

Frequency and factors associated with the offering of gifts or favors in access to health care in Guinea: a cross-sectional study based on Afrobarometer 2022 data

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Research Article

Keywords: Gifts/favors, Informal payments, Access to care, Afrobarometer, Guinea, Cross-sectional study

Posted Date: October 21st, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-10839032/v1>

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Additional Declarations: No competing interests reported.

Abstract

Background

Despite being legally prohibited, offering gifts or favors to access medical care remains common in Guinea. We sought to measure the frequency of this practice and identify the factors associated with it among users of public health facilities.

Methods

We conducted an analytical cross-sectional study using data from the ninth round of the Afrobarometer survey carried out in Guinea in 2022. The dependent variable was offering a gift or favor to a health worker to obtain needed care. Bivariate associations were tested using the Wilcoxon test for age and the Chi-square test for categorical variables. Factors independently associated with the outcome were then identified using weighted multivariate logistic regression, with bidirectional stepwise selection based on the Akaike Information Criterion (AIC), using R version 4.5.0.

Results

Of the 869 respondents, 331 (38.1%) reported having offered a gift or favor at least once to obtain care, and these individuals were on average younger (41.1 ± 15.2 years versus 43.6 ± 16.1 years ; $p = 0.027$). Compared with Conakry, the adjusted odds of having offered a gift were lower in Boké (OR = 0.48; 95% CI: 0.24–0.95), Kindia (OR = 0.49; 0.26–0.89), Mamou (OR = 0.24; 0.11–0.51), Labé (OR = 0.28; 0.13–0.57), and Kankan (OR = 0.42; 0.23–0.76); it did not differ significantly in Faranah or N'Zérékoré. Perceiving access to care as easy was associated with markedly lower odds of offering a gift compared with difficult access (OR = 0.25; 0.17–0.36; $p < 0.001$), while "very difficult" access did not differ from "difficult" access. Never having experienced food insecurity (OR = 0.51; $p = 0.002$), feeling respected by health staff (OR = 0.53; $p < 0.001$), and never having experienced long waiting times (OR = 0.38; $p < 0.001$) were also associated with reduced odds of offering a gift.

Conclusions

In Guinea, more than a third of users of public health facilities have resorted to a gift or favor to access care. This phenomenon appears to be driven less by respondents' individual characteristics than by perceived difficulties in accessing care, their living conditions, and a perceived lack of respect from health care staff. Reducing these practices may therefore require strengthening health system governance.

Background

Equitable access to health care is one of the pillars of universal health coverage, a goal shared by most health systems worldwide. In many low- and middle-income countries, however, this access remains compromised by various forms of corruption: informal payments, bribes, gifts or favors granted to care providers in order to obtain preferential service or treatment [1, 2].

Informal payments refer to contributions made outside official channels [3, 4]. The literature is fairly unanimous on this point: such practices hinder access to care and ultimately undermine efforts toward universal health coverage [1, 5].

In sub-Saharan Africa, the phenomenon remains a matter of concern. According to the Afrobarometer and Global Corruption Barometer surveys, a substantial proportion of African citizens report having had to make an informal payment to access a public service, including health care [6, 7]. This experience undermines trust in institutions and further complicates access to care.

Several structural factors favor these informal payments: medicine shortages, insufficient staffing, long waiting times, weak governance, organizational dysfunction [2, 3]. In response, some users turn to informal channels to speed up their care or simply obtain an available resource. This behavior often extends well beyond the health sector alone, suggesting broader social norms rather than a problem confined to hospitals [6, 7].

The consequences go far beyond financial cost. By disproportionately penalizing poor households and vulnerable groups, informal payments deepen social health inequalities [1, 8, 9]. Some households bear an additional expense, while others simply forgo care altogether.

Guinea's health system is not immune to these difficulties: limited service accessibility, insufficient qualified staff, irregular supply of essential medicines [10]. Efforts undertaken to improve health system performance have so far not been enough to remove these obstacles.

Guinea has nonetheless legislated on the issue: Law L/2017/N°0041/AN provides for the prevention, detection, and punishment of corruption [11]. Yet very little data exists on the actual extent of informal payments in the health sector and on what drives them.

Gifts and favors given to health workers represent a particular and ambiguous form of this practice, since they can also be experienced as a simple gesture of gratitude. Several studies nonetheless suggest that they are mainly used to obtain preferential treatment, shorten a wait, or gain access to limited medicines or resources [3, 4, 12].

It is to fill this gap that we undertook to assess, at the national level and using representative Afrobarometer data, the frequency and determinants of this practice. The survey has the advantage of covering a wide range of respondents, including populations that conventional clinical research tends to under-represent owing to linguistic or social access barriers.

Methods

Data source

This study is a secondary analysis of cross-sectional data from the ninth round of the Afrobarometer survey conducted in Guinea in 2022 [13]. Afrobarometer is an independent pan-African research network that regularly conducts nationally representative opinion surveys to gather citizens' perceptions on governance, democracy, living conditions, and the quality of public services. The data used come from the public Afrobarometer Round 9 database.

Study setting

The study was conducted in the Republic of Guinea, a West African country of approximately 13 million inhabitants distributed across eight administrative regions (Conakry, Boké, Kindia, Mamou, Labé, Faranah, Kankan, and N'Zérékoré) [10]. Guinea's health system is organized in a pyramidal structure comprising three levels of care: primary (health posts and centers), secondary (prefectural and regional hospitals), and tertiary (national hospitals and specialized facilities) [10].

Study population

The source population consisted of all persons aged 18 and over who took part in the 2022 Afrobarometer survey in Guinea. For the present analysis, only respondents who reported having visited a public health facility during the twelve months preceding the survey were included. Participants who had no contact with a public health facility during that period, as well as those with missing data for the main variable of interest, were excluded from the analysis.

Sampling and sample size

The Afrobarometer survey used a multi-stage stratified probability sampling design to obtain a representative sample of the adult Guinean population [13]. Primary sampling units were selected proportionally to their size across administrative regions and by area of residence (urban or rural). Households were then randomly selected within each cluster, and one adult was chosen using a standardized procedure.

A total of 1,200 people were interviewed in the national survey. After applying the inclusion criteria, 869 respondents who had visited a public health facility during the twelve months preceding the survey were retained for analysis.

Study variables

Dependent variable

The dependent variable was offering a gift or favor to a health worker in order to obtain needed care, derived from the question: "In the past 12 months, among people who had contact with a public clinic or hospital, how often did you have to give a gift, provide a service, or do a favor for a health worker to obtain the care you needed?"

For the purposes of analysis, the variable was recoded in binary form: Yes (at least once); No (never).

Independent variables

Explanatory variables were selected based on the literature on informal payments in health services [1–5] and on their availability in the Afrobarometer database. They included:

- Age (continuous variable);
- Sex (male, female);
- Area of residence (urban, rural);
- Administrative region;
- Education level;
- Perceived current living conditions;
- Frequency of food shortages (food insecurity, used as an indicator of precarity);
- Perceived difficulty of access to care;
- Frequency of medicine shortages;
- Frequency of absence of health staff;
- Frequency of long waiting times;
- Frequency of infrastructure problems at health facilities;
- Perceived respect shown to patients by health workers.

Data management and variable coding

After importing the database, the variables required for analysis were selected and renamed to facilitate identification. Age was treated as a continuous quantitative variable, while the other variables were converted into categorical variables based on the survey's original response labels. Categories with no observations were removed to avoid empty categories in the analyses.

To improve the statistical stability of the analyses and ensure sufficient numbers in each category, several variables were grouped according to classifications commonly used in public health and health governance studies:

- Education level, grouped into four categories: no education (including informal or Quranic education), primary, secondary, higher.

- Current living conditions, recoded into three categories: poor ("very bad" or "fairly bad"), average ("neither good nor bad"), good ("fairly good" or "very good").
- Food shortages, three categories: never, occasional ("once or twice," "several times," "don't know"), frequent ("many times," "always").
- Perceived difficulty of access to care, three levels: easy ("very easy" and "easy" merged), difficult, very difficult.
- Respect from health staff, two categories: low respect ("not at all," "a little," "somewhat"), respected ("a lot").
- Medicine shortages, absence of health staff, long waiting times, and infrastructure problems: three categories each: never, occasional ("once or twice," "several times"), frequent ("often").

The dependent variable was recoded in binary form: respondents who reported having offered a gift or favor "once or twice," "several times," or "often" were classified as "yes"; those who answered "never" were classified as "no." Respondents who had no contact with a public health facility during the twelve months preceding the survey, as well as "don't know" or "refused" responses, were excluded from the analysis, resulting in a final analytic sample of 869 respondents.

Statistical analysis

Data analysis was performed using R software (version 4.5.0). The dataset, imported in SPSS format, was weighted using the national weighting factor included in the Afrobarometer database.

An initial cleaning phase recoded the dependent variable in binary form (1 = offered a gift or favor at least once; 0 = never). Sociodemographic and health-related characteristics of participants were then compared according to this variable's status using the Wilcoxon test for age (continuous variable) and the Chi-square test for categorical variables. Results were presented in a table showing counts, percentages, means ($\pm$ standard deviation), and p-values.

A binary logistic regression was then performed to identify factors independently associated with offering a gift or favor. The initial model included all variables deemed conceptually and statistically relevant. A bidirectional stepwise selection procedure based on the Akaike Information Criterion (AIC) yielded the most parsimonious final model. Results of the final model were expressed as adjusted odds ratios (OR) with their 95% confidence intervals (95% CI). Statistical significance was set at $p < 0.05$.

Ethical considerations

This study is based on a secondary analysis of anonymized data from the Afrobarometer Round 9 survey. The original survey was conducted in accordance with ethical principles applicable to research involving human subjects, following the informed consent of participants [13]. The data made available by Afrobarometer contain no information allowing respondents to be identified. No direct contact was made with participants as part of this secondary analysis.

Results

Sample selection

Of the 1,200 Guinean adults interviewed in the ninth round of the 2022 Afrobarometer survey, 331 people (27.6%) had had no contact with a public health facility during the twelve months preceding the survey and were excluded from the analysis. The final analytic sample thus comprised 869 respondents who had visited a public health facility, of whom 331 (38.1%) reported having offered a gift, provided a service, or done a favor for a health worker at least once to obtain needed care, compared with 538 (61.9%) who reported never having done so.

Respondent characteristics and bivariate analysis

The mean age of respondents who had contact with a public health facility was 42.6 ± 15.8 years. Respondents who offered a gift were significantly younger than others (41.1 ± 15.2 years versus 43.6 ± 16.1 years; $p = 0.027$). Sex distribution (52% men, 48% women) was not significantly associated with offering a gift ($p = 0.2$), consistent with some but not all prior evidence on gender differences in informal payments for care [14].

Area of residence was significantly associated with this practice ($p < 0.001$): although rural respondents made up the majority of those who offered a gift in absolute terms (198/331, or 60%, owing to their greater demographic weight in the sample), the proportion of people who offered a gift was actually higher in urban areas (133/289, or 46%) than in rural areas (198/580, or 34%).

Marked regional disparities were observed ($p < 0.001$). Among the 331 respondents who offered a gift, the most represented regions were Kankan (48, 15%), N'Zérékoré (69, 21%), Kindia (55, 17%), and Conakry (61, 18%). However, relative to the surveyed regional population, the proportion of respondents who offered a gift was highest in Conakry (61/107, or 57%) and N'Zérékoré (69/147, or 47%), and lowest in Labé (19/83, or 23%) and Mamou (16/62, or 26%).

Education level was not found to be associated ($p = 0.2$). Everything else, however, pointed in the same direction: poor perceived living conditions ($p = 0.003$), frequent food insecurity, greater perceived difficulty in accessing care, less felt respect from health staff, medicine shortages, absence of health staff, long waits, and more frequent infrastructure problems. Each of these variables was associated with offering a gift at $p < 0.001$.

Detailed counts and percentages are presented in Table 1.

Table 1
Respondent characteristics by status of offering a gift or favor for access to care (N = 869).

Characteristic	Overall N = 869	Did not offer n = 538	Offered n = 331	P
Age, mean $\pm$ SD	42.6 $\pm$ 15.8	43.6 $\pm$ 16.1	41.1 $\pm$ 15.2	0.027
Sex				0.2
Male	448 (52%)	268 (50%)	180 (54%)	
Female	421 (48%)	270 (50%)	151 (46%)	
Area of residence				< 0.001
Urban	289 (33%)	156 (29%)	133 (40%)	
Rural	580 (67%)	382 (71%)	198 (60%)	
Region				< 0.001
Conakry	107 (12%)	46 (8.6%)	61 (18%)	
Boké	81 (9.3%)	46 (8.6%)	35 (11%)	
Kindia	134 (15%)	79 (15%)	55 (17%)	
Mamou	62 (7.1%)	46 (8.6%)	16 (4.8%)	
Labé	83 (9.6%)	64 (12%)	19 (5.7%)	
Faranah	73 (8.4%)	45 (8.4%)	28 (8.5%)	
Kankan	182 (21%)	134 (25%)	48 (15%)	
N'Zérékoré	147 (17%)	78 (14%)	69 (21%)	
Education level				0.2
No formal education	442 (51%)	284 (53%)	158 (48%)	
Primary	129 (15%)	70 (13%)	59 (18%)	
Secondary	177 (20%)	105 (20%)	72 (22%)	
Higher	121 (14%)	79 (15%)	42 (13%)	
Living conditions				0.003
Good	197 (23%)	142 (26%)	55 (17%)	
Average	81 (9.3%)	50 (9.3%)	31 (9.4%)	
Poor	591 (68%)	346 (64%)	245 (74%)	

Characteristic	Overall N = 869	Did not offer n = 538	Offered n = 331	P
Food insecurity				< 0.001
Never	330 (38%)	239 (44%)	91 (27%)	
Occasional	311 (36%)	181 (34%)	130 (39%)	
Frequent	228 (26%)	118 (22%)	110 (33%)	
Perceived difficulty accessing care				< 0.001
Easy	467 (54%)	368 (68%)	99 (30%)	
Difficult	257 (30%)	113 (21%)	144 (44%)	
Very difficult	145 (17%)	57 (11%)	88 (27%)	
Respect from health staff				< 0.001
Low respect	322 (37%)	141 (26%)	181 (55%)	
Respected	547 (63%)	397 (74%)	150 (45%)	
Medicine shortages				< 0.001
Never	405 (47%)	300 (56%)	105 (32%)	
Occasional	352 (41%)	181 (34%)	171 (52%)	
Frequent	112 (13%)	57 (11%)	55 (17%)	
Absence of medical staff				< 0.001
Never	504 (58%)	364 (68%)	140 (42%)	
Occasional	288 (33%)	137 (25%)	151 (46%)	
Frequent	77 (8.9%)	37 (6.9%)	40 (12%)	
Long waiting times				< 0.001
Never	320 (37%)	245 (46%)	75 (23%)	
Occasional	385 (44%)	209 (39%)	176 (53%)	
Frequent	164 (19%)	84 (16%)	80 (24%)	
Infrastructure				< 0.001

Characteristic	Overall N = 869	Did not offer n = 538	Offered n = 331	P
Never	446 (51%)	316 (59%)	130 (39%)	
Occasional	246 (28%)	132 (25%)	114 (34%)	
Frequent	177 (20%)	90 (17%)	87 (26%)	

SD: standard deviation. P-values are from the Wilcoxon test (age) or the Chi-square test / Fisher's exact test (categorical variables).

Factors independently associated with offering a gift (multivariate analysis)

The final model, obtained by bidirectional stepwise selection based on the Akaike criterion, retained the following variables: age, sex, region, food insecurity, difficulty of access to care, perceived respect from health staff, medicine shortages, long waiting times. The variables area of residence, education level, living conditions, absence of health staff, and infrastructure problems were not retained in the final model, as their contribution was redundant with that of the other model variables.

After adjustment, age and sex were no longer significantly associated with offering a gift (Table 2).

Compared with Conakry, which had the highest adjusted odds, respondents from Boké (OR = 0.48; 95% CI [0.24–0.95]; $p = 0.037$), Kindia (OR = 0.49; 95% CI [0.26–0.89]; $p = 0.021$), Mamou (OR = 0.24; 95% CI [0.11–0.51]; $p < 0.001$), Labé (OR = 0.28; 95% CI [0.13–0.57]; $p < 0.001$), and Kankan (OR = 0.42; 95% CI [0.23–0.76]; $p = 0.005$) had significantly lower odds of having offered a gift. Faranah (OR = 0.56; $p = 0.12$) and N'Zérékoré (OR = 0.91; $p = 0.8$) did not differ significantly from Conakry.

Never having experienced food insecurity was associated with significantly lower odds of offering a gift compared with frequent food insecurity (OR = 0.51; 95% CI [0.34–0.77]; $p = 0.002$); occasional food insecurity was not significantly different from frequent food insecurity (OR = 0.87; $p = 0.5$).

Perceiving access to care as easy was associated with markedly lower odds of offering a gift compared with difficult access (OR = 0.25; 95% CI [0.17–0.36]; $p < 0.001$). By contrast, "very difficult" access was not significantly different from "difficult" access (OR = 1.14; $p = 0.6$), indicating that the main risk threshold lies between easy and difficult access, rather than a progressive gradient across the three levels of difficulty.

Feeling respected by health staff was associated with lower odds of offering a gift compared with a low sense of respect (OR = 0.53; 95% CI [0.37–0.75]; $p < 0.001$).

Once other factors were accounted for, medicine shortages were no longer significantly associated with offering a gift ("never": OR = 0.68, $p = 0.2$; "occasional": OR = 1.06, $p = 0.8$, compared with frequent

shortages), suggesting that the association observed in bivariate analysis was partly related to other factors in the model, particularly region and difficulty of access.

Never having experienced long waiting times was associated with significantly lower odds of offering a gift compared with frequent waiting times (OR = 0.38; 95% CI [0.23–0.61]; $p < 0.001$); the association for occasional waiting times did not reach statistical significance (OR = 0.77; $p = 0.2$).

Table 2
Factors associated with offering a gift or favor for access to care

Characteristic	Adjusted OR	95% CI	P
Age (years)	1.00	0.98–1.01	0.3
Sex			
Male	(Ref.)	—	
Female	0.86	0.61–1.20	0.4
Region			
Conakry	(Ref.)	—	
Boké	0.48	0.24–0.95	0.037
Kindia	0.49	0.26–0.89	0.021
Mamou	0.24	0.11–0.51	< 0.001
Labé	0.28	0.13–0.57	< 0.001
Faranah	0.56	0.27–1.15	0.12
Kankan	0.42	0.23–0.76	0.005
N'Zérékoré	0.91	0.50–1.68	0.8
Food insecurity			
Frequent	(Ref.)	—	
Never	0.51	0.34–0.77	0.002
Occasional	0.87	0.58–1.30	0.5

Perceived difficulty accessing care			
Difficult	(Ref.)	—	
Easy	0.25	0.17–0.36	< 0.001
Very difficult	1.14	0.70–1.86	0.6
Respect from health staff			
Low respect	(Ref.)	—	
Respected	0.53	0.37–0.75	< 0.001
Medicine shortages			
Frequent	(Ref.)	—	
Never	0.68	0.40–1.16	0.2
Occasional	1.06	0.62–1.80	0.8
Long waiting times			
Frequent	(Ref.)	—	
Never	0.38	0.23–0.61	< 0.001
Occasional	0.77	0.50–1.18	0.2

Weighted multivariate logistic regression model, selected by bidirectional stepwise procedure (AIC). OR: adjusted odds ratio; 95% CI: 95% confidence interval; ref.: reference category.

Discussion

To our knowledge, this study is among the first national analyses of the frequency and determinants of offering gifts or favors in accessing health care in Guinea. About four in ten users (38.1%) who visited a public health facility during the year preceding the survey reported having offered a gift or favor at least once to obtain the care they needed. This high frequency shows the extent to which informal practices persist within Guinea's health system, despite a legislative framework intended to prevent and punish corruption in public services [1, 11].

This figure far exceeds what has been reported elsewhere in Africa. Peiffer and Rose estimated that around 13% of African citizens had paid a bribe in the health sector [6], and multicenter Afrobarometer analyses confirm generally lower levels in most sub-Saharan countries [5, 6]. Several explanations are plausible: funding, staffing, and medicine supply constraints that remain severe in Guinea [10]; oversight and accountability mechanisms that are still underdeveloped in some facilities [2]; and, likely, a cultural dimension that blurs the line between social recognition and corruption [4].

One point deserves emphasis: once contextual and perceptual factors were accounted for, age, sex, area of residence, and education level were no longer associated with offering a gift. The phenomenon therefore does not appear to be rooted in users' sociodemographic profile, but rather in their living conditions, their concrete experience of the health system, and their broader exposure to informal practices elsewhere in public services.

The association between perceived difficulty of access and offering gifts stands out as one of the study's clearest findings. Perceiving access to care as easy is associated with markedly lower odds of offering a gift compared with access perceived as difficult. This is consistent with the work of Hsiao et al., who had already shown a link between demands for informal payments and reported access difficulties [5]. Where resources are scarce, it is not surprising that patients turn to informal channels to work around administrative obstacles, save time, or attract staff attention [2].

Long waiting times were also linked to offering gifts, though less clearly than expected. Only the complete absence of prolonged waits proved protective, not occasional waits. This is far from a simple dose-response relationship. The overall direction of the association nonetheless remains consistent with what has been shown elsewhere in low- and middle-income countries, where informal payments are often used to speed up a consultation, examination, or hospitalization [2, 3].

Medicine availability, on the other hand, lost all significance once region and difficulty of access were accounted for in the model. This finding contrasts with earlier work identifying stock shortages as a major determinant of informal payments [12]. It is possible that in Guinea, medicine shortages weigh mainly indirectly, by feeding into a general sense of difficulty of access, rather than acting as a standalone factor.

Feeling respected by health staff emerged as a robust protective factor. This finding aligns with work highlighting the role of the trust relationship between patients and providers in the persistence of these practices [7].

The weight of socioeconomic conditions was also evident: never having experienced food insecurity was associated with lower odds of having offered a gift. This echoes what Bukari et al. described regarding the increased risk of care deprivation linked to corruption in African countries [1], as well as the work of Kankeu and Ventelou on socioeconomic inequalities linked to informal payments [8] and that of Asongu and Diop on corruption as a survival strategy in the face of poverty [9].

Strong regional differences were also observed: Conakry had the highest adjusted odds of gift-giving. Several explanations are possible: health facilities in the capital may be under greater demand, more resources circulate there (and can therefore become subject to informal payment), or social habits there simply differ from the rest of the country. Only qualitative studies will be able to determine which of these explanations holds.

In practical terms, these findings may support strengthening governance of the Guinean health system: improving perceived access to care, reducing waiting times, and above all reinforcing the respect shown to patients by health professionals [15].

Strengths and limitations of the study

This study draws on nationally representative data (Afrobarometer 2022), which allows for reasonable generalization to the adult Guinean population using public health facilities.

It does, however, have several limitations. First, the data are self-reported and therefore subject to recall bias and social desirability bias, which may lead respondents to under-report a practice that is both stigmatized and illegal. Second, the cross-sectional design does not allow for establishing causality or temporal sequence: for instance, respondents who anticipate having to offer a gift may, for that same reason, rate access to care as more difficult, so reverse causation cannot be excluded for several of the associations reported. Third, as a secondary analysis of a general opinion survey not designed specifically to study informal payments, the study could not adjust for potentially relevant confounders that Afrobarometer does not measure, such as household income, health insurance coverage, facility type, or objective waiting times; residual confounding therefore cannot be ruled out. Fourth, the single survey item used to define the outcome bundles together gifts, services, and favors, which may combine genuine gestures of gratitude with coerced informal payments, and does not capture their amount, nature, or the context in which they were given. Fifth, the analytic sample is restricted to respondents who reported visiting a public facility in the preceding twelve months; individuals who avoided care altogether, possibly because they anticipated having to make an informal payment, are not represented, which may lead to an underestimation of the true extent of the phenomenon. Sixth, cases with missing data on key variables were excluded rather than imputed, which assumes that this missingness is unrelated to the outcome, an assumption that cannot be verified with the data at hand. Finally, the final multivariable model was obtained through a data-driven stepwise selection procedure, which can be unstable in the presence of correlated predictors and tends to yield overly optimistic p-values and confidence intervals; the model should accordingly be regarded as exploratory rather than confirmatory. These data also reveal nothing about the underlying motivations of either patients or health workers, which argues for complementary qualitative research to shed light on these mechanisms.

Conclusions

More than a third of users of public health facilities in Guinea offered a gift or favor to access care over the past year. In the final model, age, sex, and education level were not significantly associated with having offered a gift. What was associated with this practice, instead, were perceived difficulty of access to care, precarious living conditions, and a felt lack of respect from health staff.

These findings suggest that informal payment in Guinea's health system may reflect less an isolated gesture of gratitude than systemic dysfunctions, compounded by a broader normalization of these

practices. This points to possible action on several fronts at once: strengthening health system governance, improving perceived access to care and the respect shown to patients. Qualitative studies remain necessary to shed light on the social, cultural, and institutional dynamics that sustain these practices.

Abbreviations

- AIC
Akaike Information Criterion
- Afrobarometer
Pan-African research network on democracy and governance
- UHC
Universal Health Coverage
- 95% CI
95% Confidence Interval
- INSP
Institut National de Santé Publique de Guinée (National Institute of Public Health of Guinea)
- WHO
World Health Organization
- OR
Odds Ratio

Declarations

Ethics approval and consent to participate

This study is based on a secondary analysis of anonymized data from the Afrobarometer Round 9 survey. Afrobarometer's survey protocols were approved by the relevant national ethics committees. Informed consent was obtained verbally or in writing from all respondents prior to primary data collection. No individual data allowing identification of respondents was used in this secondary analysis.

Consent for publication

This study contains no individual data (image, video, or identifiable personal detail) requiring consent for publication.

Competing interests

The authors declare that they have no financial or institutional conflicts of interest related to this study.

Funding

This study was carried out as part of the research activities of the Institut National de Santé Publique (INSP) of Conakry, Guinea, with financial support from ENABEL.

Author Contribution

Daniel Vongbo Traoré: study conceptualization, methodology, data acquisition and analysis, drafting of the original manuscript. Almamy Amara Touré: supervision, project administration, and critical revision of the manuscript. Abdoulaye Fode Touré: statistical analysis, interpretation of results, revision. Houssainatou Bah: data validation and final revision of the manuscript. Mohamed Prince Kaba : critical revision of the manuscript

Acknowledgement

Afrobarometer. Round 9 Survey Manual and Methodology

Data Availability

Afrobarometer Round 9 data for Guinea are freely available on the organization's official website (<https://www.afrobarometer.org>). The analysis script (R, version 4.5.0) used to generate the results presented is available from the corresponding author upon reasonable request

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