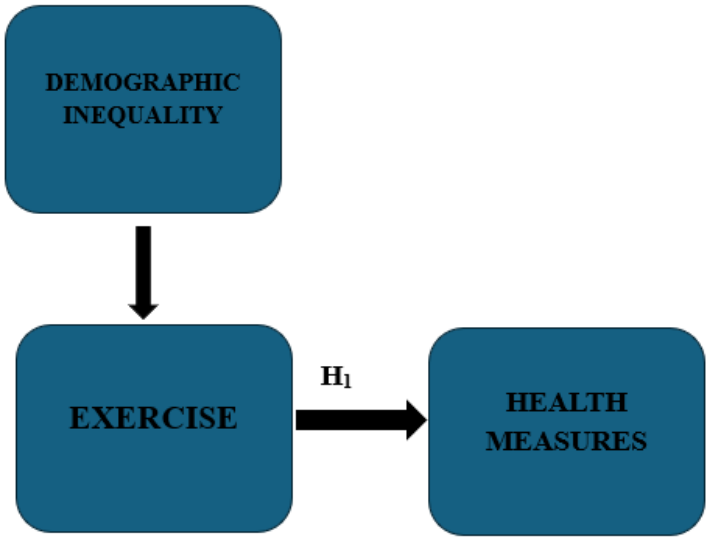
6.3 Data and Measurement:

The major tool for gathering information for the study was a questionnaire survey. Part A of the survey asked for basic demographic information, while Part B asked respondents to rate various aspects of the online and offline channels using a 5-point Likert scale. Secondary data was gathered from a variety of sources, with an emphasis on online databases.

6.4 Statistical Software: The statistical analysis was conducted using SPSS 25 and MS-Excel.

6.5 Statistical Tools: To grasp the fundamental character of the data, descriptive analysis was used. The researcher is required to analyze the data using ANOVA.

7. CONCEPTUAL FRAMEWORK



8. RESULT

❖ Factor Analysis

One typical use of Factor Analysis (FA) is to verify the existence of latent components in observable data. When there are not easily observable visual or diagnostic markers, it is common practice to utilise regression coefficients to produce ratings. In FA, models are essential for success. Finding mistakes, intrusions, and obvious connections are the aims of modelling. One way to assess datasets produced by multiple regression studies is with the use of the Kaiser-Meyer-Olkin (KMO) Test. They verify that the model and sample variables are representative. According to the numbers, there is data duplication. When the proportions are less, the data is easier to understand. For KMO, the output is a number between zero and one. If the KMO value is between 0.8 and 1, then the sample size should be enough. These are the permissible boundaries, according to Kaiser: The following are the acceptance criteria set by Kaiser:

A pitiful 0.050 to 0.059, below average 0.60 to 0.69
Middle grades often fall within the range of 0.70-0.79.
With a quality point score ranging from 0.80 to 0.89.
They marvel at the range of 0.90 to 1.00.

Table1: KMO and Bartlett's Test

Testing for KMO and Bartlett's
Sampling Adequacy Measured by Kaiser-Meyer-Olkin .980
The results of Bartlett's test of sphericity are as follows: approx. chi-square
df=190
sig.=.000

This establishes the validity of assertions made only for the purpose of sampling. To ensure the

relevance of the correlation matrices, researchers used Bartlett's Test of Sphericity. Kaiser-Meyer-Olkin states that a result of 0.980 indicates that the sample is adequate. The p-value is 0.00, as per Bartlett's sphericity test. A favorable result from Bartlett's sphericity test indicates that the correlation matrix is not an identity matrix.

Table: KMO and Bartlett's

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.980
Bartlett's Test of Sphericity	**Approx. Chi-Square**	3252.968
	df	190
	Sig.	.000

Using Bartlett's Test of Sphericity further established the general relevance of the correlation matrices. For Kaiser-Meyer-Olkin sampling, an adequate value is 0.980. The researchers obtained a p-value of 0.00 using Bartlett's sphericity test. The correlation matrix was shown to not be a correlation matrix by a significant test result from Bartlett's sphericity test.

- **INDEPENDENT VARIABLE**
- **Demographic Inequality**

Demographic inequality refers to the disparities that exist across different demographic groups based on characteristics such as age, gender, ethnicity, socioeconomic position, and geographical location. When people don't have equal access to opportunities, resources, and services, it may have a major impact on their health and quality of life. Disparities in wealth are one of the most glaring examples of demographic inequality. Employment, fair compensation, and career advancement may be difficult for certain groups due to institutionalized racism or inadequate educational opportunities. Disparities in wealth have the ability to limit opportunities for upward mobility and perpetuate cycles of poverty, which may affect subsequent generations. Access to healthcare is another critical area where a demographic gap is apparent. Life expectancies and illness rates are higher and more frequent among marginalized people for a variety of reasons, including a lack of access to insurance, high-quality healthcare facilities, and preventive treatment. It may be considerably more challenging for these groups to get healthcare due to language and cultural barriers. Educational attainment is another factor that contributes to demographic inequality. Students from low-income households may attend schools that are underfunded and lack enough resources, which may lead to lower academic attainment. Economic inequality and limited employment opportunities in the future could be worsened by this

ignorance (Tomasz et al., 2020).

- **FACTOR**
- **Exercise**

Exercise is a kind of physical exercise that aims to increase or maintain physical fitness via planned, organized, and repeated movements. Fitness training, or exercise, is a way to build muscle and improve overall physical health. Although they are commonly thought to mean the same thing, this article will make a distinction between exercise and physical activity. Planning, organising, and engaging in repeated physical activity with the goal of improving or preserving health and fitness is known as exercise (Broniatowska, 2019). Despite their close relationship, the two words are not interchangeable and must be used appropriately. Therefore, it is important to differentiate between exercise and physical activity, the latter of which encompasses a wide range of activities.

- **DEPENDENT VARIABLE**
- **Health Measures**

It is necessary to take health measures in order to maintain and improve the health of communities and individuals. They include a wide range of strategies that promote health, support healthy lifestyle choices, and provide access to necessary medical care. One of the most important parts of health programs is public education campaigns that teach people how to eat well, get plenty of exercise, and see a doctor regularly (Cravino et al., 2022). These commercials often target specific health issues, such smoking, obesity, and mental health, in an effort to encourage positive behavioral changes. Vaccination programs are also crucial. By vaccinating populations against infectious diseases, these programs substantially reduce the incidence of infections that can cause major health complications or even death. Officials in charge of public health often stress the importance of herd immunity, which protects populations who are unable to get vaccines. Access to healthcare services is another important health indicator. This includes ensuring that communities have enough healthcare practitioners, affordable prescription pharmaceuticals, and medical facilities. People with mobility challenges or who reside in remote areas now have easier access to healthcare thanks to telemedicine, which has grown in popularity in recent years. Another important step is to pass laws that promote clean environments. This includes ensuring safe housing, reducing pollution, and giving access to drinkable water. In order to stay healthy and improve overall wellness, these components are crucial. There has been a rise in the popularity of mental health programs due to the significant impact that people's mental health has on their overall health. As a result, health programs are increasingly including support networks, counseling services, and educational campaigns to tackle this crucial aspect of health (Gildas et al., 2023).

- **Relationship between Exercise and Health Measures**

For adults, getting moving helps lower the risk of and cope with chronic conditions including diabetes, heart disease, cancer, and obesity. It also boosts brain function, alleviates anxiety and despair, and

improves general health. Signs that someone's relationship with movement and exercise is going well include being consistent with movement, enjoying a variety of activities, getting enough sleep, feeling energized, doing what researcher enjoy, and listening to researcher body - making sure it has enough fuel, rest, and celebration. The following are the most common components of fitness tests: The ability of the heart to use oxygen efficiently is known as aerobic fitness. How powerful and how long students muscles can endure a workout are aspects of muscular strength and endurance. The ability of joints to move through their whole range of motion is a measure of flexibility. Researchers in the field of health measurement use rigorous quantitative and qualitative methodologies to understand patients' and carers' viewpoints and experiences, and then create useful, high-quality assessments for use in research and clinical practice. Exercise is a kind of physical exercise that aims to increase or maintain physical fitness via planned, organized, and repeated movements. Fitness levels may be defined as a combination of health-related and skill-related characteristics. Body composition, strength training, cardiovascular endurance, flexibility, and muscular endurance are the elements that make up health-related fitness (Khalil & Dagher., 2024).

- ***H_{01}: There is no significant relationship between Exercise and Health measures.***
- ***H_1: There is a significant relationship between Exercise and Health measures.***

Table 2: H_1 ANOVA Test

ANOVA					
Sum					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	39488.620	316	5655.517	965.479	.000
Within Groups	592.770	601	5.356		
Total	40081.390	917			

Important findings will be derived from this research. The p-value of.000 (less than the.05 alpha threshold) approaches significance with an F-value of 965.479 A rejection of the null hypothesis and acceptance of ***"H1: There is a significant relationship between Exercise and Health measures"*** is accepted, is accepted and the null hypothesis is rejected.

9. CONCLUSION:

Considering this, researchers have taken a sustainability-focused look at the pros and cons of an urban population that is both becoming older and shrinking, and researchers have come up with some creative solutions to maximize the pros and mitigate the cons. Students research shows that this demographic transition will have far-reaching consequences for the achievement of several SDGs. Here are a few of the most promising new methods: (a) better healthcare that is both accessible and of high quality; (b) changes to the size and layout of parks and other public spaces; and (c) encouraging social inclusion via citizen engagement and the collective production of urban

knowledge. To seize opportunities and eradicate threats posed by aging populations and dwindling sustainability, it is crucial to include setting-specific policy and practice courses. This is because different SDG objectives and geographical circumstances have different underlying reasons. Official statistics may be underestimating the pace of population decrease and aging, therefore immediate action is needed in light of these changes' quickness. In less developed countries that have had a recent demographic change and in research that concentrates on women's and children's health, there is substantial evidence that economic growth is positively associated with health. Reduced birth rates, higher rates of female labor force participation, and more funding for educational opportunities are all outcomes of improved community health. If these things come together, researchers might see a demographic dividend and future sustainable economic growth. It is believed that the human papillomavirus vaccination and iodine supplements, which aim to improve mother and child health, would significantly affect economic growth, advancement, and prosperity in the long run. Even with significant gains in productivity, the situation is more difficult for mature economies. Because they are less likely to be employed, older individuals stand to gain more from efforts to lessen the impact of chronic diseases than younger ones. The degree to which a longer lifespan leads to greater capital growth and efficacy growth will depend on the details of social security systems as well as the potential balancing effects of a longer working life. Another cause for concern is the possible dampening of economic development by inefficient health care spending. Health and health care should not be measured by economic growth, even while there is a clear need for more efficient health care systems in general. The benefits of even little improvements in the health of rich nations would probably exceed the costs of decreased consumption. Because of healthcare's increased accessibility, medical innovation has accelerated, amplifying these benefits even more. Healthcare spending should be prioritized above resolving the widening gap in access to health benefits (Liu, 2023).

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