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Informal payments and willingness to pay informally for health care among older adults: equity perspectives for geriatric care in Ghana

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ABSTRACT

Background: Out-of-Pocket (OOP) payment is one mechanism for funding health care in low- and middle-income countries (LMICs). The wider implications mean OOP payments have the potential to increase, with catastrophic effects for a vulnerable population group such as older adults. This study aimed to determine the prevalence of informal patient payments (IPPs) and willingness and ability to pay informally, and its associated factors among older adults in Ghana.

Methods: We conducted a community-based cross-sectional study to collect data among 462 older adults (60+ years) across three municipal areas in the Volta Region of Ghana. Data were collected using an interviewer-administered semi-structured questionnaire. Binary logistic regression was performed to identify factors associated with IPP. The significance level was set at $P < 0.05$.

Results: The prevalence of IPP was 21.2%. About 64.5% of respondents were willing to make IPP if they had good financial standing. Factors significantly associated with IPP were age (75 years and above) (odds ratios [OR], 1.76; 95% confidence interval [CI], 1.37–2.26), being uninsured (OR, 1.68; 95% CI, 1.48–1.91), having a urinary health problem (OR, 2.49; 95% CI, 1.56–3.97), and having a stronger preference for private healthcare facilities (OR, 1.35; 95% CI, 1.26–1.44). Not having a chronic condition (OR, 0.59; 95% CI, 0.41–0.83) and unwillingness to make IPP (OR, 0.48; 95% CI, 0.26–0.87) were associated with lower odds of IPP.

Conclusion: The existence IPP reflects important inequity gaps within the formal healthcare system and requires urgent sustainable policy actions to protect economically vulnerable older adults from financial catastrophe. We recommend measures of informal payments

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Conflict of Interest

The authors declare that they have no competing interests.

Author Contributions

Conceptualization: Ayanore MA; Data curation: Ayanore MA, Mensah D; Formal analysis: Ayanore MA, Asampong R, Alhassan RK; Funding acquisition: Ayanore MA, Alhassan RK, Doegah P, Acquah E, Kugbey N, Aberese-Ako M, Adatara P, Zotor F, Akazili J; Investigation: Ayanore MA, Asampong R, Mensah D; Methodology: Ayanore MA, Asampong R, Alhassan RK; Project administration: Ayanore MA; Supervision: Ayanore MA, Alhassan RK; Validation: Ayanore MA, Doegah P, Acquah E, Kugbey N, Aberese-Ako M, Mensah D, Adatara P; Visualization: Ayanore MA, Asampong R, Alhassan RK, Doegah P, Acquah E, Kugbey N, Aberese-Ako M, Mensah D, Adatara P, Zotor F, Akazili J; Writing - original draft: Ayanore MA, Asampong R; Writing - review & editing: Ayanore MA, Asampong R, Alhassan RK, Doegah P, Acquah E, Kugbey N, Aberese-Ako M, Mensah D, Adatara P, Zotor F, Akazili J.

and “perceived corruption” in the health system be included in the Ghana Living Standard Surveys and Demographic Health Surveys to inform future policy decisions in this area.

Keywords: Informal payments; older adults; Health equity; elderly care

INTRODUCTION

Out-of-Pocket (OOP) payment is one mechanism for funding health care in low- and middle-income countries (LMICs) although evidence suggests its adverse form can threaten health equity among vulnerable groups.^{1,3} In healthcare systems where OOP is legitimate, they are referred to as user fees, and patients are often receipted after such payment.⁴ OOP payments thus form a part of funds pooling for financing health care delivery.⁵ However, where patients pay cash, and yet are not receipted, or make in-kind payments in the form of gifts, these are largely referred to as informal patient payments (IPPs).⁶ The phenomenon of IPPs is difficult to define across many country settings due to debates about its legitimacy or otherwise.⁴ Universally, IPPs encompass payments to people or providers in the form of direct cash in exchange for service received by a patient or kind but outside of official payment channels, or payments for purchasing medication and medical equipment by patients or their family members where the responsibility is on the public healthcare system or service provider.^{2,5}

Although some countries have made efforts to eradicate IPPs,^{7,11} public opinions have not been considered broadly in these efforts. Still, public opinion plays an essential role in dealing with informal payments since they reflect culture, social norms, and historical developments in a country.^{4,12} This may affect the behavior of individual patients and providers, and thus, the specific patient-provider relation where informal payments originate from. In particular, the perception of the acceptance of IPPs by the public is counted as one reason that drives the existence of IPPs.⁸

OPP has a history of being a regressive component of healthcare financing in Ghana.¹³ It accounted for about 45% of healthcare funding between the years 2005 and 2006.¹⁴ Recently, OOP payment in the general population was reported to be 49.7% in 2021 with a similar proportion of insured persons paying OOP.¹⁵ The high rate of OPP is indicative of existing catastrophic expenditures for health in Ghana. Akazili et al.¹⁶ found that about 10.7% of households in Ghana spent more than 10% of their non-food consumption expenditure on OOP healthcare payments. Per capita, health spending in Ghana is shifting away from donors towards more demands for government and OOP expenditures.¹⁷ The wider implications mean OOP payments have the potential to increase, with catastrophic effects for a vulnerable population group such as older adults in Ghana.

Notwithstanding the positive effects of Ghana's National Health Insurance Scheme (NHIS) on general health care access and utilization, inequalities still exist even among elderly people who have health insurance, due to ad hoc and OOP payments that may arise.¹⁸ For instance, under the NHIS, rehabilitative services, surgeries, and treatments for chronic kidney conditions for older adults are not covered under the minimum benefit package.¹⁹ The catastrophic effects of OOP payments in this context, particularly informal payments can have negative impacts on vulnerable older in low socio-economic groups in Africa as evidenced in the study by Salari and colleagues.²⁰

A population-based study conducted in northern Ghana in 2018 reported that IPP was widespread.²¹ The study further evinced that a weak accountability mechanism was a major reason for the existence of IPP. However, patients in the northern regions had no alternative but to make such unwarranted payments. Across Ghana, there are limited published studies that have examined elderly patients' willingness and ability to pay informally as well as stakeholder views on the existence of informal payments and its implications on health equity for elderly persons. As such, no known empirical study was found to have comprehensively examined the proportion of informal health care payments among elderly persons in Ghana, given evidence that IPP is likely to increase in the population with increasing OPP already reported.

It is worth noting that Ghana's national aging policy (Ageing with Security and Dignity) was formulated to provide a comprehensive blueprint to address the social, economic, and health needs of the aged.²² There is a dearth of empirical evidence across different settings and social, economic, and cultural backgrounds in Ghana among the elderly and how equity and long-term geriatric care outcomes can be improved based on the tenants of the national aging policy. Yet, without empirical evidence, the implementation of Ghana's aging policy, particularly, addressing health equity gaps will be challenging. Underpinned by the need to expand the scope of context knowledge on geriatric outcomes, this study sought to generate evidence related to a key policy priority in Ghana's aging policy (policy strategy 11): "improve financing strategies to ensure the sustainability of the implementation of policies and programs of elderly persons." In this study, we examined IPPs including their scope, magnitude, and associated factors among older adults in three municipalities in the Volta Region of Ghana.

METHODS

Study design and setting

A cross-sectional design was used to collect quantitative data from the elderly (60+ years) in the three municipal areas; Ho, Hohoe-Fodome, and Keta in the Volta Region of Ghana. The study sites were purposively selected to allow for a comparison across the three natural geographical belts (northern, middle, and southern) in the Volta Region. The Volta Region has a total population of 1,659,040 (males: 790,685, females: 868,355) according to the 2021 Population and Housing Census.²³ The elderly (60+ years) make-up about 9.6% of the population in the Volta Region.

Study sample and sampling procedures

The elderly (60+ years) residing in the three municipal cities were the primary respondents in this study. Using Open Epi calculator, we calculated the sample size for elderly patients to be 365 based on a 45% OOP payment estimate from a previous study,¹³ at a precision of 5% with a total finite population of 8,750 made up of annual attendance rates to the Keta Hospital, Hohoe-Fodome Health Centre, and the Ho Teaching Hospital. Given the implication of coronavirus disease 2019 (COVID-19) on general health access and use during the early phase of the pandemic, the study team applied a high non-response rate of 25%, based on previously reported non-response rates.²⁴

In total, 462 eligible respondents were reached and interviewed at the three sites. Due to the heightened COVID-19 pandemic in early 2020 in Ghana that resulted in lockdowns and

reduced facility-level attendance, a population-based approach was adopted to recruit eligible participants at the community level across the three sites, instead of the original plan to recruit participants within health facility settings.

In each municipal setting, elderly persons were selected using a household-based sampling technique. Because we had a preference for households with elderly persons 60+ years, participants were purposively selected on a rolling basis. In households or homes with more than one elderly person, a maximum of two were interviewed. Questionnaires were then administered to elderly persons who consented to participate in the study. If an eligible participant declined participation, the immediate house with an elderly person to consent was sampled to replace it until the final estimated sample was obtained. Although a simple random sampling technique could have reduced any possible selection bias, a complete list of houses/households was non-existent. However, the approach used was scientifically sound and essential for obtaining the estimated sample.

Data collection

All survey data were collected using the survey tool Kobo Collect on portable field tablet devices between November 2019 and June 2020. This tool allowed for easy data collection, transmission, and analysis. The questionnaire was written in English but translated verbally into the local dialect to enable communication with participants (particularly older adults) who did not understand the English language. The questionnaire was divided into two sections; section 1 captured socio-demographic characteristics while section 2 assessed the use of and payment(s) for health care services during visits to a health facility.

Respondents were asked if they had ever made OOP payments and/or IPPs within the four weeks preceding the survey. Those who had made such payments were then asked how much they paid or were charged. The survey also collected data on respondents' health status, their knowledge and perceptions regarding informal payments, as well as their willingness and ability to pay.

Pretesting of the survey questionnaire was undertaken before the main fieldwork although it was adapted from previously published and validated surveys. Data collection first involved sampling the households and identifying eligible respondents for the study. Next, the interviewer (research assistants) sought verbal and written consent from participants before proceeding with the administration of the questionnaire. After obtaining consent, the interviewer electronically captured all data using the questionnaire.

Statistical analysis

Data were extracted and exported into Stata/MP version 16 (StataCorp, College Station, TX, USA) for statistical analysis. We examined the statistical association between informal payment (as the dependent variable) and independent variables using Pearson's χ^2 and Fisher's exact test (for analysis in which the expected cell value was < 5). The outcome variable 'Informal payment' was coded "1" for respondents who had made any informal payment for health services within the past four weeks, and "0" for those who had not made any such payments. Univariable and multivariable logistic regression models were fitted to assess the strength of association between informal payment and background variables. The Hosmer-Lemeshow goodness of fit test was used to assess the overall fit of the model. Significance level was set at 5%.

Ethical considerations

Ethical clearance for the study was sought from the University of Health and Allied Sciences Research Ethics Committee (UHAS-REC A.12 [1] 18-19). All participants were given the right to ask questions concerning the study in separate community and health facility meetings conducted in each study site before recruitment of participants. Both written and verbal informed consent was obtained from all participants before they were interviewed. All information was treated as confidential by not collecting any participant-identifying data and using unique randomly generated participant identification numbers.

RESULTS

Socio-demographic profile of respondents

Table 1 presents the background characteristics of the study participants. A total of 462 respondents were interviewed in the 3 study sites: Ho (70.8%), Keta (16.2%), and Hohoe-Fodome (13.0%). The mean age (\pm standard deviation) of respondents is 70.5 ± 9.4 years. The majority, 256 (55.4%) were females, married 341 (73.8%), Christians 417 (90.3%), and belonged to the Ewe ethnic group 436 (94.4%). Nearly one-third of respondents 146 (31.6%) had attained up to the junior secondary school level of education. Moreover, less than half, 217 (47.0%), were in active employment. Among those who reported being employed, close to half, 192 (41.5%), were self-employed while only 16 (3.5%) worked in the public sector. Most participants, 413 (89.4%), were insured under the NHIS. However, 52 (12.6%) of those enrolled were inactive subscribers of the NHIS. Inactive subscribers were NHIS card-bearing individuals whose membership/subscription had expired at the time of the data collection. One-third of all respondents indicated that their average monthly income is still the same as that of the previous year.

Frequency of OOP and informal payments among elderly persons

Overall, less than half of the respondents 186 (40.3%), had ever made OOP payments for healthcare services (**Fig. 1**). However, 98 (21.2%) of respondents mentioned that they had ever made informal payments for outpatient department (OPD) services within the past 4 weeks of the survey (**Fig. 2**). The amount paid as informal cash is summarized in a box-and-whisker plot in **Fig. 3**. Specifically, the median amount of informal cash paid for OPD services (not hospitalized) was Gh¢ 25.00 (interquartile range [IQR]: Gh¢ 10.00–Gh¢ 50.00, Min–Max: Gh¢ 3.00–Gh¢ 500.00). For persons who were hospitalized or who received in-patient care, relatively higher amounts were paid. The median amount of informal cash payment for OPD care was Gh¢ 112.00 (IQR: Gh¢ 75–Gh¢ 154.50, Min–Max: Gh¢ 20.00–Gh¢ 540.00).

Willingness and ability to pay informal fees for health services

Table 2 presents knowledge, attitudes and perceptions of respondents regarding informal payments. It also presents respondents' willingness and ability to pay informal fees for health services. Overall, almost two-thirds of respondents, 298 (64.5%), mentioned that they would pay informal fees to suppose they had good financial standing (**Table 2**). However, more than a quarter, 129 (27.9%), indicated that they would not pay even if they were in good financial standing. On respondents' ability to pay informal fees, more than half, 279 (60.4%) indicated that they cannot afford to make informal payments, given their current financial situation.

Table 1. Socio-demographic characteristics of respondents (n = 462)

Variable	Values
Study area	
Ho	327 (70.8)
Keta	75 (16.2)
Hohoe-Fodome	60 (13.0)
Age (yr)	
70.5 ± 9.4	
Age group	
60–75 years	346 (74.9)
75+ years	116 (25.1)
Sex	
Male	206 (44.6)
Female	256 (55.4)
Marital status	
Married	341 (73.8)
Not married	121 (26.2)
Highest level of education	
No formal education	73 (15.8)
Primary	70 (15.1)
Junior secondary school	146 (31.6)
Senior secondary school	108 (23.4)
Tertiary	65 (14.1)
Occupation	
Public sector worker	16 (3.5)
Private sector worker	9 (2.0)
Self-employed	192 (41.5)
None	245 (53.0)
Religion	
Christianity	417 (90.3)
Islam	6 (1.3)
Traditional	33 (7.1)
None	6 (1.3)
Ethnicity	
Ewe	436 (94.4)
Akan	18 (3.9)
Guan and others	8 (1.7)
Household size	
1–5	344 (74.4)
6–10	109 (23.6)
11+	9 (2.0)
NHIS enrollment	
Yes	413 (89.4)
No	49 (10.6)
Current enrollment status (n = 413)	
Active subscriber	361 (87.4)
Inactive/previous subscriber	52 (12.6)
Household income (compared to past year)	
Worsened significantly	86 (18.6)
Worsened but not significantly	114 (24.7)
Still the same	157 (34.0)
Improved but not significantly	92 (19.9)
Improved significantly	13 (2.8)

Values are presented as mean ± standard deviation or frequency (%).
NHIS = National Health Insurance Scheme.

Factors associated with IPPs among elderly people

In the fully adjusted model, the odds of IPP were 76% higher among older adults aged 75 years and above (adjusted odds ratio [aOR], 1.76; 95% confidence interval [CI], 1.37–2.26) compared to those aged 60–75 years (**Table 3**). The odds of paying informally for health services were also higher for those who were not enrolled in the NHIS (aOR, 1.68; 95% CI,

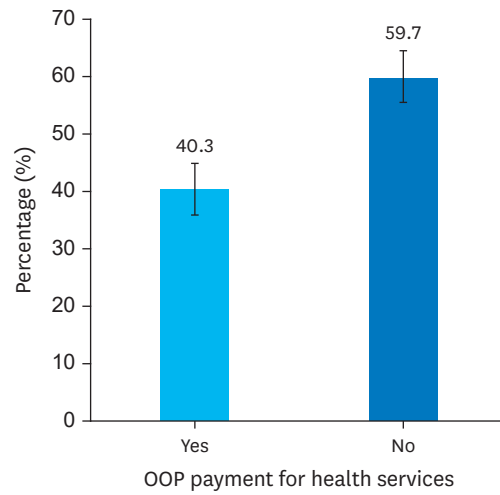


Fig. 1. Prevalence of OOP payments for health services among older adults. OOP = Out-of-Pocket.

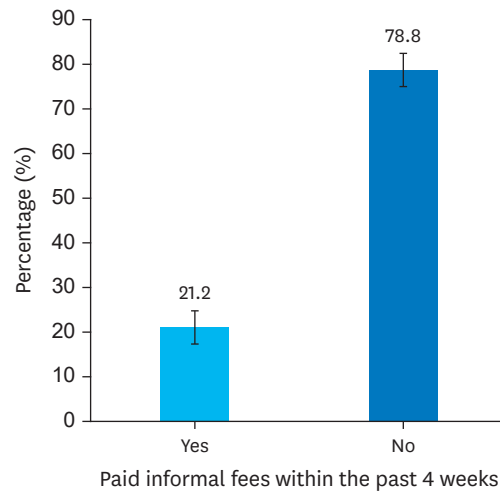


Fig. 2. Prevalence of IPPs for health services among the older adults. IPP = informal patient payment.

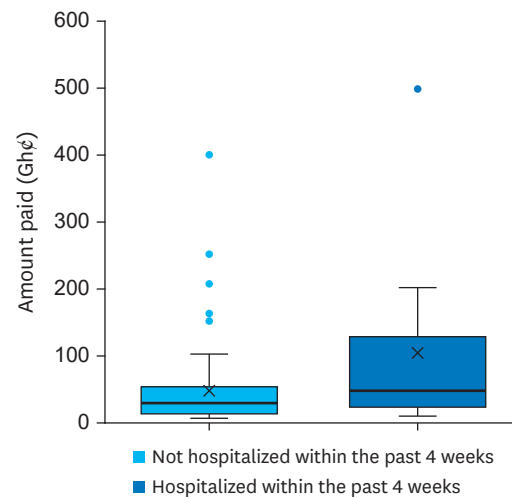


Fig. 3. Comparison of informal payments among in-patient and out-patients.

Table 2. Knowledge, attitudes, and perceptions regarding informal payments (n = 462)

Variable	Values
Attitude toward informal payments	
Positive	126 (27.3)
Negative	216 (46.7)
Indifferent	120 (26.0)
Knowledge of where to complain	
Yes	24 (5.2)
No	436 (94.4)
Missing values	2 (0.4)
Informal payments are similar to corruption	
Strongly disagree	24 (5.2)
Disagree	27 (5.8)
Neutral	77 (16.7)
Agree	54 (11.7)
Strongly agree	275 (59.5)
Missing values	5 (1.1)
Informal gifts are similar to corruption	
Strongly disagree	236 (51.1)
Disagree	44 (9.5)
Neutral	47 (10.2)
Agree	18 (3.9)
Strongly agree	76 (16.4)
Missing values	41 (8.9)
Informal gifts express gratitude	
Strongly disagree	74 (16.0)
Disagree	31 (6.7)
Neutral	51 (11.0)
Agree	52 (11.3)
Strongly agree	240 (52.0)
Missing values	14 (3.0)
Will refuse to pay informal payments	
Will refuse	118 (25.5)
Neutral	263 (57.0)
Will not refuse	81 (17.5)
Prefer private healthcare instead of informal payments	
Strongly disagree	138 (29.9)
Disagree	91 (19.7)
Neutral	83 (18.0)
Agree	58 (12.5)
Strongly agree	90 (19.5)
Missing values	2 (0.4)

1.48–1.91) as opposed to those who were NHIS clients. We also found that persons with a strong preference for private health facilities were more likely to have made informal payments (aOR, 1.35; 95% CI, 1.26–1.44). Older adults with urinary difficulties were also more likely to have made informal payments for health services (aOR, 2.49; 95% CI, 1.56–3.97). However, older adults who were unwilling to make IPP had significantly lower odds of informal payments (aOR, 0.48; 95% CI, 0.26–0.87; $P < 0.015$). Similarly, those without a chronic disease were less likely to have paid informal fees for health services (aOR, 0.59; 95% CI, 0.41–0.83; $P < 0.001$).

DISCUSSION

In this study, we determined the prevalence of IPP and its associated factors, willingness, and ability to make IPP among older adults in three municipal areas of Ghana. Our findings

Informal payments among older adults in Ghana

Table 3. Factors associated with informal payments among elderly people

Response variable: Informal payment	cOR (95% CI)	P-value	aOR (95% CI)	P-value
Age group				
60–75 years	Ref.		Ref.	
Above 75 years	1.94 (1.27–2.96)	0.002**	1.76 (1.37–2.26)	< 0.001***
NHIS enrollment status				
Enrolled	Ref.		Ref.	
Not enrolled	1.56 (0.90–2.73)	0.112	1.68 (1.48–1.91)	< 0.001***
Self-reported chronic disease status				
With chronic disease	Ref.		Ref.	
Without chronic disease	0.56 (0.31–1.00)	0.050	0.59 (0.41–0.83)	0.002**
Preference for private health facility				
No	Ref.		Ref.	
Yes	1.34 (1.17–1.53)	< 0.001***	1.35 (1.26–1.44)	< 0.001***
Willingness to make informal payment				
Willing	Ref.		Ref.	
Somewhat willing	2.00 (1.05–3.82)	0.036*	1.91 (0.99–3.67)	0.053
Not willing	0.51 (0.29–0.92)	0.025*	0.48 (0.26–0.87)	0.015*
Difficulty in urination				
No	Ref.		Ref.	
Yes	3.58 (3.12–4.12)	< 0.001***	2.49 (1.56–3.97)	< 0.001***
Hospitalized 4 weeks prior				
Yes	Ref.		Ref.	
No	0.38 (0.26–0.56)	< 0.001***	0.49 (0.26–0.94)	0.031*

cOR = crude odds ratio; aOR = adjusted odds ratio; CI = confidence interval; NHIS = National Health Insurance Scheme.
Statistical significance: * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

confirm that IPPs still occur within facilities and are often with the intent of expressing appreciation or gratitude, despite the introduction of the NHIS to address financial barriers to accessing health care. Our finding is consistent with studies conducted in Albania,²⁵ Iran,²⁶ and Lithuania⁵ that reported gratitude as one of the social and contextual factors that allow the phenomenon of informal payments to exist.

By comparison, however, the prevalence of informal payments in this study is relatively lower than reported in Europe and the Middle East.^{5,27} Masiye et al.²⁸ reported a much lower prevalence of informal payments in Zambia. Socio-economic differentials may explain the observed variations in the prevalence of IPP across countries. The difference in reported estimates could also be due to health system strengthening efforts, for instance in settings where real-time feedback from healthcare users helps in the investigation of cases of informal payments and overly priced OOPs.²⁴

The findings show that almost half of older adults in our study expressed a negative attitude toward informal payments. This finding is corroborated by Baji et al.⁸ in Hungary and Atanasova et al.⁷ in Bulgaria. Most of those who had negative attitudes were also of the view that informal payments and gifts in kind are not different from corruption. There were others, however, who had a more favourable attitude towards informal payments—the majority of which were of the view that informal payments are an expression of gratitude. Similar findings have been reported elsewhere.^{8,29,30} More importantly, these findings present 2 conflicting perspectives that may be potentially difficult to deal with. First, there is a generalized existing culture of gratitude among the elderly for services provided by a health worker which reinforces the demand for IPP. The second is that while IPP may not necessarily be a problem for those who can afford it, demand IPP certainly plunges the elderly poor into totally avoiding essential health care or even worse, a financial catastrophe.

Unfortunately, despite the generally negative attitude toward informal payments, most respondents did not know where to report or complain in the event of such a demand made when accessing health care. Atanasova et al.⁷ also found that most respondents in their study did not know where to complain if a healthcare worker demands an informal payment to be made, as is the case from our findings. Findings further indicate that one-quarter of respondents mentioned they would refuse to make any informal cash payments if asked by a health worker. This is far lower than what was reported elsewhere.^{7,30} However, refusal to make informal payments may be reflective of the patient's inability to pay as well as their knowledge of what is official and what is not. This brings to bear the need to improve upon financial risk protection in terms of accessing health care, especially for the elderly⁸ and address social and contextual factors that allow IPP to thrive.

We found that age, health insurance status, preference for private health facilities, urinary health conditions including chronic conditions, and willingness to pay significantly influence informal payment levels among older adults. The finding indicates that older adults aged 75 years and above were more likely to make informal payments for healthcare services. On the one hand, older adults are more prone to health risks and more likely to require or use health care services on a much shorter time basis, relative to those younger. As such, they may be less hesitant to pay informally for health care services in order to obtain good quality care. Thus, they may be forced to pay informally when accessing health care to obtain much quicker and patient-centred care especially when health insurance does not cover the service cost for such specialist services.

Additionally, respondents who were not insured under the NHIS were more likely to make informal payments as compared to those who were enrolled, and the difference was statistically significant.

This is in line with the previous findings in Ghana.³¹ Health insurance offers a high degree of financial risk protection against OOP, informal payments, or catastrophic health expenditures in the future. The positive association between health insurance enrolment and reduced probability of making informal payments also corroborates findings from a quasi-experimental study in Bangladesh that found that cash payments (including OPP and informal payments) were significantly lower for the insured than the uninsured in accessing health care.³² Contrary to our findings, a study in China however reported insured clients' tendency to pay informally to healthcare workers, relative to the non-insured,³¹ but varied based on population and type of insurance.

Moreover, respondents who had chronic health conditions, i.e., difficulty in urination and health conditions such as hypertension and diabetes were significantly more likely to make informal payments. Urinary problems among the elderly are among the common reasons for healthcare utilization.³³⁻³⁵ In addition, having one or more chronic conditions is commonly associated with increased age. Also, elderly people with chronic conditions may require frequent specialist healthcare services and hospital visits, for which informal payments are more likely.³⁶

Furthermore, we found that older adults who preferred private health facilities were more likely to have ever made informal payments to access primary health care. Similar findings have been reported elsewhere^{8,37} and are especially important because some studies suggest that this may be explained by the likelihood of some private health facilities being more responsive to client needs as compared to public health facilities.³⁸⁻⁴⁰

Moreover, preference for private health facilities could also be indicative of the poorer quality of care which could be due to the nonavailability or inadequacy of healthcare staff and long waiting times in public health facilities.³⁷

We posit that IPP has a significant relationship with willingness to pay. Older adults who were willing to pay had higher odds of making such payments whereas those who were unwilling were less likely to pay. These differences are consistent with a cross-sectional study in Hungary.⁸ In other settings where willingness has been cited, the main explanation for this relationship is the existence of some form of a gratitude culture and the perception that the general health system is underfunded, with health staff undermotivated. This has been reported in Greece⁴¹ and we argue that it can even have implications for legislation against informal payments within the health system. On the other hand, older adults who were unwilling to pay informal fees possibly perceive such payments as a form of corruption, a reason that might explain why they were less likely to make informal payments.

Overall, the phenomenon of IPP exacerbates health inequity.^{6,27,42} A 2020 WHO report on potential corruption risks in health financing arrangements across the world found that informal payments can be a conduit to facilitate the quasi-redistribution of resources from the rich to the poor, where health workers can set price discrimination between the rich and poor.⁴³ The WHO report highlights informal payments as regressive and has the propensity to cause delayed health-seeking behaviors even among the chronically ill. Given that old age has attendant chronic conditions and needs that require consistent and regular health care seeking, the existence of such a practice within any health system has detrimental effects on the continuum of care for the aged.

Our findings point out that longevity (75+ years) can predispose the elderly and their families to make IPP when accessing health care. An improved life expectancy leads to chronic health needs, with frequent hospitalization.

While acknowledging that cash or in-kind payments may not be viewed as a threat to health care use by patients who do so, its practice and existence can introduce “unfair advantage” and impact negatively on access and use of health care services among the aged and general population. Where formal payments (co-payments) for chronic conditions need to be established to meet the cost of care associated with chronic health needs for the aged, the process should be transparent and known to both providers and users. Ghana’s Ministry of Health needs to promote value-based health throughout the life course and gather reliable evidence on the existence of informal OOP payments within the formal health system.

Additionally, health insurance is a mediator and financial risk protector against informal payments as found in our study. Health insurance provides protective coverage and benefits for health access and use.⁴⁴ In Ghana, persons aged 70+ years are exempted from paying health insurance premiums to be covered under the scheme. However, an individual’s socio-economic status at age 60 determines to a large extent an individual insurance status since persons aged 60–69 years are not exempted from payment of premiums. According to World Bank, the average life expectancy in Ghana is 64 years,⁴⁵ yet the exemption policy for the elderly starts at age 70. This has implications for addressing equity needs for persons aged 60–69 years in Ghana, particularly among vulnerable groups. To address inclusivity in insurance for the elderly, the threshold age for exemption ought to be reviewed to offer better financial risk protection and guarantee the goals of UHC among older people. In expanding

the benefits package, addressing sustainability concerns of the insurance scheme is vital to ensure long-term benefits.

Furthermore, while the private health sector's role in advancing health service delivery cannot be underestimated, unregulated financing mechanisms by private providers will require some level of monitoring by state actors to ensure patients seeking care in private health facilities are not disproportionately paying extra and informally for accessing health care. Previous studies on informal payments demanded by private providers have suggested legal penalties.²⁹ Holding providers accountable and providing the environment for patients to make formal complaints are other policy options.² Addressing issues on informal payments requires a multifaceted approach. The Ministry of Health and its major implementing agency, the Ghana Health Service must demand trust, ensure transparency and accountability in revenue mobilization and use from both public and private providers and their managers, and create the enabling environment for both patients and communities to report acts of informal payments.

Our study has strengths and limitations worth mentioning. First, the sampling we employed was community-based which makes our findings more applicable to older people. The possibility of recall bias was a foreseen challenge in measuring informal payments and OOP payments given the design of this study. However, these outcomes were clearly explained to the understanding of respondents. The study was cross-sectional, thus factors determined to be associated with IPP should be interpreted with caution since causality was not determined. The interpretations and generalizations should therefore be done contextually and appropriately. Given the design and robustness of the data collection processes across three multiple sites, our findings present new evidence surrounding the study area with little empirical evidence in Ghana. Future studies could examine the impact of informal payments on trust in the healthcare system and investigate strategies to reduce its practice.

In conclusion, this study confirms the existence of IPPs within the formal healthcare system. The phenomenon disproportionately favors only those who have the capacity to pay for services while contributing to catastrophic health expenditures among relatively poorer elderly people. Although we find that enrollment in the NHIS provides some level of protection against making informal payments, the existence of a gratitude culture further reinforces the demand for more IPP. We also found that self-reported health status and willingness to pay are significantly associated with informal payments. We conclude that the existence of both OOP and IPP reflects important gaps that must be addressed. The problem requires urgent policy action in order to protect economically vulnerable elderly people from financial catastrophe in their bid to access health care in Ghana. We recommend measures of informal payments and "perceived corruption" in the health system be included in the Ghana Living Standard Surveys and Demographic Health Surveys to inform future policy decisions in this area.

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