



Republic of Zambia
MINISTRY OF HEALTH
LUSAKA PROVINCIAL HEALTH OFFICE

POST-FORUM PROCEEDINGS

**OF HOSPITAL MANAGEMENT QUALITY
IMPROVEMENT FORUM**

22-23
APRIL 2026

URBAN HOTEL, LUSAKA

Organized by Lusaka Provincial Health Office





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ABOUT THIS VOLUME

This proceedings volume was prepared as a record of the Hospital Management Quality Improvement Forum, which was organized by Lusaka Provincial Health Office with technical and financial support from the JICA Project for Strengthening Management Capacity of General Hospitals in Lusaka District, also known as the Cassiopeia Project. The contents document practical experiences, presentations, and discussions shared during the forum.

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CONTENTS

Foreword	04	
Acknowledgements	06	
Concept Note	07	
Steering Committee	08	
Programme	09	
Session 1	Panel Discussion: How to Strengthen and Leverage Leadership and Governance?	13
Session 2	Patient Centered Services	16
2.1	Improving Patient Satisfaction at Chelstone Zonal Hospital	16
2.2	Chilenje Level One Hospital-Patient Long Waiting Time	19
2.3	Enhancing Quality Patient Care Through Floor Managers at Chipata Level One Hospital	22
Session 3	Hospital Governance and Coordination	25
3.1	Streamlining Hospital Meeting Schedules to Enhance Service Delivery at Chawama Level One Hospital	25
3.2	Improving Strategic Planning and Budget Alignment Through the Balanced Scorecard at Chipata Level One Hospital	29
3.3	Strengthening Departmental Governance Through Implementation of Balanced Scorecards: A Quality Improvement Initiative at Kanyama Level 1 Hospital	33
3.4	Applying Collaborative Quality Improvement Approach to Improve Nursing Care Documentation, Infection Prevention and Control Practices, Leadership and Supervision Skills and Equipment Availability in First Level Hospitals in Lusaka District Using Nursing Audit	37
Session 4	Panel Discussion: How Can DHO and PHO Utilize Good Practices from the Implementation?	42
Session 5	Infection Prevention and Control (IPC)	45
5.1	Strengthening Consistency and Multidisciplinary Participation in Infection Prevention and Control (IPC) Rounds	45
5.2	Improving the Accuracy of Surgical Site Infection (SSI) Surveillance Through Proactive Public Health Approach in Kanyama Constituency	49

Session 6	Pharmacy	52
6.1	Establishment of a Satellite Pharmacy Service in Inpatient Wards to Improve Medicine Accountability, Timely Access, and Pharmaceutical Care at Chawama Level One Hospital	52
6.2	Improving Prescription Fill Rate to Reduce False Stock-Outs and Strengthen Medicine Availability Monitoring at Chilenje First Level Hospital	56
Session 7	Medical Equipment Management	59
7.1	Analysing Cause of Equipment Failure at the Five First Level Hospitals in Lusaka	59
7.2	Improving Medical Equipment Availability Through the Medical Equipment Champion (MEC) Model at Chilenje Level 1 Hospital	62
Session 8	Poster Presentations	65
8.1	Improving Patient File Return Rates in the Outpatient Department Registry at Chipata Level 1 Hospital from Baseline of 15% December 2025 to 70% by December 2026	65
8.2	Improving Medicine Storage Management Through Pharmacy Storage Space Reorganization at Matero Level One Hospital	67
8.3	Improving Waste Segregation Practices Using a Game-Based Training Approach at Chongwe District Hospital	71
8.4	Reducing Patient Waiting Time from 3 Hours to 1 Hour 30 Minutes at Kanyama Level One Hospital	75
8.5	Improving Waste Management in Chawama First Level Hospital	79
8.6	Restoration of Theater Autoclave Functionality Through Remote Troubleshooting and Repair	82
8.7	Developing and Implementing Standard Operating Procedures (SOPs) of Infection Prevention and Control (IPC)	85
Awards		89
Photos		91

FOREWORD



The Hospital Management Quality Improvement Forum marked an important milestone in the continuing efforts to strengthen hospital management and quality improvement in Lusaka Province. It brought together first level hospitals, district and provincial health teams, and partners to share practical experiences, reflect on achievements, and learn from one another. This post-forum proceedings record those efforts and preserves them as a source of learning for future improvement.

I would like to sincerely congratulate all oral presenters, poster presenters, quality improvement teams, participants, and award winners who took part in this forum. I also deeply commend the teams that stepped forward to share their ideas, experiences, and achievements. In science and quality improvement, presenting one's work means opening it to discussion, reflection, and constructive questioning. Through this process, learning deepens and practical solutions become stronger.

Strengthening hospital management and governance systems has not been an easy journey. Many of the improvements we see today were made possible through collaboration under the joint project with JICA, the efforts of many stakeholders, and persistent commitment. The progress made in hospital management, infection prevention and control, patient flow, pharmaceutical services, medical equipment management, and other areas shows that first level hospitals can generate practical solutions to the real problems faced by patients and health workers every day.

One of the most important messages from this forum is that quality improvement does not always require large financial investments. Many of the initiatives presented were low-cost, practical, and rooted in the realities of the hospitals. They were based on careful observation, analysis of problems, identification of root causes, and implementation of feasible improvements. This is what implementation science looks like in practice. It is not only about theory but also solving real problems in real settings, using the resources, people, and systems that are already available.

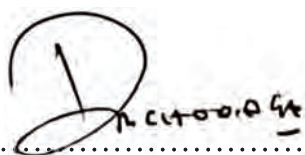
The innovations shared during this forum are not only relevant to the hospitals that developed them. Many of them have the potential to be adapted, packaged, and scaled to other hospitals across the country. Issues such as patient flow, availability of medicines, infection prevention, pharmacy organization, equipment management, and service accountability are not unique to Lusaka. They are common challenges across the health system. The experiences documented in this proceedings therefore provide valuable learning for a much wider audience.

I would also like to express my sincere appreciation to the JICA Cassiopeia Project team and all colleagues who have worked with Lusaka Province over the years. Their approach has been consultative, collaborative, and professional. This has been a project in which decisions were made together, and in which the provincial, district, and facility teams were actively involved. Such a way of working is important because it strengthens ownership and helps ensure that improvements are not seen as external project activities, but as part of our own health service delivery responsibilities.

As projects come to an end, services must continue. The true value of this work will be judged by whether the improvements are sustained, institutionalised, and expanded. Each hospital, district, and provincial team must therefore continue to ask how these initiatives can be embedded into routine work, how they can be monitored, how they can be improved further, and how they can be shared with others. The responsibility for sustaining this work rests with us.

This proceedings are an important record of what has been achieved. More importantly, it is a platform for continued learning. I hope it will encourage hospitals to continue documenting their work, presenting their ideas, learning from one another, and developing practical solutions that improve care for patients.

Once again, I congratulate all teams for their dedication and achievements. I look forward to seeing these efforts continue, grow, and contribute to stronger hospital services in Lusaka Province and beyond.



Dr. Simulyamana Aspha Choonga

Provincial Health Director
LUSAKA PROVINCIAL HEALTH OFFICE

ACKNOWLEDGEMENTS

The preparation of the Hospital Management Quality Improvement forum document included the compilation of material presented during the conference and issues that emerged during the deliberations from other participants.

Special recognition goes to our partners JICA through the Cassiopeia Project for creating and supporting a platform where the quality improvement projects implemented across the supported Hospitals could be shared. This will not only broaden the scope of QI among staff but also enhance sustainability of the gains that the project has made.

I also wish to acknowledge and sincerely appreciate all who made the forum a success ranging from the presenters for their projects, Hospital management teams for supporting implementation of quality improvement projects as well as the District and Provincial Health Office steering committee for the continued guidance.

Sincere gratitude also goes to the representatives from the Ministry of Health and National Health Research Authority (NHRA) for the professional adjudication of the presentations to inform objective awards.

The contribution of other stakeholders during the meeting cannot go unnoticed for they provided great and objective insights to the work presented and perception on hospital management.

It is my sincere hope that what has been documented in this book will greatly contribute to the improvement of hospital management at all levels.

CONCEPT NOTE

Background

In the Zambia-Japan joint project, the Project for Strengthening Management Capacity of the General Hospitals (Cassiopeia Project) in Lusaka District, achieved to establish hospital management practices in the five First-Level Hospitals, namely Chawama, Chilenje, Chipata, Kanyama, and Matero in Lusaka District. The project's approach, which established the foundation of hospital management practices and then strengthened Infection Prevention and Control (IPC), stock management of essential medicines and medical supplies (EMMS), and medical equipment management brought about various Quality Improvements (QI) in service delivery at the hospitals. In addition, the Hospital Management Handbook developed and disseminated by the Lusaka Provincial Health Office with support of the Project is encouraging other hospitals in the province to introduce hospital management practices as well. The Project will conclude its first phase at the end of May 2026.

Taking this occasion, Lusaka Provincial Health Office intends to hold the Hospital Management Quality Improvement Forum to share and discuss a range of hospital quality improvement activities generated through the Project.

Objectives

1. To share and learn about QI activities generated by the Project.
2. To showcase the achievements of the Project to foster sustainability
3. To engage key stakeholders/ partners in hospital management quality improvement

Date and time

Date: Wednesday, 22 and Thursday, 23 April 2026

Time: 08:30 hrs-15:30 hrs.

Venue

The Urban Hotel

STEERING COMMITTEE

No	Name	Title/Position in the Organisation
1	Dr. Aspha Simulyamana Choonga	Provincial Health Director-LPHO
2	Dr. Maxine Kayawe	Public Health Specialist-LPHO
3	Mr. Abraham Mukesela	Chief Pharmacist-LPHO
4	Ms. Inutu Mbangweta	Chief Nursing Officer Care & Standard-LPHO
5	Ms. Cathel Chiboola	Chief Environmental Health Officer-LPHO
6	Mr. Peter Muleya	Principal Planner-LPHO
7	Ms. Tisiyenji Baloyi	Senior Planner-LPHO
8	Dr. Clive Gosa	Senior Monitoring & Evaluation Officer-LPHO
9	Ms. Marjorie Ndemena	Planner-LPHO
10	Ms. Njavwa Lombe	Planner-LPHO
11	Ms. Mumbi Musosha	Pharmacist-LPHO
12	Mr. Nathan Sinyangwe	HTS Coordinator/QI/QA FPP-LPHO
13	Dr. Shinsuke Murai	JICA Chief Advisor
14	Ms. Yu Hagiwara	JICA Coordinator/Expert
15	Ms. Kombe Kapatamoyo	Project Officer
16	Dr. Wesley Choolwe Sianchapa	Clinical Care Specialist-LDHO
17	Ms. Ruth Zulu	Senior Planner-LDHO
18	Mr. Obed Samusiko	Medical Equipment Technologist-LDHO
19	Mr. Friday Matafwali	Medical Equipment Technologist-LDHO
20	Ms. Phedelina Kunda	QI/QA Coordinator/MCH Coordinator-LDHO
21	Ms. Maureen Kapumpu	QI/QA Coordinator-LDHO
22	Dr. Mataa Moses Mataa	Medical Superintendent-Chipata FLH
23	Dr. Ilunga Mutwale	Head Clinical Care-Kanyama FLH
24	Dr. Abel Kapembwa	Head Clinical Care-Chilenje FLH
25	Ms. Christabel Nkunika	Planner-Chawama FLH
26	Ms. Catherine Chanda	Planner-Matero FLH
27	Ms. Kanekwa Nkhoma	Planner-Chipata FLH
28	Mr. Ntinga Leo	Nurse-Chilenje FLH
29	Dr. Shula Chanda	Lecturer - UNZA

PROGRAMME

Day 1: Wednesday, 22 April 2026

Director of Ceremony: Dr. Maxine Kayawe PHS/PP

Time	Activities	Presenter
08:30-09:00	Registration	
09:00-09:05	Opening Prayer	Volunteer
09:05-09:10	National anthem of Zambia	
09:10-09:15	Introduction	Dr. Maxine Kayawe PHS / Mr. Peter Muleya PP
09:15-09:20	Welcome Remarks	Dr. Simulyamana Choonga, PHD, Lusaka Provincial Health Office
09:20-09:25	Remarks	JICA
09:25-09:40	Official Opening	PS-TS, MOH
09:40-09:50	Purpose of the Meeting	Mr. Peter Muleya, PP
09:50-10:20	Health break (Poster session)	
Session 1: How to Strengthen and Leverage Leadership and Governance? Moderator: Dr. Mataa Mataa, MS, Chipata FLH		
10:20-11:00	Panel Discussion Dr. Victor Liyuma, Dr. Abel Kapembwa, Ms. Catherine Samasumo, Mrs. Jane Botha	
11:00-11:15	Question and Answer	
Session 2: Patient Centered Services Dr. Raphael Nzolo, MS. Chawama FLH		
11:15-11:30	Improving Patient Satisfaction at Chelstone Zonal Hospital	Ms. Angela Nanyangwe, Nursing Officer, Chelstone Zonal Hospital
11:30-11:45	Chilenje Level One Hospital-Patient Long Waiting Time	Mr. Ntinga Leo, Nurse, Chilenje FLH
11:45-12:00	Enhancing Quality Patient Care Through Floor Managers at Chipata Level One Hospital	Ms. Moono Shimoko, Nurse Incharge, Chipata FLH
12:00-12:20	Plenary	
12:20-13:20	Lunch (Poster session)	

Session 3: Hospital Governance and Coordination

Chair: Dr. Richard Mwila, MS. Chilenje FLH

13:20-13:35	Streamlining Hospital Meeting Schedules to Enhance Service Delivery at Chawama Level One Hospital	Ms. Christabel Nkunica, Planner, Chawama FLH
13:35-13:50	Improving strategic planning and budget alignment through the Balanced Scorecard at Chipata Level One Hospital	Ms. Kanekwa Nkhoma, Planner Chipata FLH
13:50-14:05	Strengthening Departmental Governance Through Implementation of Balanced Scorecards: A Quality Improvement Initiative at Kanyama Level 1 Hospital	Ms. Mutinta Hambulo, QI Coordinator, Kanyama FLH
14:05-14:20	Applying Collaborative Quality Improvement Approach to Improve Nursing Care Documentation, Infection Prevention and Control Practices, Leadership and Supervision Skills and Equipment Availability in First Level Hospitals in Lusaka District Using Nursing Audit	Ms. Inutu Mbangweta, CNO Lusaka PHO
14:20-14:50	Plenary	
14:50-14:55	Close of Day 1	
14:55-15:05	Group Photo	

Day 2: Thursday, 23 April 2026

Director of Ceremony: Tisiyenji Baloyi, Marjorie Ndemena

Time	Activities	Presenter
8:30-9:00	Registration	
Session 4: How Can DHO and PHO Utilize Good Practices from the Implementation? Coordinator: Dr. Wesley Sianchapa, CCS, LDHO, Mrs. Mumbi Musosha, Pharmacist, LPHO		
09:00-09:45	Panel Discussion Ms. Inutu Mbangweta, Ms. Cathel Chiboola, Mr. Obed Samusiko, Dr. Ilunga Mutwale, Mr. Mutale Leban Moderator: Mr. Abraham Mukesela, CPO, LPHO	
09:45-10:00	Question and Answer	
Session 5: Infection Prevention and Control (IPC) Chair: Dr. James Nyirenda, MS. Kanyama		
10:00-10:15	Strengthening Consistency and Multidisciplinary Participation in Infection Prevention and Control (IPC) Rounds	Mr. Ezekiel Kankoloto, EHT, Matero FLH
10:15-10:30	Improving the Accuracy of Surgical Site Infection (SSI) Surveillance Through Proactive Public Health Approach in Kanyama Constituency	Dr. Illunga Mutwale, IPC Doctor, Kanyama FLH
10:30-11:00	Plenary	
11:00-11:30	Health break (Poster session)	
Session 6: Pharmacy Chair: Dr. James Nyirenda, MS. Kanyama		
11:30-11:45	Establishment of a Satellite Pharmacy Service in Inpatient Wards to Improve Medicine Accountability, Timely Access, and Pharmaceutical Care at Chawama Level One Hospital	Ms. Siphwe Makowane, Pharmacist, Chawama FLH
11:45-12:00	Improving Prescription Fill Rate to Reduce False Stock-Outs and Strengthen Medicine Availability Monitoring at Chilenje First Level Hospital	Ms. Goodness Ngulube, Pharmacist, Chilenje FLH
12:00-12:30	Plenary	
12:30-13:30	Lunch (Poster session)	

Session 7: Medical Equipment Management

Chair: Dr. Nobahle Sibanda, Medical Officer in Charge in Chelstone Zonal Hospital

13:30-13:45	Analysing Cause of Equipment Failure at the Five First Level Hospitals in Lusaka	Mr. Richard Mumba Kanyama FLH
13:45-14:00	Improving Medical Equipment Availability through the Medical Equipment Champion (MEC) Model at Chilenje Level 1 Hospital	Ms. Patricia Lumbuka, ME Champion, Chilenje FLH
14:00-14:30	Plenary	
14:30-15:15	Awards & Certificates	
15:15-15:30	Closing remarks	Lusaka Provincial Health Office
15:30-15:35	Closing Prayer	Volunteer

Poster Presentations

Themes	Presenter
Improving Patient File Return Rates in the Outpatient Department Registry at Chipata Level 1 Hospital from baseline of 15% December 2025 to 70% by December 2026	Rhodah Lungu, et al. Mate Mate, and Dennis Mwale
Improving Medicine Storage Management Through Pharmacy Storage Space Reorganization at Matero Level One Hospital	Mara Nkhoma Hachizo, Jane Botha, Florence B. Mwanza and Mika Kogoshi.
Improving Waste Segregation Practices Using a Game-Based Training Approach at Chongwe District Hospital	Erika Fujitomi, Jelina Chuma, and Kestings Sakasole
Reducing Patient Waiting Time from 3 Hours to 1 Hour 30 Minutes at Kanyama Level One Hospital	Jumbe Andrew Chinyonga, Mutinta Hambulo, Christine Nyoni, Lawrence Kalando, Francis Lundula, and Priscilla Namukondia
Improving Waste Management in Chawama First Level Hospital	Prince Bwalya, Jackline Mulako and Dr. Oliver Kaoma
Restoration of Theater Autoclave Functionality Through Remote Troubleshooting and Repair	Paul Sibanda, Kazuhiro Ajiki, Richard Mumba, and Siliver Mwanza
Developing and Implementing Standard Operating Procedures (SOPs) of Infection Prevention and Control (IPC)	Ushibantu Clyde

1.

Panel Discussion:**How to Strengthen and Leverage Leadership and Governance?****Moderator:**

Dr. Mataa Mataa, Medical Superintendent, Chipata First Level Hospital

Coordinators:

Dr. Wesley Choolwe Sianchapa, CCS, LDHO, and Mrs. Mumbi Musosha, Pharmacist, LPHO

Panelists:

Dr. Victor Liyuma, Medical Superintendent, Matero FLH; Dr. Abel Kapembwa, Head of Clinical Care, Chilenje FLH; Ms. Catherine Sumasumo, Planner, Matero FLH; and Ms. Jane Botha, Nursing Officer, Matero FLH

This panel discussion explored how leadership and governance can be exercised and strengthened in hospitals, drawing on insights from the respective perspectives of a Medical Superintendent, Head of Clinical Care, Nursing Officer, and Planner.

Problem Statement

At the beginning of the session, the moderator, Dr. Mataa, Medical Superintendent of Chipata First Level Hospital, raised the issue that it is not sufficient for a hospital simply to have staff with technical expertise. He noted that even when capable personnel are present, this does not always translate into organizational performance. He emphasized that when leaders face challenges, it is important not to stop at “I don’t know,” but to take the attitude of “I don’t know, but I will find out” and move toward solutions. He then asked participants to consider how leadership and governance in hospitals can be developed, entrenched, and sustained.

Clarifying and Promoting Understanding of the Hospital Vision

Dr. Victor Liyuma, Medical Superintendent of Matero FLH, stated that to strengthen hospital leadership, senior management must first clarify the hospital’s vision and ensure that managers at each level understand it. At Matero FLH, importance is placed on sharing a common direction for providing quality health care that is close to the community, accessible, and delivered in a clean environment, and on linking the activities of each department to that vision. This was explained as an effort to translate the hospital’s overall goal from an abstract slogan into the daily work of each department and connect it to practice.

Bridging Senior Management and Clinical Practice

From the perspective of the Head of Clinical Care, the role of serving as a “bridge” between senior management and clinical practice was emphasized. Dr. Abel, Head of Clinical Care at Chilenje First Level Hospital, stated that it is necessary to support frontline activities so they align with the direction of senior management, while also communicating the challenges and constraints arising at the frontline to upper management. He explained that feedback loops, accountability, open communication, psychological safety, and data use enable decision-making based on the realities of clinical practice. In particular, it was emphasized that unless frontline staff can safely communicate “what is actually happening,” management cannot make decisions that are grounded in reality.

Departmental Vision Aligned with the Hospital Vision

Ms. Jane Botha, Nursing Officer at Matero FLH, stated that nursing is the “backbone” of the health system, and that nurses work with other departments to address issues such as patients not receiving meals, not being seen by doctors, or wards not being kept clean. She further explained that it is also important for the nursing department to have a departmental vision aligned with the overall hospital vision. At Matero FLH, the Balanced Score Card, orientation for newly recruited nurses, capacity building, mentorship, clear role allocation, performance reviews, and feedback systems are used to foster initiative, accountability, and ownership among junior officers. It was also shown that weekly meetings, departmental meetings, quarterly general meetings, and an open-door policy are used to strengthen collaboration not only within the nursing department, but also with other departments and functions such as planning, finance, and the Head of Clinical Care.

A Bottom-Up Approach to Achieving the Hospital Vision

Ms. Catherine Sumasumo, Planner at Matero FLH, stated that, from a planning perspective, a bottom-up approach is important for achieving the hospital’s overall vision. She explained that when each department identifies its own challenges, required activities, and necessary resources, and submits them to senior management through the Head of Department, the plan becomes grounded in frontline realities and promotes understanding and ownership during implementation. She further noted that when linking plans with budgets, checks and balances by the planner, accounts staff, Medical Superintendent, and others are necessary. This helps ensure accountability, efficiency, and communication with departments. Planning was positioned not merely as the preparation of an activity list, but as an organizational process for deciding which priority issues limited resources should be directed toward.

Usefulness of Strategic Planning and Monitoring through the Balanced Score Card (BSC)

Participants also supplemented the discussion by highlighting the importance of planning and the Balanced Score Card. The Balanced Score Card was described as a backbone that links planning, budgeting, and performance monitoring. By presenting Key Performance Indicators (KPIs) and performance data, departments can clarify priorities, allocate resources, and establish accountability. It was noted that if planning and budgeting are separated, important services may not receive sufficient funding, and the implementation of priority activities may be delayed. Therefore, planning and budgets need to be linked based on data. This reflected the view that the Balanced Score Card should not be used merely as a reporting format, but as a practical management tool through which departments can understand their own challenges, explain the support they need, and contribute to organizational decision-making.

Positioning QI Activities through Departmental BSCs

As another point of discussion, it was noted that if the Balanced Score Card is not introduced at the departmental level, QI activities may become fragmented and ad hoc, making it difficult to decide where limited resources should be allocated. In response, it was suggested that by having a Balanced Score Card for each department and organizing challenges from the perspectives of learning and growth, client perspective, internal processes, and financial management, QI activities can be implemented based on the actual needs and data of each department. In particular, it was considered important that departments identify their own performance gaps and propose actions to address them, enabling senior management to make more concrete decisions about the support that should be provided.



2.1

Improving Patient Satisfaction at Chelstone Zonal Hospital

Nanyangwe Angela, Sibanda Nobhale, Mulenga Mwila, Khunga Rose, Banda Karen, Chileleko Twaambo, Chipere Evelyn, Kajimoto Taonga, Gondwe Obadiah, Kapitango Grace, Tenta Thelma, Moonga Royd, Banji Musonda, Zuze Lunga.

Chelstone Zonal Hospital

Background

Patient satisfaction is a critical indicator of healthcare quality, reflecting perceptions of service effectiveness, efficiency, and responsiveness. Ideally, healthcare facilities should achieve high satisfaction levels, with the majority of patients reporting being “very satisfied.” Previously, Chelstone Zonal Hospital had not conducted formal surveys. Understanding the current level of satisfaction was essential to move toward evidence-based decision-making, as poor patient experiences can lead to reduced service utilization and a loss of trust in the health system. The purpose of this Quality Improvement (QI) activity was to establish a baseline of patient satisfaction to identify service gaps and guide future interventions.

Methods

A multidisciplinary QI team comprising clinicians, nurses, and hospital management conducted a baseline assessment using a structured questionnaire adapted from the Ministry of Health. The Key Performance Indicator (KPI) was defined as the proportion of patients reporting being “very satisfied.” Data collection occurred July 2025 for a period of 5 days, involving a total of 321 recruited participants. The surveys were administered by trained facility staff to ensure a representative sample of patients accessing various hospital departments.

Results

The baseline survey revealed that only 15.3% (49/321) of patients were “very satisfied,” while 75.4% were satisfied, 3.7% were neutral, and 5.6% were dissatisfied. Subsequent root cause analysis identified poor patient flow, inadequate communication, negative staff attitudes, lack of privacy, and poor sanitation as key contributors to these results. In response, the hospital introduced floor managers and signage to improve flow and initiated weekly cleaning exercises. Preliminary observations following these changes showed immediate improvements in patient navigation and staff responsiveness, although infrastructure and funding remains a challenge for full service optimization.

Conclusions

Conducting this baseline survey was a vital catalyst for the hospital, effectively triggering a structured review of root causes and the development of targeted countermeasures. The activity demonstrated that establishing a formal feedback loop is an essential first step for any facility aiming to enhance the patient experience. A follow-up survey is planned to measure quantitative improvement against the target of increasing “very satisfied” patients to $\geq 30\%$ by July 2026.

Recommendations

It is recommended that the hospital institutionalizes quarterly patient satisfaction surveys and strengthens QI review meetings to monitor progress. For other facilities looking to replicate this, we recommend using standardized Ministry of Health tools to ensure data validity and involving frontline staff early in the process to foster a culture of accountability and responsiveness. Establishing a dedicated customer care desk is also advised to address patient concerns in real-time.





The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026



CHELSTONE ZONAL HOSPITAL

Improving Patient Satisfaction at Chelstone Zonal Hospital

Nanyangwe Angela, Dr Sibanda Nobhale, Inutu Mbangweta, Mulenga Mwila, Khunga Rose, Banda Karen, Chileleko Twaambo, Chipere Evelyn, Kajimoto Taonga, Gondwe Obadiah, Kapitango Grace, Tenta Thelma, Moonga Royd, Banji Musonda, Zuze Lunga

Chelstone Zonal Hospital



Background

Why was it important to tackle the gap?

- Understanding the current level of satisfaction was essential to move toward evidence-based decision-making, as poor patient experiences can lead to reduced service utilization and a loss of trust in the health system

The purpose of the QI activity

- The purpose of this Quality Improvement (QI) activity was to establish a baseline of patient satisfaction to identify service gaps and guide future interventions.



CHELSTONE ZONAL HOSPITAL






Methods

- A multidisciplinary QI team comprising clinicians, nurses, and hospital management conducted the activity using a structured questionnaire adapted from the Ministry of Health patient satisfaction survey.
- Data collection period: **July 2025 (5 days)**
- Sample size: **321 patients**
- KPI: Proportion of Patients “very satisfied”
- The surveys were administered by trained facility staff to ensure a representative sample of patients accessing various hospital departments.





Background

Patient satisfaction is a key indicator of healthcare quality
Reflecting patients’ perceptions of service effectiveness, efficiency, and responsiveness

Ideal

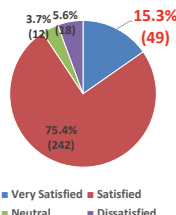
- Healthcare facilities should achieve high levels of patient satisfaction, with most patients reporting being “very satisfied.”

Gap

- Chelstone Zonal Hospital had not conducted formal surveys.
- Understanding the current level of satisfaction was essential to move toward evidence-based decision-making, as poor patient experiences can lead to reduced service utilization and a loss of trust in the health system.



Proportion of Patients “very satisfied”



Satisfaction Level	Percentage	Count
Very Satisfied	15.3%	49
Satisfied	75.4%	242
Neutral	3.7%	12
Dissatisfied	5.6%	18



Root Cause Analysis

Root causes identified from the survey were:

- Poor patient flow
- Inadequate communication
- Negative staff attitudes
- Lack of privacy
- Poor sanitation



Recommendations

- It is recommended that the hospital institutionalizes quarterly patient satisfaction surveys and strengthens QI review meetings to monitor progress.
- For other facilities looking to replicate this, we recommend using standardized Ministry of Health tools to ensure data validity and involving frontline staff early in the process to foster a culture of accountability and responsiveness.
- Establishing a dedicated customer care desk is also advised to address patient concerns in real-time.

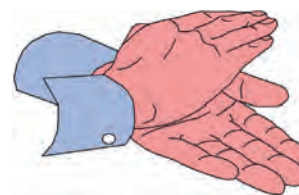
Intervention

- Introduction of **floor managers**
- Installation of **directional signage**
- Weekly **cleaning exercises**
- Staff engagement to improve communication and responsiveness

These changes showed immediate improvements in patient navigation and staff responsiveness, although infrastructure and funding remains a challenge for full service optimization.



THANK YOU



Action Plan

Root Cause	Change /Interventions	Key action steps	Required resources	Responsible person	Time frame
Poor sanitation	Intensifying supervision	Reorienting maids and outdoor on the cleaning and adhering to the cleaning schedule.	• Staff • Cleaning materials • Cleaning schedule	HA	BY 31 st July 2026
Poor patients flow	• Appoint flow managers • Introduce proper signage at different service points	• Flow managers appointed and oriented • Install directional signage at all service points	• Incentives for flow managers • Funds	NO	BY 31 st July 2026

Action Plan

Root Cause	Change /Interventions	Key action steps	Required resources	Responsible person	Time frame
Inadequate communication	Staff engagement to improve communication and responsiveness	Enhance coordination through weekly meetings	Fund for the meeting	HR	BY 31 st JULY 2026
Lack of privacy	• Improve patient privacy and confidentiality initiative	• Install privacy screens/curtains at triage • Rearrange waiting areas to reduce crowding and overhearing	• Screens • Curtains • Partitions	HA	By 31 st July 2026

Conclusions

- Conducting this baseline survey was a vital catalyst for the hospital, effectively triggering a structured review of root causes and the development of targeted countermeasures.
- The activity demonstrated that establishing a formal feedback loop is an essential first step for any facility aiming to enhance the patient experience.
- A follow-up survey is planned to measure quantitative improvement against the target of increasing "very satisfied" patients to $\geq 30\%$ by July 2026.

2.2

Chilenje Level One Hospital-Patient Long Waiting Time

Leo Ntinga, Richard Mwila, Norman Maramwidze, Vivien Banda, Cecilia Chione, Mwamba Nsofwa, Kingfrey Mayauli, Changala Milimbo, Gilbertson Nyirenda, and Tina Nyirenda

Chilenje Level One Hospital

Background

Patient satisfaction is somewhat dependent on the time spent at the facility from the time of entry to the time of exit and the kind of service rendered to them. Although the specific ideal waiting time is often context-dependent on patient's condition and availability of resources at healthcare facility, many health systems aim for a waiting time of 30 minutes to 2 hours, in line with WHO guidelines. However, at our facility what was prevailing about 6 months ago in October 2025, at the beginning of the project, only 9% of patients were seen within 2 hours creating a gap of 41% from our desired 50% by December 2025. The purpose of this QI activity was to reduce the patient's waiting time from the purported 4 hours spent at the hospital to at least less than 2 hours as per standard.

Methods

The multidisciplinary QI team was formed, including the MS, HCC, Nurses, Pharmacist, Laboratory and Registry personnels. Cause-and-effect analysis identified infrastructure gaps-inadequate consultation rooms, inadequate human resource and inconsistent triage system as major contributors to patients' long waiting time. The team through facility management sourced for extra human resource (NHIMA staffs and volunteers), erect new cubicles and provided extra laptops and desktops in various needy service points. The KPI was the percentage of outpatients to be attended to within 2 hours, monitored monthly from 1st October 2025 to 31st March 2026. The results were shared in the monthly meetings.

Results

Patient track progress shows the percentage of outpatients seen within 2 hours increasing from 9% in October to 87% in March 2026. Additionally, floor managers were assigned to guide patient flow, a specific CO was designated to review laboratory results as they became available, and laboratory staff were assigned specific duties on every shift to reduce turnaround time. The pharmacy department also introduced a policy of displaying drug bulletins in all screening rooms so that the clinicians could prescribe medicines that were actually on the shelves.

Conclusion

This activity showed that continuous communication, regular reminders, departmental and/or facility peer-to-peer assessments, and good leadership at every point of service delivery are key to reducing patient long waiting time. To sustain this improvement, the current status of the patient waiting time will be reviewed during monthly QI meetings and regular updates will be provided at Wednesday clinical meetings.

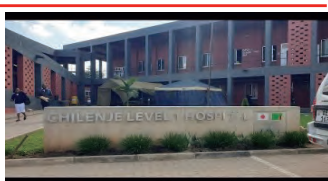


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Urban Hotel, 22 – 23 April 2026



CHILENJE LEVEL 1 HOSPITAL-PATIENT LONG WAITING TIME

1. Richard Mwila
2. Norman Maramwidze
3. Leo Ntinga
4. Vivien Banda
5. Cecilia Chione
6. Mwambi Noufwa
7. Kingfrey Mayauli
8. Changala Milombo
9. Gilbertson Nyirenda
10. Tina Nyirenda



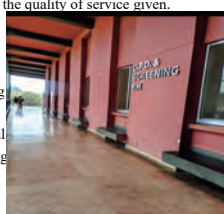
QI Team

- The multidisciplinary QI team was formed to carry out the QI project-long patient waiting time.
- It composed of the MS,HCC,nurses, pharmacist, laboratory and registry personnels respectively.
- The project mainly focused on the out-patient department services which includes;registry,triage, consultation rooms, laboratory, radiology and pharmacy.



Background: Setting

- Patient satisfactory is somewhat dependent on the time spent at the facility from the time of entry to the time of exit and the quality of service given.
- Therefore, patient waiting time is a key indicator of healthcare quality in OPD
- There is no universal standard waiting time; however, many health systems aim for a waiting time of 30 minutes to 2 hours.
- The QI committee at Chilenje level 1 hospital carried out the QI project on long patient waiting time to find root causes.
- The project started on 1st October, 2025 and was to run for 6 months.



Cause-Effect Analysis

- Infrastructure gaps-Inadequate consultation rooms, Inadequate human resources and Inconsistent triage system were identified as the major contributors to patients' long stay in the hospital.
- Four tools; review of existing records, patient motion questionnaires , patient exit and staff interviews were used in data collection.
- Therefore, key issues observed were severe understaffing, inconsistent triage and infrastructure gaps stood out.

Background: The Gap

- The specific ideal waiting time is often context-dependent on patient's condition and/or availability of resources at healthcare facility
- In a perfect world, many health systems aim for a waiting time of 30 minutes to 2 hours, in line with WHO guidelines.
- However, at our facility what was prevailing at the beginning of the project, only 9% of patients were seen within 2 hours creating a gap of 41% from our desired set 50% by December 2025.



Intervention

- Erected new extra cubicles
- Extra human resource(NHIMA staffs and volunteers) have since been engaged to boost the numbers.
- Provision of extra laptops and desk tops in various needy service points
- Display of the triage SOPs



Background: Rationale

- Longer time spent at the hospital resulted into patients' frustration and service dissatisfactory.
- Eventually some patients left the facility without being attended to.
- Ultimately the facility faced reduced number attendance and somehow, financial losses as patients tends to seek care elsewhere.
- The purpose of this QI activity was to reduce the patient's waiting time from the purported 4 hours they spent at the hospital to at least less than 2 hours standard according to WHO.

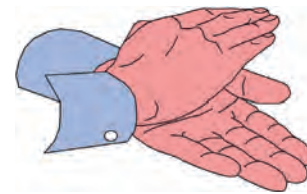
Key Performance Indicators(KPI)

- The KPI was the percentage of outpatients to be attended to within 2 hours, monitored monthly throughout the project.
- Indicator Definition:** % of Outpatients to be attended to within 2 hours.
- Numerator:** Number of outpatients attended to within 2 hours
- Denominator:** Total number of outpatients attended to.
- The results were shared in the monthly meetings.

Action Plan

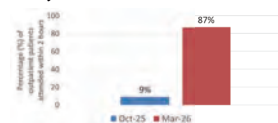
ACTION POINTS	RESPONSIBLE PERSON	TIME FRAME/ STATUS
Team to meet monthly	Secretary	Partially done
Educate other staff on key performance indicators	Team	Done
Change, track and plot data before and after interventions and discuss them as a team	Team	Not done
Standardize and document changes	Team	Not done
Accurately calculate waiting time indicators	Team	
Open and maintain a QI data folder	secretary	Partially done
Share findings with management or staff meetings	Team lead	Not done
Identify performance problems at registry	Kingfrey Mayauli & Changala Milimbo	3 rd November 2025
Identify performance problems at the laboratory	Mwamba Nsofwa & Vivien Banda	3 rd November 2025
Identify performance problems in the consultation rooms	Leo Ntinga & Norman Maramwidze	3 rd November 2025
Standardize turnaround time according to test	Laboratory staff & QI team	December 2025

THANK YOU



Results

- In October 2025, only 9 % of outpatients at Chilenje level 1 hospital were attended to within 2 hours by healthcare workers.
- We then set the desired performance by December at 50%.
- Patient track progress showed a tremendous improvement in the number of patients seen within 2 hours, to 87% by 31st March 2026.



Results

- Additionally;**
- Allocation of the floor manage to guide patient flow
- Assigning of specific C.O to review laboratory results as they come
- Laboratory staff assigned to specific duties in every shift to speed up the turn around time
- Pharmacy put up a deliberate policy of displaying drug bulletin in all screening rooms to guide clinicians to prescribe available medication.

Conclusions

- This activity showed that continuous communication, regular reminders and departmental peer assessments are key to reduce long patient waiting time.
- Notwithstanding, peer-to-peer exchange visits(among facilities)played a pivotal row to improving the service.
- Good leadership at every point of service delivery plays a key row in coordinating and execution of duties by staffs.
- A recommendation is made to source for more manpower through the office of the human resource.



Conclusions

- To sustain the improvement, monthly meetings and updates during facility clinical meetings will be shared on the progress and status quo.
- Patient-motion questionnaires to be administered to selected clients to fill in the time seen at every service point in order to monitor progress.
- Continuous review of patients' records for completeness and timely intervention.



2.3 Enhancing Quality Patient Care Through Floor Managers at Chipata Level One Hospital

Mono Shimooko, Kanekwa Nyirenda & Rhoda Lungu
Chipata Level One Hospital

Background

Health facilities in Zambia, including Chipata Level One Hospital, face persistent challenges of inefficient patient flow, prolonged waiting times, and high patient dissatisfaction. Prior to 2024, outpatient waiting times ranged from 4 to 6 hours due to poor triage systems, weak interdepartmental coordination, and a lack of dedicated patient guidance. To address these inefficiencies, the hospital introduced floor managers, drawing on Japanese hospital management practices.

Methods

A Quality Improvement (QI) approach was implemented involving hospital leadership and four designated floor managers. Root cause analysis identified key bottlenecks, including inadequate triage, poor communication, and poor coordination of patient flow. Floor managers were purposively selected based on predefined criteria: prior experience as hospital volunteers, emergency response competence, strong patient communication skills, high energy and alertness, and a minimum Grade 12 certification with training in psychosocial counselling. The intervention deployed floor managers in high-traffic areas, including the outpatient department and NHIMA units. Their roles included active triage, patient navigation, fast-tracking critical cases, and real-time interdepartmental coordination. Additional measures included a community complaints desk, routine patient guidance announcements, and monthly performance reviews.

Results

Patient waiting times reduced from 4–6 hours to 2–3 hours. Triage efficiency improved, enabling the timely prioritization of critical patients. Patient satisfaction increased, with complaints declining from an average of 23 cases (2024–2025) to 6 cases in 2026. Staff workload distribution improved, and overall patient safety was enhanced.

Conclusion

The introduction of floor managers significantly improved patient flow, service delivery, and patient experience. The intervention's effectiveness was strongly influenced by the deliberate selection of personnel with competencies in communication, emergency response, and psychosocial support. This study demonstrates that combining strategic human resource selection with structured coordination and patient-centered system redesign can substantially improve healthcare quality without requiring significant additional resources. Scaling up and institutionalizing this model could strengthen service delivery across Zambia.

The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026

Chipata level one hospital

**Enhancing quality patient care through
Floor managers at Chipata level 1 in Lusaka.**

PRESENTER: MOONO SHIMOOKO
TEAM MEMBERS : KANEKWA NKHOMA
RHODAH LUNGU

QI Team

- The hospital management which included the team that went to Japan had a QI meeting to discuss how they to sort out the problems which were identified
- A public relations officer was identified with 4 floor managers who were working on voluntary basis as Psychosocial counsellors, to be deployed as Floor managers,
- Head of Department were also involved to actively participate who also adopted the idea from Japan
- Payments and contract length was actively discussed and finalized in the same meeting held for floor managers

POSTER - FLOOR MANAGERS



Cause-Effect Analysis

Problems

- The poor triaging of patients, poor departmental communication, congestion, complaints became problems which affected our daily work leading to compromised service delivery

Root Causes

- Inadequate Staff
- Weak triage force and no dedicated patient flow coordinator
- No dedicated system of ensuring quick flow of patients

Floor Managers

- Floor managers are the frontline leaders responsible for the real time operations of a specific area or floor within a business place or hospital. In hospitals they are a link between the staff and the patient.
- The idea to hire floor managers was the concept that was adopted from Japan.
- The aim of hiring these floors managers was to provide services that were lacking such as fast tracking and guidance of patients, to their desired locations.

Intervention

- Drawing the inspiration from the Toyama Hospital model in Japan where dedicated flow coordinators improved patient experience- Chipata level one hospital adopted this concept to its local context and resource environment.
- Four floor managers were deployed in OPD and NHIMA whose roles are, active triage, fast-tracking, real-time coordination between departments and patient guidance in each shift
- Public information officer was identified who works/supervise the floor managers in complaint handling and patient's feedback, as well as tasks
- Heads of departments were oriented in complaint handling procedure which were stuck in all departments
- Community desk was opened for handling complaints and feedback

Floor Managers



KPI

- Patient waiting: 2 to 3 hours currently
- Monitoring period: From February 2024 to December 2024
- Baseline: In 2024 from February to April, patient were spending 4-6 hours

Background

- Before 2024, we were experiencing long queues, long waiting hours for patients, unstructured patient flow, high complaint volume, and a lot of congestion in the outpatient department to be specific.
- The identified gap brought up confusion in the way we were working leading to increased waiting time for our patients because it was also difficult to Triage.
- To address these confusion, the hospital adopted the concept of floor managers, inspired by Japanese hospital management practices.

Action Plan

Intervention	Action needed	Responsible person/s	Time frame
Complaint	Following the complaint procedure	Public information officer	Every day
Identification of critical patients	Orientation of the Triage tool, Use of emergency guideline protocols.	Floor managers	Every day
Data review	Review in the hospital meetings to identify gaps	Public relations officer	Every month
Monitoring and mentorship programs with the floor managers	Hold monthly meetings with them and identify challenges they are facing.	Public relations officer	Every Month
Integration into routine operations	Motivating in terms of funds.	Hospital Administrator	ongoing
Talks on guidance through the hospital microphone to all the patients	Allocation of topics and responsibilities to carry out.	Floor managers	Every day

Results

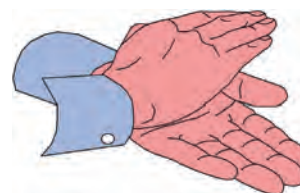
Waiting time reduction:

4-6 hours ➔ **2-3 hours**
At February to June 2024 In April 2026 from January to April 2026

A drop in complaints:

23 times/month ➔ **6 times/month**
2024-2025 2026

THANK YOU



Results

- Strengthened Triage system- Urgent vulnerable patients are prioritised effectively
- Improved patient Satisfaction- Patient reported feeling more respected and cared for than before (Surveys)
- Reduced work overload among the staff
- Increased patient safety
- Community engagement
- Motivation of workers

PATIENTS WITH FLOW MANAGERS.



Conclusions

- Effective communication with our patients can help create a good relationship through complaint handling
- Staff morale is improved as some of the tasks are done by the floor managers
- Safety of our patients is assured most of the shifts
- Improving patients care is not only about using resources, but better coordination and patient centered systems that make the most of what already exists
- The floor managers at Chipata demonstrates transformative in health care quality which has improved patient satisfaction

RECOMMENDATIONS

- To scale to all Hospital Department where patients flow is still a challenge
- To formalize the role under the Ministry of Health to officially recognize and standardize the floor managers position within Zambia's workforce framework
- Investing in continuous training and support
- More support from our partners JICA, as well as MoH

3.1 Streamlining Hospital Meeting Schedules to Enhance Service Delivery at Chawama Level One Hospital

Christabel Nkunika, Francine Mubanga, Maimbolwa Munalula, Lorraine Chikonka, Kingsley Chimpilinte, Elisa Mayondi, Prima Tembo, Chomba Kasanda, Thandiwe Banda

Chawama Level One Hospital

Background

Chawama Level One Hospital serves a high-density population requiring uninterrupted service delivery. In addition to service delivery, Management need to sit for various meetings in order to strategically plan and resolve issues that arise from the day to day running of the hospital. Thus, different meetings are undertaken such as Clinical meetings, Senior management meetings and Management meetings like; Finance committee meetings, Medicine and Therapeutic committee meetings and Biomedical committee and Infection Prevention Committee meetings just to name a few. Ideally, hospital meetings should be organized, timely, and well-coordinated to ensure administrative efficiency without compromising patient care. However, there was a significant gap in meetings that were often ad-hoc, overlapping, or poorly attended, which resulted in "meeting fatigue" and service delivery interruptions. Tackling this gap was essential to boost staff morale and guarantee that senior clinicians were available for service delivery instead of being trapped in disorganized briefings. The purpose of this QI activity was to create a standardized institutional calendar that strikes a balance between clinical responsibilities and administrative requirements.

Method

The project was spearheaded by a multidisciplinary Quality Improvement Team including the QI focal person, HCC, Matron, HA, Planner, Lab personnel etc. The team used the Fishbone analysis, to determine that the absence of a centralized, synchronized scheduling mechanism and the absence of a "Meeting Protocol" was the root cause. The intervention started in the last quarter of 2021 and it involved the creation of a "Master Meeting Matrix" which set out particular days for clinical meetings, administrative meetings such as senior management, management and departmental meetings. The KPI was defined as the number of meetings held according to the schedule versus total meetings conducted. Thus, this included the monthly meetings that are usually planned such as; senior management meetings, management meetings, clinical meetings, finance meetings, Infection Prevention Meetings, Medicines and Therapeutics Committee meetings, data review meetings and Biomedical committee meetings just to name a few. The monitoring procedure involved a monthly audit of the hospital's minutes file and attendance registers, comparing data from the three months prior to the intervention (July-September, 2021) against the three months following implementation (January- March, 2022).

Results

The Meeting Adherence Rate increased from the initial 42% (5/12) to 83% (10/12) within the first quarter. Additionally, the use of organized agendas reduced the duration of meetings from 4 hours to 2 hours. Qualitatively team members no longer perceived meetings as a “burden” but rather as “productive.” Staff notably cited a reduction in stress, citing better predictability of their daily clinical and administrative schedules.

Conclusions

The team found that the standardization of meeting slots was the most effective element, as it allowed departments to plan their rotas around fixed administrative times. To sustain these gains and encourage continuous adherence to meetings, there is need for regular communication between the meeting host and the meeting participants. Furthermore, the hospital planner has an important role of managing, making and publishing of the master meeting matrix on a monthly basis. This practice can be sustained through sending regular and timely reminders, such as memos sent by the host department to the intended meeting audience prior to the day of the meeting, thereby preventing a return to ad-hoc scheduling.

The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026

Streamlining Hospital Meeting Schedules to enhance Service delivery at Chawama Level One Hospital

**PRESENTER :CHRISTABEL NKUNIKA
PLANNER
CHAWAMA LEVEL ONE HOSPITAL**



Background

Ideal

- ☐ Holding regular meetings
- ☐ Meetings should be Organized (scheduled according to time and date).
- ☐ Meetings should be well coordinated

Gap

- ☐ Meetings held irregularly
- ☐ Meetings were held on adhoc basis
- ☐ Meetings overlapping causing 'meeting Fatigue' and service delivery disruption
- ☐ Meetings poorly attended

Background

- ☐ Chawama serves a high-density population
- ☐ Need to regularly hold meetings to strategically plan and resolve day to day Hospital issues as they arise.
- ☐ Different level meetings are called when need be, eg Clinical meetings, senior management and Management meetings
- ☐ Concept arose from the regular holding of these ad hoc meetings that were disrupting service delivery

Rationale and Purpose

Rationale

- ☐ Lack of a Meeting schedule was causing overlapping of meetings.
- ☐ Also causing 'Meeting Fatigue' and service delivery disruption
- ☐ Quality of patient care affected due to service delivery disruption as a result of ad hoc meetings.

Purpose

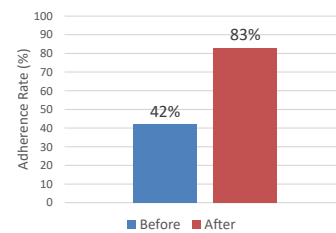
- ☐ To create a standardized institutional calendar of meetings (balancing clinical responsibilities and administrative requirements)

QI Team

Multidisciplinary team

- ☐ Medical superintendent
- ☐ Head of clinical Care
- ☐ Hospital Administrator
- ☐ Planner
- ☐ Nursing officer
- ☐ QI focal Person
- ☐ Lab Personnel
- ☐ Registry Clerk
- ☐ OPD incharge

Results: Adherence Rate (%)



Cause-Effect(fishbone) Analysis

Root causes identified

- ☐ Absence of a meeting Protocol
- ☐ Absence of a centralized, synchronized scheduling mechanism.

Method used

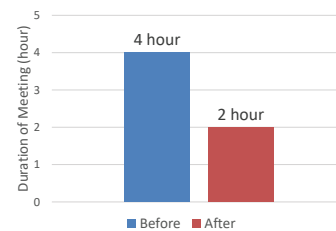
- ☐ The fish bone analysis method was used to identify system gaps.



Intervention

- ☐ Creating of a Master meeting Matrix showing when and what time a particular meeting will take place. I.e both clinical and administrative meetings
- ☐ Creating a meeting protocol. I.e setting a meeting agenda, chair of meetings and time keeping.

Results: Duration of Meeting (hour)



Methods: KPI

KPI Definition

- ☐ The number of meetings held according to Schedule versus total meetings conducted

KPI=Number of meetings held according to schedule/Total Meetings conducted

Measurement

- ☐ Numerator: Meetings held according to schedule
- ☐ Denominator: Total meetings conducted
- ☐ Period: Monthly

Results

- ☐ Hospital staff started seeing meetings as productive rather than as a burden
- ☐ Staff were less stressed citing a predictability in their daily clinical and administrative duties
- ☐ Improved patient care because staff were spending more time with patients than in ad hoc meetings

Action Plan

Action Plan

- ☐ What: Create a Master meeting Matrix and meeting protocols
- ☐ Where: The Hospital
- ☐ Who: Planner and Senior management

Monitoring

- ☐ Monthly audit of Hospital Meeting minutes and schedules
- ☐ Pre- and post-intervention comparison (3 months pre and 3 months post Intervention)
- ☐ Tracking KPI trends over time



Conclusion

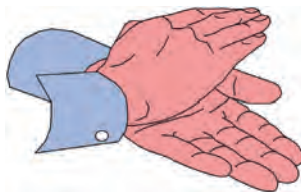
Recommendations/sustainability

Standardization of meeting slots allowed departments to plan their rotas around fixed administrative time.

- ❑ To maintain the use of schedule of meetings Matrix.
- ❑ To continue the use of meeting protocols such as communicating the holding of meetings and its agenda prior to holding of the meeting to the participants
- ❑ To continue conducting monthly KPI monitoring and review meetings
- ❑ The Planner has a big role of scheduling these meetings on a monthly basis, hence the need to be timely getting the departmental meeting needs.



THANK YOU



3. 2 Improving Strategic Planning and Budget Alignment Through the Balanced Scorecard at Chipata Level One Hospital

Kanekwa Nyirenda, Rhodah Lungu, and Mono Shimooko
Chipata Level One Hospital

Background

Chipata Level One Hospital is a primary healthcare facility in Lusaka that introduced the Balanced Scorecard (BSC) in 2023 to translate strategic priorities into measurable departmental objectives and guide Output-Based Budgeting (OBB). Ideally, departmental operational plans, BSC KPIs, and OBB allocations should be fully aligned with approved Annual Work Plans and strategic priorities. This ensures that each planned activity has a corresponding budget line and that every allocation is linked to clearly defined deliverables that contribute to intended outcomes and overall strategic objectives. In practice, however, plans were developed separately from OBB budgets. Many activities lacked funding, budgets were not explicitly tied to BSC priorities, and Heads of Departments (HODs) had a limited understanding of KPIs and their use in routine management. This misalignment resulted in delayed decision-making, underfunding of high-demand services, fragmented communication across departments, and weak accountability for performance outcomes. To address these challenges, a Quality Improvement (QI) initiative was undertaken to strengthen the integration between strategic planning, budgeting, and performance monitoring through improved BSC implementation.

Methods

A multidisciplinary QI team was established, comprising the Medical Superintendent (Chair), Nursing Officer, Head of Clinical Care, Heads of Departments (HODs), Health Information Officer (HIO), and the Planner as coordinator. Root cause analysis identified four barriers of BSC implementation: weak institutionalisation of planning-budget integration processes, a weak data-use culture with limited routine use of performance data, inadequate understanding of BSC KPIs among senior management and HODs, and poor documentation, tracking, and follow-up of action points. Interventions were introduced in Q1 2024 (January-March 2024) following a baseline assessment, including structured BSC orientation sessions for HODs and senior management, mandatory monthly departmental BSC presentations, joint planning-budgeting sessions to align operational plans with OBB budget lines, routine monthly data review meetings, and the introduction of a formal action-tracking register with leadership follow-up. The primary KPI was defined as the percentage of departments presenting BSC performance data at monthly review meetings, calculated as the number of departments presenting divided by the total expected. At baseline (December 2023), 56% (14/25) of departments participated in monthly review meetings within six months. Meetings were inconsistently conducted with irregular attendance. While useful for monitoring participation, this KPI was complemented with additional

indicators assessing data use, plan-budget alignment, and action tracking. Progress was monitored through monthly review meetings, documented minutes, action-tracking tools, and continuous feedback from facility leadership.

Results

Departmental participation in BSC presentations improved from 56% (14/25) at baseline (December 2023) to 100% (25/25) by June 2024. Adherence to scheduled senior management and data review meetings also improved to full attendance and compliance with complete adherence to the management calendar reached by March 2024 and sustained thereafter. Improvements were observed in the structure and use of performance data. Departments presented BSC indicators more systematically, clearly identified performance gaps, and reported progress against targets more consistently. Increased participation enhanced cross-departmental visibility of performance information and strengthened accountability among HODs. Reported improvements in collaboration and decision-making were considered secondary effects of strengthened BSC review processes rather than independently measured outcomes.

Conclusions

The QI initiative demonstrated that structured implementation of the BSC—through orientation, routine data review, and integration with OBB budgeting—can strengthen management systems and accountability in a resource-limited hospital without requiring additional financial inputs. A key lesson is that institutionalised systems, rather than reliance on individual Leadership alone drives sustained improvement. Mandatory BSC presentations, formal action-tracking, and integrated planning and budgeting processes were critical to achieving full participation and strengthening accountability. Routine data review meetings reinforced a culture of data use and enabled systematic performance monitoring. It is recommended that similar facilities institutionalise monthly BSC review meetings, joint planning–budgeting processes, and continuous capacity building for HODs. Evidence from this intervention shows that such approaches improve participation, accountability, data-driven decision-making, and alignment between plans and budgets, leading to more efficient resource utilisation and stronger governance. Sustainability at Chipata Level One Hospital has been ensured through formal inclusion of BSC reviews in the facility calendar, clearly defined implementation roles, and ongoing monitoring of participation, action completion, and plan–budget alignment.

The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026

Chipata Level One Hospital, Mandevu Sub-District, Lusaka, Zambia

Improving Strategic Planning & Budget Alignment Through the Balanced Scorecard

Kanekwa Nyirenda, Rhodah Lungu, and Mono Shimooko

Background: Setting

Chipata Level One Hospital introduced the **Balanced Scorecard (BSC)** in 2023 as a strategic management tool to translate high-level priorities into measurable departmental objectives. The BSC was designed to serve as the backbone of integrated planning and accountability across all hospital departments.

Strategic Translation
BSC converts strategic priorities into clear, measurable departmental KPIs.

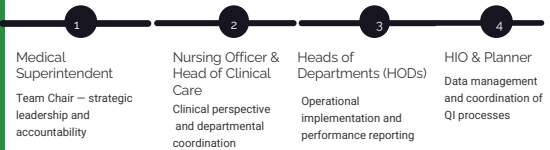
Output-Based Budgeting
Intended to guide OBB allocations and performance monitoring cycles.

Operational Plans
Departments develop plans aligned to Annual Work Plans and strategic priorities.

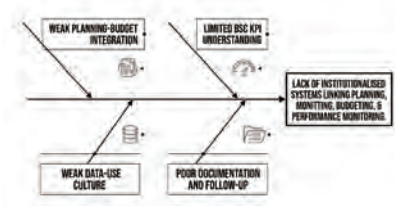
Methods: QI Team

A **multidisciplinary team** was assembled to reflect the full scope of planning, data management, and clinical decision-making functions at Chipata Level One Hospital.

① The team was intentionally structured to eliminate barriers between clinical, administrative, and data roles.



Methods: Cause-Effect Analysis



Method Used
A structured **cause-and-effect** (fishbone) analysis was conducted during QI team sessions to systematically identify and prioritize root causes.

① **Priority Cause:** Lack of institutionalised systems linking planning, budgeting, and performance monitoring.

Background: The Gap

Ideal Situation

The system was designed for full, seamless alignment across all operational dimensions:

- 100% of departments presenting BSC data monthly
- Departmental plans fully linked to BSC KPIs
- OBB budget allocations tied to planned activities
- All HODs actively using performance data for decisions

Observed Gap — Baseline (Dec 2023)

- Only **56% (14/25)** departments presented BSC data
- Plans developed in isolation from budget processes
- Activities lacked a clear funding linkage
- Limited KPI understanding among Heads of Departments

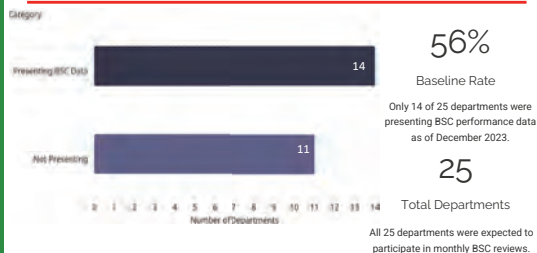
⚠ A 44-percentage-point gap existed between ideal performance and actual departmental participation.

Methods: Intervention

Based on the root cause analysis, five targeted interventions were implemented beginning Q1 2024. They were chosen for feasibility and long-term system impact.

01	02	03
BSC Orientation Sessions	Mandatory Monthly BSC Presentations	Joint Planning–Budgeting Sessions
Capacity-building sessions helped Heads of Departments understand BSC KPIs and how to apply them.	All 25 departments presented BSC data monthly to strengthen accountability.	Planning was aligned with budgets and BSC priorities in integrated sessions.
04	05	
Monthly Data Review Meetings	Action-Tracking Register	
Teams reviewed performance data regularly and agreed on corrective actions.	The Planner maintained a register to track follow-up and completion of actions.	

Background: The Gap



Methods: KPI

KPI Definition

Primary Indicator: Percentage of departments presenting BSC performance data monthly.

Component	Detail
Numerator	Departments presenting BSC data
Denominator	Total departments (25)
Frequency	Monthly measurement
Baseline (Dec 2023)	56% – 14/25 departments
Target	100% within 6 months

Monitoring Approach

- Monthly KPI tracking against target
- Meeting minutes and attendance records as evidence
- Before-and-after comparison at 6-month mark
- Action register reviewed at every meeting

② A clear, simple, and measurable KPI enabled transparent progress tracking by all stakeholders.

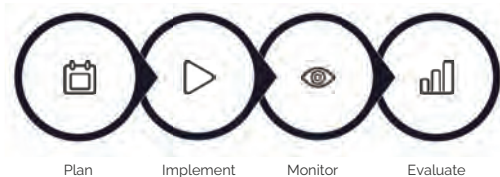
Background: Rationale

The misalignment between planning, budgeting, and performance monitoring was not merely an administrative issue — it had direct consequences on service delivery quality and resource efficiency across the hospital.

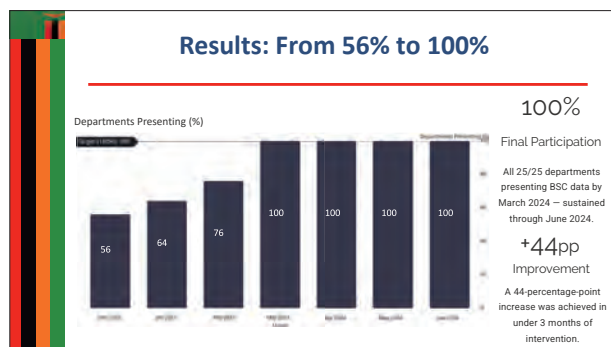
Impaired Decision-Making	Resource Inefficiency	Weakened Accountability
Without reliable BSC data from all departments, hospital leadership could not make fully informed, evidence-based resource allocation decisions.	Plans developed separately from budgets led to underfunding of key services and delays in implementing priority health activities.	Gaps in BSC participation reduced departmental accountability, making it difficult to track performance or enforce corrective actions.

③ **Purpose:** To improve alignment between planning, budgeting, and performance monitoring — and to increase departmental participation in BSC performance reviews.

Methods: Action Plan



The QI team, led by the Medical Superintendent, operated across Chipata Level One Hospital from January to June 2024. Monthly meeting minutes, attendance records, and the action-tracking register served as continuous monitoring tools.



Results

Alongside the measurable KPI gains, the QI team documented meaningful shifts in how departments engaged with data and each other.

Data Presentation Quality Departments structured their reports more clearly, improving the quality of evidence presented at review meetings.	Gap Identification HODs became more skilled at identifying and articulating performance gaps in their own departmental data.
Cross-Department Collaboration Shared data review meetings fostered stronger inter-departmental communication and joint problem-solving.	Accountability Culture The QI team consistently observed a stronger culture of data use and personal accountability among HODs.

Conclusions: What Worked: Key Success Factors

Effective Interventions ☐ Mandatory BSC Presentations Formalizing participation removed ambiguity and ensured universal compliance across all departments. ☐ Routine Data Review Meetings Regular, structured review cycles created consistency and embedded performance monitoring into hospital operations. ☐ Integrated Planning-Budgeting Linking plans to budgets in joint sessions closed the critical gap between intention and resource allocation.	Recommendations Institutionalize monthly BSC review meetings in the official facility calendar Strengthen ongoing capacity building for HODs on KPI interpretation and data use Scale this integrated approach to other Level One hospitals in Lusaka Province Document and share the model as a replicable QI framework for health facilities
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Conclusions: Sustainability: Building Lasting Systems

Achieving 100% participation is valuable only if it is sustained. The QI team implemented measures to integrate improvements into the hospital's operations, ensuring lasting change.

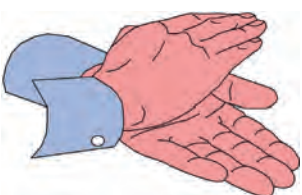
1	2	3
Integrated Calendar BSC reviews formally embedded in the facility management calendar, ensuring they occur regardless of personnel changes.	Defined Roles Clear responsibilities assigned to each team member for data collection, presentation, review, and follow-up action tracking.	Continuous Monitoring Ongoing tracking of participation rates, action completion, and plan-budget alignment to detect and address any regression early.

Key Lesson: Sustainable quality improvement requires system-based approaches – not one-off interventions. When planning, budgeting, and performance monitoring are structurally integrated, improvement becomes self-reinforcing.



THANK YOU





3.3 Strengthening Departmental Governance Through Implementation of Balanced Scorecards: A Quality Improvement Initiative at Kanyama Level 1 Hospital

Mutinta Hambulo, James Nyirenda, Andrew Chinyonga, Nalukui Wanga, Christine Nyoni, Ireen Silavwe, Ilunga Mutwale, Prisca Mwanza, Paula Nyongani, Zindaba Ngulube, Goodson Mpumba, Dorcas Shamonga, Susan Hamaamba, Ronald Lusambo, Brenda Namwinga

Kanyama Level One Hospital

Background

Effective governance systems are critical for improving service delivery, accountability, and performance monitoring within health facilities. Kanyama Level 1 Hospital has implemented several departmental Quality Improvement (QI) projects; however, performance monitoring remained centralized through an institutional (senior management) balanced scorecard, with no corresponding tools at departmental level. This created a significant gap in tracking departmental performance, identifying specific challenges, and initiating targeted QI initiatives.

Ideally, each department should have a functional balanced scorecard aligned with the hospital's strategic objectives. However, the absence of departmental scorecards limited evidence-based decision-making and hindered synchronized identification of priority areas for Continuous Quality Improvement. This also posed a risk of inefficient resource allocation, as funding decisions were not consistently guided by department-specific performance data.

The aim of this QI project was to establish and operationalize departmental balanced scorecards to strengthen governance, improve accountability, and support data-driven decision-making.

Methods

This QI activity was implemented by the hospital management team, including senior managers and Heads of Departments. A root cause analysis identified key barriers, including the absence of a structured platform and tool for presentation and review of departmental performance, limited capacity and confidence among staff to develop and utilize balanced scorecards, and weak accountability mechanisms.

To address these challenges, a simplified and standardized PowerPoint-based balanced scorecard template was adapted for monthly departmental use. A total of 15 Heads of Departments and 20 nurse leaders were oriented on the use of the template, while 12 senior managers were trained in governance, leadership, and quality improvement to strengthen oversight and implementation. In addition, previously inactive management meetings were revived to provide a structured platform for departmental performance review using the scorecard.

By January 2026, no department (0%) was utilizing a balanced scorecard. The project monitored the number of departments developing and presenting scorecards, as well as overall departmental engagement in performance tracking before and after the intervention. Implementation of the tool began in March 2026, with initial presentations conducted in April 2026.

Results

Prior to the intervention, no department had functional balanced scorecard, and departmental performance monitoring was minimal. Following implementation, several departments developed and adopted the standardized scorecard template and began presenting their performance in management meetings. There was a noticeable improvement in confidence and engagement among Heads of Departments in monitoring and reporting performance. A structured platform for performance review was successfully re-established, with the first management meeting held on 14 April 2026 where 10/25 (40%) departments were able to present their balanced scorecard. In addition, there was improved ownership of performance data, increased motivation to identify and address service delivery gaps, and enhanced collaboration across different cadres, which had previously been limited.

Conclusions

The introduction of a simplified PowerPoint-based balanced scorecard tool, combined with capacity building and the re-establishment of regular performance review platforms, was effective in strengthening departmental governance. This success was largely due to directly addressing key barriers by making the tool practical and user-friendly, improving staff capacity and confidence, and creating a consistent platform for accountability and follow-up. The intervention promoted a culture of data ownership, enhanced accountability, and enabled more timely and informed decision-making at departmental and senior management levels.

It is recommended that hospitals adapt and simplify performance monitoring tools to suit their context, invest in continuous capacity building, and institutionalize regular performance review meetings with strong leadership support. The intervention has now been standardized as part of routine monthly departmental reporting during management meetings, with ongoing leadership engagement to ensure sustainability and continuous quality improvement.



The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026



Kanyama First Level Hospital

Strengthening Departmental Governance Through Implementation of Balanced Scorecard

Mutinta Hambulo, Andrew Chinyonga, Nalukui Wanga, Christine Nyoni, Ireen Silavwe, Ilunga Mutwale, Prisca Mwanza, Paula Nyongani, Zindaba Ngulube, Goodson Mukosa Mpumba, Dorcas Shamonga, Susan Hamaamba, Ronald Lusambo, Brenda Namwinga, James Nyirenda

Methods: Cause-Effect Analysis

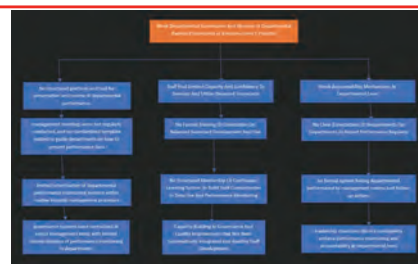
A root cause analysis conducted using the Why Tree and Fishbone;

- No clear systems or tools for departmental performance tracking
- Limited staff skills and confidence in using data and scorecards
- Unclear roles and expectations for departmental reporting
- Weak feedback and follow-up on performance
- Low ownership and motivation at departmental level
- Weak leadership support and accountability enforcement

Background: Setting

- ❖ Effective governance systems are critical for improving service delivery, accountability, and performance monitoring within health facilities.
- ❖ Kanyama First Level Hospital has implemented several departmental Quality Improvement (QI) projects;
- ❖ Performance monitoring remained centralized through an institutional (senior management) Balanced Scorecard (BSC), with no corresponding tools at departmental level.
- ❖ This created a significant gap in tracking departmental performance, identifying specific challenges, and initiating targeted QI initiatives.

Methods: Cause-Effect Analysis



Background: The Gap

- ❖ Each department should have a functional BSC (100%)
- ❖ Only 1 out of 25 departments had a functional BSC (4%)
- ❖ Creating a performance gap of 96%

Methods: Intervention

- ❖ A simplified and standardized PowerPoint-based balanced scorecard template was adapted for monthly departmental use.



Background: Rationale

- ❖ The absence of departmental scorecards limits evidence-based decision-making and hinders synchronized identification of priority areas for Continuous Quality Improvement.
- ❖ This poses a risk of inefficient resource allocation, as funding decisions are not consistently guided by department-specific performance data.
- ❖ The aim of this QI project was to establish and operationalize departmental balanced scorecards to strengthen governance, improve accountability, and support data-driven decision-making.

Methods: Intervention

- ❖ Senior managers were trained in governance, leadership, and quality improvement to strengthen oversight and implementation.



Methods: QI Team

- ❖ This QI project is being undertaken by the Kanyama Level 1 Hospital QI core team and Kanyama senior management

Methods: Intervention

- ❖ 15 Heads of Departments and 20 nurse leaders were oriented on the use of the template
- ❖ Previously inactive management meetings were revived to provide a structured platform for departmental performance review using the scorecard



Methods: KPI

- Indicator: Percentage of departments or units with functional Balanced Scorecards
 - Numerator: Number of departments or units with functional BSC
 - Denominator: Total number of departments or units

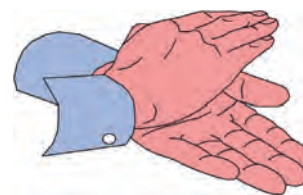
Conclusions-Recommendation

- ❖ Hospitals to adapt and simplify performance monitoring tools to suit their context, invest in continuous capacity building, and institutionalize regular performance review meetings with strong leadership support.

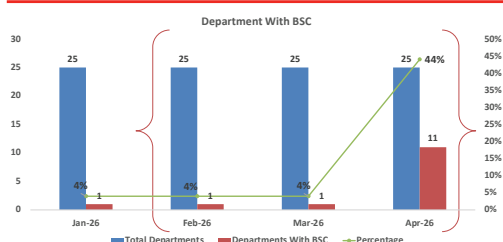
Methods: Action Plan

ACTION	WHEN	WHO	KEY OUTPUT / KPI
Develop simplified BSC template	Feb 2026	QI Team	Standard tool available
Train senior managers in QI	Mar 2026	QI Coordinator	12 Managers trained
Orient HODs & nurse leaders	Mar 2026	QI Team	15 HODs, 20 leaders trained
Train senior managers Governance	Mar 2026	HRMO	12 managers trained
Implement BSC in departments	Mar 2026 onwards	HODs	Departments using scorecards
Revive management meetings	Apr 2026 onwards	Management	Departments presenting monthly
Monitor performance (pre vs post)	Jan–Apr 2026 onwards	Planner	KPI: % departments using BSC

THANK YOU



Results



Results

- ❖ Improved ownership of performance data
- ❖ Increased motivation to identify and address service delivery gaps
- ❖ Enhanced collaboration across different cadres

Conclusions

- ❖ The introduction of a simplified PowerPoint-based balanced scorecard tool, combined with capacity building and the re-establishment of monthly performance review meetings, was effective in strengthening departmental governance.
- ❖ The BSC has now been standardized as part of routine monthly departmental reporting during management meetings, with ongoing leadership engagement to ensure sustainability and continuous quality improvement

3.4 Applying Collaborative Quality Improvement Approach to Improve Nursing Care Documentation, Infection Prevention and Control Practices, Leadership and Supervision Skills and Equipment Availability in First Level Hospitals in Lusaka District Using Nursing Audit

Inutu Mbangweta¹, Rosina Kandyata¹, Lillian Mainga³, Likezo Masiliso¹, Monde Muyambango², Evelyn Nkata², Jane Bota², Ireen Silavwe², Lorrain Chikonka², Matildah Mbewe², Angela Nanyangwe², Maureen Chikwa², Diana Mushaya², Akabeswa Kwalombota², Pamela Namakando², Clara Mulenga², Caloroline Hamwete², Bridget Banda², Priscila Mulenga², Patricia Malambo², Benarndet Tembo⁴, Petronella Mundia⁴, Beatrice Mundia⁶, Victoria Nthala⁵, Biemba Maliti⁸, Georgina Chipowe⁴, Jenifer Mulonda⁹, Beauty Mulonda⁹, Mable Simuchimba⁴, Sama Mumba⁹, Simulyamana A Choonga¹.

1. Lusaka Provincial Health (LPHO) / 2. Lusaka District Health Office (LDHO) / 3. Levy Mwanawasa University Teaching Hospital / 4. Adult University Teaching Hospital / 5. Children University Teaching Hospital / 6. Women and Newborn University Teaching Hospital / 7. Eye University Teaching Hospital / 8. Chainama Hills College Hospital / 9. Cancer Diseases Hospital

Background

LPHO conducts quarterly nursing audits for the purpose of ensuring adherence to nursing and midwifery standards by Hospitals. Ideally, all Hospitals should fulfill all the criteria of nursing and midwifery care practices. However, gaps were noted which included: non-existence of nursing care plans in some facilities, poor documentation of care, not understanding nursing tools such as nursing care plans, nursing kadex, fluid balance charts, non-standardization of nursing documents, non-adherence to infection prevention practices, non existence of protocols, wearing of incorrect nurses uniform and inadequate medical equipment. The gaps had an impact on provision of quality care that provided patient safety, effective communication among health care providers, legal protection for Nurses and Midwives, guiding of care diagnosis and decisions. The aim of the QI project was to improve adherence to the nursing and midwifery care standards.

Methods

A team comprising Principal Nursing Officers, and Nursing Officers from the LPHO and LDHO spearheaded by the Chief Nursing Officer, LPHO was formed. By conducting cause and effect analysis, the Team identified that the gaps were due to sub optimal supervision of Nurses and Midwives. A collaborative approach was used in 7 health facilities: Chilenje, Chawama, Kanyama,

Matero, Chipata FLFs, Chelstone Zonal Hospital and, Bauleni Mini Hospital to conduct quarterly nursing audits. The activity started from June 2024 to July 2025. The aim, indicators and measurement processes using a score card were shared with the Team by the team leader. An automated colour-coded grading system was then developed: gray for not applicable items, red for scores of 1% to 49%, yellow for 50% to 79%, and green for 80% to 100%. The first audit served as the baseline, and improvement was assessed in subsequent audits. The KPI was the overall performance where the average score obtained by the facility in in-patient, labour wards, out patient / emergency and the Operating Theatres departments was calculated. Nursing audit tools were used to conduct quarterly Collaborative QI. The departments were audited using 2 tools; One tool examined documentation, infection prevention and leadership and supervision skills while the other tool examined availability of equipment according to standard. The combined scores from both tools gave the facility a denominator of 8. Availability of correct nursing care plans, nursing kardex, fluid balance charts, fits charts, nursing protocols, clinical protocols, procedure manuals, IPC protocols, nurses uniform, time tables, report books, Controlled drug cupboards (CDA), Temperature, Pulse, Respiration (TPR) and Blood Pressure (BP) Charts, equipment inventory and incidence reports formed the items in the tool. At the baseline, the minimum overall actual performance was 57% (4.6/8) and the desired score was 80% (6.4/8). Exchange visits were conducted to enhance skills transfer and Medical Equipment Champions were introduced to ensure availability of medical equipment. The team met quarterly for best practice sharing and data audit review meetings supported by JICA, in collaboration with LPHO, University Teaching Hospitals (UTHs), District Health Offices (DHOs) and FLHs. The meetings were for shared learning and spreading successful changes. Best performing facilities were awarded. Each site implemented the change interventions agreed during the meetings.

Results

Improvements were observed in all (100%) facilities showing 67% to 75% in Chilenje, 64% to 73%, in Chawama, 63% to 78% in Kanyama, 68% to 84% in Matero, 64.6% to 77.6% in Chipata, 66.5% to 75.8% in Chelstone, and 57% to 78% in Bauleni. Further analysis revealed more improvement in correct documentation of nursing care plans, nursing kardex, fluid balance charts, fits charts, time tables, report books, CDA, TPR, and BP charts, incidence reports, nursing and clinical protocols availability, procedure manuals availability, IPC practice and wearing of prescribed nurses uniform, with scores for all facilities ranging from 80% to 95%. Findings revealed minimal improvement in availability of equipment with score ranges from 63% to 86%. Only 1/7 (14.2%) facilities (Kanyama FLH) managed to score beyond the target (from 52% to 86%) for availability of equipment. Nursing Officers that participated in the activity gained leadership and supervision skills.

Conclusions

The activity showed that the use of collaborative QI approach in conducting nursing audit as Teams, use of colour-coded score card for results and sharing of data audit results in meetings, were key to improvements. LPHO's guidance and a process in which all relevant members came together to review the evaluation results, declare the next action points, and reach a shared agreement was one of the key drivers to success. The findings suggest the need for Medical Equipment Champions to serve as a link between Medical Equipment Department and other departments, and that each

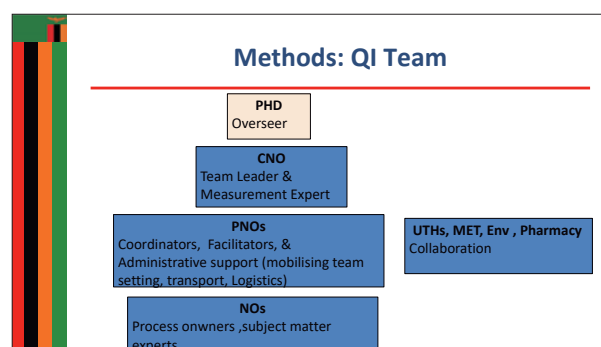
department should designate a person in charge of training, using and maintaining inventory of medical equipment under its jurisdiction in collaboration with medical equipment department. The findings also suggest that improvement in availability of equipment required management support. To sustain the improvement, quarterly nursing audits by Nursing Officers, measuring of results as evidence based practice, conducting exchange visits are continued.

The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026

Lusaka Provincial Health Office

Applying Collaborative Quality Improvement Approach to Improve Nursing Care Documentation, Infection Prevention and Control Practices, Leadership and Supervision Skills and Equipment Availability in First Level Hospitals in Lusaka District Using Nursing Audit

Inutu Mbangweta
Chief Nursing Officer, Dip RN, Dip ROTN, Dip LM, BSc, MSc



Background: Setting

- MoH has set minimum standards & guidelines of care
- LPHO conducts quarterly nursing audits for the purpose of ensuring adherence to nursing and midwifery standards by Hospitals.
- Nursing audit is a systematic evaluation process of reviewing nursing care provided against set standards
- Ideally, all Hospitals should fulfill all the criteria of nursing and midwifery care practices.

Methods: Cause-Effect Analysis

Root cause
Sub optimal supervision of Nurses and Midwives

Root cause was identification
Affinity Diagram-

Step 1: Brain storming to Collect ideas
Step 2: Group categories
Step 3: Identify patterns

Background: The Gap

- Non-existence of nursing care plans in some facilities
- Poor documentation of care
- Not understanding nursing tools
- Non-standardization of nursing documents
- Non-adherence to IPC practices
- Non existence of protocols
- Wearing of incorrect nurses uniform
- Inadequate medical equipment

Step 1: Brain Storming to Collect Ideas

- Non-existence of care plans
- Poor documentation of care
- Not understanding nursing tools
- Non-adherence to IPC practices
- Non existence of protocols
- Poorly Written time tables
- Non availability of time tables
- Wearing of incorrect nurses uniform
- Inadequate medical equipment
- Non availability of Nsg, Mid & Clinical protocols

Background: Rationale

The gap had impact on;

- Provision of quality care
- Patient safety,
- Effective communication among health care providers,
- Legal protection for Nurses and Midwives,
- Guiding of care diagnosis and decisions.

Purpose of QI activity
The aim of the QI project was to improve adherence to the nursing and midwifery care standards.

Step 2: Group into Categories

CATEGORY	CAUSE
Documentation	Non existence of care plans, Poorly documented care, not understanding nursing tools & Non availability of Nsg & Clinical Protocols
IPC	Poor IPC practices, Non availability of IPC protocols
Supervision	Poorly written time table
Equipment	Inadequate equipment

Step 3: Identify patterns

- Most of the causes suggested poor supervision as root cause

Methods: Action Plan

- Plan was to conduct the audit quarterly in the target facilities as a team
- Activity started from June 2024 to July 2025.
- Aim, indicators and measurement processes using a score card were shared with the Team by the team leader.
- An automated colour-coded grading system was developed:

KEY	
80-100	
50-79	
49-1	
0 (N/A)	

- The first audit served as the baseline, and improvement was assessed in subsequent audits.

Methods: Intervention

Intervention

A collaborative approach to conduct quarterly nursing audits was used in 7 health facilities followed by best practicemeetings:

- Chilenje FLH,
- Chawama FLH,
- Kanyama FLH,
- Matero FLH,
- Chipata FLFs,
- Chelstone Zonal Hospital
- Bauleni Mini Hospital

Intervention was prioritized based on the cause and effect analysis

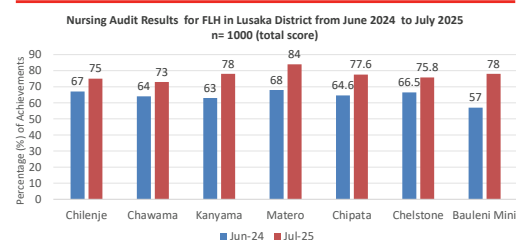
Automated colour coded Score Card

Facility	DOCUMENTATION IPC & SUPERV ISION					EQUIPME NT					TOTAL SCORE		TOTAL	POSITIO
	IPD	LABOUR WARD	OPD/EM/ ERG S	THEATER S	MCH	IPD	LABOUR WARD	OPD/EM/ ERG S	THEATER S	MCH				
Chilenje	88	85	70	70	81	64	78	66	80	66	748	75%	6	
Chawama	91	95	90	0	88	64	76	76	0	75	655	73%	7	
Kanyama	89	85	92	90	83	55	78	67	80	62	778	78%	3	
Matero	95	91	93	90	80	70	73	73	80	91	842	84%	1	
Chipata	88	73	79	80	92	68	73	78	80	63	776	77.60%	4	
Chelstone		92	88	0	78	0	67	63	0	67	455	75.80%	5	
Bauleni Mini	90	0	89	0		69	0	76	0	66	390	78%	2	

Audit Team at Kanyama FLH



Results



Quarterly Meeting



Results

- All facilities improved -80% to 95% achievement in documentation, IPC & Supervision .
- Minimal improvement in availability of equipment ranging -63% to 86%.
- 1/7 (14.2%) facilities (Kanyama FLH) managed to score beyond the target (from 52% to 86%) for availability of equipment.
- Nursing Officers that participated in the activity gained leadership and supervision skills.

Methods: KPI

KPI

- KPI was the overall performance
- Average score obtained by the facility in in-patient, labour wards, out patient / emergency , Operating Theatres & MCH departments was calculated.
- 2 Nursing audit tools were used to conduct quarterly Collaborative QI -One tool examined documentation, IPC and leadership and supervision skills while the other tool examined availability of equipment according to standard.
- The combined scores from both tools gave the facility a denominator.
- At the baseline, the minimum overall actual performance was 57% (4.6/8) and the desired score was 80% (6.4/8)

Conclusions

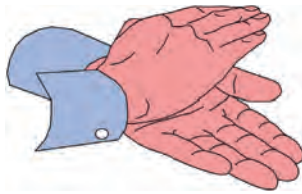
- Collaborative QI approach in conducting nursing audit as Teams, use of colour-coded score card for results and sharing of data audit results in meetings, were key to improvements.
- LPHO's guidance, coming together to review the evaluation results, declaring next action points, and reaching a shared agreement was one of the key drivers to success.
- M & E Champions, a link between MET & other departments, in charge of user training, using and maintaining inventory of medical equipment under its jurisdiction in collaboration with METdept was also key.

Conclusions

- Findings also suggest that improvement in availability of equipment required management support.
- Each department should designate
- To sustain the improvement, quarterly collaborative nursing audits measuring of results as evidence based practice, quarterly meetings & exchange visits are to be continued.



THANK YOU



4.

Panel Discussion:

How Can DHO and PHO Utilize Good Practices from the Implementation?

Moderator:

Mr. Abraham Mukesela, Chief Pharmacist, LPHO

Coordinators:

Dr. Wesley Choolwe Sianchapa, CCS, LDHO and Mrs. Mumbi Musosha, Pharmacist, LPHO

Panelists:

Ms. Inutu Mbangweta, CNO, LPHO; Ms. Cathel Chiboola, CEHT, LPHO; Mr. Obed Samusiko, MET, LDHO; Dr. Ilunga Mutwale, IPC Doctor, Kanyama FLH; and Mr. Mutale Leban, Pharmacist, LDHO

This panel discussion focused on how LPHO and LDHO can standardize good practices generated at the hospital level, expand them to other facilities, and incorporate them into policies and guidelines. Drawing on examples such as SSI surveillance, IPC SOPs, medical equipment management, nursing and midwifery management, and satellite pharmacy, the discussion examined the conditions needed to transform field-based practices into sustainable systems.

Conditions for transforming hospital-level practices into policy

The discussion first addressed the conditions under which the SSI surveillance practice initiated at Kanyama FLH could be expanded to the policy level. SSI surveillance at Kanyama FLH began in a context where there was no standardized mechanism for capturing post-operative wound infections, and cases were mainly addressed only after patients returned to the hospital. Dr. Mutwale explained that the pilot implementation helped visualize the occurrence of SSI and related treatment challenges. Then, the issue was found to be common not only to Kanyama FLH but also to other First Level Hospitals. The discussion indicated that a commonly shared problem, the proceduralization of feasible solutions, expected sustainable benefits for both patients and facilities, and successful pilot implementation were key conditions for elevating hospital-level practice into policies and guidelines.

Significance of standardizing hospital-level standards at the provincial level

The panel discussed how IPC-related SOPs developed and used in five First Level Hospitals could be standardized at the provincial level. Ms. Chiboola, CEHT at LPHO, explained that SOPs developed at the hospital level, including those on IPC rounds, waste management, and decontamination, had been standardized and approved by LPHO. These SOPs were based on the national IPC guidelines and were intended to address challenges such as staff's limited understanding of the guidelines and variations in procedures across facilities. The significance of standardization was to reduce variations in procedures and minimize errors in IPC practice. The standardized SOPs were expected to be expanded beyond the five First Level Hospitals to health facilities across Lusaka Province and, potentially, to the national level in the future.

Standardization at Lusaka District Health Office

In the area of medical equipment management, Mr. Samusiko, MET at LDHO, explained the process of standardizing weekly reporting procedures on the operational status of medical equipment. Although hospitals had already been submitting reports to the District Health Office, reporting formats, submission times, file names, and file formats differed from one hospital to another, creating challenges for LDHO in understanding and organizing the information. Based on his experience during training in Japan, where SOPs were available for each piece of equipment, Mr. Samusiko considered it necessary to establish clear procedures for weekly reporting as well. The standardization process began with drafting the procedure, followed by consultation and agreement with facility stakeholders. As a result, practical rules were established to facilitate submission, receipt, retrieval, and organization of reports.

Need for standardization based on good practices observed in the nursing field

Ms. Mbangweta, CNO at LPHO, spoke about how good practices in the nursing and midwifery field could be standardized and translated into policy. She emphasized the role of nurse managers in facility operations, describing nurses not only as the backbone of the health system but also as the spinal cord that supports the functioning of facilities. She pointed out that many management practices, such as nursing rounds, clinical meetings, nursing orders, and quarterly meetings, are learned through practice in the field but are not documented. To avoid relying solely on the knowledge of experienced individuals, she proposed collecting good practices from facilities through a bottom-up approach and organizing them into a nursing and midwifery management handbook that future leaders could refer to.

Conditions for expanding good practices

In the pharmacy area, the discussion focused on the conditions needed to expand the satellite pharmacy practice introduced in First Level Hospitals to other facilities. The pharmacist from LDHO explained that satellite pharmacies can reduce congestion at the main pharmacy and shorten the time between prescribing and dispensing medication. However, when introducing the practice to other facilities, it is not sufficient simply to transfer the model. Factors such as the location within the facility, proximity to wards, security of medicine storage areas, temperature control, staffing, supply chain arrangements, linkage with the main pharmacy and procurement system, and the development of SOPs need to be considered. The discussion showed that even effective practices, such as satellite pharmacy, require planning and implementation arrangements that reflect the conditions of each facility.

Bottom-up policy recommendation

During the question-and-answer session, participants first clarified practical aspects of the activities, including the composition of IPC committees, the difference between satellite pharmacies and main pharmacies, and the connection of satellite pharmacies to eLMIS. Dr. Shinsuke Murai then asked what is distinctive about bottom-up policy ideas emerging from the field, in contrast to policies usually developed through a top-down process.

In response, Ms. Mbangweta noted that top-down policies are often based on the experience of senior officials, but such experience may become outdated. By contrast, people working in the field directly experience current challenges. Therefore, bottom-up policy recommendations can reflect more realistic and up-to-date information and are more likely to lead to policies that remain useful over time.

Dr. Choonga, Lusaka Provincial Health Director, supported this point by explaining that policy-making is often perceived as a high-level process, but that evidence-based policy can be developed by organizing evidence derived from field practices, stakeholder experiences, funders, and implementers. He also emphasized that initiatives in Lusaka District and Lusaka Province should not be seen only as activities for their own settings, but as potential sources of information for national policy. Referring in particular to the experience of developing SSI guidelines, he stressed the importance of compiling field-based practices as evidence and connecting them to policy development.

Other points discussed

Toward the end of the session, additional issues were discussed, including electronic equipment and network challenges related to connecting satellite pharmacies to eLMIS, harassment of nurses and midwives, and the sustainability and roll-out of good practices. Ms. Mbangweta pointed out that nurses and midwives often stand at the front line of complaints from patients and families, and that heads of institutions and managers have a responsibility to protect their staff. In closing the panel, the moderator encouraged participants to consider how the many ongoing initiatives in the field could be sustained and expanded as best practices.



5.1 Strengthening Consistency and Multidisciplinary Participation in Infection Prevention and Control (IPC) Rounds

Kankoloto Ezekiel, Illunga Chamba, Mashili Muwemba, Chama Mwale, Bridget Sitima, Joyce Mulenga, and Judith Chipaya

Matero First Level Hospital

Background

Infection Prevention and Control (IPC) rounds are an essential strategy for monitoring compliance with IPC standards, identifying risks, and improving patient safety within healthcare facilities. Ideally, IPC rounds should be conducted once per month by a multidisciplinary Infection Control Team (ICT). However, at our facility prior to 2023, IPC rounds were inconsistently conducted and were largely dependent on outbreaks or emergency situations rather than routine scheduling. Furthermore, the activity was predominantly carried out by a single cadre, the Environmental Health Technologist and was widely perceived as an environmental health responsibility rather than a shared clinical function. This resulted in limited ownership by clinical staff, reduced effectiveness of IPC interventions, and missed opportunities for proactive risk identification. The aim of this Quality Improvement (QI) project was to improve the consistency and multidisciplinary participation in IPC rounds over a three-year period.

Methods

A multidisciplinary QI team was established, including the IPC focal person, IPC doctor, IPC nurse, and departmental IPC champions. A root cause analysis identified key challenges, including lack of a structured schedule, poor role clarity among team members, and limited involvement of clinical staff in IPC activities. Interventions implemented included the development of a monthly IPC round schedule, formal designation of ICT members with clear roles and responsibilities, and continuous sensitization of staff on the importance of IPC as a shared responsibility. Departmental IPC champions were engaged to enhance accountability at unit level. Regular reminders were provided, and performance feedback was shared during monthly data review meetings. The KPIs included the proportion of months in which IPC rounds conducted out of the expected 12 months per year, and the level of multidisciplinary participation during the rounds. Monitoring was conducted continuously from January 2023 to December 2025.

Results

The QI initiative resulted in remarkable improvements in both the consistency and multidisciplinary nature of IPC rounds. In 2023, 4 IPC rounds were conducted in 12 months (33%), and multidisciplinary participation was minimal with only about 10% of rounds involving more than one cadre. In 2024, performance improved substantially. 8 IPC rounds were conducted in 12 months (67%) and multidisciplinary participation increased to 65%, reflecting better engagement of IPC nurses, doctors, and departmental champions. By 2025, IPC rounds had become almost routine, 11 IPC rounds were conducted in 12 months (91%) with multidisciplinary participation reaching 90%. Additionally, there was a notable shift in staff perception, with IPC increasingly recognized as a collective responsibility rather than an environmental health task. Departments became more proactive in identifying and addressing IPC gaps through routine IPC rounds, strengthened surveillance, and continuous monitoring mechanism, while engagement during rounds improved with more collaborative problem solving and adherence to IPC standards.

Conclusion

The implementation of a structured QI approach significantly improved the consistency and multidisciplinary participation in IPC rounds. Establishing clear roles, strengthening team coordination, and promoting shared ownership were critical to success. Sustained monitoring, regular feedback, and leadership support were key in maintaining improvements. This initiative demonstrates that transforming IPC rounds from a single-cadre activity into a multidisciplinary effort enhances their effectiveness and contributes to improved infection prevention practices in healthcare settings.

Recommendations

Other hospitals are encouraged to adopt a similar structured approach by clearly defining roles and responsibilities of each ICT member, integrating IPC rounds into routine departmental schedules, and strengthening team coordination through regular multidisciplinary meetings and communication platforms. Promoting shared ownership can be achieved through continuous sensitization, mentorship, and engagement of departmental IPC champions to ensure accountability at unit level. Sustaining these gains will require ongoing mentorship, routine performance reviews, and integration of IPC rounds into standard departmental practices.

The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026

Matero first level Hospital
Strengthening Consistency and Multidisciplinary Participation in
Infection Prevention and Control (IPC) Rounds

Presenter: Ezekiel Kankoloto

Cause-Effect Analysis and Interventions

Root Causes

- Lack of a structured IPC round schedule
- Poor role clarity among team members
- Limited involvement of clinical staff in IPC activities

Interventions

- Development of a monthly IPC round schedule
- Formal designation of ICT members with clear roles and responsibilities
- Continuous sensitization of staff on the importance of IPC as a shared responsibility
- Departmental IPC champions were engaged to enhance accountability at unit level
- Regular reminders were provided
- Performance feedback was shared during monthly data review meetings

Background

- Infection prevention and control round is a routine, structured activity conducted to assess compliance with IPC standards
- Rounds are an essential strategy for monitoring compliance with IPC standards, identifying risks, and improving patient safety within healthcare facilities.
- They must be conducted using standardized checklist
- Finding should be recorded, shared with departments and IPC Meetings for decision making



Infection Control Team

KPI

The key performance indicators included:

1. the proportion of months in which IPC rounds were conducted out of the expected 12 months per year
 - Numerator: 12
 - Denominator: 12
2. the level of multidisciplinary participation during the rounds.
 - Numerator: 4
 - Denominator: 12

The Gap

THE IDEAL	GAP
IPC rounds should be conducted Monthly	IPC rounds were inconsistently conducted and were largely dependent on outbreaks or emergency situations rather than routine scheduling
IPC Rounds should be conducted by multidisciplinary team (Infection control Team)	IPC rounds were predominantly carried out by a single cadre (EHT) and was widely perceived as an environmental health responsibility rather than a shared clinical function

Action Plan

- Monitoring was conducted continuously from January 2023 to December 2025
- Developed and implemented a structured, Multidisciplinary IPC round system
- Introduced standardized IPC checklist
- Conducted monthly IPC round with a Team approach



Multidisciplinary team conducting IPC rounds



JICA Expert with the ICT Checking Hand hygiene compliance



Infection prevention and control training

Background

Significance of the Gap

- Limited IPC ownership by clinical staff,
- Reduced effectiveness of IPC interventions,
- Missed opportunities for proactive risk identification

purpose of the QI activity

- To improve the consistency implementation of IPC Rounds
- To enhance multidisciplinary participation in IPC rounds

Result

The QI initiative resulted in remarkable improvements in both the consistency and multidisciplinary nature of IPC rounds rounds

Year	2023	2024	2025
completion	4 (33%)	8 (67%)	11 (91%)
Participation	10%	65%	90%

The table above shows the IPC rounds conducted per year out of the expected 12 rounds in 12 months per year and the level of multidisciplinary participation during the rounds.

QI Team

Team membership and their roles

S/N	Team Member	Responsibility
01	IPC Doctor	Provided technical guidance on IPC standards and clinical practices
02	IPC focal point person (EHT)	Led coordination of IPC rounds and monitoring
03	IPC Nurse	Supported implementation of IPC Practices at ward level and staff engagement
04	Departmental IPC Champions	Acted as a link between the IPC team and the department by promoting compliance and addressing gaps identified during the rounds

Result

Additionally,

- There was a notable shift in staff perception, with IPC increasingly recognized as a collective responsibility rather than an environmental health task.
- Departments became more proactive in identifying and addressing IPC gaps through routine IPC rounds, strengthened surveillance, and continuous monitoring mechanism
- Engagement during rounds improved with more collaborative problem solving and adherence to IPC standards

Results



Hand Hygiene(Short figure nails and no jewelries)



Decontamination Corner(Transparent Buckets)



Sharp box not more than ¾ full and

Conclusions

- QI approach significantly improved the consistency in implementation of IPC rounds
- QI enhanced multidisciplinary participation in IPC rounds
- Establishing clear roles, strengthening team coordination, and promoting shared ownership were critical to success.
- Sustained monitoring, regular feedback, and leadership support were key in maintaining improvements.
- This initiative demonstrates that, transforming IPC rounds from a single-cadre activity into a multidisciplinary effort enhances effectiveness and contributes to improved infection prevention practices in healthcare settings

Conclusions

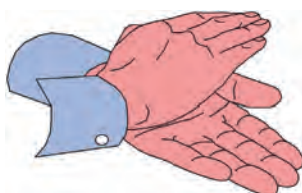
Sustainability Plan

- IPC rounds integrated into routine hospital activity
- Maintain multidisciplinary team involvement with clear roles
- Strengthen supportive supervision and management oversight
- Provide ongoing staff orientation and refresher trainings
- Continue monthly monitoring using KPI and feedback mechanism

Recommendations(Health Facilities)

- Roles and responsibilities for all ICT members should be clearly defined to ensure accountability and effective participation
- IPC rounds should be integrated into routine schedule to promote consistency and sustainability
- Team coordination must be strengthened by conducting regular IPC meetings involving all relevant cadres
- Robust monitoring and evaluation system should be implemented, Including the use of KPIs and routine monitoring reviews, to track performance and improvement
- IPC rounds should be fully integrated into standard operation practice to ensure sustainability and institutionalization of the IPC activities

THANK YOU



5.2 Improving the Accuracy of Surgical Site Infection (SSI) Surveillance Through Proactive Public Health Approach in Kanyama Constituency

Ilunga Mutwale, Lawrence Kalandu, Tirzah Chiluba
Kanyama Level One Hospital

Background

Surgical site infection (SSI) surveillance carried out on a monthly basis entails all patients undergoing surgery at a facility are correctly identified as developing a site infection within 30 days of the procedure. Typically, all patients need to be followed up at regular intervals as possible during the enumeration period to increase accuracy and inclusion where relevant. Kanyama Level 1 Hospital has been carrying out SSI surveillance for the past 3 years with over 90% of cases from post caesarean section operations. This passive surveillance gave a good picture for the background SSI in the constituency, and can foster initial mitigation using the evidence gathered. However, this was dependent on patients self-reporting to the facility or at times during routine post-operative review. This practice may lead to a number of patients being missed out entirely if they did not present under either criterion. The purpose of this activity was to ensure as many patients who underwent caesarean section at the facility were followed up and included in the SSI surveillance where criteria was met.

Methods

The public health department constituted a multidisciplinary team which included public health nurses, surveillance officer, community liaison and community-based volunteers. Follow ups were made to every patient who had undergone c/section at Kanyama Level 1 Hospital, initially by the community-based volunteers, and if signs of infection were noted, the public health nurses would make a house call and refer the patient back to the facility for further management. The key performance indicator was the number of patients referred to the facility for further management, and this was monitored from December 1st 2025 to March 31st 2026.

Result

Number of patients referred from community for further management was 6 (six). This represents 27% of all SSI cases (n=22) during the period of enumeration. In addition, staff in the surgical wards improved their information and education provided prior to patient discharge in the immediate post-operative period, including warning on danger signs of SSI.

Conclusion

The activity undertaken showed the key importance of having a surveillance system in the first place. Adopting an active approach in identifying SSI in post-surgical cases further results in an incidence rate that is closer to the realistic picture. This further highlights the fact that leveraging on already existing health systems leads to more timely intervention for post operative patients. Furthermore, sustainability of such programmes relies on regular timely feedback to staff at the Hospital through sharing of information by the public health team.

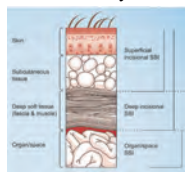


Background: Rationale

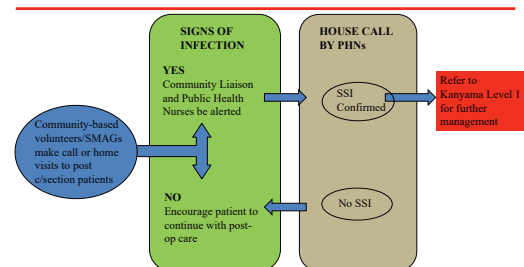
- The overall impact would be under-reporting of the true incidence of SSI in the constituency
- The purpose of this activity was to ensure as many patients who underwent caesarean section at the facility were followed up and included in the SSI surveillance where criteria was met.

Background: Setting

Surgical site infection (SSI) is the development of infection at the area of surgical procedure within 30 days of operation



Methods: QI Team



Background: Setting

- All post surgical patients need to be followed up at regular intervals within the 30-day period to accurately monitor for SSI and inclusion where relevant.
- Kanyama Level 1 Hospital has been carrying out SSI surveillance for the past 3 years with over 90% of cases from post caesarean section operations.
- This was dependent on patients either self-reporting to the facility or being discovered during routine post-operative review.

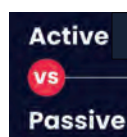
Methods: KPI

- The key performance indicator was the number of patients referred to the facility for further management from December 1st 2025 to March 31st 2026.

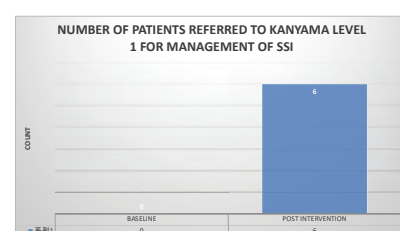


Background: The Gap

- Passive surveillance gave a good initial picture for the background SSI in the constituency, and fostered mitigation using the evidence gathered.
- However, number of patients potentially being missed out if they did not present under either self-reporting or discovery on scheduled review.
- This primarily leads to delayed treatment resulting in greater harm to patient as well as increased hospital cost, length of stay or death

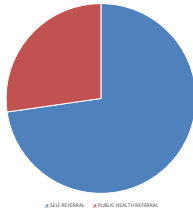


Results



Results

Post C/S SSI Cases at Kanyama Level 1 Hospital from 1
Dec 2025 to 31 March 2026



Represents 27% of all
SSI cases (n=22)
during the period of
enumeration.

Conclusions

- The activity undertaken showed the key importance of having a surveillance system in the first place.
- Improving on the system by adopting an active approach in identifying SSI in post-surgical cases further results in greater accuracy of the incidence rate giving a more realistic picture.
- Highlights the fact that leveraging on already existing health systems leads to more timely intervention for post operative patients.

Conclusions

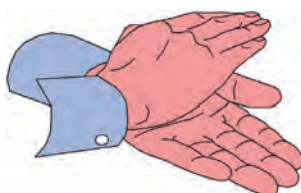
- Utilising the services of the CBV/SMAGs enables timely and targeted visits by the public health team
- Sustainability of such programmes relies on regular timely feedback to staff at the Hospital through sharing of information by the public health team.
- Staff in the surgical wards improved their information and education provided prior to patient discharge in the immediate post-operative period, including warning on danger signs of SSI.

Conclusions

- Currently standardization of the activity is yet to be decided on but will focus on the following:
 1. Development of SOP on follow-up of patients in the community
 2. Standardise the IEC given to patients
 3. Hotline for SSIs that can be given to patients on discharge
 4. Possible use of direct phone calls to patients by PHNs to enquire on condition (may not be limited to SSI).



THANK YOU



6.1 Establishment of a Satellite Pharmacy Service in Inpatient Wards to Improve Medicine Accountability, Timely Access, and Pharmaceutical Care at Chawama Level One Hospital

Siphiwe Makowane, Rapahael Nzolo, Christabel Nkunica, Lorraine Nhandu, Stanley Ajusa, Abraham Mukesela, Mutale Chanda Laban
Chawama Level One Hospital

Background

The concept of establishing a satellite pharmacy service was motivated by best practices observed through the KCCP model in Japan, where ward-based pharmacy services support timely medicine access and strengthen clinical pharmacy interventions. Prior to this quality improvement activity, all medicines for admitted patients were dispensed from the main hospital pharmacy. Nurses collected medicines in bulk and stored them in inpatient wards, while discharged patients collected medicines from the outpatient pharmacy. Pharmacists did not participate in ward rounds, resulting in limited clinical interventions and weak accountability of medicines at ward level. Ideally, inpatient and discharge medicines should be dispensed at ward level through individualized patient-based dispensing with pharmacist participation in ward rounds.

The absence of this system creates a gap between current and best practices, leading to potential delays in access to medicines, increased risk of medication errors, and poor accountability of pharmaceutical supplies.

The purpose of this QI activity was to establish a satellite pharmacy service in inpatient wards to improve medicine access, accountability, and pharmaceutical care.

Methods

A multidisciplinary QI team comprising provincial, district, and hospital pharmacists, hospital management, ward nurses, and clinicians led the activity. A cause-effect analysis, informed by lessons from the KCCP approach in Japan, identified centralized dispensing, absence of ward-based pharmacy services, bulk medicine storage by nurses, and lack of pharmacist involvement in ward rounds as key root causes. The intervention included establishment of a satellite pharmacy in inpatient wards, deployment of dedicated pharmacy staff, individualized dispensing using patient charts, pharmacist participation in routine ward rounds, and dispensing of discharge medicines directly from the ward. The key performance indicator was the proportion of inpatient prescriptions dispensed at ward level, monitored before and after implementation.

Results

Before the intervention, zero prescriptions were dispensed at ward level. Following implementation, ward-level dispensing was initiated, and the proportion of prescriptions dispensed at ward level increased substantially. Pharmacists actively participated in ward rounds, resulting in increased clinical interventions, particularly in antibiotic management and medicine optimization. Accountability improved through individualized chart-based dispensing and strengthened ward stock control. Nursing workload related to medicine collection reduced, and coordination between pharmacy and clinical teams improved.

Conclusions

Establishing a satellite pharmacy service, inspired by the KCCP model in Japan, was effective in improving medicine accountability, timely access, and quality of pharmaceutical care. Standard operating procedures, routine KPI monitoring, and continued multidisciplinary collaboration are recommended to sustain and expand the intervention.

The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026

Establishment of a Satellite Pharmacy Service in Inpatient Wards to Improve Medicine Accountability, Timely Access, and Pharmaceutical Care at Chawama Level One Hospital

**PRESENTER :SIPHIWE MAKOWANE
PHARMACIST
CHAWAMA LEVEL ONE HOSPITAL**

Bulk management of stock at the ward before satellite pharmacy

BEFORE

Chawama Level One Hospital

Bulk management of stock at the ward before satellite pharmacy

BEFORE

Background

- ☐ Concept inspired by KCCP model in Japan
- ☐ Medicines for admitted patients were dispensed from the main hospital pharmacy
- ☐ Nurses collected medicines in bulk and stored them in wards
- ☐ Discharged patients collected medicines from the outpatient pharmacy
- ☐ Pharmacists were not participating in ward rounds
- ☐ Medicine management was centralised at pharmacy level
- ☐ Centralized medicine management

Bulk management of stock at the ward before satellite pharmacy

BEFORE

Background

Ideal

- ❑ Ward-based dispensing of medicines
- ❑ Individualised patient-based dispensing
- ❑ Pharmacist participation in ward rounds
- ❑ Strong accountability at ward level

Gap

- ❑ Centralised dispensing system
- ❑ Bulk storage of medicines in wards
- ❑ Limited pharmacist involvement
- ❑ Weak accountability and limited clinical interventions
- ❑ 0% of inpatient prescriptions dispensed at ward level

Intervention

- ❑ Established satellite pharmacy in inpatient wards
- ❑ Assigned pharmacy staff to wards
- ❑ Implemented individualised dispensing using patient charts
- ❑ Integrated pharmacists into ward rounds
- ❑ Dispensed discharge medicines at ward level
- ❑ Implemented based on lessons from KCCP model in Japan

Rationale and Purpose

Rationale

- ❑ Centralised dispensing led to delays in access to medicines
- ❑ Bulk storage increased risk of poor accountability
- ❑ Lack of pharmacist involvement limited clinical interventions
- ❑ Reduced ability to optimise treatment, especially antibiotics
- ❑ Affected quality of patient care and coordination between teams

Purpose

- ❑ To improve access, accountability, and pharmaceutical care through ward-based pharmacy services
- ❑ Establish a ward-based satellite pharmacy service modeled on best practice from Japan

Methods: KPI

KPI Definition

- ❑ Proportion of inpatient prescriptions dispensed at ward level
- KPI=Prescription dispense at ward level/Total inpatient prescriptionsx100**

Measurement

- ❑ Numerator: Prescriptions dispensed at ward level
- ❑ Denominator: Total number of inpatient prescriptions
- ❑ Period: Monthly
 - Before vs After:
 - Before: 0
 - After: Increased ward-level dispensing

QI Team

Multidisciplinary team

- ❑ Provincial pharmacists
- ❑ District pharmacists
- ❑ Hospital pharmacists
- ❑ Hospital management
- ❑ Ward nurses
- ❑ clinicians
- ❑ Team led was Provincial pharmacist to ensure the satellite was setup and hospital pharmacist and management coordinated the QI activity

Action Plan

Action Plan

- ❑ What: Establish ward-based pharmacy services
- ❑ Where: Inpatient wards
- ❑ Who: Pharmacy staff and hospital management
- ❑ How: Satellite pharmacy + workflow changes

Monitoring

- ❑ Monthly data collection
- ❑ Pre- and post-intervention comparison
- ❑ Tracking KPI trends over time
- ❑ Monitoring pharmacist intervention on the ward

Cause-Effect(fishbone) Analysis

Root causes identified

- ❑ Absence of ward-based pharmacy services
- ❑ Centralised dispensing system
- ❑ Bulk storage of medicines by nurses
- ❑ No pharmacist participation in ward rounds
- ❑ Weak accountability systems

Method used

- ❑ Cause-and-effect analysis to identify system gaps

Results: Operations at satellite pharmacy

AFTER



Cause-Effect(fishbone) Analysis

Root causes identified

- ❑ Absence of ward-based pharmacy services
- ❑ Centralised dispensing system
- ❑ Bulk storage of medicines by nurses
- ❑ No pharmacist participation in ward rounds
- ❑ Weak accountability systems

Method used

- ❑ Cause-and-effect analysis to identify system gaps

Results: Satellite Pharmacy

AFTER



Results-KPI based

Before intervention

- ❑ 0% of inpatient prescriptions were dispensed at ward level

After intervention

- ❑ substantial increase in prescriptions dispensed at ward level through the satellite pharmacy
- ❑ Successful shift from centralized dispensing to ward-based dispensing
- ❑ Increased pharmacist participation in ward rounds
- ❑ Improved frequency of clinical interventions

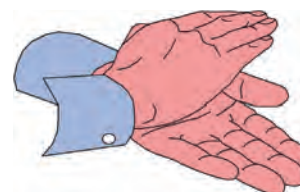
Conclusion

- ❑ Satellite pharmacy improved **timely access to medicines**
- ❑ Ward-based dispensing strengthened **accountability**
- ❑ Pharmacist ward rounds increased **clinical interventions**
- ❑ Reduced nursing workload and improved teamwork

Results-Service Delivery Improvements

- ❑ Pharmacists actively participate in routine ward rounds
- ❑ Increased clinical interventions, especially antibiotic review and optimization
- ❑ Improved medicine accountability through individualized chart-based dispensing
- ❑ Reduced nursing workload related to medicine collection
- ❑ Improved coordination between clinical and pharmacy teams
- ❑ Medicines became readily available within wards for both admitted and discharged patients

THANK YOU



Operational Improvements

- ❑ Strengthened ward stock control
- ❑ Reduced risk of medicine loss and poor accountability
- ❑ Improved timely access to treatment
- ❑ Enhanced discharge workflow

Summary of results

Indicator	Before Intervention	After Intervention
Ward-level dispensing	0	Increased substantially
Pharmacist ward rounds	No	Yes
Clinical interventions	Limited	Increased
Medicine accountability	Weak	Improved
Discharge medicines	Collected from outpatient pharmacy	Dispensed from ward

Conclusion

Recommendations

- ❑ Maintain the satellite pharmacy service in inpatient wards
- ❑ Scale up the model to other wards and health facilities
- ❑ Continue pharmacist involvement in routine ward rounds and KPI monitoring

sustainability

- ❑ Continue use of SOPs for ward-level dispensing
- ❑ Maintain routine pharmacist participation in ward rounds
- ❑ Conduct monthly KPI monitoring and review meetings
- ❑ Continue ward stock reconciliation and accountability checks

6.2 Improving Prescription Fill Rate to Reduce False Stock-Outs and Strengthen Medicine Availability Monitoring at Chilenje First Level Hospital

Goodness Ngulube, Changala Milimbo, Hildah Nengwa, Lorita Namukolo, Nancy Nawakwi, Nzamba Sianchobe

Chilenje First Level Hospital

Background

Prior to this quality improvement activity, the facility relied mainly on the tracer drug availability reports, drug bulletin for stock status at the bulk store and dispensary to assess medicine availability. Ideally, any prescribed medicine should be dispensed at the dispensary if available in the bulk store. However, discrepancies frequently occurred whereby medicines were available in the bulk store but were not physically available at the dispensing point, resulting in false stock-outs for patients. This situation reduced patient access to medicines despite apparent stock availability within the hospital. In addition, the absence of routine prescription fill rate monitoring limited the ability to understand prescribing patterns and compare actual patient access with stock availability. The purpose of this QI activity was to improve prescription fill rate monitoring in order to reduce false stock-outs, strengthen the assessment of medicine availability and patient access thereby improving customer satisfaction.

Methods

A multidisciplinary QI team comprising pharmacists, pharmacy technologists and dispensers was formed. The key root causes identified were poor stock redistribution between bulk store and dispensary, inadequate routine monitoring of prescription fill rate, and lack of regular review of prescribing trends. The intervention involved data collection using prescription fill rate tally sheet, one with tracer drugs and the other with non tracer medicines, daily comparison of stock status between bulk store and dispensary and timely stock redistribution. The KPI was defined as the prescription fill rate, calculated as the number of prescription fully filled divided by the total number of prescriptions received, multiplied by 100 over a period. The KPI was measured daily in week days for two months, from first November to thirty first December 2026.

Results

Following the intervention, false stock-outs were reduced as products available in the bulk store were promptly redistributed to the dispensary. Prescription fill rate improved, leading to better medicine accessibility for patients. Routine monitoring also enabled the pharmacy team to identify prescription trends, high-demand products, and recurring gaps between availability and accessibility. This strengthened stock management and service delivery.

Conclusions

Monitoring prescription fill rate significantly improved medicine accessibility and reduced false stock-outs within the facility. The intervention also enhanced understanding of prescription patterns and supported evidence-based stock redistribution and forecasting. Continued routine monitoring and regular comparison of bulk store and dispensary stock status are recommended to sustain the improvement. Standardization of the PFR monitoring is highly recommended.

 The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026 

Improving Prescription Fill Rate and Strengthening Medicine Availability Monitoring

Goodness Ngulube, Changala Milimbo, Hildah Nengwa, Lorita Namukoko, Nancy Nawakwi, Nzamba Sianchobe

Chilenje First level Hospital

Background

Rationale

- This situation reduced patient access to medicines despite apparent stock availability within the hospital.
- In addition, the absence of routine prescription fill rate monitoring limited the ability to understand prescribing patterns and compare actual patient access with stock availability.

Purpose

- The purpose of this QI activity was to improve prescription fill rate monitoring in order to reduce false stock-outs and strengthen the assessment of medicine availability and patient access, thereby improving customer satisfaction.

Background

- Prescription Fill Rate (PFR) is the percentage of initiated prescriptions that a patient fills at the pharmacy.
- PFR acts as a key metric for patient access to care and pharmacy operational efficiency
- Prior to this quality improvement activity, the facility mainly relied on tracer drug availability reports, drug bulletin for stock status at the bulk store, and dispensary to assess medicine availability.

QI Team

Chilenje FLH:

- Pharmacists
- Pharmacy technologists
- Dispensers



Background

Bulk store



→

dispensary



Root Causes and Action Plan

Root cause	Intervention	Action needed	Responsible person/s	Time frame
Poor stock redistribution	Assign specific roles & responsibilities	Ordering from bulk store twice weekly	HOD PCY	Oct 2025
Inadequate routine monitoring of PFR	Intensify supervision	Dispensary staff to collect data using the tally sheets	HOD MTCPCY	Twice a year
Lack of regular review of prescriptions patterns	Routine meetings (MTC, AMS)	Sharing STGs, ZNFs, Enhance communication with prescribers	HOD PCY	Monthly

Background

The ideal

- All prescribed medicine should be dispensed at the dispensary if available in the bulk store.

The Gap

- Discrepancies frequently occurred whereby medicines were available in the bulk store but were not physically available at the dispensing point, resulting in false stock-outs for patients.

Methods

- We collected data using prescription fill rate tally sheet, one with tracer drugs and the other with non tracer medicines.

PFR Tally Sheet Tracer drugs

PFR Tally Sheet Tracer drugs					
No.	Drug Name	Prescribed Total	Dispensed Total	PFR	
1	Amoxicillin 500mg Tablet (500mg)	1000			
2	Amoxicillin 500mg Tablet (500mg)	1000			
3	Amoxicillin 500mg Tablet (500mg)	1000			
4	Amoxicillin 500mg Tablet (500mg)	1000			
5	Amoxicillin 500mg Tablet (500mg)	1000			
6	Amoxicillin 500mg Tablet (500mg)	1000			
7	Amoxicillin 500mg Tablet (500mg)	1000			
8	Amoxicillin 500mg Tablet (500mg)	1000			
9	Amoxicillin 500mg Tablet (500mg)	1000			
10	Amoxicillin 500mg Tablet (500mg)	1000			
11	Amoxicillin 500mg Tablet (500mg)	1000			
12	Amoxicillin 500mg Tablet (500mg)	1000			
13	Amoxicillin 500mg Tablet (500mg)	1000			
14	Amoxicillin 500mg Tablet (500mg)	1000			
15	Amoxicillin 500mg Tablet (500mg)	1000			
16	Amoxicillin 500mg Tablet (500mg)	1000			
17	Amoxicillin 500mg Tablet (500mg)	1000			
18	Amoxicillin 500mg Tablet (500mg)	1000			
19	Amoxicillin 500mg Tablet (500mg)	1000			
20	Amoxicillin 500mg Tablet (500mg)	1000			
21	Amoxicillin 500mg Tablet (500mg)	1000			
22	Amoxicillin 500mg Tablet (500mg)	1000			
23	Amoxicillin 500mg Tablet (500mg)	1000			
24	Amoxicillin 500mg Tablet (500mg)	1000			
25	Amoxicillin 500mg Tablet (500mg)	1000			

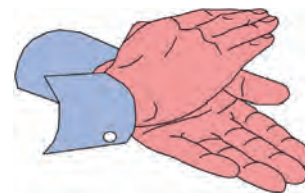
Conclusions

- Monitoring prescription fill rate significantly improved medicine accessibility and reduced false stock-outs within the facility.
- Conducting PFR survey over a period of six months would provide the true picture and also consider including other drugs on the data collection tool.
- Continued routine monitoring and regular comparison of bulk store and dispensary stock status are recommended to sustain the improvement. There is need for the standardization of PFR.

PFR Tally Sheet With Non Tracer drugs

PFR Tally Sheet With Non Tracer drugs					
No.	Drug Name	Prescribed Total	Dispensed Total	PFR	
1	Amoxicillin 500mg Tablet (500mg)	1000			
2	Amoxicillin 500mg Tablet (500mg)	1000			
3	Amoxicillin 500mg Tablet (500mg)	1000			
4	Amoxicillin 500mg Tablet (500mg)	1000			
5	Amoxicillin 500mg Tablet (500mg)	1000			
6	Amoxicillin 500mg Tablet (500mg)	1000			
7	Amoxicillin 500mg Tablet (500mg)	1000			
8	Amoxicillin 500mg Tablet (500mg)	1000			
9	Amoxicillin 500mg Tablet (500mg)	1000			
10	Amoxicillin 500mg Tablet (500mg)	1000			
11	Amoxicillin 500mg Tablet (500mg)	1000			
12	Amoxicillin 500mg Tablet (500mg)	1000			
13	Amoxicillin 500mg Tablet (500mg)	1000			
14	Amoxicillin 500mg Tablet (500mg)	1000			
15	Amoxicillin 500mg Tablet (500mg)	1000			
16	Amoxicillin 500mg Tablet (500mg)	1000			
17	Amoxicillin 500mg Tablet (500mg)	1000			
18	Amoxicillin 500mg Tablet (500mg)	1000			
19	Amoxicillin 500mg Tablet (500mg)	1000			
20	Amoxicillin 500mg Tablet (500mg)	1000			
21	Amoxicillin 500mg Tablet (500mg)	1000			
22	Amoxicillin 500mg Tablet (500mg)	1000			
23	Amoxicillin 500mg Tablet (500mg)	1000			
24	Amoxicillin 500mg Tablet (500mg)	1000			
25	Amoxicillin 500mg Tablet (500mg)	1000			

THANK YOU



KPI: Prescription fill rate

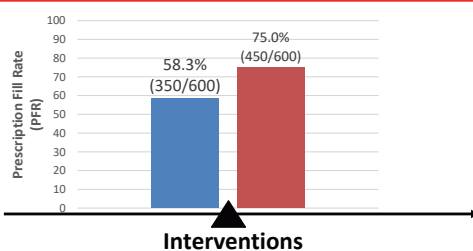
Definition:

Calculated as the number of prescriptions filled divided by the total number of prescriptions submitted, multiplied by 100.

Period:



Results



Results

- This strengthened stock management and service delivery as products available in the bulk store were promptly redistributed to the dispensary.
- Prescription fill rate improved, leading to better medicine accessibility for patients. This also enabled the pharmacy team to identify prescription trends, high-demand products, and recurring gaps between availability and accessibility.

7.1

Analysing Cause of Equipment Failure at the Five First Level Hospitals in Lusaka

Richard Mumba¹, Ajiki Kazuhiro², Friday Matafwali³, Obed samusiko³, and Natasha Mwela⁴

1. Kanyama First Level Hospital / 2. JICA Short term expert / 3. Lusaka District Health Office / 4. Chawama First Level Hospital

Background

When medical equipment failures occurred, no clear criteria existed for identifying the root cause or for determining whether the failure was major or minor. Consequently, such judgments and responses depended largely on the interpretation of workshop staff. Ideally, the cause of equipment failure should be identified to develop effective and feasible countermeasures to prevent breakdowns. Job Request Cards were introduced in 2024 to document reported failures. However, no systematic analysis of these records had been conducted in the past one year and eight months. This gap made it difficult to identify appropriate countermeasures to prolong the lifespan of medical equipment. We therefore aimed to understand the current situation of equipment breakdowns in the five first-level hospitals in Lusaka District.

Method

The analysis team consisted of two biomedical engineers in Kanyama first-level hospital (FLH) and Chawama FLH, one JICA short-term expert, and two medical equipment technologists from the Lusaka District Health Office. Failure records documented on Job Request Cards were collected retrospectively from the five FLHs for the period from January 2025 to February 2026. In the first phase of the analysis, we identified gaps in filing practices and in the recording of cause of failure, such as electrical problems, dust, water quality, human error and other causes. During the process of updating the records, medical equipment technologist in the five FLHs were encouraged to state the cause of failure accurately. We quantified the total number of failures, as well as the number attributed to electrical problems, dust, water quality, human errors, and other causes. We then identified countermeasures and the responsible persons who could implement them.

Results

A total of 349 medical equipment failures were identified in the five FLHs over a 14-month period. Of these failures, 39% were caused by electrical problems, 21% by human errors, 9% by dust, 5% by water quality and 26% by other causes. When categorized by possible countermeasures, 21% of failures could be prevented by senior management through investment in preventive measures, 23% by users, including Medical Equipment (ME) champions through preventive checks and proper

use of equipment, 7% by workshop staff through planned preventive and corrective maintenance, 11% through collaboration among management, users and workshop staff, and 36% fell into other categories that require further investigation.

Conclusion

Analysis of the Job Request Card made it possible to identify and report the main types and causes of medical equipment breakdowns. Medical equipment management in hospitals should be addressed collaboratively by those best placed to implement practical interventions, including senior managers, workshop staffs, users and their joint efforts. For example, after presenting the result of this analysis during a medical equipment reorientation session at Kanyama FLH, hospital managers supported the proposed preventive measures requiring collaboration. As a result, the hospital begun procuring low mineral water for use in autoclave operation. To sustain this progress, continued monitoring of equipment failure should be institutionalised by ensuring that all five facilities conduct and submit quarterly analysis, track whether the proportion among causes will change or not, and document what counter measures are being implemented.






Analysis for Cause of Problems in 5 First level Hospitals and Preventive Countermeasures

Japan's approach and experience in strengthening hospital management
(ME management)
ZAMBIA
Mr. Richard Mumba



Background

Rationale
This gap made it difficult to identify appropriate countermeasures to prolong the lifespan of equipment.

Purpose of the QI activity
We therefore aimed to understand the current situation of equipment breakdowns in the five first-level hospitals in Lusaka District.



Background

- When medical equipment failures occurred, no clear criteria existed for identifying the root cause or for determining whether the failure was major or minor.
- Consequently, such judgments and responses depended largely on the interpretation of workshop staff.



QI Team

The analysis team consisted of

- One biomedical engineers in Kanyama first-level hospital (FLH)
- One biomedical engineers in Chawama FLH
- One JICA short-term expert
- Two medical equipment technologists from the Lusaka District Health Office



Background

The ideal

- Ideally, the cause of equipment failure should be identified to develop effective and feasible countermeasures to prevent breakdowns.
- Job Request Cards were introduced in 2024 to document reported failures.

The Gap

- No systematic analysis of these records had been conducted in the past one year and eight months.



Intervention

- Failure records documented on Job Request Cards were collected retrospectively from the five FLHs for the period from January 2025 to February 2026.
- In the first phase of the analysis, we identified gaps in filing practices and in the recording of cause of failure, such as electrical problems, dust, water quality, human error and other causes.
- During the process of updating the records, medical equipment technologist in the five FLHs were encouraged to state the cause of failure accurately.
- We then identified countermeasures and the responsible persons who could implement them.

Update of Job Card Request for Preventive Maintenance of Equipment



Started using since 2024 for documenting reported failures

Assessment of **Cause of Equipment Problem** started in 2025

2. TO BE FILLED IN BY SERVICE PROVIDING DEPARTMENT

2-1. Details of Services

Received by: _____ Initial Time: _____ Final Time: _____

Work Assigned to (Assessed by): _____

Assessment (Cause of problem): Minor Repair Major Repair Not working (Obsolete)

Details of Service Performed: _____

Not objective facts

Analysis of Preventive Maintenance Responsibility for Equipment Failure

Details of Problems	No.	%	Countermeasures	By Whom	
Water Quality	18	5.2%	RO Water Treatment	Management	22%
Voltage Fluctuation	52	14.9%	Fridge Gard, AVS		
Electric Spike Current	5	1.4%	Fridge Gard, AVS		
Wire Kinking	21	6.0%	Operation Instruction	User (ME Champion)	24%
Mis Hand	45	12.9%	User Handling Practice		
No Cleaning	4	1.1%	User Maintenance		
Not Correct Use	12	3.4%	User Training		
Dirty Air Filter	17	4.9%	User & Workshop Maintenance		7%
No Filter	3	0.9%	PPM Implementation Clean	Workshop	
Fan	0	0.0%	PPM Implementation Clean	PPM/Instruction	
No User Instruction	6	1.7%	User Training		
Bad Electric Contact	31	8.9%	Replace Plug, Fuse	All collaboration	11%
No Dust Cover	9	2.6%	Supply Dust Cover		
Others	126	36.1%			36%
Total	349	100.0%			

Classification for Cause of Problems (Failure) in Job Card Request for Equipment

5 Main Causes of Equipment Failure:

① Electric ② Dust ③ Water Quality ④ Human Error ⑤ Others

Detailed classification:

1) Electric

① Voltage Fluctuation ② Spike Current ③ Poor Contact ④ Wire Kinking ⑤ Others

2) Dust

① Dirty air Filter ② No Filter ③ Fan ④ Dust Cover ⑤ Others

3) Water Quality

recording with TDS Readings.

4) Human Error

① Mishandling ② No Cleaning ③ Not Correct use ④ No instruction ⑤ Others

Preventive Countermeasures for Equipment Failure by User (Medical Equipment Champion)

Preventive Countermeasures by User :Medical Equipment (ME) Champion

1) Electric

Wire Kinking : Proper positioning and movement of Equipment

Poor Contact : Report to Workshop and Request Plug to Administration

2) Dust

Filter cleaning : Weekly clean equipment filter by ME Champion.

3) Human Error

Mishandling : ME Champion Training on how to handle equipment

No Cleaning : After use cleaning monitoring by ME Champion

Not Correct use : Share S.O.Ps and monitoring by ME Champion



KPI

- (1) The total number of failures in 5 FLHs during the period
- (2) The number attributed to electrical problems, dust, water quality, human errors, and other causes

Preventive Countermeasures for Equipment Failure by Workshop (PPM Implementation and Supporting ME Champion)

Preventive Countermeasures by Workshop staffs (PPM and Supporting ME Champion)

1) Electric

Poor Contact: Carrying out planned preventive maintenance

Wire Kinking: to detect problem before they occur

2) Dust

Clogged filter : Early detection of clogged filter , No filter and

No Filter : dirty fine can be prevented through Planned

Fan: preventive maintenance

3) Water Quality

Request Ro water treatment System to Administrator and MS.

4) Human Error

No instruction : User trainings , SOPs and supporting ME Champions.



Aggregated data for number of generated job card in 5 Hospitals

A total of 349 medical equipment failures in the five FLHs over a 14- month period



Preventive Countermeasures for Equipment Failure by Hospital Management (Through Investments)

Preventive Countermeasures by Hospital Management (Investments)

1) Electric

Voltage Fluctuation and Spike Current : Provide Fridge Gard & AVS

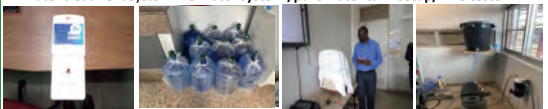
Poor Contact : Provide Electric plug

2) Dust

No Dust Cover: Provide Dust Cover for each equipment

3) Water Quality

Water treatment system: RO water system /pure water tank setup/ TDS tester



Aggregated data for cause of problem in 5 Hospitals

Electric and human error are the top two causes of the equipment failures.

Cause of Problem	Electric	Dust	Water Quality	Human Error	Others	Total
Number of Problem	135	31	18	74	91	349
Percentage	39%	9%	5%	21%	26%	100.0%

Conclusions

- Analysis of the Job Request Card made it possible to identify and report the main types and causes of equipment breakdowns.
- Equipment management in hospitals should be addressed collaboratively by those best placed to implement practical interventions, including senior managers, workshop staffs, users and their joint efforts.
- To sustain this progress, continued monitoring of equipment failure should be institutionalised by ensuring that all five facilities conduct and submit quarterly analysis, track whether the proportion among causes will change or not, and document what counter measures are being implemented.

7.2 Improving Medical Equipment Availability Through the Medical Equipment Champion (MEC) Model at Chilenje Level 1 Hospital

Patricia Lumbuka, Celina Banda, Cephas Choongwe, Chris Kaluba
Chilenje Level One Hospital

Background

Effective medical equipment management at Chilenje Level 1 Hospital requires timely fault reporting, routine monitoring, and strong coordination between clinical staff and Biomedical Engineering Technology (BMET) personnel. Ideally, all equipment should be functional, and faults should be promptly addressed. However, in Q1 2025, delayed fault reporting and prolonged equipment downtime negatively affected patient care. At baseline, 33% (4/12) of oxygen concentrators were non-functional, reducing availability of critical equipment. This led to delays in patient management and reduced efficiency of clinical services. This QI activity aimed to improve equipment functionality, reduce downtime, and strengthen coordination through the MEC model.

Methods

A Quality Improvement initiative was implemented through the introduction of a Medical Equipment Champion (MEC), a designated nurse responsible for equipment oversight within each department. Cause-and-effect analysis identified root causes as gaps in communication, lack of accountability, and absence of structured monitoring systems. MECs conducted daily equipment inspections, maintained inventories and checklists, initiated Job Request Cards, performed basic troubleshooting, and oriented staff on equipment use while ensuring direct communication with BMET and departmental heads. Key performance indicators included equipment functionality, number and trend of job requests, and number of repaired machines, monitored from January 2025 to date using ward records and BMET reports. Progress was monitored through routine review of job request records, MEC checklists, and BMET feedback.

Results

From January to date, 28 job requests were recorded, with a decreasing trend over time, suggesting improved early fault detection and resolution. A total of 51 medical machines were repaired, contributing to increased equipment availability. The proportion of functional oxygen concentrators improved from 67% (8/12) at baseline toward near full functionality following repairs. Routine daily inspections strengthened equipment monitoring and improved timely fault identification. Staff demonstrated increased confidence in equipment use and troubleshooting, while collaboration between nursing staff and BMET improved through structured communication.

Conclusion

The MEC model improved equipment availability and reduced downtime by strengthening accountability, routine monitoring, and communication at ward level. It is recommended that healthcare facilities adopt the MEC model to improve equipment management using existing staff and resources. Sustaining this improvement will require continued use of checklists, Job Request Cards, and integration of the MEC role into routine practice, with potential for scale-up to other primary healthcare facilities.



The Hospital Management Forum in Lusaka Province 22 – 23 April 2026
**Improving Medical Equipment Availability through the
 Medical Equipment Champion (MEC) Model
 at Chilenje Level 1 Hospital**

PRESENTER- PATRICIA LUMBUKA
 CHILENJE LEVEL ONE HOSPITAL

Methods

Root Causes Communication Accountability Absence of monitoring

↓

- Introduction of a Medical Equipment Champion (MEC), a designated nurse responsible for equipment oversight within each department.
- MECs
 - Conducted daily equipment inspections
 - Maintained inventories and checklists,
 - Initiated Job Request Cards,
 - Performed basic troubleshooting,
 - Oriented staff on equipment use while ensuring direct communication with BMET and departmental heads.

CHILENJE LEVEL ONE HOSPITAL

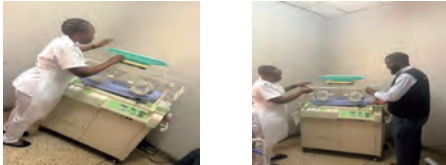


Introduction of Job Request Card



Background

- Effective medical equipment management at Chilenje Level 1 Hospital requires timely fault reporting, routine monitoring, and strong coordination between clinical staff and Biomedical Engineering Technology (BMET) personnel.



Clinical Collaboration in Practice



Cephas from the (BMET) team inspects a suction machine prior to workshop referral, while the ward sister completes a Job Request Card. The MEC model ensures faults are documented and escalated promptly.

Background

- Ideally, all equipment should be functional, and faults should be promptly addressed.
- However, in Q1 2025, delayed fault reporting and prolonged equipment downtime negatively affected patient care.
 - At baseline, 33% (4/12) of oxygen concentrators were non-functional, reducing availability of critical equipment.
 - This led to delays in patient management and reduced efficiency of clinical services.
- This QI activity aimed to improve equipment functionality, reduce downtime, and strengthen coordination through the MEC model.

MEC Capacity Building: Documentation & Accountability



MEC conducts an on-the-spot orientation with ward staff on proper use of the Equipment Preventive Check Log. Accurate documentation ensures timely fault detection, service tracking, and compliance with MEC duties.

Preventive Equipment Care by MECs



MEC supervising the cleaning and disinfection of an oxygen concentrator during morning ward routines — promoting equipment safety and infection prevention.

Comparison before and after MECs

AREA	Before MEC-Q1 2025	AFTER MEC- Current
Fault Reporting	Often delayed	Structured via Job Request cards, reported promptly to BMET and departmental head
Equipment monitoring	No dedicated person, issues found during emergencies	Daily pre-use inspection with check sheets by MEC, Cleaning/disinfection verified
Documentation	Manuals/inventories missing or outdated	User manuals, inventory, lists, check sheets and updated by MEC
Staff Capacity	End-users unsure of basic troubleshooting, no orientation for new devices	Nurses trained on basic use/care, formal orientation done for all new equipment
Downtime	Prolonged, equipment non-functional for days/weeks	Reduced, minor issues resolved at ward level, major faults escalated faster.

KPI and Monitoring

- (1) Equipment functionality
- (2) Number and trend of job requests
- (3) Number of repaired machines, monitored from January 2025 to date using ward records and BMET reports.

Progress was monitored through routine review of job request records, MEC checklists, and BMET feedback.

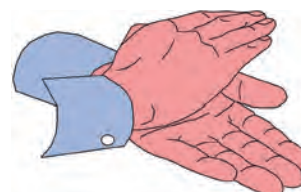
Conclusions

- The MEC model improved equipment availability and reduced downtime by strengthening accountability, routine monitoring, and communication at ward level.
- It is recommended that healthcare facilities adopt the MEC model to improve equipment management using existing staff and resources.
- Sustaining this improvement will require continued use of checklists, Job Request Cards, and integration of the MEC role into routine practice, with potential for scale-up to other primary healthcare facilities.

Results

- 28 job requests were recorded from January to date, with a decreasing trend over time
 - It suggests improved early fault detection and resolution.
- A total of 51 medical machines were repaired
 - It contributed to increased equipment availability.

THANK YOU



Thank you so much for your understanding and cooperation.

Results

- The proportion of functional oxygen concentrators

67% (8/12) ➡ 100% (12/12)

At Baseline In April 2026
- Routine daily inspections strengthened equipment monitoring and improved timely fault identification.
- Staff demonstrated increased confidence in equipment use and troubleshooting, while collaboration between nursing staff and BMET improved through structured communication.

Results

- Routine daily inspections strengthened equipment monitoring and improved timely fault identification. Staff demonstrated increased confidence in equipment use and troubleshooting, while collaboration between nursing staff and BMET improved through structured communication.

8.1 Improving Patient File Return Rates in the Outpatient Department Registry at Chipata Level 1 Hospital from Baseline of 15% December 2025 to 70% by December 2026

Rhodah Lungu, Mate Mate, Dennis Mwale
Chipata Level One Hospital

Background

Efficient management of patient files is critical for continuity of care, accurate documentation, and data quality. At Chipata Level 1 Hospital, low patient file return rates in the Out-Patient Department (OPD) registry were identified as a key gap, leading to incomplete records, delays in service delivery and challenges in monitoring patient outcomes. Patient's medical history is like a roadmap to the health journey, it gives health care providers the past medication, illness and treatment hence helping them make informed decisions. 76,194 out of 89,433 representing 55% of patient's files were not returned at OPD registry in the year 2025.

Methods

The Performance Improvement Approach (PIA) was implemented using a systematic quality improvement methodology. A multidisciplinary QI team was established, comprising registry clerks, nurses, radiology staff, patients, security guards, general workers, clinical officers, medical officers, pharmacists, and flow managers. Team members were oriented on the importance of returning patients' files to the OPD registry, and responsibilities for file return were clearly assigned. Root cause analysis identified barriers, including workflow gaps, limited staff accountability, and the absence of a tracking system. Based on these findings, several change ideas were developed and implemented, including the introduction of a file tracking register, assignment of responsibility for file returns, staff orientation on the importance of file management, and daily reconciliation of issued and returned files. Plan-Do-Study-Act (PDSA) cycles were used to test and refine the interventions, and performance was monitored routinely using OPD registry data.

Results

From February 2026 to date, 100 workers, including students, were oriented on the file return process. File return rates showed progressive improvement over time, with a significant reduction in missing or unreturned files. The interventions also improved the completeness and availability of patient records and enhanced staff adherence to file management procedures. By March 2026, the file return rate had reached 25% against a target of 70%, reducing the performance gap from 55% to 45%.

Conclusion

The QI initiative demonstrated that structured interventions, staff accountability, and continuous monitoring can significantly improve patient file return rates. Strengthening records management systems is essential for improving service delivery and data quality in healthcare settings by scale up the intervention to other departments, integrating file tracking into routine hospital systems, conducting periodic audits to sustain gains and providing on-going staff training and mentorship though resistance to change among staffs still remains a challenge not forgetting increased workload due to added tracking responsibilities.

The Hospital Management Forum in Lusaka Province
22 – 23 April 2026

Improving patient's file return rates in the Out-Patient Department Registry at Chipata Level 1 Hospital

Presenter Rhodah Lungu

Chipata Level 1 Hospital

Methods:
QI Team & Cause-Effect Analysis

<QI Team>
A QI team was formed comprising of Registry Clerks, Nurses, Radiology, Patients, Security Guards, General Workers, Clinical Officers, Medical Officers, Pharmacists and Flow Managers were oriented on the importance of patient's file return at OPD Registry and everyone was given responsibility.

<Cause-Effect Analysis>
Conducted root cause analysis (e.g., workflow gaps, staff accountability, lack of tracking system) and developed and implemented change ideas: Introducing a file tracking system/registry, Assigning responsibility for file return, Staff orientation on the importance of file management, daily reconciliation of issued and returned files, Used Plus-Do-Check-Act (PDCA) cycles to test and refine interventions, Monitored performance using routine data from the OPD registry.

The QI team

Background: Setting

Efficient management of patient files is critical for continuity of care, accurate documentation, and data quality. At Chipata Level 1 Hospital, low patient file return rates in the Out-Patient Department (OPD) registry were identified as a key gap, leading to incomplete records, delays in service delivery and challenges in monitoring patient outcomes. Patient's medical history is like a roadmap to the health journey, it gives health care providers the past medication, illness and treatment hence helping them make informed decisions. 76, 194 out of 89, 433 representing 55% of patient's files were not returned at OPD registry in the year 2025.

REGISTRY IN 2025

Methods: Intervention

During orientation all staffs were encouraged to continue sensitizing the patients on file returns on daily basis to the registry after been seen.

Files in the OPD registry at Chipata were put in order

Background: The Gap

Standard expected Performance : 80% of patient's files to be returned to OPD registry.
Actual Performance : 15% of patient's files returned to OPD registry.
Desired performance: 70% of patient's files to be returned.
Performance gap: 55% not returned to OPD registry.
Performance gap statement: 55% of patient's files are not returned in the OPD registry risking poor and slow clinical decisions. This gap reflects poor retention of patient's files to OPD registry.

Results
(the number of oriented workers)

From February 2026 to date, 100 workers were oriented including students and the following interventions were put in place:

- File return rates showed progressive improvement over time
- Significant reduction in missing or unreturned files
- Improved completeness and availability of patient records
- Enhanced staff adherence to file management procedures
- The target of $\geq 25\%$ of 70% file return rate was approached/achieved as at March reducing the gap from 55% to 45%

Background: Rationale

- Due to poor file return to OPD registry of 15% it was very difficult for health care providers to access the past medical illness and treatment hence making it difficult to make informed decisions.
- This QI activity aimed to improve the file return at Chipata OPD registry.

Conclusions

The QI initiative demonstrated that structured interventions, staff accountability, and continuous monitoring can significantly improve patient file return rates. Strengthening records management systems is essential for improving service delivery and data quality in healthcare settings by scaling up the intervention to other departments, integrating file tracking into routine hospital systems, conducting periodic audits to sustain gains and providing on-going staff orientation and mentorship though resistance to change among staffs still remains a challenge not forgetting increased workload due to added tracking responsibilities.

8. 2 Improving Medicine Storage Management Through Pharmacy Storage Space Reorganization at Matero Level One Hospital

Mara Nkhoma Hachizo¹, Jane Botha¹, Florence B. Mwanza¹ and Mika Kogoshi²

1. Matero Level One Hospital, Lusaka, Zambia / 2. JICA Japan Overseas Cooperation Volunteers (Hospital Management)

Background

The pharmacy department at Matero Level One Hospital manages medicine storage and conducts physical inventory counts to support stock ordering. Ideally, all medicines are stored in designated pharmacy rooms to enable accurate inventory counts and timely identification of stock needs. Centralized storage within a dedicated building section is particularly important, as it allows all medicines to be managed under a single oversight structure. As of June 2025, medicines were distributed across 25 locations including non-designated areas, making it difficult for staff to track all medicine storage. The Surgical Area building, which included rooms designated for pharmacy storage, was simultaneously occupied by non-pharmacy entities, limiting the pharmacy's access to the full building. These fragmented storages made inventory counts unreliable, delaying detection of stock shortages and limiting the pharmacy's ability to maintain adequate stock levels for patient care. The purpose of this Quality Improvement (QI) activity was to consolidate medicine storage into designated rooms and enable accurate stock management to ensure the right medicines are available in the right quantities for patient care.

Methods

A QI team was formed comprising QI project members, hospital administration, the Head Pharmacist (Mrs. Nkhoma Hachizo), pharmacy staff, and a JICA Volunteer. A facility-wide survey using site visits, interviews, and record checks mapped all 25 medicine storage locations across the hospital; findings were presented at a Senior Management Meeting (SMM) to establish shared understanding across departments. The Medical Superintendent (MS) facilitated discussion on how inadequate inventory management affects patient care and staff working conditions, building shared understanding of the ideal state across all departments, and directed each departmental leader to investigate and negotiate the return of rooms under their jurisdiction. The survey identified insufficient and disorganized dedicated storage space as the root cause: The pharmacy's designated storage areas were critically insufficient for the actual volume of medicines, resulting in medicines being scattered throughout the hospital with no systematic organization. Within the Surgical Area building, only three of seven rooms were available for pharmacy use.

Based on these findings, the team prioritized removing medicines from patient-visible areas first – including the entrance, Outpatient department (OPD) area, and corridors – to address safety concerns, before reorganizing designated storage rooms. With the active support from the MS and hospital administration, the Surgical Area building — previously shared with non-pharmacy entities — was fully consolidated under pharmacy management for the first time. A large warehouse that had become a storage site for disused equipment and broken items was cleared in collaboration with the Environmental Health Team, sanitized and converted into medicine storage. Medicines were categorized and arranged by type to enable efficient counting. The main medicine store was redesigned to maximize working capacity by eliminating dead ends and connecting all passages, enabling more than 10 staff to work simultaneously — compared to only one previously. Throughout implementation, the pharmacy leader reported weekly progress – including challenges encountered – at SMM, receiving input from other departments to address obstacles as they arose. All decisions were led by local pharmacy staff through weekly and daily discussions with SMM members and JICA volunteers.

The KPIs were the number of medicine storage locations, the number of staff able to work simultaneously in the main medicine store, and inventory reporting frequency, monitored monthly from July 2025 to March 2026. Monthly physical inspections were conducted and progress was reported at SMM.

Results

Medicine storage locations decreased from 25 to 9; staff working simultaneously in the main store increased from 1 to 2 to more than 10, enabling systematic inventory counts for the first time; inventory reporting became regular and more reliable; and medicines from the entrance and OPD areas were relocated, reducing patient-facing visibility and theft risk. The department now independently oversees the entire Surgical Area building section, simplifying inventory oversight.

Staff gained a clear picture of all storage locations for the first time, eliminating count omissions from previously unknown storage areas; regular SMM reporting secured cooperation from all departments throughout the activity. A weekly inventory reporting rule was established, with a specific protocol for oxygen stock: verbal and record reporting of bottle count at each SMM and a minimum threshold of 40 bottles triggering immediate ordering. This shifted the pharmacy from a reactive to a proactive ordering model. Stockouts attributable to inadequate inventory tracking – which occurred frequently between May and November 2025 – were eliminated following implementation; remaining supply gaps reflect broader supply chain factors beyond the facility's direct control.

Conclusions

Beginning with a systematic facility-wide fact-finding survey allowed the team to build shared understanding and secure cooperation from all departments; the MS's engagement and support from hospital administration were key to reclaiming occupied storage rooms. Weekly progress reporting at SMM – including open discussion of challenges – sustained cross-departmental collaboration throughout the activity.

A comprehensive assessment of storage conditions and early engagement of hospital leadership are essential first steps for pharmacy storage improvement in similar settings.

To sustain the improvement, routine inventory counts and stock level sharing were incorporated into regular pharmacy meetings, minimum stock thresholds and a reporting rule were established to identify and prevent stock-outs before they occur.



The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026



Improving Medicine Storage Management through Pharmacy Storage Space Reorganization at Matero Level One Hospital, Lusaka, Zambia

Mara Nkhoma Hachizo¹, Jane Botha¹, Florence B. Mwanza¹, and Mika Kogoshi²

¹Matero Level One Hospital, Lusaka, Zambia

²JICA Japan Overseas Cooperation Volunteers (Hospital Management)

Methods: Cause-Effect Analysis

7. What was the root-cause the team identified?

- Insufficient and disorganized dedicated storage space
- Storage rooms in the Surgical Area building occupied by non-pharmacy entities
- No systematic organization of remaining areas
- Medicines overflowed into non-designated locations

How the root cause was identified?

- A facility-wide survey (site visits, interviews, record checks) mapped all 25 medicine storage locations. Findings were presented at a Senior Management Meeting (SMM) to establish shared understanding across departments.

Background: Setting

1. What is the minimum knowledge of basic setting, which the audience should know to understand this presentation/topic?

- The pharmacy department at Matero Level One Hospital manages medicine storage and conducts physical inventory counts to support stock ordering.



AS IS : Actual Medicine location

- Dispensary place *4
 - Stock room *7
- Medicines are supposed to be
- Extra space *4
 - Conference room / Office *6
 - Corridor / Places that can be seen by patients *4
- NOT supposed to be

= 25 places



Background: The Gap

2. What was the ideal?

- All medicines stored in designated pharmacy rooms → accurate inventory counts and timely identification of stock needs.
- Centralized storage within a dedicated building section is particularly important → allows all medicines to be managed under a single oversight structure.

3. What was the gap between the current and ideal?

- Gap (June 2025): Medicines distributed across 25 locations including non-designated areas → staff could not track all medicine storage.
- Surgical Area building was occupied by non-pharmacy entities

Methods: Intervention

8. What was the intervention?

- (1) Negotiated to reclaim occupied storage rooms
- (2) Renovated a disused warehouse (former cholera storage, cleared with EHT support)
- (3) Relocated medicines from non-designated areas
- (4) Redesigned the main medicine store layout to maximize working capacity

How the intervention was prioritized and agreed?

- The MS facilitated discussion on the impact of inadequate storage on patient care and staff, directing each department to negotiate the return of occupied rooms. Patient-visible areas (entrance, OPD, corridors) were prioritized first to address safety concerns.

Background: Rationale

4. Why was it important to tackle the gap?

- Fragmented storage made inventory counts unreliable, delaying detection of stock shortages and limiting the pharmacy's ability to maintain adequate stock levels for patient care.

5. What was the purpose of this QI activity?

- To consolidate medicine storage into designated rooms and enable accurate stock management, ensuring the right medicines are available in the right quantities for patient care.

Prioritize and agreed

- No.1 ■ Find & Create other spaces Remove

- No.2 ■ Change layout

- No.3 ■ Find & Create other spaces Remove



Methods: QI Team

6. Who did the QI activity?

- QI project members
- Hospital administration
- Head Pharmacist: Mrs. Mara Nkhoma Hachizo
- Pharmacy staff
- JICA Volunteer

Methods: KPI

9. How did the team define the KPI? Denominator and Numerator, Period of Measurement

- KPIs (monitored monthly: July 2025 – March 2026):
 - (1) Number of medicine storage locations — Before: 25 locations
 - (2) Number of staff able to work simultaneously in the main medicine store — Before: 1 person
 - (3) Inventory reporting frequency — Before: irregular

Methods: Action Plan

What was the action plan and schedule to implement the intervention?

- Jun 2025: Facility-wide survey → 25 locations mapped
- Jul–Sep 2025: Removal of medicines from non-designated areas
- Aug–Nov 2025: Reclaim occupied storage rooms (negotiation with MS)
- Sep–Feb 2026: Renovation of old cholera warehouse
- Oct–Nov 2025: Redesign of main medicine store layout

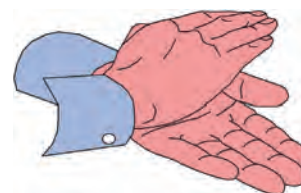
Who has responsibility?

Head of Pharmacy department

10. What was the monitoring procedure for KPI to know the effectiveness before and after the intervention?

- Monitoring: Monthly physical inspections
- Reporting: Senior Management Meetings (SMM)

THANK YOU



Results

11. What was the change before and after the intervention? (based on data)

- Medicine storage locations: 25 → 9 (–64%)
- Staff working simultaneously in the main medicine store: 1 → more than 10
→ Systematic inventory counts conducted for the first time
- Inventory reporting: Irregular → Regular & reliable



Results

12. What was the change before and after the intervention? (based on teams' perception, which is not measurable)

- Medicines from entrance and OPD areas were relocated, reducing patient-facing visibility and theft risk.
- Staff gained a clear picture of all storage locations for the first time, eliminating count omissions from previously unknown storage areas
- regular SMM reporting secured cooperation from all departments throughout the activity.



Conclusions

13. What do the team think was effective? (or not effective?)

- Effective: Beginning with a systematic facility-wide fact-finding survey built shared understanding and secured cooperation from all departments.
- The Medical Superintendent's engagement and support from senior management were key to reclaiming occupied storage rooms.

14. What is the recommendation based on your findings?

- A comprehensive assessment of storage conditions and early engagement of hospital leadership are essential first steps for pharmacy storage improvement in similar settings.

Conclusions

15. What is the standardization measure to sustain the improvement? (if any)

- Routine inventory counts incorporated into regular pharmacy meetings.
- Stock level sharing established as standard practice.
- Minimum stock thresholds for key medicines defined.
- Reporting rule established to identify and prevent stock-outs before they occur.

8.3 Improving Waste Segregation Practices Using a Game-Based Training Approach at Chongwe District Hospital

Erika Fujitomi¹, Jelina Chuma², and Kestings Sakasole³

1. JICA Japan Overseas Cooperation Volunteer, Chongwe District Health Office (DHO) / 2. Chongwe District Health Office, Ministry of Health / 3. Chongwe District Hospital, Ministry of Health

Background

Chongwe District Hospital manages infectious waste on-site, while general waste is collected by the local council. Ideally, both infectious and general waste should be properly segregated at the point of generation by healthcare workers and cleaners, as well as at storage areas near the incinerator. However, despite the availability of designated bins in all departments, waste was often mixed. This poor waste segregation resulted in increased volumes of infectious waste, overflow at storage areas, and exposure of cleaners and nearby residents, including children, to infectious materials. This QI activity aimed to improve waste segregation practices at both departmental and storage.

Methods

A QI team was formed, comprising members of the hospital public health team (including Environmental Health Technologist [EHT]), Environmental Health Officer at the District Health Office (DHO), and a JICA Volunteer. Baseline monitoring of waste segregation practices, following labeling and color-coding of bins, revealed that healthcare workers and cleaners had basic knowledge but lacked practical application skills. Based on these findings, the team discussed approaches to address the gap between knowledge and practice. Conventional lecture-based training was considered insufficient; therefore, a more interactive and experiential method was adopted. A game-based approach was selected to engage participants and simulate practical waste segregation scenarios, with a competitive element to enhance motivation. A JICA volunteer and an EHT developed Information, Education, and Communication (IEC) materials and a game-based training tool using photographs of actual waste items, which was reviewed by the Environmental Health Officer at the District Health Office (DHO). During playing game in the training, participants were required to sort waste items correctly within a limited time. Training sessions were conducted in each department from July to October 2025, followed by weekly monitoring and additional sessions as needed.

The key performance indicators were the number of trained workers and the proportion of departments ($n = 9$) correctly segregating waste at bin stations, directly monitored weekly from July 2025 to March 2026 by EHT. The proportion was calculated as the number of departments in which waste was correctly segregated at bin stations (numerator) divided by the total number of departments observed (denominator). Results were collected by EHT and shared during weekly Monday morning briefings attended by all departments.

Results

From July to October 2025, 210 workers were trained. Including additional training sessions, the total number of trained participants, including students, exceeded 300. Prior to the intervention, waste segregation was not properly implemented in most departments. However, after the introduction of this training, although some sorting errors remained, the proportion of departments correctly segregating waste increased to 78% (in seven out of nine departments). Consequently, the amount of infectious waste decreased, leading to reduced fuel consumption for incinerating infectious waste, with fuel purchases decreasing from 50 liters per week to once every two weeks. This also resulted in improved storage conditions around the incinerator.

According to feedback from participants, they reported a clearer understanding of the differences between infectious and general waste through practical examples. They also noted that the game was an effective training tool that encouraged proper segregation despite busy working conditions. Furthermore, the training helped maintain the attention of departmental heads toward proper waste segregation practices across departments.

Conclusions

This activity demonstrated that game-based training can improve both knowledge and behavior to practical waste segregation. However, challenges remain, particularly due to the frequent rotation of new employees and students, which contributes to recurring sorting errors. To sustain improvements, continuous monitoring of waste segregation practices by EHT and Departmental heads, as well as ongoing training using the game for new staff and students, is essential.

The Hospital Management Forum in Lusaka Province
22 – 23 April 2026

<JICA Oversea Volunteer, Chongwe District Health Office >

Improving Waste Segregation Practices Using a Game-Based Training Approach at Chongwe District Hospital

Erika Fujitomi¹, Jelina Chuma², and Kestings Sakasole³

1. JICA Oversea Volunteer, Chongwe District Health Office
2. Chongwe District Health Office, Ministry of Health
3. Chongwe District Hospital, Ministry of Health

Background: The Gap

Ideally, both infectious and general waste should be properly segregated at the point of generation by healthcare workers and cleaners, as well as at storage areas near the incinerator. However, despite the availability of designated bins in all departments, waste was often mixed.

Background: Setting

Chongwe District Hospital manages infectious waste on-site, while general waste is collected by the local council.

Background: Rationale

- This poor waste segregation resulted in increased volumes of infectious waste, overflow at storage areas for infectious waste, and exposure of cleaners and nearby residents to infectious materials.
- This QI activity aimed to improve waste segregation practices at both departmental and storage.

Methods: QI Team & Cause-Effect Analysis

<QI Team>

A QI team was formed, comprising members of the hospital public health team (including Environmental Health Technologist [EHT], Environmental Health Officer at the District Health Office (DHO), and a JICA Volunteer.



Photo at Public Health department in Hospital

<Cause-Effect Analysis>

Baseline monitoring of waste segregation practices, following labeling and color-coding of bins, revealed that healthcare workers and cleaners had basic knowledge but lacked practical application skills.



Boxes (general waste) were disposed of in the infectious waste bin.

Results

(the number of trained workers)

From July to October 2025, 210 workers were trained. Including additional training sessions, the total number of trained participants, including students, exceeded 300.



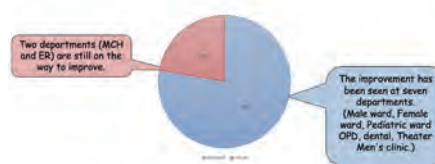
Methods: Intervention

Based on these findings, the team discussed approaches to address the gap between knowledge and practice. Conventional lecture-based training was considered insufficient; therefore, a more interactive and experiential method was adopted. A game-based approach was selected to engage participants and simulate practical waste segregation scenarios, with a competitive element to enhance motivation. A JICA volunteer and an EHT developed Information, Education, and Communication (IEC) materials and a game-based training tool using photographs of actual waste items, which was reviewed by the Environmental Health Officer at the District Health Office (DHO).

Results

(the proportion of departments correctly segregating waste)

Prior to the intervention, waste segregation was not properly implemented in most departments. However, after the introduction of this training, although some sorting errors remained, the proportion of departments correctly segregating waste increased to 78% (in seven out of nine departments).



Methods: Intervention

WASTE SEGREGATION GAME

During the game, participants were required to sort waste items correctly within a limited time. The winner was determined based on both accuracy and speed of waste segregation.



IEC MATERIALS

Including actual photos to show current situation and waste items, and visible materials have strong impact during the training.



Results

(the proportion of departments correctly segregating waste)

On one occasion in July 2025, a cannula and a syringe were found in a general waste bin, while packages and boxes were found in an infectious waste bin.

After training and monitoring, waste was correctly segregated.



Photo taken in July 2025



Photo taken in December 2025

Methods: Intervention

Training sessions were conducted in each department from July to October 2025, followed by weekly monitoring and additional sessions as needed.



TRAINING SESSIONS



WEEKLY MONITORING



ADDITIONAL SESSIONS

Results

(the situation around waste storage next to incinerator)

Consequently, the amount of infectious waste decreased, leading to reduced fuel consumption for incinerating infectious waste, with fuel purchases decreasing from 50 liters per week to once every two weeks. This also resulted in improved storage conditions around the incinerator.



April in 2025



November in 2025

Methods: KPI & Action Plan

<KPI>

The key performance indicators were the number of trained workers and the proportion of departments (n = 9) correctly segregating waste at bin stations, directly monitored weekly from July 2025 to March 2026 by EHT. The proportion was calculated as the number of departments in which waste was correctly segregated at bin stations (numerator) divided by the total number of departments observed (denominator).

<Action Plan>

Results were collected by EHT and shared during weekly Monday morning briefings attended by all departments.



BIN STATION AT EACH DEPARTMENT

Results

(others)

- According to feedback from participants, they reported a clearer understanding of the differences between infectious and general waste through practical examples. They also noted that the game was an effective training tool that encouraged proper segregation despite busy working conditions.
- Furthermore, the training helped maintain the attention of departmental heads toward proper waste segregation practices across departments.



Reaction of clinicians



Departmental head in MCH talks to colleagues

Conclusions

This activity demonstrated that game-based training can improve both knowledge and behavior to practical waste segregation. However, challenges remain, particularly due to the frequent rotation of new employees and students, which contributes to recurring sorting errors. To sustain improvements, continuous monitoring of waste segregation practices by EHT and Departmental heads, as well as ongoing training using the game for new staff and students, is essential.

THANK YOU

Download the game material from here!



8.4 Reducing Patient Waiting Time from 3 Hours to 1 Hour 30 Minutes at Kanyama Level One Hospital

Jumbe Andrew Chinyonga, Mutinta Hambulo, Christine Nyoni, Lawrence Kalando, Francis Lundula, and Priscilla Namukondia

Kanyama Level One Hospital

Background

Kanyama Level One Hospital serves a catchment population of 187,073, averaging 500 patients per day. Baseline study had shown 80% were attended to between 4 to 6 hours. Ideally, patients should take an average of 3 hours to be given care. (Zebader Walle 1, n.d.). Baseline done in October 2025 revealed the average waiting time was 5 hours and only 20% (Out of 200 files sampled, 40) of patients were attended to under the desired time (within 3 hours). Waiting time can be linked to health seeking behavior. Exit interviews at Kanyama showed how patients who waited longer suggested not visiting the hospital again. Waiting time affects client satisfaction. Waiting time affects quality of care. An hour waited is an hour too much. The purpose of the Quality Improvement Initiative is to design interdepartmental interventions to ensure improved patient care through reducing patient waiting time.

Methods

A QI project was initiated by the core QI team, the hospitals senior management, OPD in charges and staff, laboratory in charges and staff. Interviews and file audits highlighted operational inefficiencies which included the absence of a structured patient flow system within the Emergency Department, inappropriate space allocation for Central Triage and recurrent disfunction of the DISA Lab system, all of which created bottlenecks at key service points. These challenges were compounded by weak supervisory assertiveness, limiting timely corrective action and accountability. In addition, gaps in staff orientation on patient screening and specimen collection, together with insistence on point-of-care tests being done solely at the lab, undermined process reliability and delayed clinical decision-making. Finally, the lack of a consistent maintenance plan for medical equipment contributed to avoidable service interruptions. Collectively, these factors highlighted the need for a comprehensive systems-strengthening approach rather than isolated corrective measures.

To strengthen service continuity, requests through management were submitted to secure funding for replacement equipment, while laboratory and radiology teams were directed to consistently utilize preventive maintenance forms. Supervisory oversight was reinforced through stricter use of log-in registers and clearer allocation of staff roles and responsibilities. Capacity gaps were addressed by integrating regular orientation on specimen collection and patient screening into weekly clinical meetings. Process efficiency was further improved by displaying sample collection SOPs and decentralizing sample collection to screening rooms, allowing multiple specimens to be collected

simultaneously and reducing unnecessary patient movement. In parallel, a formal patient flow chart was developed and communicated to streamline movement through the Emergency Department, while efforts were made to identify a more suitable location for Central Triage. Finally, point-of-care testing was centralized within one OPD station to improve standardization, oversight, and accuracy of documentation. Collectively, these interventions focused on redesigning the system to deliver faster, safer, and more organized patient care.

The KPIs were the number of patients seen within or less than 3 hours/total number of patient files samples. A random sample of 50 patient files were reviewed on a monthly basis to assess the efficacy of interventions and structure further evidence-based action

Results

The facility noted a reduction in patient waiting time as evidenced by patient files. The percentage of patients seen within 3 hours increased from 20% as of September 2025 to 68% in March 2026. A client satisfaction survey was carried out showing over 50% of patients were either satisfied or very satisfied with the time it took for them to be attended to. In light of the significant improvement recorded within the OPD department, staff members from the participating departments reported noticeable gains in day-to-day operations and service delivery. There was easier and more coordinated movement of patients, particularly following the introduction of a structured patient flow chart in the Emergency Department. Staff also noted fewer hanging tasks and reduced duplication of duties as a result of clearer role allocation and accountability measures. In addition, congestion at the laboratory was significantly reduced, contributing to a more orderly work environment and improved turnaround time for laboratory investigations. Overall, these changes enhanced workflow efficiency, reduced staff pressure, and supported timely patient care.

Conclusions

The biggest lesson from the project was to ensure buy-in of senior management. This created an enabling environment for the proposed interventions. High impact interventions included sample collection and point-of-care tests being done in screening rooms. This allowed multiple patients to be serviced at a time as opposed to one by one at the laboratory. Regular orientation on sample collection protocol and display of SOPs at sample collection points reduced the number of sample rejections either due to incorrect use of specimen containers or substandard sample collection, this further reduced waiting time as it avoided the need for sample recollection.

Frequent and detailed monitoring of waiting time through patient files. Time a patient reaches each service point to be documented on the file. Interdepartmental meetings to enable open ended conversation and group brain storming. Constant engagement of senior management to allow for easy implementation of localized policies.

To standardize the gains achieved, we would institutionalize the interventions through policies, routines, accountability tools, and continuous monitoring rather than relying on individual effort. The objective would be to embed the improvements into normal hospital operations so that performance remains consistent over time. Development of visual aid tools such as SOPs and Patient Flow Charts ensure continuity in quality service delivery at the respective service points. Role allocation and weekly re-orientation in clinical meetings focus on knowledge transfer to eliminate gaps that may occur where staff attrition takes place.



The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026



Kanyama Level One Hospital, Lusaka, Zambia Reducing Patient Waiting Time From 3 Hours To 1 Hour 30 Minutes At Kanyama Level One Hospital, Lusaka, Zambia

Jumbe Andrew Chinyonga, Mutinta Hambulo, Christine Nyoni, Lawrence Kalando, Francis Lundula, and Priscilla Namukondia

Kanyama Level One Hospital, Lusaka, Zambia

Background: Rationale

Why was it important to tackle the gap?

- Improving clinical outcome to prevent avoidable complications and even death, Enhance patient satisfaction, Reduce Staff stress and burnout, Increase access to care.
- Long waiting time made it so patients left the facility without being seen completely. This led to burnout on staff and wastage of resources (Laboratory reagents)
- High patient volumes combined with poor flow systems can result in frustration, patients leaving without being seen, complaints, and reduced public confidence in the hospital. At the same time, staff are placed under continuous pressure, contributing to fatigue, errors, poor morale, and burnout.

Purpose

- The purpose of the Quality Improvement Initiative is to design interdepartmental interventions to ensure improved patient care through reducing patient waiting time.

Background

- Kanyama Level One Hospital serves a catchment population of 187,073, averaging 500 patients per day. Baseline study had shown 80% were attended to between 4 to 6 hours.
- Ideally, patients should take an average of 3 hours to be registered, attended to in screening rooms, have investigations completed, reviewed and collect medication from the pharmacy. (Zebader Walle 1, n.d.)
- Baseline done in October 2025 revealed only 20% of patients were attended to under the desired time (3 hours).

QI Team

- A QI project was initiated by the core QI team, the hospitals senior management, OPD in charges and staff, laboratory in charges and staff.

Baseline

Metric		Target		Q1 Screening Rooms		Q2 Screening Rooms		Q3 Screening Rooms		Q4 Screening Rooms		Q5 Screening Rooms		Q6 Screening Rooms		Q7 Screening Rooms		Q8 Screening Rooms		Q9 Screening Rooms		Q10 Screening Rooms		Q11 Screening Rooms		Q12 Screening Rooms		Q13 Screening Rooms		Q14 Screening Rooms		Q15 Screening Rooms		Q16 Screening Rooms		Q17 Screening Rooms		Q18 Screening Rooms		Q19 Screening Rooms		Q20 Screening Rooms		Q21 Screening Rooms		Q22 Screening Rooms		Q23 Screening Rooms		Q24 Screening Rooms		Q25 Screening Rooms		Q26 Screening Rooms		Q27 Screening Rooms		Q28 Screening Rooms		Q29 Screening Rooms		Q30 Screening Rooms		Q31 Screening Rooms		Q32 Screening Rooms		Q33 Screening Rooms		Q34 Screening Rooms		Q35 Screening Rooms		Q36 Screening Rooms		Q37 Screening Rooms		Q38 Screening Rooms		Q39 Screening Rooms		Q40 Screening Rooms		Q41 Screening Rooms		Q42 Screening Rooms		Q43 Screening Rooms		Q44 Screening Rooms		Q45 Screening Rooms		Q46 Screening Rooms		Q47 Screening Rooms		Q48 Screening Rooms		Q49 Screening Rooms		Q50 Screening Rooms		Q51 Screening Rooms		Q52 Screening Rooms		Q53 Screening Rooms		Q54 Screening Rooms		Q55 Screening Rooms		Q56 Screening Rooms		Q57 Screening Rooms		Q58 Screening Rooms		Q59 Screening Rooms		Q60 Screening Rooms		Q61 Screening Rooms		Q62 Screening Rooms		Q63 Screening Rooms		Q64 Screening Rooms		Q65 Screening Rooms		Q66 Screening Rooms		Q67 Screening Rooms		Q68 Screening Rooms		Q69 Screening Rooms		Q70 Screening Rooms		Q71 Screening Rooms		Q72 Screening Rooms		Q73 Screening Rooms		Q74 Screening Rooms		Q75 Screening Rooms		Q76 Screening Rooms		Q77 Screening Rooms		Q78 Screening Rooms		Q79 Screening Rooms		Q80 Screening Rooms		Q81 Screening Rooms		Q82 Screening Rooms		Q83 Screening Rooms		Q84 Screening Rooms		Q85 Screening Rooms		Q86 Screening Rooms		Q87 Screening Rooms		Q88 Screening Rooms		Q89 Screening Rooms		Q90 Screening Rooms		Q91 Screening Rooms		Q92 Screening Rooms		Q93 Screening Rooms		Q94 Screening Rooms		Q95 Screening Rooms		Q96 Screening Rooms		Q97 Screening Rooms		Q98 Screening Rooms		Q99 Screening Rooms		Q100 Screening Rooms		Q101 Screening Rooms		Q102 Screening Rooms		Q103 Screening Rooms		Q104 Screening Rooms		Q105 Screening Rooms		Q106 Screening Rooms		Q107 Screening Rooms		Q108 Screening Rooms		Q109 Screening Rooms		Q110 Screening Rooms		Q111 Screening Rooms		Q112 Screening Rooms		Q113 Screening Rooms		Q114 Screening Rooms		Q115 Screening Rooms		Q116 Screening Rooms		Q117 Screening Rooms		Q118 Screening Rooms		Q119 Screening Rooms		Q120 Screening Rooms		Q121 Screening Rooms		Q122 Screening Rooms		Q123 Screening Rooms		Q124 Screening Rooms		Q125 Screening Rooms		Q126 Screening Rooms		Q127 Screening Rooms		Q128 Screening Rooms		Q129 Screening Rooms		Q130 Screening Rooms		Q131 Screening Rooms		Q132 Screening Rooms		Q133 Screening Rooms		Q134 Screening Rooms		Q135 Screening Rooms		Q136 Screening Rooms		Q137 Screening Rooms		Q138 Screening Rooms		Q139 Screening Rooms		Q140 Screening Rooms		Q141 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Rooms		Q187 Screening Rooms		Q188 Screening Rooms		Q189 Screening Rooms		Q190 Screening Rooms		Q191 Screening Rooms		Q192 Screening Rooms		Q193 Screening Rooms		Q194 Screening Rooms		Q195 Screening Rooms		Q196 Screening Rooms		Q197 Screening Rooms		Q198 Screening Rooms		Q199 Screening Rooms		Q200 Screening Rooms		Q201 Screening Rooms		Q202 Screening Rooms		Q203 Screening Rooms		Q204 Screening Rooms		Q205 Screening Rooms		Q206 Screening Rooms		Q207 Screening Rooms		Q208 Screening Rooms		Q209 Screening Rooms		Q210 Screening Rooms		Q211 Screening Rooms		Q212 Screening Rooms		Q213 Screening Rooms		Q214 Screening Rooms		Q215 Screening Rooms		Q216 Screening Rooms		Q217 Screening Rooms		Q218 Screening Rooms		Q219 Screening Rooms		Q220 Screening Rooms		Q221 Screening Rooms		Q222 Screening Rooms		Q223 Screening Rooms		Q224 Screening Rooms		Q225 Screening Rooms		Q226 Screening Rooms		Q227 Screening Rooms		Q228 Screening Rooms		Q229 Screening Rooms		Q230 Screening Rooms		Q231 Screening 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Action Plan

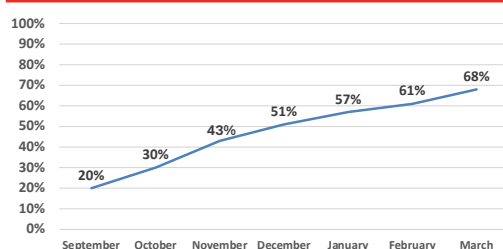
WHAT	WHY	WHERE	WHO	WHEN	HOW
Formulation of flow chart	For efficiency and effectiveness	ER	Robert and Geoffrey	November 2025	Writing and having it printed
Lab and Radiology teams to adhere to maintenance forms	Reduce machine down time	Laboratory and Radiology	Sandra and Simon	October 2025	Spot checks on maintenance forms
Include regular orientation on sample collection and patient screening in weekly clinical meeting	Build capacity in the clinical team to reduce re-collection of samples	Weekly Clinical Meetings	Sandra	November 2025	Preparing presentations for the clinical meeting
Provide sample collection SOP's at collection points	To guide clinical team on sample collection protocol	OPD	Sandra	November 2025	Preparing, Printing and sharing SOPs

Random sample of patient files are checked for time spent from registry to pharmacy

Conclusions

- Frequent and detailed monitoring of waiting time through patient files. Time a patient reaches each service point to be documented on the file.
- Interdepartmental meetings to enable open ended conversation and group brain storming.
- Constant engagement of senior management to allow for easy implementation of localized policies .

Results



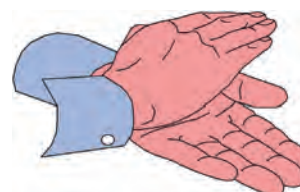
Conclusions

- To standardize the gains achieved, we would institutionalize the interventions through policies, routines, accountability tools, and continuous monitoring rather than relying on individual effort. The objective would be to embed the improvements into normal hospital operations so that performance remains consistent over time. Development of visual aid tools such as SOPs and Patient Flow Charts ensure continuity in quality service delivery at the respective service points. Role allocation and weekly re-orientation in clinical meetings focus on knowledge transfer to eliminate gaps that may occur where staff attrition takes place.

Results

A client satisfaction survey was carried out showing over 50% of patients were either satisfied or very satisfied with the time it took for them to be attended to. In light of the significant improvement recorded within the OPD department, staff members from the participating departments reported noticeable gains in day-to-day operations and service delivery. There was easier and more coordinated movement of patients, particularly following the introduction of a structured patient flow chart in the Emergency Department.

THANK YOU



Results

Staff also noted fewer hanging tasks and reduced duplication of duties as a result of clearer role allocation and accountability measures. In addition, congestion at the laboratory was significantly reduced, contributing to a more orderly work environment and improved turnaround time for laboratory investigations. Overall, these changes enhanced workflow efficiency, reduced staff pressure, and supported timely patient care.

Conclusions

- The biggest lesson from the project was to ensure buy-in of senior management. This created an enabling environment for the proposed interventions.
- High impact interventions included sample collection and point-of-care tests being done in screening rooms. This allowed multiple patients to be serviced at a time.
- Regular orientation on sample collection protocol and display of SOPs at sample collection points reduced the number of sample rejections either due to incorrect use of specimen containers or substandard sample collection

8.5 Improving Waste Management in Chawama First Level Hospital

Prince Bwalya, Jackline Mulako and Dr. Oliver Kaoma
Chawama First Level Hospital

Background

Waste management is a critical component of healthcare in hospitals. This waste includes general waste, infectious waste, highly infectious, and sharps. If these wastes are not properly segregated, they can pose risks of infection, injury, and environmental contaminations. Proper segregation of waste at the point of generation is an ideal to maintain patient satisfaction. However, this practice had not been properly implemented at Chawama First Level Hospital. did not conduct such practice. Staff and students did not adequately understand waste segregation at the point of generation, resulting in mixed waste and scattered sharps on the floor or beds. This created risks to environmental safety, increased the likelihood of injuries, and contributed to the spread of infections to other people. This QI activity aimed at ensuring that all the staff, support staff, and students segregating waste appropriately at the point of generation.

Methods

Waste segregation was one of the topics discussed in the training in Japan (KCCP) in January 2024. The team were comprising of doctors, nurses and environmental health technologist. Cause and effect analysis identified is missing signage's, color coded bins, bin liners, trainings, made it so difficult to manage the waste at the hospital. Trainings of 200 staff were conducted in March 2025, color coded bins were purchased, color coded bin liners and waste management signage's were provided in October 2023.

The key performance indicators were the number of trained workers and the proportion of departments ($n = 22$) correctly segregating waste at the point of generation, directly monitored week from 27th February 2024 to 19 March 2026 by IPC Team. The denominator was the total number of departments observed. The numerator was the number of departments in which waste was correctly segregated at the point of generation. Infection prevention and control team which comprises of a IPC nurse, a IPC doctor and an EHT. This team conducted the IPC rounds every Thursday with the use of the checklist on the tablets and the department in charge accompanied. When all the team finish the round, the IPC team analyzed and aggregated the data. The results were shared in the monthly IPC committee meetings.

Results

Previously in February 2024, 90% of departments mixed waste but it reduced to 0.5% of departments this year in March 2026, resulting in improving waste management at the hospital. Also, IPC champions became more attentive to monitoring the staff compliance with waste segregation practices. In addition, additional training for 200 staff and monthly sharing of monitoring results maintained good practices in waste segregation.

Conclusions

This activity showed quarterly training, providing adequate bins, availability of color coded bin liners at all time, and continuously monthly IPC committee meetings. According to our findings, the involvement of Senior Management is one way to solve the availability of funds, to procure bins, bin liners and conducting the trainings. The reports based on IPC round data was one motivation for senior management to listen to our recommendations. To sustain these practices, dedicated funds should be allocated to IPC, and standardization measures should be established, including the implementation of standard operating procedures (SOPs) for waste management and continuous monitoring of KPIs.

The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026

CHAWAMA FIRST LEVEL HOSPITAL

IMPROVING WASTE MANAGEMENT

Prince Bwalya, Jackline Mulako and Dr. Oliver Kaoma
Chawama First Level Hospital

Rationale

- This created risks to environmental safety.
- Increased the likelihood of injuries.
- Contributed to the spread of infections to other people.
- This QI activity aimed at ensuring that all the staff, support staff, and students segregating waste appropriately at the point of generation.

Background

Waste management is a critical component of healthcare in hospitals. This waste includes general waste, infectious waste, highly infectious, and sharps. If these wastes are not properly segregated, they can pose risks of infection, injury, and environmental contaminations.

Good practices of waste management.

QI Team

- Waste segregation was one of the topics discussed in the training in Japan (KCCP) in January 2023. The team were comprising of doctors, nurses and environmental health technologist.

The Gap

- Proper segregation of waste at the point of generation is an ideal to maintain patient satisfaction.
- However, this practice had not been properly implemented at Chawama First Level Hospital. did not conduct such practice.
- Staff and students did not adequately understand waste segregation at the point of generation, resulting in mixed waste and scattered sharp on the floor or beds.

Cause-Effect Analysis

- Cause and effect analysis identified is
 - missing signage's
 - color coded bins
 - bin liners
 - Trainings

which made it so difficult to manage the waste at the hospital.

- Trainings of 200 staff were conducted in March 2025, color coded bins were purchased, color coded bin liners and waste management signage's were provided in October 2023.

Intervention

- Infection prevention and control team which comprises of a IPC nurse, a IPC doctor and an EHT.
- This team conducted the IPC rounds every Thursday with the use of the checklist on the tablets and the department in charge accompanied.
- When all the team finish the round, the IPC team analyzed and aggregated the data.
- The results were shared in the monthly IPC committee meetings.

Note: All the students are oriented before going in various departments by the IPC focal point person.

Conclusions

- This activity showed quarterly training, providing adequate bins, availability of color coded bin liners at all time.
- continuously monthly IPC committee meetings.
- According to our findings, the involvement of Senior Management is one way to solve the availability of funds, to procure bins, bin liners and conducting the trainings.
- The reports based on IPC round data was one motivation for senior management to listen to our recommendations.

KPI

KPI:

1. The number of trained workers Correctly segregating waste at the point of generation
2. The proportion of departments (n = 22)
 - The denominator was the total number of departments observed.
 - The numerator was the number of departments in which waste was correctly segregated at the point of generation.

Monitoring:

Directly monitor at weekly IPC rounds from 27th February 2024 to 19 March 2026 by IPC Team

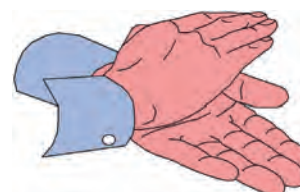
Conclusions

- To sustain these practices, dedicated funds should be allocated to IPC.
- Standardization measures should be established, including the implementation of standard operating procedures (SOPs) for waste management.
- Continuous monitoring of KPIs.

Action Plan

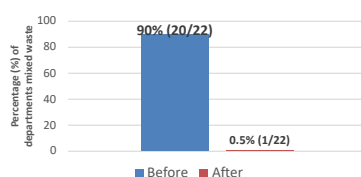
No.	Inputs/ Activities	Responsible person	Frequency	Year 1				Year 2			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.	Preparation										
1.1	Identify the standard number of bins per each department.	IPC TEAM	Once								
1.2	Request for Funds for bins, bin liners and sharp boxes.	IPC TEAM	Once								
1.3	Display the waste signage's and zoning of bins.	IPC TEAM	Once								
2.	Activities										
2.1	Conduct a IPC round	IPC TEAM	Quarterly								
2.2	Hold a training sessions of waste segregation with Doctors.	IPC TEAM	Biannually								
2.3	Hold a training session for HCWs	IPC TEAM	Biannually								
3.	Monitoring & Evaluation										
3.1	Data verification	IPC TEAM	Quarterly								

THANK YOU



Results

Previously in February 2024, 90% of departments mixed waste but it reduced to 0.5% of departments this year in March 2026, resulting in improving waste management at the hospital.



Results

- IPC champions became more attentive to monitoring the staff compliance with waste segregation practices.
- In additional trainings for 200 staff.
- Monthly sharing of monitored results maintained good practices in waste segregation.

8. 6 Restoration of Theater Autoclave Functionality Through Remote Troubleshooting and Repair

Paul Sibanda¹, Kazuhiro Ajiki², Richard Mumba¹, and Siliver Mwanza¹

1. Kanyama First Level Hospital / 2. Altana ME LLC/ JICA Short-term Expert of Medical Equipment Management

Background

An autoclave is an essential for sterilizing surgical instruments and equipment. Ideally, it should remain functional all the time so that sterilized equipment is available in the right place and the right time. However, the autoclave unit in Kanyama FLH was non-functional for three months from August to October 2025 due to a fault in which the cabinet door was locked and failed to open. This failure halted all surgical sterilization, compromising patient safety and creating a crises in the operating theatre. In addition, the repair appeared to require specialized technical knowledge specific to that autoclave model. To restore sterilization services, we initiated remote maintenance support with the autoclave manufacturer.

Methods

The QI team was formed with one medical equipment technologist and one biomedical engineer in Kanyama FLH, one biomedical engineer from a local supplier, and a JICA short-term expert. Our initial cause-effect analysis identified that a logic lock caused a jammed door, and the system could not initiate a cycle of the whole process of autoclaving. Remote maintenance and repair (RMR) was applied by connecting Zambia and Japan through a web camera. Our target was successful door release and the restoration of accurate water-level and the logic flow.

Results

Remote maintenance identified a “triple-threat” failure: a broken 24Vdc power supply unit, a logic-locked solenoid that prevented the door from opening, and severe calcium buildup in the steam generator, which coated the water level sensors and heating elements, causing inaccurate readings and stress on the system. Through a video link with the manufacturer in Japan, the team manually bypassed the pressure valves to open the door, replaced the 24Vdc power supply unit, and cleaned the affected environment. This process shifted the team’s perspective from a simple “parts replacement” approach to a “root-cause” approach, highlighting the link between water quality and equipment malfunction. To protect the newly installed sensors and heating elements, a processed mineral water tank was installed. This installation ensures the steam generator receive treated water and helped prevent further calcium buildup and sensor-related failures.

Conclusions

Remote repair helped restore autoclave function, but sustainable operation required both repair of immediate faults such as electronical faults and improvement of environment such as water quality management for long-term operation of autoclaves. Support from Senior Management, particularly the Medical Superintendent (MS), whose decision to procure treated water allowed for the immediate implementation of this environmental countermeasure. Without administrative commitment, the technical solution for preventing calcification would not have been sustainable. Use of treated water should be standardized for steam-based medical equipment, and remote maintenance should be adopted where specialized technical expertise is required.




Restoration of Theatre Autoclave Functionality through Remote Troubleshooting and Repair

Paul Sibanda (HOD – Medical Engineering),
Kazuhiro Ajiki (Medical Equipment Specialist), Richard Mumba(MET), Siliver Mwanza (CHEMCITY BMET)

**Medical Engineering Technology Department,
Kanyama First Level Hospital**

Motive for the Improvement

- Between August 2025 and October 2025, the theater autoclave remained at 0% operational capacity for three consecutive months due to a persistent “Abnormal Completion” logic error and a 100% mechanical door lock.
- This failure halted all surgical sterilization, compromising patient safety and creating a crises in the operating theatre. In addition, the repair appeared to require specialized technical knowledge specific to that autoclave model.
- To restore sterilization services, we initiated remote maintenance support with the autoclave manufacturer.

Background

- An autoclave is an essential for sterilizing surgical instruments and equipment.
- Ideally, it should remain functional all the time so that sterilized equipment is available in the right place and the right time.
- However, the autoclave unit in Kanyama FLH was non-functional for several months from August, 2025 to October, 2025 for three months due to a fault in which the cabinet door was locked and failed to open.

QI Team

Kanyama FLH:

- One medical equipment technologist
- One biomedical engineer in Kanyama FLH

Local Supplier:

- One biomedical engineer

Japan International Cooperation Agency (JICA):

- Short-term expert for medical equipment management

Autoclave Trouble in Kanyama FLH

- In August of this year, CSSD tried to sterilize surgical instruments and surgical gowns by placing them in an autoclave and running it. However, midway through the sterilization program, it stopped and the sterilized items inside could not be removed. Even local agent technician could not open the door





1) CLOSED DOOR 2) ABNORMAL COMPLETION 3) REMOVED CONTROLLER

Initial Cause-Effect Analysis

Our initial cause-effect analysis identified that a logic lock caused a jammed door, and the system could not initiate a cycle of the whole process of autoclaving.

Following the manufacturer's engineer's instructions, we checked the electrical components and identified the fault in the 24VDC output unit.



3) Broken Power Unit

Remote Trouble Shooting

on August 31, 2025

The team connected with the Japanese manufacturer and the supplier to conduct remote troubleshooting.



1) Connecting Manufacturer



2) Remote Showing

Results

- In November 2025, the equipment was restored to 100% functionality, which has been maintained through April 2026.
 - The restoration of the 24VDC power unit and the manual pressure valve override successfully transitioned the unit from a "Logic-Locked" state to a "System Ready" state, restoring full door access. Furthermore, the accuracy of the water-level sensing and logic flow was restored to 100%, moving from zero successful sterilization cycles during the downtime period to consistent, error-free cycle completions post-intervention.
- This process shifted the team's perspective from a simple "parts replacement" approach to a "root-cause" approach, highlighting the link between water quality and equipment malfunction.

Results

Remote maintenance identified a "triple-threat" failure:

- (1) A broken 24Vdc power supply unit
- (2) A logic-locked solenoid that prevented the door from opening
- (3) Severe calcium buildup in the steam generator, which coated the water level sensors and heating elements, causing inaccurate readings and stress on the system

Conclusions

- Remote repair helped restore autoclave function, but sustainable operation required both repair of immediate faults such as electrical faults and improvement of environment such as water quality management for long-term operation of autoclaves.
- Support of Senior Management, particularly the Medical Superintendent(MS), whose decision to procure treated water allowed for the immediate implementation of this environmental countermeasure. Without administrative commitment, the technical solution for preventing calcification would not have been sustainable.

Results

- Through a video link with the manufacturer in Japan, the team manually

- (1) Bypassed the pressure valves to open the door, replaced the 24Vdc power supply unit,
- (2) Cleaned the affected environment.
- (3) To protect the installed sensors and heating elements, a processed mineral water tank was installed.

The pressure on the door seal gasket was released, and with the door free, the compressor air was turned on to push the door down, pushing the door down.



Pressure Control

Recommendation

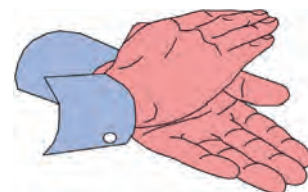
- Treated water should be standardized for steam-based medical equipment, and remote maintenance should be adopted where specialized technical expertise is required.

Open Door...



10

THANK YOU



OT Staff is Happy!!



11

8.7 Developing and Implementing Standard Operating Procedures (SOPs) of Infection Prevention and Control (IPC)

Ushibantu Clyde
Chilenje Level One Hospital

Background

Standard Operating Procedures (SOPs) are essential tools for ensuring consistency, safety and efficiency in healthcare delivery. Ideally, the hospital staff should know and conduct the standard procedures of infection prevention and control. However, the IPC practices depended on Environmental Health Technologist and the skills and knowledge of individual clinicians. This situation resulted in inconsistent implementation and wide variation in the IPC practices. This QI activity aimed to develop and implement IPC SOPs to address variability in clinical and administrative processes within the hospital.

Methods

Multidisciplinary QI team was formed with Medical Superintendent (MS), Head of Clinical Care (HCC), Nursing officer (NO), Infection Control Team including Environmental Health Technologist, IPC Nurse and IPC Doctor, and JICA team. The root cause analysis revealed that inconsistencies in IPC procedures were due to limited staff awareness and absence of standardized documentation. The intervention focused on identifying gaps in already existing practices, prioritizing high-risk and high-impact areas and engaging multidisciplinary teams in SOP development and implementation. The IPC SOPs were developed with collaborative Plan-Do-Study-Act (PDSA) cycle approach, aligned with national and international guidelines. The SOP was disseminated in the hospital through structured training and meeting sessions with supportive supervision. Implementation strategies included staff orientation, visual aids and routine monitoring using audit tools. Through the Knowledge Co-Creation Programme (KCCP) in Japan. Then, exchange visits were conducted with other five first level hospitals.

Assessments at different intervals were conducted to evaluate current practices, compliance levels, patient safety incidents, adherence to infection prevention protocols with defined KPIs. KPI scores were assessed using a three-point scale: 0 = unsatisfactory, 1 = partially satisfactory, and 2 = satisfactory. The evaluation included process, structure, and outcome indicators. Process key performance indicators focused on compliance and practices, including hand hygiene compliance rate, waste segregation practice compliance measured by scores for correctly segregated waste, and environmental cleaning compliance based on adherence to cleaning protocols. Structure key performance indicators assessed capacity and resources, including the availability of hand hygiene facilities such as running water, soap, or alcohol-based sanitizer, and the availability of personal protective equipment (PPE). The outcome indicator was the surgical site infection (SSI) rate, expressed as a percentage.

Results

The development and implementation of SOPs has strengthened: Improved problems based on monitoring; strengthened infection prevention and control: key indicators showed measurable improvement, particularly in infection prevention and control practices; stock management of medicine and consumables that can be handled at the hospital level and Maintenance of facility equipment has greatly improved. Continuous monitoring and periodic review mechanisms were established to sustain gains and support quality improvement.

Conclusion

The development and implementation of SOPs significantly strengthened hospital systems by promoting standardized care, improving patient outcomes and enhancing operational efficiency. SOP development and introduction was effective for consistent IPC practices due to improved monitoring involving consistent audits and feedback, this was crucial to identify compliance gaps and driving continuous quality improvement. This approach was expandable and adaptive to similar healthcare settings to support continuous quality improvement initiatives in other first level hospitals (Chipata, Chawama, Matero and Kanyama) adopted the SOPs and added more information.

The Hospital Management Forum in Lusaka Province
Urban Hotel, 22 – 23 April 2026

Chilenje Level One Hospital

Developing and Implementing Standard Operating Procedures (SOPs) of Infection Prevention and Control (IPC)

Ushibantu Clyde
Chilenje Level One Hospital

Rationale

IMPORTANCE OF TACKLING THE GAP	
Strengthen SOP Development	
Improve Implementation	
Enhance Monitoring and Evaluation	
Build QI team	

PURPOSE OF THE QI ACTIVITY	
✓ Align with WHO/National guidelines, Use standardized templates, Involve multidisciplinary teams	
✓ Conduct regular staff training and mentorship, display SOPs in different work areas and integrate them into daily work	
✓ Perform regular audits (e.g IPC rounds), Use checklists and supervision tools then provide feedback and corrective actions	
✓ establish a QI team, encourage staff participation and use approaches like PDSA (Plan-Do-Study-Act)	

Background: Setting

Standard Operating Procedures (SOPs) are essential tools for ensuring consistency, safety and efficiency in healthcare delivery. Ideally, the hospital staff should know and conduct the standard procedures of infection prevention and control. However, the IPC practices depended on Environmental Health Technologist and the skills and knowledge of individual clinicians. This situation resulted in inconsistent implementation and wide variation in the IPC practices. This QI activity aimed to develop and implement IPC SOPs to address variability in clinical and administrative processes within the hospital.

QI Team

SN	WHO	ROLE
1.	MS	✓ Provide overall leadership and accountability ✓ Approve SOPs and improvement plans for the facility ✓ Resource allocation or mobilization
2.	HCC	✓ To align SOPs with clinical practice ✓ Promotes SOP adherence among medical staff
3.	NURSING OFFICER	✓ Supports SOP audit utilization at the facility ✓ Facilitate SOP implementation at ward level ✓ Monitoring patient care quality ✓ Provide feedback on the utilization of SOPs at ward level
4.	ICT (EHT, IPC NURSE & IPC DR)	✓ Conduct audits on SOPs utilization ✓ Drafting SOPs ✓ Distribution of SOPs at facility level ✓ Train staff on the developed SOPs
5.	JICA TEAM	✓ Drafting ✓ Implementation ✓ Monitoring/Evaluation ✓ Printing out the SOPs and distribution

Background: The Gap

THE IDEAL	GAP
Availability: SOPs are now accessible and available in departments	✓ SOPs not shared or accessible electronically
Quality and Standardization: SOPs are written clearly in line with best practices and regulatory standards	✓ Not all departments have SOPs
Awareness and Training: Staff trained on the SOPs and they are referenced during audits or daily operations	✓ Not all staff trained on SOPs
Monitoring and Compliance: There a mechanism to track adherence to SOPs	✓ SOPs are not reviewed and updated

Cause-Effect Analysis

The root cause analysis revealed that inconsistencies in IPC procedures were due to limited staff awareness and absence of standardized documentation.

Intervention

- The intervention focused on identifying gaps in already existing practices, prioritizing high-risk and high-impact areas and engaging multidisciplinary teams in SOP development and implementation. The IPC SOPs were developed with collaborative Plan-Do-Study-Act (PDSA) cycle approach, aligned with national and international guidelines. The SOP was disseminated in the hospital through structured training and meeting sessions with supportive supervision. Implementation strategies included staff orientation, visual aids and routine monitoring using audit tools.
- Through the Knowledge Co-Creation Programme (KCCP) in Japan. Then, exchange visits were conducted with other five first level hospitals.

Results

	CURRENT	IDEAL
SOP DEVELOPMENT	SOPs are incomplete, outdated, or not standardized. Limited involvement of multidisciplinary team players and lack of clear structures	SOPs should be evidence based, standardized and upto date, developed with multidisciplinary team input, clearly written and aligned with national/international guidelines
IMPLEMENTATION GAPS	Not consistently followed in practice, poor dissemination (staff unaware of SOPs), limited training or orientations for staff and resistance to change or low staff engagement	SOPs are accessible and visible (printed/digital), all staff trained and competent, integrated into daily workflows and strong leadership support/accountability
M&L GAPS	No regular audits or supervision, lack of KPIs, poor documentation and data use and weak feedback mechanisms	Regular audits and supervision, use of data-driven decision making, feedback loops and corrective actions then continuous review/updates of SOPs
SYSTEMS GAPS	Inadequate leadership support, resource constraints (staff, equipment and supplies) and weak/lack of QI teams	Staff motivation/engagement, clearly defined roles/responsibilities and patient safety is prioritized

KPI

- Assessments at different intervals were conducted to evaluate current practices, compliance levels, patient safety incidents, adherence to infection prevention protocols with defined KPIs.
- KPI score guide (0-unsatisfactory, 1-partially satisfactory, 2-satisfactory)

Conclusions

- The development and implementation of SOPs significantly strengthened hospital systems by promoting standardized care, improving patient outcomes and enhancing operational efficiency.
- SOP development and introduction was effective for consistent IPC practices due to improved monitoring involving consistent audits and feedback, this was crucial to identify compliance gaps and driving continuous quality improvement.

KPI

- Process Key Performance Indicators (Compliance and Practices)**
 - Hand hygiene compliance rate
 - Waste segregation practices compliance (scores of correctly segregated waste)
 - Environmental cleaning compliance (scores for adherence to cleaning protocols)
- Structure Key Performance Indicators (Capacity & Resources)**
 - Availability of hand hygiene facilities (e.g. running water, soap or alcohol based sanitizer)
 - Availability of Personal Protective Equipment (PPE)
- Outcome Key Performance Indicators (Impact and Results)**
 - Surgical Site Infection (SSI) rate (%)

Conclusions

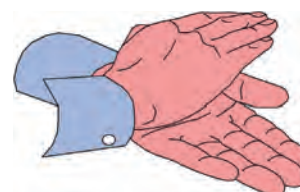
- This approach was expandable and adaptive to similar healthcare settings to support continuous quality improvement initiatives in other first level hospitals (Chipata, Chawama, Matero and Kanyama) adopted the SOPs and added more information.

Action Plan

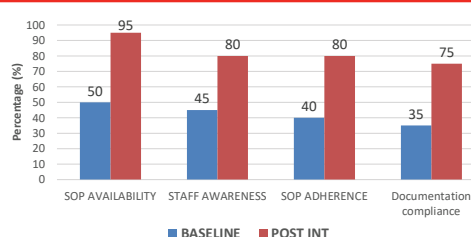
ACTION POINT	HOW	WHO	WHERE
Stakeholder Engagement	✓ Workshop ✓ Scheduled review meetings ✓ Departmental consultations ✓ KCCP	Senior Management JICA Team ICT (EHT/IPC Nurse/IPC Dr)	Facility (Chilenje)
Implementation Plan Development	✓ Assign responsible team/person ✓ Timeline ✓ Required resources ✓ Training/orientation needs	Senior Management JICA Team ICT (EHT/IPC Nurse/IPC Dr)	Facility (Chilenje)
Evidence-Based	✓ Conducted IPC audits and staff feedback	ICT (EHT/IPC Nurse/IPC Dr) JICA team	Facility (Chilenje)



THANK YOU



Results





AWARDS

Overall Winner

First Prize

Presenter: Dr. Ilunga Mutwale

Team members: Lawrence Kalando, and Tirzah Chiluba

Title: Improving the Accuracy of Surgical Site Infection (SSI) Surveillance Through Proactive Public Health Approach in Kanyama Constituency



First Prize

Second Prize

Presenter: Ms. Inutu Mbangweta

Team members: Rosina Kandyata, Lillian Mainga, Likezo Masiliso, Monde Muyambango, Evelyn Nkata, Jane Bota, Ireen Silavwe, Lorrain Chikonka, Matildah Mbewe, Angela Nanyangwe, Maureen Chikwa, Diana Mushaya, Akabeswa Kwalombota, Pamela Namakando, Clara Mulenga, Caloroline Hamwete, Bridget Banda, Priscila Mulenga, Patricia Malambo, Benarndet Tembo, Petronella Mundia, Beatrice Mundia, Victoria Nthala, Biemba Maliti, Georgina Chipowe, Jenifer Mulonda, Beauty Mulonda, Mable Simuchimba, Sama Mumba, and Simulyamana A Choonga

Title: Applying Collaborative Quality Improvement Approach to Improve Nursing Care Documentation, Infection Prevention and Control Practices, Leadership and Supervision Skills and Equipment Availability in FLH in Lusaka District Using Nursing Audit



Second Prize

Third Prize

Presenter: Ms. Christabel Nkunika

Team members: Francine Mubanga, Maimbolwa Munalula, Lorraine Chikonka, Kingsley Chimpilinte, Elisa Mayondi, Prima Tembo, Chomba Kasanda, and Thandiwe Banda

Title: Streamlining Hospital Meeting Schedules to Enhance Service Delivery at Chawama Level One Hospital



Third Prize

Thematic Area Award

Hospital Governance and Coordination

Presenter: Ms. Christabel Nkunika

Team members: Francine Mubanga, Maimbolwa Munalula, Lorraine Chikonka, Kingsley Chimpilinte, Elisa Mayondi, Prima Tembo, Chomba Kasanda, and Thandiwe Banda

Title: Streamlining Hospital Meeting Schedules to Enhance Service Delivery at Chawama Level One Hospital

Infection prevention and control (IPC)

Presenter: Dr. Ilunga Mutwale

Team members: Lawrence Kalando, and Tirzah Chiluba

Title: Improving the Accuracy of Surgical Site Infection (SSI) Surveillance Through Proactive Public Health Approach in Kanyama Constituency

Pharmacy

Presenter: Ms. Goodness Ngulube

Team members: Changala Milimbo, Hildah Nengwa, Lorita Namukolo, Nancy Nawakwi, and Nzamba Sianchobe

Title: Improving Prescription Fill Rate to Reduce False Stock-Outs and Strengthening Medicine Availability Monitoring at Chilenje First Level Hospital

Medical equipment management

Presenter: Ms. Patricia Lumbuka

Team members: Celina Banda, Cephas Choongwe, and Chris Kaluba

Title: Improving Medical Equipment Availability through the Medical Equipment Champion (MEC) Model at Chilenje Level 1 Hospital

Poster Presentation Awards

First Prize

Presenter: Ms. Rhoda Lungu

Team members: Mono Shimooko, and Kanekwa Nyirenda

Title: Improving Patient's File Return Rates in the Outpatient Department Registry at Chipata Level 1 Hospital

Second Prize

Presenter: Ms. Erika Fujitomi

Team members: Jelina Chuma, and Kestings Sakasole

Title: Improving Waste Segregation Practices Using a Game-Based Training Approach at Chongwe District Hospital

PHOTOS





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