

## Effect of Community Self-Intervention on The Health of Rural Dwellers in Khana Local Government Area of Rivers State

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Article History	Abstract
<b>Original Research Article</b>	<i>Assessing health effect of community self-help intervention projects on the people help to guide decision making of stakeholders. This study investigated the effect of community self-intervention on the health of rural dwellers in Khana Local Government Area of Rivers State. This study employed descriptive survey design with a purposive sampling technique. The target population was One hundred and ninety-six (196) community members. The sample size was one hundred and sixty-nine (169) representing 86% of target population, selected using the purposive sampling technique. Participants were interviewed and questionnaires were distributed to elicit usable information. Survey of community self-help projects were carried out. For reliability, test-retest method was adopted at Eteo community in Eleme LGA, which was outside the LGA under study. Collated and analyzed data using Cronbach Alpha gave index of 0.80 instrument reliability. The questionnaires were administered and later retrieved from the respective villages. The data collected were presented using mean, and z-test at 0.05 level of significance. The result showed that to high extent, drilled bore hole had an impact on the overall health of the people as it reduced waterborne diseases (<math>M = 3.19</math>); provided reliable source of clean water (<math>M = 3.07</math>), improved hygiene and sanitation mean rating (<math>M = 2.95</math>), and improved nutrition and food safety (<math>M = 2.78</math>). Also, community-built health facilities have positive impacts on the overall health of the people. In conclusion, self-help project is a relevant strategy for rural development with significant influence on the overall health of the people of Khana Local Government Area, Rivers State. Despite development efforts put in place, health concerns still persist. It was recommended among others that, Government and other development partners should encourage timely and consistent community contributions for the provision of clean and portable drinking water to prevent water borne diseases among rural community population.</i>
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### Introduction

The increasing number of self-help projects initiated and completed by communities themselves also indicates the gaining acceptance of self-help initiatives as a possible strategy for rural community development in Nigeria. In the last few decades of this, community-driven efforts have been exceptionally reported in media across the country as a strong culture of grassroots development. In the former

Western State of Nigeria, self-help projects in selected rural communities increased from 224 to 2,087 between 2015 and 2020 (Aboyade, 2021). It is a trend that highlights the growing role of communities in meeting their own developmental needs.

From a public health perspective, the World Health Organization (2023) described the health impacts tied to

community self-help projects as a systematic assessment of the likely effects—both positive or negative—of policies, programs or interventions on health of populations in relation to the standard bio-psychosocial and environmental dimensions of individual and collective wellbeing, especially among vulnerable groups. Assessing these effects is crucial for policymakers because it allows stakeholders, including community-based organizations (CBOs), local residents, and health professionals to take into account the potential positive and negative consequences related to such initiatives. In the end, this process underpins the design and implementation of better and more inclusive and sustainable development interventions.

The central object of development is the people; meaning that men, women and children who mostly dwell in the rural areas are the focus of development. This is a universal concept, which emphasized the need for man to be creative, organized and disciplined to achieve the objective of development (Otonye-Tamuno & Iroh 2015). Experts in community development have posited that self-help is a strategy for mass mobilization of the people, their resources, skills, and creativity, etc. to achieve self-help goals. Kenny and Connors (2017) said this is done through a broad range of actions and activities, which changes depending on the context. Self-help mechanism provides information needed to identify issues and plan actions. This could include sharing information on local data, good practice around particular identified issue, and relevant programmes and resources that are available in the community that have not been contemplated earlier. It connects with and builds local networks and leaders, undertake community engagement and plan, deliver and evaluate projects and programmes. Self-help strategy helps to arouse community members to have focus on facilitating, recognizing and assessing capability and education of community members and how it can be used for the betterment of the community (Kenny & Connors, 2017).

The government grants to support self-help projects in rural communities is lacking. The health impact of community self-help projects on community members in rural areas is directly affected negatively by inadequate or poor contributions by community members towards self-help projects, poor quality of projects, lack of government supports through provision of grants, attitudes of community-based organizations and very limited sources of fund to support projects. Positive health impact can be assessed using such self-help projects in a given community or region like portable drinking water, a well-furnished health facility in place, good roads, affordable houses, electricity, etc. The absence of these infrastructures as Aboyade (2021) stated inflicts great hardships on

households' health conditions, including debilitation, substantial monetary expenditures, loss of labor and sometimes death not just on the rural dwellers. (Mammud, 2019) posited that poor health affects agricultural production. Treatable conditions often go untreated because of lack of access to healthcare facilities in the rural areas.

Long standing failures in national health development planning largely explain the relatively poor state of rural healthcare delivery in Nigeria. A problem plaguing healthcare delivery is unequal supply of healthcare staff leading to a lack of personnel who are a disadvantage to the local population especially in rural areas. The problem is also aggravated by lack of infrastructure, medical equipment and resources to support healthcare workers. Consequently, rural health services are still underdeveloped and inadequate in their ability to address the future needs of communities. These challenges have been extensively acknowledged in several national health development plans since Nigeria gained independence, but the gap between knowing about them and responding to them remains wide, especially regarding resource allocation. Hence, there is an urgent need to fill up vacant posts of healthcare manpower and strengthen the service delivery system at rural areas. In this respect, the current study investigates how community self-intervention initiatives will affect rural dwellers in relation to health outcomes within the context of some important research questions:

1. What are the positive health impacts of community-built health facilities on the overall health of the people of Khana Local Government Area?
2. What are the health impacts of community drilled bore-hole on the overall health of the people of Khana Local Government Area?

## Methodology

This study employed descriptive survey design with a purposive sampling technique. The target population was One hundred and ninety-six (196) community members were drawn from among CDC, youth council, traders, farmers, social organizations, philanthropists, experts, opinion leaders, chiefs, households and, elders in Khana LGA. The sample size of this study is one hundred and sixty-nine (169) representing 86% of target population. The sample size was selected using the purposive sampling technique. This was done by selecting 52 respondents in Ken-khana; 50 in Babbe District and 67 in Nyo-khana because it has more self-help projects. The primary and secondary sources of data collection were employed. Participants were interviewed and questionnaires were distributed to elicit usable information. Survey of community self-help projects were carried out. The instrument was structured on 4-point Likert rating scale of

very high extent, (VHE); high extent (HE); Low extent (LE); very low extent (VLE). For reliability, test-retest method was adopted at Eteo community in Eleme LGA, which was outside the LGA under study. Collated and analyzed data using Cronbach Alpha gave index of 0.80 instrument reliability. The questionnaires were administered and later retrieved from the respective villages. The data collected were presented using mean, and

z-test at 0.05 level of significance. A weighted mean of 2.50 indicate acceptance of research question, while the null hypotheses would be rejected if the test statistics (z-calculated value) is greater than the z-critical value of 1.96 or less than -1.96.

## Results

The results of the study are shown below:

*Table 1: Mean rating and Standard Deviation of respondents on the health impacts of community drilled borehole on the overall health of the people of Khana Local Government Area.*

Projects	Respondents - 169		Remarks
	$\bar{X}$	SD	
Reduced waterborne disease	3.19	0.31	high extent
Provides reliable source of clean water	3.07	0.33	high extent
Improved hygiene sanitation	2.95	0.34	high extent
Improved nutrition and food safety	2.78	0.36	high extent
<b>Grand Mean and Standard Deviation</b>	<b>3.00</b>	<b>0.34</b>	<b>high extent</b>

*Field work report, 2025.*

Table 1 above revealed impacts of community drilled bore hole on the overall health of the people of Khana LGA. Reduced waterborne diseases is 3.19 mean rating and SD is 0.31; provided reliable source of clean water is 3.07 and SD is 0.33, while SD 0.34. is improved hygiene and sanitation mean rating is 2.95; SD of improved nutrition and food

safety is 0.36 while the mean rating is 2.78. The different mean scores were accepted with a total mean of 3.00 (above mean criterion) and overall SD showed 0.34 indicating community drilled bore hole projects is related or has impact on the overall health of the rural people of Khana Local Government Area.

*Table 2: Mean rating and Standard Deviation of respondents on the positive impacts of community-built health facilities on the overall health of the people of Khana Local Government Area, Rivers State.*

Projects	Respondents - 169		Remarks
	$\bar{X}$	SD	
Improved access to healthcare services	2.97	1.02	high extent
Healthcare by skilled birth attendance	3.08	0.90	high extent
Reduced travel stress and costs	3.00	1.04	high extent
Early diagnosis and treatment	3.31	0.71	high extent
<b>Grand Mean and Standard Deviation</b>	<b>2.94</b>	<b>0.92</b>	<b>high extent</b>

*Field work report, 2025.*

Table 2 above showed that community-built health facilities have positive impacts on the overall health of the people of Khana LGA. Improved access to healthcare services which mean rating indicates 2.97 and SD showed 1.02; healthcare by skilled birth attendance indicated mean rating of 3.08, while SD revealed 0.90; reduced travel stress and cost by pregnant women and the elderly mean rating

indicated 3.00, while SD is 1.04 and early diagnosis and treatment mean rating is 3.31 and SD is 0.71. The various mean scores were accepted with a grand mean of 2.90 (above 2.50 mean criterion) showing that community-built health facilities have positive impacts on the overall health of the people of Khana LGA. The grand SD is 0.92.

## Testing of Hypothesis

**H<sub>0</sub>:** There is no relationship between self-help projects and health impact on the overall health of the people of Khana Local Government Area of Rivers State, Nigeria.

*Table 3: z-test comparison of the Mean Responses of positive health impacts and community self-help projects*

Respondent	N	Mean ( $\bar{X}$ )	SD	df	z-cal	z-crit	remarks
Respondents	169	2.94	1.38	169	0.37	1.96	rejected

$P > 0.05$

Result of z-test on table 3 showed the z-calculated value of 0.37 was less than the z-criterion value of 1.96 at 0.05 level of significance. This means that the null hypothesis there is no relationship between positive health impacts and community self-help projects on the overall health of the people of Khana Local Government Area.

## Discussion of Findings

The findings of the study were discussed below:

Community drilled bore hole can bring major health benefits by providing access to underground water where safe pipe supplies clean and usable water when it is properly sited, constructed and maintained. The health benefits were highlighted to include reduced waterborne diseases, when bore hole replace more dangerous sources of water such as unprotected surface water, open wells etc, incidence of diseases like diarrhea, dysentery, cholera and typhoid fever can drop substantially. Improved hygiene and sanitation by making people have reliable access to cleaner water that enable them improves ability to wash hands, clean household surfaces, manage latrines, etc. Better hygiene reduces spread of infectious disease. It also helps in food preparation and other domestic uses. Better overall health and nutrition can be achieved through access to safe water; it can reduce repeated bouts of illness, meaning children are more likely to retain nutrients, grow normally, attend school more consistently, etc. Otonye-Tamuno (2015) is in support of the above position. He stated that stakeholders (government, community and development partners) should improve on the existing infrastructure such as health centers, and clean, treated borehole water to enhance better living standards for rural people.

Community built health facilities have a significant impact on the residents' health status. Such impacts as stated by Obi et al. (2024) studies have shown that community-built health facilities have the following positive health impacts on the communities: increased accessibility of health facilities, which resulted in higher density of medical facilities is associated with better health status, particularly in low-end communities; accessible health facilities, which

provide medical consultation, diagnoses and treatment services that increased utilization of maternal and obstetric services built close to the communities, with measurable increase in the use of antenatal care, facility-based deliveries and more complicated obstetric services are available for the people in the rural areas; Improved preventive service access and vaccination coverage to community health centres and clinics help deliver preventive care (immunization, screenings etc) more equitably, particularly in underserved areas. Eneh et al. (2023) support this view, stating that having facilities nearby lowers travel time and cost barriers to the benefit of local population. Braide (2021) stated that better management of chronic diseases, non-communicable diseases, improved satisfaction and patient experience, high patient satisfaction and monitoring, education and early detection of diseases take place with health facilities availability in the rural areas. Asor et al. (2019) went further to state that availability of health facilities is cost-effective and reduced healthcare costs by reducing distance, improving access, preventing disease progression, the cost burden on both households and the health system (e.g from emergencies, hospitalizations) is reduced.

It was noted that the rural areas have been neglected by government at all levels and the absence of needed infrastructural development such as schools, water, health centres, markets, roads, and electricity, etc. in promoting the development of rural communities have made community members to initiate self-help projects to better their living conditions, particularly their health condition. Okawa (2016) collaborated on the said failure of government to initiate or mobilize local efforts to bring about needed development. Stebbins (2021) noted that the neglect brings about significant planning problems such as inadequate infrastructure and limited access to facilities that improve quality of life like clean water, electricity, reliable transportation systems and health facilities.

## Conclusion

The study concludes that self-help activities serve as an appropriate and relevant approach to rural development,

with a significant impact on the health status of residents in Khana Local Government Area of Rivers State. Although there have been various efforts to develop the communities, health problems are still prevalent. However, the study noted that a large sense of disease awareness with consciousness was developed in the residents through community self-help projects. Such initiatives have helped improve living environment and thus contributed to the larger objectives of sustainable development and community well-being.

## Recommendations

The following recommendations were made based on the findings of the study:

- Government and other development partners should encourage timely and consistent community contributions for the provision of clean and portable drinking water to prevent water borne diseases among rural community population.
- The State and Local Government should provide more health facilities and refurbish existing ones to meet medical needs of rural people.
- Stakeholders (government, community and development partners) should provide more solar lights particularly to cater for health equipment and others in the rural communities.

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