Improving health insurance coverage in Ghana: A case study

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Study design, fieldwork and methodological issues

Introduction
In recent years, multi-level stakeholder interventions have become common in the social sciences using various study designs depending on the level at which change is measured. The aim of this study – to explore if and how problem-solving groups (PSGs) can stimulate enrolment and retention of members in Ghana’s National Health Insurance Scheme (NHIS) – requires a methodological approach that can capture the perspectives of all stakeholders involved and the factors that influence peoples’ decisions to enrol (or not to enrol) and remain in the scheme. In this chapter, I discuss the research design, study sites and methodological issues. I start with a description of the design and study sites, the data sources and techniques. Next, through reflection, I discuss methodological issues encountered in the field. I end with presentation of the ethical issues related to the conduct of health-related research in Ghana.

Study design
This study is the anthropological component of a multidisciplinary cluster-randomised trial (CRT) to explore problems of low enrolment in the NHIS and the high rates of membership non-renewal. The research project, ‘Reaching the poor in Ghana’s National Health Insurance Scheme’ includes 30 districts in the Central and Eastern Region of Ghana. The research team included two health economists whose main focus was on barriers to enrolment in the NHIS, utilisation of healthcare services and identification of the poor for premium exemption. Although this
ethnographic study was carried out in two intervention communities in the Central Region (Assin Achiano and Anomabo), it also draws on data from five other intervention communities in the Central Region and pre- and post-intervention household surveys conducted in 30 communities in the Central and Eastern Region.

A cluster-randomised trial (CRT) design is a form of randomised controlled trial in which communities rather than individuals or households are randomised into either intervention or control groups. The CRT generally stands out as an approach to gather evidence and provide the clearest possible results on the effectiveness of interventions (see Donner & Klar 2000). Randomisation ensures that there will be an even distribution of the demographic, economic, behavioural and other characteristics of study participants for all interventions and control groups; hence, this approach permits comparability of results across communities (Hennerkens & Buring 1987). However, a major challenge for intervention programmes carried out across multiple sites is the potential for variation in the context, participants and implementers. Questions of causality are usually best addressed via randomised controlled trial (RCT) designs (Shadish et al. 2002); however, nuances that are missed in RCT may be examined through qualitative approaches (Brantlinger et al. 2005). The combination of quantitative and qualitative methods accounts for process and context factors as noted by Tones & Green (2004). Traditional notions of experimental designs for implementing and evaluating intervention using only quantitative methods do not consider contextual variations within natural settings that may be more varied than initially expected; hence they miss the possible interaction of process and context factors that determine outcome. To account for these factors, I used both qualitative and quantitative data to assess the intervention outcomes to make the generalisability of results under specific conditions acceptable (see Roland & Torgensen 1998). Mixed methods provide comprehensive explanations and bring out critical elements such as the interest, behaviours and practices of stakeholders that interact to influence outcome. In this respect, Nutbeam (1999:100) suggests: “The most compelling evidence of effectiveness comes from studies that combine different research methods – quantitative with qualitative.” Hence my combined methodologies permitted me to triangulate process and context information about the intervention with survey data to evaluate the effectiveness of the PSGs’ intervention activities across communities. Using the best of ‘both worlds’, I am able to provide a holistic picture of the intervention and better explanation of the outcomes.

The study was divided into three phases. Figure 2.1 shows the three phases of the study: pre-intervention, intervention and post-intervention. Phase one was the pre-intervention household survey conducted in 30 communities in the Central and Eastern Region of Ghana. The purpose of the pre-intervention survey was to provide
Figure 2.1  Study framework

**Phase 1: Pre-intervention**

Purposely selected 30 districts in Central and Eastern Regions to participate in the study and pre-intervention household survey

**Phase 2: Intervention**

Central Region: Districts are randomly assigned to intervention (7) or control (6)
Eastern Region: Districts are randomly assigned to intervention (8) or control (9)

15 intervention communities and health facilities patronised and DHIS offices exposed to the multi-stakeholder problem-solving programme (MSPSP)

- Observations, interviews, conversations in 2 Central Region intervention communities
- Conversations in the 5 other Central Region intervention communities

15 control communities and health facilities patronised and DHIS offices not exposed to the MSPSP

**Phase 3: Post-intervention**

Post-intervention household survey was conducted in the 30 communities that participated in the pre-intervention survey

- Interviews in 2 Central Region intervention communities
- Conversations with stakeholders
- FGDs with PSG members in all 7 Central Region intervention communities

Assessment of the effect of PSG activities on health providers’, DHIS staff’s and community members’ behaviour and practices concerning enrolment and renewal in the NHIS
information about the NHIS status of households and individuals in all communities against which the effect of the intervention could be measured.

The second phase involved creating problem-solving groups (PSGs) consisting of representatives of communities, health providers and DHISs staff in seven of the 13 randomly selected communities in the Central Region and in eight of the 17 randomly selected communities from the Eastern Region that were designated as intervention communities. The intervention communities were matched with non-intervention communities with similar characteristics (seven non-intervention communities in the Central Region and eight in the Eastern Region). The intervention was launched in June 2009. During the intervention I was a participant observer in two PSGs in the Central Region (Assin Achiano in the Assin North District and Anomabo in the Mfantsiman East District). I focused on PSG meetings and intervention activities designed to improve NHIS enrolment and retention. I also conducted key informant interviews and had conversations with stakeholders in both communities. However, I also had conversations with PSG members in the other five intervention communities in the Central Region, while visiting them during the course of the intervention.

In the third phase, the post-intervention, the post-intervention household survey data was collected once again in all 30 communities that had participated in the pre-intervention household survey. I held focused group discussions (FGDs) with all PSG members in the Central Region. The results of the pre- and post-intervention household surveys were used to assess the effect of PSG activities on enrolment with the NHIS and retention of members, while the qualitative information was used to explain the outcome of the intervention.

**Study setting**

Figure 2.2 shows the two regions – Central and Eastern – where the study was conducted. Ghana is divided into 10 administrative regions, which are further divided into 170 districts with well-defined geographical boundaries. The two regions were purposely selected because it was essential to have similar regions with comparable demographic, socio-economic and cultural characteristics to include 30 districts with DHISs offices in the CRT. Both regions are comparable in terms of rural/urban composition, poverty incidence, major socio-economic activities, social organisation (in terms of living arrangements), informal support network and access to healthcare. These characteristics were considered to be possible influences on a person’s decision to enrol in the NHIS and renew their membership. The dominant

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1 A community is defined as a unit of social network within a geographical area. In this study it is defined as an enumeration area (EA) demarcated by Ghana Statistical Service (GSS). An EA covers a whole community, part of a community or a number of small settlements.
ethnic group in both regions is Akan and minority groups are the Krobo in the Eastern Region and the Effutu in the Central Region. Access to healthcare services is 60.1 per cent and 67.2 per cent in Eastern and Central Region respectively, compared to the national average of 57.8 per cent (Ghana Statistical Service et al. 2004).

Figure 2.2  Map of Ghana showing the two study regions with the number of districts with DHIS offices

The Central Region is situated in coastal and forest zones in Southern Ghana with 17 administrative districts and a population of 1,843,403. At the time of the pre-intervention household survey, the Eastern Region had an estimated population of 2,322,030 and 21 administrative districts and was a forest area. The majority of the work force in both regions is engaged in the agricultural sector – mainly farming and fishing. The sector employs 33.1 per cent of women and 35.7 per cent of men
aged 15-49 years in the Central Region and 22.5 per cent of women and 45 per cent of men in the Eastern Region (Ghana Statistical Service et al. 2009). Fishing is the predominant occupation along the coast in the Central Region, but less so in the Eastern Region (only persons living in communities along the Volta Lake are engaged in fishing). The two regions have similar poverty incidence of 45 per cent and 40 per cent respectively (Ghana Statistical Service 2007), but the Central Region has a lower (23.2%) currently insured population aged 15-49 years than the Eastern Region (49.6%) (Ghana Statistical Service et al. 2009).

Selection of study sites for intervention activities
The district assembly concept and the on-going decentralisation process make the districts the focus of government policies. The district officials are thus responsible for implementing public policies with the regions having a supervisory role. Hence, the district level was the focus of the study intervention. Each district has a health directorate that coordinates and supervises all activities of both public and private health facilities that provide basic and referral services. Many, but not all, districts have at least one hospital. Similarly, the DIHSs offices are located in each district capital with NHIS collectors based throughout the communities.

All 30 districts with DHIS offices in the two regions – 13 in the Central Region and 17 in the Eastern Region – were included in the study. Newly created districts without DHIS offices were excluded from the study.2 One census enumeration area (EA) was randomly selected from a district using computer-generated numbers in Excel and a lottery approach. For the purpose of this study, EAs are referred to as communities. Of the 30 communities, 39.5 per cent were urban, 38.8 per cent semi-urban and 21.8 rural.

Since it was not possible to blind control communities located within the same district to intervention activities, the district was the unit of randomisation to prevent experimental contamination. Therefore, one community was randomly selected from each of the 30 districts to ensure that control communities were blinded to intervention activities and the risk of a spill-over effect was eliminated. Following the pre-intervention household survey, we stratified the 30 communities in the two regions into rural, semi-urban and urban and randomly selected 15 communities in each region for the intervention. We took into consideration the current enrolment levels and poverty incidence as captured by our baseline household survey to minimise an imbalance of socio-economic and demographic characteristics in the two groups.

Intervention activities were carried out in 15 intervention communities, the health facilities they patronised and DHIS offices (eight in the East Region and seven in

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2 There were newly created districts in both regions that did not have DHIS offices, hence were ineligible for the study.
the Central Region). No activity was carried out in control communities. These measures made it possible for drawing causal inferences between intervention and control communities about the effect of PSG intervention activities on the dependent variable (enrolment and non-renewal rate).

In the Central Region, two intervention communities – Anomabo and Assin Achiano – were selected for the anthropological component of the study that is reported here (Figure 2.3/4).

Figure 2.3/4  Map of Anomabo (A on left) and Assin Achiano (A on right)

Selection of Anomabo and Assin Achiano as case study communities
Both Anomabo and Assin Achiano are in the Central Region. They were used as case study communities for the anthropological component of the study because they represent the ecology and the main economic activities of the region – coastal and forest as well as fishing and farming. Anomabo is a fishing community while farming is the main economic activity in Assin Achiano. They also have similar socio-cultural practices and proximity to health facilities. Indicators in the two communities that affect enrolment and retention in the NHIS include the seasonality of income and proximity to health facilities.

Anomabo, an urban fishing community in the Mfantsiman East District of the Central Region, is located along the Atlantic Ocean on the Accra-Cape Coast Highway. It is approximately 10 kilometres from Cape Coast, the regional capital. The main source of income for the men is fishing, while the women engage in trading, which is normally selling fish. Assin Achiano on the other hand, is a rural farming community located in the forest zone in the Assin North district of the
Central Region. It is off the Cape Coast-Nyamoransa-Kumasi Highway. Both men and women are engaged in farming. They grow cocoa and oil palm as commercial crops and food (cassava, plantain and cocoyam) mainly for their own consumption.

Though income is seasonal in both communities, the situation is worse in Anomabo where the majority of the population are unemployed half of the year. Fishing is done mainly from June to November after which only few fishermen engage in deep-sea fishing and earn income. The situation is slightly better in Assin Achiano, where, after the cocoa season (September to December), people still receive some minimal income from palmnut, cassava and plantain.

Our pre-intervention household survey result showed that only 4.8 per cent of the population were currently insured\(^3\) in Anomabo, 11.3 per cent had been previously insured\(^4\) and 83.8 per cent had never insured\(^5\). In Assin Achiano 20.5 per cent were currently insured, 12.7 per cent previously insured and 66.9 per cent had never insured.

The educational level of the population is relatively low in both communities but worse in Anomabo where almost half the population (46.2\%) have had no formal education and 44.2 per cent completed primary school. Only nine per cent have completed secondary school and less than one per cent (0.6\%) tertiary education. In Assin Achiano, 18.5 per cent had no formal education, 64.5 per cent completed primary education, 42.3 per cent completed secondary education and 3.7 per cent completed tertiary education (Table A.1, Appendix 2).

In terms of access to health facilities, both districts have a district hospital with numerous lower levels of health facilities (health centres, clinics, private health facilities and CHPS compound (see figure 1.4 in chapter one). Access to healthcare is 74.3 per cent and 67.0 per cent in the Mfantsiman and Assin North districts respectively (Ghana Statistical Service 2004). However, with the expansion of the community-based health planning and services (CHPS) in recent times, the situation has improved with many more communities having access to a health facility within five kilometres. Regarding proximity, there is a health centre in Anomabo and a district hospital at Saltpond, the district capital, about eight kilometres away. Achiano on the other hand, is located between two health centres – Kushea about five kilometres away and Praso seven kilometres away. However, Praso Presbyterian Health Centre is patronised by the majority of the people in Achiano because of its strategic location close to the district hospital.

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\(^3\) People who are currently insured with a valid NHIS cards are eligible to access healthcare services without paying.

\(^4\) People who were previously insured but did not renew their membership, could not access healthcare with their NHIS cards.

\(^5\) People who were never insured are those who had never registered with the NHIS.
Social organisation and social security in Anomabo and Assin Achiano

Anomabo and Assin Achiano are closely knit communities with extended families living close to each other as is usual in Ghanaian rural and traditional urban settlements. The typical living arrangement is extended families living in one structure referred to as a compound house. Compound houses usually consist of various households and/or nuclear families as sub-units. The people live in the compound house and interact with each other, but function separately. Although this kind of communal living is expected to translate into offering support in times of adversity such as ill-health, these traditions have diminished with modernity making extended-family support a secondary responsibility. The majority of respondents in this study live in compound houses with other extended family members, but do not necessarily receive support from them.

Quantitative data collection

Quantitative data was obtained from two rounds of household surveys (pre-intervention and post-intervention), conducted in the Eastern and Central Regions of Ghana between 8 March and 6 April 2009 and 7 March 2011 to 4 April 2011 respectively.

Selection of respondents for the household surveys and data collection

The sample was drawn using a three-stage procedure. First, the research team purposely selected all the 30 districts with District Health Insurance Scheme (DHIS) offices from the two regions (17 from the Eastern Region and 13 from the Central Region). Second, we randomly selected one enumeration area (community) from each district. Third, the research team mapped and numbered all residential structures within the selected communities out of which 110 households were randomly selected. The pre-intervention survey involved 3,301 households, which covered 13,857 individuals. This total consisted of 1,646 households (7,234 individuals) in the intervention communities and 1,635 households (6,623 individuals) in the control communities in the two regions. In 2011, all 3,301 household heads who participated in the pre-intervention household survey were followed-up to assess the effect of the MSPSP on enrolment and retention rates. In the post-intervention household survey, 149 households were lost reducing our post-intervention sample to 3,152 households with 12,810 individuals. This included 1,562 households (6,790

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6 A compound house is a structure made up of one or more households who see themselves as separate units with distinct living arrangements.

7 A household consist of a person or persons who live together in the same house or room in a compound and share the same housekeeping arrangements and see themselves as one unit.

8 EAs are clusters of residential structures classified by the Ghana Statistical Services (Ghana Statistical Services 2002).
individuals) from intervention communities and 1,590 (6,020 individuals) from control communities in the two regions. The changes in the number of households and individuals were mainly due to household relocations to other communities or the death of individual household members.

The data collected in the pre-intervention survey included socio-demographic information about the respondents’ age, sex, occupation, education, religion and marital status, income and expenditure, NHIS status, reasons for enrolling or not enrolling with the NHIS or not renewing membership and the effect of NHIS on utilisation of healthcare services. There were also questions on opinions related to health providers’ attitudes and behaviour, DHIS services, quality of healthcare services and community beliefs and practices.

To address the issue of validity, households were randomly selected to participate in the pre-intervention survey and data sources were effectively triangulated. The pre-intervention household survey questionnaire was translated using a back translation method. Experienced research assistants were trained in techniques of questionnaire administration to reduce interviewer bias. The questionnaires were pretested and challenges identified and addressed. Pre- and post-intervention household surveys were identical. Finally, research assistants worked independently from the PSG members who implemented the intervention to also reduce bias.

Quantitative data analysis

Quantitative data from the pre-and post-intervention household surveys was used to measure the effect of the intervention on enrolment in the NHIS and retention of members. The analysis included descriptive statistics including: frequencies, crosstabs and chi-square to show relationship among variables. NHIS status was placed into three categories: currently insured, previously insured and never insured.

Probit logistic regression was used to analyse the effect of PSG intervention activities on the two outcomes measures: enrolment in the NHIS and membership non-renewal rate. The model is often used to predict treatment effects in case control and intervention studies to determine the success or failure of the programme. The category coded 1 is the ‘response’ category, exposed to experimental condition and the referent group, not exposed to the experiment is 0 (Field 2009). The model predicts changes in the dependent variable, that is, enrolment in the NHIS and membership non-renewal rate in intervention communities as a result of their exposure to PSG activities compared to the control group. It shows how likely or unlikely residents in intervention communities are to enrol or not renew their membership compared to those in the control group. For example, if the estimated
(β) (the treatment effect for enrolment), is 0.5 then respondents in intervention communities are 50 per cent more likely to be enrolled compared to those in the control group (see Hosmer & Lemeshow 2000: 47-50). The associated confidence interval (CI) standard errors are used to assess the suitability of the model and p-values, the strength of the association. To assess if the change in enrolment is explained by exposure to PSG activities, key socio-demographic variables including: place of residence, wealth, sex, age and education, marital status, religion, household size and chronic disease known to affect enrolment in SHISs and the NHIS (see Asante & Aikins 2008, Adusei-Asante 2009, Sarpong et al. 2010, Jehu-Appiah et al. 2011) were used as covariates in the model.

To assess whether the intervention improved enrolment and membership non-renewal rate among the poor, cross tabulation was used to examine changes in enrolment among wealth quintiles between baseline and intervention period (2009 and 2011). Finally, the impact of the intervention on the enrolment and retention rates in specific communities was assessed using Pearson’s chi-square test conducted as two-sided and declared significant for p-values <0.05. All analyses were done in STATA 10 and SPSS version 16.

Qualitative data collection

Qualitative information to assess the effect of PSG activities on community members, health providers and DHIS staff was gathered throughout the three phases of the study. Key informants were selected from community members, health providers and DHIS staff. My data collection focused on PSG activities, the behaviours and opinions of community members, health providers and DHIS staff. Techniques used to gather information included participant observation, informal conversation, key informant interviews and focus group discussions (FGDs). I triangulated these methods and data sources by asking various participants the same questions in disparate contexts. These data sources and varying techniques helped generate in-depth information about the issues being explored. For example, barriers identified at PSG meetings were discussed with key informants in individual conversations with community members, health providers and DHIS staff. I also presented information gathered from key informants and individual conversations, community leaders and stakeholders’ meetings for discussion at PSG meetings. This approach of triangulation described by Jenkins (1992: 55) as a ‘promiscuity of methods’

β is the coefficient of the independent variable (dummy for intervention) on the dependent variable. It shows the amount of change on the dependent variable and is used to predict the effect of the intervention on enrolment and non-renewal rates. Positive values show positive relationship and negative indicates inverse relationship.
provided multiple perspectives about the issues explored and in-depth information while creating a means of verifying the authenticity of the data.

Selection of key informants
Twenty key informants were purposely selected from each of the two study sites for a total of 40. The key informants were as follows: 11 from the community, 5 from local health facilities, 2 from the District Health Directorate and 2 from the DHISs. Additional key informants were selected from the national level of healthcare: two from the NHIA and one from the MoH and one from GHS headquarters.

Key informants were not selected before going to the field. They were chosen after a few weeks of fieldwork. I began identifying key informants after I had met PSG members or was approached by people who wanted to share their experiences with either DHIS staff or health providers when it became known that I was investigating insurance. Some key informants were selected by serendipity since they happened to be in the same location where I was doing my research. The selection of community key informants was based on two issues: their potential to provide meaningful information and their representativeness of one of the three categories of the population of interest (currently insured, previously insured and never insured). Gender, education and health status were also considered.

Key informants who were health providers or worked in the DHIS offices, on the other hand, were purposely selected at the onset of the fieldwork. The main criterion used to select them was their work schedule and their contact with community members or insight into NHIS operations in their institutions.

Key informant interviews
In intervention studies, changes in individual behaviours and institutional practices can be measured using surveys, but they do not really go beyond the observed change to provide reasons for the outcomes. Critical information about participants’ perspectives, processes and contexts that explain the cause-and-effect relationship characteristic of intervention studies is often missed. As Lapan (2004) observes, face-to-face interviews provide perspectives and insights into special knowledge that only participants possess. I heard the participants’ perspectives and opinions and observe what they often expressed through their gestures. As a result, I was able to capture their perspectives, experiences and how the social environment affected their decisions about health insurance. Nonetheless, interviews were time consuming since discordant views often led to long arguments. Another difficulty was that the interviews attracted on-lookers who express opinions that had to be discussed.

I conducted 44 key-informant interviews with community members and health providers in Anomabo and Assin Achiano and staff of DHISs, the NHIA, MoH and GHS headquarters (see Table A.2, Appendix 2, for their profiles). The interviews lasted between 20 and 30 minutes. They were either audio recorded or hand written.
depending on the interviewee’s preference or the circumstances\textsuperscript{10}. I engaged all informants (except the four from the NHIA, MoH and GHS) in conversation during the intervention. In addition, I had informal conversations and discussions with community members, DHIS officials and health providers who I did not consider to be key informants. Information gathered from community members included reasons why they did not enrol or renew their memberships, the benefits they derived from the NHIS, insured patients’ experiences accessing healthcare, and quality of service delivery among others. I solicited information on the challenges experienced in implementing the NHIS policy from DHISs’ staff and health providers.

When the intervention was complete, I engaged all key informants in follow-up interviews to explore the results. Discussions usually started with a presentation of the pre- and post-intervention household survey results from the entire study (30 districts) and specific community survey results. The survey results were used to explore factors that may have accounted for the observed outcome. The key informants who were interviewed before the intervention were also engaged in regular informal conversations during the course of the intervention and had follow-up interviews after the intervention (except for two, a community leader who died and a District Director of Health Services (DHSSs) who was transferred during the intervention). I did however interview the two key informants who replaced the missing two mentioned above, because they were well aware of the intervention and had participated in some PSG activities. The topics explored in these key informant interviews included knowledge of intervention activities and the effects on community members, health providers and DHIS staff.

\textit{Participant observation}

Participant observation was a main technique for data collection. This trademark distinguishes anthropologists’ work from other social scientists. As Spradley (1980) argues participant observation creates a social situation that makes it possible for the researcher to engage in activities appropriate to the situation by observing the subject of study and their activities. He points out the approach allows pertinent features of the daily life of the study setting to be recorded even if they are not discussed by interviewees. Thus, my participation in the intervention PSGs allowed me to observe aspects of the participants’ activities and gather relevant information that might not have been revealed through interviews.

\textsuperscript{10} For example, when the interview was conducted at a noisy place, audio recording was not feasible. This normally occurred at the beach where fishermen were busy mending their nets or in compound houses where others played loud music.
During the intervention, I was a participant observer in the PSGs in Anomabo and Assin Achiano. My daily research tasks were observation and participation in PSG meetings and intervention activities. I also had informal conversations with members of the two intervention communities, health providers in the local health facilities and district health directorates they patronised and staff from their respective DHISs. Since the majority of my fieldwork was in Anomabo and Assin Achiano, I divided my time between the two communities and planned my schedule around those PSG activities and frequently went to health facilities that the people patronised and the respective DHIS offices for observation. I also chatted with staff and the clients. In addition, I visited the other five PSGs in Central Region at least three times and took part in their meetings and intervention activities. During my stay in each community, I had informal interactions with community members, health providers and DHIS staff.

I also visited key informants at home and shared meals with them in Anomabo and Assin Achiano. I adopted this strategy because it was not possible to observe sensitive issues such as corruption or get information from people directly involved. These strategies gave me the opportunity to eavesdrop on conversations about the research issues. This approach also ensured that individual perspectives were not missed which was particularly helpful because participants talked more in informal individual conversation than in group discussions, interviews or in answers on questionnaires. Sometimes, I heard rumours that helped me re-direct my line of enquiry. I also observed how problem-solving tools and participatory approaches were used to identify barriers to enrolment, develop and implement intervention activities to improve enrolment and retain members.

Focus group discussions

Focus group discussions (FGDs) are used to gain in-depth information (see Senah 1997). FGDs generally provide information that is not captured by other data collection methods. In my case, FGDs were particularly useful for obtaining relevant feedback on collected data and to enrich my understanding of various key-informant perspectives.

At the end of the intervention, I held FGDs with PSG members in all seven intervention-communities in the Central Region to assess the effect of the intervention on all stakeholders. The main issues discussed were views on the intervention and outcome. The information gathered included: (1) PSG members’ views about the intervention, (2) how stakeholders were involved in PSG activities, (3) the effect of the intervention on community members, health providers and DHIS staff, and (4) the processes and intervention activities and factors that contributed to the outcome. This provided evidence to construct a holistic picture of what had happened, how it occurred and why a particular outcome was achieved. The interactions provided
deeper insight into the data as participants’ information was probed and sometimes challenged and credibility established.

To address the issue of validity, four steps were taken to ensure that the information gathered reflected the studied phenomena. Regarding the implementation of the MSPSP and the conduct of PSG activities, PSG members and facilitators were selected using the same method. All facilitators were trained in leadership and facilitation skills. The application of problem-solving tools was given in one workshop to ensure uniformity in the execution of the MSPSP. I also explored and verified issues that emerged across communities and groups to explore contradictory data. Above all, I used the FGDs as a final check on data gathered from interviews, observations and survey results. The reaction and feedback that I received from PSG members provided deeper insight into the data, which helped me ensure that it reflected the views of participants and minimised subtle biases in my interpretation of the data. I believe that I present a fair reflection of participants’ views and represent the target population.

Qualitative data analysis

The information gathered was manually analysed. Qualitative information processing started with regular organisation of my observations, discussions and conversation notes while in the field to address my research questions and identify initial patterns in the data. As fieldwork progressed, I manually transcribed my interviews and grouped them according to themes. At the end of my fieldwork, the data set was then analysed in its entirety and responses from various participants grouped under each theme according to the three stakeholder groups: community members, health providers and DHIS officials.

As Oakley et al. (2006) observed using process and outcome data to measure the effectiveness of intervention activities enriches the interpretation of results. I arranged typical narratives by key informants and PSG members that described barriers to enrolment in the NHIS and retention of members, the intervention process (including activities), and events that occurred during the intervention period and finally, my respondents’ observed changes among community members, health providers and DHIS staff. I also categorised what my respondents thought had caused the changes. The information from my respondents (key informants and PSG members) was grouped according to what was observed at each level that they linked to the changes in enrolment and retention rates. I used the typical expressions that my respondents used to create summary statements. Next I created a list of comments related to each theme and systematically checked them for information that supported the summary statements and explained the quantitative results of the outcome of the intervention. When respondents’ comments suggested dissimilar points of view, the contradiction was described and observations in the field were
used to explain what I believed guided people’s reasoning. Summary statements that
described each stakeholder’s points of view were verified by discussing my sum-
mary statements with key informants and PSG members to determine whether I had
summarised their comments accurately.

Finally, the information was subjected to thematic and content analysis to exam-
ine factors that had direct effect on PSG activities and thus on enrolment in the
NHIS and non-renewal of membership from the stakeholders’ perspectives. This
helped me to explore the respondents’ narratives that depicted antecedents that
governed participants’ behaviour and practices as well as the intervention outcome
(increase in enrolment and no improvement in retention rates). Thus interrogation of
the data highlighted the core issues that the stakeholders were most concerned about.
These analytical approaches, careful selection of key informants and effective
triangulation of data sources minimised bias in the data presented in this book.

Double role of the researcher: An asset or hindrance?
The ensuing discussion explores whether the researchers’ dual role as a member of
an intervention group was an asset or an obstacle in the research process. The issues
raised in this discussion are situated within the entire research process and focus on
methodological issues. I start with the peculiar advantages that I gained as a result of
my dual role. I then address the dilemmas and challenges I faced and how I man-
aged them to optimise playing both roles.

Benefits of dual roles in a research process
In this study, my combining observation of and participation in PSG intervention
activities was a complex enterprise with opportunities and challenges. I used
reflective skills and an empathic understanding of the social context to effectively
manage the challenges and benefit from the opportunities.

A number of social scientists have discussed the benefits of dual roles in ethno-
graphic studies (Harrington 2002, Kinsman 2008, Kyakuwa 2011, Dapaah 2012),
while others have given account of challenges they faced (Oosterhoff 2008, Mulemi
2010). According to Van der Geest & Finkler (2004), the tenets of anthropological
study pose peculiar challenges for carrying out fieldwork especially in a health
facility. For example, it is not uncommon for research projects to be delayed
because gatekeepers, such as health providers, are apprehensive about allowing an
outsider into their work space. As a result, some researchers have hidden their
identity or gone completely undercover to gain access. For instance, Dapaah (2012)
reports on healthcare providers’ reservation about his presence in a Ghanaian
hospital. However, a double role in this case can help a researcher to bypass power-
ful gatekeepers. Since I was a participant in the intervention group, access to the
healthcare facilities was not a problem. Eventually, I derived three benefits from my dual role.

First, my membership in the PSG gave me the advantage of gaining access to the ‘field’ and I had a smooth entry to my study sites: communities, health facilities and DHISs’ offices. At health facilities, I was introduced to colleagues of the PSG members as a group member, and thus I was allowed into their midst and the staff willingly accepted my interview appointments. Moreover, because I was often seen in the company of health providers and DHIS staff on the premises, after a few weeks my presence became less noticeable and invasive.

Second, it could have been very difficult for me to explore my research topic with healthcare personnel and community members as a complete outsider only playing the role of a researcher. I resolved the problem of obtrusiveness that could have led to pretence and holding back information by hanging out with individual PSG members and engaging them in informal conversations. It also helped that I am a Ghanaian and speak the local language. This made me less of a stranger, not only to PSG members, but also their colleagues. So I easily went to the beach, church services and visited PSG members and key informants at home. The frequent informal interactions minimised pretence and the PSG members and key informants allowed me to have conversations about the study even when I did not initiate the subject. Thus, I was able to observe the backstage behaviour of some community members, health providers and DHIS staff. I had the opportunity to ask follow-up questions within and outside group meetings on sensitive issues such as malpractice and confirmed that it does occur. For example, the collection of unauthorised fees was denied at PSG meetings and could not be observed, but was revealed during these more ‘casual’ times with PSG members as I probed what had transpired during intervention activities and listening to spontaneous remarks at PSG meetings.

Third, my deep involvement in PSG activities helped me experience the reality of the intervention process and gain deeper insight into contextual factors and structural challenges that affected the PSGs’ work and by consequence the outcome of the intervention. My role as a PSG member made stakeholders see me as someone who appreciated their challenges and could help improve their situation, so they had forthright conversations with me. Community members in particular saw my presence as an opportunity for expressing their dissatisfaction about the quality of healthcare services. Thus my dual role facilitated data collection and provided reliable information that helped me construct a more accurate picture of the intervention programme as it unfolded. This role also established the credibility of my reports, since I heard stories with deeper nuances than an outsider just observing the intervention process would have done.

Despite the advantages, I also point out that playing a dual role creates the problem of the researcher’s persona hindering some people from participating in inter-
vention activities. Based on the behaviour of a few PSG members, heads of health facilities and DHIS managers towards my presence, I sometimes believed that they thought I was evaluating their work to write a performance report. Some PSG members defended negative things said about them during discussions and I noticed from their gestures that their defence was just an attempt to present a good image of their institution. Their gestures sometimes showed that they were not sure whether or not my observations would be shared with the authorities. I believe these key informants held back information that they thought was embarrassing. In the case of heads of institutions, I observed what I refer to as ‘a gentleman’s behaviour’. Some of them did not honour invitations to stakeholders’ meetings and intervention activities. The impression I got was that they were reluctant to have an open and frank discussion because they feared it might reveal negative things about them or their institution. Perhaps due to their apprehension, they sent subordinates when invited. This did not create the same impression as their presence would have done. For example, the presence of heads of health facilities and DHIS managers in stakeholders’ meetings and community durbars\(^\text{11}\) created a better impression of the intervention since community representatives perceived it as a show of support for the NHIS and the intervention thereby increasing their commitment to PSG activities. Health providers and DHIS staff also attached more seriousness to the intervention when the head of their institution attended PSG activities. The head’s presence thus assured health providers and DHIS staff (within and outside PSGs) that the challenges they faced implementing the NHIS would be addressed. Unfortunately, not many heads of institutions attended stakeholders meetings and community durbars.

Methodological dilemmas
I faced three main challenges during this research. First, whether or not to contribute to discussions during PSG meetings and thus not disrupt the group environment, or how and to what extent I should participate in intervention activities; second, how I should manage participants’ expectations; and third, how I could ensure that the intervention process and events were recorded objectively and the outcome results interpreted dispassionately.

I decided to only prompt PSG facilitators when I believed that the theoretical basis of the intervention was not being followed. If I had not done so, then the purpose of the intervention would have been defeated. In this action, I drew their attention to critical issues that the group sometimes overlooked. This occurred early

\(^{11}\) Community durbars are usually public gatherings held to celebrate festivals or used as a platform to sensitize community members and other stakeholders about public issues that affect them. Durbars are usually attended by chiefs and their elders and community members and officials who interact and communicate their views on the issues discussed.
in the PSG activities, especially during problem identification. At this time, I observed that depending on who facilitated a meeting, the PSG member consciously or unconsciously tried to focus on negative behaviours and practices attributed to others and paid less attention to barriers at their level. For example, when health providers or DHIS staffs were leading discussions, they focused on barriers at the community level as the main cause of low enrolment in the NHIS and high membership non-renewal rate and gave less attention to issues related to their negative behaviours and practices. In such situations, I drew their attention to the need to be open-minded and look at barriers from all levels and not draw hasty conclusions. After a few such contributions to discussions that provoked debates in critical areas of the intervention, I noticed PSG members were better at conceptualising the intervention and rationale. Addressing a similar methodological concern Harrington (2002: 50) points out: “Making ethnography credible depends on walking a fine line between participation and observation: being immersed enough to know what you are talking about while being separate enough to offer a critical analysis.”

In this study, I can say that my double role helped me to give a critical and in-depth account of the intervention process and events. What is important is to develop strategies to be a successful participant observer. Self-management and critical reflection abilities are essential to set limits and maintain a good balance between observation and participation during data collection.

Further, though every researcher encounters problems in the field, playing double roles especially in an intervention programme that involved multiple stakeholders in the researcher’s home country presents challenges that may affect data collection. First, since enrolment in a health insurance scheme is based on values and behaviour, I anticipated that my background as a Ghanaian studying in my home country and my personal views on the subject might bias discussions at meetings. My familiarity with the subject might make me take many things for granted and not pay attention to details, thereby biasing my interpretation of participants’ views. I managed these issues by not being on the frontline of PSG activities, limiting my talking, and increasing my listening during discussions; I only asked questions to clarify observations I had made. By not making my views known on pertinent issues, the discussions remained open for participants to express their views. My questions helped me to understand the participants’ perspectives and realities and decreased biased interpretation.

The second dilemma was how to manage the expectations of key informants especially so I could continue to enjoy their cooperation. The problem of participants requesting financial assistance from social researchers has been widely discussed in the literature. Scott et al. (2006: 34) speak of a ‘project syndrome’ when researchers are treated as sources of financial support for study participants. I had to manage the key informants who asked me for financial support. PSG mem-
bers asked me to help the elderly pay their registration fees for the NHIS and help
the core poor receive an exemption. Although I was introduced as a researcher and
reminded PSG and community members several times about my role and that the
project did not provide financial support, their expectations of financial support and
demands did not stop. Some PSG and community members considered me as a
programme manager working in a non-governmental organisation (NGO); hence
they expected me to provide financial support for their participation in intervention
activities and the study. I must state that some demands were made because of a lack
of experience with intervention studies. In my conversations with some PSG
members and key informants, they indicated that they only knew of NGOs that
implement interventions, which are accompanied by some financial assistance or
hand-outs. So I occasionally gave gifts to ensure their continuous cooperation.
However, I did take the opportunity to clearly explain my role as a researcher and
not a programme manager, so they should not expect any financial assistance.

PSG and community members also expected me to confront the DHIS staff and
collectors who did not want to register people they considered as qualified for
exemption. Similar to Evans-Pritchard (1976) and Scheper-Hughes (1992), who
both intervened during their research to help their study participants, I found myself
initiating procedures to help people by recommending to collectors and DHIS staff
that the core poor must be exempted. In a few cases, I was successful; however, I
was cautious and tried not to show signs of aligning with a particular stakeholder.
Some community representatives in the PSGs expected me to confront health
providers and DHISs staff who they accused of corruption. But considering the
implications of this action for my study, I turned down the requests. However, I did
raise these incidents during key informant interviews, PSGs and stakeholders’
meetings for the group to decide on what action to take.

The third issue was how to ensure that my participation did not bias my interpre-
tation of the intervention process, events and outcomes. There is a general percep-
tion that when doing fieldwork in one’s home country, a researcher runs the risk of
developing ‘over rapport’ with research subjects, which might impede receiving
objective information (Zaman 2005: 31). In my case, it was not just that I was doing
research at home, but I was also working with an insider’s perspective on the NHIS,
which I term as both ‘positive’ and ‘negative’ information. The mutual trust that I
developed with PSG members led to empathy and sometimes sympathy. For
example, my familiar relationship with DHIS staff and community members
sometimes led me to sympathise with some of their corrupt practices that they
termed ‘giving favours’, e.g., not sanctioning defaulters and collecting more than the
premium and registration fees. This created a problem on how to distance myself
from the ‘negative’ information that was important to the subject of study but may
have been embarrassing to individual group members when published. As Okely
(1984) observes, the research report bears the mark of future scrutiny and I call this image management. Is it more important to maintain a researcher’s position when the findings are made public, or to be concerned about upholding the trust of key informants? In this respect, my dilemma was whether to publish the ‘negative’ without looking over my shoulder for PSG members’ reaction when they read about what they had told me in confidence. In this regard, Van Ginkel (1994: 15) notes: “Many ethnographers refrain from writing things that are potentially harmful to their key informants’ interest.” This demands a negotiated approach to maintain objectivity while keeping the participants’ trust. I used an interpretive perspective in my analysis (O’Brien 2001). I did this through self-reflection and employed emic perspectives and etic accounts of the various issues. I maintained my position as a researcher and brought out both the positive and negative information while keeping stakeholders’ identities confidential.

I was also cautious of Davidson & Layder’s (1994) observation that reflexivity could lead to researchers’ hypersensitivity to their role in constructing the data and lack of confidence in the findings. I was personally disappointed that the intervention did not achieve all objectives. In the end, the intervention only increased enrolment overall, but failed to improve retention rate and enrolment among the core poor. As an initiator of the intervention and with my interest in the PSGs’ performance, I had to make a conscious effort to stand back while writing and interpreting the processes dispassionately. I was assisted by the survey results, which determined the final outcome of the intervention. The post-intervention household survey provided the final quantitative answers about the success and failure of the project. Triangulating qualitative and quantitative data helped me to interpret the results. I also organised a focus group with all PSG members in the Central Region after the intervention was complete to examine the outcome. These discussions provided additional explanations for the intervention outcome, which I added to my final data making me confident that I captured the participants’ reality and point of view in my interpretation and conclusions. Although the information presented in the following chapters may be complex and sometimes conflicting, it is my interpretation of events based on data that I believe to be reliable, and no more. My participant role might have prevented me from being an independent interest-free researcher and thus, I make no universal claims that what I present is bias free.

To conclude, the debate regarding the advantages and disadvantages of a researcher playing dual role is not an either/or affair. I am convinced my participation in PSG intervention activities was necessary. It helped me capture more dimensions

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12 An ‘emic’ perspective describes behaviours and understandings in terms of meaningful experiences to the actor.

13 By contrast, an ‘etic’ account is a description of a phenomenon in terms of its meaning to the observing outsider.
of the phenomenon and process factors that enabled me provide in-depth causal explanations to the outcomes of the intervention. As Oosterhoff (2009: 257-258) argues: “In public health action research, the goal is not just to learn but also to change and improve the status quo.” Similarly, my involvement in PSG activities made it possible for me to offer suggestions in critical areas of the intervention that helped the PSGs to better conceptualise the intervention and enhanced their work. In addition, my insider’s knowledge of what PSGs’ experienced implementing the problem-solving intervention programme helped me give an in-depth account of the intervention process, factors and challenges that influenced PSGs’ work and by consequence the outcome of the intervention. My dual role thus helped me not to be disconnected from reality, so I could offer insightful suggestions to improve intervention practice.

**Ethical issues**

For health-related research to be conducted in Ghana, it is obligatory to obtain ethical approval from a recognised board to protect the interests of participants. The Ghana Health Service (GHS) vets research proposals to ensure that proposed studies use appropriate designs especially for data collection, storage and publication to ensure researchers do not cause harm to participants. The proposal for this study was vetted and approved by the ethics committee of the GHS.

Before I had access to health facilities and DHISs, we [the project team] had to seek approval from the National Health Insurance Authority (NHIA) and GHS, the two institutions directly involved in the implementation of the NHIS policy. Before the study commenced, we held discussions with the top officials at the headquarters of both institutions to inform them about the project. Then we went to the regional and district levels before going to individual health facilities that provide healthcare to the communities and which were selected for the study to discuss the project. We also sought the officials’ permission to use their staff as PSG members. These visits were preceded by official letters to NHIA and GHS headquarters and the two Regional Directors of Health Services (DDHSs) and NHIA regional managers who in turn wrote to the District Directors of Health Services in their respective regions, heads of health facilities and District Health Insurance Scheme (DHIS) managers. Many of these officials were gatekeepers who provided protection against undesirable interference in the study and intervention.

Following these protocols was quite easy because of the principal investigator’s (one of my local supervisors in Ghana and a regional director of GHS) connection with regional directors of GHS and DDHSs. Equally important was seeking permission from traditional leaders to carry out the study in their communities. The staff of the various District Health Directorates facilitated our approval from the traditional
leaders as they had good relationships with them. They introduced us to the chiefs and opinion leaders who readily granted us permission to go forward.

Anonymity of respondents
Although there was no potential risk in participating in this study, utmost care was taken to protect the confidentiality and identity of participants. The political perception of the NHIS makes the issue of protecting respondents’ anonymity rather complex in the writing of this book. Similar to Van der Geest’s (2003) observation that all key informants in his study of old age in Ghana were disappointed when their names did not appear in his book, here the desire for anonymity was mixed and I had various reactions from key informants. At the community level, the need for anonymity was less relevant as they did not care about revealing their identities. They wanted their names and pictures to be attached to their views in my study. However, health providers and DHIS staff did not want to be associated with views on topics they perceived as critical of their organisations. Some were reluctant to have their interviews recorded, so I had to write their responses.

As Green & Thorogood (2005: 60) note: “Case studies present particular challenges in terms of anonymity.” The following comment was typical of some DHIS staff’s reaction when I presented the summary of the preliminary findings for their feedback: “Though the results reflect what was discussed, I am not comfortable with the political issues in your report because of the politics surrounding the NHIS and our work” (a DHIS manager). Fortunately, because I used two study sites and also visited other five intervention communities in Central Region, I was able to use pseudonyms when discussing the results to hide the identity of the communities and protect their confidentiality so that sensitive information could not be linked to a specific person. The individual identities of informants were also protected by using pseudonyms.

Informed consent
The consent form stated the aim of the study and the expected contribution to increasing access to healthcare in Ghana. Participants were told about the option to participate or decline and the right to opt out at any time. I had consent forms that I gave to those participants who could read and verbally explained the study to those who could not before seeking their permission to conduct interviews. Although the consent form had a column for participants who agreed to take part in the study to sign, nobody signed; they told me it was not necessary. I also asked permission to
take photographs, record interviews and include informants’ pictures in presentations and publications if necessary to which nobody objected. However, a few people told me not to associate them with some information they had given me. In such cases, I did not record those portions of the interviews.

In conclusion, I have provided detailed information about the study design and context, and various approaches used to carry out this study. Also, I have presented methodological reflections regarding the double role I played as a researcher and a member of an intervention group. This information provides context to the empirical chapters and yields a better understanding of the findings and conclusions I present next.