

Influence of Community Awareness Campaigns and Community Leaders' Engagement on Promoting Universal Birth and Death Registration in Elgeyo Marakwet County, Kenya

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ABSTRACT

Birth and death registration are essential to a functional civil registration and vital statistics (CRVS) system, providing legal identity and generating data for governance and planning. Devolved counties in Kenya's rural regions have rarely been examined on whether their community-led strategies, awareness creation and leadership mobilization, translate into measurable registration gains. This gap is notable in Elgeyo Marakwet County, where birth registration coverage stands at approximately 62 percent and death registration at about 25 percent, both below national and WHO benchmarks. This study examined the influence of community awareness campaigns and community leaders' engagement on universal birth and death registration in the county, guided by the Health Belief Model, Diffusion of Innovations Theory, and Community Participation Theory. It adopted a convergent parallel mixed-methods design. Quantitative data came from 392 household heads sampled through a multistage procedure across Keiyo North and Keiyo South sub-counties, while qualitative data were drawn from 12 purposively sampled key informants. Quantitative data were analysed using descriptive statistics, Pearson correlation, and multiple regression; qualitative data were analyzed thematically. Descriptive results showed positive perceptions of both community awareness campaigns ($M = 4.12$, $SD = 0.924$) and community leaders' engagement ($M = 4.24$, $SD = 0.830$). Both variables correlated significantly with universal registration ($r = .339$ and $r = .265$, $p < .01$). In the regression model, community awareness campaigns remained a significant independent predictor ($\beta = .229$, $p < .001$), while community leaders' engagement lost independent significance once other interventions were controlled for ($\beta = .002$, $p = .976$). Qualitative findings showed leaders' authority reinforced, rather than independently drove, awareness and outreach. The study concludes that awareness creation is a primary, independent driver of registration behaviour, while leaders' engagement operates mainly through awareness. It recommends institutionalizing multi-channel awareness programmes and embedding leader-led registration drives within existing administrative structures.

Keywords: community awareness campaigns, community leaders' engagement, civil registration, birth registration & death registration.

INTRODUCTION

Background to the Study

Universal Birth and Death Registration, commonly referred to as Civil Registration and Vital Statistics (CRVS), plays a critical role in linking community-level interventions with the accurate documentation of vital events such as births and deaths. Evidence from India shows that community mobilization, awareness

campaigns, and the integration of health workers into registration processes have significantly improved birth registration rates by bringing services closer to households (Adair & Li, 2023). In several African countries, including Ghana and South Africa, community-driven approaches have similarly been used to bridge the gap between formal registration systems and underserved populations, with the use of community health volunteers and local leaders in awareness creation significantly improving rural registration rates (AbouZahr et al., 2015).

In Kenya, efforts to improve civil registration have included policy reforms, digitization of records, and the integration of registration services within health facilities, yet disparities persist across regions. Rural and hard-to-reach counties continue to experience lower registration rates due to limited awareness, distance to registration centres, and weak notification systems (Kenya National Bureau of Statistics [KNBS], 2023). In Elgeyo Marakwet County, community-led interventions have been introduced to address these challenges, yet their effectiveness remains insufficiently documented, particularly with regard to which specific interventions independently drive registration outcomes once other strategies are accounted for.

Community awareness campaigns play a central role in promoting birth and death registration by increasing knowledge of its importance and procedures. Evidence from Ethiopia shows that targeted community sensitization programmes significantly improved birth registration uptake by addressing misconceptions and informing households of legal requirements and benefits (Gebreyesus et al., 2020). Engagement of community leaders is a further critical intervention: traditional leaders, village elders, and religious figures hold significant authority and trust within communities, making them effective agents for mobilization and behaviour change. Studies in Nigeria and Uganda have shown that the involvement of community leaders in civil registration initiatives leads to increased participation and improved reporting of vital events (World Bank, 2021).

This study draws on three theoretical perspectives, selected for their distinct explanatory contributions rather than as an interdependent set. The Health Belief Model (Rosenstock, 1974) offers a vocabulary for understanding how community awareness campaigns function as external cues to action that shift individual perceptions of the risks and benefits of registration. The Diffusion of Innovations Theory (Rogers, 2003) helps explain how community leaders, functioning as opinion leaders, legitimize and accelerate the spread of registration practice through existing social networks. The Community Participation Theory (Arnstein, 1969) contributes a complementary lens on the depth of community ownership underlying both interventions. Each theory illuminates a different mechanism by which community-level action might translate, or fail to translate, into improved registration coverage, and together they frame the analysis presented in this paper.

Statement of the Problem

Birth and death registration are essential components of a functional civil registration system, providing legal identity and enabling access to services such as healthcare, education, and social protection. The World Health Organization recommends at least 80 percent coverage for birth and death registration to ensure reliable data for planning and policy-making (World Health Organization [WHO], 2022). In many settings, community-led interventions involving health workers and local leaders have been shown to improve registration coverage by increasing awareness, facilitating notification, and linking households to formal systems (Baseri et al., 2021; Edward et al., 2019).

Despite these global lessons, Elgeyo Marakwet County continues to face significant challenges in achieving comprehensive birth and death registration. According to the Elgeyo Marakwet County Government (2023), birth registration coverage is approximately 62 percent, well below the national average of 78 percent, while death registration is critically low at about 25 percent. This means that nearly four out of ten children lack legal identity, and three out of four deaths go unrecorded in the county, limiting effective public health surveillance, resource allocation, and evaluation of health interventions. Although the county has implemented facility-based registration, mobile outreach, and community sensitization programmes, there has been limited systematic evaluation of how well specific community-led interventions contribute to improving these rates.

Existing research in Kenya has largely focused on national trends or urban areas, with limited attention to county-level evaluation of community-led strategies. Odhiambo et al. (2020) and Muriithi et al. (2021)

identified challenges in civil registration but did not assess the influence of community engagement on improving coverage, while Wakibi and Ngure (2021) highlighted barriers such as ignorance and logistical costs in Kilifi County without systematically evaluating intervention effectiveness. There are currently two undetermined aspects of the Elgeyo Marakwet case with serious practical implications: first, whether community awareness campaigns retain an independent statistical influence on registration once other community-level factors are accounted for, and second, whether community leaders' engagement operates as an independent driver or as a mechanism that works through awareness and outreach. This paper addresses this gap by evaluating the effectiveness of two community-led interventions, community awareness campaigns and community leaders' engagement, in promoting universal birth and death registration in Elgeyo Marakwet County. These two interventions are reported here as part of a broader study that also examined community-led notification systems and Community Health Promoter integration.

Objectives Of The Study

This paper was guided by the following two objectives:

- a) To determine the influence of community awareness campaigns on promoting universal birth and death registration in Elgeyo Marakwet County, Kenya.
- b) To assess the influence of community leaders' engagement on promoting universal birth and death registration in Elgeyo Marakwet County, Kenya.

Research Hypotheses

H0₁: Community awareness campaigns have no statistically significant influence on promoting universal birth and death registration in Elgeyo Marakwet County, Kenya.

H0₂: Community leaders' engagement has no statistically significant influence on promoting universal birth and death registration in Elgeyo Marakwet County, Kenya.

LITERATURE REVIEW

Conceptual Review

For the purposes of this article, community awareness campaigns are defined as organized efforts to educate community members about the importance and procedures of birth and death registration, using strategies such as community drama performances, public barazas, local-language radio programmes, posters and flyers, and school-based sensitization. This is a narrower and more actionable construct than general civil literacy: a household may be broadly aware that registration exists as a legal requirement while remaining unaware of the specific procedures, timelines, or venues through which registration is completed, a distinction with direct implications for how sensitization content should be designed and targeted.

Community leaders' engagement is defined as the active involvement of community leaders, including chiefs, sub-chiefs, elders, and religious leaders, in mobilizing community members, promoting registration, and endorsing birth and death registration activities. This construct is distinguished from general community leadership in that it specifically concerns leaders' visible participation in registration-focused activity, such as leader-led registration drives, public advocacy, and collaboration with civil registration officers in identifying unregistered cases, rather than their broader administrative authority. Distinguishing conceptually between a community's state of awareness and its leaders' state of active registration-focused engagement is what allows the present study to test, rather than assume, the distinct and joint contribution each intervention makes to registration outcomes.

Empirical Review

This section examines findings from prior field-based and data-driven studies that have explored how community awareness campaigns and community leaders' engagement support and improve the registration of births and deaths, drawing on documented research evidence of what has been tested, observed, and learned in practice.

Community Awareness Campaigns and Universal Birth and Death Registration

Syed, Haque, and Rahman (2022) evaluated structured community sensitization activities for their effect on birth registration coverage in rural Bangladesh, using a quasi-experimental design comparing communities exposed to awareness campaigns against control groups across 600 households sampled through multistage random sampling. The study found that structured community sensitization significantly improved birth registration coverage in exposed communities relative to controls, but it examined birth registration exclusively, without extending to death registration, and did not adopt a mixed-methods approach that could enrich understanding of the contextual factors shaping outcomes. The current study addresses these gaps by examining both birth and death registration and by combining household surveys with key informant interviews in Elgeyo Marakwet County.

Adair and Li (2023) examined the impact of social mobilization and awareness on the timeliness of vital event registration in India using a longitudinal descriptive design and a sample of 1,240 parents and guardians, drawing on structured interview schedules and registration logbook audits. The study found that exposure to media campaigns was positively correlated with timely registration completion, offering a strong global perspective on information dissemination, though the cultural drivers of registration in South Asia differ from the Kenyan Nilotic context, and the study's focus on birth registration left death-related awareness unexamined. The current study addresses these gaps by focusing on the Kenyan context and examining both birth and death registration outcomes.

Akpan (2021) researched the effectiveness of grassroots communication strategies in promoting civil registration in Akwa Ibom State, Nigeria, using a cross-sectional survey of 375 respondents drawn through the Yamane formula and a five-point Likert scale questionnaire focused on the frequency of communal "town crier" announcements and radio jingles. The study found that grassroots communication strategies significantly improved awareness of civil registration procedures, but relied solely on self-reported data without triangulating against registry records or qualitative interviews. The current study addresses this gap by triangulating self-reported data with key informant interviews and document review, and by examining actual influence on registration outcomes rather than awareness alone.

Wakibi and Ngure (2021) analyzed the link between local understanding of civil documentation protocols and registration habits among 420 household heads and mothers with children under five in Kilifi County, Kenya, using a cross-sectional descriptive design and structured questionnaires. The study found a positive correlation between public knowledge and registration action, but stopped short of analyzing structured sensitization programmes as intentional, strategic interventions. This presents a specific conceptual opening that the current study fills by measuring the direct influence of organized community awareness drives, rather than general knowledge levels, on comprehensive birth and death registration.

Community Leaders' Engagement and Universal Birth and Death Registration

Bhatia, Garfinkel, and Heise (2021) examined the influence of traditional and religious leaders on vital event reporting in Bangladesh through a qualitative inductive design, gathering data through key informant interviews with 50 community leaders and imams and analyzing it thematically. The study found that religious authority, when mobilized for civil registration purposes, significantly increased reporting rates, but relied solely on qualitative findings without quantifying leaders' impact on registration rates numerically. The current

study addresses this gap through a mixed-methods approach that establishes a statistical relationship between leaders' engagement and registration outcomes.

Kamara (2020) researched the engagement of paramount chiefs in strengthening the National Civil Registration Authority in Sierra Leone through a case study design targeting 14 chiefdom's, using observation checklists and interview guides to determine how a chief's "authority voice" affects parental compliance with registration laws. The study found that chiefs' authority significantly influenced parental compliance with registration requirements, though its case-study design limits generalization to the devolved unit of a Kenyan county. The current study addresses this gap through a descriptive survey design with a larger sample across two sub-counties in Elgeyo Marakwet County, enabling broader generalization.

Sarki and Ahmad (2020) investigated the role of traditional and community leaders in promoting birth registration in rural northern Nigeria using a mixed-methods approach sampling 250 households and 20 community leaders across five rural communities, combining structured household surveys with key informant interviews. The study found that community leaders played a significant role in mobilizing households for birth registration, but the research focused narrowly on birth registration without examining death registration or systemic community engagement processes. The current study addresses this methodological and contextual gap by examining both birth and death registration and by evaluating structured leader engagement within a county setting.

Basera et al. (2021) synthesized evidence from community surveillance systems across several countries in a scoping review of 43 studies, examining the design and implementation of community involvement strategies including leader engagement. The review found that community involvement strategies, including leader engagement, were associated with improved vital event reporting, but the studies reviewed did not specifically evaluate community leader engagement as a discrete intervention for civil registration outcomes. This underlines the need for empirical studies that examine this engagement as a distinct independent variable, which the current study fills.

Theoretical Framework

This study draws on the Health Belief Model (Rosenstock, 1974), the Diffusion of Innovations Theory (Rogers, 2003), and the Community Participation Theory (Arnstein, 1969), applied as complementary rather than competing explanations for how the two community-led interventions examined in this paper shape registration behaviour.

The Health Belief Model is directly applicable to this study in explaining how community awareness campaigns function as external "cues to action" that trigger registration behaviours. Within this framework, community awareness campaigns, including radio broadcasts, public barazas, school programmes, and drama performances, serve as external stimuli that increase perceived susceptibility (recognizing that failure to register a child's birth may deny them legal identity and access to services) and perceived severity (understanding that unregistered deaths compromise public health surveillance and inheritance rights), while simultaneously communicating perceived benefits and addressing perceived barriers such as misconceptions about cost, distance, and administrative complexity. In data interpretation, higher scores on awareness items are treated as stronger cues to action expected to correlate positively with registration outcomes, and the regression analysis tests whether awareness campaigns independently predict registration once other community-led interventions are controlled for, consistent with the model's proposition that cues to action are significant behavioural determinants.

The Diffusion of Innovations Theory is directly applicable to this study in explaining how community leaders' engagement facilitates the spread of registration practice through social networks. Community leaders, chiefs, elders, and assistant chiefs function as "opinion leaders" within Rogers' framework: their endorsement legitimizes registration as an innovation and accelerates its adoption across the community, while their visible personal compliance demonstrates the innovation's relative advantage, compatibility with cultural values of protecting children and honouring the deceased, and observability. In data interpretation, respondents who

report higher levels of leader involvement are expected to demonstrate higher registration rates because leaders serve as trusted conduits for adoption, and the regression analysis tests whether leaders' engagement retains this predictive effect independently or whether it is instead absorbed by its shared variance with awareness campaigns and other more proximate interventions, consistent with the theory's framing of opinion leaders as facilitators rather than sole drivers of adoption.

The Community Participation Theory contributes a complementary reading of community leaders' engagement by framing leader-led mobilization and collaborative identification of unregistered cases as expressions of genuine partnership rather than token consultation, in Arnstein's terms. Where leaders' engagement reflects substantive shared ownership of registration outcomes rather than symbolic involvement, the theory predicts more durable behaviour change; where it remains largely ceremonial, its effect on registration should be expected to depend heavily on the presence of other, more direct mechanisms such as awareness campaigns, a pattern the regression and qualitative findings in this paper are read against.

Research Gap

Three gaps can be distinguished from the literature reviewed above. First, while global and African studies such as Syed, Haque, and Rahman (2022) and Adair and Li (2023) demonstrate a positive relationship between structured awareness activity and registration outcomes, these studies focus on birth registration alone and are not situated in a Kenyan ASAL-adjacent or devolved-government context, leaving open the question of whether the same relationship holds when both birth and death registration are considered jointly. Second, the leader-engagement literature, exemplified by Bhatia et al. (2021), Kamara (2020), and Sarki and Ahmad (2020), establishes that traditional and religious leaders' authority meaningfully shapes registration compliance, but relies predominantly on qualitative or single-intervention designs that cannot establish whether leaders' engagement retains independent statistical influence once other community-level interventions are accounted for. Third, Kenyan county-level evidence, including Wakibi and Ngure (2021) in Kilifi County and Odhiambo et al. (2020) and Muriithi et al. (2021) more broadly, documents general knowledge-registration associations and systemic challenges but does not evaluate structured awareness campaigns and leader engagement as distinct, simultaneously modelled interventions. As such, no published study has jointly and quantitatively tested the independent and relative contributions of community awareness campaigns and community leaders' engagement to universal birth and death registration in a Kenyan devolved county, the specific gap this paper addresses.

RESEARCH METHODOLOGY

Research Design

The study adopted a descriptive survey design nested within a convergent parallel mixed-methods framework, in which quantitative and qualitative data were collected concurrently, analyzed separately, and integrated at the interpretation stage (Creswell & Plano Clark, 2017). This design was selected because the research questions required both a statistical assessment of the strength and direction of the relationship between the two community-led interventions and universal registration, and a qualitative account of how those interventions operate in practice. While the study examines “influence,” the design supports statistical association and prediction rather than strict causality: correlation and regression analyses identify significant predictors and patterns of association, but causal claims would require a quasi-experimental design with control groups, so “influence” is interpreted throughout as a statistically significant predictive relationship within the limits of a descriptive survey design.

Study Area and Target Population

The study was conducted in the Keiyo North and Keiyo South sub-counties of Elgeyo Marakwet County, an area characterized by demanding topography, underdeveloped infrastructure, and registration coverage below 50 percent for both births and deaths at the time of the study. The two sub-counties were purposively selected because they represent the county's most geographically diverse terrain, spanning both highland plateau and

Kerio Valley settings, exhibited the lowest civil registration rates in the county, and hosted active community-led interventions providing sufficient variation in the study's independent variables. The target population comprised household heads in the two sub-counties, together with civil registration officers, assistant chiefs, and Community Health Promoters directly involved in registration-related activity.

Sampling

A sample of 399 household heads was determined using the Yamane (1967) formula at a 95 percent confidence level, applied to a target population of 219,926 residents of the two sub-counties, and selected through multistage sampling combining stratification by sub-county with simple random selection of households within each ward; 392 questionnaires were completed and returned, a response rate sufficient for the statistical analyses reported below. A purposive sample of 12 key informants, comprising four assistant chiefs, four Community Health Promoters, and four civil registration officers, was drawn for in-depth interviews on the basis of their direct involvement in civil registration activity and their capacity to provide expert, contextualized perspectives that could not be obtained through random household selection.

Variables and Measurement

Community awareness campaigns, the first independent variable examined in this paper, were operationalized through six Likert-scale statements covering community drama performances, public barazas, local-language radio programmes, posters and flyers, school-based awareness programmes, and campaigns' overall contribution to timely registration.

Community leaders' engagement, the second independent variable, was operationalized through five statements covering leader-led registration drives, advocacy by chiefs and elders, leader-initiated public meetings, collaboration in identifying unregistered cases, and community trust in leaders as a participation facilitator. The dependent variable, universal birth and death registration, was measured through indicators of registration coverage, timeliness, and completeness. Two further community-led interventions, community-led notification systems and Community Health Promoter integration, were measured alongside the two variables reported here and included as statistical controls in the regression model in Table 4, but fall outside this paper's central research questions.

Data Collection and Analysis

Quantitative data were collected using a structured questionnaire combining demographic items with five-point Likert-scale items for the two independent variables and the dependent variable, while qualitative data were collected through semi-structured key informant interviews. Content validity was established through expert review, and pilot testing conducted in the neighbouring West Pokot County returned Cronbach's alpha coefficients of 0.722 for community awareness campaigns and 0.744 for community leaders' engagement, both above the 0.70 threshold recommended by Taber (2018) for a reliable research instrument.

Quantitative analysis was conducted in SPSS, with descriptive statistics summarizing the distribution of responses on each item, Pearson correlation testing the strength and direction of association between each independent variable and universal registration, and multiple regression testing whether each variable retained independent predictive value once the other community-led interventions examined in the wider study were controlled for, which is the test that directly addresses hypotheses H01 and H02. Qualitative data from key informant interviews were analyzed thematically to enrich and triangulate the quantitative findings (Mugenda & Mugenda, 2019; Kothari & Garg, 2022).

Ethical Considerations

The study obtained institutional ethics approval and a National Commission for Science, Technology and Innovation (NACOSTI) research permit prior to data collection, alongside courtesy approvals from the County Commissioner's office and local administrative leaders.

Participation was voluntary and based on written informed consent; respondents were briefed on the study's purpose and their right to withdraw at any stage without penalty. Questionnaires and interview guides did not collect directly identifying information, demographic data were reported only in aggregate, and all research instruments and electronic data were stored securely and accessible only to the researcher, in line with the Kenya Data Protection Act, 2019.

RESULTS AND DISCUSSION

Descriptive Analysis: Community Awareness Campaigns

Respondents evaluated six statements relating to community drama performances, public barazas, radio programmes in local languages, posters and flyers, school awareness programmes, and the overall contribution of campaigns to timely registration. The findings are summarized in Table 1.

Table 1: Community Awareness Campaigns and Universal Birth and Death Registration

Statement	Mean	Std. Dev.
Community drama performances have increased awareness of birth and death registration.	3.73	1.209
Public barazas effectively communicate the importance of birth and death registration.	4.31	0.798
Radio shows in local languages improve understanding of registration processes.	3.99	0.931
Posters and flyers in public places enhance community awareness of registration services.	3.95	1.040
School awareness programmes encourage families to register births and deaths.	4.40	0.753
Community awareness campaigns contribute to timely registration of births and deaths.	4.36	0.813
Aggregate Mean	4.12	0.924

Source: Research Data (2026)

The descriptive results in Table 1 indicate that respondents held moderately to strongly positive perceptions of community awareness campaigns, with an aggregate mean of 4.12 (SD = 0.924). The highest-rated item was that school awareness programmes encourage families to register births and deaths ($M = 4.40$, $SD = 0.753$), a finding of particular significance because schools are trusted rural institutions whose programmes can create an intergenerational information flow, with children carrying registration messages back to their parents. This aligns with Syed, Haque, and Rahman (2022), who found that school-based awareness programmes were among the most effective modalities for improving birth registration coverage in rural Bangladesh. Community awareness campaigns' contribution to timely registration received the second-highest rating ($M = 4.36$, $SD = 0.813$), reinforcing the Health Belief Model's proposition that external cues to action trigger registration behaviour (Rosenstock, 1974).

Public barazas were also rated highly ($M = 4.31$, $SD = 0.798$), consistent with evidence that interactive, in-person community sensitization forums are effective at addressing misconceptions about registration procedures. Radio programmes in local languages ($M = 3.99$, $SD = 0.931$) were identified as an effective

medium for reaching rural populations with limited connectivity, aligning with Akpan (2021), who found local-language radio to be a key channel for civil registration messaging in Akwa Ibom State, Nigeria. Posters and flyers ($M = 3.95$, $SD = 1.040$) and community drama performances ($M = 3.73$, $SD = 1.209$) received comparatively lower and more variable ratings, suggesting that their effectiveness depends on implementation quality, literacy levels, and the extent to which they convey actionable procedural information rather than general messaging. Overall, the aggregate mean of 4.12 corroborates Adair and Li (2023), who demonstrated a significant positive relationship between media-based awareness campaigns and registration timeliness in rural India, and Wakibi and Ngure (2021), who established a similar relationship between public knowledge and registration action in Kilifi County, Kenya.

Descriptive Analysis: Community Leaders' Engagement

Respondents evaluated five statements covering leader-led registration drives, advocacy campaigns by chiefs and elders, leader-initiated public meetings, collaboration in identifying unregistered cases, and the role of community trust in leaders as a facilitator of registration participation. The findings are summarized in Table 2.

Table 2: Community Leaders' Engagement and Universal Birth and Death Registration

Statement	Mean	Std. Dev.
Leader-led registration drives increase the number of registered births and deaths.	4.15	0.844
Advocacy campaigns by chiefs and elders positively influence registration practices.	4.29	0.778
Leader-initiated public meetings help address challenges related to registration.	4.14	0.889
Collaboration with local chiefs and elders improves identification of unregistered cases.	4.38	0.778
Community trust in local leaders enhances participation in registration activities.	4.23	0.862
Aggregate Mean	4.24	0.830

Source: Research Data (2026)

Table 2 shows that respondents held strongly positive perceptions of community leaders' engagement in civil registration, with an aggregate mean of 4.24 ($SD = 0.830$). The highest-rated item was that collaboration with local chiefs and elders improves identification of unregistered cases ($M = 4.38$, $SD = 0.778$), reflecting the intimate knowledge that traditional leaders hold of household composition, including home births and deaths that may go unreported. This is consistent with Kamara (2020), who found that the 'authority voice' of chiefs significantly affects compliance with registration laws in Sierra Leone. Advocacy campaigns by chiefs and elders ($M = 4.29$, $SD = 0.778$) and community trust in local leaders ($M = 4.23$, $SD = 0.862$) were similarly rated highly, aligning with Bhatia, Garfinkel, and Heise (2021), who found that religious and traditional authority, when mobilized for civil registration, significantly increased reporting rates in Bangladesh.

Leader-led registration drives ($M = 4.15$, $SD = 0.844$) and leader-initiated public meetings ($M = 4.14$, $SD = 0.889$) also received positive ratings, with relatively consistent perceptions across the sample, echoing Sarki and Ahmad (2020), who found that the effectiveness of leader engagement in rural northern Nigeria depends on leader credibility and the alignment of registration messages with existing cultural values. The overall aggregate mean of 4.24 supports the Community Participation Theory (Arnstein, 1969), which holds that

community ownership and active involvement are critical for sustainable development outcomes, and the Diffusion of Innovations Theory (Rogers, 2003), within which community leaders function as opinion leaders whose endorsement shapes broader community adoption of registration practices.

Correlation Analysis

Pearson correlation analysis, conducted as part of the wider study covering four community-led interventions, established that both community awareness campaigns ($r = 0.339$, $p < 0.01$) and community leaders' engagement ($r = 0.265$, $p < 0.01$) had a positive and statistically significant association with universal birth and death registration, providing initial support for rejecting H01 and H02 at the bivariate level.

Community leaders' engagement was also positively correlated with community awareness campaigns ($r = 0.443$, $p < 0.01$), suggesting that the two interventions are conceptually and operationally interrelated rather than fully independent. Table 3 summarizes these results.

Table 3: Pearson Correlation Results

Variable	r	p-value	N	Sig.
Community Awareness Campaigns	.339**	< .001	392	Sig.
Community Leaders' Engagement	.265**	< .001	392	Sig.
Community Awareness Campaigns × Community Leaders' Engagement (inter-correlation)	.443**	< .001	392	Sig.

**Correlation is significant at the 0.01 level (2-tailed). Source: Research Data (2026)

Multiple Regression Analysis

A multiple linear regression model, which jointly examined all four community-led interventions studied in the wider research, explained 18.6 percent of the variation in universal birth and death registration ($R^2 = 0.186$; $F(4, 387) = 22.148$, $p < 0.001$), confirming that community-led interventions collectively and significantly predict registration outcomes. Table 4 presents the regression coefficients for the two interventions covered in this paper. The model's R^2 of 0.186 indicates that community-led interventions explained 18.6% of the variation in registration outcomes, while other factors remained unaccounted for. Structural factors such as distance, costs, documentation, cultural practices, and socio economic status may also influence births and deaths registration. Future studies should incorporate these factors to provide a more comprehensive understanding of registration outcomes.

Table 4: Regression Coefficients

Predictor	B	Beta	t	Sig.
Community Awareness Campaigns	.175	.229	4.286	.000
Community Leaders' Engagement	.002	.002	.030	.976

Dependent Variable: Universal Birth and Death Registration. Source: Research Data (2026)

As shown in Table 4, community awareness campaigns remained a statistically significant independent predictor of universal birth and death registration after controlling for the other interventions in the wider study

($\beta = 0.229$, $t = 4.286$, $p < 0.001$), confirming that awareness-building activities independently drive registration behaviour, consistent with the Health Belief Model's emphasis on cues to action. On this basis, H01 is rejected: community awareness campaigns have a statistically significant influence on promoting universal birth and death registration in Elgeyo Marakwet County.

Community leaders' engagement, by contrast, did not retain independent statistical significance once the effects of the other interventions were controlled for ($\beta = 0.002$, $t = 0.030$, $p = 0.976$), so H02 cannot be rejected on the basis of the multiple regression model. This does not mean that leaders' engagement is unimportant: its significant bivariate correlation with registration ($r = 0.265$, $p < 0.01$) and its positive, significant coefficient in a simple regression run in isolation ($\beta = 0.265$, $p < 0.001$, $R^2 = 0.070$) confirm a directionally consistent and meaningful influence.

Rather, its distinct explanatory power appears to be statistically absorbed by its shared variance with the other, more proximally connected interventions examined in the wider study, indicating that leaders' engagement functions primarily as a facilitative and enabling mechanism, operating through and alongside awareness campaigns, rather than as a standalone driver of registration outcomes, a pattern consistent with Basera et al. (2021) and with the Diffusion of Innovations Theory's framing of opinion leaders as facilitators rather than sole engines of adoption.

Qualitative Findings

Key informant interviews corroborated the quantitative findings. Regarding awareness campaigns, a civil registration officer noted that barazas and radio programmes have been the most effective tools, particularly when chiefs convene community meetings to explain registration requirements, while assistant chiefs highlighted the multiplier effect of school programmes, in which children carry registration messages back to their parents, creating an inter generational information flow that other modalities do not achieve as readily.

Regarding leaders' engagement, informants described an authority-credibility nexus in which chiefs' and assistant chiefs' endorsement of registration carries considerable moral and administrative weight. One civil registration officer explained that chiefs and assistant chiefs are their most important field partners, since community members take registration seriously once a chief announces it at a baraza, given that failure to comply can affect other administrative processes. At the same time, informants described leaders as facilitators who amplify, rather than replace, the impact of awareness campaigns and household-level outreach: participation rates were reported to be noticeably higher in sub-locations where a chief personally endorsed a registration drive than where a campaign was led by outreach officers alone. Informants also noted that consistency remains a challenge, as leaders' multiple administrative responsibilities create gaps between engagements during which community members may forget or delay registration. These qualitative accounts reinforce the regression finding that leaders' engagement operates most effectively as a complementary mechanism embedded within a broader ecosystem of awareness campaigns and other community-led interventions.

CONCLUSION

Based on the findings, the study concludes that community awareness campaigns significantly contribute to improving universal birth and death registration in Elgeyo Marakwet County. Awareness strategies such as school programmes, local radio broadcasts, public barazas, and sensitization forums enhance public understanding of registration processes and motivate households to register births and deaths within the required timelines, making awareness creation a fundamental and statistically independent driver of improved registration behaviour.

The study further concludes that community leaders' engagement plays a facilitative rather than an independently decisive role in strengthening registration activities. Chiefs, elders, and local administrators led legitimacy, trust, and mobilization capacity to registration exercises, and their engagement is positively and significantly associated with registration at the bivariate level. However, because this effect did not remain

statistically significant once other community-led interventions were controlled for in the regression model, leaders' engagement should be understood as a complementary and reinforcing factor that works through, and alongside, awareness campaigns rather than as an independent driver of universal registration on its own. Read together, these findings suggest that Elgeyo Marakwet's registration challenge is less about the absence of community-level activity than about how effectively that activity is coordinated: awareness campaigns supply the primary behavioural trigger, while leaders' engagement supplies the credibility and reach that help that trigger take hold. The findings reflect experience in two sub-counties of Elgeyo Marakwet but offer insights that can guide broader planning in comparably under-registered Kenyan counties.

The findings should be interpreted in light of Elgeyo Marakwet's challenging terrain, limited infrastructure, and registration coverage below 50%. They may apply to similarly underserved counties such as West Pokot, Baringo, and Turkana, but may differ in urbanised settings or areas with higher registration coverage. The role of community leaders may also vary with local culture and administrative capacity.

RECOMMENDATIONS

Recommendations to County Authorities

Arising from these findings, the study recommends that the County Government of Elgeyo Marakwet, through the Civil Registration Services Department and in collaboration with local radio stations, schools, and churches, should institutionalize and expand community awareness campaigns. This should involve developing a standing sensitization calendar comprising local-language radio broadcasts, school-based programmes, public barazas, and church and community forums, with messaging tailored separately to birth and to death registration given their differing levels of uptake. Progress should be assessed through the number of sensitization sessions and broadcasts held per term and through pre- and post-campaign registration completion rates, with particular attention to death registration.

The study also recommends that the County Commissioner's office, together with chiefs, assistant chiefs, and village elders, working in conjunction with the Civil Registration Services Department, should reinforce community leaders' engagement as a complementary mobilization tool rather than a stand-alone intervention. Leader-led registration drives should be institutionalized as a standing agenda item at existing barazas and administrative meetings, explicitly timed alongside awareness campaigns, with effectiveness gauged by the number of registration-focused barazas held per month and the proportion of unregistered cases identified through leader-led drives that are subsequently completed.

Recommendations to Development Partners

Development partners and non-governmental organizations supporting civil registration strengthening in Kenya's rural counties should prioritize funding for sustained, multi-channel awareness programming over one-off sensitization events, given this study's finding that awareness campaigns, and not leader engagement alone, retain independent predictive value for registration outcomes. Where partners already work with community leadership structures, as many CRVS programmes do, this study suggests reframing that investment explicitly as a support to awareness delivery, for example by funding leader-facilitated barazas that carry structured registration messaging, rather than treating leader endorsement as a sufficient intervention in its own right. Coordination among partners operating across neighbouring ASAL and hard-to-reach counties would also help establish whether the awareness-driven, leader-facilitated pattern observed in Elgeyo Marakwet holds more broadly, informing more efficient allocation of civil registration strengthening resources regionally.

Recommendations for Future Research

Future studies should adopt panel or quasi-experimental designs capable of tracking the same households before and after exposure to specific awareness modalities, which would allow firmer causal claims than the descriptive survey design used here. Research disaggregating the awareness construct by channel, comparing

school-based, radio-based, and baraza-based sensitization directly, would help clarify which specific modality carries the independent effect this study found for awareness campaigns as a composite. Given that leaders' engagement lost significance once other interventions were controlled for, future research should test mediation models formally, examining whether leaders' engagement operates through awareness campaigns and community-led notification systems rather than only alongside them. Finally, replicating this joint modelling approach in other Kenyan counties with comparable registration deficits would help establish whether the facilitative, rather than independently decisive, role of leaders' engagement observed in Elgeyo Marakwet is a broader feature of Kenyan civil registration practice.

Practical Implications for Civil Registrations and Vital Statistics (CRVS) Programme Design

CRVS programmes should prioritize sustained, multi-channel awareness campaigns, especially through schools and barazas, while using community leaders strategically to improve outreach and identify unregistered cases. Monitoring should assess awareness activities and leader engagement separately.

Ethical Approval

This study obtained institutional ethics approval and a National Commission for Science, Technology and Innovation (NACOSTI) research permit prior to data collection, alongside courtesy approvals from the County Commissioner's office and local administrative leaders. All participants gave written informed consent after being briefed on the study's purpose, procedures, and their right to withdraw at any stage without penalty.

Conflict of Interest

The author declares no conflict of interest in relation to this study.

Data Availability Statement

The datasets generated and analyzed during the current study are available from the corresponding author on reasonable request.

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