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'The National Health Insurance scheme would be good and beneficial but I don't trust the system …': a cross-sectional mixed-methods study assessing the awareness and perceptions towards Uganda's proposed National Health Insurance scheme among informal sector workers in Iganga and Mayuge districts, Uganda

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ABSTRACT

Background Most low-income countries have prioritised implementing national health insurance schemes (NHIs) as a solution to reducing the high out-of-pocket expenditures on health and enhancing access to healthcare, especially among informal sector workers. However, their perceptions remain unexplored in Uganda. This study aimed to assess the awareness and perceptions of the informal sector workers towards the proposed NHIs in Iganga and Mayuge districts, Uganda.

Methodology A cross-sectional mixed-methods study was conducted in the Iganga and Mayuge districts of eastern Uganda between April and May 2019. Informal sector workers were randomly selected to participate in the study. Six key informant interviews with health workers and seven focus group discussions with informal sector workers were also conducted. Quantitative data was analysed using STATA V.14. Qualitative data was analysed using a thematic analysis approach.

Results A total of 853 respondents participated in the survey: 327/853 (38.3%) were peasant farmers, 248/853 (29.1%) were fishermen, 146/853 (17.1%) were business people and 132/853 (15.5%) were commercial cyclists. Very few, 14/853 (1.6%), were considered knowledgeable about health insurance. The majority 743/853 (87.1%) of the respondents believed that the proposed scheme was beneficial, with a few reservations about lack of trust. Qualitatively, most participants had never heard about health insurance. Most community and health workers welcomed the idea of introducing NHIs in Uganda, although many indicated their lack of trust in the system to deliver a beneficial scheme.

Conclusion There was a high level of support for the proposed National Health Insurance scheme since many believed it would be beneficial. However, there was low awareness and a lack of trust in the system to successfully implement a beneficial scheme due to corruption. There is a need for intensive sensitisation campaigns to raise awareness and boost confidence and trust.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Health insurance schemes (national health insurance schemes) are key to reducing out-of-pocket expenditures on health, which enhances achieving universal health coverage.
⇒ Enrolment in health insurance schemes remains low, ranging from 2% to 40% in most African countries.
⇒ There is limited documented information on the awareness and perceptions of the proposed National Health Insurance scheme among the informal sector workers in Uganda.

WHAT THIS STUDY ADDS

⇒ Knowledge about national health insurance and how it works was found to be low among informal sector workers.
⇒ The majority of the informal sector workers believed that the proposed scheme was beneficial, with a few reservations about the lack of trust in the health system to implement an effective health insurance programme.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This study provides information that will guide the Ministry of Health in designing strategies for ensuring maximum participation, especially among informal sector workers.
⇒ This will also inform the health education and advocacy plans during their implementation.

BACKGROUND

Most low-income countries have prioritised implementing national health insurance schemes (NHIs) as a solution to reducing the high out-of-pocket expenditures (OOPE) on health and to achieving universal health coverage.[1] However, there is a challenge with these schemes covering the informal sector, which constitutes a larger portion of the population but also has limited access to quality healthcare,[2 3] all of which threaten the sustainability of the NHIs.[4 5]

Globally, more than 60% of employment occurs in the informal sector.[6] In Uganda, 80% of the population is employed in the informal sector, with over 75% engaged in subsistence agriculture.[7] The informal sector includes peasant farmers, commercial cyclists, fishermen and those employed in unregistered or small-scale enterprises. In 2019/2020, 12.3 million people (30.1% of the population) in Uganda lived below the national poverty line of US$1.77 per person per day.[8] Although the national health accounts reported a reduction in the OOPE on health as a share of current health expenditure from 38.6% in the financial year 2018/2019 to 27.4% in the financial year 2020/2021, the OOPE remains significantly high.[9] Accessing healthcare is associated with several expenses, including transport, drugs, diagnostics and consultancy fees, among other expenses related to personnel and capital costs.[10]

High coverage and enrolment in the health insurance scheme are critical for the success and sustainability of the scheme. However, enrolment in health insurance schemes remains low, ranging from 2% to 40% in most African countries.[11–13] The poor enrolment rates in the different countries have been attributed to a number of factors, including low incomes, large household sizes, long distances to health facilities, limited awareness, poor quality of healthcare services, inappropriate benefit packages, a lack of trust in the systems and high illiteracy levels, especially in the informal sector.[14–16] The informal sector workers are sometimes of low socioeconomic status compared with the formal sector workers, hence, having a lower ability to pay for health insurance.[16] Furthermore, the informal sector is not well organised; they have unpredictable incomes making it difficult to enrol and register them into the NHI scheme and collect regular contributions from them.[13 17]

Uganda is proposing a National Health Insurance (NHI) scheme with the aim of reducing OOPE and improving the quality of health services. This is hoped to bridge the financial barriers to accessing quality healthcare in Uganda. The NHI Bill, 2019, proposes that the scheme will be mandatory for all Ugandans, and each person is to pay a premium which will be determined by the board. The bill was passed by parliament in 2021, but was not assented to by the president due to disagreements among stakeholders who were not consulted. As of 2024, the bill is being discussed by the Ministry of Health (MoH) and the different stakeholders before being re-tabled in the Parliament of Uganda.

Despite advances towards introducing NHIs, there is limited documented information on the awareness and perceptions of the proposed NHI scheme among the informal sector workers in Uganda. This study therefore aimed at exploring perceptions and awareness of the informal sector towards the proposed NHI scheme in Iganga and Mayuge districts. This information guides the MoH in designing strategies for ensuring maximum participation, especially among informal sector workers. This will also inform the implementation of the NHI scheme through designing appropriate health education and advocacy plans.

METHODS

Study setting and design

This was a cross-sectional study design that involved mixed methods of data collection. The mixed-methods approach was adopted because of the need to triangulate the quantitative data with qualitative data to have a deeper understanding of the perceptions towards the proposed NHI scheme. The study was conducted in Iganga and Mayuge districts of eastern Uganda. Iganga and Mayuge districts were selected purposefully because of the diverse groups of informal sector workers. They have 80%–85% of the population belonging to the informal sector, with farming and fishing as the major economic activities.[7]

Study population, size and sampling

The study targeted the four major categories of the informal sector workers: (1) farmers; (2) fishermen; (3) commercial cyclists; and (4) the business community (traders and market vendors) in the study area. It also included health facility managers as key informants. The informal sector workers were chosen because they make up the largest (80%) portion of the population,[7] and without them, the scheme will not achieve equity and high coverage, consequently affecting access to healthcare for the majority of the population.

The sample size was calculated using the Kish Leslie formula for random samples.[18] A sample size of 853 informal sector workers was considered for this study. Stratified random sampling was used where the informal sector workers were divided into three major categories (strata) in Iganga districts, since this does not have fisherfolk: farmers, commercial cyclists and market vendors. In Mayuge district, the informal sector workers were categorised into four groups: fisherfolk, farmers, commercial cyclists and market vendors. A random sample from each stratum was taken in a number proportional to the stratum's size when compared with the population. This is summarised in table 1.

Six key informant interviews with the health facility managers and seven focus group discussions (FGDs) with men and women of the informal sector were conducted in each of the two districts. These included two FGDs with farmers, commercial cyclists, traders, and one FGD with the fisher folks. The FGD participants included

Table 1 Sampling procedure per category of informal sector

Category	Farmers/peasants	Motorcyclists/bicyclists	Traders/vendors	Fisherfolk
Iganga district				
Proportion in the district (Planning office 2018)	0.65	0.16	0.19	
Sample size	(0.65×440)=286	(0.16×440)=70	(0.19×440)=84	–
Selection procedure	Two sub-counties (SC) and five villages from each SC were randomly selected. Households proportionate to size selected	Seven commercial cyclist stations in the town were randomly selected, cyclists at the stations were randomly selected to be interviewed	Traders were systematically selected for the interviews in two main markets	–
Mayuge district				
Proportion in the district (Planning office 2018)	0.1	0.15	0.15	0.6
Sample size	(0.1×413)=41	(0.15×413)=62	(0.15×413)=62	(0.6×413)=248
Selection procedure	One sub-county and two villages were randomly selected, the number of households was determined proportionate to size	Six commercial cyclist stations in town were randomly selected, later cyclists at the stations at that time were randomly selected to be interviewed	Traders were systematically selected from three main markets	10/33 landing sites were randomly selected. Fishermen at each site were randomly selected, proportionate to size
Total samples	327	132	146	248

those who did not participate in the quantitative household survey to gain new deeper insights on the proposed NHI scheme. The community local leaders helped to identify the members for the FGDs. The key informants were purposefully selected with the help of the district health office. The facility managers were included as key informants because they were believed to be knowledgeable about the proposed NHI.

Conceptual framework

A number of frameworks were used in synthesising the perceptions and determinants for enrolling in a health insurance scheme. These include: (1) the economic model, which highlights two factors-income and the good itself,[19] (2) the theory of planned behaviour, which looks at the attitudes influencing the behaviour[20] and (3) the public good theory which emphasises the trust and beliefs people have on the services[21] (figure 1).

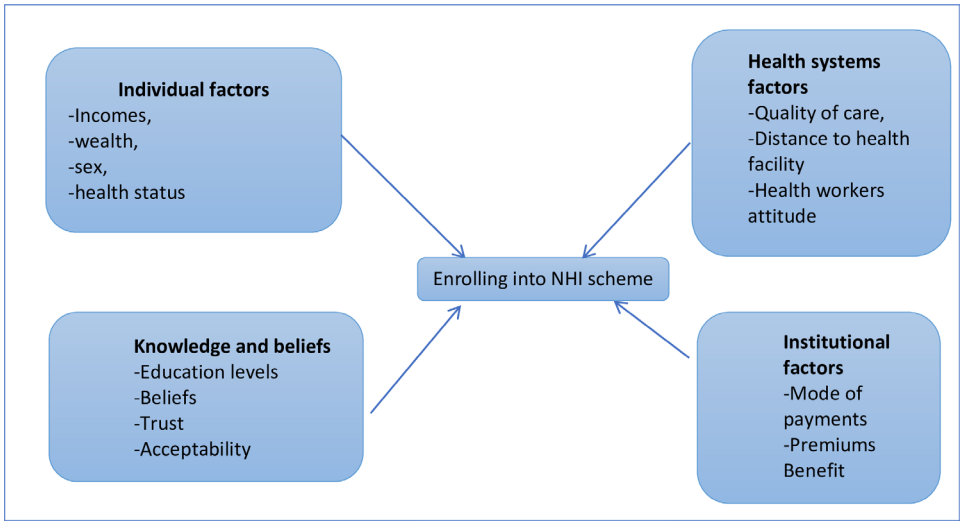

Figure 1 Conceptual framework for determinants of enrolling into a health insurance scheme. NHI, National Health Insurance.

Data collection methods and tools

We conducted household visits in April–May 2019 to access the farmers, markets and shops to access vendors and traders, and cyclist stations to access the commercial cyclists. The fishing communities were accessed at the landing sites. A semi-structured questionnaire was used to collect quantitative data from the informal sector workers (see data collection tool online supplemental file 1). This captured the background characteristics of the respondents, their participation in existing health insurance schemes and their awareness of and perceptions towards the proposed NHI scheme in Uganda. A mobile data collection app called Kobocollect was used; this involved installing the app on tablets, setting the server URL on Kobocollect, downloading blank forms from the setup account, collecting data by filling out blank forms and then uploading the finalised questionnaire to the server.

Key informant interview guides (see data collection tool online supplemental file 1), were used to collect qualitative data from health facility managers, mainly capturing their perceptions. FGD guides (see data collection tool online supplemental file 1), were also used to collect data from informal sector workers to understand their perceptions about the proposed NHI scheme. The data collection tools were translated into the local language, Lusoga and then translated back to English to check whether the translated questions still held informational validity.

The principal investigator recruited and trained research assistants to make them familiar with the objectives of the study, sampling procedure, data collection tools and plan for data collection. They were also taught the meaning of health insurance and the plans for its operationalisation in the country. They were also trained on the basic interview techniques, such as asking questions in a neutral manner, not showing by words or actions what answers were expected of interviews and how to record answers, especially from open-ended questions, without interpreting them. The data collection tools were pretested in the neighbouring district, Bugweri district. The feedback from pretesting the tool helped to clarify some of the questions and improved the flow of questions. Filled electronic forms were checked at the point of data collection for completeness by the research assistants, and those found incomplete were completed before the respondent was discharged. The study supervisors also ensured that the data was complete before uploading it to the server. The data was cleaned and edited by the research assistants before they submitted the complete forms to the server. Given the low levels of awareness about the proposed NHI scheme among the study respondents, the research assistants first provided detailed information about the proposed NHI, immediately after asking the knowledge-related questions. This was to enable respondents to answer the perception questions.

Data management and analysis

All the data were downloaded from the server in Excel format, edited and then exported to STATA V.14 for further cleaning and analysis. Quantitative data was analysed using STATA V.14. Continuous variables were described using mean, median and SD, while categorical variables were described using frequencies and percentages. The information was presented in frequency distribution tables. Qualitatively, the interviews were audio recorded in the local language (Lusoga) but transcribed in English by an expert who was fluent in both English and the local language. The study supervisor listened to all recordings to check if the translation and transcriptions were done very well. The English transcripts were read by two researchers and the data were coded into themes and subthemes using a thematic analysis approach. The emerging themes included: awareness of the proposed NHI, benefits of the proposed NHI, trust to implement the proposed NHIs, health system challenges and misconceptions about the proposed NHI. The themes were then compared across the different categories of informal sector workers.

Patient and public involvement

This study involved the public in the data collection and dissemination of the study findings.

RESULTS

Background characteristics of the respondents

A total of 853 respondents participated in the survey: 327/853 (38.3%) were peasant farmers, 248/853 (29.1%) were fishermen, 146/853 (17.1%) were business people and 132/853 (15.5%) were commercial cyclists. The mean age of the respondents was 37.0 years, with an SD of 11.3 and a median of 35 years. The majority, 667/853 (78.2%) of the respondents were males, 783/853 (91.8%) of the household heads were males and 618/853 (72.4%) lived in rural areas. The majority (694/853 (81.4%) of the respondents were married, almost half (445/853 (52.2%) of the respondents had primary level education and 305/853 (35.6%) were Muslims. The average household number was 5, and the average number of dependents was 6. There were statistically significant differences in marital status, age, education level, religion and occupation between the two districts (table 2).

Enrolment in existing health insurance schemes and saving group schemes

Only 24/853 (2.8%) of the respondents were enrolled in some form of health insurance scheme at the time of the study. For those who had enrolled in some form of health insurance scheme, 22/24 believed that the scheme they were enrolled in was beneficial, 19/24 believed health insurance saved money and 15/24 believed they could easily access healthcare. Almost half (386/853) (45.3%) of the respondents were enrolled in a local savings

Table 2 Background characteristics of the informal sector workers

Variable	Iganga district n=440 (%)	Mayuge district n=413 (%)	Total N=853 (%)
Sex of respondent			
Male	334 (75.9)	333 (80.6)	667 (78.2)
Female	106 (24.1)	80 (19.4)	186 (21.8)
Sex of the household head			
Male	399 (90.7)	384 (93.0)	783 (91.8)
Female	41 (9.3)	29 (7.0)	70 (8.2)
Marital status*			
Married	371 (84.3)	323 (78.2)	694 (81.4)
Single	31 (7.1)	54 (13.1)	85 (10.0)
Separated	24 (5.5)	24 (5.8)	48 (5.6)
Widowed	14 (3.2)	12 (2.9)	26 (3.0)
Age category*			
18–25	43 (9.8)	81 (19.6)	124 (14.5)
26–35	150 (34.1)	153 (37.1)	303 (35.5)
36–45	139 (31.6)	100 (24.2)	239 (28.0)
46 and above	108 (24.6)	79 (19.1)	187 (22.0)
Education level*			
None	17 (3.9)	34 (8.2)	51 (6.0)
Primary	210 (47.7)	235 (56.9)	445 (52.2)
Secondary	163 (37.1)	117 (28.3)	280 (32.8)
Tertiary	50 (11.4)	27 (6.5)	77 (9.0)
Religion*			
Muslim	163 (37.1)	141 (34.1)	304 (35.6)
Protestant	161 (36.6)	115 (27.9)	276 (32.4)
Catholic	84 (19.1)	110 (26.6)	194 (22.7)
Born again	18 (4.1)	35 (8.5)	53 (6.2)
SDA	14 (3.2)	12 (2.9)	26 (3.1)
Occupation*			
Farmer	286 (65.0)	41 (9.9)	327 (38.3)
Fishermen	–	248 (60.1)	248 (29.1)
Business	84 (19.1)	62 (15.0)	146 (17.1)
Commercial cyclists	70 (15.9)	62 (15.0)	132 (15.5)

*P<0.05, significant differences between the districts.

group. However, less than half 159/386 (41.2%) saved for health. Other reasons for saving included; school fees (218/386) 56.5%, non-medical emergencies (341/386) 88.3%, buying utensils and clothing (102/386) 26.2%.

Qualitative data revealed similar findings in that very few participants in most of the FGDs reported being enrolled in any form of health insurance scheme. However, most of the FGD participants reported being enrolled in the local saving groups. The reasons for saving included saving for healthcare emergencies, burials, famine and future developments like house construction and starting a business. This is indicated in the following quotes:

> We save that money to prepare for any emergencies. If I have a patient and I don't have money on me, I just go and get from the saving group or borrow from them and then pay later. (FGD: female farmer, Mayuge district)

> We save in preparation for bad conditions like when the child is sick, when there is no food, or when you lose someone. So we use the money we save to solve challenges at home. (FGD: female fisherfolk, Mayuge district)

Table 3 Awareness of the proposed National Health Insurance (NHI) among informal sector workers

Variable	Frequency N=853	Percentage (%)
Ever heard about the proposed NHI scheme		
Yes	92	10.8
No	761	89.2
Source of information (n=92) multiple choice		
Radio	70	76.1
Friends	49	53.3
Health worker	17	18.5
Television	16	17.4
Newspaper	8	8.7
Others (school, relative, SACCO, politicians)	6	6.5
Meaning of proposed national health insurance (n=92)		
Organisation that helps people access healthcare	35	38.0
Prepayment so that you do not pay when you are sick	14	15.2
Free treatment	15	16.3
Do not know	10	10.9
Saving for the future	8	8.7
Others	10	10.9

Awareness of the proposed NHI scheme among informal sector workers

Only 92/853 (10.2%) of the respondents had ever heard about health insurance. The main source of information was radio, 70/92 (76.1%), followed by friends, 49/92 (53.3%). Of those who had heard about health insurance, 35/92 (38.0%) said that it is an organisation that helps people access healthcare, while 15/92 (16.3%) said health insurance means free treatment and 14/92 (15.2%) said that health insurance requires making periodic payments so that when one is sick, one does not have to pay. Respondents who gave the correct meaning of health insurance as a prepayment mechanism that supports non-payment when one is sick were considered knowledgeable about health insurance. Only 14/853 (1.6%) were considered knowledgeable about health insurance (table 3).

Table 4 Summary of subthemes on perceptions towards National Health Insurance scheme

Theme	Subthemes
Awareness	► Low understanding, free services, giving out loans
Beneficial	► Reduces out-of-pocket expenditure on health ► Improve quality of care ► Hold health workers more accountable
Trust	► Lack of trust in the healthcare system to provide good quality care ► Lack of trust in leaders to implement programmes without mishandling the funds and corruption ► Lack of trust in government to sustain its programmes as many have failed
Health systems challenges	► Poor quality of care (no drugs, rude health workers, health work absenteeism) ► Long distance to health facility ► Bad governance
Misconception	► Government shirking away from its responsibility of providing services ► It is a cult with bad omen

Similarly, the qualitative data also showed that most of the participants in all seven FGDs had never heard about health insurance. The few who had heard about health insurance noted that it was about getting free health services, and others interpreted it as a programme that gives out loans. The following quotes express the understanding of health insurance among some of the FGD participants:

> If a person has health insurance, they can treat you freely until you are fine, and they will also provide food to your family, such that you are not worried about anything. (FGD: male farmers, Iganga district)

> They are creating a group that gives loans. But I didn't understand the terms concerning how much you can borrow and the attached interest. (FGD: female business, Iganga district)

Perceptions about the proposed NHI scheme

There was a mixed perception of the informal sector workers towards Uganda's proposed NHI scheme, where some participants believed that the NHI was a good initiative with the potential to improve health services if well managed, while others doubted the scheme was successful and useful. These perceptions are summarised in table 4.

Perceived benefits of the scheme

The majority (743/853 (87.1%)) of the respondents believed that the proposed NHI scheme would be beneficial if well managed, and 727/853 (85.2%) were interested in participating in the proposed scheme because they felt it would enable them to access care when they do not have money. These findings were in agreement with the majority of participants in almost all of the FGDs who felt that health insurance would be key to reducing health expenditures when one is sick, improving the quality of care and making health workers more accountable. These views are emphasised in the following quotes:

> The scheme will be good because someone can fall sick, and it requires something like a million shillings (280 USD), which you may not have at that time. So, if this will be a joint thing (scheme) where we will support each other and be able to get services when you don't have money at that time, then I think it will be very helpful. (FGD: female farmer, Mayuge district)

> It (health insurance) will be helpful to hold health workers accountable to attend to patients. Because if the health worker is not working on me, I will have a basis for asking her why she is not attending to me because I also contribute towards her salary and health services, as opposed to the current free services. Therefore, we shall hold them accountable. (FGD: female fisherfolk, Mayuge district)

> If, by bringing health insurance, drugs will be readily available in the public health facilities without requiring us to go and buy from the private drug shops, then this will benefit us and many of us will join. (FGD: female farmers, Iganga district)

Lack of trust

Although the majority of the informal sector workers noted that the proposed scheme would be beneficial and they could join, many of them had trust issues, including a lack of trust in the healthcare system to provide good quality care, a lack of trust in leaders to implement programmes without mishandling the funds and corruption and a lack of trust in the government to sustain its programmes as many programmes started by the government have failed and not yielded results.

Regarding the lack of trust in healthcare systems to deliver quality care, a number of FGDs and key informants noted:

> The National Health Insurance Scheme would be good and beneficial, but I don't trust the system to implement it since it has failed to deliver good quality care in public health facilities. (FGD: female business, Iganga district)

> I don't support health insurance for the informal sector, because for the time I have been in Uganda, I don't think the government can do any miracle to provide all the services to people with good quality. I don't think this will work at all in Uganda. With a lack of services, I don't think someone who has paid his money for insurance will

be comfortable with a facility like Nakalama HC III. (KI: health worker, Iganga district)

Currently, we know that health workers mishandle drugs; they are not readily available to provide health care at all times. Now, if we pay for insurance, how sure are we that all the services will be sufficiently provided and that the health workers will be available at the health facility? (FGD: male commercial cyclist, Mayuge district)

Most of the participants also expressed concerns about a lack of trust in leaders and the system to manage funds and noted that health insurance funds are most likely to be mismanaged and squandered by the government due to a lot of corruption with no stringent measures to curb corruption. The participants expressed that this will limit many from joining the scheme, as shown in the following quotes:

That thing (health insurance) may be good, but the challenge is that Ugandan leaders are no longer faithful and trustworthy. Some time ago, they introduced the voucher system for pregnant women for free healthcare. But whenever we would reach the health facility, the health workers could ask for money. So we pay health insurance, but after they may continue asking for money when we go to receive treatment. (FGD: male farmer, Iganga district)

The problem comes when people are required to pay this money in advance; people no longer trust the government with money. The money is intended for health, but it can be mishandled and used for other things that are even useless. So this thing (NHI) is good, but people don't trust the government. (FGD: commercial cyclist, Iganga district)

But if we hear that someone has mishandled over $1 billion of money and no action is taken to arrest them, how then can we be sure that the scheme money collected by a common person is not stolen? I support this idea, but to some extent I don't because the government is not mindful of its people; they invest money in worthless things. So our money will not go into that proposed scheme. (FGD: commercial cyclist, Mayuge)

Some of the participants also expressed a lack of trust in the government sustaining the proposed NHI scheme since past government programmes have been mismanaged and failed, as noted in the following quotes:

Government programs are introduced; they teach us about them, but after some time they will no longer be in existence. For instance, there is an army school that was introduced. We took our children there, but after two weeks, the school collapsed. So such scenarios scare people away. But for us, we always show interest, and we like this proposed program. (FGD: male farmer, Iganga district)

It is a good idea. However, it indicates that the current system has failed. Based on that, I now have a question: will the government be able to manage this new proposed idea? Most of its projects have failed. (FGD: male commercial cyclist, Iganga)

Misconceptions

Participants also noted that there are beliefs in the community that would deter some people from joining the scheme, including scepticism about registering for any programme thinking that it is 'Illuminati' (recruiting them in some sort of cult). Enrolling in the scheme will lead to problems and bad omens in the family. Others also expressed the belief that by introducing health insurance, the government would be supported in shirking its responsibility of providing services. These misconceptions are elaborated on in the following quotes:

There are misconceptions in the village that for most of the new programs that the government comes up with, people will say that they are being taken to Illuminati, just like they were saying when the voucher system had just been introduced. (FGD: female fisherfolk, Mayuge district)

You are told that when you join, you will see bad things in your home. That thought is among us in the village. The program may really be very nice and helpful for our health, but because of people's attitudes, it fails. People think it is associated with the Illuminati, which scares people away. What if I join and I get problems? (FGD: female business, Iganga district)

Literally, it is the government itself meant to provide medical services to us, the minority, so it is not fair that it is asking us to provide some money to join insurance; in that sense, I think the government is not being supportive at all. I will not support health insurance. (FGD: male fishermen, Mayuge district)

Health systems weakness as a driver for not supporting the scheme

The perceived quality of services offered at the health facilities emerged as a key driver for respondents to support the proposed NHI scheme. Only one-third (286/853 (33.5%) of the respondents were satisfied with the quality of healthcare services, and 479/853 (56.2%), of the respondents perceived the quality of healthcare to be poor. This perception of poor quality of services also emerged from the qualitative data, where most of the participants in 6/7 of the FGDs also noted that health services in their community were poor because of a lack of drugs and supplies, the negative attitude of the health workers towards patients, and the long distance to health facilities. This was emphasised by participants who said:

The scheme would have been good if they had first improved the health services in the government health facilities. (FGD: female fisherfolk, Mayuge district)

I actually don't support that health insurance is introduced in government facilities, maybe in private health facilities. Government health workers are never available at the hospital; they come in very early to sign, and then they go and come back late in the evening to sign. The government's health workers don't care about patients like those of the private sector do. So if this money is invested in the private

> health facilities, it would be better. (FGD: female fisher folk, Mayuge district)

> The quality of services now is not good in several ways; one, they delay supplying drugs, and when they do, they only bring supplies for malaria and ignore other illnesses. Facilities like laboratory services may not be readily available because some machines, like the CBC machines, breakdown. This will affect enrollment in the scheme. (KI: health workers, Iganga district)

The long distances to health facilities and lack of health facilities in the areas were reported to be a likely deterrent to participating in a health insurance scheme. This is expressed as:

> The distant location of health facilities Health centers are very far away from people, and it requires a lot of transport that many people can't afford. You might have joined insurance, but then you are unable to afford the transport to take you to the health facility to access services. So that will stop people from joining the scheme. (FGD: female fisher folk, Mayuge district)

DISCUSSION

This study explored community awareness and perceptions towards Uganda's proposed NHI scheme among the informal sector workers in Iganga and Mayuge districts. This study reported that most of the informal sector workers were in support of the proposed scheme and believed it would be beneficial, although they expressed a lack of trust in the government to implement a successful and beneficial scheme.

The study indicated a low level of awareness of the proposed NHI scheme among informal sector workers. This is similar to studies in low-/middle-income countries (LMICs), which have reported a low level of awareness of health insurance in LMICs, especially among the informal sector populations.[22–24] However, one systematic review and meta-analysis of factors influencing WTP for voluntary contributory health insurance schemes in LMICs has revealed that knowledge and understanding of the functioning of the scheme positively influence participation in the scheme.[25 26] This therefore underscores the need for mass intensive sensitisation of the informal sector workers on how health insurance works and its benefits as the Ugandan government moves to implement a health insurance scheme.

In this study, although participants had mixed perceptions about the scheme, most of them supported the introduction of an NHI scheme, and the majority believed that the scheme would be beneficial. This was in agreement with qualitative data, where most of the participants supported the proposed scheme. Similar findings were reported in Sierra Leone[27] but slightly higher than in the Eastern Caribbean[28] and Ethiopia.[29] The high interest in the proposed NHI scheme in this study can be attributed to the frustrations the community is going through to access healthcare in public health facilities, so the health insurance scheme instils some hope to improve the quality of care in public health facilities. This implies that the MoH needs to extend NHI to the informal sector, which comprises a large sector of the economy with high chances of success since people are willing to participate.

However, a number of people protested against the scheme because they felt that the government was running away from its responsibility to provide services and believed that services would be free. These perceptions undermine the copayment efforts. Thus, there is a need to sensitise the community about how insurance works and the need for copayments. Most participants did not have trust in the government to implement a beneficial and successful scheme due to failures in past health programmes like voucher schemes and corruption. Similar resentments about health insurance have also been reported in Nigeria, where people were not willing to participate in the scheme due to a lack of trust in government programmes.[30] This eventually caused enrolment to stagnate and remain very low. Addressing the public's fears and building trust among the beneficiaries about health insurance is paramount to the success of the scheme. Trust is an important factor in decision-making with regards to adopting innovations, making investments, negotiating contracts or using healthcare.[31 32] Thus, the public needs to be assured of the quality care, good financial management and sustainability of the proposed scheme.

The local savings groups have become one of the most famous financial support systems in rural Uganda over the last decade.[33] Savings groups present an opportunity to leverage to enhancing access to healthcare in rural communities. In this study, less than half of the respondents were in a saving group and less than half saved for health. In Asian countries, saving groups were reported to be key in initiating community-based health insurance schemes.[34] Saving groups provide members with a secure place to save money, generate a pool of funds and have the opportunity to borrow in small amounts. They also provide affordable basic insurance services and enable communities to meet their premiums.[34] This therefore implies that as countries plan to initiate NHI, saving groups become a great resource to tap into to ensure that the community participates in the scheme and enhances them to make periodic subscriptions.

Many respondents noted the poor quality of services, especially in public health facilities, as a key driver for the support of the proposed scheme, and this was also confirmed by some of the health facility in-charges. The poor quality of services in public health facilities was viewed by most of the health workers as a major hindrance to the success of the scheme. In Nigeria, the dissatisfaction of patients, which manifested as provider rudeness, preference given to cash-paying uninsured patients, long waiting queues and differential treatment, hindered both renewal of membership and enrolment.[35] The study findings imply that as countries plan to implement health insurance, there is a need to guarantee the

quality of services in order to enhance participation in the scheme.

Finally, the sample in this study was predominantly male, which augurs well for our analysis because most households in Uganda are headed by males, and furthermore, male partners often determine the way resources are allocated in the household.[7 36] The findings in this study are therefore a good indicator of how households are likely to respond to the NHI scheme and emphasise the importance of building awareness and acceptance, especially among males.

Study limitations

The low level of knowledge about the health insurance scheme could have hindered exploring actual community perceptions. However, this was minimised by training research assistants to be able to first explain the meaning of health insurance before going into exploring perceptions. We also triangulated with qualitative data. The very few respondents knowledgeable about NHI limited statistical further analysis to establish factors associated with knowledge on the proposed NHI scheme among the informal sector workers. These findings may not be generalisable to the entire population but only to the informal sector workers.

CONCLUSION

The study revealed a high level of support for the proposed health insurance scheme among the informal sector workers, and the majority believed the scheme would be beneficial. However, some of the respondents expressed a lack of trust in government systems to implement a successful scheme due to corruption, failures in previous government programmes and the existing poor quality of care. This indicates an opportunity for MoH to implement the NHI scheme, although there is a need for measures to improve the poor quality of services in public health facilities and build trust and community confidence. The level of awareness was very low, thus the need for health education campaigns before implementing the scheme.

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Patient consent for publication Not applicable.

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