INPLASY

ENHANCING ACCESS TO HEALTH INSURANCE THROUGH ADVOCACY USING COMMUNITY PARTICIPATION IN SUB-SAHARAN AFRICA: A SYSTEMATIC REVIEW AND META-ANALYSIS

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ADMINISTRATIVE INFORMATION

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Review Stage at time of this submission - Preliminary searches.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 6 February 2025 and was last updated on 6 February 2025.

INTRODUCTION

Review question / Objective How effective are advocacy efforts and community participation in enhancing access to health insurance in Sub-Saharan Africa?

The specific research questions will be as follows.

i. What types of advocacy strategies (e.g., media campaigns, policy lobbying, community-led initiatives) have been used to enhance access to health insurance in Sub-Saharan Africa?
ii. How does community participation in health insurance programs impact enrollment rates, awareness, and utilization of health services in Sub-Saharan Africa?
iii. What are the barriers and facilitators identified in studies regarding access to health insurance through advocacy and community participation in Sub-Saharan Africa?
iv. What are the differences in the effectiveness of advocacy and community participation strategies across different demographic groups (e.g., rural vs. urban populations, age, gender) in improving access to health insurance in Sub-Saharan Africa?
v. To what extent do advocacy and community participation efforts lead to sustained increases in health insurance enrollment and utilization in the long term?

Rationale

Low and middle-income countries (LMICs) are increasingly prioritizing universal health coverage (UHC) as a way to increase access to and lessen the cost of healthcare [1–3]. Many low- and middle-income countries with social health insurance systems find it challenging to achieve UHC, especially for those who work in the informal sector [4]. This has been the case as affordability of health care services remain a challenge in LMICs [5]. Health insurance plans could protect people in low and middle-income nations from catastrophic medical costs and lessen their susceptibility to poverty [6]. Previous studies have indicated that despite prioritizing health insurance coverage,

LMICs still have low prevalence of health insurance coverage [1,7–9]. This implies that most of the countries in LMICs including sub-Saharan Africa still contend with the problem of out-of-pocket expenditure [8,10,11]. The role of advocacy programs through community participation cannot be underestimated in improving access to health insurance. Similar interventions have borne fruits in different countries such as Malawi [12]. Most studies that have been conducted on health financing have focused on health insurance coverage [13], their challenges and risks [14]. Despite these efforts, there is limited evidence on the effectiveness of advocacy through community participation in improving access to health insurance in sub-Saharan Africa.

We propose a systematic review for a thorough scoping review and a searching of all databases and extracting information on the role of advocacy and savings and internal lending communities have on health insurance coverage.

Condition being studied

Our aim is to find evidence on the role of advocacy programs in enhancing access to health insurance coverage.

Search strategy

Our search validation procedure will include intensive term harvesting and term testing across various search databases.

("health insurance" OR "medical insurance" OR "community health insurance" OR "health coverage") AND ("advoc*" OR "policy advocacy" OR "community advocacy" OR "empowerment") AND ("community participation" OR "community engagement" OR "participatory approach") AND ("Sub-Saharan Africa" OR "SSA" OR "Afric*" OR "Africa South of the Sahara" OR Algeria OR Angola OR Benin OR Botswana OR Burkina Faso OR Burundi OR Cameroon OR "Cape Verde" OR "Central African Republic" OR Chad OR Comoros OR Congo OR "Democratic Republic of Congo" OR Djibouti OR Egypt OR "Equatorial Guinea" OR Eswatini OR Ethiopia OR Gabon OR Gambia OR Ghana OR Guinea OR "Guinea-Bissau" OR "Ivory Coast" OR Kenya OR Lesotho OR Liberia OR Libya OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Morocco OR Mozambique OR Namibia OR Niger OR Nigeria OR Rwanda OR "São Tomé and Príncipe" OR Senegal OR Seychelles OR "Sierra Leone" OR Somalia OR "South Africa" OR "South Sudan" OR Sudan OR Tanzania OR Togo OR Tunisia OR Uganda OR Zambia OR Zimbabwe)

Participant or population:

The systematic review will target participants or communities who are the target population for health insurance coverage.

Intervention

Advocacy interventions aimed at improving access to health insurance through community participation. Interventions may include community mobilization, education campaigns, lobbying, or participatory decision-making processes.

Comparator

For this review, the comparator will depend on the design of the included studies and the interventions evaluated. This may be populations or settings where no advocacy or community participation interventions were implemented to improve health insurance access. The comparator may also be studies that assess health insurance access outcomes before and after the implementation of advocacy or community participation interventions. The comparator will allow the review to assess the relative effectiveness of advocacy and community participation interventions in improving health insurance access compared to standard practice, alternative interventions, or no intervention at all.

Study designs to be included

We aim to search findings from Randomized control trials, quasi-experimental studies, community trials, observational studies (e.g. cohort, case-control, cross-sectional), and qualitative studies.

Eligibility criteria

This review will include studies focusing on Advocacy programs and their role in enhancing access to health insurance coverage. Studies must focus on individuals or communities who are the target population for health insurance coverage. The studies must be on health insurance and community participation and must have been conducted in Africa and published between 2000 and 2025. Studies will be excluded if they do not involve the target population, e.g. studies focusing on private insurance without community participation or if they are unrelated to advocacy or those that do not involve community participation.

Information Sources

A comprehensive search will be conducted in the following databases: PubMed, Scopus, Web of Science, Cochrane Library, PsycINFO, EMBASE, CINAHL, EconLit, JSTOR, ProQuest, and Google Scholar. Filters will be applied to limit results to English language and studies published between 2000 and 2025.

Main outcome

The primary outcome of this review is health insurance access, measured by:

- Enrollment rates: The proportion of the target population enrolled in health insurance schemes following advocacy or community participation interventions.
- Utilization of health services: The extent to which insured individuals access healthcare services as a result of increased insurance coverage.
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Additional outcome

i. Awareness of health insurance schemes: Changes in the knowledge and understanding of health insurance among the target population.
ii. Affordability: The impact of interventions on the perceived or actual financial burden of accessing health insurance.
iii. Barriers and facilitators: Identification of social, economic, and structural factors influencing the success or failure of interventions.
iv. Sustainability: Long-term effects of advocacy and community participation on health insurance enrollment and service utilization.
v. Equity in access: Differences in the impact of interventions across demographic groups, such as rural versus urban populations, gender, or socioeconomic status.

Data management

Data management will begin with exporting search results from all databases in compatible formats (RIS, CSV, or BibTeX) and importing them into Zotero, which will serve as a centralized reference repository. Zotero will facilitate duplicate removal, ensuring unique entries. The cleaned records will then be transferred to Rayyan for systematic screening. Full-text articles of selected studies will be stored and organized in Zotero. Data extraction will be conducted using standardized templates in MS Excel. Three independent reviewers will systematically extract key information, including study characteristics, methodologies, and outcomes, using a predefined data extraction tool. The tool will be modified as needed, with any changes documented in the scoping review. Discrepancies among reviewers will be resolved through discussion or by involving additional reviewers. Extracted data will undergo qualitative and quantitative analysis. Qualitative data, focusing on advocacy and community participation in health insurance access, will be analyzed using thematic synthesis. This method will identify patterns such as advocacy strategies, community engagement processes, and barriers to health insurance access. Themes will be systematically coded and synthesized for interpretation. Findings will be presented narratively, supported by direct quotes and summarized data, offering insights into key influencing factors in Sub-Saharan Africa and similar contexts. Quantitative data, particularly on health insurance enrollment rates, awareness, and utilization, will be analyzed using meta-analysis. Study heterogeneity will be assessed using the I^2 statistic. If significant heterogeneity is detected, a random-effects model will be applied to generalize findings across varied study designs and populations. Effect sizes (odds ratios, risk ratios, or mean differences) will be calculated to assess intervention impact, with 95% confidence intervals indicating estimate precision. Meta-analysis will focus on changes in insurance enrollment, affordability, and service utilization before and after advocacy interventions. Findings will be presented in multiple formats for clarity. Qualitative results will be summarized narratively, highlighting key themes. Quantitative outcomes will be visually represented through forest plots, displaying pooled effect sizes and confidence intervals. Additionally, tables summarizing study characteristics, interventions, and outcomes will provide a structured overview for easy comparison across studies.

Risk of bias analysis

We will assess the risk of bias of included studies using appropriate tools based on study design. For randomized controlled trials, the Cochrane Risk of Bias 2 (RoB 2) tool will be used, which evaluates bias across domains such as randomization process, deviations from intended interventions, missing outcome data, measurement of the outcome, and selection of the reported result. For observational studies, the Risk of Bias in Non-randomized Studies - of Interventions (ROBINS-I) tool will be applied, assessing bias due to confounding, participant selection, classification of interventions, deviations from intended interventions, missing data, measurement of outcomes, and selection of reported results. Each study will be independently assessed by two reviewers. A calibration exercise will be conducted to ensure consistency between reviewers. Discrepancies will be resolved through discussion, or if needed, a third reviewer will be consulted. The risk of bias for each study will be categorized as low, high, or unclear based on the judgment criteria of the respective tool. The results of the risk of bias assessment will be reported in both tabular and narrative forms, and their impact on the findings will be discussed in the synthesis. Studies assessed as

having a high risk of bias will be subjected to sensitivity analyses to evaluate their influence on the overall findings.

Strategy of data synthesis

The selection of evidence for the systematic review will follow a structured and systematic approach to ensure comprehensive and unbiased inclusion of relevant studies. The process will begin with a comprehensive search using detailed search strategy tailored to the research topic. This strategy will be applied across multiple databases, such as PubMed, Scopus, Web of Science, Cochrane Library, PsycINFO, EMBASE, and others, using well-defined keywords, Boolean operators, and wildcards. The goal will be to capture all relevant studies, including those from African countries, particularly Sub-Saharan Africa. Once the search is completed, the results from all databases will be exported into Zotero, a reference management tool, to consolidate the citations where duplicate entries will be identified and removed, ensuring that only unique records proceed to the screening stage. Following de-duplication, the remaining records will be uploaded into Rayyan, a web-based tool designed to streamline systematic review processes. In Rayyan, the titles and abstracts of the studies will be screened against predefined inclusion and exclusion criteria. This step will be performed collaboratively, with multiple reviewers using Rayyan's blinding feature to make independent decisions on whether to include, exclude, or further review each study. Studies marked as "maybe" or flagged for discussion will be revisited collectively to ensure consensus among reviewers. Next, the studies deemed potentially relevant will undergo full-text screening. During this stage, the inclusion and exclusion criteria will rigorously be applied to determine which studies are eligible for the final review. The reasons for excluding studies at this stage will carefully be documented. Finally, the selection process will be summarized using a PRISMA flow diagram, providing a transparent account of the number of studies identified, screened, excluded, and included in the systematic review.

Subgroup analysis

Subgroup analyses will be performed based on key factors, such as the type of advocacy intervention (e.g., media campaigns versus community meetings), the target population (e.g., rural versus urban areas), and the geographical region (e.g., specific countries within Sub-Saharan Africa).

Sensitivity analysis

Sensitivity analyses will be conducted to test the robustness of the results by excluding studies with high risk of bias or small sample sizes. Publication bias will be assessed using funnel plots and Egger's test, which will help to detect any potential skewness in the results.

Language

We are aiming to search only studies published in English due to limited resources for translation.

Countries involved

Kenya.

Keywords

Health Insurance, Advocacy, Community Participation, Access, Sub-Saharan Africa

Dissemination plans

The results from this study will be submitted for publication in a high-impact, peer-reviewed journal specializing in health policy, public health, or African health systems. Publishing in such journals will ensure that the findings reach the academic community and contribute to evidence-based policy development and healthcare practice. In addition to journal publication, the results will be presented at national and international health conferences, particularly those focused on health insurance, advocacy, and community participation.

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APPENDIX

APPENDIX I: STROBE Statement—Checklist of items that should be included in reports of *cross-sectional studies*

	Item No	Recommendation
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found
Introduction		
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported
Objectives	3	State specific objectives, including any prespecified hypotheses
Methods		
Study design	4	Present key elements of study design early in the paper
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group
Bias	9	Describe any efforts to address potential sources of bias
Study size	10	Explain how the study size was arrived at

Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding
		(*b*) Describe any methods used to examine subgroups and interactions
		(*c*) Explain how missing data were addressed
		(*d*) If applicable, describe analytical methods taking account of sampling strategy
		(*e*) Describe any sensitivity analyses
Results		
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed
		(b) Give reasons for non-participation at each stage
		(c) Consider use of a flow diagram
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders
		(b) Indicate number of participants with missing data for each variable of interest
Outcome data	15*	Report numbers of outcome events or summary measures
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (e.g., 95% confidence interval). Make clear which confounders were adjusted for and why they were included
		(*b*) Report category boundaries when continuous variables were categorized
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period

Other analyses	17	Report other analyses done—e.g. analyses of subgroups and interactions, and sensitivity analyses
Discussion		
Key results	18	Summarize key results with reference to study objectives
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence
Generalizability	21	Discuss the generalizability (external validity) of the study results
Other information		
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based

APPENDIX II: NEWCASTLE - OTTAWA QUALITY ASSESSMENT SCALE FOR COHORT STUDIES

Note: A study can be awarded a maximum of one star for each numbered item within the Selection and Outcome categories. A maximum of two stars can be given for Comparability.

Selection

1) Representativeness of the exposed cohort

a) truly representative of the population (look at the sampling method used: If probabilistic sampling e.g. random sampling then the study falls here, assign a star) ⁻

b) somewhat representative of the population (look at the sampling method used: Well defined non-probabilistic sampling) ⁻

c) selected predefined group without a clear sampling strategy

d) no description of the derivation of the sample

2) Selection of the non-exposed cohort

a) drawn from the same sample as exposed cohort ⁻

b) drawn from a different source

c) no description of the derivation of the non-exposed cohort

3) Data collection method

a) secure record (e.g. medical records) ⁻

b) structured interview ⁻

c) written self-report

d) no description

4) Demonstration that outcome of interest was not present at start of study (e.g. insurance coverage)

a) yes ⁻

b) no

Comparability

1) Comparability of cohorts on the basis of the design or analysis [select multiple or one or none]

a) study controls for confounders (e.g., Age, health status, comorbidities) (select the most important factor) ⁻

b) study controls for any additional factor ¯ (This criterion could be modified to indicate specific control for a second important factor.)

Outcome

1) Assessment of outcome [Select one, if you select either a or b you mark with one star, c and d do not have starts]

a) independent blind assessment ¯

(This refers to the outcome assessment being conducted by individuals who are independent and unaware of the exposure or treatment status of the study participants. It is considered a rigorous method as it helps minimize bias and potential influence from the knowledge of the participants' exposure or treatment

b) record linkage ¯

(This indicates that the outcome assessment was done by linking data from different sources or databases, such as medical records, administrative databases, or registries. It involves extracting relevant information from these sources to assess the outcomes).

c) self-report

(This means that the participants themselves reported the outcomes of interest, usually through surveys or questionnaires. Self-report can be subjective and may be influenced by recall bias or individual interpretation).

d) no description

(This indicates that the study did not provide a clear description of how the outcomes were assessed. It lacks information on the specific method used or whether there was any blinding or independent assessment involved).

2) Was follow-up long enough for outcomes to occur (select one)

a) yes (select an adequate follow up period for outcome of interest) ¯

b) no

3) Adequacy of follow up of cohorts

a) complete follow up - all subjects accounted for ¯

b) subjects lost to follow up unlikely to introduce bias - small number lost (not more than 10%) and description provided of those lost) ¯

c) follow up rate below 90% and no description of those lost

d) no statement on loss to follow up