





Volume 4, Issue 2

May 2025

IQ RESEARCH

JOURNAL

A Quarterly Journal of Kesmond International University

Recovery of Medical Costs in Cameroon's

Health Facilities: State of Play, Challenges

and Prospects

PAULIN EGOR NKAPNANGI, JEAN BAPTISTE
SOKOUDJOU, FABIEN SUNDJO, ELODIE YAMAKO
KONACK, ROLAND TIAGHA AKAH, ELVIS CHE
PENYIA AND NJI AUGUSTINE ASAKIZI



ISSN: 2790-4296 (Online)

ISBN: 978-9956-504-74-9 (Print)

Published by IQRJ publications www.iqresearchjournal.com







EDITORIAL BOARD

Editor-in-Chief

• Professor Atanga D. Funwie (Professor) Kesmonds International University

Associate Editor-in-Chief

• Sundjo Fabien (AP) Kesmonds International University/ University of Bamenda

Editorial Assistant

- Tchouaffe Tchiadje Norbert (Professor) Kesmonds International University
- Yongho Shiwoh Louis (Associate Professor) Kesmonds International University

Editorial Board Members

- Charlanne Miller, LIGS University Hawaii, Canada.
- Prof. Dr. Bond Richard, California South University (CSU), Irvine, California, USA
- Dr. Rafah Almutarreb, School of Computer Science and Technology, Algoma University, Canada
- Dr. Osama Mohamed Anwar Nofal, Emeritus Professor, National Reserch Centre
- Dr. Baratha Dewannara, Bolton University, (UK) (Sri Lankan Branch).
- Dr. Rofrigo jose pablo, Universidad Empresarial De Costa Rica.
- Dr. Resham Kumari, Professor Assistant of Agricultural Zoology, Plant Protection Department, Sohag University-Egypt.
- Abel Tadesse Belle. K, Jigjiga University, Jigjiga, Ethiopia.
- Dr. Osman Ibironke, Abia State University Uturu, Nigeria.
- Professor Mustaf Abdulle, President Green Hope University Somalia.
- Dr. Adeshini Goke Francis, Al-Hikmah University, Ilorin, Nigeria.
- Professor Ibrahim Hussein, Kesmonds Research Institute Uganda.
- Dr. Rajinder Singh Sodhi, Guru Kashi University, Ilorin, Nigeria.
- Dr. Emili Burnley (Canada).
- Dr. Bella Perez, (Canada).
- Dr. Jesica Gate, (France).
- Dr. Habiba Aissatou, (Egypt).
- Prof. Dr. Zahir Shah, Kesmonds Research Institute, Pakistan.
- Professor Hussein Tohow, VC Green Hope University Somalia.
- Mohamed Mustaf Abdulle, DIP. B.Sc. M.Sc. M.Eng. Green Hope University Somalia.
- Dr. Henry N. Fonjock, B.A. ACC. BIS Cert. MBA. Ph.D. Cameroon Cooperative Credit Union.







- Dr. Javnyuy Joybert, MBA. DBA, CEO CELBMD Africa, Douala Cameroon Dr. Asakizi Nji Augustine, University of Bamenda Cameroon.
- Dr. Tateukam Alphonse, Doctor of Clinical Medicine, Kesmonds Research Institute
 Dr. Tatoh Adeline Manjuh, Ph.D. in Healthcare Administration, Limbe Referal Hospital Cameroon.
- Dr. Tchifam Berthe, Ph.D. in Public Health Epidemiology, Faculty of Medicine Garoua
 Cameroon
- Dr. Lukong Hubert Shalanyuy, Kesmonds Research Institute.
- Dr. Kheambo Didier, Ph.D. in Healthcare Administration, Kesmonds Research Institute.
- Dr. Djibrilla Yaouba, World Bank Public Health Development Program Northern Cameroon.
- Dr. Tumi Humphred Simoben, Ph.D. in Public Health, Kesmonds Research Institute.
- Dr. Velinga Ndolok Aimé Césaire, Ph.D. in Public Health Epidemiology, UNDP Public Health Development Program.
- Dr. Baba Batoure, Ph.D. in Health Economics, Director State Registered Nursing School Garoua Cameroon.
- Dr. Nouma Simon Joachim, Ph.D. in Political Economics, Consultant and Auditor Bank of Central African States.
- Eng. Anyangwe C. Anyangom, B.Sc. CCNP. CCNA. COMPTIA A+. JAVA. MSCP M.Sc.
 IT and Innovation Department Kesmonds
 Dr. Kelly Kesten Manyi Nkeh, B.Sc. Dip. MPH. MBBS Jining Medical University, China.
- Dr. Camile Rodriguezz, (Malaysia).
- Dr. Veronica Blade, (Algeria).
- Prof. Ali Usman, (Ethiopia).
- Prof Nana Anabel, (Ghana).
- Dr. Abraham Aziz, (Banglore, India).
- Dr. Rintu Sayak, (India).
- Dr. Rabindra das Sinha, (Chennai, India).
- Dr. Surachita Basu, (Bangalore, India).
- Dr. Asanath Dira, (Cairo, Egypt).
- Dr. Deric Chang Tektook, Iraq.
- Dr. Hossain Johangir, Bangladesh.
- Lect. Danish Armed, Joel Caleb, Uturu.
- Dr. Kabul Amid Aabbasi University of Karachi, Pakistan.
- Dr. Farhat Samreen, Federal Urdu University of Arts, Karachi, Pakistan.
- Dr. Fahid Faryal Yawar, Kabul Polytechnic University, Kabul, Afghanistan.
- Dr. Debashi Panna, India.
- Dr. Ambarish Sachin. bhalandhare, Associate Professor of Economics, India.
- Dr. Ali Zehra Zaida, Guru Kashi University, Bathinda, Punjab.







- Dr. Liela Meta, Malla Reddy Institute of Technology and Science.
- Lect. Fitsum Etefa, Ethiopian Institute of Textile and Fashion Technology [EiTEX], Ethiopia.
- Dr. Uthman Simeon Adebisi, Obafemi Awolowo University, Nigeria.
- Dr. Ranendu Dutta Pukayastha, S.J.N.P.G College, Lucknow, India.
- Prof. Dr. Abubakar Mohammad, University of Technology, Baghdad, Iraq.
- Dr. Toffic Abdel Hassan, Plant Protection Research Institute, Agricultural Research Center.
- Leonard Ake, Maitre-Assistant du CAMES, Enseignant-chercheur a l'Universite Boubacar Ba de Tillaberi.
- Dr. Fadekemi Williams Oyewusi, Imo State Polytechnic, Umuagwo, Nigeria.
- Dr. Francis Onyango (Ph.D.), Nairobi, Kenya
- Lect. T. Christina Mondimu, University of Gondar, Ethiopia.
- Dr.P. Thomas Abraham, Department of Hotel Management, Gondar, Ethiopia.
- Dr. Ilayaraja degu Kathirkaman, Department of Geology, Gondar, Ethiopia.
- Dr. Emmanuel Muhairwa, Dodoma University of Dodoma, Tanzania.
- Dr. (Mrs.) T V Sanjeewanie, General Sri John Kotelawala Defence University, Sri Lanka.
- Dr. Ola Sayed Mohamed Ali, Girls-AL-Azhar University, Cairo.
- Dr. Nazar Hassan, PMAS Arid Agriculture University, Rawalpindi.
- Dr. Mahmoud Magdy Abbas, Plant Nutrution Dept., Dokki, Giza, Egypt.
- Dr. Akinsola Gloria Adedoja.M. Hamed, Department of Mathematics, Yobe State University, Damaturu, Nigeria.
- Dr. Ali Mushin Haji, Dean of College of Science, Al-Karkh University of Science, Baghdad,
 Irag.
- Asst. Prof. Meron Mersha, Quantum Optics, and Information, Arba Minch University, Ethiopia.
- Frederick Mbogo Akoth, PhD, Department of Computer Science and Software Engineering, Bondo, Kenya.
- Dr. R. Francis kaundra DMI- St. Eugene University, Great North Road, Chibombo District, Lusaka, Zambia.
- Dr. Biokgololo Abeltine, Faculty of Commerce & Business Administration, Gaborone university college: Gaborone, Botswana.
- Dr. Obike Godwill Ukamaka, M. Sc, Ph.D., (Medical Microbiology), Jos, Plateau State, Nigeria.
- Dr. Emilia Kheambo, CPA(Z), Senior Lecturer, Faculty of Commerce, GSBM Lecture, Bijay Nera Poudel, Tribhuvan University, Trichandra Multiple Campus, Department of Psychology, Kathmandu, Nepal.
- Dr. Okpala Sunday Ocheni, Assistant Lecturer in the University of Mosul, College of Science, Biology Dep.







- Dr. Ezedimora Louise ocheni, School of Special Education, Federal College of Education,
 Oyo, Oyo State
- Dr. Nzuzi Rafael, Bakhita African Schools, Butembo.
- Assoc. Prof. Ali Abdul- Hussain Ghazzay, Department of Biology, University of AL-Qadisyah, Iraq.
- Asst. Prof. Sabyasachi Pramanik, Department of Computer Science and Engineering, Haldia Institute of Technology.
- Dr. Pawan Thapa, Department of Geomatics Engineering, School of Engineering, Kathmandu University, Nepal
- Assoc. Prof. Surendra Kumar Gautam, Department of Chemistry, Tri-Chandra Campus, Tribhuvan University, Kathmandu, Nepal.
- Dr. Nadia Jamil, Associate Professor, Department of Environmental Sciences, Hazara University, Mansehra.
- Dr. David Dowland, Habibullah Bahar University College, Dhaka.
- Dr. Abdul Hussain, Assistant: Professor, Department of Botany GPGC Parachinar, District Kurram.
- Dr. Khan Aneeka Habib, Associate Professor, College of Business Administration, International University of Business Agriculture and Technology, Dhaka, Bangladesh.
- Dr. Obafemi Emmanuel, Adekunle Ajasin University Akungba Akoko, Ondo State.
- Dr. Nwatu Celestine Chibuzu, Rivers State University, Nigeria.
- Dr. Abrima Francis Post- Doctoral Researcher, American International University West Africa, The Gambia.
- Dr. Desmond Olushola, Microbiology Department, Kogi State University, Anyigba.
- Dr Mubeena Munirl, Oromia State University and Jimma University.
- Dr. Aya Khalil Ibrahim Hassan Moussa, Biological Anthropology Department, Medical Research Division, Cairo, Egypt.
- Dr. Mohammad Usman Awan, Assistant Professor, Centre for Biotechnology and Microbiology, University of Swat.
- Dr. Priyanka Weerasekara, Faculty of Social Sciences & Languages, Sabaragamuwa University of Sri Lanka.
- Dr. Ibrahim Mohammad Almoselhy, Food Science and Technology, Facaulty of Agriculture, Ain Shams University, Cairo, Egypt.
- Dr. Muhammad Faroog, Assistant Professor (Economics) at Okara University, Pakistan.
- Dr. Sujita Darmo, ST., MT Mechanical Engineering, Mataram University, Indonesia.
- Dr. Mochammad Munir Rachman, M.Si., PGRI Adi Buana University Surabaya, Indonesia.
- Dr. Renato Dan A. Pablo II, CSPE, Mabalacat City College.
- Assoc. Prof. SENHADJI.L, Oran University Hospital, Department of Anesthesia- Intensive Care.







- Dr. Abdul Malik, Minhaj University, Lahore, Pakistan.
- Dr. Ngwa Mathias, Faculty of Laws and Political Sciences, University of Dschang, Cameroon.
- Dr. Jason Chishime Mwanza, St. Eugene University, Lusaka, Zambia.
- Dr. Mulani Moshin Anware, Sant Ramdas Art's, Commerce and Science College, Maharashtra.
- Dr. Vijay Ramkisan Lakwal, Department of Zoology, Science and Commerce College Chalisgaon, Jalgaon (MS), India.
- Dr. onodugu Obinna Donatus, Department of Mathematics, Faculty of Physical Sciences Street, Abia State University, Nigeria.
- Dr. Celestine Mulugeta Degu, College of Business and Economics, Wollega University.
- Dr. Wilson Dabuo Wiredu, MOCS, VC Academics Affairs, DMTU, Ghana.
- Dr. Rajat Mrinal Kanti, PhD., D. LITT, Physiotherapist, NIMHANS, Bangalore, India.
- Professor Nicolas Guanzon. Ong, Ph.D., Department of Teaching Languages, University of Science and Technology of Southern Philippines.
- Dr. Onwubere Isabella (Sub-Dean), Samuel Obiajulu University, Osun State, Nigeria.
- Dr. Abhishek. B, Assistant Professor, SRM University, Kattankualthur, Chennai, India Chan Dong Hyun, Bs, Ms, Ph.D., Geology, The Chinese University of Hongkong.
- Prof. Zapryan Assen, Higher School of Security and Economics, Plovdiv.
- Dr. Shehuri Sharon, Department of Botany, Faculty of Biosciences, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.
- Dr. Geofrey Kingibe, Senior Lecturer, Department of Sustainable Agriculture, Tamale Technical University, Tamale.
- Dr. Bashir Zainab, Social Studies Department, Tai Solarin College of Education, Omu-Ijebu, Ogun State, Nigeria.







TABLE OF CONTENTS

The Role of Entrepreneurship Education in Mitigating the Impact of Insecurity in Africa1
Les Politiques Locales d'Assainissement des Déchets au Cameroun: Cas de la Mairie de
Yaoundé VI
Exploring Cultural and Socioeconomic Influences on Learning in Cameroon31
Cognitive and Psychological Impacts of Discrimination in Educational Settings : a
Comparative Study between South Korea and Cameroon
Factors Associated with Late Antenatal Care Booking and Utilization of Antenatal Services
among Pregnant Women in Kumba Baptist Hospital53
Recovery of Medical Costs in Cameroon's Health Facilities : State of Play, Challenges and
Prospects
Water Resource Management in the Mandara Mountains: Inventory of the Diversion Bays
and Impact of Good Practice in Land Use Planning90
Impacts Environnementaux et Socioéconomiques des Déchets de Couches pour Bébé dans la
Commune de Mokolo (Extrême-Nord Cameroun). La Pratique Prédominante des Couches
Lavables
Perceptions des impacts de l'utilisation des pesticides et introduction des biopesticides par les
maraîchers dans la Commune de Mokolo







IQRJ: Volume 004, Issue 002, May 2025 Original Research Article

Recovery of Medical Costs in Cameroon's Health Facilities: State of Play, Challenges and Prospects

Paulin Egor Nkapnang¹, Jean Baptiste Sokoudjou^{2,3}, Fabien Sundjo^{1&4}, Elodie Yamako Konack^{2,3}, Roland Tiagha Akah¹, Elvis Che Penyia¹ and Nji Augustine Asakizi¹

¹ Kesmonds International University

² University of Dschang

³ Département des Sciences Appliquées à la Santé, Institut Universitaire et Stratégique de l'Estuaire (IUEs/Insam

⁴Universty of Bamenda

Abstract:

Corresponding author:

Nji Augustine Asakizi,

Email:asakizinji@kesmonds university.org

Article History

Received: 06/ 02/2025; **Accepted**: 08/ 04/2025; **Published**: 02/ 05/2025

Unique Paper ID: IQRJ-25004006

In Cameroon, the majority of healthcare costs (70%) are borne by households that pay directly at the level of health facilities (HFs). Despite the implementation of new health policies as phase II UHC, individuals continue to support their health expenses through out-of-pocket payments and the non-payment of medical expenses is still a major problem in Cameroonian health facilities. The objective of this work is to study the system of recovery of medical expenses in some HFs in order to propose strategies for improving the management medical fee collection and reduced the problems related to non-payment of medical bills. This study involved 500 people, including 100 health personnel directly involved in the management of medical fees collection (accountants, cashiers, administrative and health staff) and 400 other people (patients and visitors), from the Littoral, Centre and West regions. This was a prospective investigation where the collection technique was by interview (written, semi-directive, face-to-face interview) for staff and by written questionnaire for patients or the general population. The study found that the majority of staff respondents (involved in the recovery of medical expenses) were dominated by people with more than 5 years' work experience (45%) and 9.00% of them believe that medical costs were very expensive. The medical expenses for which unpaid bills were noted are mainly consultation costs (37%), followed by hospitalization costs (32%), medical expenses were paid after the service (19.38%); 4% of respondents paid for them to staff; 38.77% received a manual receipt and stress was the major health problem related to paying medical expenses for 60.82% of participants. The unpaid bills observed does the Cameroonian population endure the result of poverty (27%) as well as the lack of financial means (25%); the high cost of health services coupled with the lack of true Universal Health Coverage also partly explains this situation of unpaid bills. In addition, patients with unpaid bills are held back or pressured to pay their bills before they are allowed to leave hospitals. In order to improve the Cameroonian health system, particularly in terms of health cost management, we recommend the development of a robust and less laborious computerized system for the recovery of medical costs, the awareness of the population on health insurance as well as the optimization of the mechanisms for registering the population in insurance companies. In addition, the costs of medical services should be reviewed and mechanisms for assistance to the indigent should be developed. The implementation of UHC could finally give every Cameroonian citizen the opportunity to access quality health care. In view of all the results and in order to improve the management of the recovery of medical expenses in Cameroonian HFs, we recommend the development of a robust and less laborious computerized system for the recovery of medical expenses. In addition, the costs of medical services should be reviewed and mechanisms for assistance to indigent persons should be further developed.

Keywords: Cameroon, healthcare financing system, medical expenses, patient care quality

To Cite this article:

Paulin. E. N., Jean B.S., Sundjo F., Elodie Y.K., Roland. T.A., Elvis C.P., Nji A.A. (2025). Recovery of medical costs in Cameroon's health facilities: state of play, challenges and prospects. *IQ Research* Vol. 004, Issue 02, 05-2025, pp. 072 - 088







INTRODUCTION

The challenge for the proper functioning of the health system is to improve the quality of life of individuals, families and communities. It is for this reason that the performance of the health system must be at the top of the priorities for government action (Baba-Moussa *et al.*, 2012). However, health systems in Member States in the WHO African Region are struggling to perform their functions effectively due to weakness and fragmentation. The weakness of health systems can be explained by a number of factors, namely: inadequacies in planning and forecasting; the shortage of human, financial and material resources; insufficient data for decision-making; the shortcomings of institutional processes; and weaknesses in monitoring the performance and impact of interventions.

The financing of health services is a recurring topic in health economics. It has taken on particular aspects in developing countries, and in Africa, for a decade. In these countries, user payment systems are developing that partially replace state funding. Very few countries have health insurance systems; in any case, these only cover a small part of the population: civil servants and employees in the modern private sector. In Cameroon, users of the Emergency Reception Services (ERS) of regional and national hospitals (1st, 2nd and 3rd categories) as well as caregivers complain repeatedly about their financial inaccessibility, complaints that are widely relayed by the media. A survey in the ERS of Yaoundé in 2010-2011 revealed that nearly 60% of users find the fees required before care very high (109,237 FCFA on average) (Sieleunou et al., 2010).

Among sub-Saharan African countries, while only 3.1% of people are covered by a social health protection mechanism, Cameroon has the fourth highest household out-of-pocket expenditure estimated at about 475 billion francs per year, accounting for around 70% of total health expenditure (MoPH/WHO, 2022). In the same vein, it

was found that the financial productivity of health facilities is not properly monitored to help an optimal use of public funding. Furthermore, out-of-pocket payments still constitute the main means of getting access to health care and the health system does not yet ensure protection against health risks to all the population (MoPH/HSS, 2016). This common financial condition may exacerbate poverty which may have a direct impact on the patient health status as well as on the functioning of health facilities (HFs).

In some parts of the world, it is common practice for patients to be detained in hospital for non-payment of healthcare bills (Yates *et al.*, 2017). This situation ties in with the statement that in Cameroon, it is very common to find patients unable to pay medical bills being detained; after they have been completely recovered (Asahngwa *et al.*, 2023). The true scale of these hospital detention practices, or 'medical detentions', is unknown, but the academic findings have been suggesting that every year, hundreds of thousands of people are likely to be affected in several sub-Saharan African countries and parts of Asia (Yates *et al.*, 2017).

In most countries, financing is at the centre of efforts to improve health and health systems; and only when resources are mobilized, pooled and spent adequately, efficiently and equitably can all people benefit from sustainable progress towards universal health coverage (UHC) (Ottersen et al., 2017). This ideal, although being implemented in many countries, has not always made it possible to resolve once and for all the issue of unpaid bills in HFs. In the present work, we propose to investigate on the recovery system of medical fees in Cameroonian health facilities (HFs), to investigate on the non-payment of medical fees and related issues including the impact on the functioning of HFs and the quality of inpatient care







METHODS

Location of the study

The present study focused on the health centers (public and private sector) found on the national territory of Cameroon, particularly those in the Littoral, Center and West regions. These are the most populated and diverse regions of the country. The targeted health centers were: West region: Bafoussam Regional Hospital, Djeleng Subdivision medical center, Dschang District Hospital.

Center region: Yaounde Emergency center (CURY), Jamot Hospital, Efoulan District Hospital, *Hôpital de District de la Cité verte*.

Littoral region: Laquintinie Hospital, Bonassama District Hospital, *Hôpital de District de la Cité des palmiers*, Logbaba District Hospital, Nylon District Hospital, Deido District Hospital

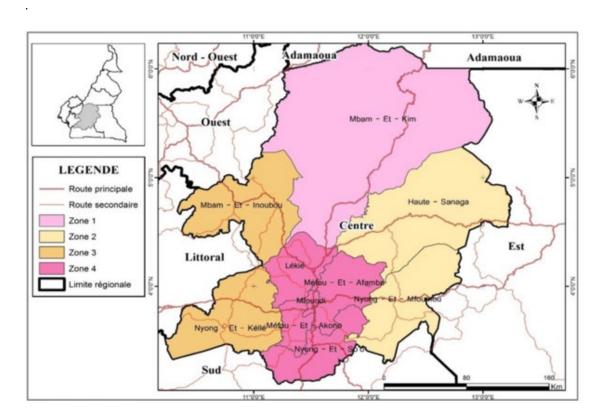


Figure 1: Map of the three study areas,

Type of study and duration

This study was quali-quantitative, with an analytical and prospective purpose and aimed to present the landscape of the medical cost recovery system in Cameroonian health facilities and present the situation of patient's having unpaid bills and how this influence the functioning of HFs and healthcare quality. This study was

carried out over a period of twelve months from April 11, 2022 to March 31, 2023.

Target population

Delimitation of the target

The target of this study was the personnel involved directly or indirectly in recovery, in particular accountants, cashiers, administrative and health







personnel who deal with insolvency cases on a daily basis. Also, patients and visitors to health facilities in Cameroon who can act voluntarily or involuntarily on the medical cost recovery system, including health system actors who can help in the management of the recovery of these costs.

Selection criteria

Inclusion criteria

Any staff (health and management) of health facilities who met at the place of service or outside, who agreed to participate in the survey. Also included were patients (insolvent or not) and visitors involved in the collection system who were present in hospitals at the time of the survey and who were physically and mentally prepared to answer the questions. All respondents were aged 25 or above.

Non-inclusion criteria

All staff, patients and visitors involved in the collection system absent at the time of the survey in the different collection locations and those who, present, were not physically and mentally prepared to answer the questions.

Sampling and sample size

Sampling was non-probabilistic for convenience. The sample is estimated at 500 people (including 400 patients and 100 health personnel) spread across the three regions concerned in Cameroon representing all social categories and combining several actors in the health system, precisely those influencing the recovery of medical costs.

Collection technique

Given that this study was both qualitative and quantitative, we used an interview technique (written, semi-structured interview, face-to-face) for staff and a written questionnaire technique for patients or the general population.

The health staff and health administrators informed us about the causes of non-payment and collection tools, the effects of non-payment of medical bills on the quality of care provided to patients as well as the effects of non-payment of medical bills on the functioning of health facilities. These questions aimed to understand the problem of non-payment of medical expenses, the associated factors in order to optimize the recovery system of medical fees in Cameroonian health facilities.

Data collection tools

We proceeded with a written questionnaire addressed to patients and an interview guide for staff and actors in the health system involved in the recovery or financing of health. Thus, qualitative variables (the culture of the respondents, the region of origin, the neighborhood or village of residence, the level of study, the profession, etc.) and quantitative variables such as income, number of children in care, number of years of experience, cost of services, etc. were put to work.

Ethical considerations

The study was carried out after obtaining:
An investigation authorization issued by the Regional Public Health Delegate

An ethical clearance issued by the University of Douala A collection authorization of the directors of health centers in Cameroon

Informed consent of the various respondents.

Data processing

At the end of the data collection, the results were presented in the form of tables and figures. Data processing was carried out using Microsoft Excel 2016. They were then analyzed using R 4.2.0 software. Correlation tests were performed using R 4.2.0 software by performing ordinal logistic regressions. The differences were considered significant at the 5% threshold; P < 0.05.







RESULTS

Distribution of respondents by type of medical expenses

Figure 2 shows the distribution of respondents by type of medical expense. It can be seen from this figure that the

respondents paid the majority of the consultation fees (n=185, 37%). The medical expenses for which unpaid bills were noted were mainly consultation costs (37%), followed by hospitalization costs (32%), examination costs (23%), and minority operating costs (3%).

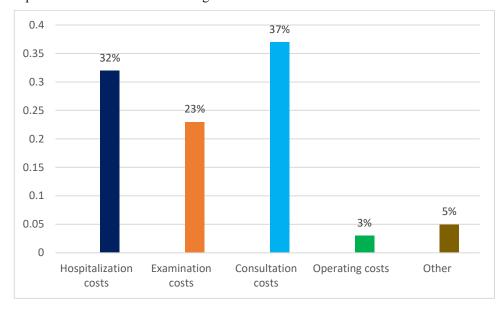


Figure 2: Distribution of respondents according to the type of medical expenses.

Distribution of respondents on the question of: When do you pay medical expenses?

Figure 3 shows the distribution of respondents based on when they pay for medical expenses. According to this figure, the majority of respondents paid medical expenses before the health service, i.e. 65.30% while 19.38% paid after the service.

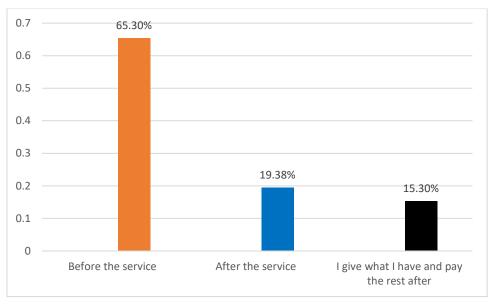








Figure 3: Distribution of respondents on the question of: When do you pay medical expenses?

Distribution of respondents according to where they pay medical expenses

Figure 4 shows the distribution of respondents by where they pay for medical expenses. According to this figure, the majority of respondents paid medical expenses at the cash register, i.e, 96%, while 4% paid to staff.

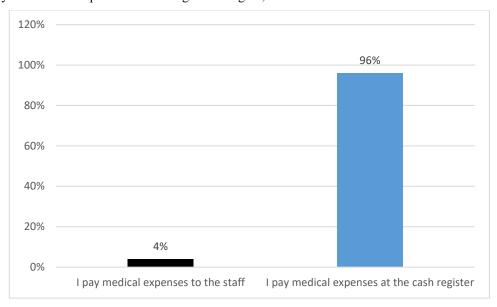


Figure 4: Distribution of respondents according to where they pay medical expenses.

Distribution of respondents according to what is issued to them after payment of medical expenses

The distribution of respondents based on what is issued to them after medical expenses are paid is shown in Figure 5. It can be seen from this figure that the majority of respondents (61.22%) received a computerized receipt after payment at the cash register (n=300) while 38.77% received a manual receipt (n=190).







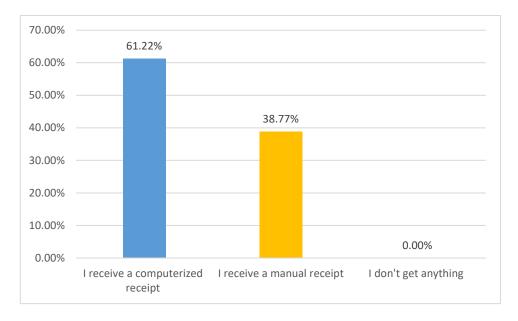


Figure 5: Distribution of respondents according to what is issued to them after payment of medical expenses.

Distribution of respondents based on their opinions on the method of payment

The distribution of respondents based on their opinions on the method of payment is shown in Figure 6. It can be seen from this histogram that the majority (43.87%) of respondents found this payment method fast while 33.67% respondents found this payment method slow.

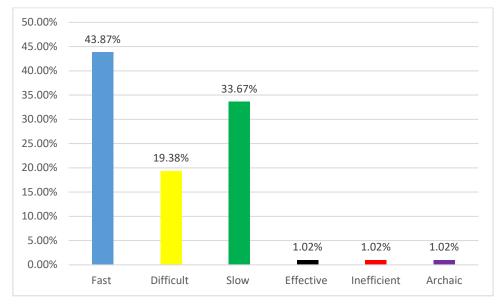


Figure 6: Distribution of respondents based on their opinions on the method of payment.

What are the health problems related to the payment of your medical expenses?

Health problems related to the payment of medical expenses are presented in Figure 7. It appears from this

graph that the majority of respondents think that stress is the major health problem related to the payment of their medical expenses, i.e., 60.82%; while 23.71% of







respondents justify this situation by the worsening of the disease.

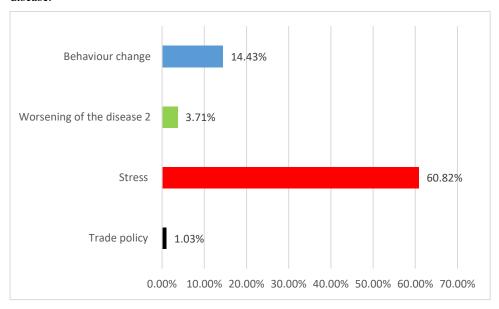


Figure 7: What are the health problems related to the payment of your medical expenses?

Distribution of respondents according to their knowledge of the perpetrators of the problems encountered during the payment of medical expenses

Respondents' views on who may be responsible for problems encountered in the payment of medical expenses are summarized in Figure 8. It appears from this

figure that the majority of respondents (67%) believe that other patients are the perpetrators of these problems, while only 29% of participants think that they themselves are responsible for the problems encountered during the payment of medical expenses.

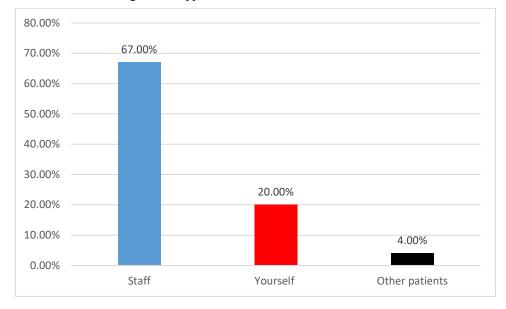


Figure 8: Distribution of respondents according to their knowledge of the authors of the problems encountered during the payment of medical expenses.







Distribution of respondents based on their views on how to facilitate the payment of outstanding bills of patients.

Table 1 shows the distribution of respondents based on their views on the steps to be taken to facilitate the payment of outstanding bills by insolvent patients. It appears from this table that 48.6% of respondents think

that the solution to facilitate the payment of unpaid bills by insolvent patients is the modernization of the system. Of the participants in this study, 22.0% think that staff training would be the solution to facilitate these payments.

Table 1: Distribution of respondents based on their views on how to facilitate the payment of outstanding bills by insolvent patients.

Notice to facilitate the payment of unpaid patient bills	Number of	Percentage
	respondents	(%)
Staff training.	110	22,0
Modernization of the payment system	240	48,0
Reduce collection methods	111	22,2
By introducing health vouchers to allow everyone to be treated	11	2,2
Health coverage for all	16	3,2
Reducing hospitalization costs	6	1,2
Communication for behaviour change	6	1,2
Total	500	100

Distribution of health system staff and actors according to their socio-demographic characteristics

Table 2 presents the socio-demographic characteristics of the medical recovery staff in this study. It emerges that the respondents made up of health personnel (involved in the recovery of medical expenses) were mainly dominated by people with more than 5 years' professional experience (45%). The majority were male (64%); Similarly, the majority were married (64%).







Table 2: Distribution of participants according to their socio-demographic characteristics.

Variables	Terms	Number of	Percentage (%)
		respondents	
Geographical area	West	25	25
(Region)	Littoral	40	40
	Centre	35	35
Sex	M	64	64
	F	36	36
Marital status	Single	31	31
	Married	55	55
	Cohabitation	12	12
	Divorced	2	2
Occupation	Accountang	36	36
	Cashiers	30	30
	Administrative staff	16	16
	Medical and health personnel	11	11
	Head of recruitment office	7	7
Level of education	Secondary	25	25
	Academic	75	75
Number of years of experience	Less than a year	3	3
	1 year	8	8
	2 years	7	7
	3 years	12	12
	4 years	25	25
	5 years and up	45	45

Distribution of staff and health system actors according to medical cost recovery instruments

The instruments for recovering medical costs are distributed in Table 3. It can be seen from this table that







medical bills were paid much more by cash (63%) or by cash and transfers (23%).

Table 3: Distribution of cost recovery staff according to medical recovery instruments.

Collection instruments	Number of	Percentage (%)
	respondents	
Cash	63	63
Cheques	9	9
Wire transfer	5	5
Cash and transfers	23	23
Total	100	100

Causes of non-payment of medical expenses as mentioned by staff and actors in the health system

Table 4 shows the distribution of respondents by reason for non-payment of medical expenses. It appears from this table that poverty (27%) and lack of finance (25%) are the major causes of the non-payment of

medical expenses in Cameroonian health facilities. Nonsubscription to health insurance (17%) is also a key determinant of non-payment of medical bills, and the same is true for medical bills that are often high (9%).

Table 4: Distribution of cost recovery staff according to the causes of non-payment of medical expenses.

Causes of non-payment	Number of	Percentage (%)
	respondents	
Poverty	27	27
Lack of employment	9	9
Lack of finance	25	25
Non-subscription to health insurance	17	17
Medical bills are very expensive	9	9
Patients are not satisfied with the care	7	7
provided		
Bad faith of patients	4	4
Don't know	2	2
Total	100	100

Effects of non-payment of medical fees on the functioning of health facilities

Table 5 shows the influence of non-payment of medical expenses on the functioning of health facilities. It appears from this table that the majority of respondents

(40%) admit that the non-payment of medical expenses leads to a lack of equipment due to the non-payment of suppliers. In addition, 18% of respondents say that it leads to a drop in revenue and a delay in the renewal of equipment while 15% say that it leads to cash flow problems/a drop in cash flow.

Table 5: Relating to the influence of non-payment of medical expenses on the functioning of health facilities (HFs).







Effects of non-payments on the functioning of HFs	Number of	Percentage
	respondents	(%)
A lack of equipment due to non-payment of suppliers	40	40
Cash flow problem/a drop in cash flow	15	15
Drop in revenues, delay in the renewal of equipment	18	18
Failures in care can be observed.	12	12
Non-payment leads to the ruin of the hospital	10	10
No opinion	05	05
Total	100	100

Effects of medical cost recovery following staff response and strategy to improve the situation of unpaid bills

Effects of paying medical fees on the quality of patient care

The distribution of medical cost recovery staff according to the effects of the payment of medical costs

on the quality of care is shown in Table 6. It emerges that according to 54% of respondents, the payment of medical expenses allows for the resupply of medicines and good patient care; 25% of them think that this allows for good availability of care.

Table 6: Relating to the influence of the payment of medical expenses on the quality of care provided to patients.

Effect on quality of care	Number of respondents	Percentage (%)
This improves the quality of care	16	16
This allows for the replenishment of medicines and good	54	54
patient care		
This allows for good availability of care	25	25
This allows for a good recovery of the patient	03	03
No answer	02	02
Total	100	100

What happens to patients with unpaid bills? / Future of patients with unpaid bills according to the response of the staff

The future of patients with unpaid bills as cited by health care personnel are presented in Table 7. It appears that insolvent patients are subject to forced recovery before

Table 7: Relating to the future of patients with unpaid bills.

the establishment of a definitive discharge from the hospital according to the majority of the staff (45%). In addition, 30% of the staff say that they are held in the HFs and sometimes in precarious conditions. According to 15% of respondents, patients with unpaid bills become insolvent, escapees, so we cannot continue to provide care.







Future of insolvent patients	Number respondents	of	Percentage (%)
They are retained in the HFs	30		30
They are subject to forced recovery before a definitive discharge from hospital is established	45		45
They are sent to the hospital's social services	3		03
Patients with unpaid bills become insolvent, escapees, so we cannot continue to provide care	15		15
These patients flee (leave the hospital without medical advice)	07		07
Total	100		100

Strategy for improving the quality of medical fees management following discussions with staff

The distribution of staff according to the strategy for improving the quality of collection management is shown in Table 8. It emerges that the majority of respondents, i.e. 27%, proposed to set up a mechanism in each department allowing patients to be informed about the evolution of unpaid bills. Moreover, 24% of respondents think that the implementation of Universal Health Coverage (UHC) in HFs would solve the problem of recovery and non-payment of medical expenses; while 16% of respondents believe that the solution to non-payment is to reduce the costs of health services and develop social protection mechanisms.







Table 8: Relating to the strategy for improving the quality of the management of the recovery of medical expenses.

Strategy for improving the quality of the management of the	Number of	Percentage (%)
recovery of medical expenses	respondents	
Establish a mechanism in each department allowing patients to be informed about the evolution of unpaid bills	27	27
Management of certain cases (indigent)	12	12
Good registration of patients' names, poor registration allows some patients not to recognize their debts	11	11
Reducing the costs of health services or developing social protection mechanisms	16	16
Implementing UHC in HFs	24	24
Need for constant billing of management staff	10	10
Total	100	100

DISCUSSION

community-based study of households in Cameroon's 10 regions, Njoumemi et al. (2023) showed that the health insurance coverage rate was only 2.06% where urban dwellers were significantly more likely to be covered (1.54%) than people living in rural areas (0.51%). This result suggests that individuals continue to cover their health care expenses by paying out of pocket. It should be noted that the problem of uninsured is not typical of developing countries such as Cameroon because there is a large and growing uninsured population in the United States. For example, a study conducted in the United States showed that after reaching a nadir of 28.7 million (8.9% of the population) in 2016, the number of uninsured people is expected to reach 37.2 million (10.6% of the population) by 2028 (Keehan et al., 2020). In addition, in a systematic review study investigating the effect of health insurance on the use of health services, Shami et al. (2019) showed that insured persons increased the rate of health service utilization, depending on the type of health services. These authors suggested that health policymakers consider communitybased health insurance as a priority for health programs; Finally, these authors proposed that the implementation of universal health insurance should remain a good solution.

Regarding the payment problems encountered by respondents, it appears that 33.67% of respondents think that administrative slowness is a payment problem, this result corroborates those of Nkapnang and Simo (2022) who previously showed that the main difficulty related to the recovery of health costs was administrative slowness (64.67%) and that the non-payment of medical expenses was due to poverty (48.67%). In Cameroon, the majority of health costs (70.6%) are borne by households, which pay directly for these services at the level of health facilities (MINSANTE, 2012).

Indeed, the Cameroonian government recognizes that the major problem of the health system is its weak capacity to meet the socio-health needs of the population and to contribute to the development of healthy and productive human capital. While waiting for certain pathologies to be covered by Universal Health Coverage (UHC), the







government continues to promote targeted demand that is free of charge or subsidized by certain populations, in particular through the Health Voucher, obstetric kits and mutual health insurance (MoPH/HSS, 2016). In this study, 24% of health workers believe that implementing UHC in HFs would solve the problems of recovery and non-payment of medical expenses; while 16% of respondents think that the solution to unpaid bills is to reduce the costs of health services and develop social protection mechanisms. The Cameroonian state is striving as much as it can to meet the expectations of Cameroonians, particularly in terms of health and is on its way to the implementation of UHC: It should be noted that during a meeting between the Minister of Public Health and the technical and financial partners of health; meeting held on 25 October 2023 (six months after the launch of UHC Phase I), there are remarkable figures: 2,028,947 pre-enrolled people and 1,415,265 enrolled people who are already receiving UHC care.

In this study, the majority of respondents (65.30%) paid medical fees before the service while 19.38% paid after the service. In addition, the majority of respondents paid medical expenses at the cash register, i.e. 96%, while 4% paid to staff. Many solutions have been developed in both developed and developing countries to limit and reduce these direct expenses by the patient and weighing on the latter. Indeed, the study by Jalali et al. (2021) presents the use of cost-effective research to determine price ceilings, dental coverage in health insurance packages, drug price control strategies, and online video consultation as some of the strategies implemented in developed countries. But developing countries have implemented strategies, such as government support for public health insurance programs, subsidy programs for diseases with a high economic burden, training doctors, eliminating informal payments, and discharging patients early. Strategies such as free testing programs, universal health coverage, payfor-performance, promoting the quality of health care services, and replacing brand-name drugs with generic drugs are common in both developed and developing countries (Jalali *et al.*, 2021).

Living in hospital detention after receiving treatment is an economic, social and psychological burden on patients. It has been shown by Asahngwa et al. (2023) that economically, this has exacerbated poverty: patients unable to buy food, medicine, and clothing due to lack of jobs and financial support. Socially, many of these people suffered from isolation, loneliness, shame, stigma, the risk of contracting other diseases and precarious sleeping conditions; their psychological burden was composed of stress, depression, trauma, nightmares, and suicidal thoughts (Asahngwa et al., 2023). These results corroborate those of the present study, which showed that stress was the major health problem related to paying medical expenses for 60.82% of participants. Moreover, Universal Health Coverage (UHC) cannot be achieved while people are experiencing financial hardship due to their inability to pay for health care, so by definition, any country that allows medical detention is failing and cannot achieve UHC (Yates et al., 2017). Health and well-being are an integral part of the Sustainable Development Goals. In fact, health is one of the main factors in human development and poverty reduction. Good health is essential for sustainable development. About 1.6 billion people live in dangerous environments without access to basic health services. Indeed, 400 million people do not have access to health services (40% of the world's population has no social protection) (UNDP, 2024). In addition, with rapid urbanization, imperfect health systems, and weakened ecosystems, many health threats are emerging (e.g., the recent Ebola outbreak and the COVID19 pandemic) or would arise.

Regarding the fate of patients with unpaid debts, it appears that insolvent patients are subject to forced recovery before the establishment of a definitive discharge from the hospital according to the majority of the staff (45%). In addition, 30% of the staff say that they







are held in the HFs and sometimes in precarious conditions. These findings are consistent with the Asahngwa et al. (2023) study which shows that in Cameroon it is very common to find patients detained in hospital for non-payment of medical care bills. These patients may be held in hospital "jails" until payments are made. Even the corpses of patients who die with unpaid medical bills can be held until their family members pay off the debt. (Yates et al., 2017) add that these detentions take place in public and private medical facilities, and that there appears to be widespread societal acceptance in some countries of the presumed right of health care providers to imprison vulnerable people in this way. These authors (Yates et al., 2017) recall that the practice of detaining people in hospitals for non-payment of medical bills constitutes a denial of international human rights standards, including the right not to be imprisoned as a debtor and the right to access medical care. Asahngwa et al. (2023) finding showed that the length of stay in detention ranged from 1 week to more than 52 weeks in the Fundong Health District in Cameroon. Notwithstanding these practices, "To ensure that the Cameroonian population benefits from quality health care accessible to all" remains the wish of the President of the Republic during his address to the Nation on December 31, 2017.

When asked about the effects of paying medical fees on the quality of patient care, 54% of respondents said that paying for medical expenses allows for the replenishment of medicines and good patient care; Regarding the influence of non-payment of medical bills on the functioning of HFs, it appears that the majority of respondents (40%) admit that the non-payment of medical bills leads to a lack of equipment due to the non-payment of suppliers. In addition, 18% of respondents say that this leads to a drop in revenue and a delay in the renewal of equipment. These results suggest that the non-payment of medical fees, coupled with a lack of resources, handicaps the normal functioning of HFs. For

example, a study conducted in 108 healthcare facilities in New York State (Akinleye *et al.*, 2019) showed that a hospital's financial performance is associated with a better patient-reported care experience. In addition, the results of this study suggest that financially stable hospitals are better able to maintain highly reliable systems and provide ongoing resources for quality improvement.

CONCLUSION

The medical expenses for which unpaid bills were noted are mainly consultation costs (37%), followed by hospitalization costs (32%), medical expenses were paid after the service (19.38%); 4% of respondents paid for them to staff; 38.77% received a manual receipt and stress was the major health problem related to paying medical expenses for 60.82% of participants. The unpaid bills observed are the result of poverty (27%) as well as the lack of financial means (25%) endured by the Cameroonian population; the high cost of health services coupled with the lack of true Universal Health Coverage also partly explains this situation of unpaid bills. In addition, patients with unpaid bills are held back or pressured to pay their bills before they are allowed to leave hospitals. In order to improve the Cameroonian health system, particularly in terms of health cost management, we recommend the development of a robust and less laborious computerized system for the recovery of medical costs, the awareness of the population on health insurance as well as the optimization of the mechanisms for registering the population in insurance companies. In addition, the costs of medical services should be reviewed and mechanisms for assistance to the indigent should be developed. The implementation of UHC could finally give every Cameroonian citizen the opportunity to access quality health care.







REFERENCES

- Baba-Moussa A, Pathé Barry S, Dramé K. 2012, «
 Renforcement des systèmes de santé dans les pays
 de la région africaine de l'OMS: Répondre au défi
 »; Bureau régional de l'OMS pour l'Afrique,
 Brazzaville. Health Systems and Reproductive
 Health. 14:1-13.
- Sieleunou, Keugoung et Yumo. 2010. Health care financing in Cameroon: Trends analysis and overview of main challenges.
- MoPH/WHO. Rapport sur les comptes nationaux de la santé 2018-2019 au Cameroun. Yaounde, Cameroun. 2022.
- MoH (Ministry of Public Health). 2016. Health Sector Strategy 2016-2027.
- Ottersen T, Elovainio R, Evans DB, McCoy D, Mcintyre D, Meheus F, Moon S, Ooms G, Røttingen J-A. 2017. « Towards a coherent global framework for health financing: recommendations and recent developments ». Health Economics, Policy and Law, 12(2): 285–296.
- Yates R, Brookes T, Whitaker E. 2017. Hospital Detentions for Non-payment of Fees A Denial of Rights and Dignity. Chatham House, The Royal Institute of International Affairs. ISBN 978-178413-240-8.
- Asahngwa C, Kibu OD, Ngo NV, Ngwa W, Muenyi CS, Zalamea NN, Gobina RM, Nkwi P, Foretia DA. 2023. Hospital Detention for the Inability to Pay: A Qualitative Study of Patient Experiences in Cameroon. Journal of Surgical Research, 290: 257-265.
- Njoumemi Z, Fadimatou A, Ntavoua SH, Mongbet O, Manouore R. 2023. Health Insurance Coverage and

- Its Socioeconomic and Demographic Determinants in Cameroon. International Journal of Health Economics and Policy, 8(2): 44-56.
- Keehan SP, Cuckler GA, Poisal JA, Sisko AM, Smith SD, Madison AJ, Rennie KE, Fiore JA, Hardesty JC. 2020. National health expenditure projections, 2019–28: expected re-bound in prices drives rising spending growth. Health Aff (Millwood), 39(4):704-714.
- Nkapnang PE, Simo NMN. 2022. Gestion du recouvrement des frais médicaux dans le service des urgences d'un hôpital public de la ville de Douala. PanAfrican Medical Journal, 41(267): 1-10.
- MINSANTE (Ministère de la Santé Publique). Comptes Nationaux de la Santé 2012. 2012.
- Jalali FS, Bikineh P, Delavari S. 2021. Strategies for reducing out of pocket payments in the health system: a scoping review. Cost Effectiveness and Resource Allocation, 19(47):1-22.
- Shami E, Tabrizi JS, Nosratnejad S. 2019. The Effect of Health Insurance on the Utilization of Health Services: A Systematic Review and Meta-Analysis. GMJ. 8:e1411:1-10.
- UNDP, 2024. https://www.undp.org
- Akinleye DD, McNutt L-A, Lazariu V, McLaughlin CC.

 2019. Correlation between hospital finances and quality and safety of patient care. PLoS ONE 14(8):
 e0219124. https://doi.org/10.1371/journal.pone.0219124