

# Employee absenteeism at the University Teaching Hospital of Kigali in Rwanda, 2020

Emmanuel Munyaneza<sup>1,\*</sup>, Emmanuel K. Rusingiza<sup>1,2</sup>, Belson Rugwizangoga<sup>1,2</sup>, Marianne Munyarugerero<sup>3</sup>, Devotha Mukarugema<sup>3</sup>, Jean Damascene Gasasira<sup>4</sup>, Betty Mbabazi<sup>3</sup>, Timothée S. Twahirwa<sup>5</sup>, Oswald Ndibagiza<sup>5</sup>, Martin Nyundo<sup>6</sup>, Theobald Hategekimana<sup>5</sup>, David Nzanira<sup>5,6</sup>, Florence Masaisa<sup>1,2</sup>

<sup>1</sup>*Clinical Education and Research Division, University Teaching Hospital of Kigali, Kigali, Rwanda.*

<sup>2</sup>*School of Medicine and Pharmacy, College of Medicine and Health Sciences, University of Rwanda, Kigali, Rwanda.*

<sup>3</sup>*Corporate Services Division, University Teaching Hospital of Kigali, Kigali, Rwanda.*

<sup>4</sup>*Quality Management Solutions, Hayfields, South Africa.*

<sup>5</sup>*Directorate General Office, University Teaching Hospital of Kigali, Kigali, Rwanda.*

<sup>6</sup>*Clinical Services Division, University Teaching Hospital of Kigali, Kigali, Rwanda.*

## ABSTRACT

**INTRODUCTION:** Background: Absenteeism among health workers has become a problematic issue all over the world. This study aimed to determine the rate, cost, types, and factors of employee absenteeism at the University Teaching Hospital of Kigali (CHUK)

**METHODS:** A descriptive cross-sectional study was carried out at CHUK, using prospective and retrospective approaches/aspects, and a self-administered semi-structured questionnaire from July 2019 to June 2020. A comprehensive analysis was conducted to assess individual, institutional, and workplace factors associated with absenteeism among CHUK staff (clinical and administrative)

**RESULTS:** One hundred and fifty-nine staff (159) completed the study, which gave a response rate of 88.3%. The findings revealed that 337 (38.3%) staff were had absenteeism from 2019 to 2020. The absenteeism rate at CHUK was 3.3%, with the highest absenteeism observed among clinical staff, 82% (278 staff), and the lowest among administrative staff, 17.5 % (59 staff). The average cost per absentee was observed to be 173.4 USD, and the estimated total cost for absenteeism at CHUK was 58 465 USD per year. Key contributing factors included inadequate equipment (72%), high workload (54%), and long commuting distances, with 83% of participants traveling more than 10 km to work. The average cost per absentee was \$173.40, translating to an estimated annual financial burden of \$58,465. The study also highlighted the role of workplace-related challenges, such as insufficient resources and limited flexibility in work schedules.

**CONCLUSION:** The study found that CHUK employees' absenteeism rate was 3.3%, with clinical staff being the most affected. Addressing identified factors through improved management practices, employee welfare, and strategic Human Resource Management (HRM) interventions could reduce absenteeism and its financial impact.

### \*Corresponding author:

Emmanuel Munyaneza  
Clinical Education Directorate,  
University Teaching Hospital of  
Kigali (CHUK), Kigali, Rwanda

E-mail: [Emmanuel.munyaneza@chuk.rw](mailto:Emmanuel.munyaneza@chuk.rw)

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## INTRODUCTION

Absenteeism was defined as an employee's intentional or habitual absence from work [2]. Absenteeism of health workers is a great concern because it disorganizes the work routine, which causes overburdening to workers [3]. Absenteeism is one of the major causes of poor productivity and time wastage faced by health sectors worldwide [4,5].

A study involving 146 national health systems (NHS) in the United Kingdom reported that the general absenteeism rate in 2004 was 4.9% compared to the preceding year, which was 5.2% [6]. In South Africa, research findings revealed significant workplace absenteeism, particularly among females (83.2%). The highest absenteeism was observed in the 45–49 age group (22.35%), among employees with a salary range of 2 to 3 (35.3%), and within the African racial group (96.3%). Additionally, absenteeism was more prevalent among individuals with a tenure of 11 to 20 years (44.3%), nurses (20.8%), and administrative support staff (35.4%) [8].

According to the study conducted in Uganda, staff absenteeism in rural communities is a major challenge that needs a multi-sectorial approach, thus showing a need to revise policy in the health sector [3,7]. Similarly, research in South Sudan indicated that absenteeism is one of the major causes of poor productivity and time wastage [4]. These absences result in both direct and indirect costs. Direct costs include continued wage payments to absent workers, while indirect costs arise from the adverse effects on the quality of services provided. Research has demonstrated that absenteeism can impact individuals, co-workers, work groups, organizations, communities, and society as a whole [2,8].

Absenteeism has been highlighted as a phenomenon with both negative and positive implications for organizations. On the negative side, it results in lost productivity and a decline in work quality. On the positive side, absenteeism can occasionally provide benefits, such as allowing a fatigued employee to recover, especially in roles requiring high mental alertness [9]. It has been noted that job satisfaction is significantly influenced by the nature of work and the work environment, with dissatisfaction often leading to absenteeism [10]. Additionally, the type of supervision plays a crucial

role; for example, coercive leadership tends to demoralize employees, exacerbating absenteeism. The literature underscores that absenteeism has far-reaching effects, impacting individuals, their colleagues, organizations, and even clients [3,11]. Key factors contributing to absenteeism include work environment, interpersonal relations, organizational facilities, and overall job satisfaction [12,13].

Multiple factors influence absenteeism, including individual characteristics such as gender, age, education, and health status [14], as well as contractual and institutional elements like the generosity of sickness benefits, employment protection, firm size, job type, and labor market conditions [15,16]. However, while absenteeism has been extensively studied in developed countries, evidence from developing countries remains limited [17].

In Rwanda, there is no available data on absenteeism in health settings despite a known shortfall in meeting the World Health Organization's recommended healthcare professional-to-population ratios. This study seeks to address this gap by examining absenteeism at the University Teaching Hospital of Kigali (CHUK). Specifically, it aims to measure the rate at which health workers fail to report for scheduled work and investigate the factors contributing to absenteeism within the hospital. Moreover, this study aligns with international accreditation standards, such as Standard 2.1.1.4 of the Council for Health Service Accreditation of Southern Africa (COHSASA), which emphasizes monitoring and addressing staff absenteeism as part of quality healthcare delivery [18].

## METHODS

### Study design

This was a descriptive cross-sectional study design using prospective and retrospective aspects. The prospective aspect was used to determine the individual and institutional factors contributing to staff absenteeism. In this study, a simple random sampling technique was used to select the study participants. The researcher has made clusters of the CHUK staff according to their field of work and has used the simple random sampling technique to distribute questionnaires to the respondents. This study also used a retrospective method to find out

the current rate and cause of absenteeism. The data were retrieved from the Human Resource Management (HRM) archive, where all files from employees who were absent from work from July, 2019 to June 2021 were accessed to determine the absenteeism rate, cost, and types of absenteeism.

### Study Setting

This study was conducted at the University Teaching Hospital of Kigali (CHUK). CHUK is one of the referral hospitals in Rwanda and is also the biggest public referral hospital, with a capacity of around 519 beds, serving around 6,200,000 people and having around 879 staff.

### Source of data and population

The primary data source was obtained from Human Resource Management archives and CHUK staff. Structured questionnaires were administered by the research assistant to the respondents who agreed to participate in this study.

This study targeted staff working at the University Teaching Hospital of Kigali (clinical and administrative staff), and all cases of absenteeism from July 2019 to June 2020 in HRM archives were included.

### Sample size

The sample size of this study was calculated by using Yamane's formula, (Yamane, 1967) below:  
 $n = N / (1 + N(e)^2)$

Where

**n:** sample size

**N:** Population

**e:** the error of 5% points

Application of the formula:  $n = 186 / (1 + 186(0.05)^2) = 180$

Yamane's formula of sample size was used with an error of 5% and with a confidence coefficient of 95% (Yamane, 1967). The calculation was based on a population of 337 involved in absenteeism, and the sample size was 180 staff.

### Sampling procedures

The prospective method was used to determine the demographic profile of respondents and individual factors, institutional factors, and workplace factors that contribute to employee absenteeism. In this study, a simple random sampling technique was used to select the study participants. A list

of CHUK staff who were absent from work in the fiscal year 2019 to 2020 was obtained from the Human Resource (HR) Directorate and the researcher made clusters according to their fields of working then after, in each cluster study, participants' names were on the alphabetical list. All employees had numbers attached to their names ranging from 0001 to 337, and we chose a random starting point was 002, and then pick every 2nd name thereafter to give us our sample of 165. Out of 337 CHUK employees involved in absenteeism during the period of 2019 to 2020, 165 employees were selected randomly to participate in this study.

### Data collection techniques

The research assistant distributed questionnaires to the selected respondents, providing envelopes to secure and seal the completed forms. Respondents were given the flexibility to complete the questionnaires at their convenience, ensuring comfort and privacy during the process. The research utilized a self-administered, semi-structured questionnaire for data collection. The questionnaire included sections addressing respondents' demographic profiles, as well as individual, institutional, and workplace perceived factors contributing to absenteeism.

Questionnaires were pre-tested on a small number of participants with the same characteristics as individuals in the main study to recognize research questions that are misunderstood, or things that are commonly overlook. Adjustments after that were done earlier before the printing and distribution of questionnaires to the whole selected sample participants. The respondents who were included in the pre-testing of the questionnaires were not included in the main research.

This study also used a retrospective method to determine the current rate, types and causes of absenteeism. The data were retrieved from the HRM archive, where all files from employees with absenteeism from July 2019 to June 2020 were accessed to determine the current rate, types, and causes of absenteeism. The data were collected in one month of December 2021.

### Data analysis

Quantitative data from the study were analyzed using the Statistical Software Package for Social Sciences (SPSS) (version 25) (IBM, Inc., NY, USA). Before running the statistical tests, data were

cleaned for out-of-range values, errors of coding, and check for missing data. The analysis includes a description of participants' characteristics, calculating the absenteeism rate, and determining individual, perceived (workplace and institutional) factors contributing to absenteeism.

### Ethical Considerations

This study received approval from the Research Ethics Committee of CHUK (Review Approval Notice Ref. N° EC/CHUK/120/2021). Before obtaining informed consent, participants were provided with a detailed explanation of the study's purpose and process. They were also given the opportunity to ask questions for clarification based on the information outlined in the letter of information. Afterward, each participant signed a consent form. The researchers emphasized participants' rights, including the option to withdraw from the study at any time without any negative consequences for their employment at CHUK or any future employment opportunities.

Participants were assured of complete anonymity and confidentiality throughout the study process.

### RESULTS

Table 1 presents the socio-demographic characteristics of the study participants. Questionnaires were distributed to 180 hospital staff who had been observed for absenteeism during the 2019–2020 period. Of these, 159 staff members completed the questionnaires, yielding a response rate of 88.3%. The majority of non-responders were either on annual or other types of leave during the data collection period, while ten individuals declined to participate.

Among the respondents, 105 (66%) were female, and 54 (34%) were male. Regarding marital status, most participants were married (152, 96%), with a smaller proportion being single (6, 4%) and one individual divorced (1, 1%). In terms of professional roles, 124 (78%) participants were Nurses/Midwives, 23 (14%) were Administrative,

**Table 4:** Socio-demographic characteristics of the study participants (n= 159)

Characteristics	Frequency	Percent
<b>Gender</b>		
Male	54	34
Female	105	66
<b>Marital status</b>		
single	6	4
Married	152	96
Divorced	1	1
<b>Field of work</b>		
Registered Nurses/ Midwives	124	78
Allied Health Professionals	12	8
Administrative and Finance staff	23	14
<b>Location of staff</b>		
Pediatric ward	16	10
Maternity/Labor ward	5	3
surgical ward	15	9
Medical ward	13	8
Operation theatre	10	6
Psychiatric ward	4	3
Intensive care unit	11	7
Pharmacy	2	1
Finance/Corporate Division	23	14
Any other	38	24
Accident and Emergency	22	14

**Table 2:** *The cost and rate of absenteeism*

SN	Category of Staff	Number of staff	Percentage (%)	Number of days missed to the work	Total cost/ Rwandan Francs	United State Dollars (USD)
<b>Clinical Staff</b>						
1	Doctors	4	1	116	8,527,600	8,528
2	Nurses	183	54	1437	28,794,352	28,794
3	Midwives	47	14	497	9,777,921	9,778
4	None Physician Anesthetist (NPA)	17	5	110	2,186,152	2,186
5	Nutritionist	1	0	3	59,131	59
6	Lab Scientist	15	4	137	2,875,782	2,876
7	Ophthalmology Technician	3	1	20	394,209	394
8	Pharmacy (Nurse & Pharmacist)	7	2	44	867,260	867
9	Social	1	0	2	39,421	39
	Sub-Total	278	82	2366	53,521,828	53,522
<b>Administrative Staff</b>						
10	Administration	59	18	382	4,943,138	4,943
	Sub-Total	59	18	382	4,943,138	4,943

and Finance staff and 12 (8%) were Allied Health Professionals.

Table 2 illustrates the distribution of staff observed for absenteeism during the fiscal year 2019–2020. During this period, CHUK employed 879 staff members, of whom 337 (38.3%) were recorded as absent at least once. Absenteeism was highest among clinical staff, accounting for 82% (278) of cases, and lowest among administrative staff, who made up 18% (59) of the cases. The average absence rate was found to be 0.67 days per month per staff member, and the average cost per absentee was 173.4 USD, with the estimated total cost for absenteeism at CHUK being 58465 USD per year.

The absenteeism rate for the study period was 3.3%, calculated using the formula:

$$\text{Absenteeism Rate (\%)} = \left( \frac{\text{Total Days Lost}}{\text{Employee Strength} \times \text{Average Working Days per Employee}} \right) \times 100$$

For this study:

- Total days lost: 2,748
- Number of employees: 337
- Average working days per employee: 20 days/month  $\times$  337 employees = 80,880 days

Using the formula:

$$\text{Absenteeism Rate} = \left( \frac{2,748}{80,880} \right) \times 100 = 3.3\%$$

Table 3 presents study participants' responses regarding individual factors contributing to absenteeism. The majority of participants, 93 (58%), reported not having a chronic condition,

**Table 3:** *Individual Factors contributing to the absenteeism*

Item	No	Yes
Do you have a chronic condition?	93(58%)	66(42%)
Smoking	159(100%)	0(%)
Drinking alcohol	150(94%)	9(6%)

while 66 (42%) indicated they had a chronic condition. None of the participants (159, 100%) reported smoking. Additionally, 150 participants (94%) stated they do not consume alcohol, whereas 9 (6%) reported drinking alcohol.

Table 4 summarizes the institutional factors contributing to absenteeism among study participants. Regarding the presence of policies in the hospital, 132 (84%) reported that policies are available, while 27 (16%) indicated that they are not. Concerning support for hospital policies, 120 (76%) support the hospital's initiative to have policies, while 39 (24%) do not. Additionally, 120 (76%) of participants expressed satisfaction with the current hospital policies, while 39 (24%) were not satisfied. When asked about equipment availability, 115 (72%) felt that the hospital lacked sufficient equipment to support their work, while 44 (28%) believed that the hospital had adequate equipment. On the issue of promotions, 86 (55%) reported that there are no promotions in the hospital, while 43 (27%) indicated that promotions exist. Among those surveyed, 116 (72%) felt that promotions are not based on merit, compared to 43 (27%) who believed they are. Regarding salary, 141 (89%) reported that their salary is paid on time, while 18 (11%) said it is not. Despite this, 109 (68%) of participants expressed dissatisfaction with their salary, while 141 (89%) were satisfied. Finally, the study revealed that 129 (83%) commute more than 10 km to the hospital, 6

(3%) commute 5-10 km, and 2 (1%) commute 1-2 km from their homes.

Table 5 highlights the workplace factors contributing to absenteeism. Regarding daily work routines, 103 (64%) reported practicing routine work, while 56 (35%) did not. A majority of 130 (81%) said they utilize all their skills at the hospital, while 29 (18%) did not. On group cohesion, 79 (49%) reported insufficient cohesion with peers, while 80 (51%) felt they had sufficient cohesion. Concerning decision-making, 95 (59%) were dissatisfied with the level of decision-making in the hospital, while 64 (41%) were satisfied. When asked about independence, 86 (55%) said they are free to make independent decisions during their duties, while 73 (45%) said they are not. Teamwork was reported by 135 (85%) participants, while 24 (15%) indicated the absence of teamwork. Furthermore, 126 (79%) said there is a good culture of respect among colleagues, while 33 (20%) disagreed.

Most respondents, 134 (85%), reported performing duties according to their job descriptions, while 25 (15%) did not. Clarity of work roles was reported by 115 (73%) as being clear in their units, while 44 (27%) disagreed. About 101 (63%) were satisfied with the orientation provided for their job roles, while 58 (37%) were not. Regarding attendance, 145 (92%) reported that they did not miss work because of colleagues' absenteeism, while 14 (8%) indicated that this was a reason for their

**Table 4:** Institutional Factors contributing to the absenteeism

Item	No	Yes
Policies are available in the hospital	27(16%)	132(84%)
Do you support the hospital's initiative to have policies?	39(24%)	120(76%)
Are you satisfied with the current hospital policies at the workplace	39(24%)	120(76%)
Are the equipment sufficient to facilitate your work?	115(72%)	44(28%)
Are there promotions in the hospital?	86(55%)	73(45%)
Are the promotions at the workplace done based on merit?	116(72%)	43(27%)
Is your salary paid on time?	18(11%)	141(89%)
Are you satisfied with the salary you earned for the work?	109(68%)	50(32%)
<b>Item</b>	<b>Distance in km</b>	
What is the distance between the hospital and your place of residence?	2-5km	> 10
	22(13%)	129(83%)

**Table 5:** Workplace Factors contributing to absenteeism

Item	No	Yes
Do you practice routine work in your daily duties	56(35%)	103(64%)
Do you think you are utilizing all your skills in this hospital	29(18%)	130(81%)
Do you have insufficient group cohesion with peers at work	80(51%)	79(49%)
Are you satisfied with the level of the hospital of decision making	95(59%)	64(41%)
Are you free to make independent decisions while performing duties	73(45%)	86(55%)
Is there teamwork at the workplace	24(15%)	135(85%)
Is there a good culture of respect for one another?	33(20%)	126(79%)
Do you perform duties according to your job description?	25(15%)	134(85%)
Is there clarity on the work roles in the unit?	44(27%)	115(73%)
Orientation is insufficient on job undertaking?	101(63%)	58(37%)
Do you miss duty because your colleagues always miss work?	145(92%)	14(8%)
Working shifts are flexible	72(45%)	87(55%)
You have to do jobs that require more skills than you have	86(55%)	73(45%)
The overall workload is good	87(54%)	72(45%)

absenteeism. About 87 (55%) found their working shifts flexible, while 72 (45%) reported that they were not. Furthermore, 86 (55%) felt that they are not often assigned tasks that require skills beyond their capabilities, while 73 (45%) said they are assigned such tasks. Lastly, 87 (54%) of participants considered the overall workload to be poor, while 72 (45%) thought it was manageable.

## DISCUSSION

This study explored absenteeism among CHUK employees, including the overall absenteeism rate, costs, types of absenteeism, individual factors, workplace factors, and institutional factors influencing absenteeism. Of the participants (all absenteeism cases), 152 (96%) were married, 6 (4%) were single, and 1 (1%) was divorced. These findings align with research showing that most absentees were female (82.8%), while only 17.2% were male [19]. The highest absenteeism was observed among clinical staff (82%, or 278 staff members), while the lowest was among administrative staff (18%, or 59 staff members). The findings showed that 124 (78%) of participants engaged in absenteeism were Registered Nurses or Midwives. This finding aligns with earlier research,

including a cross-sectional study conducted on health workers in Tehran University hospitals (2014–2015), which found that 63.3% of sickness absenteeism was primarily associated with nursing staff. This trend is likely due to the nursing shortage, increased job stress, and exposure to occupational hazards, which can compromise both physical and mental health and lead to higher rates of absenteeism [9]. Work overload, often the result of colleagues' absence, can also demotivate nurses and decrease their productivity [20].

The study also found that 129 (83%) participants traveled more than 10 km to the hospital, while 6 (3%) traveled between 5–10 km, and only 2 (1%) lived within 1–2 km. Previous studies have identified long commute distances as a contributing factor to absenteeism. For instance, employees living more than 12 km away from their workplace showed a 24% higher likelihood of being absent compared to those within 12 km, with longer absences correlating to increased commute distances [21].

The average absenteeism rate at CHUK was found to be 3.3%, with the average absence being 0.67 days per month. This is consistent with studies conducted in other settings, such as Saudi Arabia, which reported an average of 0.62 days per month

[16]. Few comparative studies exist since most focus on short-term absences or health-related reasons only [8,10,14,17,20]. The financial impact of absenteeism was also calculated, with the average cost per absentee being \$173.40 and the estimated total annual cost at CHUK amounting to \$58,465. These figures are consistent with other studies. For instance, a study by Forbes in 2013 estimated costs related to absenteeism at \$3,600 per hourly worker and \$2,650 for salaried employees. Similarly, research by Yamamoto et al. (2023) in Mongolia reported an average absentee cost of \$295.50, totaling \$1,796,993 annually across all health organizations [22,17].

Workplace-related factors also influenced absenteeism. About 115 (72%) respondents indicated that CHUK lacks sufficient equipment to facilitate their duties. Additionally, 87 (54%) reported that the overall workload was unsatisfactory. This aligns with studies showing that job dissatisfaction, low decision-making latitude, insufficient time and resources, and job overload are associated with absenteeism [23–26]. Flexible work schedules are often associated with increased job satisfaction and reduced absenteeism. However, only 72 (45%) participants indicated that their work shifts are not flexible. Research by the Boston College Center for Work & Family supports this notion, showing that flexible arrangements positively affect productivity, work quality, and employee retention [22,27].

The study has several limitations. First, absenteeism rates were derived solely from staff records at the HRM unit, which may have excluded unauthorized absences not formally reported. Second, the findings are limited to CHUK staff and cannot be generalized to other hospitals across Rwanda. Third, the study was unable to identify disease profiles or other causes of absenteeism due to incomplete documentation, especially regarding medical sick leave notes. Despite these limitations, the study has several strengths. It captured the perspectives of staff members on absenteeism and sampled individuals directly from among those who reported absenteeism. This approach likely provided accurate insights into the underlying causes of absenteeism at CHUK.

## CONCLUSION

The study provided insights into the overall absenteeism rate, the cost of absenteeism, types

of absenteeism, individual factors, workplace factors, and institutional influences on absenteeism among CHUK employees. Among the findings, absenteeism was most prevalent among clinical staff, while the absenteeism rate at CHUK was 3.3%. Additionally, most participants reported that the hospital lacked sufficient equipment to support their work, and over half were dissatisfied with their workload. The average cost per absentee was \$173.40, with the total estimated annual financial burden of absenteeism being \$58,465. Furthermore, 83% of participants commuted over 10 km to work, highlighting commute distance as a contributing factor to absenteeism.

To reduce absenteeism, improving relationships between managers and employees and fostering positive team interactions are vital. Managers and supervisors should receive adequate training to address staff concerns and ensure employee well-being. Continuous education on the causes and effects of absenteeism is critical. Moreover, the HRM Directorate should collaborate closely with the Occupational Health Unit to improve absenteeism documentation. Employers must actively investigate the reasons behind absenteeism and distinguish between genuine excuses and noncompliance to develop targeted strategies for addressing the issue. Addressing the underlying institutional and workplace factors, such as resource availability, equipment shortages, and flexible working schedules, could significantly reduce absenteeism among CHUK employees.

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## Availability of data and materials

All raw data supporting this study's findings are available from the corresponding author upon reasonable request.

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