

‘The government cannot do it all alone’: realist analysis of the minutes of community health committee meetings in Nigeria

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Abstract

Since the mid-1980s, the national health policy in Nigeria has sought to inspire community engagement in primary health care by bringing communities into partnership with service providers through community health committees. Using a realist approach to understand how and under what circumstances the committees function, we explored 581 meeting minutes from 129 committees across four states in Nigeria (Lagos, Benue, Nasarawa and Kaduna). We found that community health committees provide opportunities for improving the demand and supply of health care in their community. Committees demonstrate five modes of functioning: through meetings (as ‘village square’), reaching out within their community (as ‘community connectors’), lobbying governments for support (as ‘government botherers’), inducing and augmenting government support (as ‘back-up government’) and taking control of health care in their community (as ‘general overseers’). In performing these functions, community health committees operate within and through the existing social, cultural and religious structures of their community, thereby providing an opportunity for the health facility with which they are linked to be responsive to the needs and values of the community. But due to power asymmetries, committees have limited capacity to influence health facilities for improved performance, and governments for improved health service provision. This is perhaps because national guidelines are not clear on their accountability functions; they are not aware of the minimum standards of services to expect; and they have a limited sense of legitimacy in their relations with sub-national governments because they are established as the consequence of a national policy. Committees therefore tend to promote collective action for self-support more than collective action for demanding accountability. To function optimally, community health committees require national government or non-government organization mentoring and support; they need to be enshrined in law to bolster their sense of legitimacy; and they also require financial support to subsidise their operation costs especially in geographically large communities.

Key words: Community, decentralization, governance, Nigeria, primary health care

Key Messages

- Even though community-level committees to promote community engagement in primary health care have been widely implemented across low- and middle-income countries, they have not been widely evaluated, especially with the goal of understanding the details of how they function and under what circumstances. These details are necessary for primary health care managers and policy makers to tailor-specific forms of support in different circumstances.
- To provide these details, we conducted a review and synthesis of the minutes of community health committee meetings in Nigeria, which showed that to improve the demand and supply of primary health care, the committees demonstrate five modes of functioning: through meetings, reaching out within their community, lobbying governments for support, inducing and augmenting government support and taking control of health care in their community.
- To function optimally, committees require government or non-government organization mentoring, and a context in which they are embedded within the existing social, cultural and religious structures of their community, thus allowing the health facility with which they are linked to be similarly embedded. Committees also need to be enshrined in law to bolster their sense of legitimacy and financial support to subsidise operation costs especially in geographically large communities.

Introduction

The Alma-Ata Declaration on Primary Health Care emphasized the right and duty of community members to participate in planning and implementing their own health services (WHO 1978). This emphasis was based on evidence from small-scale sub-national pilot programmes, where facilitated community engagement resulted in services that were better tailored to local needs and preferences, increased accountability, and improved quality, uptake and outcome of primary health care (PHC) services (Rosato *et al.* 2008). Community engagement in PHC has since been extensively facilitated through formally constituted community structures which are linked to the PHC facility in the community in the low- and middle-income countries (LMICs) of sub-Saharan Africa, Central and South America and Central, South and South East Asia (McCoy *et al.* 2012). Implemented as part of decentralization reforms, these community governance structures are referred to variously in different settings as village, ward or community health committees, as development committees, or as health facility management or governing committees (McCoy *et al.* 2012). Experimental and quasi-experimental studies in different settings have shown that the activities of community representatives, including through community health committees can improve the demand, supply and outcome of PHC services in LMICs (Iwami and Petchey 2002; Loewenson *et al.* 2004; Sohani 2005; Björkman and Svensson 2009). But there are also studies showing how committees can function sub-optimally, for reasons such as lack of resources or formal authority to carry out their roles, and lack of support from health providers or the larger community (George *et al.* 2015).

Since the mid-1980s, the national health policy in Nigeria has sought to inspire community engagement in PHC by bringing communities into partnership with service providers through community health committees, which are established using a national guideline (FMOH 1988; Oyegbite 1990; Abosede *et al.* 2012). In Nigeria, formal health services, particularly in rural communities are largely provided through public sector PHC facilities. In line with the national policy to institutionalize community engagement, the majority of communities with a PHC facility in Nigeria have a health committee (Das Gupta *et al.* 2003; Bonilla-Chacin *et al.* 2010). Each of an estimated 20 000 PHC facilities nationwide serves a community ranging from 2000 to 20 000 people (NPHCDA 2013). Each of these communities is part of a local government area, which is administered by a local (district) government. In

Nigeria, PHC governance is decentralized such that local governments together with state (provincial) governments provide logistics and human resources for health to implement PHC, whereas the federal (national) government provides policy, oversight and technical support for implementation (FMOH 2004). The committees (also known as ward or village development committees) are established by federal PHC managers or non-government organization (NGO) representatives through a participatory approach in which facilitators arrive in a community and visit the traditional leaders; they hold a town hall meeting to discuss PHC and together with community members identify unmet needs for PHC services and explore potential solutions; they ask for nominations to the health committee in accordance with federal guidelines, and read out to committee members their expected roles and responsibilities (NPHCDA 2012).

The expected roles and responsibilities of community health committees in Nigeria are to: (1) identify the health needs of the community, and address them by drawing on human and material resources within the community, including raising funds when necessary within the community; 2) liaise with the government and NGOs in finding solution to health needs of the community and 3) supervise and support health activities in the community and at the health facility, including the drug revolving funds where they exist, and for which where there is a bank account the signatories are to be the committee chairman, treasurer and secretary (NPHCDA 2012). Notably, their roles and responsibilities as detailed in federal government programme documents does not include demanding accountability from the government; only to liaise with governments in addressing needs. Likewise, although the guidelines state that committees are expected to supervise and monitor activities at the health facility, there is no clarity on the power of committee members to hold health workers to account, or on what to expect from service providers and what to do in cases of poor performance. Neither are the guidelines framed in such a way as to have expectations of any of the tiers of government for provision or oversight of PHC services. This lack of clarity on committee roles and responsibilities has also been identified in Nigeria and other LMICs as limiting their capacity to effectively demand accountability (Molyneux *et al.* 2012). Essentially, the expectation in Nigeria is that committees will, in the spirit of self-reliance, draw primarily on existing resources within the community to address their health needs (Oyegbite 1990).

National guidelines in Nigeria specify that committee members may include 'respectable' members of the community, the health

worker in charge of the health facility to which the committee is linked, representatives of traditional, voluntary, religious, women, youth, health occupational groups (informal health care providers such as traditional healers, traditional birth attendants and patent medicine vendors) and representatives of non-health occupational groups (primary and secondary school head teachers, workers in the electricity and water sectors) (NPHCDA 2012, 2013). Committees are expected to meet at least once every month, adopt the minutes of the previous meeting, deliberate on matters arising from the minutes of the previous meeting, discuss new issues and challenges, record the minutes of the meeting and ensure that the chairman and secretary sign them after approval at the next meeting (Uzochukwu *et al.* 2004; NPHCDA 2012). In spite of their potential to provide collective governance, these committees in Nigeria and elsewhere have undergone limited evaluation (McCoy *et al.* 2012) and little is known about the details of how they function at scale (Levers *et al.* 2007). These details are however necessary because by understanding differences in context, policy makers and PHC managers can tailor-specific forms of support in different circumstances. This is important because the outcomes of complex interventions such as community health committees result from a web of processes that are neither predictable nor straightforward (Sturmberg and Martin 2009; Rifkin 2014). Complex interventions are defined by their multiple interacting components, the range and variability of outcomes, their reliance on the reasoning of those implementing the intervention, and the number of organizational levels that the implementers aim to influence (Craig *et al.* 2008).

Evaluating complex interventions is methodologically challenging and theory-driven analyses have been demonstrated as being well suited for understanding the workings of complex health system interventions (Campbell *et al.* 2007; Marchal *et al.* 2012). In this study, we adopted the realist approach to theory-driven analysis based on the understanding that complex social interventions work by providing participants with ideas and opportunities that influence their reasoning (Pawson and Tilley 1997). By exploring the relationship among 'context', 'mechanisms' (reasoning of participants) and 'outcomes', this approach makes explicit how an intervention works and under what circumstances. This is subsequently compared with the programme theories which refer to the expectations that are implicit in programme documents such as the committee guidelines or statements of roles and responsibilities. Understanding these relationships is central to evaluating complex social interventions (Pawson and Tilley 1997). The programme theories that form the basis of such comparisons are typically drawn from programme documents (Astbury and Leeuw 2010). But documents on community health committees in Nigeria as elsewhere lack details of how they are expected to function and how different contextual factors may influence their activities (FMOH 2004; NPHCDA 2012; Loewenson *et al.* 2014). To add contextual richness to these programme documents, inform context-driven implementation and guide future research, we explored the minutes of committee meetings in Nigeria for how and under what circumstances committees influence the demand and supply of PHC services.

Methods

Data collection

To provide a mix of contexts with contrasting and complementary insights, we selected four states for this study from different parts of Nigeria: one from the north (Kaduna), one from the south (Lagos), one from central north (Nasarawa) and one from central south

(Benue). Considering logistics, time and cost constraints, this analysis was limited to meeting minutes and does not include data that may require extensive field visit. Although qualitative samples are usually small given the likelihood of repetitiveness during analysis (Ritchie *et al.* 2003), our aim in this study was to explore a large number of communities in order to gain a comprehensive understanding of the range of responses to having a community health committee.

In line with the suggestion of a sample size of 30 or more communities for large sample studies in which communities are the unit of analysis (Poteete *et al.* 2010), we sought the minutes of community health committee meetings from 150 communities across four states: 32 in Lagos, 34 in each of Benue and Nasarawa and 50 in Kaduna. There were more participating communities in Kaduna (northern Nigeria) because the minutes were sought from within a federal government initiative which provides rural communities with *ad hoc* health workers to improve their maternal and child health indices, but with greater focus on the north where these indices are much worse compared with the south (Abimbola *et al.* 2012).

The minutes, which document committee processes, deliberations, actions, decisions and relations, were obtained over 4 months (November 2013 to February 2014) by federal PHC managers during facilitation visits to the committees. Based on prior information from collaborating federal PHC managers that the minutes are typically about three to five handwritten pages, and that between 2 and 12 minutes are recorded yearly, we estimated that 30–50 pages on each committee will provide sufficient data to reach saturation and to understand how a committee works over time. We therefore requested the minutes of the last 10 meetings for which minutes were available within the previous 5 years.

Data analysis

The community health committee is the unit and focus of analysis. We adapted the stepwise approach to realist analysis proposed by Danermark *et al.* (2002)—see Table 1 for the steps. Passages of the minutes which document events (i.e. outcomes) that occurred as a result of committee actions, decisions or relations were coded for subtexts. These subtexts indicate implicit meanings and underlying motivations of those events (Leask and Chapman 1998; Farge 2013)—see Table 2 for a list of the subtext categories. Informed by references to previous and subsequent passages and minutes of the same committee, subtexts were accompanied with notes about the factors (related to the committee or the community) that enabled or constrained the event or outcome. The list of subtexts expanded as coding proceeded, and they were debated, refined and adjusted between two authors (S.A. and S.K.M.) until there was a coherent scheme which broadly accounted for all committee actions, decisions and relations as documented in the minutes.

Ethics

Ethics approval for this study was provided by the National Health Research Ethics Committee of Nigeria. In Nigeria the minutes of community health committee meetings are publicly available documents as committees are expected to submit them to local government offices monthly. However, the minutes used for this study were obtained directly from each committee and participation in the study was entirely voluntary.

Table 1. Steps taken in the realist analysis

Step 1: Identifying outcomes (description)	This involved reading and rereading the minutes, first to gain familiarity with the data and subsequently to identify events (i.e. outcomes) which occur as a result of committee actions, decisions and relations. The outcomes of interest are improved demand and supply of PHC services or activities and events that may lead to these outcomes. The actions, decisions and relations of committees may be spontaneous or inspired by committee members, or non-members such as fellow community members, government PHC managers, NGO representatives, health workers and other actors within the local health market.
Step 2: Identifying contextual components of outcomes (resolution)	The minutes were further reviewed to identify important contextual components (enablers and constraints) of the identified outcomes. These include features of a committee and a community which may contribute to an outcome or an activity or event that may lead to an outcome.
Step 3: Theoretical re-description (abduction)	This step involved situating the identified outcomes and their contextual enablers or constraints within theories. To better understand what the committees and their outcomes represent, our analysis was informed by three frameworks: First, we situated the committees within a multi-level framework which defines PHC governance at three levels: constitutional governance (governments at different levels and other influential actors external such as large NGOs), collective governance (community groups such as health committees) and operational governance (individuals and providers within the local health market) (Abimbola <i>et al</i> 2014). Recognizing the tendency for government failure in supporting and regulating PHC in LMICs, the multi-level governance framework focuses on the relations among health system actors within and across levels of governance and how governance failure at one level can be assuaged by governance at another level. Second, we applied the three conceptual options available to communities in the face of poor services as a result of government failure—Exit, Voice and Loyalty (Hirschman 1970). In settings such as rural Nigeria where formal health services are largely provided by public sector PHC facilities, ‘Exit’ is hardly an option in seeking health care, except exit to informal health providers. Communities are thus constrained to ‘Loyalty’ and therefore use ‘Voice’ through channels such as community health committees to advocate to health workers and governments for improved PHC services. And even when ‘Voice’ fails, ‘Loyalty’ in the absence of the ‘Exit’ option constrains the community to invest in and govern their own PHC services. Third, we took into account theories in the literature which highlight hierarchies of community participation (Arnstein 1969; Pretty 1995): at the low end of the hierarchy, communities are manipulated by actors at the constitutional level of governance, and at the top end of the hierarchy communities are in control as the collective level of governance. While our data only reflected the top end of this spectrum, these theories helped frame committee activities as progressively incremental towards adopting full control of the PHC facility in their community.
Step 4: Identifying mechanisms (retroduction)	This involved examining outcomes and their contextual enablers or constraints with the aim of arriving at the reasoning processes of committee members that resulted in the outcomes. The reasoning processes were identified as subtexts in the minutes. Subtexts refer to how committee members express their sense of identity, ideology, power and expectations in their discussions as documented in the minutes. The subtexts provided a window into the reasoning processes of committee members, reflecting how they frame and interpret their own actions, decisions and relations.

Source: Adapted from the steps proposed in Danermark *et al.* (2002).

Findings

From a total of 129 committees (86% of the 150 committees we approached) across the four states, 581 individual minutes were submitted—121 from 27 (out of 32) committees in Lagos, 141 from 29 (out of 34) committees in Benue, 122 minutes from 27 (out of 34) committees in Nasarawa and 191 minutes from 46 (out of 50) committees in Kaduna. This makes an average of 4.5 minutes from each committee, ranging from 5.1 in Benue to 4.2 in Kaduna. Of the 581 minutes, 95.2% (553) were of meetings held within the year before the minutes were requested as part of data collection, 3.6% were held 2 years preceding submission, 0.5% 3 years, 0.2% 4 years and 0.5% 5 years before submission. In all the states, minutes were recorded by the community member serving as the committee secretary. There was no standardized format, but they were all written in prose with in-depth documentation of discussions; each minute was ~4–5 handwritten pages. The minutes were typically written in English. However, minutes which were entirely written in or contained passages of Nigerian languages—for 3 committees in Lagos

(Yoruba), 1 in Benue (Tiv), 1 in Nasarawa (Hausa) and 22 in Kaduna (Hausa)—were translated by native speakers among whom were authors (S.A.—Yoruba and S.K.M.—Hausa).

The committees function in five different but inter-connected modes, depending on how members expect change will be achieved: of the 129 committees from which we obtained minutes, 96% addressed issues and challenges through meetings as ‘village square’ (range: 98% in Kaduna to 93% in Nasarawa), 71% by reaching out within their community as ‘community connectors’ (range: 81% in Lagos to 66% in Nasarawa) and 54% by lobbying governments for support as ‘government botherers’ (range: 63% in Lagos to 48% in Nasarawa). Further, 88% function by inducing and augmenting government support as ‘back-up government’ (range: 98% in Kaduna to 78% in Lagos), whereas 73% function by taking control of health care in their community as ‘general overseers’ (range: 97% in Benue to 50% in Kaduna). Depending on the context, committees adopt different modes towards different issues or challenges. The majority of committees function in more than one mode.

Table 2. Definitions of subtext categories

Passages describing actions, decisions and relations of community health committees were coded as indicating that committee members perceived the committee functions as:

- I. **'Village Square'** if it is stated or implied that the committee functions as a talking shop or a forum to interact and discuss issues and challenges relating to PHC in the community, such that attending meetings in is a strategy for addressing issues and challenges of PHC in the community;
- II. **'Community Connectors'** if in addressing issues and challenges of PHC in the community, committee members position themselves as connectors of the voice of one category of health system actors to ears of another category of health system actors within the community;
- III. **'Government Botherers'** if committee members position themselves as connectors of the voice of community members and health workers to the ears of governments, bothering government PHC managers or political office holders to address issues and challenges of PHC in their community;
- IV. **'Back-up Government'** if it is stated or implied that the committee functions as a back-up to the government in addressing issues and challenges of PHC in the community, by co-financing or co-managing PHC services in the community with a government or an NGO;
- V. **'General Overseers'** if committees position themselves as a body which oversees the day to day running of PHC services in the community, taking full responsibility for managing all or specific aspects of PHC in the community and financing support for the PHC facility using resources generated by the PHC facility.

These subtext categories reflect different modes at which a committee may function. Depending on the context, a committee may progress in time from mode I–V, move from one mode to another in effort to address an issue or challenge, or adopt different modes towards different issues or challenges.

Source: Adapted from the approach in Leask and Chapman (1998).

Notably, committees in all four states function less as 'government botherers' than in the other modes in a pattern which suggests that committees choose between 'bothering' the government for support and opting to 'back-up' governments in providing the support by themselves (see Figure 1). In Lagos where committees function more as 'government botherers' (63%) than elsewhere, they also function less than in other states as 'back-up government' (78%). And in Kaduna where committees function more than elsewhere as 'back-up government' (98%), only 50% of committees function as 'government botherers'.

In reporting the qualitative analysis (see Figure 2 for a summary), we have used the first letter of each state and the serial number on the list of committees we approached for minutes, such that a quote from committee number 10 in Benue is marked B10. Further, we included superscripts that refer to individual committees. The list of the committees with their serial numbers is included in an online Supplementary data.

Mode I: Village square

Introducing to communities the idea of having a community health committee does not by itself ensure community engagement unless community members conceive of the committee as a useful forum for participation, a virtual village square to obtain and share information and discuss issues about health and health care in their communities (Rod *et al.* 2014). Communities perceive the committee as 'a forum for working together' (N2) which provides the opportunity for collective action by 'coming together under one umbrella' (N14); a forum 'to discuss the problems affecting health in the community' (N2) so that, in the words of one committee chairman, 'our aims and objectives for health can be achieved' (N14). When a community has alternative source(s) of a resource nearby, there may be less collective efforts to support the one in their own community (Varughese and Ostrom 2001; Bardhan and Dayton-Johnson 2002). Thus taking up the idea of having a community health committee may include the consideration that without the option of exit, they are constrained by loyalty to support their community through collective action (Hirschman 1970).

Issues and challenges of PHC are discussed during meetings, even if actions and solutions are limited to what members can do during meetings and within their personal network. Committees particularly discuss issues related to low uptake of services at the

health facility and how to improve demand for health care.¹ Committee meetings also provide an avenue for government PHC managers, NGO representatives and officers in charge to pass information to the community about new initiatives or clinic schedules,² and newly posted health workers to the community.³ Given that committee members are sometimes not aware of committee guidelines and expectations,⁴ these are restated when federal PHC managers and NGO representatives occasionally make facilitation visits to committee meetings⁵. Otherwise they make the rules up as they go. Government and NGO facilitators also convene workshops where committee members from different committees meet, compare notes and learn from one another.⁶ In large communities with peripheral settlements⁷ committee members representing these settlements give reports of challenges in their settlements.⁸ But there is a tendency for committees to focus only on the central part of the community.⁹ However, one outcome of the 'village square' mechanism is that community stakeholders are aware of the needs of the health facility and sometimes make spontaneous petty donations to address those needs.¹⁰ Beyond that, committee members share information obtained from meetings with their family, friends and neighbours, and invite them to use the health facility.¹¹ To facilitate referral from informal providers—traditional birth attendants and patent medicine vendors—to the health facility committees invite their representatives to meetings.¹² And to get people in a peripheral settlement including ethnic minorities to use the health facility, the committee would assign a member in attendance to visit the remote settlement and invite their representatives to attend meetings.¹³

Contextual enablers of the outcomes of this mechanism include having traditional leaders, committee chairmen or officers in charge who inspire and encourage attendance and participation in meetings, given that there is no formal support for committee members to attend meetings.¹⁴ Constraining the outcomes are the costs of participating in the 'village square' which can be pronounced in large, widely dispersed communities with peripheral settlements.¹⁵ Another reason lack of participation is the presence of an alternative source of formal health services, especially in peripheral settlements that have access to health services in another community.¹⁶ Incentives to attend meetings therefore provides an enabling context, such as the transport and feeding allowance provided by federal PHC managers and NGO representatives during their occasional facilitation visits.¹⁷ Beyond this, committee members, particularly in Lagos and Benue explicitly request ongoing formal

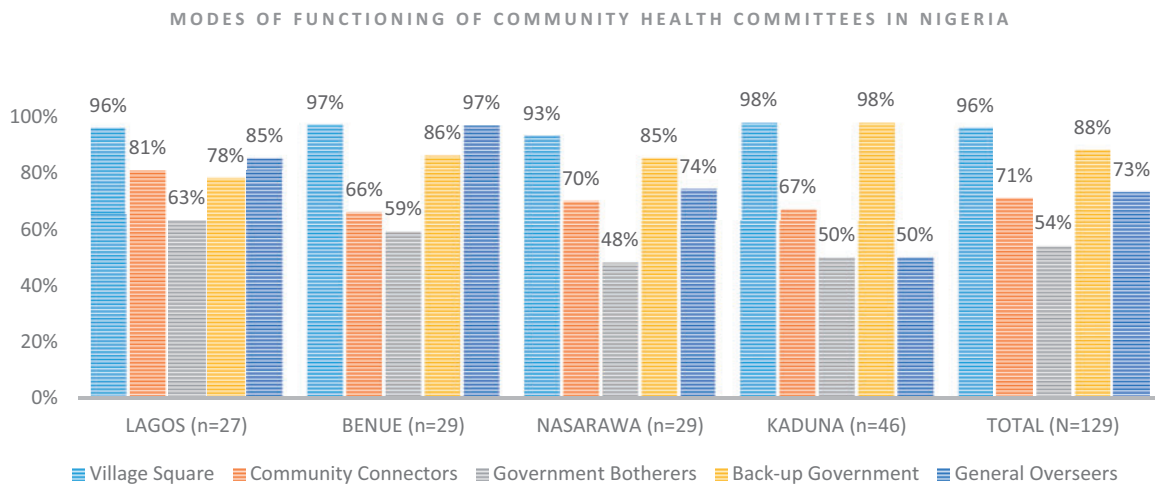


Figure 1. Modes of functioning of community health committees in Nigeria

Note: Each committee may function in more than one mode—depending on the context, a committee may adopt different modes towards different issues or challenges.

transport and feeding allowance from federal PHC managers and NGO representatives, albeit without success.¹⁸ However, having high-income committee members (usually the traditional leader or committee chairman) who can bear the costs of participation and provide light refreshment and transport allowance for fellow attendees also makes for an enabling context.¹⁹ Committees discuss lateness to and absenteeism at meetings; and sometimes there is a fine or a warning of dismissal for repeat offenders.²⁰ And during their visits, federal PHC managers and NGO representatives help facilitate the expulsion of absentee members, sometimes replacing them with people whose rich personal networks can help increase health service uptake: market women, ethnic minorities, school head teachers, religious leaders, taxi drivers and residents of peripheral settlements.²¹ Given that outcomes of the ‘village square’ mechanism are achieved during meetings and through the personal network of members, an enabling context is also one in which the committee includes people who are representative of the community and are well integrated within the community. While outcomes of the ‘village square’ mechanism are limited, they provide the grounds from which subsequent modes of reasoning can spring more tangible outcomes.

Mode II: Community connectors

For many committees, holding meetings and addressing challenges passively is not enough. Thus triggering further action among committee members is a sense that they ‘seem to be discussing the same issues at every meeting without much progress’ (K28). In and out of meetings, committees begin to see their role as one of making broader connections within the community to improve service uptake at the health facility, well beyond their personal networks. They do this in response to triggers such as recent maternal deaths,²² vaccine refusal,²³ disease outbreaks²⁴ and increasing preference in the community for informal health providers such as traditional birth attendants and patent medicine vendors.²⁵ On the one hand, they connect the health facility to the community, working as ‘the link between the service delivery point and the public’ (K13). And on the other hand, they connect community members to their health facility as ‘the “middle men” between the general public and the health facility’ (K7).

To improve service uptake at the health facility, committee members connect other community members to their health facility by conducting house to house campaigns beyond their personal network.²⁶ Committee members also make targeted connections with various people with rich personal networks in the community who may not be committee members, but whose personal network can help to spread the message about the need to use the health facility; people such as members of minority immigrant ethnic groups,²⁷ women’s groups,²⁸ traditional leaders²⁹ and religious leaders.³⁰ In addition to using town criers,³¹ committee members individually attend religious gatherings,³² and social events such as naming and wedding ceremonies³³ to spread health messages. However, in the process of connecting the health facility to the communities, people in turn explain why they use the health facility less than expected. Committees in turn voice these concerns to the health facilities; concerns about disrespectful, abusive and inappropriate care by health workers,³⁴ high drug prices and service charges,³⁵ health worker absenteeism³⁶ and people in peripheral settlements being left out during community outreaches.³⁷ In response, officers in charge explain that drugs are sometimes privately provided, hence the high price; and they also provide drug price lists for the community, with prices fixed by either the officer in charge or by the government when the drugs are publicly provided.³⁸ Officers in charge also explain how service charges are sometimes necessary because they help to finance the health facility given inadequate government support.³⁹ On disrespectful, abusive or inappropriate care, committee members urge health workers to change their behaviour.⁴⁰ Excuses of health workers for absenteeism relate to challenging living and working conditions, which is often followed by a pep talk from the committee chairman.⁴¹

Committees seek to improve the uptake of maternal and child health services such as immunization and treatment of common childhood diseases,⁴² antenatal care and deliveries for women⁴³ and the prevention of mother to child transmission of human immunodeficiency virus (HIV).⁴⁴ Contextual enablers of these events include having traditional leaders who encourage committees to conduct community advocacy⁴⁵ and NGO representatives who encourage and train them on community advocacy.⁴⁶ Legitimacy (i.e. being perceived as credible, valid, reliable and authentic by the rest of the community) is an important contextual enabler of community

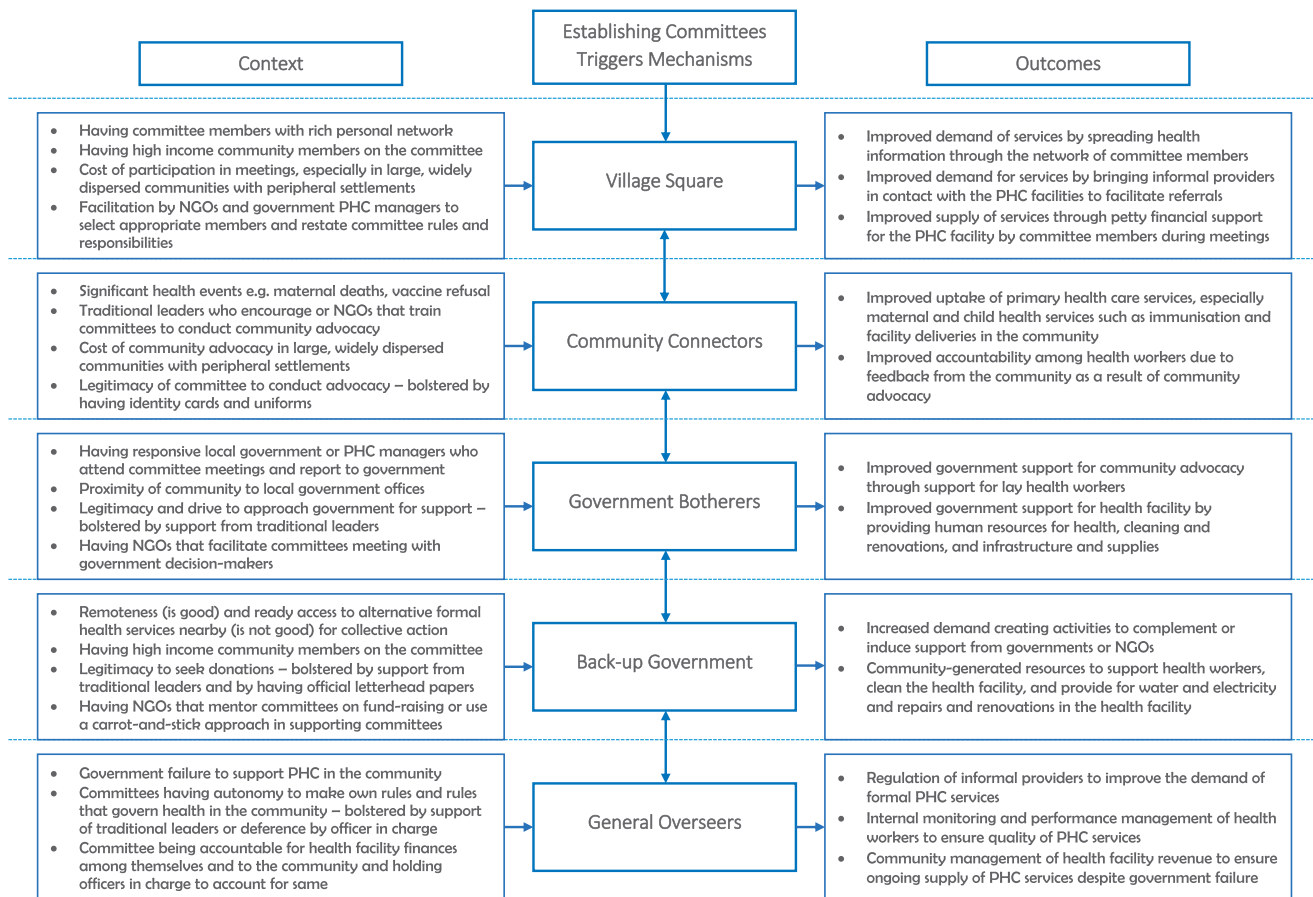


Figure 2. The context–mechanism–outcome (CMO) configurations explaining how community health committees lead to improved demand and supply of primary health care services in Nigeria

advocacy; committees seek legitimacy in form of identity cards and uniform, particularly in Lagos where community members who are not aware of whom committee members are demand to verify the authenticity of committee members during outreaches.⁴⁷ Constraints may include lack of funds for transportation especially in large, widely dispersed communities with peripheral settlements.⁴⁸ Committee members may then be limited to the ‘village square’ events as they are only able to speak to their family, friends and neighbours. But with social cohesion in the form of multiple shared fora in the community, committee members who belong to other community groups (e.g. religious, occupational, women, youth and other community groups) can facilitate connections beyond their immediate network, thus providing an enabling context for improving service uptake at lower cost to committee members. However, another contextual constraint on the capacity of committees to improve health service in the community through the ‘community connectors’ mechanism is that the low uptake of formal health services may result from weak government support, oversight and regulation of the health facility.

Mode III: Government botherers

Realising the limits of their activities within the community, first in supporting the health facility through petty donations (‘village square’) and second in improving the uptake of formal health services in their community (‘community connectors’), committees re-interpret and extend their roles to include the collective action of lobbying (through direct meeting and letter writing) and making

connections between the community and governments. Committees therefore act as ‘the bridge between the community and the government’ (B30), holding governments to account, reasoning, as one committee member said, that ‘the committee is our opportunity to ask governments great questions’ (L4).

Committees ask governments for additional health workers and support staff for the health facility.⁴⁹ Usually directed to local governments, these requests are sometimes successful.⁵⁰ Committees also lobby to reverse the transfer of health workers, especially officers in charge, with whom they enjoy good working relations; and when that fails, they ask for a good replacement.⁵¹ Committees lobby on behalf of health workers in cases of irregular or non-payment of salary,⁵² and for staff accommodation to promote retention in the community.⁵³ Committees also lobby governments to pay allowances to lay community health workers to support the work of committee members in community advocacy.⁵⁴ Further, committees lobby governments for support to address general⁵⁵ and specific needs in the health facility: cleaning and renovations,⁵⁶ and infrastructure and supplies.⁵⁷ Some requests were immediately successful; and some of the successful ones were followed by protests when supplies for a community were incomplete or diverted elsewhere.⁵⁸ Enabling the role of committees as government botherers are contexts in which local government PHC managers attend committee meetings, with the power to reach and report community demands to elected local government officials or their delegates.⁵⁹ But constraining this role is the power of local government officials or their delegates to ignore the health committees without consequences.⁶⁰

The power asymmetry puts committees in a position in which they are unsure of their legitimacy (i.e. being perceived as credible, valid, reliable and authentic by the local government), especially as their existence is not enshrined in law and they are constituted by federal PHC managers while they have to interface with local governments. In Lagos, perhaps due to their history of responsive governments and higher level of education among residents, committee members have a strong sense of legitimacy, and are effective in lobbying local governments without intermediaries.⁶¹ The power asymmetry between communities and local governments may be mediated by the activities of NGO representatives and the support of traditional leaders. In the other states, particularly Kaduna, having traditional leaders do the lobbying or support the effort, was perceived as key to success.⁶² In addition, NGO representatives may facilitate the lobbying process by setting up meetings with and coaching committees on how to approach local government decision-makers.⁶³ However, another contextual enabler of this mechanism in Lagos is the ease of accessing the local government office (related to the geographical size of local government areas). In Lagos where local government areas are small, committee members are able to rise from meetings to see local government PHC managers without having to travel long distances⁶⁴—Lagos is the smallest state in Nigeria in terms of land area, with small local government areas, whereas Benue, Nasarawa and Kaduna are among the larger states. Instead of waiting for the committee, officers in charge may take on the responsibility of connecting with the government on issues such as absenteeism, non-payment of salary or staff shortage.⁶⁵ This situation in which officers in charge connect directly with governments may well be the norm if there were no community health committees.

Mode IV: Back-up government

Partly in furtherance of their activities as ‘government botherers’ and partly due to anticipated government failure, committees share in the role of governments, reasoning that they need to act ‘pending government action’ (L20) because ‘there might be delays’ (L29); that ‘we should not sit on our legs, waiting for the government alone’ (B30). Further, this proactive disposition is linked with the reasoning that the role of the committees is to ‘support the government’ (L32) because ‘the government cannot do it all alone’ (L4); that a ‘community should handle small projects and only contact the government when big’ (B19). In addition, committee members reason that ‘the government can help, but the committee must start something’ (N17), so they make seed investments in the expectation that ‘where we stop, the government can be called to help’ (K10). This reasoning betrays low expectations and tacitly excuses government failure. And so committees, for example, respond to government support for basic services by saying ‘the government is trying for us’ (K35) or that ‘the government has played their part, it remains we the community’ (N6). Committees also make seed investments to induce NGO support, and they respond to non-government support with similar, sentiment, saying ‘if somebody is helping you, try to help yourself too’ (B30).

In Benue, Nasarawa and Kaduna, but not Lagos, committees employ support staff (security guards and facility cleaners) and pay their salary using funds raised from donations; while in the meantime, these committees lobby governments to employ the staff and take over their salary.⁶⁶ Health committees in Lagos do not resort to employing support staff perhaps because local governments in Lagos are more responsive to community demands and committee lobbying than they are in Benue, Nasarawa and Kaduna. Using

funds raised from, and by committee members—ranging from N500 (US\$2.5) monthly commitment to one instance of N25 000 (US\$1000) one off donation—committees also provide accommodation for health workers and procure infrastructure in the hope that governments will provide top-up funds or reimbursement.⁶⁷ Committees also invest funds raised from and by committee members into demand-creating community outreaches sometimes to show their gratitude for government or non-government support⁶⁸ and sometimes in response to a real or assumed preference of governments and NGOs for supporting health facilities with high service uptake.⁶⁹ In the spirit of playing their part, committee members donate towards cleaning health facility premises,⁷⁰ water and electricity supply,⁷¹ repairs and renovations,⁷² accommodation for health workers⁷³ and transporting supplies from governments and NGOs to the health facility.⁷⁴ Still in the spirit of playing their part, committees act as ‘internal monitors’ of commissioned projects in the health facility, reporting contractors to governments or NGOs in cases of poor performance or lack of compliance.⁷⁵

Contextual enablers of this mechanism include substantial cooperation within committees for effective collective action for self-support.⁷⁶ Geography again plays a role—while remoteness enables collective action, being able to access alternative but functional formal health care service in a neighbouring community constrains collective action for self-support.⁷⁷ Enablers also include capacity for substantial fund-raising; such as having high-income committee members who can single-handedly fund committee activities⁷⁸ and members who can commit to monthly donations.⁷⁹ Beyond members, committees raise funds from local business⁸⁰ and from individuals such as traditional leaders⁸¹ and eminent people within or with ties to the community.⁸² Committees also seek non-financial volunteer support from the taxi drivers union (for free ambulance services) and youth groups and artisan unions (for their labour and skills on health facility projects).⁸³ Legitimacy (i.e. being perceived as credible, valid, reliable and authentic by the rest of the community) is another contextual enabler of fund raising; committees shore up their image by writing fund-raising letters on an ‘official’ committee letterhead paper.⁸⁴ They also seek legitimacy by spreading information in the community about their support for the health facility.⁸⁵ When committees perceive that they lack legitimacy, usually due to previous failed attempts at fund-raising, they ask traditional leaders to champion their drive to raise funds or seek support.⁸⁶ Having NGO representatives mentor committees on strategies for fund raising can also provide an enabling context.⁸⁷ And NGO representatives also use a combination of rewards and punishment (carrot-and-stick approach) to motivate collective action for self-support; putting committees in competition with one another or making NGO support conditional on committee performance, especially in improving the uptake of PHC services.⁸⁸ Exploiting this mechanism, governments also ask committees to provide counterpart support for their health facility in order to better attract government support.⁸⁹

Mode V: General overseers

Committees give up on governments after repeated experiences of ‘waiting in vain’ (B27) for government support;⁹⁰ they conclude that ‘we should not look forward to political office holders because they are not responsible’ (L12). When this is combined with inability to make donations or raise funds to fully support the health facility, committees enter into a mode in which they take full charge of the health facility as ‘general overseers’ of the day to day running of the health facility.⁹¹ They support the health facility using service

charges in combination with the funds they are able to raise, based on the reasoning that they own the health facility anyway—‘the committee represents the community and the community owns the health facility, so the committee owns the health facility’ (L26). There is however some overlap in the ‘general overseers’ mechanism; between ‘overseeing’ in the sense of taking responsibility for co-managing and co-financing services and ‘overseeing’ in the sense of monitoring the health facility for accountability. Indeed, associated with active co-managing and co-financing of health care services in the community is a greater sense of power held by the health workers accountable. Even officers in charge begin to look primarily to committees to address issues and challenges rather than the government.⁹² And instead of consulting the committee, they sometimes take the initiative of using service charges to finance the health facility suggesting that in the absence of a committee, officers in charge will play the role of ‘general overseers’ of the health facility.⁹³

Committees therefore take responsibility for aspects of the governance of their health facilities without explicitly seeking or expecting government support. Committees manage health facility finances, in the form of revolving funds for drugs supplies; a major pool of funds in which after an initial capital investment from a government or an NGO, subsequent drug supplies are replenished with funds collected from the sales of drugs.⁹⁴ Committees receive and take stock of supplies from government⁹⁵ and non-government sources.⁹⁶ Committees also take sales and expenditure reports from committee treasurers in partnership with officers in charge.⁹⁷ Perhaps because of less government support for PHC, committees particularly in Benue levy service charges specifically to raise funds for running the health facility.⁹⁸ And to further raise funds, they sell to patients and clients, items which are supplied by governments and NGOs and intended for free provision, thus channelling the proceeds as investment into the revolving fund.⁹⁹ However, committees may, on their own initiative or on government or NGO recommendation, keep revolving funds separate from funds from other sources, using the revolving funds for drugs only.¹⁰⁰ In addition to ensuring that drugs and other supplies are available in the health facility, committees particularly in Benue also use revolving funds to provide accommodation for health workers,¹⁰¹ water and electricity supply,¹⁰² repairs and renovation¹⁰³ and recruitment of support staff, particularly security guards and cleaners.¹⁰⁴ But also in Benue, committees use these funds for light refreshment and to pay themselves sitting allowance during meetings.¹⁰⁵

Committee members visit the health facility to mentor and monitor the health workers, to check their performance and absenteeism¹⁰⁶ and to inspect health facility buildings for cleanliness, need for repairs and renovation.¹⁰⁷ Committees respond to occasional challenges such as cases of burglary,¹⁰⁸ community disputes over health facility land¹⁰⁹ and disputes among health workers.¹¹⁰ But perhaps because they only have a nominal role to monitor the performance of health workers and not the actual authority to enforce standards, committees are not effective in controlling absenteeism among health workers; they only admonish absentee health workers.¹¹¹ To assuage the effects of this power asymmetry which limits the ‘general overseer’ mechanism, committees draw on other sources of power—they resort to their role as ‘community connectors’ by having a traditional leader do the admonishing,¹¹² or to their role as ‘government botherers’ by threatening to report absenteeism to government PHC managers, which when carried out, sometimes result in the health worker being transferred to another community.¹¹³ Committees use similar strategies to address other challenges when they perceive they are lacking in legitimacy or power—by reporting cases of burglary to the government and using traditional leaders to

enforce HIV testing before marriage, ban on loitering within health facility premises, and penalties for defaulters on sanitation who fail to keep the surroundings of their house clean.¹¹⁴ However, apart from power asymmetry, the inability of committees to control absenteeism may also reflect an awareness of the challenging living and working conditions of the health workers, as committees tacitly excuse some instances of absenteeism.¹¹⁵

In spite of these constraints, committees make rules that govern health service delivery in the community, especially when implementing those rules is convenient for the officer in charge. One such rule is successfully used with the support of traditional leaders to control absenteeism in Kaduna: committee chairmen ask officers in charge to make and display duty roster for health facility staff¹¹⁶ so that the committee can ‘keep an eye and be aware of who is on duty at any time’ (K13). Other rules made by committees include deciding the weekly clinic schedule in Lagos¹¹⁷ and deciding who in the community benefits from resources provided by a government or an NGO¹¹⁸—typically pregnant women registered for antenatal care at the facility. Committees also fix or intervene in drug prices and service charges, usually altering these such that prices are lower than typical, often at the expense of revenue but with the aim of improving service uptake.¹¹⁹ Also to improve the uptake of formal health services in the community, committees seek to regulate informal health care providers—traditional birth attendants and patent medicine vendors—from whom the community access inappropriate care.¹²⁰ Further, committees institute performance-based arrangements to motivate health workers such as allowing attending midwives to take a cut from delivery charges and volunteer distributors to charge households for otherwise free bed nets especially in large communities.¹²¹ Committees also organize, plan and determine the terms of health outreaches in the community,¹²² often followed with reports of increased service uptake¹²³ and sometimes with a focus on peripheral settlements of the community.¹²⁴

Enabling these outcomes are contexts that allow committees the autonomy to make their own rules, whether by default or by design. Committees may derive their sense of autonomy from weak government support for PHC or from being the entry point of NGO support in the community.¹²⁵ Committees may also have autonomy thrust on them by other health system actors, such as an officer in charge who says ‘all health facility equipment, staff and users are under the care of the committee’ (K4) and a traditional leader who says ‘committee members are his proxies and health workers must obey them or will be fired’ (K12). In one manifestation of autonomy, a committee refused the request of a government PHC manager to be a signatory to their revolving funds account, responding rightly that the person ‘is not one of the signatories mentioned in the guidelines’ (K28). In another, a committee took charge of outreach activities previously overseen by the government PHC managers who were then informed later ‘so that it will not look as if we are taking their job’ (L8). Elsewhere, a committee reassured health workers that ‘anytime you see us, do not be afraid’ (K1), and in one community, committee members asked one another to ‘be partners in progress and not bullies to health workers’ (L16). But autonomy could be counterproductive. Recourse to a higher authority may be necessary in cases of inappropriate interference in health facility operations or excessive service charges.¹²⁶

In addition, another contextual enabler of ‘general overseer’ outcomes is the capacity to manage revolving funds with a drive for accountability, holding fellow committee members including the officer in charge to account when committees suspect corruption.¹²⁷ Accountability may be inspired by government PHC managers and NGOs representatives who train committees on how to manage

revolving funds;¹²⁸ and also in contexts in which committees want to be seen in their communities as incorrupt—one committee chairman said ‘we need to do what we are doing such that the community will not throw water sachets at us on the streets’ (L4).

Discussion

This study shows how community health committees influence the demand and supply of health services in Nigeria; the contextual circumstances that enable or constrain these outcomes and five mechanisms or modes of reasoning that inform their functioning. Notably, each mechanism prepares the grounds for the next, with outcomes that may trigger the next mechanism or provide enabling context for the outcomes of succeeding mechanisms. Committees may influence the supply of health services by providing, for example, a forum for community stakeholders to interact with and support the formal health system (mode I), raising community concerns about quality of services with health workers (mode II), advocating to governments for support (mode III), mobilising support within the community and from NGOs (mode IV) and running the health facility themselves using revolving funds (mode V). They also influence the demand for health services by spreading information within their immediate network (mode I), reaching others through community groups and fora (mode II), advocating to governments to provide incentives for community outreach (mode III), raising funds within the community and from NGOs to finance outreaches (mode IV) and conducting community outreach using health facility revolving funds (mode V). Our study also shows that community health committees can also reduce the transaction costs of access to health care—by addressing information asymmetry between providers and the community, regulating informal providers such as traditional birth attendants, and facilitating referrals from informal health providers to the formal health system (Abimbola *et al.* 2015). Indeed, as shown in previous studies, health outcomes in Nigeria often depend on how local circumstances influence the supply and demand of health care, including the activities of community representatives (Babalola and Fatusi 2009; Ononokpono and Odimegwu 2014).

This study reveals some contextual variations among the four states. None of the committees in Lagos, Nasarawa or Kaduna had transport allowances or refreshments during meetings, unless when provided by visiting facilitators or committee members. But in Benue, these were also financed from revolving funds. This may be related to committees in Benue having the autonomy or need to use revolving funds to support health facilities due to lower government support or because having light refreshment is seen more in Benue than elsewhere as a necessary courtesy during meetings. In addition, only committees in Lagos and Benue documented asking for regular sitting allowance and light refreshment from visiting facilitators, even though lack of such support and incentive limited participation in all four states. While it is possible that committees in Nasarawa and Kaduna ask but do not document such activities, not asking may also indicate higher commitment or may be due to the history of patron-client relations between communities and the elite in northern Nigeria (Hoffmann 2014). Perhaps communities still retain the notion of being at the mercy of the political elite, thus seeing government support for public services as benevolence rather than a right (mode IV). In these states, committees may be less inclined to ‘bother’ governments for support; and instead outsource this role to the traditional elite (mode III). Perhaps towards the south people are more educated and so more readily demand what they perceive as

their right (Hoffmann 2014). Committees in Lagos and Benue were more likely to seek ongoing incentives for participation and support for their health facility from governments. This is more pronounced in Lagos where proximity allows easier access to local government offices. Other ways in which local geography influences committees include the costs of participation for members from peripheral settlements, reaching those settlements during outreaches and sustaining collective action for health care in communities with alternative access to formal health services nearby.

These findings are in line with previous studies which show how a platform for community engagement can transform communities from being passive service users to taking on active roles in service delivery and project implementation, health promotion and advocacy and resource mobilization and management (Ostrom 1996; Akinola 2007; Macha *et al.* 2011; Goodman *et al.* 2011; Frumence *et al.* 2014). However, none of the studies on community health committees grounded the spectrum of their actions, decisions and relations within an overarching conceptual framework as we have attempted to do in this study. On the one hand, large scale nationwide community engagement interventions in LMICs have been limited by rigid government or NGO top-down directives and short-term performance targets (Rosato *et al.* 2008). And on the other hand, community health committees have been limited by lack of ongoing government or NGO support and clearly defined committee roles and responsibilities (McCoy *et al.* 2012). But in Nigeria, committees operate within a rather flexible, context-determined environment, which allows for the ‘unhurried process necessary for engagement with communities’ (Rosato *et al.* 2008) and the evolution of and choice among strategies (mode I–V in our study) to address health care challenges in different communities. These bottom-up initiatives are particularly important in LMICs due to potential weaknesses in top-down governance (Abimbola *et al.* 2014) leading to communities being compelled to canvass for support within and beyond their community and to commit and invest in their own health facility (Hirschman 1970; Abimbola *et al.* 2014).

Reports from countries in sub-Saharan Africa, Latin America and the Indian subcontinent (McCoy *et al.* 2012; Loewenson *et al.* 2014) reflect a concern about ensuring broad committee participation across socioeconomic strata—from high-income members who can address power imbalances with health workers to representatives who can voice the needs of disadvantaged groups in the community. But beyond this concern, our study suggests that high-income members are particularly important in settings where committees are not funded and government support for health care is weak—they are the people who can bear the costs of committee participation for themselves and facilitate committee functions (from mode I to V) through their donations and influence. Thus committees can serve many of their roles without necessarily being representative. And the concern that high-income members may prevent committees from representing the needs of disadvantaged groups was not reflected in our study. Indeed, as identified by Cleaver (2002), establishing new community institutions often requires adapting existing social and cultural arrangements for a new purpose, with influential actors drawing on existing social identities and attributes such as their ‘economic wealth, specialist knowledge and official position’. Previous studies also show that engaging low socioeconomic members (even if formally eligible to participate) can be constrained by limited ability to bear the costs of participation and to perform technical functions (Cleaver 2002; Goodman *et al.* 2011; Baatiema *et al.* 2013; Frumence *et al.* 2014). Instead, the concern mentioned in the minutes in Nigeria is often geographical—people who live at the centre of communities being better

represented and served than those in the periphery. And unlike other LMICs where the dominant discourse is enforcing rights and holding health workers and governments accountable (mode I–III) (McCoy *et al.* 2012) there appears to be much attention among committees in Nigeria on taking responsibility for health services (mode IV–V) as a result of limited government support.

The power asymmetry between committees and local governments is partly responsible for their inability to successfully hold local governments to account for basic services. This may be for a couple of reasons. First is lack of legitimacy to relate with local governments, given that the committees which have to interface with local governments are established as a consequence of a federal policy, using federal guidelines and by federal PHC managers. To bolster their sense of legitimacy, committees draw on various sources of power, such as writing lobby letters using ‘official’ letterhead paper to confer a perception of legitimacy, or lobbying local governments in northern Nigeria through traditional leaders who are members of the elite and so command the respect of political office holders. In Lagos and Benue, committees also benefit from having members who are keen to make demands of governments, perhaps because they are more aware of this right and what to expect from governments. The second reason for power asymmetry is linked to this: the democratic culture is still in its infancy in Nigeria; a culture in which elected officials are responsive due to the power of the people to vote them out of office; in which people are aware of their rights to basic services, and can effectively make demands based on such rights. In many instances in Nigeria, political office holders in local governments are not elected, but delegates of politicians at the state level. State governments are able to determine if and when to hold local government elections. And even when there are elections, they are often not free and fair (FRN 1999; Owusa 2014). Committees may be able to address this power imbalance more in settings such as Lagos, where the electorate is enlightened and has a better sense of what to expect from governments. Without this, committees tend to promote collective action for self-support rather than collective action for demanding accountability. Educating and supporting community structures such as health committees to demand accountability can strengthen democracy and change power relations between people and their government.

Based on our findings, we recommend a more systematic approach towards supporting community health committees for effective performance and equitable representation, by triggering and providing the enabling context for the different modes of functioning. In particular, committees may benefit from regular and rigorous mentoring, whether by federal government or NGO facilitators, with support to develop, test, use and evaluate tools to gather information on community needs, give feedback to the community, track health facility budgets and that of local government PHC departments, monitor the performance of health workers and facilities, and monitor committee performance—by committee members themselves or their facilitators. The federal government or NGOs may provide financial support for participation in meetings, especially in communities with high costs of participation for geographical reasons. Such funding may also be provided in form of annual grants to support their role as ‘back-up government’ and to discourage the use service charges to raise funds as part of their role ‘general overseers’. The funds may also be used to more effectively monitor PHC services, but the outcome of such monitoring may be limited without efforts to address the lack of legitimacy and the power imbalance which limit their capacity to hold health workers and local governments to account. Nigeria should go beyond prescribing health committees in policy; enshrining them in law will legitimize

their authority to demand accountability. But pending such legal authority, federal PHC managers and NGO representatives should, during facilitation visits, educate committees about the minimum standards of service provision to expect, and provide them with supporting documents to use in their advocacy and lobbying. The process of establishing committees should better ensure that they are well grounded within and integrated with their community, so that they may gain the legitimacy and power to influence the community.

Limitations of this study include inability to have richer information on the motives and details of relations within each committee, for example the possible reasons for the limited participation of some individuals on some committees. But what the data lacks in detail on each committee, it makes up for in the breadth of insights from a large number of committees. Previous studies on collective governance have been limited by the cost and time constraints involved in large sample studies necessary for comparison across communities (Poteete *et al.* 2010). By using the minutes of meetings, our approach provides a relatively inexpensive strategy to study a large sample of communities. Even though minutes may not always be available or contain all the details necessary to understand community groups, they can inform and enrich the understanding of how such groups function, especially when they are part of a large scale policy initiative from which minutes are collected retrospectively, reflecting activities over time. Although the minutes were recorded by committee secretaries whose characteristics we could not determine in each committee, the style and content of the minutes were broadly consistent across states and languages. Further, potentially limiting the study is that the minutes were collected within an initiative to support rural PHC facilities. But the minutes include periods which predate the initiative, and surveys in Nigeria indicate that the majority of PHC facilities is linked to community health committees (Das Gupta *et al.* 2003; Bonilla-Chacin *et al.* 2010). However, the surveys also show that compared to other states, a lower proportion of facilities in Lagos have health committees, albeit where they exist they tend to be more active than in other states. This may be because Lagos has more communities with alternative formal health services, but that committees in rural communities in Lagos without alternatives, like those included in our study, are similar to committees elsewhere. Of note therefore is that community health committees may function differently in settings with alternative sources of formal health care.

Conclusion

In summary, having a health committee presents to communities some ideas and opportunities for improving their health care services. These ideas and opportunities are met with the reasoning processes of community members, who, depending on the context will respond with their own ideas about how improvements in the demand and supply of health care in their community will be achieved. In performing these functions, the community health committees operate within and through the existing social, cultural and religious structures of their community, thereby providing an opportunity for the health facility with which they are linked to be responsive to the needs and values of the community. This study demonstrates the potential of realist analysis of minutes of meetings as a relatively inexpensive strategy for conducting large sample studies to develop and enrich programme theories. Future research should include insights from this study in theory-driven reviews and evaluations of community health committees in LMICs, identifying

which mechanisms and outcomes and the contexts which enable or constrain them are transferable across communities in other settings, which ones have explanatory power in other settings, which ones need to be modified given the reality of another setting, and which new mechanisms, outcomes and contexts are suggested in those settings. In addition to forming a basis for future theory-driven research, our study provides useful information to policy makers and programme implementers in Nigeria and elsewhere on what works, how, for whom and under what circumstances to stimulate and sustain collective action for PHC through health committees.

Supplementary data

Supplementary data are available at *HEAPOL* online

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Notes

- 1 (L7, L9, L20, L27, B15, B21, B24, B28, B29, B30, B31, N3, N6, N9, N10, N14, N21, K6, K12, K42, K43, K45, K50)
- 2 (L2, L3, L11, L26, B8, B12, B15, B17, B22, B23, B34, N2, N8, N13, N16, N23, K8, K23, K27, K38, K40)
- 3 (L11, L15, B3, B7, B19, B22, B25, N12, N24, N32, K2, K17, K48)
- 4 (L4, B15, N12, K22, K27)
- 5 (L2, L3, L6, L8, L9, L15, L11, L20, B3, B10, B12, B13, B14, B15, B16, B21, B26, B29, B31, B32, B33, N2, N4, N7, N9, N11, N13, N19, N22, N20, K5, K7, K41, K11, K12, K17, K20, K22, K27, K28, K30, K31, K35, K36)
- 6 (L6, L19, L24, B1, B2, B32, B28, B13, B29, B16, B34, N6, N12, N15, N23)
- 7 (B12, N2, N3, N6, N10, N11, N12, N14, N19, N24, N29, N31, K4)
- 8 (L17, B4, B34, N15, N19, N29)
- 9 (N2, N19, N23)
- 10 (L17, L21, L29, L31, B12, N9, N7, N13, N18, N19, N22, N24, K1, K2, K33, K34)
- 11 (L2, L7, L8, L12, L17, L20, L29, L30, L31, L32, B23, B26, B28, B29, N9, N10, N13, N19, N28, K17, K28, K32, K35, K41)
- 12 (L3, L17, L20, L31, L32, B14, N19, K36)
- 13 (N7, N8, N12, N15, K4, K23)
- 14 (L2, L7, L11, L12, L24, L26, B1, B8, B10, B14, B15, B21, B32, N2, N3, N7, N17, N24, N27, N32, K7, K9, K10, K12, K22, K27, K28, K32, K35, K38, K47)
- 15 (N14, K14, K38)
- 16 (N3, N14, N15)
- 17 (L2, L3, L4, B1, B12, B14, B15, B22, B30, B31, B33, N6, N12, N18, N19, N22, N32, K41)
- 18 (L2, L5, L7, L11, L12, L17, L17, L24, L26, L31, L32, B1, B15, B16, B28)
- 19 (L16, L30, B1, B11, B14, B17, N6, N16, N17, K30, K50)
- 20 (L6, L29, B1, B3, B11, B22, B33, N2, N3, N13, N16, N19, N32, K13, K47)
- 21 (L9, L12, L21, B21, N2, N6, N13, N18, K12, K34, K38)
- 22 (L9, L12)
- 23 (N2, N6, N24, K7)
- 24 (L3, L8, B4, N21, K2, K7, K12, K32, K35)
- 25 (L17, L20, L31, N14, N19, K8, K10, K36)
- 26 (L24, L27, L29, L30, B4, B7, B24, N8, N22, K5, K17, K18)
- 27 (L32, B16, B19, N7, N8, N19)
- 28 (N2, N31, K17, K23)
- 29 (L10, L11, L12, B4, B10, N7, N24, K1, K4, K20, K21, K23, K35)
- 30 (B19, B30, N6, N9, N24, K10, K23, K36)
- 31 (L26, N3, K2, K7, K21, K35, K40)
- 32 (B10, B15, B21, N4, K15, K23, K35)
- 33 (N4, N20, K8, K18)
- 34 (L8, L26, L32, L2, B13, B17, B30, N6, N7, N13, N19, K9, K29, K17, K36, K39)
- 35 (L2, L15, L32, B12, B30, B16, B17, B19, N2, N7, N13, N27, K8, K9, K10, K15, K50)
- 36 (L18, L32, B23, B19, N10, N12, N19, K1, K10, K17, K44)
- 37 (L2, L17, N12, N15)
- 38 (L2, B19, N13, N27, N29, K7)
- 39 (K15, K32, K39)
- 40 (K29, K36)
- 41 (L3, L18, K33)
- 42 (L11, L27, B4, B23, N2, N3, K11, K20, K35)
- 43 (L12, B7, B16, B19, N12, K12, K17, K18, K35, K40, K44)
- 44 (L24, B7, B10, B16, B26, B30, B33, N3, N7, K13, K23, K41, K49)
- 45 (L10, B4, B17, B34, K4)
- 46 (B2, B15, B34, N4, N7, N9, N11, K1, K6, K12, K13)
- 47 (L2, L8, L16, L20, L26, L29, L30, L32, K32)
- 48 (L3, L19, L27, B15, N14, K4, K5)
- 49 (L2, L9, L13, L15, B15, B17, B32, N6, N12, N19, N20, N22, K5, K14, K15, K29, K36, K30, K33, K39)
- 50 (L13, L15, K21, K40, K27)
- 51 (B25, B27, N29, K12)
- 52 (L12, B33, B11, B15, B16, N15, N24, K12, K23, K34)
- 53 (N7, N19, K10, K20, K21, K36, K30)
- 54 (L11, N6, K36)
- 55 (L2, L4, L12, L13, L15, L19, B29, K7, K8, K9, K11, K32, K47)
- 56 (L11, B29, N16, N19, K1, K23, K28)
- 57 (L2, L5, L11, B25, B16, B17, B19, N18, N20, N22, N31, N32, K1, K5, K8, K10, K14, K18, K20, K36, K38, K41, K46, K47)
- 58 (L19, B17, N6, K21, K43, K44, K46)
- 59 (L5, L8, L21, L29, L30, L32, B16, B22, B32, N2, N6, K4, K23, K30, K44)
- 60 (L6, B1, B19, B24, N20, N22)
- 61 (L2, L11, L13, L15)
- 62 (B3, N3, N27, N31, K8, K15, K27, K21, K34)
- 63 (L12, K1, K9, K12)
- 64 (L12, L13)
- 65 (L2, L12, B15, N12, N13, N17, K50)

- 66 (B1, B3, B11, B13, B14, B31, N6, N13, N16, N31, N32, K5, K11, K12, K27, K30, K32, K40).
- 67 (L11, L20, B14, B15, B16, B29, B30, B31, N12, N24, N32, K12, K36, K41, K44)
- 68 (L2, L9, L11, L12, L16, L21, L30, B4, B7, B8, B12, B16, B30, B33, N11, N29, K1)
- 69 (L16, L19, L32, B11, B30, N15, N24, K13, K15, K19, K27, K44, K50)
- 70 (L11, L18, L20, N3, N4, N18, N22, K9, K11, K15, K33, K41)
- 71 (L2, L3, L18, L19, L20, L32, B15, B17, B25, N24, N28, K2, K6, K10, K11, K12, K14, K18, K19, K20, K21, K22, K23, K27, K28, K32, K34, K40, K41, K45, K46, K49)
- 72 (L10, L15, L20, B10, B13, B15, B22, B24, B33, N12, N21, N23, N28, K2, K6, K7, K9, K10, K11, K14, K15, K17, K18, K19, K20, K22, K23, K27, K29, K30, K32, K35, K37, K38, K39, K41, K43, K46, K47, K50)
- 73 (B7, B15, B19, B25, B29, N18, N19)
- 74 (L30, B22, N24, K1, K12, K15, K32, K42, K43)
- 75 (L5, L9, L24, L26, B7, B15, B16, B24, B25, B34, N7, N24, N27)
- 76 (B11, B17, B19, B34, N14, N15, K1, K11)
- 77 (N14, N15)
- 78 (L17, L29, B15, B16, B34, N15, N18, N19, N24, N32, K5, K12, K17, K20, K27, K33, K34)
- 79 (L20, L29, B34, N2, N7, N13, N16, N17, N18, K7, K18, K39, K47)
- 80 (L11, L12, K38, K47)
- 81 (L31, B19, B22, B24, B29, B34, N4, N7, N24, K1, K4, K8, K9, K12, K14, K20, K34)
- 82 (L15, B7, B30, N7, N28, K8, K12, K14, K17, K22, K23, K30)
- 83 (L15, L20, B11, B15, B19, B29, N15, K10, K27, K28, K33, K40, K49)
- 84 (L11, L12, L19, B22, B32, N2, K1, K2, K14, K31, K48)
- 85 (B19, N10, K10, K43)
- 86 (L12, L32, B8, B22, K18, K21, K40, K47)
- 87 (L2, N29, K1, K38, K43)
- 88 (L9, L12, B8, B9, B19, B22, K1, K4, K9, K38, K47)
- 89 (B14, N12, N13, K17)
- 90 (B4, B7, B11, B24, B25, N21, K5)
- 91 (B1, B28)
- 92 (N12, N32, K12)
- 93 (N22, K39)
- 94 (L11, L17, L26, N31, B29, B32, K4, K14, K42)
- 95 (L17, L29, L30, B3, B14, B15, B16, B24, B25, N3, N6, N7, N12, N18, N19, K10, K14, K23, K28, K42, K43)
- 96 (B14, N3, N7, K28)
- 97 (L17, B1, B3, B10, B12, B14, B22, B24, B25, B29, B32, N2, K1, K15, K23, K42, K43)
- 98 (L8, B1, B3, B7, B34)
- 99 (B14, B25, N2, N3)
- 100 (B12, B22, K43)
- 101 (B4, B10, B19, B34)
- 102 (B3, B4, B19, B32)
- 103 (B7, B12, B19, B25, B31, B32)
- 104 (B3, B4, B10, B14, B19, B23, B29, B32).
- 105 (B1, B3, B7, B8, B12, B14, B17, B21, B23, B25, B26, N20).
- 106 (L7, L26, L29, N3, N6, N12, N15, N24, B1, B3, B15, B16, B17, B19, B29, K2, K4, K7, K8, K13, K18, K33, K43)
- 107 (L3, L7, L20, L26, B1, B8, N12, N15, K8, K36).
- 108 (L13, L15, B19, N17, N24, K10, K14, K28)
- 109 (B15, B19, N24)
- 110 (L6, B25, K1, K12, K45)
- 111 (B16, B17, B29, N2, N3, N6, N12, N24, K1, K7, K8, K12, K43, K49)
- 112 (B25, K12, K13)
- 113 (B17, N12, K17, K33, K43)
- 114 (L13, L15, N17, K2, K13, K20)
- 115 (L11, L18, K14, K33, K38)
- 116 (K12, K13, K41, K45)
- 117 (L11, L26, L32)
- 118 (L12, L29, B16)
- 119 (L11, B1, B8, B30, N13, N20)
- 120 (L17, B11, N14, N19)
- 121 (B25, N12, N15, N18)
- 122 (L6, L8, L10, L11, L24, L19, B11, B30, N6, N12, N22, N29, K13, K18, K40)
- 123 (L24, B30, N22, N29)
- 124 (L6, L19, N6, N7, N12, N16)
- 125 (L2, B11, N15, N16, N29)
- 126 (B15, B16, B29)
- 127 (L20, L21, B12, B14, N13, N17, N20, N23, N27, K1, K12, K39, K43)
- 128 (L2, L9, L17, K12, K22, K28)

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