



## Assessment to Improve the Quality and Productivity of the Katugahahena Divisional Hospitals in Kalutara District

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### ABSTRACT

“Health Evaluation Program” (HEP) is an assessment conducted by the Provincial Directorate of Health Services (PDHS) - Western province to improve the quality and productivity of health institutions in Western Province. After evaluation, the best health institutions will be awarded. Key areas for evaluation and standards were prepared by PDHS office. The assessment is to be conducted throughout 2022, and the first six months are allocated to prepare health institutions. Divisional Hospital (D.H.) Katugahahena was selected to evaluate and prepare for HEP. The initial assessment was done (by observatory visit; examine secondary data such as files, reports, records and discussion with staff of the hospitals), and gaps were identified by DRDHS, registrars in medical administration and medical officer – Non Communicable Diseases. Gaps which need financial allocations were excluded. Other gaps were prioritized by Pareto analysis. Leadership and Management, seiketsu, inpatient care services, immediate services point and frontline services and seiton were the key areas selected for improve the 80% of identified gaps.

Send all medium, long term plans and strategic plan to D.H. Katugahahena hospital from RDHS, improve awareness on these plans and about vision mission of the hospital among staff, appoint nursing officer for coordinate staff training, prepare annual action plan for training., prepare duty list file, perform review meetings, conduct supervision inspections, appoint health care assistant for maintenance of the hospital, draft/ map the water supply, electric supply for the future references, prepare and display sign board, identification label of machines, danger signs, directional boards, arrow marks, room identification numbers, fan and switch identification numbers by laminated printed A4 papers and/or by bisilboard , train the dispensers on drug sorted methods, drug arranging methods, store management and surgical item storing methods, prepare check list for – assess the discharged patients, assess vitals of thermodynamically unstable patients/ urgent patients, transfer patients, meeting with medical officers and nurses to discuss issues on Bed Head Tickets (numbering pages of BHTs, enter date and time in each examination, eligible handwritings, label diagnosis after discharge the patients, send BHTs on time to record room), conduct training session on how to conduct waiting time survey and actions to reduce waiting time, conduct waiting time survey quarterly were recommended for reduce the identified gaps. Implementation of these recommendations and action plan will help to reduce the gap and score high marks from final evaluation and select for award.

### Introduction

Quality and productivity are two interlinked concepts. Quality of healthcare can be defined as “is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (Reinhard Busse, 2019) and productivity can be defined as “comparing the total amount of health care ‘output’ produced to the total amount of ‘input’ used to produce this output” (Castelli *et al.*, 2015). It is necessary to continuous quality improvement in healthcare institutions to increase patient satisfaction, employee satisfaction, improve safety, reduce cost, increase efficiency and effectiveness. Last year, healthcare workers worked to control the COVID 19 pandemic, so little attention was paid to quality and productivity. Therefore together with Provincial Directorate of Health Services Western Province, Regional Directorate of Health Services Kalutara district planned to conduct a project to improve the quality and productivity of hospitals along with “Health Evaluation Program – Basnahira Suwa Piyas Abhimani. This assessment consisted of three main steps.

1. Planning the assessment
  - I. Development of Key Areas of Concerns, Standards and Measurable elements
  - II. Situational Analysis
  - III. Identify the gaps and areas to improve
  - IV. Develop the action plan
2. Implementation of the assessed outcome
3. Monitoring and Evaluation

The first six months were allocated for planning and implementation. In this six-month period, base hospitals and divisional hospitals should be analysed, gaps should be identified, and the gap should be filled with available time and resources to prepare hospitals for competitions. After planning and implementation, a panel of judges will evaluate each hospital and select the best hospital in district and provincial levels. These hospitals will be awarded.

Medical administrators and consultant community physicians have developed the key areas of concern, standards and measurable elements with the help of guidelines and standards set by the Directorate of Healthcare Quality and safety. According to the list, there are 18 areas of concerns

- 1 Seiri (Sorting) Eliminating unnecessary items from the workplace that are not needed for the current process in the hospital
- 2 Seiton (Organization): Ensuring all the items that have been sorted are arranged and placed in pre-assigned positions in order to facilitate efficiency at work
- 3 Seiso (Cleaning with Meaning and for Beautifying): Cleaning up one's workplace completely to eliminate dust on floors, machines or equipment
- 4 Seiketsu (Standardization) Generating mechanisms to maintain the three Ss (Seiri, Seiton and Seiso) by developing procedures, schedules and tools for continuous assessment and regular audit
- 5 Shitsuke (Training & Self-Discipline); Working on 5S as daily routines and ensuring that it becomes an integral part of the workplace fabric
- 6 Reception area
- 7 Immediate service points and frontline services
- 8 Responsiveness
- 9 Inpatient care services
- 10 Diagnostic services
- 11 Medical supplies and equipment management
- 12 Mortuary service
- 13 Infection control
- 14 Waste management
- 15 Medical record
- 16 Health education activities
- 17 Leadership and management
- 18 Productivity and quality improvement programme

Several sub-areas have developed under each key area of concern, and several standards for each subarea have developed to measure the quality.

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## Objective

To improve the Quality/Productivity of the Katugahahena Divisional Hospitals in Kalutara District

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## Methodology

Improve the awareness

This assesment was initiated by the Provincial Director of Health Services Western province. Therefore initial awareness program was conducted by a consultant community physician in PDHS, the director Avissawella hospital, and DRDHS. All the Medical officers in charge of the divisional hospital and the medical superintendent in base hospitals were invited for the awareness program. During the awareness programme, the purpose of the project was explained, and using their own way to improve the hospital was permitted.

Planning the Assesment

Initially, the Whatsapp group was created to improve communication. DRDHS conducted another zoom session to enhance the awareness regarding key areas of concern, standards and measurable elements. The hospital staff was given two weeks to identify gaps according to the standards and measurable elements.

Observation

Medical officer – Noncommunicable diseases of RDHS, Deputy Regional Director of Health Services – Kalutara, and two medical administration registrars have participated in the visit. Key areas of concern were assessed according to the standard and measurable elements. The Sister in charge was accompanied with the team to demonstrate the hospital. While observation marks were given for the indicators in the checklist.

#### Discussion with staff (Focused group discussion)

After the observation, a discussion was had with the observational team and medical officer in charge of the hospital, sister, overseer, and other hospital staff.

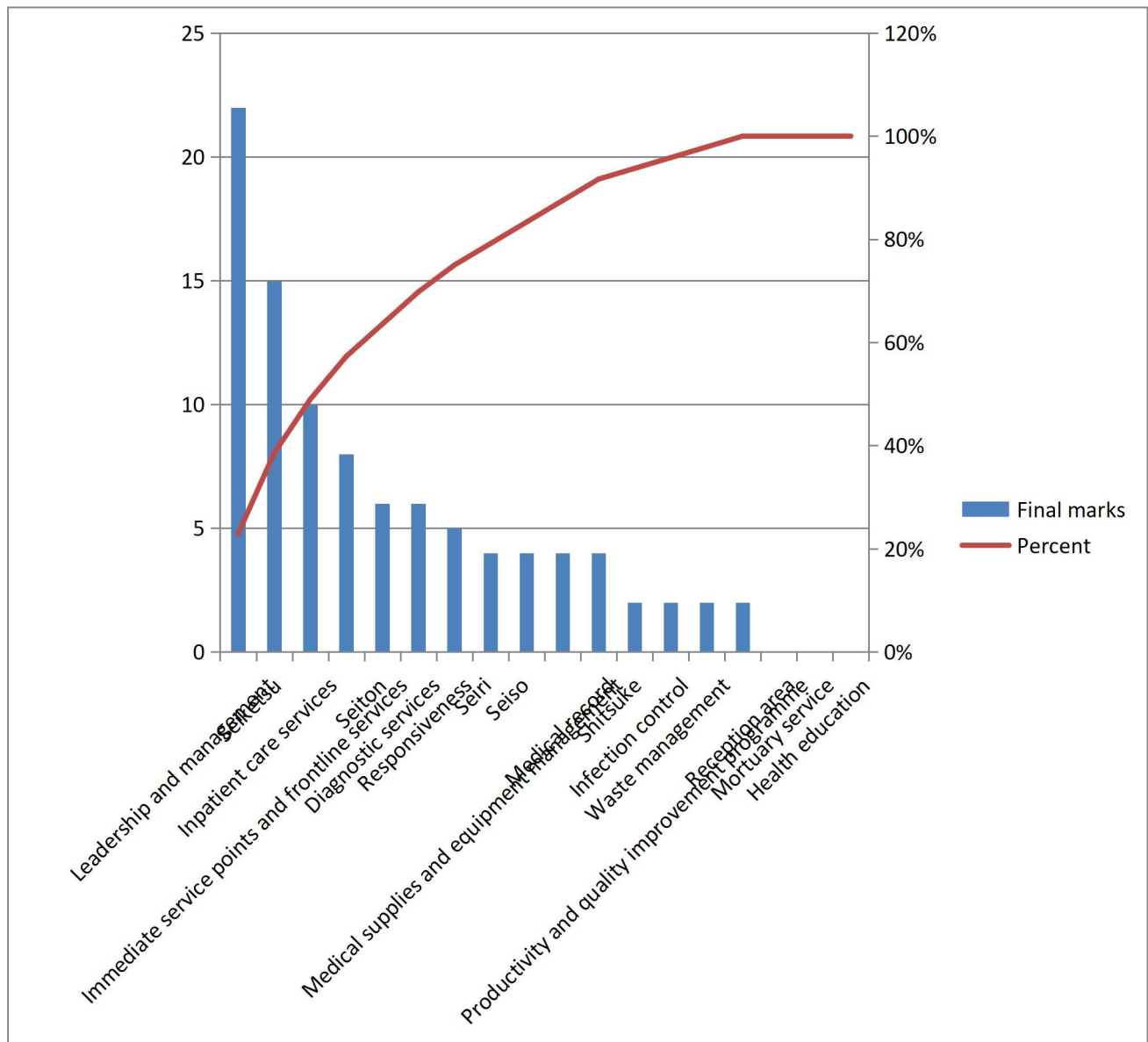
#### Identify and prioritize the problems

One mark has been given for each indicator. There are 381 indicators under 18 key areas in the checklist. If the particular indicator satisfied according to the observation and gained information in discussion, one mark was allocated. Due to the present financial crisis in the Sri Lanka, health sector unable to allocate money to improvement of the hospital. Therefore, if financial allocation needed to improve the identified gaps, those gaps were not considered.

Key area of concern	No of total indicators	No of indicator unable to achieved	No of indicators need financial allocation to achieve	Final marks
Seiri	15	07	03	04
Seiton	29	10	04	06
Seiso	18	04	00	04
Seiketsu	34	17	02	15
Shitsuke	12	02	00	02
Reception area	07	01	01	00
Immediate service points and frontline services	25	08	00	08
Responsiveness	19	05	00	05
Inpatient care services	55	14	04	10
Diagnostic services	26	12	06	06
Medical supplies and equipment management	20	04	00	04
Mortuary service	08	08	08	00
Infection control	19	03	01	02
Waste management	15	04	02	02
Medical record	09	04	00	04
Health education	04	00	00	00
Leadership and management	47	22	00	22
Productivity and quality improvement programme	19	02	00	02
<b>Total</b>	<b>381</b>	<b>127</b>	<b>31</b>	<b>96</b>

According to the above table, the hospital could not obtain 127 marks due to a lack of criteria to satisfy the relevant indicators. Those are the “gaps” that need to fill to improve the quality and productivity of the hospital. From that 127 marks, 31 points need a financial allocation to achieve. Therefore those 31 indicators were not considered for improvement. Pareto analysis was used to prioritise the relevant area for improvement.

Figure 1 – Pareto chart



## Recommendations

According to the figure, one following area improvement will score nearly 60 to 80% of loss marks.

1. Leadership and Management
  2. Seiketsu
  3. In patient care services
  4. Immediate services point and frontline services
  5. Seiton
- 1) Leadership and management

Unavailability of the medium and long term plan, deficiencies in human resource management such as unavailability of annual training plan or coordinator, unavailability of grievance handling mechanism, unavailability of mechanism for maintenance of building, water supply and electrical facilities in place and unavailability for the performance review mechanism were main areas that gaps are identified. Following recommendations were made for improve gaps in leadership and management key area.

- a. Strategic plan and/or a medium-term plan of the hospital development and improve awareness on it to staff.

It was decided to immediately send all medium, long-term plans and strategic plans to D.H. Katugahahena hospital from RDHS. MOIC of the hospital is responsible for improving awareness of these plans and about the vision-mission of the hospital among staff.

b. Human resource planning

Prepare staff training annual plan and appoint nursing officer education as staff training coordinator.

Prepare staff training record book

Arrange grievances handling committee and mechanism. MOIC, one medical officer, sister, NO education, and one female attendant was appointed to the grievances handling committee. Grievances book and box arrange for inform grievances. It is recommended to committee to meet monthly to analyze problems and give solutions.

Ask to collect duty list of each staff category and make a file. There were two development officers for office management. Ask them to divide subjects among them and prepare a duty list.

Recommended to hold perform review meetings monthly and maintain a file for perform review meetings.

Advised to conduct supervision inspection by MOIC and sister and record the finding on the supervision inspections.

c. Arrange mechanisms for the maintenance of buildings, water supply and electrical facilities in place

One minor staff work as maintenance personnel. Decided to appoint him only for the maintenance. DRDHS promises to send the RDHS maintenance team to draft/ map the water supply and electric supply for future references.

2)Seiketsu

a. Some signboards, identification labels of machines (name of the item, batch number, date of acquisition, contact details of Maintenance Company, responsible person for maintenance, cost of equipment), and danger signs (bio hazards, slopes, slippery) were missing. Recommended to display those signboards, identification labels of machines, and danger signs, by laminated printed A4 papers.

b. Train the dispensers on drug sorted methods, drug arranging techniques, store management and surgical item storing methods.

3)In-patient care services

Following recommendations are made to improve the quality and productivity of in-patient care.

a. Display statistics summary of last year, last month and yesterday (number of beds, number of admissions, number of discharges, bed occupancy rate, number of transfers, number of deliveries) in relevant places.

b. Prepare a checklist to assess the discharged patients, assess the vitals of haemodynamically unstable patients/ urgent patients, and transfer patients.

c. Arrange a meeting with medical officers and nurses to discuss issues on Bed Head Tickets (numbering pages of BHTs, enter date and time in each examination, eligible handwritings, label diagnosis after discharge the patients, send BHTs on time to record room)

4)Immediate services point and frontline services

Following recommendations are made to improve the quality and productivity of immediate service points and frontline services

a. Conduct surveys to assess patients waiting time

b. Take appropriate action to reduce patients waiting time in OPD and clinics. Keep results of surveys and actions taken in a file.

c. Update disaster management plan annually

d. Update available items in disaster cupboard monthly.

5) Seiton

a. Some directional boards, arrow marks, room identification numbers and labels were missing. Therefore, recommended replace those marks with laminated bissillboard till RDHS provides those.

b. Some cupboards are not numbered, not stored in alphabetical order and recommended to correct those

c. Recommended to all switches and fan regulators label accordingly.

## Implementation

Action	Responsibility	Time frame
Send all medium, long term plans and strategic plan to D.H. Katugahahena hospital from RDHS. Improve awareness on these plans and about vision mission of the hospital among staff	DRDHS, MOIC katugahahena	2 weeks
Appoint nursing officer for coordinate staff training Prepare annual action plan for training.	MOIC , NO - training	1 week
Prepare duty list file	Sister, development officer	2 weeks
Perform review meetings	MOIC	monthly
Conduct supervision inspections	MOIC, sister, overseer	Frequently
Appoint health care assistant for maintenance of the hospital	RDHS	1 month
Draft/ map the water supply, electric supply for the future references.	RDHS, MOIC	1 month
Prepare and display sign board, identification label of machines, danger signs, directional boards, arrow marks, room identification numbers, fan and switch identification numbers by laminated printed A4 papers and/or by bisilboard	MOIC, Sister	3 weeks
Train the dispensers on drug sorted methods, drug arranging methods, store management and surgical item storing methods.	Chief pharmacist - RDHS	2 weeks
Prepare check list for – assess the discharged patients, assess vitals of thermodynamically unstable patients/ urgent patients, transfer patients.	Consultant community physician - RDHS, MOIC	1 month
Meeting with medical officers and nurses to discuss issues on Bed Head Tickets (numbering pages of BHTs, enter date and time in each examination, eligible handwritings, label diagnosis after discharge the patients, send BHTs on time to record room)	DRDHS, CCP – RDHS, MOIC	1 week
Conduct training session on how to conduct waiting time survey and actions to reduce waiting time Conduct waiting time survey quarterly	CCP – RDHS, MOIC	1 week
Monitor and evaluate the progress	DRDHS	Monthly

## Conclusion

“Health Evaluation Program” is an assessment conducted by PDHS Western province to improve the quality and productivity of health institutions in Western Province. After evaluation, the best health institutions will be awarded. Key areas for evaluation and standards were prepared by PDHS office. D.H. Katugahena was selected for evaluate initially. The team from RDHS Kalutara has evaluated D.H. Katugahahena according to the given tools and standards. Several gaps were identified. Gaps which need a financial allocation to improve were excluded. The remaining gaps areas were prioritized by Pareto analysis. Recommendations and action plan were made to improve the identified gaps. Implementation of these recommendations and action plans will help reduce the gap, score high marks from the final evaluation, and get selected for the award.

## References

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