

The Integrated Community Health Systems Institutionalization Framework (ICHS-IF): A Strategic Model for Strengthening Primary Health Care and Universal Health Coverage in South Sudan

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Abstract Community health systems are central to achieving Universal Health Coverage (UHC), particularly in fragile and conflict-affected settings. In South Sudan, fragmented community-based programmes, parallel implementation structures, weak governance, and inconsistent financing have constrained the sustainability and effectiveness of community health services. To address these challenges, the Ministry of Health developed a Community-Based Networks (CBNs) Integration Strategy within the Revised Boma Health Initiative (2024–2028). This study presents a strategic framework for institutionalising CBNs within South Sudan's national community health system to strengthen Primary Health Care (PHC), improve service integration, and advance UHC. A qualitative Health Policy and Systems Research approach was applied through review and thematic analysis of national policies, strategic frameworks, programme reports, technical working group documents, stakeholder consultation reports, and relevant international literature. The analysis identified fragmented governance, parallel community structures, inconsistent supervision, inadequate financing, and weak accountability as major barriers to effective community health service delivery. In response, the study proposes the Integrated Community Health Systems Institutionalization Framework (ICHS-IF), which integrates governance and leadership, service delivery, community health workforce development, sustainable financing, digital health information systems, community accountability and participation, and multisectoral coordination within a unified institutional model. Institutionalizing CBNs within existing government systems offers a practical and potentially scalable approach for strengthening resilient community health systems. The ICHS-IF provides an evidence-informed framework for South Sudan and other fragile and resource-constrained settings seeking to strengthen PHC, improve health system resilience, and accelerate progress toward UHC.

Keywords Boma Health Initiative, Community Health Systems, Community-Based Networks, Health Systems Strengthening, Institutionalisation, Primary Health Care, South Sudan, Universal Health Coverage.

Introduction

Universal Health Coverage (UHC) remains a global health priority under Sustainable Development Goal (SDG) 3, aiming to ensure that all people have access to quality health services without financial hardship [1, 2]. Achieving UHC requires strong Primary Health Care (PHC) systems that are accessible, equitable, people-centred, and resilient, particularly in fragile and conflict-affected settings where weak governance, health workforce shortages, recurrent disease outbreaks, insecurity, climate-related shocks, and limited domestic financing continue to constrain access to essential health services [3-8].

Community health systems are increasingly recognised as a cornerstone of PHC because they extend essential services to underserved populations while promoting disease prevention, health promotion, surveillance, community engagement, and accountability [9-12]. Community Health Workers (CHWs) and other Community-Based Networks (CBNs) strengthen the link between households and health facilities, improve service utilisation, and support emergency preparedness and response [13-16]. However, in many low- and middle-income countries, community health programmes remain fragmented, donor-dependent, and implemented through parallel structures that weaken coordination, government ownership, and long-term sustainability [17-19].

South Sudan faces similar challenges. Years of conflict, humanitarian crises, population displacement, recurrent disease outbreaks, flooding, and limited health infrastructure have weakened the national health system and constrained access to essential PHC, particularly in rural and hard-to-reach communities [20-25]. Although numerous CBNs have been established by government institutions and development partners, many have operated independently, resulting in

duplicated roles, inconsistent supervision, fragmented reporting systems, and variable incentive mechanisms.

To address these challenges, the Ministry of Health introduced the Revised Boma Health Initiative (2024–2028), which prioritises stronger governance, integrated service delivery, institutionalisation, accountability, sustainable financing, and improved coordination across the community health system. Building on these reforms, this study proposes the Integrated Community Health Systems Institutionalization Framework (ICHS-IF) as a practical model for integrating multiple CBNs within a unified national community health system.

The framework addresses an important gap in the literature, which has largely focused on individual CHW programmes and disease-specific interventions rather than the institutional integration of diverse community-based structures within national health systems. By presenting an evidence-informed governance framework, this study provides practical guidance for South Sudan and other fragile and resource-constrained settings seeking to strengthen PHC, improve health system resilience, and accelerate progress toward UHC.

Background and Literature Review

Community Health Systems and Universal Health Coverage

Community health systems are fundamental to Primary Health Care (PHC) and Universal Health Coverage (UHC), particularly in low- and middle-income countries where shortages of skilled health workers constrain access to essential health services [3, 9]. The Declaration of Astana reaffirmed PHC as the foundation for achieving UHC through integrated, people-centred services, community participation, and multisectoral collaboration [4]. Community Health Workers (CHWs) and other Community-Based Networks (CBNs) extend preventive,

promotive, and selected curative services to underserved populations while strengthening disease surveillance, health promotion, referral systems, and community engagement [10-16].

Despite these contributions, many community health programmes remain fragmented because they have evolved through disease-specific and donor-funded initiatives operating outside routine government systems. Such fragmentation often results in duplicated responsibilities, inconsistent supervision, parallel reporting systems, and weak government ownership, thereby reducing efficiency and long-term sustainability [17-19].

Community Health in Fragile Settings: The South Sudan Context

Fragile and conflict-affected settings face persistent challenges, including insecurity, population displacement, disease outbreaks, weak governance, limited infrastructure, and inadequate health financing, all of which undermine equitable access to PHC [5-8]. South Sudan exemplifies these challenges, with recurrent humanitarian emergencies and health workforce shortages disproportionately affecting rural and hard-to-reach communities [20-25].

To improve access to community-based PHC, the Ministry of Health introduced the Boma Health Initiative (BHI) as the national community health strategy. The BHI established Boma Health Workers (BHWs) as the frontline community health workforce responsible for delivering integrated promotive, preventive, and selected curative services while linking households with health facilities. However, implementation has revealed persistent challenges, including fragmented governance, inconsistent supervision, parallel reporting systems, inadequate financing, and limited coordination among multiple CBNs.

Institutionalising Networks

Community-Based

Institutionalisation refers to integrating governance, financing, workforce management, service delivery, information systems, and accountability mechanisms into routine government functions to ensure sustainability beyond externally funded projects [26-30]. Evidence indicates that institutionalised community health systems can strengthen government leadership, improve coordination among partners, harmonise implementation, and enhance workforce performance [26-30].

Recognising these benefits, the Ministry of Health developed the CBNs Integration Strategy to harmonise existing community structures within the BHI. Rather than creating additional volunteer cadres, the strategy promotes coordinated governance, standardised training, integrated supervision, harmonised reporting, sustainable financing, and stronger accountability through existing Ministry of Health structures.

Knowledge Gap and Study Rationale

Although considerable evidence supports strengthening community health systems, relatively few studies describe how multiple CBNs can be systematically institutionalised within a single national health system, particularly in fragile and humanitarian settings. Most published research focuses on individual CHW programmes or disease-specific interventions, with limited attention to governance integration, organisational reform, financing, accountability, and long-term institutional sustainability [17, 26-29].

This study addresses this gap by proposing the Integrated Community Health Systems Institutionalization Framework (ICHS-IF), an evidence-informed framework developed from South Sudan's policy reforms and implementation experience. The framework provides practical guidance for integrating CBNs within national health systems while

strengthening governance, service delivery, workforce development, financing, digital health information systems, community participation, and multisectoral coordination. Although informed by South Sudan's experience, the ICHS-IF is intended to support community health system reforms in other fragile and resource-constrained settings.

Materials and Methods

Study Design

This study employed a qualitative Health Policy and Systems Research (HPSR) design to examine the institutional integration of Community-Based Networks (CBNs) within South Sudan's national community health system. The HPSR approach was selected because it is appropriate for analysing health policies, governance arrangements, organisational reforms, and institutional change within complex health systems [19, 26].

Study Setting

The study focused on South Sudan, a fragile and conflict-affected setting characterised by recurrent humanitarian crises, disease outbreaks, flooding, population displacement, limited health infrastructure, and health workforce shortages. These challenges have contributed to fragmented community health programmes and constrained access to quality Primary Health Care (PHC), particularly among rural and underserved populations [20-25].

The analysis focused on the Ministry of Health's Boma Health Initiative (BHI) and the Community-Based Networks Integration Strategy as key national reforms intended to strengthen and harmonize community health systems.

Data Sources

Data were obtained through a review of national health policies, strategic plans, technical reports, programme implementation reports, stakeholder consultation reports, and

peer-reviewed literature relevant to community health systems, PHC, health systems strengthening, and Universal Health Coverage (UHC). The use of multiple documentary sources enabled triangulation of evidence across policy, programme, and research perspectives.

Data Collection and Analysis

Documents were purposively selected based on their direct relevance to community health governance, institutional reform, health systems strengthening, and CBN integration in South Sudan. The review prioritised national policy and strategy documents, programme and implementation reports, stakeholder consultation materials, and peer-reviewed literature capable of informing the institutional dimensions of CBN integration. Data were analysed using thematic content analysis. Emerging themes were identified through iterative review and synthesised using a health systems strengthening perspective to identify institutional barriers, enabling factors, and priority areas for integrating CBNs within the national community health system [3, 9, 29].

Trustworthiness

Rigour was strengthened through triangulation of multiple documentary sources, systematic review of relevant evidence, and iterative thematic analysis. Credibility was enhanced by comparing findings across policy documents, programme reports, stakeholder consultations, and peer-reviewed literature. Dependability and confirmability were supported through a transparent analytical process, while transferability was enhanced by describing the institutional and health system context in which the framework was developed.

Ethical Considerations

The study was based exclusively on publicly available policy documents, programme reports, and published literature and did not involve human participants or

identifiable personal data. Therefore, ethical approval and informed consent were not required. The study adhered to principles of scientific integrity, transparency, and appropriate citation of information sources.

Development of the Integrated Community Health Systems Institutionalization Framework (ICHS-IF)

The ICHS-IF was developed through thematic synthesis of the reviewed evidence, incorporating lessons from South Sudan's community health reforms and internationally recognised health systems strengthening principles. The framework comprises seven interrelated institutional domains:

1. Governance and leadership;
2. Integrated service delivery;
3. Community accountability and participation;
4. Sustainable financing;
5. Community health workforce development;
6. Digital health information systems; and
7. Multisectoral partnerships and coordination.

Together, these seven domains provide a practical framework for institutionalising CBNs within national health systems to strengthen PHC, improve health system resilience, and advance UHC. Monitoring, evaluation, learning, and adaptation operate as cross-cutting functions that support continuous improvement across the seven domains.

Results

Institutional Context for Community-based Networks Integration

The review found that community health services in South Sudan have historically been

delivered through multiple Community-Based Networks (CBNs) established by government institutions, development partners, faith-based organisations, civil society organisations, and humanitarian agencies. While these networks have expanded access to community-level services, their independent implementation has contributed to fragmented governance, duplicated responsibilities, inconsistent supervision, parallel reporting systems, and unsustainable financing. These challenges have constrained coordination, accountability, and the efficiency of community health service delivery.

The Ministry of Health has responded through the Boma Health Initiative (BHI) and the CBNs Integration Strategy, which seek to institutionalise these networks within a unified, government-led community health system. This transition provides the institutional basis for harmonising governance, workforce management, service delivery, reporting, financing, supervision, and community accountability.

Strategic Pathway for Institutional Integration

Figure 1 presents the conceptual pathway for integrating CBNs into South Sudan's national community health system. It illustrates the transition from fragmented and parallel community-based structures to an integrated, government-led system characterised by harmonised governance and policies, standardised capacity development, coordinated supervision, integrated reporting systems, sustainable financing and incentives, and strengthened community engagement and accountability.

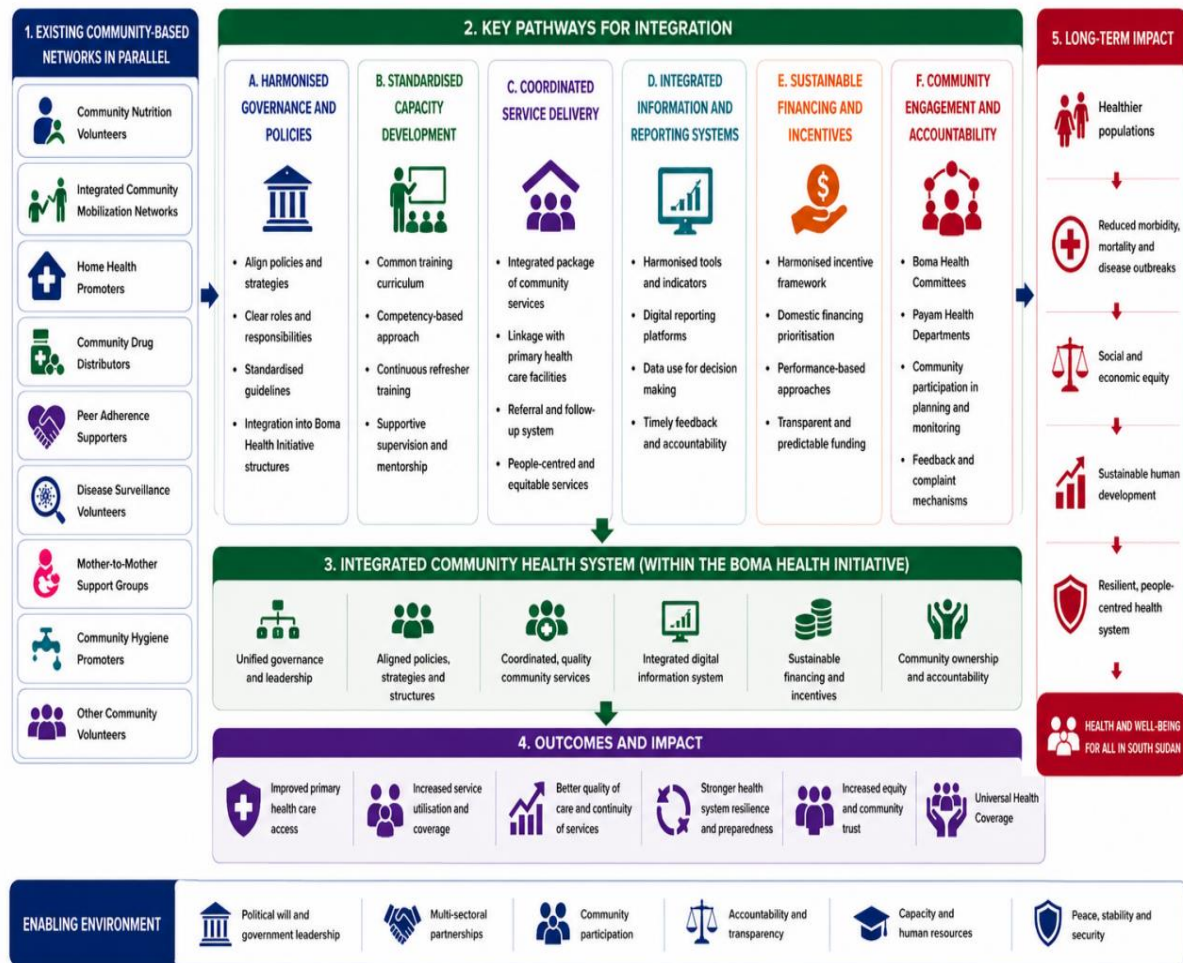


Figure 1. Conceptual Pathway for Integrating Community-Based Networks into South Sudan's National Community Health System

Source: Developed by the author based on the Ministry of Health community health reforms and relevant international community health systems literature.

Interpretation: Figure 1 illustrates the transition from fragmented and parallel CBNs toward an integrated national community health system. The pathway demonstrates how harmonised governance, workforce development, supervision, reporting, financing, and community accountability can strengthen service integration and contribute to improved PHC, health system resilience, and progress toward UHC.

Integrated Community Health Systems Institutionalization Framework (ICHS-IF)

The principal output of this study is the Integrated Community Health Systems

Institutionalization Framework (ICHS-IF) presented in Figure 2. The framework identifies seven interdependent domains required for sustainable institutionalisation: governance and leadership; integrated service delivery; community accountability and participation; sustainable financing; community health workforce development; digital health information systems; and multisectoral partnerships and coordination. Together, these domains provide an integrated institutional model for strengthening coordination, accountability, service quality, resilience, and long-term sustainability.

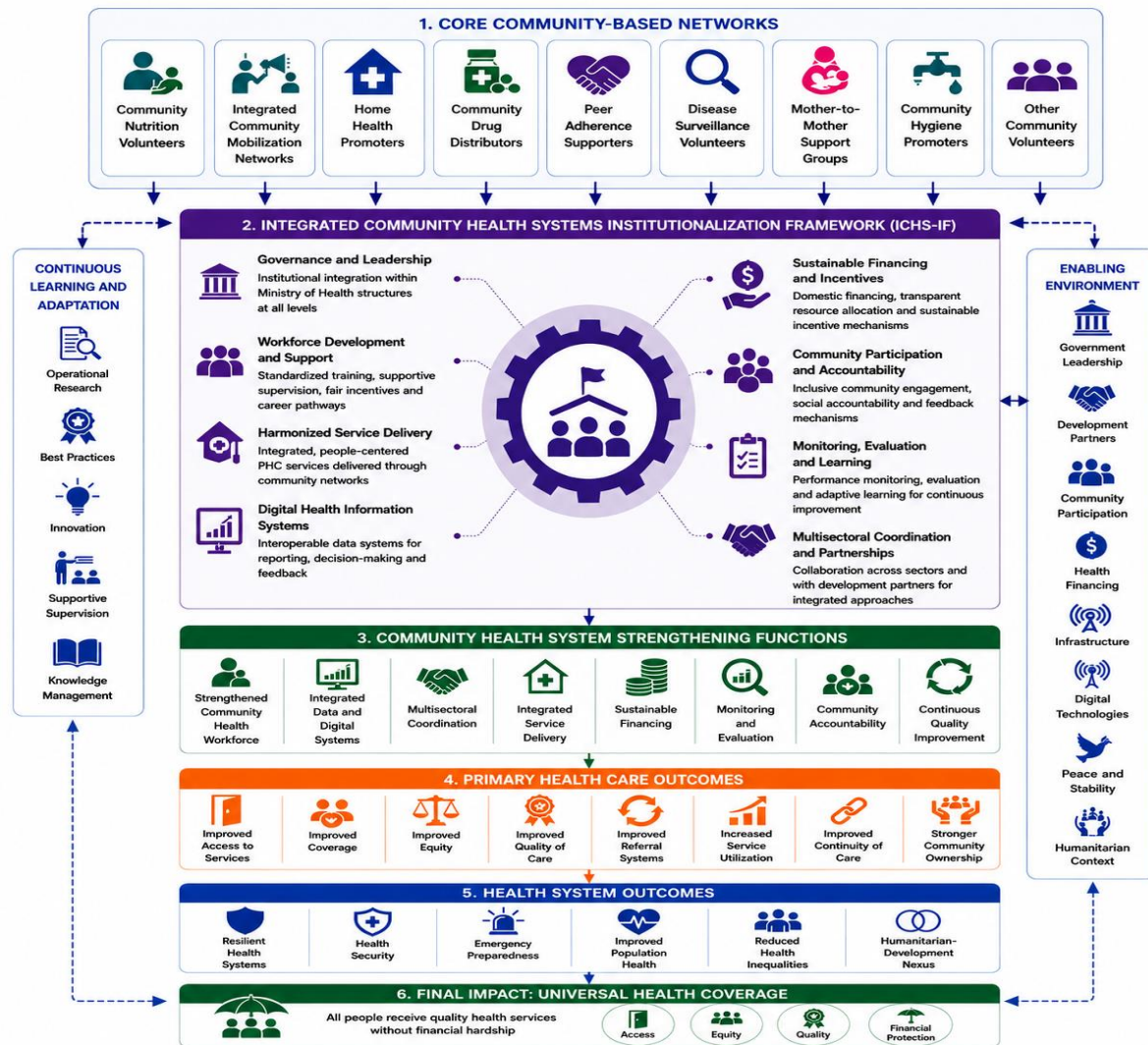


Figure 2. The Integrated Community Health Systems Institutionalization Framework (ICHS-IF)

Source: Developed by the author based on the Ministry of Health, Republic of South Sudan, the WHO Health Systems Framework, and international literature on community health systems strengthening [3, 9, 29-34].

Interpretation: Figure 2 presents the ICHS-IF as a comprehensive institutional model for integrating CBNs within South Sudan's national community health system. It demonstrates how the seven institutional domains, which include governance and leadership, workforce development, integrated service delivery, sustainable financing, digital health information systems, community participation and accountability, and multisectoral coordination, interact to strengthen resilient PHC systems and advance UHC, supported by cross-cutting monitoring, evaluation, learning, and adaptation.

Institutional Governance Model

Figure 3 presents the governance and coordination architecture for institutionalising CBNs within existing Ministry of Health structures. The model establishes reporting, supportive supervision, coordination, and accountability mechanisms linking national, state, county, payam, health facility, and community levels while promoting collaboration among government, development partners, civil society organisations, faith-based organisations, and communities.



Figure 3. Governance and Coordination Architecture for Integrated Community Health Systems

Source: Adapted by the author from the Ministry of Health, Republic of South Sudan CBNs Integration Strategy under the Revised Boma Health Initiative (2024–2028) and informed by WHO health systems governance frameworks [3, 5, 7, 31].

Interpretation: Figure 3 illustrates the institutional governance architecture for integrating CBNs within the Ministry of Health community health system. It establishes clear reporting pathways, supportive supervision, coordination mechanisms, feedback loops, and shared accountability across national, state, county, payam, facility, and community levels, thereby strengthening government stewardship and multisectoral collaboration.

Theory of Change for Community-Based Networks (CBNs) Integration

Figure 4 presents the Theory of Change underpinning the institutionalisation of CBNs. It demonstrates how strategic inputs and interventions in governance, workforce capacity, service integration, financing, community participation, health information systems, monitoring, and learning are expected to generate progressive improvements in coordination, service quality, accountability, health system performance, resilience, and UHC.

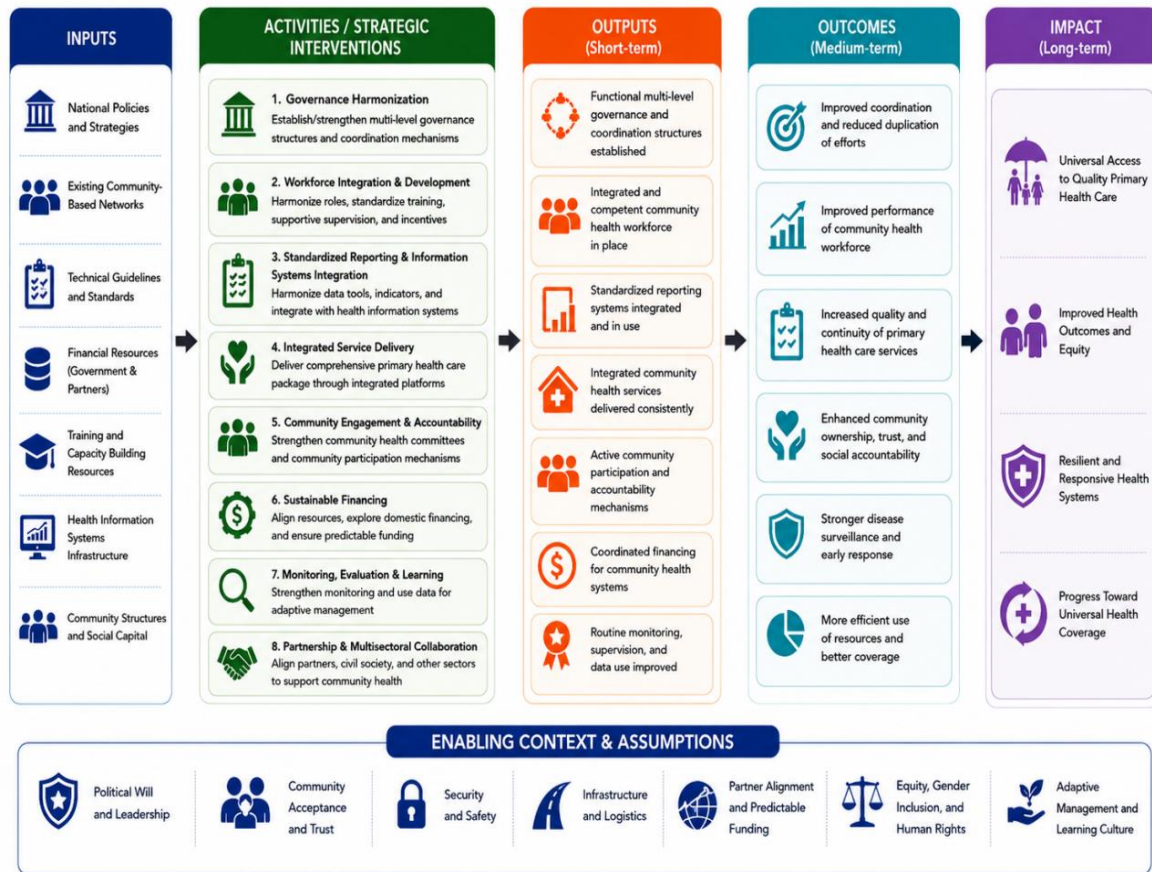


Figure 4. Theory of Change for Community-Based Networks Integration

Source: Adapted by the author from the Ministry of Health, Republic of South Sudan CBNs Integration Strategy under the Revised Boma Health Initiative (2024–2028) and WHO Primary Health Care and Health Systems Strengthening Frameworks [3-5, 31].

Interpretation: Figure 4 illustrates the results pathway through which institutionalising CBNs is expected to strengthen community health systems. Strategic investments in governance, workforce development, integrated service delivery, financing, information systems, community participation, and monitoring are expected to generate improved service delivery and system performance, ultimately contributing to resilient PHC and progress towards UHC.

Phased Implementation Roadmap

Table 1 presents a phased implementation roadmap for institutionalising CBNs within South Sudan's national community health system. The roadmap proposes a sequential approach beginning with policy dissemination, governance strengthening, stakeholder orientation, and institutionalisation; followed by systems strengthening and service integration; and culminating in routine monitoring, learning, and continuous improvement.

Table 1. Phased Implementation Roadmap for Institutionalizing CBNs within South Sudan's National Community Health System

Phase	Priority Activities	Expected Outcome
Phase I: Institutionalization	Disseminate policies, strengthen governance structures, and orient stakeholders	National ownership and coordinated leadership established
Phase II: Systems Strengthening	Harmonize workforce management, supervision, reporting, and financing	Functional integrated community health system
Phase III: Service Integration	Roll out integrated service delivery, strengthen referrals, and digitize reporting	Improved quality, efficiency, and continuity of community health services
Phase IV: Monitoring and Learning	Conduct routine monitoring, operational research, and policy reviews	Continuous improvement and sustainable implementation

Interpretation: Table 1 demonstrates that successful institutionalisation requires a structured and sequential process that progressively strengthens governance, harmonizes community health systems, integrates service delivery, and embeds monitoring and continuous learning within routine government structures.

Expected Health System Outcomes

Implementation of the proposed framework is expected to strengthen governance, improve stakeholder coordination, harmonize community health services, enhance workforce performance, strengthen accountability and health information systems, and promote sustainable financing. Collectively, these improvements are expected to increase

equitable access to integrated PHC, strengthen preparedness and resilience for public health emergencies, and accelerate progress toward UHC.

Summary of the Study's Original Contributions

Table 2 summarizes the principal theoretical, conceptual, methodological, policy, implementation, practical, and global health contributions of this study. Collectively, these contributions extend existing community health systems literature by reframing CBN integration as an institutional health systems reform and demonstrating how multiple community structures can be systematically integrated within a unified national community health system.

Table 2. Summary of the Study's Original Theoretical, Methodological, Policy, and Practical Contributions

Domain	Original Contribution	Significance
Theory	Reframes Community-Based Networks as a health systems governance reform	Advances Health Policy and Systems Research
Conceptual Framework	Introduces the Integrated Community Health Systems Institutionalization Framework	Provides a transferable analytical framework
Policy	Documents South Sudan's national Community-Based Networks Integration Strategy	Generates evidence for community health policy reform
Methodology	Applies qualitative HPSR to	Demonstrates a replicable

	analyze institutional integration	policy analysis approach
Implementation Science	Identifies institutional determinants of successful integration	Strengthens implementation research
Practice	Provides an operational framework for institutionalizing Community-Based Networks	Supports government-led implementation
Global Health	Generates transferable lessons for fragile and humanitarian settings	Contributes to international community health systems literature

Source: Developed by the author based on the findings of this study and supported by the reviewed literature on community health systems, health policy, and systems strengthening [3, 9, 17, 26-34].

Interpretation: Table 2 demonstrates that the ICHS-IF contributes beyond programme-level community health interventions by providing an integrated institutional model linking theory, policy, implementation, and practice. Its principal contribution is a transferable governance framework that can inform community health systems reform in South Sudan and other fragile and humanitarian settings.

Discussion

The findings demonstrate that institutionalising Community-Based Networks (CBNs) within a unified national health system offers a practical strategy for strengthening Primary Health Care (PHC) and advancing Universal Health Coverage (UHC) in fragile and resource-constrained settings. Rather than operating as parallel, donor-supported initiatives, CBNs can be integrated into routine government structures to improve governance, coordination, accountability, service integration, and long-term sustainability. The proposed Integrated Community Health Systems Institutionalization Framework (ICHS-IF) provides an evidence-informed model for supporting this transition.

These findings are consistent with global evidence showing that community health systems perform more effectively when embedded within national governance and

health system structures rather than implemented through fragmented vertical programmes [9-12, 17, 26]. Similarly, the Declaration of Astana and the WHO Operational Framework for Primary Health Care emphasise integrated governance, community participation, multisectoral collaboration, and resilient health systems as important foundations for achieving UHC [3, 4]. By aligning these principles with South Sudan's community health reforms, the ICHS-IF translates international health systems principles into a practical institutional model relevant to fragile and humanitarian settings.

A major contribution of this study is its shift from programme-specific interventions towards systems-level institutional reform. Previous studies have largely focused on the effectiveness and performance of Community Health Workers (CHWs) or disease-specific community programmes, with comparatively limited attention to the systematic integration of multiple CBNs within a unified national governance framework [13-18]. The ICHS-IF addresses this gap by demonstrating how governance, workforce development, integrated service delivery, sustainable financing, digital health information systems, community participation and accountability, and multisectoral coordination can function as interconnected domains of a resilient community health system, supported by cross-

cutting monitoring, evaluation, learning, and adaptation.

Fragmented governance emerged as a major barrier to effective community health service delivery. Independent implementation by government institutions, development partners, civil society organisations, faith-based organisations, and other actors can contribute to duplicated roles, inconsistent supervision, fragmented reporting systems, and inefficient use of limited resources. Similar challenges have been reported in low- and middle-income countries where externally supported vertical programmes have sometimes weakened coordination, national ownership, and sustainability [17-19, 27-31]. Institutionalizing CBNs within Ministry of Health structures therefore provides an opportunity to strengthen government stewardship, harmonize implementation, improve accountability, and optimise available resources.

Community participation is another critical determinant of successful institutionalisation. Sustainable community health systems require meaningful engagement of communities in planning, implementation, monitoring, feedback, and accountability. Evidence indicates that strong community participation can improve trust, service utilisation, responsiveness, and programme sustainability [10-12, 15]. The ICHS-IF therefore positions community participation and accountability as core institutional functions rather than stand-alone programme activities.

Sustainable financing and integrated health information systems are equally important for long-term institutionalisation. Increasing domestic investment while aligning external support with national priorities can reduce dependence on fragmented and short-term project financing. Likewise, harmonised health information systems can strengthen monitoring, supportive supervision, accountability, and evidence-informed decision-making by reducing parallel reporting

arrangements and promoting routine use of community-level data [28-33].

Although developed from South Sudan's policy reforms and implementation experience, the ICHS-IF has potential relevance to other fragile and conflict-affected settings facing fragmented community programmes, multiple community volunteer platforms, weak institutional coordination, and heavy reliance on external financing. Its core principles, which include government leadership, integrated governance, harmonised systems, sustainable financing, community ownership, continuous learning, and multisectoral collaboration, can be adapted to different national contexts rather than applied as a fixed model.

Overall, the findings suggest that institutional integration should be understood as a strategic health systems reform rather than merely an administrative restructuring process. Embedding CBNs within routine government systems can provide a pathway towards more coordinated, accountable, resilient, and sustainable community health systems capable of responding to routine health needs while strengthening preparedness for public health emergencies.

Policy and Practice Implications

The findings demonstrate that institutionalising Community-Based Networks (CBNs) within national health systems can strengthen governance, improve coordination, reduce programme fragmentation, and enhance the sustainability of community health services. The proposed Integrated Community Health Systems Institutionalization Framework (ICHS-IF) provides a practical approach for governments and development partners seeking to strengthen community health systems, particularly in fragile and humanitarian settings.

For the Government of South Sudan, successful institutionalisation will require sustained political commitment, strong

Ministry of Health leadership, clear governance and accountability mechanisms, harmonised operational policies, and increased domestic investment in community health. Integrating CBNs within existing government structures rather than maintaining parallel programmes can strengthen national ownership, institutional accountability, and long-term sustainability.

For development partners, technical and financial support should align with national policies, strategies, implementation structures, and reporting systems. Greater emphasis should be placed on strengthening government-led systems rather than establishing parallel implementation arrangements. Joint planning, coordinated financing, harmonised reporting, integrated supportive supervision, and shared performance monitoring can reduce duplication and improve the efficiency of investments in community health.

For programme implementers, priority should be given to standardised capacity development, integrated service delivery, supportive supervision, harmonised reporting, and digital health information systems, coordinated incentive mechanisms, and the routine use of community-level data for decision-making. Strengthening community-level governance and accountability structures can further improve service responsiveness, community participation, and the quality of care.

Sustainable financing remains essential for long-term institutionalisation. While external assistance will continue to play an important role in South Sudan's health system, progressively integrating community health priorities into government planning, budgeting, and resource-allocation mechanisms can strengthen predictability, national ownership, and resilience. Partner financing should complement, rather than substitute for, sustainable national systems.

Beyond South Sudan, the ICHS-IF offers an adaptable institutional model for countries facing similar challenges of fragmented community health programmes, multiple community-based structures, weak coordination, and dependence on external financing. Application of the framework should nevertheless be adapted to each country's governance arrangements, health system capacity, financing context, and community structures.

Strategic Recommendations

Based on the study findings, the following actions are recommended:

Policy and Governance: Institutionalise the CBNs Integration Strategy within national health policies, strategic plans, operational guidelines, and government coordination structures. Roles, responsibilities, reporting relationships, and accountability mechanisms should be clearly defined across national, state, county, payam, health facility, and community levels.

Health Systems Strengthening: Integrate CBNs into existing Ministry of Health governance and service-delivery structures; harmonize training, supportive supervision, reporting, performance monitoring, and incentive mechanisms; and strengthen interoperable digital health information systems to support routine decision-making.

Sustainable Financing: Increase domestic investment in community health while improving alignment and coordination of external financing. Community health workforce, supervision, commodities, information systems, and operational costs should be progressively incorporated into routine health-sector planning and budgeting.

Community Participation and Accountability: Strengthen Boma Health Committees, community structures, and other appropriate local mechanisms to enable meaningful participation in planning,

implementation, monitoring, feedback, and social accountability.

Partnership and Multisectoral Coordination: Strengthen government-led coordination among development partners, civil society organisations, faith-based organisations, communities, and other sectors to reduce duplication, align resources, and promote integrated community health programming.

Monitoring, Evaluation and Learning: Establish harmonised indicators, routine monitoring mechanisms, feedback loops, and implementation-learning processes to assess institutionalisation, identify bottlenecks, document lessons, and support continuous adaptation and quality improvement.

Future Research: Validate the ICHS-IF through implementation research in South Sudan and evaluate its effects on governance, workforce performance, service integration, financing, community participation, health outcomes, and health system resilience. Comparative studies in other fragile and conflict-affected settings should assess the framework's adaptability, scalability, and transferability.

Study Contribution, Strengths, Limitations, and Future Research

Study Contribution

This study contributes to Health Policy and Systems Research by proposing the Integrated Community Health Systems Institutionalization Framework (ICHS-IF) as a systems-oriented model for integrating multiple Community-Based Networks (CBNs) within a unified national community health system. Unlike approaches that focus primarily on individual Community Health Worker (CHW) cadres or disease-specific community interventions, the ICHS-IF brings together governance and leadership, workforce development, integrated service delivery, sustainable financing, digital health

information systems, community participation and accountability, and multisectoral coordination within a single institutional framework, supported by cross-cutting monitoring, evaluation, learning, and adaptation.

The study further contributes by reframing CBN integration as a health systems institutionalisation process rather than simply the consolidation of community-based programmes. In doing so, it links community-level structures with formal government governance, planning, supervision, financing, information, and accountability mechanisms. This provides both a conceptual contribution to community health systems research and a practical framework for policymakers and implementers seeking to strengthen Primary Health Care (PHC), health system resilience, and Universal Health Coverage (UHC) in fragile and resource-constrained settings.

The specific theoretical, conceptual, methodological, policy, implementation, practical, and global health contributions of the study are summarized in Table 2.

Strengths

A key strength of this study is its systems-level perspective on the integration of diverse CBNs within national community health structures. The analysis draws on national policies, strategic frameworks, programme documents, stakeholder consultation reports, and relevant international literature, enabling evidence to be considered across policy, programme, and health system perspectives.

The study also translates the findings into interconnected products: a conceptual integration pathway, the ICHS-IF, an institutional governance architecture, a Theory of Change, and a phased implementation roadmap. Together, these provide a coherent progression from identifying fragmentation and institutional barriers to defining governance arrangements, implementation

mechanisms, expected results, and longer-term health system outcomes.

Limitations

The study has several limitations. First, it is based primarily on qualitative policy and documentary analysis and therefore does not provide quantitative estimates of the effect of CBN institutionalisation on service coverage, health outcomes, cost-effectiveness, or UHC indicators. Second, although the ICHS-IF is informed by South Sudan's policy reforms and implementation experience, the framework has not yet been prospectively validated through large-scale implementation research.

Third, the framework was developed within South Sudan's specific fragile and humanitarian context; therefore, its transferability to other settings should not be assumed without appropriate contextual adaptation. Differences in governance arrangements, health financing, community structures, workforce models, political economy, and institutional capacity may influence implementation.

These limitations do not diminish the framework's conceptual and policy relevance but indicate the need for empirical validation and implementation research.

Future Research

Future research should empirically test the feasibility, acceptability, effectiveness, sustainability, and scalability of the ICHS-IF using implementation research and mixed-methods designs. Priority outcomes should include governance effectiveness, workforce performance, service integration, supervision, community participation and accountability, financing, data quality and use, service coverage, health equity, and health system resilience.

Longitudinal studies would be particularly valuable for assessing whether institutionalisation produces sustained improvements over time and whether the

anticipated outcomes identified in the Theory of Change are achieved. Economic evaluation should also examine implementation costs, efficiency gains, resource requirements, and the financial sustainability of integrating CBNs within routine government systems.

Comparative research across other fragile and conflict-affected settings could further assess the adaptability and transferability of the ICHS-IF and identify which institutional components are universally relevant and which require context-specific modification.

Conclusion

Community health systems are fundamental to strengthening Primary Health Care and advancing Universal Health Coverage, particularly in fragile and conflict-affected settings. This study demonstrates that institutionalising Community-Based Networks within routine national health system structures provides a strategic pathway for addressing fragmented governance, parallel implementation arrangements, inconsistent supervision and reporting, and weak institutional sustainability. The proposed Integrated Community Health Systems Institutionalization Framework (ICHS-IF) provides an evidence-informed model for strengthening governance, service integration, community participation and accountability, workforce development, sustainable financing, information systems, and multisectoral coordination. Although developed from South Sudan's community health reforms and implementation experience, the framework may have broader relevance to other fragile and resource-constrained settings when appropriately adapted to local contexts. Prospective implementation research is required to validate its feasibility, effectiveness, sustainability, and contribution to resilient community health systems, PHC, and UHC.

Conflict of Interest

The author declares no competing interests.

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Author Contributions

Okello David Omwony: Conceptualization; Methodology; Formal analysis; Investigation; Data curation; Visualization; Writing – original draft; Writing – review and editing; Project administration. The author approved the final version for publication.

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No external funding was received specifically for this study. The research was undertaken independently using publicly available policy documents, programme reports, and peer-reviewed literature.

Ethics Approval

Ethical approval was not required because the study was based exclusively on publicly available policy documents, programme reports, and published literature and did not involve human participants or identifiable personal data.

Consent for Publication

Not applicable.

Data Availability

All data supporting the findings are derived from publicly available policy documents, programme reports, and peer-reviewed publications cited in the reference list. Additional information is available from the corresponding author upon reasonable request.

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