

Implementation science in Africa—whose epistemology counts?



Ejemei Eboreime, Latifat Ibisomi, Ijeoma Uchenna Itanyi, Lucy Kanya, Beatrice Wamuti, Francis Ohanyido, Jabulani Ncayiyana, Desire Habonimana, Juliana Kagura, Omolayo Anjorin, Hlengiwe Gwebu, Ermel Johnson, Alfred Kwesi Manyeh, Hikabasa Halwindi, John Ele-Ojo Ataguba



Implementation science, although promising to bridge the know–do gap in global health, has inadvertently created new forms of epistemic exclusion in African health systems. In this Viewpoint, we present an empirical critique of how widely used implementation frameworks, rooted in Eurocentric and North American epistemologies, systematically fail to recognise the mechanisms through which successful implementation occurs in African contexts. Drawing on case studies across diverse African settings, we reveal how this epistemological mismatch undermines both the science and practice of implementation in African health systems. Using epistemic injustice theory, we show how frameworks operationalise constructs in ways that treat traditional governance, community legitimacy, and relational authority as peripheral variables rather than generative mechanisms of change. We propose concrete transformations to implementation science that centre African epistemological traditions and require genuine power-sharing in knowledge production to support health system improvement across all contexts.

Introduction

Whose epistemology counts is a crucial question at the heart of implementation science in Africa. As implementation science has expanded its theoretical and methodological sophistication, it has increasingly diverged from the mechanisms that drive successful implementation in African health systems. This disconnect reflects persistent epistemic tensions by which dominant implementation science paradigms overlook or undervalue African ways of knowing, being, and doing. These epistemologies include diverse Indigenous knowledge systems, relational approaches, community-led decision making, and philosophical orientations emphasising collective wellbeing and co-creation.

Although implementation science has produced theories, frameworks, and models—including the Reach, Effectiveness, Adoption, Implementation, and Maintenance framework, and the Consolidated Framework for Implementation Research (CFIR)^{1,2}—successful implementations in African contexts consistently succeed through mechanisms that these frameworks either marginalise or fail to capture entirely. This undermining of African implementation wisdom mirrors broader patterns of epistemic exclusion in global health, in which Eurocentric and North American knowledge systems are positioned as universal, systems outside these regions are treated as context.³

The lack of consensus on what constitutes context (a key implementation science attribute) enables the importation of externally developed approaches without adequate adaptation.⁴ This epistemic hierarchy has real consequences. When implementation frameworks fail to recognise the centrality of traditional governance structures (Indigenous and long-standing systems of community authority and decision making that continue to function in contemporary African contexts, including chieftancy systems, elder councils, and customary decision-making bodies), community-based networks, and Indigenous knowledge systems, they not only overlook

important contextual factors but also misunderstand how successful implementation often occurs. The problem is not merely that existing frameworks require adaptation; rather, the very architecture of implementation science, rooted in Eurocentric and North American epistemologies, excludes and devalues alternative forms of implementation knowledge that are equally valid and essential.^{5,6} This critique is linked to broader decolonial movements in global health that challenge the persistent coloniality of knowledge production.⁷ Just as global health has begun to reckon with its colonial legacies, implementation science must confront how its frameworks and methods perpetuate epistemic injustice. The field's inability to fully capture or acknowledge successful African implementation experiences reveals not just technical limitations but profound questions about whose knowledge counts and how we understand implementation itself.

The framework–reality mismatch in African health systems

Successful implementation of evidence-based interventions in African health systems consistently relies on mechanisms that dominant frameworks either marginalise or fail to capture entirely. Community legitimacy (the social authority and trust granted by community members to leaders, institutions, or initiatives based on alignment with local values, power structures, and relational norms),⁸ traditional governance structures, and relational authority often function synergistically as core drivers in successful implementation, not as peripheral contextual factors. Yet, widely used frameworks such as the CFIR and the Exploration, Preparation, Implementation, Sustainment model, despite including relevant constructs such as leadership, engagement, and organisational culture, operationalise these dimensions as variables to be managed rather than generative mechanisms of change.^{9,10}

This mismatch between framework assumptions and implementation realities becomes clear when examining

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Department of Psychiatry, Faculty of Medicine, Dalhousie University, Halifax, NS, Canada (E Eboreime PhD, O Anjorin MD); Division of Epidemiology and Biostatistics, School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa (Prof L Ibisomi PhD, J Kagura PhD); Department of Community Medicine, University of Nigeria Nsukka, Enugu, Nigeria (I U Itanyi MD); Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada (I U Itanyi); Global School of Sustainability, London School of Economics and Political Science, London, UK (L Kanya PhD); Kenyatta National Teaching and Referral Hospital, Nairobi, Kenya (B Wamuti MD); West African Institute of Public Health, Abuja, Nigeria (F Ohanyido MD); School of Nursing and Public Health, College of Health Sciences, University of KwaZulu-Natal, Durban, South Africa (J Ncayiyana PhD); Centre de Recherche Universitaire en Santé (CURSA), Department of Community Medicine, Faculty of Medicine, University of Burundi, Bujumbura, Burundi (D Habonimana PhD); Centre for Tropical Medicine and Global Health, Nuffield Department of Medicine, University of Oxford, Oxford, UK (D Habonimana); Department of Nursing and Public Health, University of Fort Hare, Alice, South Africa (H Gwebu PhD); West African Health Organization, Bobo-Dioulasso, Burkina Faso (E Johnson MSc); Institute of Health Research, University of Health and Allied Science, Ho, Ghana (A K Manyeh PhD); Department of Community and Family Medicine, School of Public Health, University of Zambia, Lusaka, Zambia (H Halwindi PhD); African

Health Economics and Policy
Association, Accra, Ghana
(Prof J E-O Ataguba PhD);
College of Community and
Global Health, Rady Faculty of
Health Sciences, University of
Manitoba, Winnipeg, MB,
Canada (Prof J E-O Ataguba)

Correspondence to:
Dr Ejemai Eboeime, Department
of Psychiatry, Faculty of
Medicine, Dalhousie University,
Halifax, NS B3H 2E2, Canada
ejemai.eboeime@dal.ca

documented cases of success. The Ward Health System implementation in Nigeria reveals that dominant frameworks misinterpret the mechanism driving health systems change. Analysis of ward development committees, which was documented by Abimbola and colleagues, shows how these committees achieved success primarily through Indigenous community governance and relationships.⁸ Ward development committees functioned effectively when they operated as a bridge between communities and government health services, with traditional leaders playing crucial roles beyond token consultation. Successful committees worked through existing community power structures and decision-making processes. Traditional leaders were not peripheral stakeholders but central implementation agents who represented community interests and legitimised health initiatives. As one committee member noted, “The chairman is a traditional ruler...When he talks, people listen.” This integration with Indigenous governance challenges how implementation science frameworks typically conceptualise community engagement. Health system governance in this context operates through a complex interplay of formal and informal structures, with traditional authorities often being the key to effective implementation. Critical realist evaluation approaches¹¹ would recognise these relational mechanisms including traditional governance structures as active drivers of implementation outcomes, not contextual variables to be controlled for.

Rwanda’s health system transformation highlights the limits of compartmentalising interventions and implementation strategies. Rwanda achieved remarkable health coverage through Mutuelles de Santé (mutual health insurance), highlighting the success of community-based health insurance in integrating existing social and political structures.^{12,13} Enrolment increased from 7% in 2003 to 91% in 2010, which was achieved through structural integration of formal insurance mechanisms with Rwanda’s traditional, community-based, socioeconomic assessment system and participatory governance structures.^{14,15} This success relied on institutionalised community participation and local committees that merged traditional and formal systems. These integrated governance mechanisms were not separate elements but worked as a cohesive whole. Rather than showing that compartmentalised approaches would fail, this case reveals how implementation frameworks would mischaracterise the mechanism of success. Frameworks typically categorise community participation as outer setting and formal programmes as interventions, treating them as discrete analytical categories. Yet, Rwanda’s success depended precisely on the fusion of these elements into a single implementation mechanism.

Zimbabwe’s Friendship Bench programme further illustrates this mismatch.¹⁶ Chibanda and colleagues found that the success of the programme in improving mental health hinged on grandmothers (*ambuya utano*)

serving as mental health counsellors.¹⁶ Although employing grandmothers as counsellors might appear as simple task-shifting from a Eurocentric and North American implementation lens, the programme’s success stemmed from the *ambuya*’s unique social position in Zimbabwean society and their Indigenous knowledge—elements that traditional frameworks would misclassify as contextual rather than central to implementation success.

These cases across Nigeria, Rwanda, and Zimbabwe reveal consistent patterns in how relational mechanisms drive implementation success. We examine successful implementations to identify what frameworks fail to recognise—success cases reveal the mechanisms that frameworks should capture but instead mischaracterise or overlook entirely. Nonetheless, we must recognise that Africa is not a monolith; the continent’s diverse histories and governance systems highlight the need for frameworks that are both pluralist and adaptable. The table illustrates these patterns, reinforcing the need to centre locally grounded epistemologies as core mechanisms rather than as peripheral context.

The epistemic injustice of current frameworks

The epistemic injustice in implementation science is reproduced through academic practices. The 2020 effort to adapt the CFIR for low-income and middle-income countries exemplifies this pattern: despite being intended for low-income settings, the systematic review was led entirely by a high-income country institution, maintaining Eurocentric and North American control over the intellectual tools used to evaluate implementation in African contexts.¹⁷ This example reflects how frameworks designed for global use remain rooted in and anchored to European and North American institutions and assumptions.

Although some of the literature acknowledges the importance of culturally adapting implementation science frameworks, these efforts often operate within a paradigm in which Eurocentric and North American knowledge serves as the baseline and reference point, potentially overlooking differences in how implementation occurs in diverse cultural contexts. This pattern reflects a deeper problem with how universality is conceptualised. Eurocentric and North American frameworks are presented as universal tools requiring only minor adaptation for different contexts, whereas African-derived approaches are characterised as culturally specific with limited applicability to other contexts. This one-way universality reveals its colonial logic: if Eurocentric and North American theories were not considered as universal, there would be interest in testing whether *Ubuntu* philosophy (an African relational philosophy emphasising collective humanity, interconnectedness, and the principle that individual wellbeing is inseparable from community wellbeing), traditional governance mechanisms, or intergenerational knowledge

	What actually drove implementation success in context	What the framework construct failed to capture
Leadership engagement (eg, CFIR)	In Nigeria, ward development committees mobilised communities through trusted traditional leaders serving as trusted brokers of legitimacy	Leadership is recognised but measured narrowly, without capturing relational authority or embedded trust that drives sustained engagement
Culture (eg, CFIR and EPIS)	In Rwanda, Mutuelles de Santé scaled rapidly because the model aligned with collective values, social cohesion, and participatory decision-making norms	Culture is often treated as static rather than dynamic and relational, limiting understanding of how cultural mechanisms sustain programmes
Outer setting (eg, CFIR)	Policy reforms in Rwanda succeeded when they integrated formal structures with local governance committees, creating feedback loops between communities and health systems	Outer setting constructs do not fully capture how relational interfaces between policy and informal systems drive outcomes
Bridging factors (eg, EPIS)	In Zimbabwe's Friendship Bench programme, <i>ambuya utano</i> acted as cultural bridges, integrating evidence-based practices with community knowledge and relationships	Bridging roles are undertheorised, missing how social capital and cultural authority enable uptake and fidelity
Process evaluation (eg, RE-AIM)	Across cases, outcomes such as uptake, trust, and long-term sustainability were achieved through relational governance and collective accountability	Quantitative process metrics fail to capture qualitative drivers such as trust, legitimacy, and co-creation

CFIR=Consolidated Framework for Implementation Research. EPIS=Exploration, Preparation, Implementation, Sustainment. RE-AIM=Reach, Effectiveness, Adoption, Implementation, and Maintenance.

Table: Common framework constructs versus real-world operationalisation in African health systems

systems could improve implementation in Eurocentric and North American health systems. The absence of such reciprocal application exposes how claims of universality reinforce Eurocentric and North American epistemic dominance rather than advance genuine understanding of implementation.

The injustice extends beyond framework development to how implementation evidence is conceptualised and validated. As Abimbola and colleagues argue in their critique of the so-called foreign gaze, current implementation frameworks privilege certain types of evidence while systematically devaluing others.⁸ Local knowledge about what works is often dismissed as anecdotal unless validated through Eurocentric and North American methodologies—what Fricker terms testimonial injustice, in which credibility deficits are assigned based on the speaker's social identity rather than their actual expertise.⁵ This credibility deficit forces African implementers to translate their knowledge into Eurocentric and North American frameworks, risking loss of nuance in the process. Dotson terms this epistemic oppression—the structural and systematic exclusion of marginalised groups from knowledge production.⁶ In implementation science, epistemic oppression exists in what defines credible knowledge, whose questions are asked, whose methods are valued, and whose definitions of implementation success are prioritised.

This power dynamic is reinforced through funding and publication practices. Research agenda setting remains predominantly controlled by institutions from high-income countries, with funding requirements reflecting Eurocentric and North American research priorities over local needs.¹⁸ Studies show persistent inequities in global health authorship, with high-income researchers often occupying leadership positions in research on low-income settings.³ As a result, African implementers must align their research with external priorities to

secure funding, perpetuating Eurocentric and North American control over what constitutes legitimate implementation knowledge.

Implications for implementation science practice

Despite the increasing adoption of implementation science theories and frameworks that are developed in high-income settings, there is limited evidence that these approaches improve health outcomes in Africa. Ridde and colleagues document that knowledge transfer often occurs without sufficient evaluation of its relevance or impact on implementation success.¹⁹ Similarly, Iwelunmor and colleagues highlight that externally developed frameworks frequently struggle to sustain improvements in African health systems, raising questions about their universal applicability.²⁰ These examples suggest that widespread adoption of Eurocentric and North American implementation approaches has not translated into proportional improvements in African health outcomes.

The framework–reality mismatch demands more than minor adjustments; it requires a reconceptualisation of implementation science practice in African contexts. Rather than creating African frameworks to compete with Eurocentric and North American frameworks, which risks reinforcing the same framework-centric logic, there is a need for approaches that engage diverse knowledge systems without forcing translation into rigid academic categories.

Implementation science needs to transform its theoretical foundations to meaningfully engage with African epistemologies—ie, ways of knowing and doing—that are often excluded. Moving beyond the notion of merely adapting Eurocentric and North American frameworks, we advocate for pluralistic approaches that legitimise and centre local implementation practices as fundamental knowledge.²¹

The implications for research methodology are equally profound. Current implementation science research typically begins with pre-existing frameworks and examines how programmes conform to or deviate from these frameworks. This deductive approach needs to be re-envisioned, as shown by Rwanda's health system transformation and Zimbabwe's Friendship Bench programme; successful implementation often follows patterns that existing frameworks fail to capture. Therefore, it is imperative to understand (1) how implementation succeeds in African contexts; and (2) how to develop theoretical orientations that engage with these mechanisms without forcing them into Eurocentric and North American academic categories.

New directions in implementation science research

Implementation science requires a methodological transformation to capture the complex mechanisms that drive successful implementation in diverse contexts. Current approaches systematically overlook crucial relational and cultural dynamics, particularly in African settings where informal systems and community relationships often determine programme success.

We recommend three essential shifts. First, develop new methodological approaches for studying relational dynamics and informal systems that are often invisible in current implementation frameworks focused narrowly on formal processes. This shift requires moving beyond conventional data collection towards approaches that can capture how trust, legitimacy, and authority function as implementation mechanisms.

Second, expand evaluation frameworks beyond conventional implementation metrics to assess what actually sustains implementation success in different contexts. Measures such as community ownership, relational trust, and cultural alignment should be developed as central mechanisms rather than being treated as peripheral contextual factors, and their role in long-term outcomes should be studied.

Third, reconceptualise the relationship between researchers and the communities they study. Communities and local implementers should be engaged as co-creators of implementation knowledge rather than sources of data to be analysed through external theoretical lenses. This shift requires ensuring that research priorities, methodological choices, and interpretation processes reflect genuine collaboration rather than extractive investigation.

Transforming implementation science education

The transformation of implementation science must extend to how we train the next generation of scientists and practitioners. Current programmes, even those focused on global health, often begin with Eurocentric and North American frameworks and theories, treating

adaptation to diverse contexts as secondary. This approach perpetuates epistemic hierarchies that limit both the field's scientific capacity to understand implementation across diverse contexts and its ethical standing.

Implementation science education must be reimagined to present multiple epistemological traditions as equally valid starting points for understanding implementation. This means moving beyond case studies that frame African examples as deviations and instead positioning them as sources of theoretical insight.

Reimagining implementation science

We have revealed more than just gaps or limitations in current implementation science frameworks; we expose fundamental flaws in how implementation science conceptualises and approaches health system change in African contexts. From Nigeria's health system governance to Zimbabwe's mental health innovations, we see the inadequacy of current frameworks and the systematic exclusion of vital knowledge about how implementation succeeds in African health systems.

The epistemic injustice—from the North American-led adaptation of the CFIR to the systematic devaluation of African knowledge—represents more than an ethical failure. It constitutes a considerable scientific limitation that hampers our ability to understand and support successful implementation. When implementation science frameworks fail to capture how programmes succeed in African contexts, they fail not only African health systems but also the field's mission of bridging the know-do gap globally.

Transforming implementation science addresses both moral and scientific imperatives. Centring African epistemological tradition, sharing power in knowledge creation, redefining evidence, and creating new institutions are not merely matters of justice but essential steps towards an approach that supports health system improvement in all contexts.

Realising these transformations requires institutional changes. Funding agencies should require low-income and middle-income country researcher and/or institutional leadership in all implementation studies in these countries. Academic institutions should redesign training programmes to centre multiple epistemological traditions as equally valid starting points. Publication systems need pathways that value diverse forms of knowledge dissemination and community-accessible formats. Only through genuine balance in power relations and knowledge validation processes can implementation science move from perpetuating epistemic exclusion to supporting collaborative health system improvement across all contexts.

Examples across the continent show that African health systems have already developed sophisticated approaches to successful implementation. The challenge is not to help these systems conform to Eurocentric and North

American implementation frameworks, but to develop implementation science approaches that can fully recognise and learn from their achievements. This means moving beyond the current paradigm, in which African implementations are viewed as contexts requiring adaptation, to one in which African implementation experiences inform core implementation theory.

Conclusion

Implementation science stands at a crucial juncture. It can continue to perpetuate epistemic hierarchies that limit both its ethical standing and its scientific validity, or it can embrace transformation, developing approaches that recognise and learn from the full range of human knowledge on enhancing health systems. The evidence presented here suggests that this transformation is not only necessary, but urgent.

The changing funding landscape of global health presents a strategic opportunity to challenge Eurocentric and North American control over implementation research priorities. As development assistance decreases, African institutions should not only avoid alternative funding that reinforces old hierarchies, but also build funding partnerships that centre African implementation knowledge from the outset.

The future of implementation science requires genuine knowledge co-creation, in which different epistemological traditions contribute equally to our understanding of how to improve health systems. Only then can implementation science fulfil its promise of supporting health improvements for all communities, regardless of where their knowledge and experience originate. The health of millions depends not only on our ability to implement evidence-based interventions, but also on recognising and learning from the full range of human wisdom.

Contributors

EE conceptualised the Viewpoint. EE and JE-OA wrote the first draft of the manuscript. OA provided technical input and support during the development of the manuscript. All authors contributed to revising and finalising the manuscript and approved the final version.

Positionality

Our perspective is shaped by collaborative work across African and high-income institutions and practical engagement with health systems across diverse African settings.

Declaration of interests

We declare no competing interests.

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References

- Gaglio B, Shoup JA, Glasgow RE. The RE-AIM framework: a systematic review of use over time. *Am J Public Health* 2013; **103**: e38–46.
- Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement Sci* 2009; **4**: 50.
- Abimbola S. The foreign gaze: authorship in academic global health. *BMJ Glob Health* 2019; **4**: e002068.
- Nilsen P, Bernhardtsson S. Context matters in implementation science: a scoping review of determinant frameworks that describe contextual determinants for implementation outcomes. *BMC Health Serv Res* 2019; **19**: 189.
- Fricker M. Epistemic injustice: power and the ethics of knowing, 1st edn. Oxford University Press, 2007.
- Dotson K. A cautionary tale: on limiting epistemic oppression. *Front J Women Stud* 2012; **33**: 24–47.
- Santos BDS. Epistemologies of the South—justice against epistemicide. Routledge, 2015.
- Abimbola S, Molemodile SK, Okonkwo OA, Negin J, Jan S, Martiniuk AL. “The government cannot do it all alone”: realist analysis of the minutes of community health committee meetings in Nigeria. *Health Policy Plan* 2016; **31**: 332–45.
- Aarons GA, Hurlburt M, Horwitz SM. Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Adm Policy Ment Health* 2011; **38**: 4–23.
- Moullin JC, Dickson KS, Stadnick NA, Rabin B, Aarons GA. Systematic review of the Exploration, Preparation, Implementation, Sustainment (EPIS) framework. *Implement Sci* 2019; **14**: 1.
- Pawson R, Tilley N. Realistic evaluation. Sage Publications, 1997.
- Binagwaho A, Farmer PE, Nsanzimana S, et al. Rwanda 20 years on: investing in life. *Lancet* 2014; **384**: 371–75.
- Chemouni B. The political path to universal health coverage: power, ideas and community-based health insurance in Rwanda. *World Dev* 2018; **106**: 87–98.
- Powell BJ, Waltz TJ, Chinman MJ, et al. A refined compilation of implementation strategies: results from the Expert Recommendations for Implementing Change (ERIC) project. *Implement Sci* 2015; **10**: 21.
- Nyandekwe M, Nzayirambaho M, Kakoma JB. Universal health insurance in Rwanda: major challenges and solutions for financial sustainability case study of Rwanda community-based health insurance part I. *Pan Afr Med J* 2020; **37**: 55.
- Chibanda D, Weiss HA, Verhey R, et al. Effect of a primary care-based psychological intervention on symptoms of common mental disorders in Zimbabwe: a randomized clinical trial. *JAMA* 2016; **316**: 2618–26.
- Means AR, Kemp CG, Gwayi-Chore MC, et al. Evaluating and optimizing the consolidated framework for implementation research (CFIR) for use in low- and middle-income countries: a systematic review. *Implement Sci* 2020; **15**: 17.
- Sheikh K, Hargreaves J, Khan M, Mounier-Jack S. Implementation research in LMICs—evolution through innovation. *Health Policy Plan* 2020; **35** (suppl 2): ii1–3.
- Ridde V, Pérez D, Robert E. Using implementation science theories and frameworks in global health. *BMJ Glob Health* 2020; **5**: e002269.
- Iwelunmor J, Blackstone S, Veira D, et al. Toward the sustainability of health interventions implemented in sub-Saharan Africa: a systematic review and conceptual framework. *Implement Sci* 2016; **11**: 43.
- Eboreime EA, Olawepo JO, Banke-Thomas A, Abejirinde IOO, Abimbola S. Appraising and addressing design and implementation failure in global health: a pragmatic framework. *Glob Public Health* 2021; **16**: 1122–30.

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