Saudi Journal of Health Systems Research

Research Article

Saudi J Health Syst Res 2023;3:188–203
DOI: 10.1159/000531700

Received: March 13, 2023
Accepted: May 18, 2023
Published online: August 16, 2023

# Social Protection Supports and Management of Non-Communicable Diseases in Ghana: A Qualitative Cross-Sectional Perspective of Health Stakeholders

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**Keywords**
Social protection supports · Management · Non-communicable diseases · Health stakeholders · Ghana

**Abstract**

***Introduction:*** Africa faces a double burden of communicable and non-communicable diseases (NCDs). Already, health systems in Africa are overwhelmed with a high burden of communicable diseases with perennial outbreaks of highly infectious diseases. The rise in NCDs comprises an already fragile health system challenging its ability to provide comprehensive care to people living with these diseases. Without responsive social support systems, NCDs will draw more people into catastrophic health financing, worsening health outcomes, and poverty. This study explores how vulnerable people negotiate major disease burdens with the social protection supports available in Ghana. ***Methods:*** The study applied a cross-sectional design with a qualitative approach involving healthcare professionals and non-healthcare professionals in 4 regions in Ghana with a total of 32 qualitative interviews analyzed thematically. ***Results:*** The main social protection support for the health sector in Ghana is the National Health Insurance Scheme. Other social protection supports such as free maternal healthcare, Livelihood Empowerment Against Poverty, and conventional informal social protection mechanisms do not directly target people afflicted with NCDs. Even though national health insurance covers about 90% of diseases, the quality of care is questionable. Again, the exclusion of diagnostic investigations makes national health insurance a setback to NCD disease management. Also, NCD patients still do out-of-pocket expenses though they have valid national health insurance. Informal social protection supports which used to be effective sometime back are dwindling due to the rising cost of living, gradual breakdown of the African system of reciprocity, and infiltration of Western lifestyles. ***Conclusion:*** NCD patients have very limited social protection for the management of their condition. Health insurance which is the only option for many has limited applications. A multidisciplinary body is established by the government to outline more effective ways of offering social protection support for health services, especially chronic conditions such as NCDs which affect a greater proportion of the population.



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## Introduction

Social protection measures are instituted as the last line of defence against catastrophic health financing for the poor, the feeble, and the vulnerable in society. These mechanisms provide access to care to those who simply do not have the means to purchase healthcare out-of-pocket [1–4]. Access to good healthcare, adequate nutrition, education, and income security, which cushion against poverty or vulnerability, are fundamental pillars of the social protection floors (SPFs). With solid healthcare support, people can recover from their ailments and make a meaningful contribution to the economy [5–7]. This is particularly crucial in the context of low-income countries like Ghana, where healthcare delivery remains a major developmental challenge [8–11]. Many countries including Ghana signed up for the SPFs. Ghana's SPFs are implemented through the National Social Protection Strategy (NSPS) launched in 2007. The NSPS is the Government of Ghana's vision of creating an all-inclusive and socially empowered society through the provision of sustainable mechanisms for the protection of persons living in situations of extreme poverty, related vulnerability, and exclusion [12].

Africa is currently experiencing one of the fastest epidemiological transitions, characterized by a surge in NCDs. Communicable diseases (CDs), non-communicable diseases (NCDs), and injuries constituting a triple burden only highlight the burden of disease on a fragile healthcare system [13–15]. NCDs cause more than half of deaths in adults in all regions globally [16–19]. Available records in Ghana revealed that NCDs such as hypertension, stroke, diabetes, and cancers are among the top 10 causes of hospital admissions and deaths [20–23]. Crucially, while the burden of diseases rises, research is limited on ways that social protection measures attenuate the impact of NCDs on families and individuals. The limited evidence suggests that vulnerabilities associated with poor people only worsen. This study is therefore conducted to explore how vulnerable people negotiate a major disease burden with the social protection systems available in Ghana. Most research on NCDs has focused on the burden; this is understandable as the rapid changes in the epidemiological profile have been unexpected. The scholarly silence on the response of vulnerable people to NCDs limits our understanding of secondary management strategies of families. The package of services from the NSPS supports old age, caregivers of vulnerable people (orphans and vulnerable children, people living with HIV/AIDS), socially excluded people, healthcare for pregnant and lactating mothers, subsistence farmers, and contributory national health insurance for all Ghanaians [24, 25]. Specifically, the study explores formal and informal social protection support available to people living with NCDs in Ghana and how these supports influence the management of their healthcare.

In this research, formal social protection refers to the government's laid out interventions that offer the leverage for people to access health and education, secure fundamental human rights, secure financial security, and provide livelihood support to others. Informal social protection support is not limited to the receipt of services and items from close relatives and friends but also from associational groups, philanthropic individuals, and organizations. It also covers remittances and services that promote the welfare of individuals [26, 27].

Vulnerable people need interventions to make it possible for them to cope with NCDs. Universal health insurance or contributory health insurance are some of the broad country-level interventions instituted to support the management of diseases countrywide [28–30]. While countries like Germany, Austria, Belgium, Costa Rica, Israel, Luxembourg, and Mauritius have implemented universal health coverage, most developing countries including Ghana have implemented contributory healthcare insurance schemes as a social protection support to help make healthcare affordable to the vulnerable [31–33].

In Ghana, the National Health Insurance Scheme (NHIS) is the main strategy for delivering social protection. The NHIS Act, Act 650 (now Act 850, 2012), was promulgated in 2003 with some exemptions for premium payment for children under 18 years, lactating mothers, and the elderly over 70 years. The exemptions given to children and the aged are expected to support the management of various ill-health including NCDs. Currently, health insurance coverage in Ghana is reported to be 68.6% of the population with males and females accounting for 64.5% and 72.6%, respectively [30, 34]. Although the NHIS was targeted at everybody, especially the vulnerable, there is overwhelming evidence to show that sections of the population are not covered due to limited exemptions and low socioeconomic status to afford the payment of premiums [34–36].

The effective and efficient provision of other social protection supports especially policies targeting healthcare may be essential to the poor, especially

**Table 1.** Urban and rural study setting selection

| Region | Community-based interviews (in-depth and FGDs) | | Institutional-based interviews |
|---|---|---|---|
| | urban areas | rural areas | |
| Ashanti Region | Kwadaso and Asuofua | Apatrapa and Nyankyerenease | Komfo Anokye Teaching Hospital |
| Bono Region | Sunyani | Dumasi and Kwatiri | Sunyani Regional Hospital |
| Savanna Region | Tamale | Damongo | Damongo District Hospital |
| Greater Accra | – | – | Ministry of Health, Ghana |

the indigents in communities. These indigents are the poorest households of the population who may lack employment, may lack a clear source of income, may have a fixed place of residence, and may constantly demand support from other persons in or outside the community. These categories of people are within the low socioeconomic status, are most vulnerable, and may have a high incidence of disabilities including NCDs [37]. With this development, the probability of relying on only one social protection support as a measure of closing the inequality gap and improving access to healthcare is very limited, and the occurrence of NCDs may increase to an unimaginable proportion if this trend continues.

Informally, the African culture is known to be collectivistic, where community networks buffer the weak and the vulnerable against shocks. Extended family members provide for the aged and the disabled, the sick, and the unemployed members of the family. A sizeable proportion of Africans outside the formal sector have largely depended on informal arrangements for social protection [38]. However, recent evidence shows that these networks are losing their relevance as society becomes more individualistic. This is because economic difficulties and urbanization have chipped away the strong informal social protection systems that were available for family members [38]. Therefore, the attention to chronically ill relatives has been reduced. This study, therefore, seeks to unearth the gap in social protection for people living with NCDs and the support options available in the management of NCDs in Ghana.

## Materials and Methods

*Study Setting*

The study was conducted in 4 Regions in Ghana between 2018 and 2020. These are Ashanti Region, Savanna Region, Bono Region, and Greater Accra. In each region, the community study site was made up of a rural and urban setting. The institutional studies covered the Ministry of Health, Komfo Anokye Teaching Hospital, Sunyani Regional Hospital, and Ghana Health Service subsidiary as shown in Table 1.

*Study Design and Approach*

The study applied a cross-sectional design with a qualitative approach to ascertain the perspectives of healthcare professionals and non-healthcare professionals on social protection supports available to people living with chronic NCDs in Ghana.

*Study Population*

The study population was made up of healthcare professionals (doctors, nurses, and pharmacists, among others) and health policymakers (Heads of Directorates in the Ministries, NCD focal persons, etc.). The study population also included people living with NCDs and some community members who are not necessarily NCD-afflicted persons.

*Study Inclusion and Exclusion*

The study was segmented based on healthcare professionals and healthcare policymakers, NCD-afflicted persons, and community members (focus group discussions [FGDs]). As exclusion criteria, in selecting NCD patients, the respondent should be a known hospital attendant, must be present at the hospital premises at the time of selection, and should be above 30 years of age. Again, persons in the capacity of healthcare practitioners or policymakers qualified to be part of the study. In addition, persons who are not NCD patients and have been in the community for more than 5 years also qualified as study participants. All other manners of persons outside the criteria described above were excluded from the study.

*Sampling Techniques*

The sample study involved in-depth interviews with 15 people living with non-communicable diseases (PLWNCDs), 11 key informant interviews from healthcare professionals and healthcare policymakers, and 6 FGDs conducted in gender dynamics. The hospital attendance list provided the frame for selecting the in-depth study participants using simple probability. The key informants were purposefully selected based on their knowledge and authority on social protection supports and NCD management. Equally, the FGD members were purposely selected based on their residential status, a

minimum of 5 years of stays in the community, and attainment of 30 years as the minimum age. Therefore, the respondents were selected purposefully (knowledge of the subject matter, living with an NCD, being a caregiver of an NCD patient, achieving the status of community opinion leader, staying in the community for over 5 years, etc.).

*Ethical Considerations*

The study was approved by the Research and Development Unit of Komfo Anokye Teaching Hospital, Kumasi, Ghana (Committee for Human Research Publication and Ethics) with reference number CHRPE/AP/581/19. The study participants were approached individually, and the purpose of the study was explained. Participants were also assured of confidentiality. They were also informed of their right to exit the interview process without any penalty. Respondents who agreed to participate were given a consent form to sign and date.

*Data Management and Extraction*

Meaning saturation was attained as the same thematic areas kept repeating themselves after subsequent interviews. All the interviews were recorded and played back to ensure sound clarity. The interviews were then transcribed into text. All the text sheets were coded based on the categories of interviews and the geographical regions. For instance, codes for the regions, themes, and types of interviews are illustrated in Table 2.

The coded responses were then put on a coding frequency table sometimes called a coding frame (see Tables 3, 4). The coding frame has both vertical and horizontal axes. The vertical axis on the left describes the various codes and themes identified in the transcripts. The vertical axis represents interview participants. The qualitative data were extracted based on themes guided by the global, organizing, and emerging themes. The global and organizing themes were derived from the study objectives. The coded and transcribed texts were categorized according to the appropriate themes. Tables 3 and 4 present a sample of coded responses from in-depth interviews of PLWNCDs and sample coding of responses of FGDs, respectively.

*Data Analysis*

The study employed Attride-Stirling [39] thematic analysis format. The analyses were done in three levels. First, codes were identified from each transcript after familiarizing with the transcripts. For the purposes of this study, a code was defined as the basic unit of an idea. The coding process, therefore, involved identifying and labelling units of ideas presented in the transcripts. These ideas are presented in a tabular format according to what ideas were observed in the transcripts and which participant voiced those ideas (see Tables 3, 4). Second, data were transformed into a thematic framework (see Tables 5–7). This level sought to identify the various themes and patterns of individuals' impressions of social protection support for the management of NCDs. These were patterned along the global, organizing, and basic or emerging themes of the study. The global and organizing themes were all drawn from the study objectives. The basic or emerging themes were the direct feedback from the study respondents based on questions the interviewer asked. Again, where necessary, sample quotations of respondents were used to support the emerging themes as illustrated in Tables 5–7 under the heading "Sampled Quotes." The third level of analysis was the formulation of a thematic network or web as shown in Figure 1. The thematic network/web is a robust technique of systematizing the key contents of all the various interviews conducted by the study.

## Results

The study results are presented in the Tables shown below (see Tables 3–7).

**Table 2.** In-text coding classification in the transcribed text

| Region | Themes | | | Regional response symbol | Type of interview | Potential coding in the transcribed text |
|---|---|---|---|---|---|---|
| | global theme | organizing theme | emerging theme | | | |
| A | G | O | E | * | I/KI/FGD | AO*I |
| S | G | O | E | √ | I/KI/FGD | SE√KI |
| B | G | O | E | + | I/KI/FGD | BG + FGD |

A, Ashanti Region; S, Savanna Region; B, Bono Region; G, global theme; O, organizing theme; E, emerging theme; I, in-depth interviews; KI, key informant interviews; FGD, focus groups interviews.

**Table 3.** Coding frequency table of responses of in-depth interview of PLWNCDs

| Themes | Ashanti Region responses | | | | | Bono Region responses | | | | | Savanna Region responses | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PLWNCDS and available social protection support | R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 | total |
| Ability to identify NCDs' characteristics | * | * | * | * | * | | + | + | + | + | √ | | √ | | √ | 12 |
| Awareness of NCDs | | * | * | | * | + | | + | + | | √ | | | √ | | 8 |
| Ability to describe characteristics of key NCDs | * | | * | * | * | + | + | + | | + | √ | | √ | | | 10 |
| Ability to recall the onset of his/her personal NCDs | | * | * | | * | + | | + | | + | | √ | | √ | | 8 |
| Ability to give reasons for asserting more people suffering from NCDs | * | | * | | * | | + | | + | + | √ | | √ | √ | √ | 10 |
| Social protection support for NCD management | | | | | | | | | | | | | | | | |
| Ability of an NCD patient to tell life history of how an NCD was acquired | * | * | * | | * | + | + | | + | + | | √ | √ | | √ | 11 |
| Ability to quote amount of money spent on NCDs care per each hospital episode | * | | * | | * | | + | | + | + | √ | | √ | √ | √ | 10 |
| Impressions on the various formal social protection supports in NCD Management | | * | * | | * | + | | + | | + | | √ | | √ | | 8 |
| Impression on the various informal social protection supports in NCD Management | * | | * | | * | | + | | + | + | √ | | √ | √ | √ | 10 |
| Ability to pick one social protection support and elaborate (NHIS, Free maternal care, LEAP) | | * | * | | * | | + | + | + | + | | √ | √ | √ | √ | 11 |
| Challenges in the social protection support | | | | | | | | | | | | | | | | |
| Impression of the challenges in the social protection support for NCD Management | * | * | * | | * | + | + | | + | + | √ | √ | √ | | √ | 12 |

**Table 4.** Coding frequency table of responses from FGDs

| Themes | Ashanti Region responses | | | | | | Bono Region responses | | | | | | Savanna Region responses | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| knowledge of NCDs occurrence | R1 | R2 | R3 | R4 | R5 | R6 | R1 | R2 | R3 | R4 | R5 | R6 | R1 | R2 | R3 | R4 | R5 | R6 | total |
| Awareness of illness from NCDs | * | * | * | * | * | | | + | + | + | + | | √ | | v | | | v | 11 |
| Awareness of information from NCDs | | * | * | | * | * | | + | | + | | | √ | | √ | | | | 8 |
| Awareness of media reporting on NCDs | * | * | | | * | * | | | | | | + | | √ | | √ | | | 7 |
| Awareness of common NCDs in Ghana | | | * | * | * | | | + | + | + | + | | | | | | √ | | 8 |
| Awareness of most prevalent NCDs in Ghana | * | | * | * | * | * | | + | + | + | | + | | | √ | | | √ | 11 |
| Awareness of more people suffering from NCDs | * | * | * | | * | * | | + | + | + | | | √ | | | | √ | | 10 |
| Awareness of contribution of NCDs to hospitalization and death | | * | * | * | | * | | | + | + | + | | | | | √ | | | 8 |
| Social protection support for health care | | | | | | | | | | | | | | | | | | | |
| Awareness of the cost in treating/managing NCDs | * | * | * | | * | * | + | + | + | + | | + | | √ | | | | √ | 12 |
| Awareness of various formal social protection support options for PLWNCDS | | * | * | * | | * | | + | + | + | | + | | √ | | √ | | √ | 11 |
| Ability to evaluate formal social protection support for NCD management | | | * | * | * | | | | | + | + | + | | | √ | | √ | | 8 |
| Assessment of informal social protection support for PLWNCDS and NCD management | | * | * | * | | * | | | + | + | + | | + | √ | | √ | | | 10 |
| Impression of adequacy and quality of social protection support for NCD management | | * | * | | * | * | | + | + | + | | | | √ | | √ | | √ | 10 |

**Table 5.** Thematic framework of PLWNCDs for social protection support and NCD management (in-depth interviews)

| Global theme | Organizing theme | Basic/emerging theme (picked from the responses of study respondents) | Definition | Responses, *n* | Sampled quotes |
|---|---|---|---|---|---|
| Magnitude of people living with NCDs | Assertions on number of people suffering from NCDs | • Know many people who are afflicted by stroke, cancer, and diabetes<br>• A lot more people are suffering from undiagnosed hypertension and diabetes<br>• Our lifestyles predispose us to the onset of NCDs | Idea of NCD-afflicted threshold in the community | 11 | "As you hear people within the neighborhood are sick and you inquire about what is happening to them, the tendency of hearing is diabetes, heart related conditions or cancers is high. These days I have stopped asking to know the conditions afflicting people. The more I hear, the more I become disturbed." (Respondent 4: a middle-aged cancer patient in Kumasi, Ashanti Region, Ghana) |
| | Reasons for asserting many people suffering from NCDs | • The magnitude of people who attend hospitals due to NCDs<br>• Most postmortem reports cite an NCD to be the cause of death | Evidence of communities burdened with NCDs | 10 | "I know many people have diabetes because, I am the Chairman for the Diabetics Association in this Hospital, so I know the number of patients suffering from diabetes yearly. I just checked from my records yesterday *per* the last person admitted and it was 202 patients *per* each group." (Respondent 1: male diabetic patient in Kumasi, Ashanti Region, Ghana) |
| Formal social protection support healthcare | Impression of social protection support for NCD management | • National health insurance<br>• Livelihood empowerment against poverty<br>• Disability fund<br>• Free maternal care | Evidence of implementation of social protection interventions for the management of NCDs | 8 | "I know of the National Health Insurance thought it does not cover many critical areas of health. It is just to cushion the poor and encourage us to go to the hospital when we are sick." (Respondent 1: male diabetic patient in Kumasi, Ashanti Region, Ghana) |
| | Awareness of various formal social protection support options for management of NCDs | • National health insurance<br>• Livelihood Empowerment Against Poverty<br>• Disability fund<br>• Free Maternal Care | Evidence of social protection support | 11 | "These days I hear of livelihood empowerment against poverty (LEAP) and disability fund. I don't think they are for people with NCDs but if it can be extended to NCDs patients it would help support the charges for our laboratory investigations and drugs." (Respondent 13: chronic kidney patient in Damongo, Savanna Region) |

Saudi J Health Syst Res 2023;3:188–203
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**Table 5** (continued)

| Global theme | Organizing theme | Basic/emerging theme (picked from the responses of study respondents) | Definition | Responses, *n* | Sampled quotes |
|---|---|---|---|---|---|
| | Ability to evaluate formal social protection support for the management of NCDs | • Not every NCD patient use the national health insurance<br>• Satisfaction of any social protection support may depend on the status of individuals NCDs | Adequacy of formal supports available to NCD patients | 8 | "I may not be able to say much since I don't use the NHIS. I do out-of-pocket payments to get good service." (Respondent 9: kidney patient in Sunyani, Bono Region, Ghana)<br>"Even though the NHIS has lost its effectiveness, it is still better than the cash and carry. With the NHIS, I am prescribed the basic drugs which reduce the burden. But those who have money go and buy the foreign and effective drugs." (Respondent 7: kidney patient in Kwatiri, Sunyani, Brono Region) |
| | Cost effectiveness of using national health insurance for a NCD management | • Some provider paid services<br>• Provides basic healthcare cost | NHIS reduce the cost of NCD healthcare | 8 | "Yes, so it really helps us. If not because of the NHIS, health care financing would have been very difficult. At first my wife used to send plantain to Accra to sell. If I run out of insulin, I have to wait till she comes back. By then the insulin was Ghc 60.00 and I buy "metformin" as well. So, when there is no money I cannot do anything. Without health insurance, I would be dead by now." (Respondent 5: diabetic patient male in Kumasi, Ashanti Region, Ghana) |
| | Impression of adequacy and quality of social protection support for NCD management | • Coverage of the national health insurance is limited<br>• Quality of care under national health insurance is low<br>• Waiting time for care under national health insurance is long | Quality of care under National Health Insurance | 8 | "I know many people who are diabetic and are struggling with healthcare. I don't rely on only the health insurance for my insulin and other medications. Some drugs given under health insurance are not effective." (Respondent 15: diabetic and hypertensive patient Male in Damongo, Savanna Region) |

**Table 5** (continued)

| Global theme | Organizing theme | Basic/emerging theme (picked from the responses of study respondents) | Definition | Responses, *n* | Sampled quotes |
|---|---|---|---|---|---|
| Awareness of informal social protection support for NCD management | Outlining the various informal social protection support for NCD Management | • Provision of household services by relatives and friend when one is severely sick<br>• Provision of food items<br>• Provision of money for hospital care | Types of informal supports for NCD patients | 10 | "We get support in the form of money from relatives and friends, provision of services and visitations etc." (Respondent 1: male diabetic patient in Kumasi, Ashanti Region, Ghana) |
| | Assessment of informal social protection support for NCD Management | • Mostly good supports from associations<br>• Relatives support also but not substantial | Adequacy of informal supports available to NCD patients | 10 | "Yes, when I was admitted at the hospital, I received support from my church association and my staff welfare. Even my union workers sent me some remittance and my old school year group too did same when I was discharged." (Respondent 10: mild stroke Patient, Female, Sunyani, Bono Region, Ghana) |

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**Table 6.** Thematic framework of FGDs on social protection supports for NCD management

| Global theme | Organizing theme | Basic/emerging theme | Definition | Responses, *n* | Sampled quotes |
|---|---|---|---|---|---|
| Magnitude of NCDs in Ghana | Awareness of most prevalent NCDs in Ghana | *Many community members suffer from diabetes and hypertension<br>*NCDs are prevalent among the aged | Evidence of most prevalent NCD | 4 | "I think in our community here we do not hear of very serious NCDs though many people complain of being diagnosed of hypertension." (Respondent 6: male FGD in Kwatiri Sunyani, Bono Region, Ghana) |
| | Awareness of contribution of NCDs to hospitalization and death | • Many hospital admissions due to NCDs<br>• Many OPD attendance due to NCDs<br>• Many referrals to District and tertiary Hospitals due to NCDs | Evidence of hospitali zation due to NCDs | 8 | "Ooh brother, it is glaring that NCDs send many people to hospitals. The NCDs, if not diabetes, hypertension or stroke, even asthma, sickle cell and rheumatism will do." (Respondent 5: female FGD in Apatrapa Kumasi, Ashanti Region, Ghana) |
| Social protection support for managing NCDs | Awareness of a named formal social protection support for managing NCDs | • NHIS | Evidence of operation of NHIS | 8 | "Yes ooo, the government has established NHIS and there are other private health insurance schemes too." (Respondent 4: female FGD member in Dumasi, Sunyani, Bono Region, Ghana) |
| | Impressions about the role of formal social protection support | • NHIS makes outright payment of health care cost<br>• NHIS makes part payment of health care cost | Evidence of effectiveness of NHIS | 10 | "I am fully aware of the school feeding, my grandson, Owuraku is benefitting from that. I also know of the free delivery for mothers and my 2nd born, Yaa Serwaa has also benefitted from that. However, as a diabetic and hypertensive patient, the NHIS gives me the opportunity to access some basic services which I think is not enough for my level. I therefore top-up by doing my labs, purchasing good drugs and seeing the dietician. All the other social protection interventions are not to my benefit as an NCD patient." (Respondent 2: female diabetic in Kumasi, Ashanti Region} |
| | Impressions about NHIS as a social protection support for NCD management | • Generic drugs are given to bearers of NHIS.<br>• Drugs are also written to be purchased at the pharmacy shop<br>• Laboratory investigations are excluded from the NHIS package | Effectiveness of NHIS in support NCD patients | 8 | "When people praise government on TV and Radio. I laugh. The NHIS was good when president *kuffour* started it. But as soon as he left office, *hmmm*, NHIS is nothing now. My husband is serious hypertensive man but he does not use the NHIS drugs. He tells his Doctor to write good drugs and he buys it from a Pharmacy shop" (Respondent 3: female FGDs in Apatrapa, Ashanti Region) |

**Table 6** (continued)

| Global theme | Organizing theme | Basic/emerging theme | Definition | Responses, *n* | Sampled quotes |
|---|---|---|---|---|---|
| | Impression about quality of care using NHIS | • NHIS support service not effective | Status of health care using NHIS | 8 | "When people praise government on TV and Radio. I laugh. The NHIS was good when President Kuffour started it. But as soon as he left Office, hmmm, NHIS is nothing now. My husband is serious hypertensive man but he does not use the NHIS drugs. He tells his Doctor to write good drugs and he buys it from a Pharmacy shop." (Respondent_4: female FGDs in Apatrapa, Ashanti Region) |
| | Impressions about *Free Maternal Health Care* (FMHC) as a social protection support for delivery and NCD management | • FMCH is for expectant mothers and their babies<br>• Covers diabetes and hypertension in pregnancies as well | Effectiveness of FMHC | 8 | "My grand-daughter who was so disobedient got pregnant and she benefitted from the free maternal health care (FMHC). If not this, she would have seen pepper in life. But I hear, they are beginning to spoil it, as they have started charging small if you don't deliver by yourself, you pay charges." (Respondent 3: male FGD in Sunyani, Bono Region) |
| | General impressions about LEAP as a social protection support | • LEAP is a preventive mechanism for acquisition of NCDs emerging out of poverty<br>• LEAP also supported the age who may or may not have NCDs | Knowledge of other NCDs | 8 | "I know of the free money {she means; (Livelihood Empowerment Against Poverty [LEAP]). It was Damba who removed my name and replaced it with his family member. Let me say it. Is it not true? My husband does not want trouble else fire *butubutu*!! I would be getting free money from the government now. I hear the money does not come early but it helps those beneficiaries. At least you can use it to buy food, hire people in farm and also medicines when you have pains" (*R*espondent 6: FGD in Damongo, Savanna Region) |
| Informal social protection support | Awareness of types of informal social protection support | • Supports from family members<br>• Supports from friends<br>• Supports from associational groups<br>• Supports from religious affiliations | Status of informal social protection support for NCD patients | 10 | "It is not every family that will take very good care of their members who are NCDs patients. In some families nobody will take care of you till you pass away. If you do not have money or children to take care of you then you will die miserably and but your funeral would be efficiently organized to make money." (Respondent 1: FGD female in Kwatiri, Sunyani, Bono Region) |
| | Impression about effectiveness of informal social protection support | • Informal support these days are limited<br>• Economic hardship has eroded the informal support services | Evidence of ineffectiveness of the informal social protection for NCD patients | 8 | "These days, there is economic hardship. Some PLWNCDs like stroke and kidney patients may require caregivers to spend every day serving them. This is an ordeal. Some NCDs patients nowadays suffer in the hands of caregivers." (Respondent 5: male diabetic patient in Kwatiri, Sunyani, Bono Region) |

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**Table 7.** Sample thematic framework of healthcare professionals and policymakers on social protection support for NCD management

| Global theme | Organizing theme | Basic/Emerging theme | Definition | Responses, *n* | Sampled quotes |
|---|---|---|---|---|---|
| Social protection support for NCD patients | Knowledge about social protection support for access to health care services | • Existence of NHIS<br>• LEAP<br>• Occupational related health cost reliefs | Availability of social protection support for NCD patients | 8 | "Apart from NHIS and Free Maternal Care, all the other social protection interventions do not directly address health. I can say with authority that, the NHIS which is deemed social protection for the health sector is even limited. NHIS works best at the primary health care level. A lot of the services at the secondary and tertiary levels are not captured under the NHIS. Patients make out-of-pocket expenses in accessing health care."(male, healthcare policymaker. . . . . .MOH, Accra) |
| | Impression about the effectiveness of formal social protection support for NCD patients | • Operations of NHIS has deteriorated over time<br>• Bundle of drugs under NHIS package is limited | Evidence of status of NHIS | 8 | "We have seen the effectiveness of NHIS deteriorating over the year's right before our own eyes. So, I will not link it to any political party. I have a feeling it really needs an overhaul to achieve its objective. As a country, we should be fair to ourselves and our patients. As a doctor, I find it disheartening the public is made to feel that it is working when the ordinary person comes to sit in my consulting room and comes back with a blood pressure not controlled because when she went to the pharmacy, she was only given 2 drugs out the 7 drugs list prescribed. So, she is asked to buy the rest and does not have the money."(Healthcare professional, KATH, Kumasi} |
| | Impression about the effectiveness of informal social protection support for NCD patients | • Existence of minimal family support services for NCD patients<br>• Existence of associational support services | Evidence of status of informal social protection support | 8 | "Well you will not ask them directly but majority of PLWNCDs are on NHIS. In Africa, we are blessed and the family system works so most of the patients admitted and discharged have their family support. So, there is a brother or sister somewhere whom they task to come and pay the hospital bills. So mostly it is like a family support." {Healthcare professional in Regional Hospital, Sunyani)<br>"Yes, my mother was admitted at the hospital, I received small support from her NHIS. Many of the services were paid for. These include drugs and laboratory investigations." (Healthcare policmaker in MOH, Accra) |

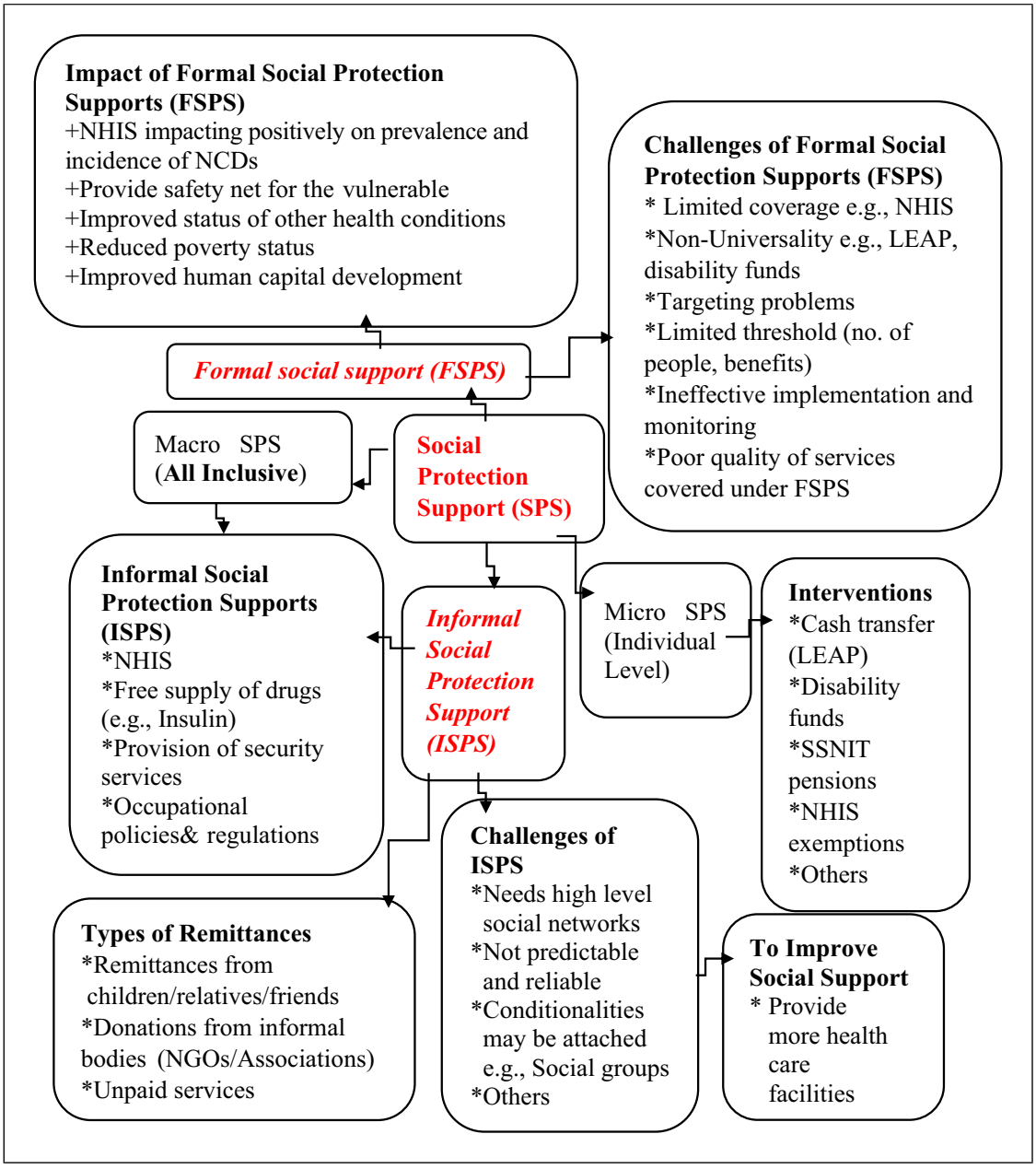


**Fig. 1.** Thematic network / Web of social protection mechanism for NCD support and management.

*Thematic Network/Web of Social Protection Mechanisms for NCD Support and Management*

The study produced the thematic network of a social protection mechanism for NCD management as shown in Figure 1. This thematic network weaves the various key issues emerging out of responses of PLWNCDs, FGDs, policymakers, and healthcare professionals.

## Discussion

The study results showed that there seemed to be a broad consensus among community members that NCDs are rising. The outcome of the current study is consistent with the WHO report which indicates NCDs account for a greater proportion of the global disease burden [38]. It is also consistent with the study outcome reported by

Boutayeb and Boutayeb [40], who reported of increased prevalence of NCDs. Another study conducted in Egypt also reported that the burden of NCDs remarkably increased between 2000 and 2016 [41]. At the hospital-based level, the respondents mentioned seeing most NCD patients in their neighbourhood at the hospitals, and this outcome is corroborated by the annual performance reports of Ghana Health Services [23] and the Teaching Hospitals [21, 22].

Respondents justified their assertion because they feel NCDs are prevalent within the population. In most of the interviews, the respondents revealed that more cases of NCDs are admitted to hospitals every day. This is consistent with the hospital-based data which produce the Annual Performance Reports of Ghana Health Service [23], Komfo Anokye Teaching Hospital [21], and Korle-Bu Teaching Hospital [22]. These reports have mentioned that NCDs such as hypertension, diabetes, strokes, cancers, and chronic kidney conditions are among the top 10 causes of hospital admissions and deaths every year. Some respondents justified their assertions based on the role they play in some formed associations of NCD patients. Others also based their assertion on observations of increasing inpatient and outpatient hospital attendance when they go for healthcare services.

The study noted from the respondents that the call for support for accessing healthcare services was overdue. In the midst of the rising cost of healthcare, the provision of social assistants was anticipated. The study identified that the main social protection support available for healthcare services in Ghana is the national health insurance. The majority of the respondents mentioned that they were aware of other social protection supports such as Livelihood Empowerment Against Poverty (LEAP) and Free Maternal Health Care. However, their responses seem to suggest that the only social protection directly targeting healthcare was the NHIS. This is consistent with some study outcomes which reported that the NHIS in Ghana covers 95% of health conditions and includes access to a variety of inpatient and outpatient services [30, 42, 43]. The majority of PLWNCDs believed that NHIS has taken about 90% of the medical bills for their conditions. They report that the implementation of NHIS has reduced the magnitude of NCD-related expenditures through the absorption of the cost of services and some drugs. However, a section of the stakeholders was on the contrary, mentioning that the NHIS does not cover many critical areas of health, though they admitted the NHIS cushions the poor and encourages them to seek medical care at the hospitals [44]. These assertions are consistent with the research outcome which mentioned that the NHIS of Ghana over the last 14 years has made some impact on reducing out-of-pocket expenditures, yet healthcare costs remain catastrophic for a large proportion of insured households in Ghana [42]. The implication is that many people out there are questioning the credibility of the NHIS as a reliable social protection support for the management of chronic NCDs such as kidney conditions, cancers, strokes, diabetes, and other cardiovascular disorders.

Our study also discovered that almost all the PLWNCDs were NHIS card bearers before being diagnosed with NCDs. This increased number of NHIS card bearers is consistent with the reports of NHIA and Akum, respectively [45, 46]. Most of the people afflicted by NCDs were old or incapacitated, confirming the assertion of de-Graft et al. [15] that the majority of NCD-afflicted persons are aged. The respondents claimed their premiums were either paid for by themselves, friends, relatives, an associational group, or Social Security and National Insurance Trust (SSNIT) in the case of those who were still in active government services.

Among the stakeholders who were not enthused by the operations of the NHIS as a formidable social protection intervention for NCD management, the expression of their dissatisfaction was related to the limited services received as NHIS card bearers. For instance, they mentioned that diagnostic procedures such as laboratory investigations, X-radiations, computerized tomography scans, etc. are not covered by the NHIS. The PLWNCDs claim the cost of accessing these diagnostic procedures put much financial burden on them. This finding is contrary to reports of studies that have mentioned that the NHIS benefit package includes the cost of healthcare diagnostic testing [47, 48]. Equally, the information from the healthcare professional interviews seems to suggest that the NHIS was not an effective social protection support for the management of NCDs in Ghana.

Again, the study noted that a section of the stakeholders and their relatives were not using the NHIS card for healthcare services. Among the reasons assigned were long waiting periods and fast and effective care services for nonusers of the NHIS cards. Others also complained that generic drugs are prescribed under the NHIS care. This is consistent with a study conducted in Ghana which reports that the NHIS clients do not obtain the quality of healthcare the scheme assures, and this has implications for premium renewals and health-seeking behavior [49]. Another study conducted in Ghana also mentioned that the NHIS is challenged with poor coverage, poor quality of care, poor stakeholder participation, and poor financing, particularly in reimbursing healthcare institutions [50].

On the other way round, respondents mentioned that informal social protection supports were provided by relatives, associational groups, religious bodies, and social

organizations toward the management of their NCDs. Customarily, most Africans rely on the support of the extended family to meet life's contingencies. As part of corporate social and civil society responsibilities, organizations and individuals donate resources to healthcare institutions for patient care. Many of the respondents mentioned having witnessed individuals and organizations donate items to hospitals where they sought medical care. This is consistent with studies that have reported that about 49% of the healthcare budgets of hospitals in Ghana come from nonpublic sources [51]. However, the study revealed that these informal social protection supports which used to be effective sometime back are dwindling due to scarcity of resources, lack of accountability, misappropriation of resources, mismanagement of resources, the rising cost of living, the gradual breakdown of the African system of reciprocity, and infiltration of Western lifestyles [38]. The implication is that the combined benefits of both formal and informal social protection support available in the system for institutions and both healthy people and people living with disease conditions are limited with consequential negative effects on quality healthcare and health recovery.

## Conclusion

The study concludes that there is limited social protection support for general healthcare services in Ghana and the management of NCDs which has taken the better part of the population is negatively affected. Even though NHIS is established to provide social protection support, out-of-pocket payments for accessing healthcare in Ghana are still substantial, especially at the tertiary healthcare level. Again, even though westernization has taken some aspects of our social life, evidence of some informal social protection supports still exists in the African system of collective living. Lastly, the study revealed that the support required for the management of NCDs is multifaceted, and these networks of programs, policies, actions, and institutions have to be effectively managed to secure better NCD management. This is very key as our study has identified that the national health insurance with its current limited coverage is the only clear formal social protection support for ailments in Ghana.

*Recommendation(s)*

The study recommends that a multidisciplinary body be established by the government to outline more effective ways of offering social protection support for health services, especially conditions that are known to be affecting a greater proportion of the population in Ghana. It is also recommended that the NHIS in Ghana should review the package of service benefits to include more tertiary healthcare services, especially in the areas of diagnostic investigations and drugs. Again, religious bodies, civil society organizations, and other non-state actors should continuously include promotional measures to ensure that the African informal collectivistic lifestyle does not fade and to maintain reciprocal support for each other.

## Acknowledgments

The authors thank the opinion leaders of communities, the health professionals of the various hospitals, the policymakers, the In-depth respondents, and the FGD members involved in this study for their time and contributions. The authors are also grateful to the faculty members of the Division of Social Work, University of Wyoming, USA; the Centre for Social Policy Studies, the University of Ghana; the Department of Global and International Health, Kwame Nkrumah University of Science and Technology; and the Africa Forum for Research and Education in Health (AFREhealth), Ghana, for their contributions in shaping this paper.

## Statement of Ethics

The study was approved by the Research and Development Unit of Komfo Anokye Teaching Hospital, Kumasi, Ghana, (Committee for Human Research Publication and Ethics) with reference number CHRPE/AP/581/19 where the qualitative respondents were selected. Again, all participants were provided with written informed consent after explaining the purpose of the study. They were assured of the confidentiality of the information they were providing. Those who agreed to participate were given a consent form to sign and date. The study, therefore, followed all the ethical considerations in relation to respondent selection, interview process, confidentiality, and data management and analysis.

## Conflict of Interest Statement

The authors declare that they have no competing interests.

## Funding Sources

This study was self-funded by the authors.

## Author Contributions

Joseph Kwasi Brenyah led the background development, produced the methodology, and participated in fieldwork and analysis of the data. Ebenezer Dassah was involved in the methodology,

analysis, presentation of the results, and proofreading. Georgina Yeboah was involved in structuring the paper, report writing, and proofreading. All authors were involved in discussions, conclusions, and recommendations put forward by the manuscript. All authors, therefore, read and approved the final manuscript.

## Data Availability Statement

All data generated or analyzed during this study are included in this article. Further inquiries can be directed to the corresponding author.

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