

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Customer Satisfaction With Laboratory Services At The Abidjan Cardiology Institute.

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ABSTRACT

Medical laboratory services are vital to quality healthcare, providing crucial data for diagnosis, treatment, and disease prevention. This study assessed client satisfaction at the Abidjan cardiology institute, focusing on accessibility, service quality, and result management. A survey of 300 participants showed high satisfaction levels, with 77.8% finding the institute easily accessible and 91.9% satisfied with operating hours. Reception quality and sample collection processes were highly rated, with 98.9% and 99.3% satisfaction, respectively, particularly in hygiene standards. However, 12.4% of clients expressed dissatisfaction with result delays, and 14.2% were dissatisfied with emergency handling. Overall satisfaction stood at 92.9%, though awareness of complaint forms was low, at just 37%. Recommendations included improving result timeliness, emergency response, staff training, and expanding services. These findings emphasize the importance of enhancing communication and optimizing services to further improve client experiences at Abidjan cardiology institute.

Keywords : Satisfaction, Laboratory, Abidjan Cardiology Institute, Quality,

<https://doi.org/10.33887/rjpbcs/2025.16.1.11>

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INTRODUCTION

Medical laboratory services play a central role in quality health systems, providing essential data for the diagnosis, treatment and prevention of diseases [1]. A functional and sustainable service is essential to meet the needs of the health system, including surveillance and public health policy development [2]. Client satisfaction, defined as the perception of the care received in relation to expectations, is a key indicator of service quality [3]. Satisfied patients are more likely to adhere to their treatment, take an active role in their care, and continue to use medical services, contributing to better clinical outcomes [4]. Conversely, dissatisfaction can lead to treatment dropouts and poorer health outcomes [4-6].

WHO highlights the importance of assessing various aspects of services, such as their reliability, responsiveness and the ability of providers to meet expectations [7,8]. In the clinical laboratory, monitoring patient satisfaction is a fundamental criterion for quality management, required by standards such as ISO 15189 and ISO 17025 [7,8].

The Institut de Cardiologie d'Abidjan (ICA) is a medical institution of paramount importance in Côte d'Ivoire, specializing in the management of cardiac pathologies. The quality of services provided by the laboratory of this institute plays a crucial role in the overall effectiveness of its operations. The medical biology laboratory holds a pivotal position in the care of patients within a hospital setting [1,2]. Indeed, the quality of its services directly impacts the speed and accuracy of the treatments administered to patients [4]. A study shows that satisfied customers are not only more loyal, but also more willing to pay for services, thus strengthening the sustainability of laboratories [9].

Patient satisfaction is a pillar of healthcare quality and reflects their perception of the services received in relation to their expectations, playing a key role in the continuous improvement of medical practices [10]. In a laboratory, the relationship between service quality and the experience lived reinforces customer satisfaction, creating a virtuous circle between perceived quality and satisfaction [10-12]. Indeed, satisfaction with the services provided by the laboratory serves as a critical indicator of the quality of the results it delivers [10-12]. However, such data is scarce in Côte d'Ivoire. Recognizing this gap, we aimed to assess the satisfaction of the laboratory's clients at the Institut de Cardiologie d'Abidjan, an institution accredited to ISO 9001 standards. This study is part of a continuous quality improvement effort to measure the level of satisfaction among laboratory users while identifying weaknesses to propose areas for improvement. Thus, the objective of this work is to evaluate the overall satisfaction of ICA laboratory clients. The satisfaction criteria were defined based on various aspects such as accessibility, opening hours, the quality of reception, sampling conditions, the transmission of results, and overall satisfaction. This study thus provides a comprehensive view of the strengths and areas for improvement to ensure quality service and meet the expectations of different stakeholders.

MATERIAL AND METHOD

Study Population

The study focused on a total of 300 external clients, including both patients and their relatives, who were utilizing laboratory services. This diverse group offers a broad perspective on user satisfaction, providing valuable insights into areas that require attention and improvement. Their feedback serves as an indicator of the quality and reliability of the laboratory's services, helping to gauge the overall level of satisfaction among the clientele.

Survey Tools

The evaluation was conducted using a structured questionnaire that combined both closed and open-ended questions.

- Closed-ended questions: These questions were designed to gather quantitative data, which allowed for the calculation of satisfaction rates and the identification of measurable trends within the responses.
- Open-ended questions: These provided a platform for qualitative insights, capturing detailed suggestions, opinions, and personal experiences from the participants. This aspect of the survey helped to enrich the understanding of client satisfaction beyond mere numbers.

Survey Methodology

Survey forms were distributed to the participants, with closed-ended questions evaluated on a scale from 1 to 5 with 1: Very dissatisfied ; 2: Dissatisfied ; 3: Moderately satisfied ; 4: Satisfied ; 5: Very satisfied. A dissatisfaction rate exceeding 10% was considered significant and flagged for corrective action to improve service quality.

Evaluation Criteria

The evaluation concentrated on several key criteria to assess the overall client experience:

- Client profile: Including demographic factors such as gender, age, and origin.
- Accessibility and opening hours: Examining how easy it was for clients to access the laboratory services.
- Quality of reception: Assessing the level of service provided upon arrival.
- Sampling conditions and quality: Evaluating the conditions under which samples were taken and their overall quality.
- Transmission of results: Reviewing the efficiency and accuracy of the results' delivery.
- Overall satisfaction: A general measure of client satisfaction with the laboratory's services.

Data Analysis

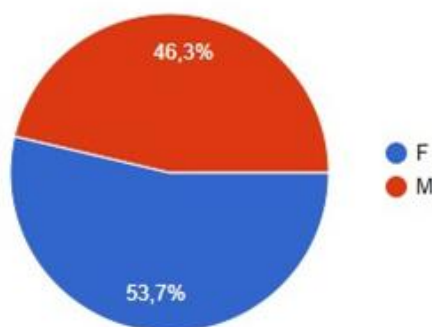
Quantitative responses were analyzed to determine satisfaction rates and identify emerging trends across various aspects of the laboratory's services. Meanwhile, qualitative feedback was categorized into key themes, providing context to the numerical findings and offering a more comprehensive understanding of client experiences. This dual approach enabled a thorough analysis, highlighting both strengths and areas needing improvement in the laboratory's service offerings.

RESULTS

Client Profile

The survey encompassed a diverse population of laboratory users. Of the 300 respondents, 53.7% were female, and 46.3% were male (Figure 1). The age distribution revealed that the majority (41.9%) fell within the 35 to 50-year age group, followed by those aged 18 to 35 years. Regarding patient origin, 51% accessed the laboratory through ICA consultations, while others came from external sources or emergency services.

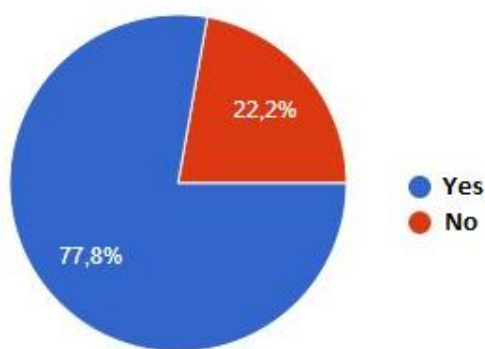
Figure 1 : Gender distribution.



Accessibility and Opening Hours

A significant proportion of respondents (77.8%) reported that the laboratory was easily accessible, although 22.2% identified challenges related to location or transport (Figure 2). The laboratory's opening hours were deemed suitable by 91.9% of participants, reflecting a generally positive perception of service availability.

Figure 2 : Accessibility ratings.



Quality of Reception

The quality of reception received high satisfaction rates. A total of 90.6% of clients were satisfied with the waiting times (Figure 3). It should be noted that, although 86.4% expressed satisfaction with telephone interactions, of these, almost half (40.9%) were moderately satisfied (Figure 4). The friendliness and professionalism of the reception staff were praised, with 98.3% satisfaction, while confidentiality measures garnered 98.1% approval. Cleanliness of the waiting area also achieved a near-universal satisfaction rate of 99%.

Figure 3 : Satisfaction with reception waiting time.

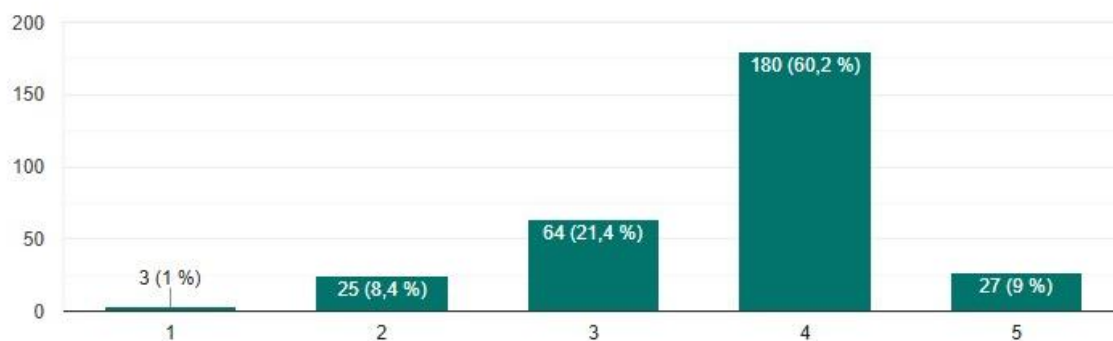
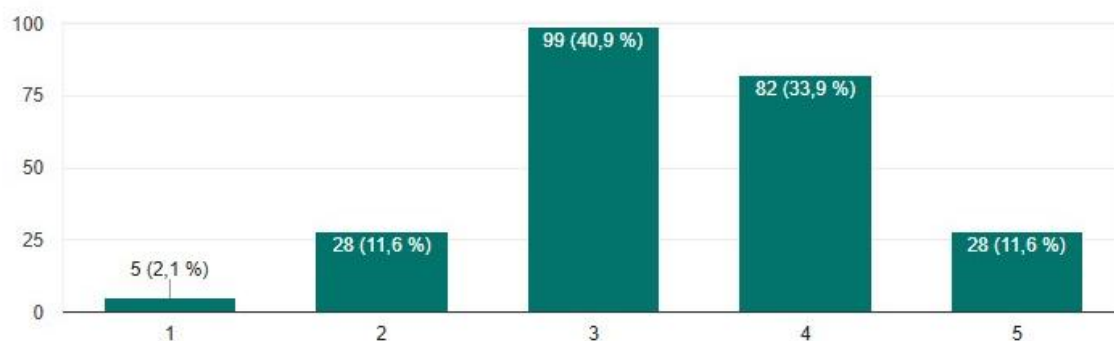


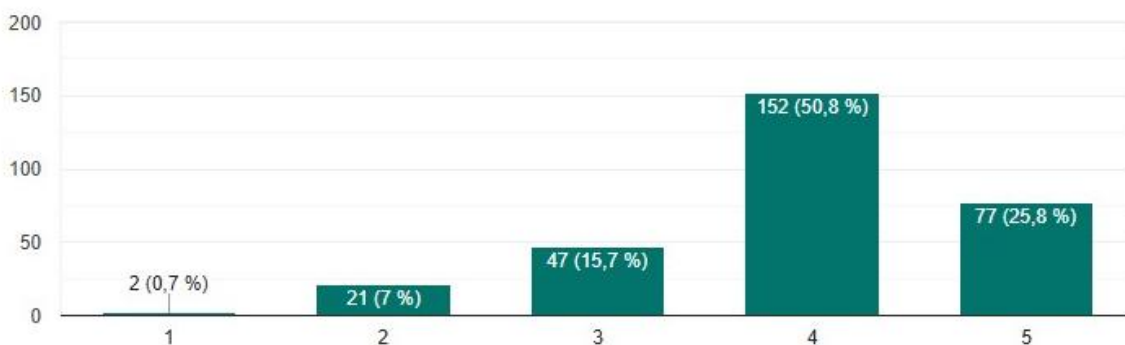
Figure 4 : Customer satisfaction with telephone reception.



Sampling Quality

Sampling services were highlighted as a major strength. Satisfaction with waiting times for sampling was reported by 92.3% of respondents (Figure 5). The sampler's demeanor and professionalism received a remarkable 99.3% approval rate, and hygiene standards were commended by 99.7% of participants. Similarly, the cleanliness of the sampling rooms achieved a near-perfect satisfaction score.

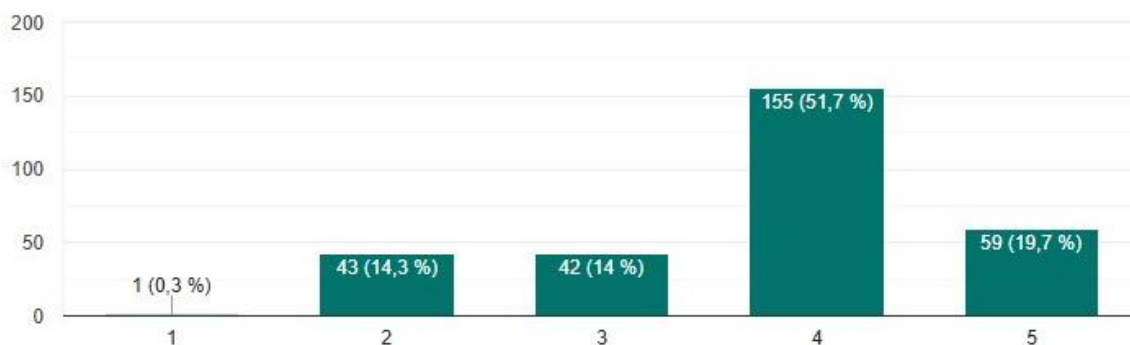
Figure 5 : Satisfaction with sampling waiting time.



Transmission of Results

Despite overall positive feedback, the transmission of results emerged as an area needing improvement. While 85.4% of clients were satisfied with the turnaround time for results, 14.6% expressed dissatisfaction (figure 6). The readability of test results was rated highly, with a 97.7% satisfaction rate. However, biologist availability for result validation achieved 88.7%, leaving room for improvement. Emergency handling was positively rated by 85.8% of respondents, but some clients highlighted delays in critical situations.

Figure 6 : Turnaround time satisfaction levels.



Overall Satisfaction

The overall satisfaction rate stood at an impressive 92.9%. While clients generally appreciated the quality of services, notable areas of dissatisfaction included limited awareness of complaint mechanisms (37% of clients knew about the existence of complaint forms) and occasional delays in service delivery (figure 7). Suggestions for improvement included expanding laboratory capacity, optimizing response times, and enhancing emergency handling procedures. The main results of this study are summarized in the Table 1.

Figure 7 : Customer awareness of the existence of complaint forms.

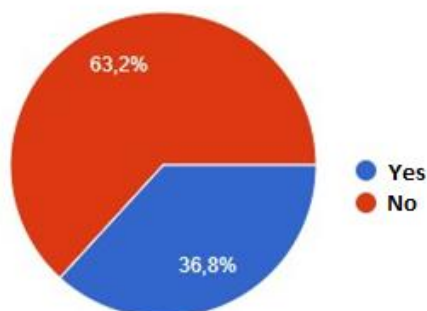


Table 1: Summary of Satisfaction Criteria.

Criteria	Satisfaction Rate
Reception Quality	98.9%
Sampling Hygiene	99.7%
Turnaround Time	85.4%
Overall Satisfaction	92.9%

DISCUSSION

The findings of this study highlight both the strengths and areas for improvement in the services provided by the ICA laboratory. High satisfaction levels across several criteria, such as the professionalism of staff, cleanliness, and adherence to hygiene standards, demonstrate the laboratory's commitment to delivering quality services. These strengths are crucial in building trust among clients and ensuring the laboratory's reputation as a reliable medical institution.

Strengths

The results emphasize significant strengths in the laboratory's operations. The exceptional satisfaction rates for staff professionalism (98.3%) and cleanliness of both waiting and sampling areas (99% and 99.7%, respectively) underscore the laboratory's adherence to high standards. These elements contribute to a positive patient experience and reinforce the laboratory's ISO 9001 accreditation.

Sampling services received notable praise, with respondents appreciating both the efficiency of the process and the demeanor of the sampling personnel. The high satisfaction with hygiene standards aligns with the expectations of a medical facility, further enhancing patient confidence in the quality of services provided.

These findings are consistent with similar studies conducted in other healthcare settings. For example, research conducted in Ghana's teaching hospitals emphasized the role of well-trained and professional staff in maintaining high patient satisfaction levels, reinforcing the importance of these factors in the ICA's success [13].

Areas for Improvement

While overall satisfaction was high, the study identified specific areas requiring attention. The dissatisfaction with result turnaround times (14.6%) indicates an opportunity to streamline processes and reduce delays. This issue was further highlighted by qualitative feedback, where respondents expressed the need for faster processing and better communication regarding result availability.

Emergency handling emerged as another area of concern, with 14.2% of respondents dissatisfied. This points to a need for improved protocols and resource allocation to address urgent cases more effectively. Similarly, the availability of biologists for result validation was identified as a bottleneck, suggesting the need for additional staffing or reorganization of workflows.

Comparable issues have been observed in other studies. For instance, a systematic review of laboratory services in low- and middle-income countries (LMICs) found that delays in result turnaround times and inadequate emergency handling were common challenges, underscoring the need for systemic improvements [14]. Additionally, the availability of specialists for timely validation was highlighted as a persistent gap in several laboratories across Sub-Saharan Africa, which aligns with the ICA laboratory's findings [15].

A notable finding was the limited awareness of complaint mechanisms, with only 37% of clients aware of the existence of complaint forms. This highlights a communication gap that could be bridged through awareness campaigns and visible signage within the facility. Similar gaps have been reported in other healthcare institutions, where patient feedback systems were underutilized due to lack of awareness, suggesting that this is a broader issue that requires targeted interventions.

Integration of Quantitative and Qualitative Data

The qualitative feedback collected through open-ended questions provided valuable insights that complemented the quantitative findings. For example, comments such as "review waiting time for results" and "quickly take care of urgent cases" underscore the numerical dissatisfaction observed in these areas. Similarly, suggestions to expand laboratory capacity and improve seating arrangements align with the broader themes of accessibility and infrastructure improvements.

Recommendations

Based on these findings, several recommendations can be made:

- **Process Optimization:** Streamline result processing workflows to reduce turnaround times and improve communication with clients.
- **Enhanced Emergency Handling:** Allocate additional resources and refine protocols to better manage urgent cases.
- **Increased Biologist Availability:** Consider hiring additional biologists or optimizing their schedules to ensure timely validation of results.
- **Awareness Campaigns:** Improve communication regarding complaint mechanisms and other client services through visible signage and informational materials.
- **Infrastructure Improvements:** Expand seating arrangements and address accessibility challenges to enhance client comfort.

By addressing these areas, the ICA laboratory can build on its existing strengths while ensuring continuous improvement in service delivery. Notably, the recommendations align with global best practices in laboratory quality management, as outlined in studies from other LMICs and international quality frameworks. This will not only enhance client satisfaction but also reinforce the laboratory's standing as a leader in medical diagnostics in Côte d'Ivoire.

CONCLUSION

This evaluation revealed high overall satisfaction (92.9%) among Abidjan cardiology institute laboratory clients, underscoring its commitment to quality. However, addressing issues like result delays, emergency handling, and complaint awareness is crucial for further improvement. Implementing the recommendations will enhance client experiences, strengthen trust, and position the laboratory as a leader in medical diagnostics in Côte d'Ivoire. Future efforts should focus on integrating client feedback into continuous quality improvement initiatives to sustain and enhance service excellence.

ACKNOWLEDGEMENTS

We express our gratitude to the management of the Abidjan Institute of Cardiology for their permission to conduct this study.

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