

RESEARCH ARTICLE

‘We cannot just keep it in our palm’: A policy analysis of the integration of the case management of neglected tropical diseases into the health system of Liberia

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OPEN ACCESS

Citation: Wickenden A, Dean L, Molyneux S, Godwin-Akpan TG, Kollie KK, Phillip M, et al. (2025) ‘We cannot just keep it in our palm’: A policy analysis of the integration of the case management of neglected tropical diseases into the health system of Liberia. *PLOS Glob Public Health* 5(12): e0004328. <https://doi.org/10.1371/journal.pgph.0004328>

Editor: Julia Robinson, PLOS: Public Library of Science, UNITED STATES OF AMERICA

Received: February 5, 2025

Accepted: November 6, 2025

Published: December 10, 2025

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Data availability statement: Data are available on reasonable request.

Funding: This work was supported by the National Institute of Health Research through the REDRESS Implementation Research

Abstract

This study investigates the development and implementation of Liberia’s policy to integrate the case management of neglected tropical diseases (NTDs) into the broader health system. The policy responded to persistent challenges of inequitable access and fragmented services, as outlined in Liberia’s 2016 national strategic plan for integrated NTD case management. Using a qualitative case study approach, the research draws on stakeholder perspectives to explore how integration was pursued and how policy was translated into practice. Guided by the Policy Analysis Triangle, this study examines the dynamics shaping policy development and translation. Triangulation of interview, document, and observational data informed the development of a conceptual framework identifying five interrelated domains—people, place, process, politics, and power—as central to the translation of health policy into practice. These domains were grounded in Liberia’s experience but reflect themes widely discussed in global health policy literature. The resulting framework provides a valuable lens for navigating the complexities of health policy development and translation, particularly for disease programme integration across key health system functions. While anchored in the NTD context in Liberia, the consistency of these themes across diverse settings reinforces the broader relevance and utility of the framework. With appropriate contextual adaptation, it offers practical guidance for policy-makers and implementers working to develop and translate complex health policies into effective and equitable practices. The findings contribute to global health systems thinking by underscoring the need for a shift from narrow, clinically focused

Project for Severe Stigmatising Skin Diseases (NIHR2001129). The author AW received funding from NIHR2001129. The author ST received funding from NIHR2001129. The author LD received funding from NIHR2001129. The author MP received funding from NIHR2001129. The author ER received funding from NIHR2001129. The author KK received funding from NIHR2001129. The author SM is funded by the NIHR (NIHR303168) using UK international development funding from the UK Government to support global health research. The views expressed in this publication are those of the author(s) and not necessarily those of the NIHR or the UK government. This work was conducted while the authors AW and MP were employed by Effect Hope, which provided salary support. NIHR and Effect Hope had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Competing interests: The authors have declared that no competing interests exist.

policies towards more holistic, inclusive, and system-oriented approaches that reflect real-world complexity and engage diverse stakeholders.

Introduction

Neglected tropical diseases (NTDs) represent a defined group of conditions that are characterised by multifaceted neglect and include diseases such as leprosy, lymphatic filariasis and yaws. The populations NTDs predominantly affect, such as people living in rural farming communities, informal urban settlements, and conflict-affected or remote areas in parts of Africa and Asia, are among the most overlooked globally in health care access, are often considered hard to reach, and experience multiple intersecting health and socioeconomic barriers. Investment in prevention and care programmes for these diseases is disproportionately small relative to the number of people affected, and funding and research attention for these diseases are minimal compared with other global health challenges [1,2]. Many discussions and studies related to global health policy have historically overlooked NTDs. Therefore, it is not uncommon to encounter significant policy documents such as national health policies, supply chain policies, and health promotion strategic plans, among others, in NTD endemic countries that fail to address access to and provision of NTD care through the health system [2–4].

Implementation models for NTDs focus mainly on either disease prevention through mass drug administration (MDA) or NTD case management or care. Various elements of NTD care are also referred to as Morbidity Management and Disability Prevention (MMDP), Disease Management, Disability and Inclusion (DMDI), Disability Prevention and Medical Rehabilitation (DPMR) and Case Management (CM). These definitions encompass multiple elements of the continuum of care, including case finding, diagnosis, treatment and rehabilitation, and can also include other interventions for people affected by NTDs, such as stigma reduction and socioeconomic development [5]. The term ‘case management’ is widely used in the Liberian context and refers specifically to the identification, referral, diagnosis and treatment of a person with an NTD, including addressing the psychosocial aspects of the disease. It should be acknowledged that the use of the term ‘case’ can be considered problematic and should be used sensitively to avoid dehumanising people with NTDs, according to a guidance document on terminology from the STOP TB Partnership [6].

An effective policy development and implementation process for integrating the care of people living with an NTD into the health system is crucial for achieving global health goals related to NTDs, Universal Health Coverage (UHC) [7,8] and the World Health Assembly Resolution on People-Centred Integrated Health Services [9]. However, minimal evidence exists on how to accomplish these goals effectively [1–3]. Liberia’s experience in this area provides critical insights that can significantly contribute to bridging the evidence gap in this domain. It can inform a framework applicable to policy planning and translation in various contexts and on different health topics where integration is seen as a route to universal health coverage.

This policy analysis of the integrated strategy for case management of NTDs in Liberia examines the interaction between interests, institutions and ideas in the policy development and implementation process [10], incorporating global, regional, national and county analyses [11]. The policy analysis also examines the interlinkages with other overarching health systems policies and contextual changes that shaped the feasibility of the integrated plan through time.

Since the early 1990s, the literature has explored the policy process and unpacked the critical aspects that should be considered in any policy analysis [14–18]. There is a growing appreciation of the complexity of policy development processes, with tools emerging for analysing and understanding how policy is developed [19,20], the critical role of power [21–26], and how policy can be translated into practice [27,28]. Within the literature, authors refer to the need for more significant and in-depth policy analysis in areas of global health policy that have been neglected, encouraging highly participatory multistakeholder approaches and engagement in policy analysis [12–15]. Policy analysis will uniquely contribute to this field of work and will include an analysis and approach focusing on multiple policy process dimensions [15,16].

Several frameworks for policy analysis are considered in this study, including the ‘Policy Triangle Framework’ [12], the ‘Stages Heuristic’ [17,18], and ‘Network Analysis’ [18]. The Policy Triangle Framework is the most appropriate for this research, as it recognises that policy processes are not linear and considers the content of policy, actors, context and processes [12]; elements of multiple frameworks are used to complement the policy triangle.

Neglected Tropical Disease case management model in Liberia

Prior to 2016, the case management of neglected tropical diseases (NTDs) in Liberia was delivered primarily through vertical programmes—disease-specific interventions implemented by Non-Governmental Organisations (NGOs) and donor-funded partners, often in parallel to the national health system [5,19,20]. These vertical approaches typically involved standalone training, outreach, and data systems that bypassed routine government structures. Although effective for short-term disease control, they contributed to fragmentation, inefficiencies, and persistent gaps in care for people living with conditions such as leprosy, Buruli ulcer, yaws, and lymphatic filariasis [5,19,20].

In contrast, horizontal approaches aim to integrate services within existing health system structures—leveraging shared governance, financing, infrastructure, and health workers across diseases to improve system-wide equity, efficiency, and sustainability [21–24]. Although the value of integration has been widely promoted in global health policy, particularly since the 2012 London Declaration on NTDs [25] and the WHO NTD Roadmaps [26,27], practical examples of integrated case management remain limited, particularly in fragile and resource-constrained settings.

In the aftermath of the Ebola crisis, Liberia’s Ministry of Health initiated a major shift in policy and programme design [28]. Recognising the weaknesses of fragmented delivery, it developed and launched the Strategic Plan for the Integrated Case Management of NTDs (2016–2020). This policy aimed to embed case management services into the routine health system across all six health systems’ building blocks: service delivery, health workforce, health information system, medical products, financing, leadership, and governance [29,30]. This approach marked a significant departure from vertical programming and positioned Liberia as a leader in health system-based integration for NTDs.

Although the definition of integration in the context of health systems, public health, and NTDs is contested [1,23,31–33], there is a shared commonality across definitions that relates to the process of combining various elements—whether tools, diseases, activities, indicators, or processes. Integration processes are inherently complex. Success in this context lies in navigating this complexity to achieve a broader goal. When Liberia took the decisive step of moving away from parallel or vertical approaches to managing NTDs, instead embarking on a policy revision and development process that consolidated treatment and care for individuals living with NTDs under one programme (the NTD Programme) and guided by one integrated policy, it was a bold step towards the system-wide integration of NTDs in the Liberia health system [16].

There is limited knowledge or empirical evidence of the factors contributing to the successful development of an integrated policy in complex health systems that can overcome the gap between policy development and implementation, especially in Fragile and Conflict-Affected States (FCAS). This paper contributes to increasing knowledge in this area, as

Liberia was considered an FCAS at the point of the development and initial implementation of the policy in 2016; Liberia was removed from the list of FCAS in 2022.

The integration of case management in Liberia and associated policy processes is also an essential example of changing policy discourse in a neglected area that warrants further exploration to identify the lessons that could be learned for policy development in Liberia in other contexts and on other health topics.

Methods

We employed a qualitative case study design to investigate the policy development and translation process through the experiences of 20 purposively selected stakeholders, each with a significant role in either the development or implementation of Liberia's integrated NTD policy or in the decisions and development that precipitated the policy shift. This case study method enabled an intensive, in-depth investigation into policy development, policy implementation and health system adaptation in its real-life context through Liberia's integrated case management model [10,34]. This case study is an example of a national government of a fragile state seeking to integrate vertical health services into the broader health system to improve access to health care [34].

Sampling

This study is concerned with exploring the experiences and reflections of key stakeholders involved in the policy development and implementation of an integrated approach to the case management of NTDs in Liberia. The diversity of stakeholders reflects that there are multiple views of reality influenced by social context and the environment of key informants; as such, the naturalist paradigm, which assumes that reality is socially constructed and best understood through the meanings and experiences of individuals within their specific contexts, informs this qualitative study [35]. This study follows the principles of purposive sampling guided by context and research questions. Key informants were purposively selected through stakeholder analysis based on tacit knowledge and participant recommendations. Key informants were drawn from multiple levels of the health system recognising the reach of the policy and the diversity of experience of policy development and implementation at the global, national, and county levels, according to their experience linked to their job role and knowledge of the NTD programme, NTD policy, and broader relevant health and social issues in Liberia.

Participant selection was informed by a participatory stakeholder analysis workshop, which was part of the broader REDRESS research project. REDRESS is a cross-disciplinary research project led by the Liverpool School of Tropical Medicine that aims to help improve the care of people affected by severe stigmatising skin diseases (SSSDs—a term specifically used in the research call) in Liberia, namely, leprosy, onchocerciasis, lymphatic filariasis, Buruli ulcer, and yaws, which are all the NTDs included in the integrated NTD case management policy. For a detailed account of the participant characteristics, please refer to [Table 1](#) below.

The adapted process for stakeholder analysis with REDRESS coinvestigators engaging with the integrated case management policy is outlined below ([Fig 1](#)).

Data collection

Data were collected through key informant interviews. The interviews took place from March to December 2023. All the interviews were conducted by A.W. The interviews were conducted in English, and the length varied from 30 minutes to 2 hours. The interview format was exploratory, using a topic guide for a structure that explored multiple facets of the policy development process, personal reflections and pressures on its implementation. However, the questions were tailored by the interviewer based on each interviewee's context and reactions, fostering a richer narrative and reflexivity in their responses. The interviews were held in Liberia and internationally; two interviews were conducted online via video conferencing platforms (Microsoft Teams).

Table 1. Participant Characteristics.

| Participant Characteristics | | | | |
|---------------------------------|--------------------------------------|----------------|-------|----------|
| Key Informants | Variables | Categories | Count | Per cent |
| Key Informant Interviews (n=20) | Sex | Female | 3 | 15% |
| | | Male | 17 | 85% |
| | Employment | Government | 13 | 65% |
| | | Non-Government | 7 | 35% |
| | Health system level of primary focus | International | 6 | 30% |
| | | National | 8 | 40% |
| | | County | 6 | 30% |
| | Age | <45 | 16 | 80% |
| | | >45 | 4 | 20% |

<https://doi.org/10.1371/journal.pgph.0004328.t001>

Stakeholder Analysis Process

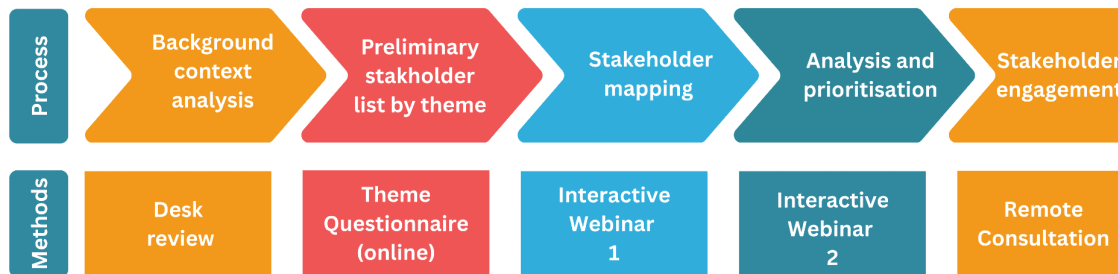


Fig 1. Adapted Stakeholder Analysis Process.

<https://doi.org/10.1371/journal.pgph.0004328.g001>

Data analysis

The interviews were transcribed verbatim, and the transcripts were stored and analysed using NVivo12 software. We applied a reflexive thematic analysis, following the six-phase method described by Braun and Clarke [36]. Initially, we familiarised ourselves with the data, reviewed the transcripts and created mind maps to highlight emerging key points. The second phase involved open coding, systematically reviewing the whole dataset to identify segments relevant to our study’s focus. In the third phase, we formulated initial themes, recognising patterns and shared meanings across the dataset. We grouped clusters of codes that seemed to converge around a central idea or concept that could significantly contribute to fulfilling the aim of the study. The fifth phase entailed refining, defining, and naming our themes, ensuring that each was demarcated and centred on a robust core concept. The final phase—phase six—included composing the study’s write-up, considering familiarisation diagrams and reflexive journaling that commenced at the analysis’s outset.

To conduct the analysis, the Policy Triangle Framework [13] was the primary framework used to inform the analytical process. Additionally, we used elements of the Power Cube [22,23], which is a framework for analysing how power operates in society, examining its forms (visible, hidden, invisible), spaces (closed, invited, claimed), and levels (local, national, global) to understand where and how change can be influenced, and Network Analysis [37–39], which is a method for examining the relationships and interactions between actors or institutions within a system, helping to identify patterns of influence, collaboration, and power dynamics that influence the interpretation and analysis of the data.

Ethics statement

Ethical approval for this study was obtained from the Liverpool School of Tropical Medicine (#22–056) and the University of Liberia, Atlantic Centre for Research and Evaluation Institutional Review Board (#23– 01-356). Prior to the interview, participants' informed consent was obtained according to the protocol submitted for ethical approval prior to the interviews.

Positionality and reflexivity

The lead author's positionality in this research is shaped by more than a decade of professional engagement with Liberia's NTD Programme through their role at a Canadian global health NGO. Since 2012, the lead author has worked closely with the Ministry of Health on programme design, policy development, and implementation research. This long-standing involvement provided valuable contextual insight and access to key stakeholders while also positioning the lead author as both an insider and an outsider—occupying dual roles as a researcher and a partner.

The lead author acknowledges that their identity—as a white, British/Canadian individual educated in the Global North—and their affiliation with a funding organisation may influence power dynamics and participant responses. To mitigate these risks and promote ethical rigour, a reflexive approach was adopted throughout the research process. This included ongoing journaling, critical self-reflection, and participant checking to ensure that interpretations remained grounded in participants' perspectives. During all engagements, the lead author clearly distinguished their role as a researcher from their professional responsibilities and consistently emphasised confidentiality and the voluntary nature of participation.

These strategies were employed to reduce bias, foster trust, and ensure that the research authentically reflected the experiences and priorities of Liberian stakeholders. This study aims to contribute to global health policy discussions in a manner that is inclusive, respectful, and informed by locally grounded knowledge.

Results

The results are organised into five domains: people, process, place, politics and power (see Fig 2). Understanding the dynamic relationships within and between the domains is critical to understanding the policy development and implementation process in the context of the integrated NTD policy in Liberia.

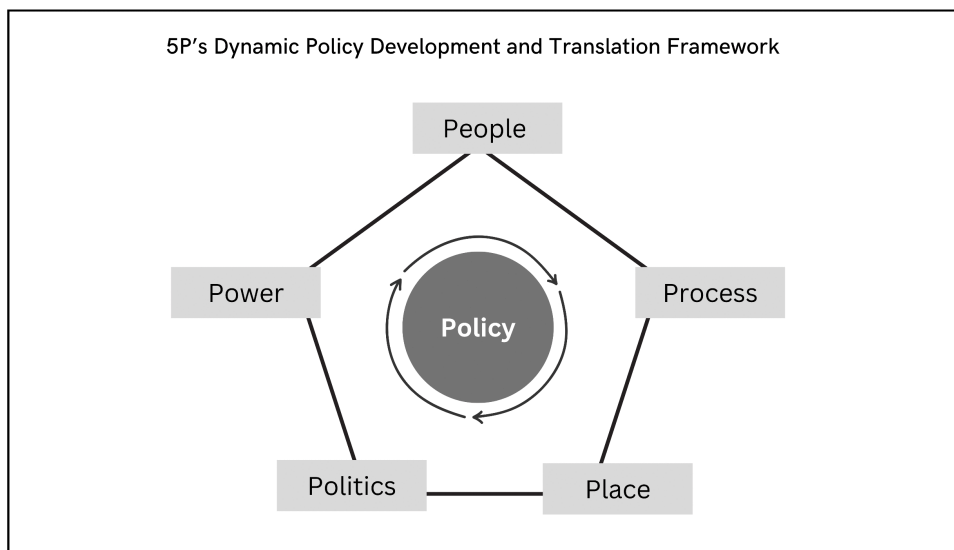


Fig 2. P5 Dynamic Policy Development and Translation Framework—Adapted from the Policy Triangle, Walt et al. 1994.

<https://doi.org/10.1371/journal.pgph.0004328.g002>

People—key stakeholders, blockers, enablers, and power brokers

Impact of the Ministry of Health leadership and ownership of the policy process. Key informants agreed that the ownership of this integrated approach to NTD case management belonged to the leadership of the NTD programme and senior policy-makers within the Ministry of Health. Many stakeholders emphasised the importance of the leadership's role and approach with NGOs and donors, particularly stressing the pivotal role of the NTD's programme leadership in fostering political will, trust, and commitment to integration and encouraging collaboration between partners.

Moreover, visible support from senior ministers within the Ministry of Health at critical points in the development of the Policy reinforced the Programme's leadership and underscored the importance of stakeholder participation. This high-level backing also promoted integration across various Ministry of Health departments.

"There are a few people at the government level...that are like that. So [the NTD Programme Director in Liberia] was one of them...they push the programme and the partners...I think it's very good...I think as an organisation, you're really there only to support...the country led model." (International Key Informant -002)

Multiple stakeholders emphasised this point. "[The] leader of the NTD programme in Liberia from my perspective has been a very good leader, putting everybody together for meetings despite the tension of different partners to go by their [laughter] own, to fulfil their own agenda. But he has been very instrumental to try to put together all the partners." (International Key Informant -005)

The importance of the Ministry of Health ownership and leadership was also emphasised as a key factor in both the development and the translation of the policy into practice by stakeholders at the national level. Comparisons were made with the NTD Masterplan, which is a guiding national NTD policy and implementation document designed by the WHO and developed with the support of WHO consultants in many countries where NTDs are endemic, including Liberia.

"It was driven by us. We know what we wanted to do. Unlike the Master Plan...this is something that we decided to do as a country...we knew where we wanted to emphasise; we knew our priorities...there were areas that we wanted to focus, and we did that." (National Level Key Informant, Ministry of Health -003)

In an interview with a senior stakeholder within the Ministry of Health at the national level, it was argued that leadership was so critical that capacity strengthening should focus on empowering and equipping Programme Managers with management skills and training beyond their clinical expertise to foster country ownership and leadership.

"...the challenge now...it should be more like strengthening administrative skills. Creating a team of strong managers at all levels of the system so they can know what to do." (National Level Key Informant, Ministry of Health -006)

Person-centred values and empathy-driven decision-making. A consensus among key informants suggests that shared values and a clear vision foster an atmosphere of trust, collaboration and transparency. By emphasising and modelling these values in critical relationships, sensitive topics such as financial compensation, restructuring, financial commitments, and power dynamics could be approached constructively. This value-driven approach promoted shared ownership, commitment, and support for major shifts in power and programming models.

"I always felt like the national team was very driven to ensure that...people were able to get the care they needed and weren't being effectively neglected. That's always the opinion I got from them." (International Key Informant -005)

The importance of remaining focused on the end goal of the policy rather than the barriers to reaching it was evident in many global and national-level interviews. The importance of a unifying vision or goal also resonated with stakeholders focused on the operationalisation and translation of the policy at lower levels of the health system. In one interview, a stakeholder from the Ministry of Health described their feelings about the shift of leprosy from the TB Programme to NTDs. His description focused on what he saw as the route to a reinvigorated emphasis on leprosy in Liberia, which would serve the Liberian population better than the status quo, not his own position, which had changed as a result of the policy.

“Some people felt that they are taking the programme from them...some people felt that it was good to do that, so that the patients can...have maximum benefits...when they saw the importance of it being like that...I think people felt good about it. And myself...I felt good about it...my satisfaction is the people suffering should be served properly...let the people have good services from their health workers, so if the people are benefiting, I am benefitting.” (National Level Key Informant, Ministry of Health -002)

Another key informant, whose role changed following the adoption of the integrated policy, was reflective about the values that must be kept in mind by anyone embarking on this sort of integration process, emphasising collaboration and cooperation above the desire to maintain control and position.

“So, in order to improve the programme, if it needs to be restructured, we should accept it for the benefit of the health care delivery system because we cannot just keep it in our palm. It’s got to be expanded, and to expand it, we need knowledgeable people. People who have the knowledge to manage the programme or other areas of intervention, we need them...Yeah, to help our people.” (National Level Key Informant, Ministry of Health -001)

The role of champions, capital and sacrifice. Personal and professional sacrifices by individual champions of the policy enabled the development and implementation of the integrated approach. The integration of NTD care within the Ministry of Health, the high level of ownership demonstrated by the NTD programme, and the greater harmonisation of NGO efforts and support were made possible by the commitment and sacrifice of key stakeholders who were significantly engaged in the policy development process and decision-making. A key informant from an NGO described how their commitment to the transition from NGO-led implementation of NTD care to the Ministry of Health-led implementation in Liberia created significant challenges and problems with senior leadership and the Board of his organisation, ultimately leading to the breakdown of the relationship between him and his supervisor and the loss of his job.

“It was really difficult...I felt very bad about that because, um...keeping explaining and you are not very well understood sometimes you have to find another way to make sure that you can continue to develop the passion and the vision that you have. And for those reasons, I have resigned and moved to another organisation, which offers me the possibility to continue such moves.” (International Key Informant -004)

Other stakeholders discuss the challenge of the volume of work linked to a programme with multiple diseases and translating this policy into practice within a sector where so much funding, measurement, and policy development is still reliant on a vertical disease-focused approach. They describe the enormous volume of work that is created and how they try to manage the intersection that they find themselves at.

“My reflection right now is...my role....comes along with lots of responsibilities and...you just have to...dedicate your services, because if you don’t dedicate your services, these things will not work. Because it’s an everyday activity, you don’t rest, yes, you just don’t rest. And trust me, there are times I come a long way and said well; at least this week I will rest, I have done X,Y, Z, so let me rest, and then tomorrow I will just have a phone call that needs my intervention...I

mean the integrated approach is not centred around one person; it's the involvement of everyone.” (National Level Key Informant, Ministry of Health - 004)

Tied to ideas of personal and professional sacrifice is the role of social and political capital, which is especially evident among those deeply involved in developing and writing the integrated NTD policy. The interviews highlight how individuals deeply committed to the policy's vision leveraged their social and political capital to gain support for integration and assuage concerns from those wary of the shift. One key informant who worked with an institution responsible for the case management of one specific disease described the advocacy that they had to engage in and the political capital they had to expend to participate in the development of the integrated policy.

“We always knew there was the need for it; it was just how to go about it was the trick...I remember the workshop, getting the integrated disease control strategy in place, I had to really push from my side to even be able to go. It was not something that was [considered] of importance.” (International Key Informant -005)

Similarly, advocacy and political capital were seen as critical in building internal buy-in within the Ministry of Health. When asked about the formula for success in this area, a national NTD Programme stakeholder explained the following:

“The first thing will be the Chief Medical Officer. He should be the first person to be engaged, from the Chief Medical Officer, through his office...then of course through that other people can come in, see how important, how good is the integration.” (National Level Key Informant, Ministry of Health -001)

Several participants mentioned this limitation due to the lack of inclusion of people affected by NTDs, informal health providers and community members in the development and translation of the policy.

“One of the things that we didn't do at the time, which I would do differently now, was that we didn't get much involvement of persons affected by NTDs...if we had...we would have identified that their needs...we would have understood strongly that they have psychosocial concerns, and we have wanted us to address those psychosocial concerns...I would get...their family members or caretakers. And I would get community stakeholders...I would get traditional healers, faith healers, and other communities...have the plan to be largely influenced by their felt needs.” (National Level Key Informant, Ministry of Health -007)

Place-the specific context, culture, beliefs and structures

Health system shocks creating momentum for change—the impact of Ebola. In 2015, Liberia was emerging from one of the most significant health crises of a generation: Ebola. Ebola had a catastrophic impact on Liberia, its population, its health system, and the trust that the population had in the health system's ability to protect the health of its population. Ebola is not categorised as an NTD, but it not only highlighted the weaknesses of the existing health system but also demonstrated the feasibility and strength of integration and cooperation among multiple stakeholders alongside the critical importance of resilience within the health system, which had been lacking before and during Ebola.

“Everyone came together from different sectors, different programmes. And I think that level of coordination and collaboration really opened up people's eyes to the possibility of working together and the benefits of it, especially at a community level...And there may be a lot of benefits, as we saw with Ebola response.” (International Key Informant -001)

The discourse around the health system in Liberia shifted significantly following Ebola, and the impact of a fragmented donor-reliant health system with little structural resilience was revealed by the catastrophic impact on the lives of

thousands of Liberians. National-level stakeholders discussed the importance of learning from the Ebola response, the shift in emphasis at the Ministry of Health and the increased understanding of how cross-departmental collaboration could work to achieve better health outcomes. However, some stakeholders believe that the policy shift would still have occurred without Ebola, but Ebola provided the opportunity to accelerate this shift. When asked if the policy change would have happened had the Ebola outbreak not occurred in Liberia, one respondent answered:

“I am very sure it would have; it was because Ebola did not take away anything. It didn’t bring anything in the context of NTDs.” (National Level Key Informant, Ministry of Health -003)

Preexisting health systems structures and policies—the irony of the opportunity to start from zero

Something that multiple stakeholders mentioned was the opportunity created by the absence or weakness of preexisting vertical NTD case management programmes. While seemingly counterintuitive, the absence of established strong and well-supported vertical programmes created an opportunity for integration with minimal resistance. When reflecting on the experience of the integration of leprosy, which did have a historical programme that predated the integrated policy and was combined with TB, key informants from within the Ministry of Health discussed how hard it would have been to have made integration happen if the process that had to be undertaken to integrate leprosy had also had to happen for the integration of the case management of other NTDs.

“So, I think part of the reason why we were able to pull the NTDs as an integrated programme was that most of them were not existing as a well-established vertical programme. I just give you an example of how leprosy was, assuming all of the nine diseases or conditions were established vertical programmes...and we had to pull all of that together, the course that we pass through with leprosy, we would have had to pass through that with all of the diseases, that will be a huge, huge, huge challenge that we would have had to spend the next three years or four years trying to bring everybody on board. So, I think part of it was the fact that these programmes...were not full-grown established programmes by themselves. So that was a blessing in disguise.” (National Level Key Informant, Ministry of Health -003)

Locally held beliefs, community norms, and social and cultural contexts had some influence. During data collection with county-level informants, an interesting observation that was made in response to the question, “Why do you think integration was possible in Liberia?” was that it reflected deeply held cultural values, norms and practices of collaboration and working together to heal those members in the community who were unwell or vulnerable at that time.

“Our cultures and values....It makes you to teach your traditional behaviour, how to live within your community, how to treat people, how to [ensure] things are working together, especially in the community.” (County Level Key Informant, Ministry of Health-003-M)

Addressing the pressures on health care workers and policy-makers in the context of a fragile state. Within the context of a fragile state, certain pressures on health workers are often ignored or seen as being outside of the remit of a policy such as this one, which focuses on NTDs and does not specifically address wider system-wide issues such as human resources for health. However, the importance of addressing issues such as staff retention, unreliable and low remuneration and limited capacity in NTDs was recognised, mitigation measures were discussed during the development of this policy, and activities and budgeting reflected these discussions. The inclusion of these factors in the policy was often identified as a critical achievement and reason for its translation into practice. The quotation below illustrates the impact of ensuring that trainers are given sufficient remuneration to deliver training.

“I go out; I am one of the national trainers. I also received some benefits from the training, so for this...It’s a plus for me as I was saying; if I am sent out and my family is suffering behind me, I may not be satisfied there, but when the satisfaction is there, with the little I am getting, it will support my family also. Children going to school, and my family eat, you know.” (National Level Key Informant, Ministry of Health -002)

Power—the ways in which power directly and indirectly impacts the direction, content and response to the policy

Influence of partners on policy change and implementation. When asked about influences on the adoption of the integrated approach, respondents referred to the influence of the World Health Organisation (WHO) and partners on the thought that drove the policy shift, while also emphasising the ownership of the decision by the Ministry.

“...partners supported [the local NGO office] and started building capacity as well, yeah including the programme manager travel and saw the need, yeah, it was through partners who supported the programme managers who went and saw...the possible impact on the programme. So, partners supported, including the WHO, for us to know, to accept the need, and to know the importance of integration.” (National Level Key Informant, Ministry of Health -002)

The power of partners to enable or create barriers to the policy was acknowledged from the outset; key informants described the effort and time invested to bring partners on board and engage with them throughout the process. This was undertaken to ensure that integration was not a shock and to mitigate resistance to the policy shift. The partners had the opportunity to participate in the discussion throughout the policy development process. Despite this engagement, there are examples throughout the data of some partners who were resistant to the shift towards integration, influenced by their own concerns and interests, particularly regarding the visibility and impact of their financial contributions. Some key informants explained that partners sometimes questioned the reputational or organisational benefits of their investment and were concerned that their contributions would not stand out and that the results needed to be recognised distinctly as attributable to their contribution. Consequently, pressure was placed on the programme to adapt its plans and operations to align with what these partners believed was best.

There were also examples of positive approaches to partnership and those partners that also invested in the NTD Programme with a longer-term strategy:

“And then partners who have been supporting case management plans have been consistently involved year after year. And not just with funding support, but also with technical inputs...And by doing this monitoring, evaluation and learning, together, we have tried to improve or stay on track on what the Policy was supposed to achieve. So, the consistency, I would say, is really important across the board.” (International Key Informant -003)

Role of funding in enabling and sabotaging policy change. The impact of the funding approach of partners was also emphasised as a critical factor in the translation of policy into implementation. There was a high level of appreciation for partners and funding that was responsive to the complexities that arose in the implementation and the need for adjustments in budgets and activities. The damage that was made to the implementation of the approach and the trust that had been built by the decisions and approaches of some partners were also apparent.

“A partner’s funding changed in mid-year with activities already planned and budgeted for and agreed upon. And I think, sometimes partners are not mindful...they think of numbers and forget the actual people that are being affected. So, suppose you cut funding from a programme. In that case, those community health workers that are being transported to find cases may not be able to do that, which means there are more and more cases that won’t be found, increasing

risk of disability for those patients; there are health workers that wouldn't get refresher training that might go one, two years without seeing an NTD case. And will have to go back to square one because they will no longer remember how to clinically diagnose BU [Buruli Ulcer] accurately and all those types of things." (International Key Informant -001)

An additional aspect of funding is related to its role in ensuring the translation of policy into implementation. As part of the policy development process, existing partners were asked to share their funding ceilings and funding restrictions with all stakeholders. This was not intended to limit the scope of the policy development but meant that the momentum and buy-in that had been built during the policy development process could be leveraged and turned into implementation support. This did have limitations, as the available funding was not sufficient to support the implementation of the entire strategy, but it did provide a bridge between the policy and actual implementation.

"To have money available...I noticed that the moment these plans are launched, the programmes are still in the momentum, you're still excited, the enthusiasm is still there, all the different partners or other programmes that were invited to the table there, they're still keen on NTDs. When that programme is launched, and you wait three, six months, before you can have some small, not even adequate funding, some small funding available, you tend to lose the momentum." (International Key Informant -001)

Negotiating the fear of redundancy, loss of control and issues of legacy. At the foundation of many of the challenges and resistance that stakeholders perceived about integration was not simply a power shift but also a fear of redundancy. When reflecting on this fear and the impact that it had, one stakeholder described the response from someone engaged in the TB/leprosy programme who felt that the importance of their role was reducing as leprosy was being integrated within the NTD programme:

"There were times that we met in the corridor, and when we exchange greetings, they will say just go that way because you want to take away my leprosy. [laughter] You don't speak to me again." (National Level Key Informant, Ministry of Health -004)

Another key international informant reflected on the tension for NGOs moving beyond a vertical disease focus:

"If you look at leprosy, it's the same people all the time, you know, still, like from 20 years ago, really to be honest, that's the same people...that went from national positions to global positions...I think that the world is still too closed at the higher level, and then at the organisational level, they are also still doing what they have been doing, even the names... that refer to leprosy...so the whole organisations are, like, ingrained, it's ingrained in their existence." (International Key Informant -002)

The fear of redundancy and insecurity relates closely to the sense of a loss of power and control. Key informants describe multiple ways in which this fear manifests, amplified by a lack of understanding or appreciation of the complexity of the process of integration, the distinction between coimplementation of activities at the field level and systemic integration and an impatience with the time that is required to integrate systemically into the health system and to demonstrate disease-specific results that can to some extent be attributed to this integration.

"So, I think it can be demotivating, I think sometimes partners, so to speak, bring the programme to their knees to beg. And it's unfair, because most of the work, all of the work, has been done by the programme and the people in the field and...as if you're on trial, and you're being questioned and questioned, are you sure this is happening...and the interrogation and I can tell partners for sure...if there was a case where the government will ever say we have money

there, we're just not even listening to partners, like a lot of partners will be dismissed because they wouldn't be needed. They're at the mercy, so that's why they're there, but it is demotivating to the programme because they see the impact [from what they are doing] and are excited about what's happening. But then partners are questioning like, I don't see anything like what's happening. And it's almost like a blame game at some point. And so, it's not encouraging at all." (International Key Informant -001)

Power also manifests in the responses of participants in relation to priorities and agenda setting; several key informants also discussed the impact of external stakeholders, including global policy-makers, on influencing priorities and agenda setting. Throughout the data, stakeholders from NGOs and donors discuss the challenge of a shift in organisational narratives that are so interlinked with the identity of many funders of the case management of NTDs and the ways that these organisational identities, often tied to specific diseases, challenge the understanding and capacity they have to communicate an approach, such as the integrated approach in Liberia. This challenge has led to the perception that the agenda and priorities of some NGOs and donors are not aligned with the direction of the Ministry.

"I think, as NGOs, then you need to say, okay, my mandate is to support the national effort. You know, it's not that I am not ending leprosy, but I'm supporting the integration of these diseases. And with that, I'm supporting the process of ending four or five diseases instead of only one. So, your mandate needs to change. And that is, I think that that is difficult at the moment because the disease-specific organisations, they're still pushing their own thing." (International Key Informant -002)

Politics-the political context, relevant legislation, policies and policy development processes and cycle

Global policies and their impact on agenda-setting and policy development. Key informants make multiple references to the influence of global and regional policies on the decision to move to an integrated approach to NTD care. Key informants describe both the positive influence that global policies, such as universal health coverage, IPCHS and the WHO NTD road map, had, as well as the challenges that were caused by the apparent contradictory nature of some of the policies, which, rather than supporting a shift to a health systems-based and integrated approach, were instead either explicitly or implicitly supporting an approach that maintained the status quo where vertical or parallel implementation of NTD programmes was maintained and focus on specific diseases was dominant.

"The integration at the country level is good. But at the international partner level, even at WHO it is still not there, I enter the WHO office; I see PCT NTD, I saw CM NTD, I don't see integration happening...but they're asking us to do integration. If you don't integrate the human resources at that level, how do you expect that the resources, in terms of the financial resources, are going to be integrated? So, if you are there at the top, there's a challenge integrating, but we want to do it at the bottom. So, what are we doing to see which one is feasible at the moment? So just saying this to say that yeah, there will be always worried, especially when systems have power, unfortunately when they are parallel to bring them together is a whole lot of challenge." (National Level Key Informant, Ministry of Health -003)

Historic and legislative barriers to integration. One of the most contentious themes was the integration of leprosy within the NTD programme under the integrated NTD policy. There are multiple facets to this specific issue. However, one of the key arguments made by stakeholders from within the TB and leprosy programmes when asked for their reflections on the policy was that the integration of leprosy within NTDs violated a legal statute, which established the leprosy programme in Liberia and its subsequent partnership with TB in law, and that due process had not been followed to address the need to change this law to reflect the policy change that was being pursued. Very few key informants raised this specific political and legal barrier, but it was a significant line of argument among some TB/leprosy programmes:

“Okay, but he knows very well that the technical team or the knowledge when it came to leprosy were sitting right at the National Leprosy and TB control programme. He knows the policy; he knows the Act that created the National Leprosy and TB programme...we will let them know that we...want the Act amended so that it can take the leprosy programme and move it under the NTD programme.” (National Level Key Informant, Ministry of Health -005)

Impact of the political context. The political context in Liberia at the time of the development of the policy and throughout its implementation has changed significantly. The 2018 elections marked a change in administration in Liberia and significant shifts in leadership and human resources within the Ministry of Health. When reflecting on the initial policy development process, several stakeholders describe the positive impact that senior political leadership from within the Ministry of Health had on building buy-in and commitment to the policy shift. Although there was some continuity in the leadership at the Ministry of Health, there were also significant shifts in policies; specifically, there was a policy referred to as the ‘harmonization [sic] policy,’ which was implemented following the election in 2018 with the reported intention of harmonising government worker salaries but which is also mentioned by several respondents as leading to an abrupt and dramatic reduction in salaries [40,41], having one of the most significant and negative factors in the translation of the integrated policy into practice and politicising the health workforce.

“Everyone is from different political backgrounds...so coming together to agree to do something together becomes very difficult...your boss is supporting a party that you are not supporting; it becomes difficult for you, so you will not be able to express yourself correctly. And there are threatening remarks also.” (County-level Key Informant, Ministry of Health -004)

The political context is also described as a challenge for the communication of the priority of NTDs within the political system; key informants describe the need for continued and greater advocacy to facilitate and maintain the progress towards integration that has been made.

Process-the policy development and translation approach and process

Rationale for the transition to an integrated approach to NTD case management. Key informants emphasised multiple factors that led to the shift in policy. The increasing profile of NTDs following the London Declaration in 2012, which was a groundbreaking declaration made in support of the first WHO NTD Roadmap, which committed multiple stakeholders from pharmaceutical companies, donors and national governments, to support the control, elimination or eradication of ten NTDs [42], sustainable development goals and universal health coverage [7], and emerging frameworks for health systems, such as the framework for Integrated People Centred Health Services (IPCHS) [9], created a general policy direction that supported this shift from vertical service provision to an integrated model of delivery. There were also some important interactions between the National NTD Programme and influential stakeholders, such as the WHO, immediately preceding the Ebola outbreak, where integration was recommended as a strategy that should be considered by the NTD Programme in relation to NTD case management, specifically for patients with leprosy and Buruli ulcer.

Participatory processes to build stakeholder buy-in and mitigate unforeseen barriers. One of the elements of the policy development and implementation process in Liberia that was cited most often by stakeholders from national and international NGOs and other donors was the participatory approach that was used in the policy development process.

“Yes, I think we were together, and we developed also together, we, from the field perspective...the programme itself, we were together for the development of this first integrated plan, which was very, very important. And so this is not like a...me as an individual; it was like we were in pool of people putting together our idea to make it happen.” (County-Level Key Informant, Ministry of Health-004)

While the policy's ownership lay firmly within the Ministry of Health's NTD Programme and the senior ministers to whom the NTD programme was accountable, extensive consultation with and participation of other stakeholders from within and outside the Ministry of Health was not only encouraged but also proactively sought.

"The Ministry of Health really provided that sort of convening role between all the partners who wanted to work together and as we built this policy, it was apparent that it would require a lot of effort from everybody involved, especially the NTD programme. (International Key Informant -003)

Multiple stakeholders discussed the process's impact on their ability to communicate the policy's content and intention throughout their organisations. Although this did not mitigate all the resistance to integration, it did provide tools needed to reassure and counteract fears and uncertainties among many stakeholders.

Leveraging a whole system-based approach. The respondents were asked, if the process was to be undertaken again, who should be included; the responses supported a highly participatory approach to policy development to enable the effective translation and implementation of the policy throughout the county, district and community levels:

"We have a county health board. So, we will invite the superintendent. You know, the county health board is chaired by the superintendent and secretary is the CHO. So, if we have that policy, I alone will not sit down and make the policy. We have to invite the county health board... We invite the district health officers, the district surveillance officers and the head of the OICs to be in that policy development... so that we can develop one policy and we go by it." (County Level Key Informant, Ministry of Health-001)

Another county-level stakeholder added:

"Cases are not just seen like just in the community, but within the same community, they have other structures there, that cases run to like the traditional herbalist. The traditional herbalist, they need to be informed about cases and even those religious people. We have some areas where the people have prayer people, praying for people to those areas, you see NTD cases going there... we need the involvement of stakeholders in order to get the programme to be effective." (County Level Key Informant, Ministry of Health -002)

Creating space for the complexity and process of integration through time. Finally, but of critical importance to the majority of informants was the need for an understanding among policy-makers, partners and donors, as well as among various health systems actors, that integration is a process that takes time and does not end with the development of an integrated plan or strategy. Related to this, is the need for policy-makers to think beyond disease-specific targets to allow and enable the measurement towards integration and sustainability and to celebrate this as a real achievement in and of itself.

"What is the targets country wise, not the national, the international level, like I listened to the guys for the WHO say, by 2030, a number of countries, have integrated plan... that is not what I am talking about. I am talking about impact, impact related, measurable indicators that can cut across all of the diseases. In my mind when you start doing that, then you know, you're getting closer... to the way you're paving for, for integration and being able to say we have done it and we can measure this." (National Level Key Informant, Ministry of Health -003)

Discussion

The 1978 Alma-Ata Declaration [43] marked a pivotal moment in 20th-century public health, championing primary health care as the means to achieve 'Health for All.' Implicitly and explicitly, it stressed the importance of integration within the

health system. However, despite recognition of the need for integration dating back to Alma-Ata in 1978 and its prevalence in public health discourse, no universally accepted definition of integration exists. This lack of consensus has confused its application, and the lessons learned from integration efforts. The term 'integration' has spawned over 176 different definitions, shaped by various stakeholders' perspectives, including clients, providers, policy-makers, funders, and evaluators, and was cited by policy-makers in Liberia as a barrier to the development and implementation of the policy [23,33].

Within the WHO, there are multiple definitions of integration, all of which describe phenomena that bring together different elements or functions of health systems [23,44,45]. A common thread across these definitions is their focus on placing the people affected or the broader population's needs at the centre, emphasising collaboration and normative integration. Normative integration involves aligning and harmonising various system elements according to shared values, goals, principles, and standards [23,44,45].

The debate surrounding integration primarily revolves around integrating disease-specific interventions into health systems. It has been framed as a binary struggle between integrated (horizontal) and nonintegrated (vertical) programmes, with proponents on both sides. [46] The primary rationale for moving towards an integrated approach stems from criticisms of vertical programmes, suggesting that their gains are inequitable and unsustainable without broader health system strengthening or may come at the expense of the broader health system. [47] This has led to the emergence of a dual-objective implementation model that combines disease-specific vertical programmes with health system strengthening (horizontal), often termed a 'diagonal approach' [48].

Throughout the Introduction, Methods, and Results sections of this paper, we have examined the context and policy ecosystem surrounding the integration of NTDs and health systems in Liberia. We have outlined the study's methodology, including the rationale for using the Policy Analysis Triangle framework, and described how the elements of network analysis and the Power Cube informed our interpretation of the data. We then presented the results of the study following a thematic framework analysis. In the Discussion section, we will interpret these findings using the 5Ps framework we have developed, engage with the relevant literature to identify where the findings are supported or challenged, and consider their potential applicability beyond the Liberian context. The data collection, analysis, and synthesis processes are shown in Fig 3. The findings from this study support the literature on policy development and the political economy that has been emerging since the early 1990s, especially in terms of the findings that power and process are critical to policy and policy change [49,50]. The other related body of literature that is significantly supported by these results relates to the importance and role of power analysis within the context of both health and development policies [37,51–57].

To develop and implement Liberia's integrated NTD policy effectively, five critical domains were addressed throughout the development and policy translation process (Fig 4); the relationships between these domains are dynamic; they should not be viewed as separate silos of activity but as interrelated areas that vary in influence and importance depending on context and time.

People as agents of change: navigating integration through relationships

This domain refers to individuals and key stakeholders related to the policy process. The leadership's shared vision and values, the Ministry of Health's ownership, the personal and professional commitment of critical figures, and their ability to use social and political capital to navigate challenges and power dynamics were all vital to the successful policy shift towards a case management model in Liberia. The recognition and involvement of key stakeholders by the leadership and champions of the policy were also critical. The findings from the data in this domain support earlier results from participatory stakeholder analyses: First, the importance of recognising that a person-centred approach to integration and broader health system strengthening requires the application of multiple lenses when key stakeholders are considered. Second, the importance of engaging stakeholders at the subnational and local levels as those stakeholders is critical to the successful implementation of integrated programs. Finally, it is important to employ effective and appropriate methods and engagement models based on stakeholders' needs and positions.

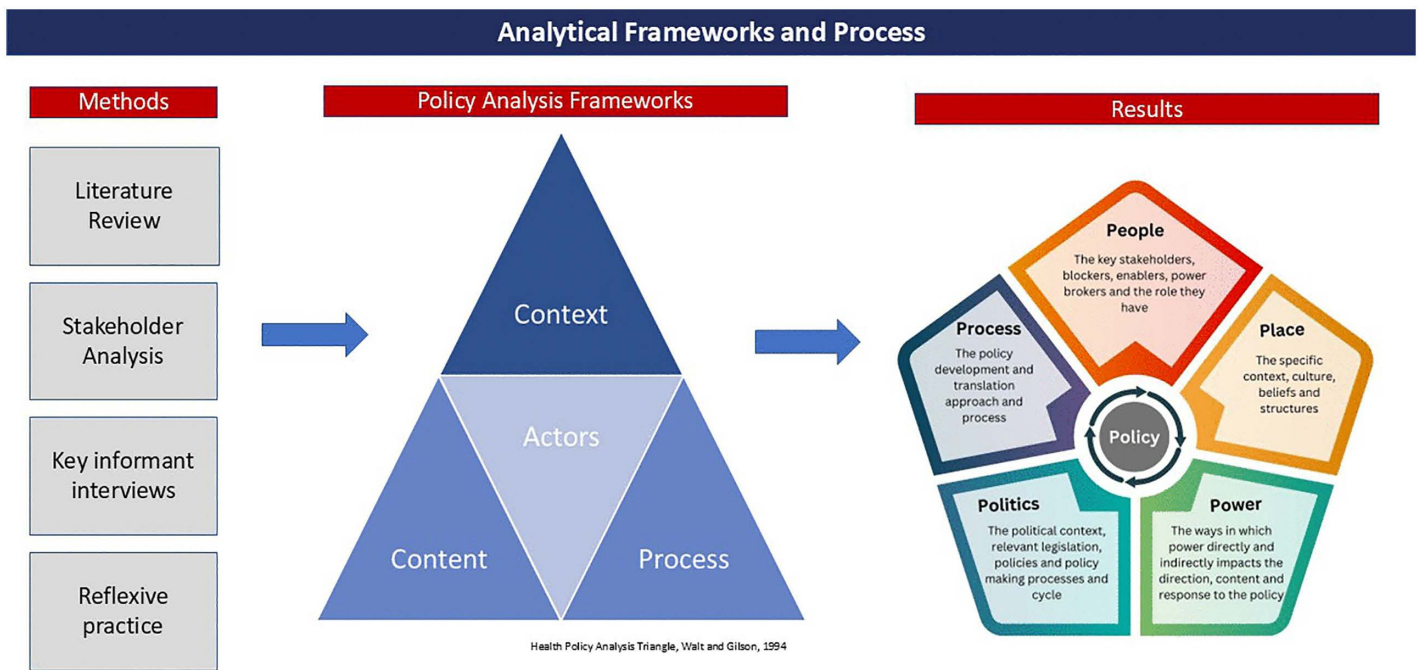


Fig 3. Analytical frameworks and process informing data analysis and interpretation.

<https://doi.org/10.1371/journal.pgph.0004328.g003>

These methods and models are also related to the 'Process' domain and can be considered in three broad strategies: 1. informing and engaging; 2. consulting and inviting; and/or 3. relationship building and influencing. The importance of conducting a stakeholder analysis, utilising and then updating it throughout the policy development and implementation process is critical; this finding supports the literature on the importance of considering 'actors' in policy analysis [10,12–14,58], on stakeholder analysis [15,59] and the practical emphasis that is put on stakeholder engagement by multiple policy developments and influencing institutions [59].

Context as a catalyst: learning from Liberia's experience

The environment where the policy was both developed and implemented is considered the 'Place'; factors in this domain to consider include the specific cultural context, societal beliefs, and existing socioeconomic structures within Liberia, which significantly influenced the policy's development and implementation. Factors such as the impact of the Ebola outbreak and the exposure of the weaknesses in the existing structures that required integration played pivotal roles [60–62]. Furthermore, the influence of traditional beliefs and cultural values related to conceptions of health and policy-makers' willingness to address unique strains on health care workers in a fragile state context were also significant. This domain should also consider the specific sociocultural, demographic, or physical places that are being targeted through the policy change and the place where the policy will be implemented, such as communities and health facilities. The consideration of 'Place' in policy analysis has been recognised in multiple research areas, from health policy analysis frameworks [10,12,63] to the emerging literature on culture and health and the intersection of these concepts [64,65].

Shifting power: from donor dominance to local leadership

The dynamics of power unmistakably shaped the policy development process and its translation. This includes the influence of partners on policy change, both positively and negatively, the role of funding availability in the translation of policy

P5 Dynamic Policy Development and Translation Framework

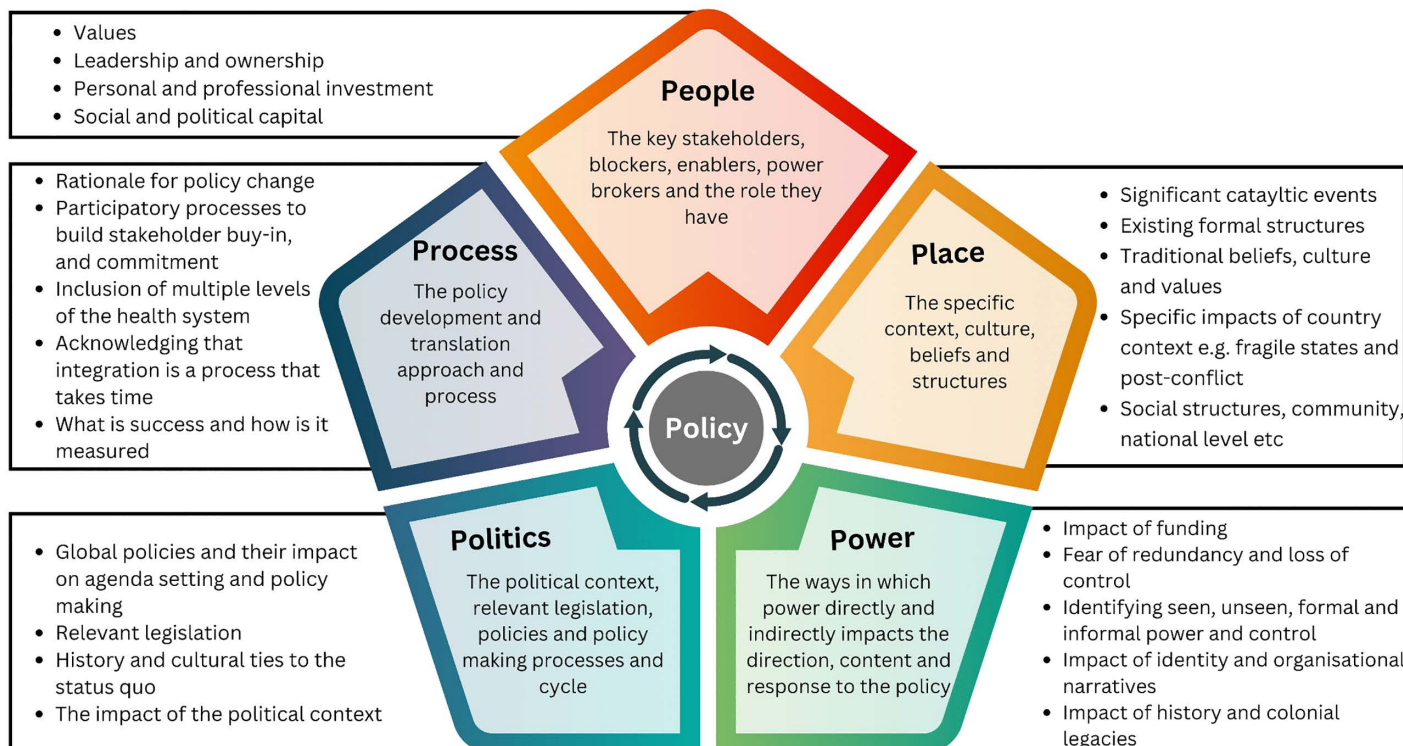


Fig 4. P5 Dynamic Policy Development and Translation Framework.

<https://doi.org/10.1371/journal.pgph.0004328.g004>

into practice, the fear and uncertainty linked with policy change towards integration and greater government ownership, the loss of control felt by some stakeholders, and the effects of entrenched colonial attitudes and disease-specific organisational identities.

Within both global health and development studies, there is a growing appreciation of the impact of colonisation and related power dynamics on the conceptualisation of global health programmes, policy development and implementation processes in low- and middle-income countries [37,52,55,66–69]. One of the most striking facets of the policy development process was the extent to which power was transferred away from traditional colonial models of health care provision through the expenditure of social and political capital by critical stakeholders and the techniques and strategies that were employed to enable this transfer of power, priority and agenda setting. However, the data also describe the ongoing legacy of the prevailing power dynamic and how these dynamics continue to create barriers to national ownership and agenda setting for NTDs.

Political systems as enablers and barriers

This domain describes the political landscape, relevant legislation, policy development processes and cycles, and how a specific policy fits within the broader national policy environment. It also considers the global and regional policy context and its influence on national agenda setting and policy development. Factors such as election cycles, inadequate budgetary allocations and legislative priorities are also political considerations.

The example raised by stakeholders from the TB/leprosy programme in the Results section was the legislation that originally established the National Leprosy and TB Programme. This legislation was cited to justify resistance to integration and to support the continuation of a combined TB/leprosy programme.

This example is important for understanding not only as a legal barrier to integration but also as a strategic tool used to frustrate or delegitimise efforts aimed at reform.

In many ways, the importance of these political processes reflects the conception of health as an innately political concept [50]. This concept is explored by Bambra et al. [40], who describe the political nature of the concept of health.

“Health is political because, like any other resource or commodity under a neo-liberal economic system, some social groups have more of it than others. Health is political because its social determinants are amenable to political interventions and are thereby dependent on political action (or, more usually, inaction). Health is political because the right to ‘a standard of living adequate for health and wellbeing’ (United Nations, 1948) is, or should be, an aspect of citizenship and a human right. Ultimately, health is political because power is exercised over it as part of a wider economic, social and political system” [50]

This is especially pertinent for understanding the complex policy process that was undertaken in Liberia to integrate NTDs within the health system. NTDs, by definition, impact the most neglected populations; are neglected in global health funding, research and policy; and are deeply linked to issues of inequity; thus, to overcome these systemic and structural challenges and inequities, understanding and addressing power is critical.

From dialogue to delivery: developing and translating policy through participation

This domain explores the policy development and translation process itself. The data support the literature that emphasises the value of understanding the reasons for policy change; the importance of participatory processes for building stakeholder engagement, trust and commitment; the necessity of including diverse perspectives; and the inclusion of actors at multiple levels of the health system as well as those with lived experience [70,71]. It also recognises that policy development and implementation are ongoing rather than one-off events and that success may look different at various stages of the policy process and should be measured in a way that reflects that variability. A significant body of literature exists in the field of development studies and research that emphasises the critical role of participation in the implementation of development interventions and policy development. However, few empirical studies have investigated the role of participatory processes in the development and translation of complex global health policy [71–74].

Lessons learned and broader applications

An effective policy development and implementation process for integrating neglected tropical diseases (NTDs) into the health system is crucial for achieving global health goals related to NTDs and UHC [1,2] and WHA resolution for people-centred integrated health services [3]. There is minimal evidence in NTDs on how to do this effectively [4–6]. The experience of Liberia in this area provides critical insights that can significantly contribute to bridging the evidence gap in this domain and can inform a framework applicable to policy planning and implementation in various contexts; the purpose of this study was to explore this experience and situate the learning within the broader literature. While this study offers an in-depth exploration of Liberia’s specific experience in developing a policy focused on integrating NTD case management into the broader health system—and the subsequent translation of that policy into practice—the themes that emerged—power, politics, people, place, and process—are also widely reflected in the peer-reviewed literature. This body of evidence affirms the relevance of these themes in shaping how policy is formulated and implemented across diverse contexts. The consistency of these findings across settings provides a strong basis for the broader relevance and potential

generalisability of the framework while also highlighting the importance of contextualising the framework for each specific application.

The findings from this study can have multiple effects on enhancing policy development processes for complex integrated policies and increasing the likelihood of policies being translated into practice. Specifically, in relation to NTDs, there are essential indicators within the NTD roadmap in relation to the integration of skin NTDs, including the target of 40 countries adopting and implementing integrated skin NTD strategies based on local endemicity by 2030 [75]. Understanding the learning from the process in Liberia could provide valuable guidance for moving further towards this target, among many others related to reorienting the health system to mainstream NTDs.

These types of learning are not restricted to only NTDs; they also provide important reflections for countries seeking to achieve UHC and move beyond parallel and vertical approaches to do this, especially in fragile states and health systems that are deeply dependent on donor funding and financial aid. The findings also have implications for thinking around capacity strengthening, resource mobilisation and measurement moving forwards, providing evidence for the position that capacity strengthening and policy-development processes need to think far beyond disease-specific clinical expertise but rather need to consider management capacity, flexibility in financing models, and political advocacy skills and processes.

In the future, the findings need to be tested to ascertain transferability to other contexts. Further research on the meaningful inclusion of community members and people with lived experience in the policy development and translation process is needed. There is also scope for a deeper application of an intersectional lens to policy analysis, using tools such as the Intersectionality-Based Policy Analysis (IBPA) Framework, which would significantly enhance this study.

Strengths and limitations of the study

The strength of this study is how it has been able to examine one policy in depth from multiple perspectives. The insider status of the lead author and the collaboration within the REDRESS research project facilitated a high level of access to critical stakeholders representing multiple perspectives, all with high levels of engagement in the policy process that was the subject of this study. However, this study has several limitations. The focus on a single country means that the results are highly contextual. The insider status of the lead author, her previous and current work with the NTD Programme on behalf of an NGO, and her perspectives could lead to information or selection bias given her positionality and could be a limitation to the study and the ability of critical informants to participate with complete openness in the study. There is also a limitation in that the key informants interviewed included only the perspectives of international, national and county-level stakeholders; this is reflective of this specific process of policy development, which focused primarily on engagement at these levels. However, this is a limitation of the study, as no people affected by NTDs were included. There is also a potential risk of bias with the inclusion of some key informants as coauthors; to mitigate this, these coauthors were interviewed according to the ethics protocol and were not involved in the coding of their own transcripts.

Conclusion

Policy processes in low-resource settings seeking to integrate vertical or parallel disease control programmes into health systems need to embrace complexity and make the essential shift from clinical-centric policies to holistic, multistakeholder strategies to policy development and translation in global health; no single NTD department or group of stakeholders can hold the health and wellbeing of people at risk or living with NTDs in the 'palm of their hand'.

Supporting information

S1 Checklist. Inclusivity in global research.

(DOCX)

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References

- Mitjà O, Marks M, Bertran L, Kollie K, Argaw D, Fahal AH, et al. Integrated Control and Management of Neglected Tropical Skin Diseases. *PLoS Negl Trop Dis*. 2017;11(1):e0005136. <https://doi.org/10.1371/journal.pntd.0005136> PMID: 28103250
- Engels D, Zhou X-N. Neglected tropical diseases: an effective global response to local poverty-related disease priorities. *Infect Dis Poverty*. 2020;9(1):10. <https://doi.org/10.1186/s40249-020-0630-9> PMID: 31987053
- Fürst T, Salari P, Llamas LM, Steinmann P, Fitzpatrick C, Tediosi F. Global health policy and neglected tropical diseases: Then, now, and in the years to come. *PLoS Negl Trop Dis*. 2017;11(9):e0005759. <https://doi.org/10.1371/journal.pntd.0005759> PMID: 28910281
- Aya Pastrana N, Beran D, Somerville C, Heller O, Correia JC, Suggs LS. The process of building the priority of neglected tropical diseases: A global policy analysis. *PLoS Negl Trop Dis*. 2020;14(8):e0008498. <https://doi.org/10.1371/journal.pntd.0008498> PMID: 32785262
- Dean L, Tolhurst R, Nallo G, Kollie K, Bettee A, Theobald S. A health-systems journey towards more people-centred care: lessons from neglected tropical disease programme integration in Liberia. *Health Res Policy Syst*. 2023;21(1):29. <https://doi.org/10.1186/s12961-023-00975-x> PMID: 37055758
- StopTBPartnership. Word Matter - Suggested Language and Usage for Tuberculosis Communications. In: UNOPS, editor. Geneva: UNOPS; 2022.
- UNGA. Transforming our world: the 2030 Agenda for Sustainable Development, A/RES/70/1. 21 October 2015.
- WHO. Ending the neglect to attain the Sustainable Development Goals: a strategic framework for integrated control and management of skin-related Neglected Tropical Diseases. In: Department N, editor. 2022.
- WHO. Framework on integrated, people centred health services Geneva: WHO. 2016. https://apps.who.int/gb/ebwha/pdf_files/wha69/a69_39-en.pdf
- Walt G, Shiffman J, Schneider H, Murray SF, Brugha R, Gilson L. "Doing" health policy analysis: methodological and conceptual reflections and challenges. *Health Policy Plan*. 2008;23(5):308–17. <https://doi.org/10.1093/heapol/czn024> PMID: 18701552
- Development Dfl. Department for International Development, 2016, Research Uptake – A guide for DFID funded research programmes 2016.
- Walt G, Gilson L. Reforming the health sector in developing countries: the central role of policy analysis. *Health Policy Plan*. 1994;9(4):353–70. <https://doi.org/10.1093/heapol/9.4.353> PMID: 10139469
- Gilson L, Buse K, Murray SF, Dickinson C. Future directions for health policy analysis: a tribute to the work of Professor Gill Walt. *Health Policy Plan*. 2008;23(5):291–3. <https://doi.org/10.1093/heapol/czn025> PMID: 18664525
- Gilson L. Health Policy and Systems Research: A Methodology Reader: Alliance for Health Policy and Systems Research, World Health Organization; 2012.
- Varvasovszky Z, Brugha R. A stakeholder analysis. *Health Policy Plan*. 2000;15(3):338–45. <https://doi.org/10.1093/heapol/15.3.338> PMID: 11012410
- Roberts MJ, Hsiao W, Berman P, Reich MR. Getting health reform right: a guide to improving performance and equity. New York. 2008.
- Ozgur H, Kulaç O. An overview of the stages (heuristics) model as a public policy analysis framework. 2017.
- Blanchet K, James P. How to do (or not to do) ... a social network analysis in health systems research. *Health Policy Plan*. 2012;27(5):438–46. <https://doi.org/10.1093/heapol/czr055> PMID: 21840934

19. Kollie K, Siakeh A, Zawolo G, Wickenden A, Theobald S, Rogers E, et al. Donor reliance and the impact on neglected tropical disease programme delivery: reflections and solutions for change from programme management perspectives. *Int Health*. 2021;13(4):376–8. <https://doi.org/10.1093/inthealth/ihaa090> PMID: 33155044
20. Ministry of Health GoL. Strategic plan for the integrated case management of neglected tropical diseases. 2016.
21. Marchal B, Cavalli A, Kegels G. Global health actors claim to support health system strengthening: is this reality or rhetoric?. *PLoS Med*. 2009;6(4):e1000059. <https://doi.org/10.1371/journal.pmed.1000059> PMID: 19399158
22. Marchal B, Van Dormael M, Pirard M, Cavalli A, Kegels G, Polman K. Neglected tropical disease (NTD) control in health systems: the interface between programmes and general health services. *Acta Trop*. 2011;120 Suppl 1:S177–85. <https://doi.org/10.1016/j.actatropica.2011.02.017> PMID: 21439930
23. Dawda P. Integrated healthcare: the past, present and future. *Integr Healthc J*. 2019;1(1):e000001. <https://doi.org/10.1136/ihj-2019-000001> PMID: 37441328
24. Witter S, Palmer N, Balabanova D, Mounier-Jack S, Martineau T, Klicpera A, et al. Health system strengthening—Reflections on its meaning, assessment, and our state of knowledge. *Int J Health Plann Manage*. 2019;34(4):e1980–9. <https://doi.org/10.1002/hpm.2882> PMID: 31386232
25. Uniting to Combat NTDs. London Declaration on NTDs 2012 [Available from: https://unitingtocombatntds.org/wp-content/uploads/2017/11/london_declaration_on_ntds.pdf
26. World Health Organization. Accelerating work to overcome the global impact of neglected tropical diseases: a roadmap for implementation: executive summary. Geneva: World Health Organization; 2012.
27. World Health Organization. Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021–2030. 2021.
28. Ministry of Health. Investment Plan for Building a Resilient Health System in Liberia, 2015–2021. In: Ministry of Health, editor.: Government of Liberia Monrovia, Liberia; 2015.
29. Kollie KK, Theobald S, Jones L, Kpadeh O, Nallo G, Borbor D, et al. Multimethod evaluation of health services integration for neglected tropical diseases requiring case management in Liberia. *BMJ Glob Health*. 2024;9(1):e012599. <https://doi.org/10.1136/bmjgh-2023-012599> PMID: 38238023
30. World Health Organization. Everybody's business -- strengthening health systems to improve health outcomes: WHO's framework for action. Geneva: World Health Organization; 2007.
31. Means AR, Jacobson J, Mosher AW, Walson JL. Integrated Healthcare Delivery: A Qualitative Research Approach to Identifying and Harmonizing Perspectives of Integrated Neglected Tropical Disease Programs. *PLoS Negl Trop Dis*. 2016;10(10):e0005085. <https://doi.org/10.1371/journal.pntd.0005085> PMID: 27776127
32. Atun R, de Jongh T, Secci F, Ohiri K, Adeyi O. Integration of targeted health interventions into health systems: a conceptual framework for analysis. *Health Policy Plan*. 2010;25(2):104–11. <https://doi.org/10.1093/heapol/czp055> PMID: 19917651
33. Armitage GD, Suter E, Oelke ND, Adair CE. Health systems integration: state of the evidence. *Int J Integr Care*. 2009;9:e82. <https://doi.org/10.5334/ijic.316> PMID: 19590762
34. Yin RK. Case Study Research: Design and Methods 3ed. Thousand Oaks, California: Sage; 2008.
35. Owen JAT, Ellis C, Goffman E. The SAGE Encyclopedia of Qualitative Research Methods.
36. Braun RC, V. Thematic Analysis A Practical Guide. London: Sage; 2022.
37. Topp SM, Schaaf M, Sriram V, Scott K, Dalglis SL, Nelson EM, et al. Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Glob Health*. 2021;6(11):e007268. <https://doi.org/10.1136/bmjgh-2021-007268> PMID: 34740915
38. Blanchet K, James P. How to do (or not to do) ... a social network analysis in health systems research. *Health Policy Plan*. 2012;27(5):438–46. <https://doi.org/10.1093/heapol/czr055> PMID: 21840934
39. Hawe P, Webster C, Shiell A. A glossary of terms for navigating the field of social network analysis. *J Epidemiol Community Health*. 2004;58(12):971–5. <https://doi.org/10.1136/jech.2003.014530> PMID: 15547054
40. Liberia Go. Government of Liberia Pay Harmonization Fact Sheet. In: Agency CS, editor. 2018.
41. Dodoo L. Liberia: Ten Thousand Civil Servants Salary Reduced Through Government's Harmonization Plan, Rep. Koffa Discloses 2019 [Available from: <https://frontpageafricaonline.com/business/economy/liberia-ten-thousand-civil-servants-salary-reduced-through-governments-harmonization-plan-rep-koffa-discloses/>
42. NTDs Utc. London Declaration on NTDs 2012 [Available from: https://unitingtocombatntds.org/wp-content/uploads/2017/11/london_declaration_on_ntds.pdf
43. UN. Declaration of Alma-Ata. International Conference on Primary Health Care; 6–12 September 1978; Alma-Ata, USSR: WHO; 1978.
44. WHO. World Health Organization Health Systems Strengthening Glossary 2010. Available from: <https://cdn.who.int/media/docs/default-source/documents/health-systems-strengthening-glossary.pdf>
45. Waddington C, Egger D. Integrated health services—what and why. Geneva: World Health Organization. 2008.
46. Atun R, de Jongh T, Secci F, Ohiri K, Adeyi O. Integration of targeted health interventions into health systems: a conceptual framework for analysis. *Health Policy Plan*. 2010;25(2):104–11. <https://doi.org/10.1093/heapol/czp055> PMID: 19917651

47. Hemingway CD, Bella Jalloh M, Silumbe R, Wurie H, Mtumbuka E, Nhiga S, et al. Pursuing health systems strengthening through disease-specific programme grants: experiences in Tanzania and Sierra Leone. *BMJ Glob Health*. 2021;6(10):e006615. <https://doi.org/10.1136/bmjgh-2021-006615> PMID: [34615662](https://pubmed.ncbi.nlm.nih.gov/34615662/)
48. Mercer T, Chang AC, Fischer L, Gardner A, Kerubo I, Tran DN. Mitigating the burden of diabetes in sub-Saharan Africa through an integrated diagonal health systems approach. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy*. 2019;12:2261–72.
49. Reich MR. Reshaping the state from above, from within, from below: implications for public health. *Soc Sci Med*. 2002;54(11):1669–75. [https://doi.org/10.1016/s0277-9536\(01\)00334-3](https://doi.org/10.1016/s0277-9536(01)00334-3) PMID: [12113448](https://pubmed.ncbi.nlm.nih.gov/12113448/)
50. Bamba C, Fox D, Scott-Samuel A. Towards a politics of health. *Health Promot Int*. 2005;20(2):187–93. <https://doi.org/10.1093/heapro/dah608> PMID: [15722364](https://pubmed.ncbi.nlm.nih.gov/15722364/)
51. Cox L. Powercube: understanding power for social change. *Journal of Political Power*. 2011;4(2):301–7. <https://doi.org/10.1080/2158379x.2011.589181>
52. Fischer SE, Strandberg-Larsen M. Power and Agenda-Setting in Tanzanian Health Policy: An Analysis of Stakeholder Perspectives. *Int J Health Policy Manag*. 2016;5(6):355–63. <https://doi.org/10.15171/ijhpm.2016.09> PMID: [27285513](https://pubmed.ncbi.nlm.nih.gov/27285513/)
53. Gore R, Parker R. Analysing power and politics in health policies and systems. *Glob Public Health*. 2019;14(4):481–8. <https://doi.org/10.1080/17441692.2019.1575446> PMID: [30773135](https://pubmed.ncbi.nlm.nih.gov/30773135/)
54. McCollum R, Taegtmeier M, Otiso L, Muturi N, Barasa E, Molyneux S, et al. “Sometimes it is difficult for us to stand up and change this”: an analysis of power within priority-setting for health following devolution in Kenya. *BMC Health Serv Res*. 2018;18(1):906. <https://doi.org/10.1186/s12913-018-3706-5> PMID: [30486867](https://pubmed.ncbi.nlm.nih.gov/30486867/)
55. Mwisongo A, Nabyonga-Orem J, Yao T, Dovlo D. The role of power in health policy dialogues: lessons from African countries. *BMC Health Serv Res*. 2016;16 Suppl 4(Suppl 4):213. <https://doi.org/10.1186/s12913-016-1456-9> PMID: [27454227](https://pubmed.ncbi.nlm.nih.gov/27454227/)
56. Pantazidou M. What Next for Power Analysis? A Review of Recent Experience with the Powercube and Related Frameworks. *IDS Working Papers*. 2012;2012(400):1–46. <https://doi.org/10.1111/j.2040-0209.2012.00400.x>
57. Raman IM. Power analysis. *Elife*. 2019;8:e52232. <https://doi.org/10.7554/eLife.52232> PMID: [31573511](https://pubmed.ncbi.nlm.nih.gov/31573511/)
58. Schlesinger M. Health policy analysis and the search for hidden meaning. *J Health Polit Policy Law*. 2006;31(2):237–49. <https://doi.org/10.1215/03616878-31-2-237> PMID: [16739285](https://pubmed.ncbi.nlm.nih.gov/16739285/)
59. Action Rt. The Alignment Interest and Influence Matrix (AIIM) A Basic Introduction: Research to Action; 2012 [Available from: <https://www.research-toaction.org/2012/01/the-alignment-interest-and-influence-matrix-aiim-a-basic-introduction/>]
60. Kiény M-P, Evans DB, Schmets G, Kadandale S. Health-system resilience: reflections on the Ebola crisis in western Africa. *Bull World Health Organ*. 2014;92(12):850. <https://doi.org/10.2471/BLT.14.149278> PMID: [25552765](https://pubmed.ncbi.nlm.nih.gov/25552765/)
61. Ling EJ, Larson E, Macauley RJ, Kodl Y, VanDeBogert B, Baawo S, et al. Beyond the crisis: did the Ebola epidemic improve resilience of Liberia’s health system?. *Health Policy Plan*. 2017;32(suppl_3):iii40–7. <https://doi.org/10.1093/heapol/czx109> PMID: [29149311](https://pubmed.ncbi.nlm.nih.gov/29149311/)
62. Kruk ME, Myers M, Varpilah ST, Dahn BT. What is a resilient health system? Lessons from Ebola. *Lancet*. 2015;385(9980):1910–2. [https://doi.org/10.1016/S0140-6736\(15\)60755-3](https://doi.org/10.1016/S0140-6736(15)60755-3) PMID: [25987159](https://pubmed.ncbi.nlm.nih.gov/25987159/)
63. Hankivsky O, Grace D, Hunting G, Giesbrecht M, Fridkin A, Rudrum S, et al. An intersectionality-based policy analysis framework: critical reflections on a methodology for advancing equity. *Int J Equity Health*. 2014;13:119. <https://doi.org/10.1186/s12939-014-0119-x> PMID: [25492385](https://pubmed.ncbi.nlm.nih.gov/25492385/)
64. Napier AD, Depledge M, Knipper M, Lovell R, Ponarín E, Sanabria E, et al. Culture matters: using a cultural contexts of health approach to enhance policy making. Copenhagen: World Health Organization. Regional Office for Europe; 2017.
65. Napier AD, Ancarno C, Butler B, Calabrese J, Chater A, Chatterjee H, et al. Culture and health. *Lancet*. 2014;384(9954):1607–39. [https://doi.org/10.1016/S0140-6736\(14\)61603-2](https://doi.org/10.1016/S0140-6736(14)61603-2) PMID: [25443490](https://pubmed.ncbi.nlm.nih.gov/25443490/)
66. Marstein E, Babich S. The case for a new epistemology on global health. *European Journal of Public Health*. 2016;26(suppl_1). <https://doi.org/10.1093/eurpub/ckw165.063>
67. Parashar R, Gawde N, Gilson L. Application of “Actor Interface Analysis” to Examine Practices of Power in Health Policy Implementation: An Interpretive Synthesis and Guiding Steps. *Int J Health Policy Manag*. 2021;10(7):430–42. <https://doi.org/10.34172/ijhpm.2020.191> PMID: [33059427](https://pubmed.ncbi.nlm.nih.gov/33059427/)
68. Abimbola S, Pai M. Will global health survive its decolonisation?. *Lancet*. 2020;396(10263):1627–8. [https://doi.org/10.1016/S0140-6736\(20\)32417-X](https://doi.org/10.1016/S0140-6736(20)32417-X) PMID: [33220735](https://pubmed.ncbi.nlm.nih.gov/33220735/)
69. Abimbola S, Asthana S, Montenegro C, Guinto RR, Jumbam DT, Louskieter L, et al. Addressing power asymmetries in global health: Imperatives in the wake of the COVID-19 pandemic. *PLoS Med*. 2021;18(4):e1003604. <https://doi.org/10.1371/journal.pmed.1003604> PMID: [33886540](https://pubmed.ncbi.nlm.nih.gov/33886540/)
70. Rietbergen-McCracken J. Participatory policy making. World Alliance for Citizen Participation. 2017.
71. Nelson N, Wright S. Power and participatory development: Theory and practice: ITDG Publishing; 1995.
72. Chambers R. Revolutions in development inquiry: Routledge; 2012.
73. Dearden A, Rizvi H. Participatory design and participatory development: a comparative review. 2008.
74. Kinson S, Pain R, Kesby M. Participatory action research approaches and methods: connecting people, participation and place. 2007.
75. WHO. Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021–2030. 2021.