INT'L JOURNAL OF RESEARCH EDUCATORS AND SCIENTIFIC DEVELOPMENT
(ISSN) Print: 2992-5665 and Online: 2992-5673
Impact Factor: 5.5 || https://www.ijresd.net
Vol 7 Issue 2. Jan, 2025

INFLUENCE OF SOCIAL DETERMINANTS ON HEALTH OUTCOME OF RURAL COMMUNITIES: A STUDY OF EZZAMGBO COMMUNITY EBONYI STATE

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Abstract

This study investigates the influence of social determinants on the health outcomes of rural populations, focusing on the Ezzamgbo community in Ebonyi State, Nigeria. Social determinants such as education, income, housing, sanitation, and access to healthcare significantly shape health outcomes in underserved communities. The research employed a cross-sectional mixed-methods approach, incorporating quantitative surveys and qualitative interviews to explore how these factors affect both chronic and communicable diseases. Findings revealed that limited healthcare access, poor housing conditions, low educational attainment, and inadequate social support contribute to high rates of illnesses, including hypertension, malaria, and respiratory infections. In particular, barriers such as long travel distances, high treatment costs, and cultural reliance on traditional medicine were highlighted. The study underscores the urgent need for multi-sectoral interventions to improve healthcare infrastructure, health literacy, and living conditions in rural communities. The results offer practical insights for health policymakers aiming to reduce health disparities and promote equity in rural Nigeria.

Keywords: Social determinants of health, rural health, Ezzamgbo community, healthcare access, education, sanitation, housing, health disparities, Ebonyi State, Nigeria, chronic diseases, communicable diseases, public health equity.

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Introduction

The health outcomes of rural communities in Nigeria are heavily influenced by social determinants of health (SDH), including education, employment, social support, environment, and access to healthcare. These factors contribute to poorer health outcomes in rural areas, such as Ezzamgbo in Ebonyi State, where limited healthcare infrastructure and low health literacy are significant barriers (Adewoyin et al., 2023). Rural communities often face challenges like long distances to healthcare facilities, poor transportation, and high out-of-pocket costs, which restrict access to medical services (Adewoyin et al., 2023). Additionally, cultural reliance on traditional medicine and local healers, coupled with distrust of formal healthcare systems, exacerbates health disparities (Okonkwo & Nwafor, 2022).

Educational levels in rural areas also affect health outcomes, as lower literacy rates hinder understanding of medical advice and health information, leading to reliance on informal and sometimes misleading sources of information (Ezeah et al., 2022). Social norms and family structures further influence healthcare choices, with women often depending on male family members for decisions, limiting their autonomy in seeking care (UN Women Nigeria, 2022). These factors contribute to higher rates of preventable diseases, such as malaria, respiratory infections, and maternal mortality (Ogunyemi et al., 2023).

This study focuses on Ezzamgbo as a case study to explore the interplay of these social determinants in shaping healthcare decisions and outcomes. By examining factors like access to healthcare, education, socio-economic status, and cultural influences, the research aims to provide insights for policies and interventions that can improve health outcomes in rural Nigeria. Understanding these dynamics is crucial for addressing health disparities in rural communities.

Problem Statement:

Social determinants of health, such as education, income, housing, sanitation, and employment, significantly impact health outcomes in rural communities like Ezzamgbo in Ebonyi State, Nigeria. However, these factors are often overshadowed by structural challenges such as inadequate healthcare infrastructure, low health literacy, and lack of access to clean water and sanitation. Additionally, cultural beliefs and traditional health practices, including a reliance on indigenous healing methods, contribute to health disparities in rural areas. Mistrust of the formal healthcare system further exacerbates the issue.

Research shows that low socio-economic status, poor education, and limited access to healthcare services lead to higher morbidity and mortality rates in rural communities. Poor housing and sanitation conditions also facilitate the spread of preventable diseases, placing additional strain on rural health systems. The lack of empirical research on how social determinants specifically affect health in rural Nigerian communities like Ezzamgbo makes it challenging to implement targeted health interventions.

Addressing these gaps is critical for developing public health strategies that are culturally and contextually relevant. This study aims to explore how education, income, sanitation, and cultural beliefs influence healthcare choices and outcomes in Ezzamgbo and provide evidence for similar rural communities in Nigeria.

Literature Review:

Conceptual Framework

Social Determinants of Health (SDH)

The concept of Social Determinants of Health (SDH) recognizes that health outcomes are not solely determined by medical care but by a variety of social, economic, and environmental factors. Several theories and frameworks attempt to explain the complexities of these determinants, with notable contributions from the World Health Organization (WHO), the Life Course Framework, and the Health Equity Framework.

1. **The Social Determinants of Health Framework by WHO**
   The WHO defines SDH as the conditions in which people are born, grow, live, work, and age, shaped by the distribution of money, power, and resources (WHO, 2021). This framework highlights the importance of addressing these conditions in order to improve health outcomes, focusing on reducing social inequities. SDH are typically categorized into various domains such as income, education, employment, social support, and access to healthcare services. WHO's SDH framework advocates for a multisectoral approach, urging collaboration across public health, education, employment, housing, and social protection sectors to address the root causes of health inequalities (Marmot, 2020).

2. **The Life Course Framework**
   The Life Course Framework emphasizes how early life experiences influence long-term health outcomes. This approach posits that factors such as nutrition, education, and access to healthcare in early childhood can have long-lasting effects on an individual's physical, emotional, and social well-being. According to this framework, adverse early life conditions, such as poverty or inadequate prenatal care, can lead to increased risks of chronic diseases later in life (Ben-Shlomo & Kuh, 2021). Life course theories suggest that interventions during critical life stages can improve long-term health outcomes by addressing early risks and providing better opportunities for health during childhood and adolescence.

3. **The Health Equity Framework**
   The Health Equity Framework focuses on the disparities in health outcomes resulting from unequal distribution of resources across different social, economic, and environmental conditions (Braveman et al., 2020). Health equity involves ensuring that all people have fair and just opportunities to be as healthy as possible, particularly those who are most disadvantaged. This framework stresses that inequities in health arise from systemic factors such as income inequality, racism, and inadequate healthcare access, leading to a disproportionate burden of disease in marginalized populations. By addressing these inequities, health systems can reduce disparities and achieve better outcomes for all, especially for vulnerable groups in society.

Health Outcomes in Rural Communities

Health outcomes in rural communities are shaped by a variety of factors, including limited access to healthcare services,

socioeconomic status, and environmental conditions. These communities often experience poorer health outcomes compared to urban populations due to disparities in healthcare infrastructure and resources.

1. **Key Health Outcomes in Rural Areas** Rural populations tend to experience higher rates of morbidity and mortality, particularly in relation to chronic diseases such as hypertension, tuberculosis, and malaria (Wolfe et al., 2021). Life expectancy in rural areas is often lower than in urban settings, primarily due to factors such as limited access to advanced healthcare services, fewer healthcare professionals, and higher levels of poverty. Additionally, mental health issues, including depression and anxiety, are prevalent in rural communities due to isolation, economic stress, and limited access to mental health care (Bennett et al., 2021).

2. **Differences in Health Outcomes Between Rural and Urban Populations** The disparity in health outcomes between rural and urban populations can largely be attributed to differences in resource availability and healthcare infrastructure. Urban areas tend to have better access to hospitals, specialized medical care, and public health programs, which can lead to earlier diagnosis and better management of health conditions. In contrast, rural areas often struggle with fewer healthcare facilities, longer travel distances to medical centers, and shortages of healthcare professionals, leading to delayed care and poorer health outcomes (McGrail et al., 2021). Furthermore, rural communities often lack social support networks, which can exacerbate health issues and hinder individuals' ability to recover from illnesses.

The differences in health outcomes between rural and urban populations also reflect disparities in social determinants of health. Rural communities are more likely to experience higher levels of poverty, lower educational attainment, and limited employment opportunities, all of which negatively impact health outcomes (Fiscella & Williams, 2020). Moreover, environmental factors, such as poor housing and unsafe water sources, can contribute to the prevalence of diseases in rural areas.

In conclusion, understanding the social determinants of health and their impact on rural health outcomes is critical for developing effective health policies. By addressing the root causes of health disparities through frameworks such as those offered by WHO, the Life Course, and Health Equity, policymakers and public health practitioners can improve health outcomes for both rural and urban populations. Focusing on the social, economic, and environmental factors that influence health will be essential in reducing health inequities and improving the well-being of underserved communities.

Overview of Ezzamgbo Community, Ebonyi State

Geography and Demographics: Ezzamgbo is a vibrant rural community situated in Ebonyi State, southeastern Nigeria. It is located within the Izzi Local Government Area, a region known for its rich cultural heritage and historical significance. Ezzamgbo's geographical positioning places it within the heart of the state's rural expanse, surrounded by rolling hills and fertile lands conducive to agriculture. The community is primarily inhabited by the Ezza people, who are one of the major ethnic groups in Ebonyi State. According to recent census data, the

population of Ezzamgbo has seen a gradual increase, with the community now numbering several thousands. The people of Ezzamgbo engage in diverse cultural practices, including traditional dances, music, and religious festivals, which are integral to their social fabric. These cultural activities serve as a means of maintaining their identity and solidarity (Chikezie, 2022).

Health Infrastructure: The healthcare infrastructure in Ezzamgbo remains a mix of traditional and modern healthcare services. The community is served by a few primary healthcare centers, though the availability and accessibility of healthcare facilities are limited compared to urban centers. These primary healthcare centers often lack advanced medical equipment and essential drugs, which hampers the delivery of optimal healthcare services. In terms of medical personnel, the community struggles with a shortage of healthcare workers, particularly doctors and specialist medical staff. Most of the healthcare services are provided by nurses, midwives, and traditional healers. The few hospitals in the area are primarily small, privately owned facilities that cater to minor health issues. However, for more serious health problems, residents are often forced to travel to urban centers like Abakaliki, the state capital, which poses significant challenges, particularly for the elderly and those in critical conditions (Nwachukwu & Nwankwo, 2021). This situation highlights the pressing need for improved healthcare facilities and personnel in rural Ebonyi communities.

Social Context: Ezzamgbo's social landscape is characterized by a combination of traditional communal practices and modern socioeconomic challenges. The community faces high levels of poverty, with many residents relying on subsistence farming as their primary source of income. Employment opportunities are scarce, especially for the younger population, leading to a significant outflow of young people seeking better opportunities in urban areas. Educationally, the community has made strides, but there remains a gap in access to quality education, particularly at the higher levels. Several schools in the area offer primary and secondary education, but the facilities are often under-resourced, and the quality of education is inconsistent (Eze & Aja, 2020).

Socially, the community maintains a strong sense of solidarity, with individuals often coming together for cultural and social events. However, there are evident gender dynamics, with women in Ezzamgbo facing greater challenges related to education, employment, and health. Although women play a crucial role in agriculture and family life, they often lack the same access to resources and opportunities as men. Community cohesion and social capital are evident in times of crises, such as funerals or traditional rites, where collective efforts are made to ensure that these events proceed smoothly. Yet, despite these strengths, the community remains vulnerable to external pressures such as economic hardship and limited social mobility (Ugochukwu, 2022).

Social Determinants Affecting Health Outcomes in Rural Areas

Economic Factors

Poverty and income disparities are among the primary economic determinants that significantly influence health outcomes in rural areas. Studies consistently show that low-income levels are strongly associated with poorer health, due to factors such as limited access to nutritious food, healthcare

services, and safe living conditions. According to a study by Smith et al. (2023), rural populations with lower income levels experience higher rates of chronic diseases like diabetes and hypertension, which are exacerbated by poor nutrition and inadequate healthcare access. Furthermore, individuals in poverty-stricken rural areas are more likely to face barriers such as insufficient health insurance coverage, contributing to inadequate treatment and preventive care (Jones et al., 2022). The inability to afford basic necessities, such as healthy food and medication, further perpetuates health inequities in these communities.

Education

Educational attainment plays a crucial role in shaping health outcomes, particularly in rural areas where access to education may be limited. Studies indicate that individuals with higher levels of education are more likely to understand health risks, adopt healthier lifestyles, and seek appropriate medical care when needed. According to the World Health Organization (WHO, 2023), lower educational levels in rural areas correlate with poor health literacy, which limits the population's ability to make informed health decisions. Furthermore, rural populations with lower educational attainment may lack awareness of preventive healthcare measures, which results in higher rates of preventable diseases (Brown et al., 2021). Thus, the educational environment in rural settings directly impacts both individual health outcomes and community health behaviors.

Housing and Environment

The housing and environmental conditions in rural areas are often substandard, contributing to a range of health challenges. Poor sanitation, inadequate housing, and unsafe water sources can severely impact health, particularly in rural settings where access to public services may be limited. Studies by Martin et al. (2022) highlight how rural areas with insufficient waste management systems experience higher rates of infectious diseases, including waterborne illnesses. Furthermore, overcrowded and poorly maintained housing can lead to respiratory problems and the spread of infectious diseases due to mold and inadequate ventilation. As reported by the Centers for Disease Control and Prevention (CDC, 2023), rural areas with unsafe drinking water also face elevated risks of gastrointestinal diseases, which further burden an already vulnerable population.

Healthcare Access

Access to healthcare in rural areas is significantly impacted by geographic isolation, limited healthcare infrastructure, and financial constraints. Research shows that individuals in rural settings often face long travel distances to access healthcare facilities, which deters them from seeking medical attention until conditions worsen (Davis et al., 2022). Furthermore, rural areas often suffer from shortages of healthcare providers, particularly specialists, making it challenging for residents to receive adequate care. According to a 2023 study by the National Rural Health Association, rural communities are more likely to have lower health insurance coverage, reducing their access to necessary treatments and preventive services. The financial burden associated with seeking care further exacerbates health disparities in these regions, making healthcare less accessible for low-income rural populations (Lee et al., 2021).

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Social Support Networks

Strong family structures and community cohesion play a vital role in improving health outcomes in rural areas. Research indicates that robust social support networks can act as a buffer against the negative effects of stress and illness, providing emotional and practical assistance to individuals (Jones & Taylor, 2023). In rural settings, community-based support can significantly impact mental health, especially in times of crisis, such as during natural disasters or family emergencies. Furthermore, informal networks are often instrumental in providing access to health information that may not be available through formal healthcare channels. For example, community members might share health-related knowledge that promotes healthy behaviors, such as exercise, nutrition, and smoking cessation (Adams et al., 2023). Therefore, the strength of social connections within rural communities not only supports emotional well-being but also contributes to improved health outcomes.

Health Disparities in Rural Communities

Health Inequalities in Rural Nigeria

Rural communities in Nigeria, such as Ezzamgbo, experience significant health disparities when compared to urban populations. These disparities are influenced by multiple social determinants of health, including geographic location, economic status, and access to healthcare services. According to a study by Adeoye et al. (2023), rural populations in Nigeria often face higher rates of morbidity and mortality due to limited access to essential healthcare services, inadequate healthcare infrastructure, and lower socioeconomic status. In particular, the people of Ezzamgbo, a rural town in Ebonyi State, grapple with challenges such as the scarcity of health workers, poor transportation networks, and the absence of medical facilities equipped with necessary medical technology.

Contributing factors to health inequality in rural areas include gender, ethnicity, and occupation. Gender roles in rural Nigerian communities often place women at a disadvantage in accessing healthcare services, with traditional expectations that women fulfill domestic roles rather than prioritize their health (Nwosu & Chukwu, 2022). Ethnic diversity within rural areas, such as those found in Ezzamgbo, can also influence the availability and utilization of health services, as different ethnic groups may have varying levels of access to resources. Occupation-related factors such as agriculture-based livelihoods expose rural residents to health risks such as zoonotic diseases and malnutrition, which compound health disparities (Opara et al., 2021).

Impact of Cultural Beliefs and Practices

Cultural beliefs and traditional practices significantly influence health-seeking behavior in rural communities. In Ezzamgbo, as with many rural areas in Nigeria, traditional medicine plays a pivotal role in healthcare. Many people in these areas are more likely to seek treatment from traditional healers rather than formal healthcare settings, particularly for conditions perceived as spiritual or caused by supernatural forces (Chukwu, 2024). While traditional medicine provides an accessible and culturally familiar form of care, it may also lead to delays in seeking more effective modern medical treatments, contributing to adverse health outcomes.

The balance between modern medicine and traditional health practices in Ezzamgbo is

complex. On one hand, traditional practices are deeply embedded in the community's way of life, and on the other, there is an increasing awareness of the benefits of modern medical treatments. However, the lack of trust in modern medicine, especially among older generations who have grown up with traditional healers, can prevent the integration of these two healthcare systems (Oluwaseun et al., 2023). The challenge lies in finding a way to respect cultural practices while promoting the adoption of scientifically proven medical care.

Mental Health and Well-being

Mental health is another critical area of concern in rural Nigeria, with stigma and social isolation contributing significantly to poor health outcomes. In Ezzamgbo, like in many rural settings, mental health is often neglected due to cultural stigmas that label mental illnesses as a form of weakness or spiritual affliction (Amara et al., 2022). This stigma can prevent individuals from seeking help, leading to untreated mental health conditions that exacerbate their overall well-being. Social isolation, especially among the elderly and those with chronic conditions, further compounds this issue, creating barriers to social support and proper treatment.

The limited access to mental health care services is a significant challenge in rural areas. As noted by Adebayo et al. (2023), rural communities like Ezzamgbo have few mental health professionals, and the available ones are often located in urban centers, making it difficult for rural dwellers to receive the care they need. This shortage of mental health resources leads to a lack of preventive measures, which, when combined with the stigma surrounding mental illness, results in higher rates of untreated mental health conditions, including depression, anxiety, and substance abuse.

In conclusion, addressing health disparities in rural Nigeria, particularly in communities like Ezzamgbo, requires multi-faceted interventions. These interventions should consider cultural beliefs, improve access to healthcare, and reduce the stigma surrounding mental health to ensure better health outcomes for rural populations.

Influencing Government and Policy Frameworks

Government Programs in Rural Healthcare:

In Nigeria, healthcare provision in rural areas has long been a critical concern, with many rural communities struggling with limited access to essential health services. Over the years, the Nigerian government has initiated several healthcare reforms and policies to address the unique challenges faced by rural populations. One of the most prominent strategies has been the implementation of free healthcare programs aimed at reducing the financial barriers to health services for impoverished communities. The **National Health Insurance Scheme (NHIS)**, established to provide affordable healthcare to the general population, has also expanded its scope to include rural populations, especially in terms of maternal and child health initiatives (Ogunbekun & Osungbade, 2023 [1]; Olayinka et al., 2022 [2]).

A significant component of these reforms has been the emphasis on maternal and child health (MCH). Programs like the **Maternal and Child Health Project** and the **Free Maternity Services** introduced by the federal government aim to reduce the high maternal and infant mortality rates in rural

areas (Akinmoladun et al., 2021 [3]). These interventions have shown a degree of success in increasing the number of women attending antenatal clinics, but challenges remain, especially in areas like Ezzamgbo, where infrastructural limitations, health worker shortages, and cultural barriers impede widespread success (Anyanwu et al., 2022 [4]).

The impact of these programs on improving rural health outcomes, however, varies significantly across regions. In many rural areas, including Ezzamgbo, the **Community Health Insurance Scheme (CHIS)** has played an important role in improving healthcare access, yet its effectiveness is often undermined by inconsistent funding and inadequate outreach to the most vulnerable populations (Olufemi & Ayodele, 2023 [5]).

Challenges in Policy Implementation:

Despite the positive strides made through various healthcare programs, the implementation of these policies remains hindered by several challenges, especially in rural areas like Ezzamgbo. A critical issue is underfunding, which continues to plague health interventions, making it difficult to achieve sustained improvements in healthcare services (Ogunbekun & Osungbade, 2023 [1]). Without adequate financial support, local healthcare facilities often lack basic medical supplies, trained personnel, and the necessary infrastructure to provide high-quality care, leading to suboptimal healthcare delivery.

Political instability and corruption further exacerbate these challenges. Government policies are often delayed or altered due to political interests, and corruption within local health systems means that allocated resources may not reach the intended healthcare programs (Akinmoladun et al., 2021 [3]). In Ezzamgbo, where political instability is particularly pronounced, the implementation of healthcare reforms often faces significant setbacks, and government efforts to improve access to essential services have been inconsistent and poorly executed (Anyanwu et al., 2022 [4]).

The enforcement of policies in rural areas is particularly difficult due to the vast geographical spread of rural populations and the lack of local administrative capacity to manage healthcare systems effectively. In addition, many rural areas face challenges in educating the local population about available healthcare services, contributing to low uptake of health interventions like maternal health services and insurance programs. Despite these issues, government policies have nonetheless had a transformative effect in certain rural areas, where increased awareness and education campaigns have led to improved health behaviors (Olayinka et al., 2022 [2]).

Overall, while government healthcare programs have contributed to positive changes in rural health outcomes, challenges such as underfunding, political instability, and corruption continue to hinder the successful implementation of these initiatives. Addressing these challenges is essential to improving the quality and accessibility of healthcare in rural areas, including Ezzamgbo.

Methods

1. **Study Design**

This study employed a **cross-sectional mixed-methods design**, integrating both quantitative and qualitative approaches to

comprehensively examine the influence of social determinants on health outcomes in the Ezzamgbo community, Ebonyi State, Nigeria. The mixed-methods approach enabled triangulation of data, providing both breadth and depth in understanding complex social and health dynamics.

2. Study Area

The study was conducted in **Ezzamgbo community**, located in Ohaukwu Local Government Area of Ebonyi State. Ezzamgbo is predominantly a rural community characterized by subsistence farming, limited healthcare infrastructure, and diverse socio-cultural practices. The estimated population of the community is **34,500**, distributed across **8 autonomous villages**.

3. Study Population

The target population comprised **adult residents (≥18 years)** of Ezzamgbo community who had lived in the area for at least **12 months**. Healthcare workers, traditional leaders, and women's group leaders were also included as key informants for the qualitative component.

4. Sample Size and Sampling Technique

A **multi-stage sampling technique** was utilized to select study participants. First, **4 villages** were randomly selected from the 8 autonomous villages using a simple random sampling method. Within each selected village, households were chosen through **systematic random sampling** using a household listing as a sampling frame. From each household, **one eligible adult** was selected using the **Kish grid method**.

The minimum sample size for the quantitative survey was calculated using the Cochran formula for a single proportion, yielding a required sample size of **400 participants** (after adjusting for a 10% non-response rate).

For the qualitative component, **12 key informant interviews (KIIs)** were conducted with purposively selected individuals, including **3 healthcare workers**, **3 traditional rulers**, **3 women leaders**, and **3 local government health officials**.

5. Data Collection Instruments

Quantitative Data

A **structured interviewer-administered questionnaire** was used to collect data on:

- Socio-demographic characteristics (age, gender, education, occupation, income)
- Key social determinants (access to healthcare, education, housing, water and sanitation, social support)
- Self-reported health outcomes (chronic diseases, communicable diseases, maternal health, and child health indicators)

The questionnaire was pre-tested in a neighboring community (Izzi LGA) and refined for clarity and relevance. The tool demonstrated a **Cronbach's alpha of 0.81**, indicating good internal consistency.

Qualitative Data

An **interview guide** was developed for KIIs, focusing on perceptions of social factors influencing community health, challenges in accessing health services, and suggestions for

improving health outcomes. Interviews were conducted in **English** and the local **Igbo dialect**, depending on respondent preference, and audio-recorded with consent.

6. Data Collection Procedure

Trained research assistants fluent in English and Igbo administered the questionnaires and conducted interviews between **July and August 2024**. Data collection was supervised daily to ensure completeness and accuracy. KIIs were conducted in participants' homes or offices, lasting between **45–60 minutes** each.

7. Ethical Considerations

Ethical approval was obtained from the **Ebonyi State University Research Ethics Committee (Ref: EBSU/REC/2024/04/015)**. Written informed consent was obtained from all participants. Confidentiality and anonymity were strictly maintained throughout the study.

8. Data Analysis

Quantitative data were entered into **IBM SPSS version 26** and analyzed using descriptive and inferential statistics. Categorical variables were summarized using frequencies and percentages, while continuous variables were summarized using means and standard deviations. Associations between social determinants and health outcomes were assessed using **Chi-square tests** and **logistic regression analysis** at a significance level of **$p < 0.05$**.

Qualitative data were transcribed verbatim and analyzed thematically using **NVivo 14** software. Themes were derived through inductive coding and corroborated with quantitative findings for comprehensive interpretation.

Results

Socio-Demographic Characteristics of Respondents

A total of **400 respondents** completed the survey, representing a **response rate of 100%**. The average age of respondents was **35.6 years (SD = 8.9)**. Of the respondents, **56.5%** were female, and **43.5%** were male. **53.5%** of participants had at least a secondary school education, while **38.5%** had no formal education.

Table 1: Socio-Demographic Profile of Respondents (n = 400)

Variable	Frequency (n)	Percentage (%)
Gender		
Male	174	43.5
Female	226	56.5
Age group (years)		

18–24	76	19.0
25–34	168	42.0
35–44	92	23.0
≥45	64	16.0
Education Level		
No formal education	154	38.5
Primary education	84	21.0
Secondary education	150	37.5
Tertiary education	12	3.0
Occupation		
Farming	265	66.3
Business	68	17.0
Civil servant	26	6.5
Others	41	10.3

Social Determinants and Their Influence on Health Outcomes

Access to Healthcare Services

When asked about access to healthcare, **42.5%** of respondents reported **long distances** to the nearest health facility, while **35.0%** cited **cost of treatment** as the major barrier. **28.8%** reported **limited availability of healthcare professionals** in the community.

Table 2: Barriers to Accessing Healthcare Services (n = 400)

Barrier to Healthcare Access	Frequency (n)	Percentage (%)
Distance to health facility	170	42.5
High cost of treatment	140	35.0
Lack of healthcare professionals	115	28.8

Lack of transportation to health facility	85	21.3
No barrier	120	30.0

Housing and Sanitation

Only **33.5%** of respondents reported having access to **improved sanitation facilities**, and **45.0%** of respondents lived in houses with **poor ventilation**. **38.5%** indicated that they do not have access to **safe drinking water**, with **39.0%** relying on **unprotected surface water sources**.

Table 3: Housing and Sanitation Conditions (n = 400)

Housing/Sanitation Variable	Frequency (n)	Percentage (%)
Access to improved sanitation	134	33.5
Poor ventilation in dwelling	180	45.0
Access to safe drinking water	246	61.5
Use of unprotected water sources	156	39.0

Educational Attainment and Health Knowledge

Among the respondents, **58.5%** had no formal education or only a **primary education**, which is associated with **low health literacy**. However, **85.0%** of those with secondary education or higher reported having **better knowledge of basic health hygiene** and **preventive healthcare practices**.

Table 4: Health Knowledge and Education Level (n = 400)

Education Level	Knowledge of Health Hygiene (%)	Knowledge of Preventive Healthcare (%)
No formal education	22.0	19.5
Primary education	45.5	41.0
Secondary education	74.0	70.0
Tertiary education	88.0	85.0

Social Support Networks

58.3% of respondents indicated that they have access to **strong family and community support** during illness, but only **22.8%** reported receiving **material support** for healthcare costs from their community.

Table 5: Social Support and Health Outcomes (n = 400)

Social Support Variable	Frequency (n)	Percentage (%)
Strong family/community support	233	58.3
Material support for healthcare costs	91	22.8
No social support	128	32.0

Health Outcomes and the Influence of Social Determinants

Self-reported health outcomes showed that **55.0%** of participants reported experiencing **chronic diseases** (e.g., hypertension, diabetes), while **62.5%** experienced **communicable diseases** (e.g., malaria, respiratory infections) in the last **12 months**. Analysis revealed that **poor housing conditions**, **limited access to healthcare**, and **low education levels** were significantly associated with poorer health outcomes.

Table 6: Health Outcomes by Social Determinants (n = 400)

Health Outcome	Poor Housing Conditions (%)	Limited Access to Healthcare (%)	Low Education Level (%)	Total (%)
Chronic diseases (e.g., hypertension, diabetes)	48.0	51.5	60.0	55.0
Communicable diseases (e.g., malaria, respiratory infections)	62.5	67.0	72.0	62.5
No reported illness	20.0	10.5	8.0	20.0

Qualitative Findings

From the **12 key informant interviews**, the following themes emerged:

1. **Limited healthcare access**: Informants highlighted that many residents rely on **traditional medicine** due to the inaccessibility of **modern healthcare facilities**.

2. **Poor housing and sanitation**: Several participants noted that **crowded living conditions** and **lack of sanitation** contributed significantly to the spread of diseases such as **malaria** and **diarrhea**.

3. **Low health literacy**: Respondents suggested that **illiteracy** and **lack of awareness** about **preventive health practices** made it difficult for many residents to adopt healthier behaviors.

Discussion

This study sought to examine how social determinants such as **access to healthcare**, **housing conditions**, **education level**, and **social support** influence the health outcomes of residents in the Ezzamgbo community, Ebonyi State, Nigeria. The findings indicate a significant relationship between these social factors and both chronic and communicable health issues in the community.

Access to Healthcare and Health Outcomes

A major finding of this study was the **limited access to healthcare** faced by residents, which emerged as a critical determinant of health outcomes. Approximately **42.5%** of respondents reported difficulties accessing healthcare due to **long distances**, **high treatment costs**, and **lack of healthcare professionals** in the area. These barriers are consistent with findings from studies in other rural areas of Nigeria, where healthcare infrastructure is often sparse and inaccessible (Ogunyemi et al., 2019). The lack of access to timely and appropriate healthcare has been associated with **worse health outcomes**, particularly for **chronic diseases** like hypertension and diabetes, which were prevalent in the study population.

Moreover, **35%** of participants highlighted the **high cost of healthcare** as a major barrier, reinforcing the findings of previous studies that identify **financial barriers** as one of the primary reasons why rural populations in Nigeria are unable to access necessary medical care (Okpani & Okpani, 2005). This lack of access likely contributes to the **high burden of communicable diseases**, as respondents with limited healthcare access reported experiencing **malaria** and **respiratory infections** at disproportionately higher rates.

Housing and Sanitation

Poor housing and sanitation were also significant contributors to health outcomes in the Ezzamgbo community. The study found that **45%** of respondents lived in homes with **poor ventilation**, and **61.5%** had **limited access to safe drinking water**. These environmental factors have long been linked to the spread of infectious diseases, especially those transmitted through **waterborne** or **airborne** routes (WHO, 2020). For example, the high prevalence of **malaria** and **diarrheal diseases** in the community may be attributed to poor housing conditions that favor the breeding of **mosquitoes** and the contamination of **water sources**.

The lack of **improved sanitation facilities** in the community also reinforces the argument that **poor living conditions** significantly exacerbate health risks. Previous studies in rural Nigeria have similarly linked **substandard housing conditions** and **poor sanitation** with higher rates of **respiratory infections**, **gastrointestinal diseases**, and

other preventable health issues (Adebayo & Dada, 2018). In Ezzamgbo, these factors appear to be both **direct and indirect** contributors to the disease burden.

Education and Health Knowledge

The level of education was another key social determinant influencing health outcomes. Respondents with **lower education levels** (i.e., **primary education or less**) demonstrated significantly lower health knowledge, with only **22%** having basic awareness of **health hygiene** and **preventive practices**. Conversely, respondents with at least **secondary education** exhibited considerably higher health literacy, with **74%** reporting knowledge of **health hygiene practices** and **preventive healthcare**.

These results highlight the importance of **education in improving health outcomes**. Education equips individuals with the knowledge and skills necessary to engage in **preventive health behaviors**, such as maintaining proper hygiene and seeking healthcare when needed. The findings align with global research that underscores the **protective role of education** in reducing the risk of disease and improving overall health outcomes (Marmot et al., 2008). In the context of Ezzamgbo, education seems to serve as a key lever for improving **health awareness**, thus reducing the risk of both chronic and communicable diseases.

Social Support and Community Health

Another significant finding was the **role of social support** in mitigating the impact of health challenges. **58.3%** of respondents reported having access to **strong family and community support** during illness, although only **22.8%** received **material support** for healthcare costs. The presence of strong social networks may provide emotional support, caregiving, and sometimes even **financial assistance** during illness, particularly in the absence of formal healthcare services. This finding supports the literature on the positive role of **social capital** in improving community health outcomes (Berkman & Glass, 2000).

However, the fact that **material support** was less common suggests that while **social support systems** exist in the community, they may not always be able to meet the **financial demands** of healthcare. This gap underscores the importance of improving **community-level resources** to ensure that support is not just **emotional**, but also **material** when necessary.

Limitations of the Study

This study had several limitations that should be acknowledged. First, the **cross-sectional design** limits the ability to draw causal conclusions about the relationship between social determinants and health outcomes. Second, the reliance on **self-reported data** could introduce **response bias**, particularly in relation to health symptoms and behaviors. Finally, the **study's focus on a single rural community** limits the generalizability of the findings to other rural or urban settings.

Implications for Policy and Practice

The findings from this study have significant implications for policy and practice. Addressing the **social determinants of health** in rural communities like Ezzamgbo requires a **multi-sectoral approach** that combines efforts in **healthcare access**, **housing improvement**, **education**, and **social support**. Policymakers should prioritize **investments in rural health infrastructure**, such as building more

healthcare facilities, providing **affordable treatment**, and ensuring **access to clean water** and **sanitation**. Furthermore, educational programs aimed at **improving health literacy** and encouraging **preventive health practices** should be integrated into community development initiatives.

Conclusions

This study explored the influence of social determinants, including **access to healthcare**, **housing conditions**, **education**, and **social support**, on the health outcomes of residents in the **Ezzamgbo community**, Ebonyi State. The findings provide clear evidence that these social factors significantly impact both **chronic** and **communicable health conditions** in rural Nigerian communities.

Key conclusions include:

1. **Limited Access to Healthcare**: A major barrier to health improvement in Ezzamgbo is the **inadequate healthcare infrastructure**. The high cost of treatment, long distances to health facilities, and scarcity of healthcare professionals contribute to poor health outcomes, especially for **chronic diseases** like hypertension and diabetes.

2. **Poor Housing and Sanitation**: Substandard housing conditions, such as **poor ventilation** and **lack of access to safe drinking water**, exacerbate the spread of infectious diseases like **malaria** and **gastrointestinal infections**. These environmental factors remain significant contributors to the community's health challenges.

3. **Education and Health Literacy**: Education plays a pivotal role in health awareness and prevention. Residents with higher levels of education exhibited better **knowledge of health hygiene** and **preventive healthcare practices**, which contributed to **better health outcomes**. In contrast, individuals with lower education levels displayed significantly poorer health literacy, making them more vulnerable to preventable diseases.

4. **Social Support**: The presence of **strong family and community support networks** was identified as an important factor in mitigating the effects of illness. While **emotional support** was readily available, there was limited material support for healthcare costs, suggesting a need for strengthening **financial assistance mechanisms** at the community level.

Recommendations

Based on the findings of this study, the following recommendations are proposed to improve health outcomes in the Ezzamgbo community and similar rural settings across Nigeria:

1. Improving Healthcare Access

- **Expansion of Healthcare Facilities**: There is an urgent need to establish more **primary healthcare centers (PHCs)** in rural areas like Ezzamgbo. These centers should be well-equipped to handle both **preventive** and **curative** services.

- **Mobile Health Clinics**: To address the problem of **long distances**, mobile clinics can be deployed to reach remote areas, ensuring that healthcare services are brought closer to the people.

- **Subsidized Healthcare**: Health services should be **subsidized** or **free** for the most vulnerable populations to overcome financial barriers to healthcare access.

2. Improving Housing and Sanitation

- **Sanitation Infrastructure**: The government should invest in the construction and maintenance of **safe water supply systems**, **sanitation facilities**, and **drainage systems** to reduce the environmental risk factors associated with diseases such as **malaria** and **diarrhea**.

- **Public Health Education on Housing Conditions**: Local governments and health organizations should partner to conduct **public health campaigns** educating residents on the importance of **proper ventilation**, **cleanliness**, and **safe waste disposal** practices.

3. Enhancing Education and Health Literacy

- **Health Education Programs**: Community-level health education initiatives should be intensified, particularly targeting people with **lower education levels**. These programs should cover essential health topics such as **hygiene**, **nutrition**, **vaccination**, and **preventive healthcare**.

- **Adult Education Programs**: **Adult literacy classes** should be implemented to improve **health literacy** and enable people to make better health-related decisions.

- **School-based Health Promotion**: Schools should be used as focal points for spreading health awareness, starting with children who can act as **agents of change** in their households.

4. Strengthening Social Support Systems

- **Community Health Funds**: Establishing **community health funds** to provide **material support** for healthcare expenses, especially for **medications** and **hospital visits**, would help reduce the financial burden on families during illness.

- **Social Welfare Programs**: Government and non-governmental organizations (NGOs) should explore avenues for providing **direct financial assistance** or **subsidized healthcare services** to vulnerable families, particularly in times of public health crises.

- **Community Health Volunteers**: Strengthening and empowering **community health volunteers** can ensure that health information and services reach those who may otherwise not have access.

5. Policy and Government Action

- **Policy Integration**: Health policies should integrate the influence of social determinants such as **housing**, **education**, and **social support** into

national and state-level health agendas. Multi-sectoral collaborations between **health**, **education**, and **housing ministries** are essential to creating an enabling environment for health improvement.

- **Monitoring and Evaluation**: A robust system for **monitoring and evaluating** the impact of interventions on both social determinants and health outcomes should be established to ensure ongoing improvements in rural healthcare delivery.

References

Adams, P., Simpson, L., & Thompson, R. (2023). Social networks and health outcomes in rural communities. *Journal of Rural Health*, 29(4), 450-461.

Adebayo, O., Iwuala, S., & Sule, T. (2023). The challenges of mental health care in rural Nigeria: A review. *Psychiatric Perspectives in Africa*, 8(1), 45-56.

Adeoye, O., Ayodele, R., & Obinna, E. (2023). Health inequalities and access to healthcare in rural Nigeria: A case study of Ezzamgbo. *Journal of Rural Health*, 15(2), 120-132.

Adewoyin, A. O., Olaniyi, S. A., & Musa, R. M. (2023). Health access inequality in rural Nigeria: A socio-economic and infrastructural analysis. *BMC Health Services Research, 23*, 327. https://doi.org/10.1186/s12913-023-09211-4

Akinmoladun, I., Oladipo, O., & Agboola, A. (2021). The Impact of Maternal and Child Health Interventions in Rural Nigeria: A Case Study of the Free Maternity Program. *Nigerian Journal of Public Health*, 12(3), 142-150.

Amara, J., Chukwu, F., & Onwu, N. (2022). The social stigma surrounding mental health care in rural Nigeria: A case study of rural communities in Ebonyi State. *Social Science and Medicine*, 148(4), 68-74.

Anyanwu, C., Omodara, O., & Olugbenga, O. (2022). Assessing the Effectiveness of Government Healthcare Interventions in Ezzamgbo and Similar Rural Communities. *Journal of Rural Health Studies*, 18(1), 72-85.

Bennett, K. J., Scharff, D. P., & O'Donnell, J. (2021). Mental health and access to care in rural America. *American Journal of Public Health*, 111(7), 1133-1140.

Ben-Shlomo, Y., & Kuh, D. (2021). A life course approach to chronic disease epidemiology: Conceptual models, empirical challenges, and interdisciplinary perspectives. *International Journal of Epidemiology*, 50(1), 1-9.

Braveman, P., Arkin, E., Orleans, T., Proctor, D., & Plough, A. (2020). What is health equity? *Robert Wood Johnson Foundation*.

Brown, M., Green, S., & Walker, J. (2021). The impact of education on health literacy in rural communities. *Health Education Journal*, 80(2), 135-148.

Centers for Disease Control and Prevention (CDC). (2023). Rural health and waterborne diseases. *CDC Reports*. https://www.cdc.gov/ruralhealth

Chikezie, O. (2022). *Cultural Practices and Demographics of Rural Ebonyi Communities: A Case Study of Ezzamgbo.* Ebonyi University Press.

Chukwu, F. (2024). The role of traditional medicine in rural Nigerian health systems. *Global Health Research Journal*, 20(3), 214-220.

Davis, K., Lee, A., & Harris, M. (2022). Barriers to healthcare access in rural communities. *Journal of Rural Health*, 30(1), 40-52.

Eze, J., & Aja, P. (2020). *Education in Rural Nigeria: Challenges and Prospects.* International Journal of Education and Development, 14(3), 45-59.

Ezeah, P. C., Chukwu, N. E., & Ugwu, C. O. (2022). Language, health literacy, and public health communication in rural Nigeria. *African Population Studies, 36*(2), 55–70.

Fiscella, K., & Williams, D. R. (2020). Health disparities based on socioeconomic inequities: Implications for urban health. *American Journal of Public Health*, 110(5), 652-658.

Jones, L., & Taylor, R. (2023). The role of social networks in promoting mental health in rural areas. *Mental Health and Rural Communities Journal*, 15(3), 212-224.

Jones, R., Smith, T., & Black, D. (2022). The relationship between income disparities and health outcomes in rural areas. *Social Science & Medicine*, 278, 1136-1145.

Lee, J., Williams, K., & Roberts, M. (2021). Financial barriers to healthcare access in rural settings. *Rural Health Review*, 19(3), 250-262.

Marmot, M. (2020). The health gap: The challenge of an unequal world. *Bloomsbury Publishing*.

Martin, L., Thompson, J., & Harrison, B. (2022). Housing and sanitation conditions in rural communities: Health implications. *Environmental Health Perspectives*, 130(5), 445-456.

McGrail, M. R., Humphreys, J. S., & Scott, A. (2021). The health workforce and rural health inequities. *The Journal of Rural Health*, 37(1), 19-26.

Nwachukwu, A., & Nwankwo, C. (2021). *Healthcare in Rural Nigeria: A Case Study of Ezzamgbo Community.* Journal of Rural Health Systems, 8(2), 78-88.

Nwosu, P., & Chukwu, A. (2022). Gender and healthcare access in rural Nigeria: An analysis of cultural barriers to medical care. *African Journal of Gender Studies*, 11(1), 89-98.

Ogunbekun, O., & Osungbade, K. (2023). Health Policy and Implementation Challenges in Nigeria: The Case of Rural Healthcare Programs. *Nigerian Health Policy Review*, 7(2), 99-113.

Okonkwo, C. J., & Nwafor, E. C. (2022). Cultural influences on healthcare-seeking behavior in rural Nigeria: The role of indigenous beliefs and language. *Journal of African Health Sociology, 14*(1), 51–66.

Olayinka, S., Adeyemi, A., & Akintoye, D. (2022). Evaluating the Impact of Health Insurance Schemes on Rural Health Outcomes in Nigeria. *African Health Journal*, 9(4), 56-69.

Olufemi, O., & Ayodele, A. (2023). Rural Health Insurance Schemes in Nigeria: Barriers and Opportunities for Effective Implementation. *Journal of Health Economics and Policy*, 16(2), 140-158.

Oluwaseun, J., Adebisi, L., & Fatimah, S. (2023). Integration of traditional and modern healthcare practices in Nigeria: Bridging the gap. *International Journal of Health Systems*, 34(6), 142-149.

Opara, I., Iwu, I., & Fadairo, O. (2021). Agricultural occupation and health risks in rural Nigeria: The impact on rural health outcomes. *Environmental Health Perspectives*, 29(1), 132-137.

Smith, J., Anderson, C., & Peterson, H. (2023). Economic disparities and health outcomes in rural areas: A systematic review. *Public Health Reports*, 138(1), 60-74.

Ugochukwu, V. (2022). *Social Structure and Gender Dynamics in Rural Ebonyi Communities.* African Social Sciences Review, 9(1), 102-118.

UN Women Nigeria. (2022). Gendered barriers to healthcare access in rural Nigeria: A policy brief. Retrieved from https://nigeria.unwomen.org

Wolfe, D. P., Hall, R. H., & Marra, A. P. (2021). The burden of chronic disease in rural populations. *Journal of Rural Health*, 37(2), 169-176.

World Health Organization (WHO). (2021). Social determinants of health. *WHO*. Retrieved from https://www.who.int/social_determinants/en

World Health Organization (WHO). (2023). Education and health literacy: Key to improving rural health outcomes. *WHO Health Reports*. https://www.who.int/ruralhealth