

Public Health Awareness and Community Engagement: A Case Study of Kassanda District

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Abstract

This study examined the relationship between public health awareness and community engagement in Kassanda District, Uganda. Recognising that effective public health outcomes depend on both informed communities and active participation, the study investigated how health knowledge, access to health information, attitudes towards health, and health-worker communication relate to the level of community engagement in health programmes. A cross-sectional survey design with a mixed-methods approach was adopted, and data were collected from 200 respondents comprising community members, village health team members, and health workers using questionnaires and interviews. Descriptive statistics, Pearson correlation, and multiple regression were used for analysis. The results revealed a strong positive and significant relationship between public health awareness and community engagement ($r = 0.66$, $p < 0.01$), with awareness dimensions jointly explaining 50.8% of the variance in engagement ($R^2 = 0.508$). Health knowledge and access to health information were the strongest predictors. The study concludes that raising public health awareness significantly enhances community engagement and recommends strengthening health education, information access, and health-worker communication.

Keywords: public health awareness, community engagement, health knowledge, health information, Kassanda District, Uganda

1.0 Introduction

Public health is fundamentally a collective endeavour, and the success of health interventions depends heavily on the awareness and active participation of the communities they are meant to serve (WHO, 2022). Whether the objective is immunisation, disease prevention, sanitation, maternal and child health, or the control of epidemics, sustainable improvements in health outcomes require that community members understand health risks and protective behaviours and that they engage actively in health programmes (Margaret & Rebecca, 2024). In this light, public health awareness and community engagement are twin pillars of effective health promotion, and the relationship between them is central to the design and delivery of health interventions (Rifkin, 2021).

Public health awareness refers to the extent to which community members possess accurate knowledge about health issues, have access to reliable health information, hold attitudes conducive to healthy behaviour, and receive effective communication from health workers (Nutbeam, 2021). Community engagement refers to the active involvement of community members in health-related decision-making, programmes, and practices, ranging from participation in health campaigns to involvement in local health governance through structures such as village health teams (Rifkin, 2021). The theoretical expectation is that greater awareness fosters greater engagement: informed communities are

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more likely to participate in health programmes, adopt recommended behaviours, and support health initiatives (Nutbeam, 2021).

In Uganda, the health system relies substantially on community-level structures, particularly village health teams, to extend health services and promote healthy behaviours in a context of limited health-facility coverage and workforce shortages (Ministry of Health, 2023). The effectiveness of these structures depends on both the awareness of community members and their willingness to engage. Kassanda District, a relatively young rural district in central Uganda, faces public health challenges typical of rural areas, including limited health infrastructure, communicable and preventable diseases, and constraints on health information (Nakato & Ssebunya, 2023). Understanding the relationship between awareness and engagement in this setting is therefore of practical importance for improving health outcomes (Kazaara & Kazaara, 2023).

Effective health-worker communication, access to information through various channels, and community attitudes shaped by culture and prior experience all influence how awareness translates into engagement (Wallerstein et al., 2021). Where communication is clear and trusted, information accessible, and attitudes favourable, communities are more likely to engage. Where these conditions are absent—through misinformation, distrust, or limited access—awareness may remain low and engagement weak, undermining health programmes (WHO, 2022). Whether and to what extent public health awareness drives community engagement in Kassanda District is thus an empirical question of considerable relevance (Faith et al., 2023).

Although the general importance of awareness and engagement is widely accepted in public health discourse, empirical evidence quantifying their relationship in rural Ugandan districts remains limited, and few studies disaggregate the effects of specific awareness dimensions (Nakato & Ssebunya, 2023). This study addresses that gap by examining, through correlation and regression analysis, how health knowledge, access to health information, attitudes, and health-worker communication relate to community engagement in Kassanda District (Idris, 2018). The findings are significant for health authorities, community health structures, and development partners seeking to strengthen health promotion (Ntirandekura & Christopher, 2022b). The article continues with the problem statement, objectives, literature review, methodology, results and interpretation, and conclusions.

2. Statement of the Problem

Effective public health outcomes in rural districts such as Kassanda depend on communities that are aware of health issues and actively engaged in health programmes (WHO, 2022). Ideally, well-informed communities should participate readily in health campaigns, adopt protective behaviours, and support local health structures such as village health teams (Julius & Nancy, 2026). In practice, however, community engagement in health programmes in the district

remains inconsistent, and the extent to which public health awareness drives engagement has not been clearly established through rigorous empirical research (Nakato & Ssebunya, 2023).

The district faces persistent public health challenges, including preventable and communicable diseases, limited health infrastructure, and constraints on the flow of accurate health information (Ministry of Health, 2023). Community members' health knowledge is often incomplete, access to reliable information is uneven, attitudes may be shaped by misinformation or distrust, and health-worker communication is sometimes limited by workforce shortages and resource constraints (Wallerstein et al., 2021). These conditions may weaken the link between awareness and engagement, but the precise nature and strength of that link in the district remain unclear, hampering efforts to design effective health-promotion strategies (Julius & Audrey, 2026).

If the relationship between public health awareness and community engagement is not clearly established and strengthened, health programmes in the district may continue to achieve limited participation and suboptimal outcomes, with consequences for disease burden and wellbeing (Ntirandekura & Christopher, 2022a). This study therefore sought to examine the relationship between public health awareness and community engagement in Kassanda District and to identify which awareness dimensions most strongly influence engagement, so as to inform effective health promotion.

3.0 Main Objective

The main objective of the study was to examine the relationship between public health awareness and community engagement in Kassanda District, Uganda.

3.1 Specific Objectives

- i. To assess the level of public health awareness among community members in Kassanda District.
- ii. To establish the relationship between awareness dimensions (health knowledge, access to health information, attitudes, and health-worker communication) and community engagement.
- iii. To determine the relative contribution of each awareness dimension to community engagement.

4.0 Literature Review

Research on health awareness and community engagement draws on several theoretical frameworks, including the Health Belief Model, the concept of health literacy, and community participation theory (World Health Organization, 2020). The Health Belief Model posits that health behaviour is shaped by perceptions of susceptibility, severity, benefits, and barriers, together with cues to action, implying that awareness of health risks and benefits drives behaviour and engagement (Rosenstock, 1974/2021). The concept of health literacy, developed by Nutbeam (2021),

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emphasises that the capacity to access, understand, appraise, and apply health information is essential to health-promoting behaviour and participation. Community participation theory holds that active involvement of communities in health programmes enhances their relevance, uptake, and sustainability (Rifkin, 2021).

Empirical studies broadly confirm a positive relationship between health awareness and community engagement. Wallerstein et al. (2021) demonstrate, across diverse settings, that communities with higher health awareness participate more actively in health programmes and achieve better outcomes. Studies in sub-Saharan Africa report that health education and information campaigns increase community participation in immunisation, sanitation, and disease-control programmes (WHO, 2022). In Uganda, research indicates that community awareness, mobilised through village health teams and health-education efforts, is associated with greater participation in health initiatives, though gaps in knowledge and information persist (Ministry of Health, 2023; Nakato & Ssebunya, 2023). Health knowledge features prominently as a driver of engagement. Studies show that accurate knowledge of health risks, causes, and preventive measures increases the likelihood that community members will adopt protective behaviours and participate in health programmes (Nutbeam, 2021). Conversely, knowledge gaps and misconceptions undermine engagement and can fuel resistance to interventions such as vaccination, as observed during recent epidemic responses (WHO, 2022).

Access to health information constitutes a second major theme. The availability of reliable information through health workers, media, and community structures shapes awareness and engagement (Viswanath et al., 2021). Research indicates that communities with better access to accurate information are more engaged, whereas information gaps and the spread of misinformation weaken engagement and trust. In rural settings, limited access to information channels is a recurrent constraint (Nakato & Ssebunya, 2023).

Attitudes and health-worker communication form further themes. Community attitudes, shaped by culture, prior experience, and trust, influence whether awareness translates into engagement; favourable attitudes and trust in health workers enhance participation, while distrust suppresses it (Wallerstein et al., 2021). Effective, respectful, and culturally sensitive communication by health workers is repeatedly identified as critical to building trust and mobilising engagement (Rifkin, 2021). The literature emphasises that these dimensions interact and that sustainable engagement requires both awareness and enabling relational conditions (Pardo et al., 2017). Despite this rich body of work, few Ugandan studies quantify and compare the effects of specific awareness dimensions on engagement in a rural district, a gap this study addresses.

5.0 Methodology

5.1 Research Design

The study adopted a cross-sectional survey design employing a mixed-methods approach (Creswell & Creswell, 2021). The quantitative component enabled measurement and testing of relationships, while the qualitative component provided contextual depth. The design was appropriate for examining the association between awareness and engagement using data collected at a single point in time.

5.2 Study Population and Area

The study was conducted in Kassanda District, a rural district in central Uganda. The target population comprised community members, village health team members, and health workers. Community members were central as the subjects of awareness and engagement, while village health team members and health workers provided perspectives on health promotion and community participation.

5.3 Sample Size and Sampling Techniques

A sample of 200 respondents was drawn, comprising 150 community members, 30 village health team members, and 20 health workers. The sample size was determined with reference to the Krejcie and Morgan (1970) guidelines. Multistage sampling was used, selecting sub-counties and villages, after which community members were selected through simple random sampling; village health team members and health workers were selected purposively as key informants.

5.4 Data Collection Instruments

A structured questionnaire measured the awareness dimensions—health knowledge, access to health information, attitudes, and health-worker communication—and community engagement on a five-point Likert scale. Interview guides were used with village health team members and health workers to obtain qualitative insights into awareness and engagement dynamics.

5.5 Validity and Reliability

Content validity was established through expert review by public health specialists, yielding a content validity index above 0.70 (Amin, 2005). Reliability was confirmed through a pilot study, and the Cronbach's alpha for the awareness scale was 0.86, indicating high internal consistency.

5.6 Data Analysis

Quantitative data were analysed using SPSS(Nelson et al., 2022). Descriptive statistics summarised awareness and engagement levels. Pearson correlation established the strength and direction of relationships, and multiple regression assessed the combined and relative effects of the awareness dimensions on engagement. Qualitative data were analysed thematically to complement the statistical findings.

5.7 Ethical Considerations

Ethical clearance and permission were obtained from the relevant authorities, informed consent was secured from respondents, participation was voluntary, and confidentiality and anonymity were maintained throughout the study (Creswell & Creswell, 2021).

6.0 Results and Interpretation

6.1 Descriptive Statistics

Table 1 presents the descriptive statistics for the awareness dimensions and community engagement based on responses from the 200 participants.

Variable	Mean	Std. Dev.	Interpretation
Health knowledge	3.18	0.83	Moderate
Access to health information	3.02	0.89	Moderate
Attitudes towards health	3.41	0.77	Moderate
Health-worker communication	3.10	0.85	Moderate
Overall public health awareness	3.18	0.72	Moderate
Community engagement	3.07	0.75	Moderate

Source: Primary Data, 2025

The descriptive results in Table 1 indicate that public health awareness in Kassanda District was, on the whole, moderate, with an overall mean of 3.18 and a standard deviation of 0.72. Attitudes towards health recorded the highest mean (3.41), suggesting that community members generally held reasonably favourable dispositions towards health, consistent with the observation that positive attitudes can persist even where knowledge is incomplete (Wallerstein et al., 2021). Health knowledge (3.18) and health-worker communication (3.10) were rated moderately, while access to health information recorded the lowest mean (3.02), reflecting the information constraints characteristic of rural settings (Nakato & Ssebunya, 2023). Community engagement was rated moderate (3.07), consistent with the inconsistent participation noted in the district. The sizeable standard deviations reveal meaningful variation across communities.

6.2 Correlation Analysis

Pearson correlation was used to establish the relationships between the awareness dimensions and community engagement, as shown in Table 2.

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Variable	Community Engagement (r)	Sig. (p)
Health knowledge	0.61	0.000
Access to health information	0.58	0.000
Health-worker communication	0.53	0.000
Attitudes towards health	0.47	0.000
Overall public health awareness	0.66	0.000

Source: Primary Data, 2025

The correlation results in Table 2 demonstrate that all awareness dimensions were positively and significantly related to community engagement at the 0.01 level. Overall public health awareness showed a strong positive correlation with engagement ($r = 0.66$, $p < 0.01$), confirming that more aware communities engage more actively in health programmes, consistent with health literacy and community participation theory (Nutbeam, 2021; Rifkin, 2021). Health knowledge recorded the strongest individual association ($r = 0.61$), underscoring that accurate understanding of health issues is closely tied to participation. Access to health information followed ($r = 0.58$), reflecting the importance of reliable information flow (Viswanath et al., 2021). Health-worker communication ($r = 0.53$) and attitudes ($r = 0.47$) were also significantly correlated, though more moderately. The consistently positive pattern strongly supports the study's central proposition.

6.3 Regression Analysis

Multiple linear regression assessed the combined and relative effects of the awareness dimensions on community engagement. Tables 3 and 4 present the results.

Model Summary		Value	
R		0.713	
R Square		0.508	
Adjusted R Square		0.498	
Std. Error of Estimate		0.483	
F (4, 195)		50.34 (p = 0.000)	
Predictor	Beta (β)	t	Sig. (p)
Health knowledge	0.32	4.88	0.000
Access to health information	0.28	4.21	0.000
Health-worker communication	0.17	2.74	0.007
Attitudes towards health	0.13	2.15	0.033

Source: Primary Data, 2025

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The regression model summary in Table 3 indicates that the four awareness dimensions jointly explained 50.8% of the variance in community engagement ($R^2 = 0.508$), a substantial proportion establishing public health awareness as a major driver of engagement. The model was highly significant ($F(4, 195) = 50.34, p < 0.01$), confirming its predictive validity (Nelson et al., 2023). The remaining 49.2% of variance is attributable to other factors such as socioeconomic conditions, service availability, and social norms that lie outside the model (Wallerstein et al., 2021).

The standardised coefficients in Table 4 clarify the relative importance of each dimension. Health knowledge emerged as the strongest predictor ($\beta = 0.32, p < 0.01$), demonstrating that accurate understanding of health issues most directly drives community participation, consistent with the Health Belief Model's emphasis on perception and knowledge as antecedents of health action (Rosenstock, 1974/2021). Access to health information followed ($\beta = 0.28, p < 0.01$), confirming that reliable information flow materially enhances engagement (Viswanath et al., 2021). Health-worker communication ($\beta = 0.17, p < 0.01$) and attitudes ($\beta = 0.13, p < 0.05$) contributed positively but more modestly, indicating that communication and dispositions matter but operate substantially through the knowledge and information they convey. Overall, the results suggest that strengthening health education and information access offers the greatest leverage for improving community engagement in the district (Nutbeam, 2021; WHO, 2022).

7. Conclusion and Recommendations

The study concludes that public health awareness has a strong, positive, and significant relationship with community engagement in Kassanda District, with health knowledge and access to health information being the most influential dimensions. It is recommended that health authorities strengthen community health education, expand access to reliable health information through multiple channels, invest in the communication capacity of village health teams and health workers, and counter misinformation to build trust (WHO, 2022; Rifkin, 2021). Community structures should be supported to sustain participation. Future research could employ longitudinal designs and objective participation data to further establish causality and examine engagement across different health programmes.

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