

Monitoring and Evaluation of KAIZEN activities

KAIZEN Training of Trainers
2015



Objectives of the session

At the end of the session, trainees are able to:

1. Understand how to conduct M&E for KAIZEN activities
2. Understand how to use M&E tools for KAIZEN activities

Who monitors and evaluate KAIZEN activities?



Hospital Management Team



Quality Improvement
Team (QIT)



Workplace Improvement
Teams (WITs)

*Structure of QA implementation
in hospitals in Tanzania*



Levels of monitoring and evaluation of KAIZEN

KAIZEN
Implementers



QIT



*Provide
technical advices*

*Seek technical
advices*

- **Monitor** their daily KAIZEN activities at section level (Step 5, Step 7)
- **Evaluate** effectiveness of own KAIZEN (Step 6)

*Make
KAIZEN
on Right
track!*



- **Monitor** all KAIZEN activities at all section in their hospital
- **Evaluate** all KAIZEN activities to measure improvement of hospital management

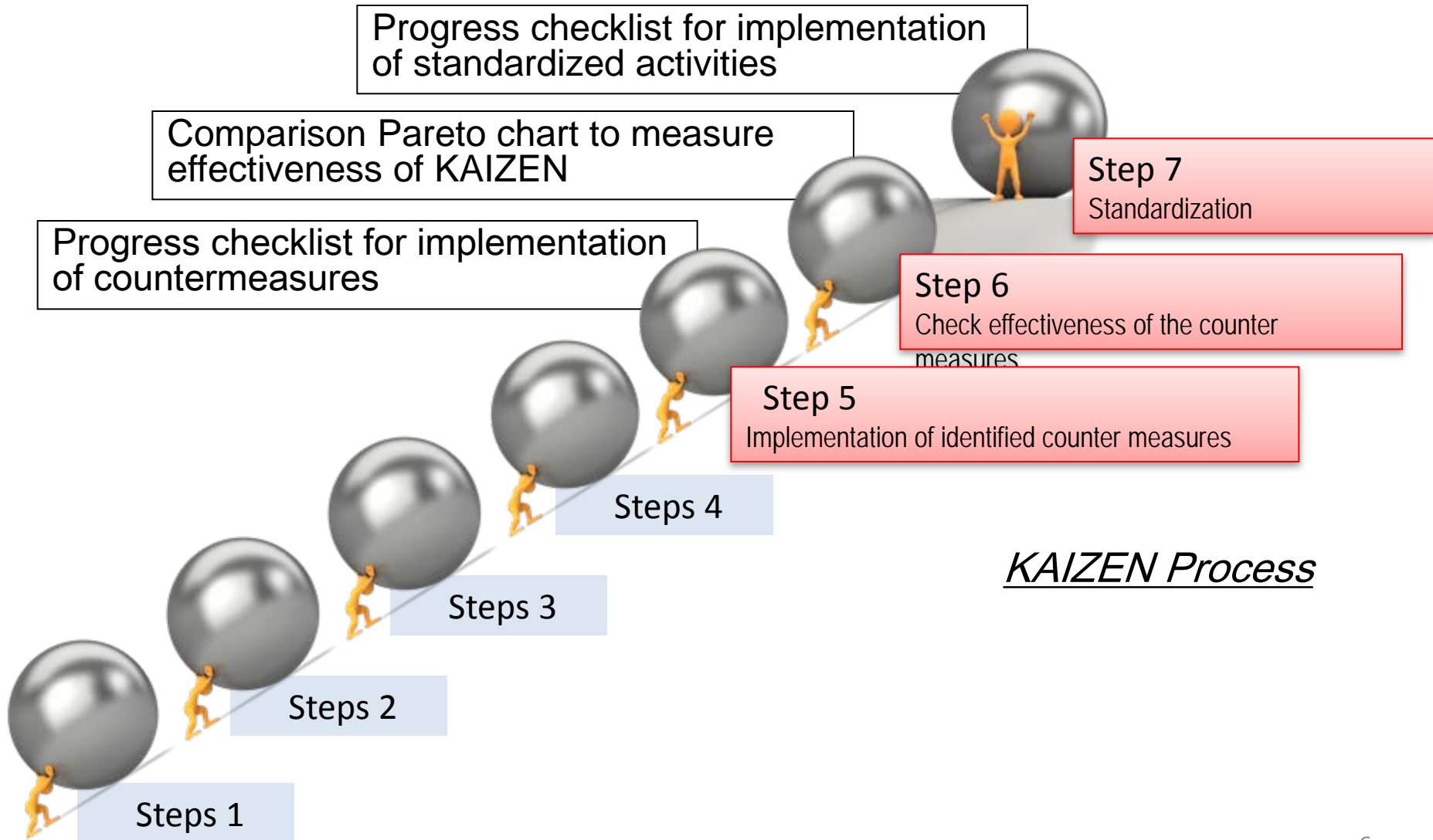
Monitoring and Evaluation by the KAIZEN implementers



M&E in KAIZEN process

- “KAIZEN Process” itself is M&E process, especially on KAIZEN Step 5, 6 and 7
- M&E of these steps should be done by the KAIZEN implementers
 - **Step 5**: Checking progress of implementation of identified countermeasures
 - **Step 6**: Measuring effectiveness of countermeasures between before and after
 - **Step 7**: Checking sustainability of effective countermeasures

“Tools for M&E by the KAIZEN implementers”



What to be monitored and evaluated by WITs?

- Timeframe of KAIZEN Process implementation
 - One KAIZEN event takes **6 months** and necessary to monitor time spent for each step
- Execution of action plan (developed in Step 5)
- Achievement (improvement of before and after KAIZEN in Step 6)
- Sustainability of standardized activities (Step 7)



Monitoring and Evaluation by QIT



What to be monitored and evaluated by QIT?

- KAIZEN Team function
- Monitor all WITs' activities
 - Check whether each KAIZEN step is carried out on right track or not
 - Check whether each QC tool is utilized properly or not
 - Check whether record keeping is done properly or not
- Support WITs to clarify effectiveness towards improvement of hospital management



During internal evaluation of KAIZEN

- Visit all areas implement 5S-KAIZEN activities and interview KAIZEN teams
- Fill in 5S-KAIZEN M&E Sheet, and check the section No. 1 – 14
- Check records of KAIZEN process, and then fill in KAIZEN Process Checklist
- Develop feedback presentation on KAIZEN practices after the observation visits
- Feedback the results to all KAIZEN teams

Tips for successful M&E for KAIZEN by QIT

- Compose teams for conducting M&E
- Before starting M&E, review on how to use M&E tools together with all the members
- Before starting M&E, clarify responsibilities of each member of the team

(Example)

- *One for concentrating on interview to QIT and checking records of KAIZEN*
- *Another for concentrating on M&E of 5S activities*

Cont.

- Visualization of the results of M&E is essential to give feedback to WITs effectively
- Making consensus to all scores and findings among practitioners

Cont.

- Good practices of KAIZEN should be shared with all the department/sections in your hospital
 - Share in the meetings (morning report, management meetings, department meetings etc.)
 - Display the practices on notice boards in common places etc.

M&E Tools for KAIZEN activity



Tools for M&E of KAIZEN activities

- I. Monitoring and Evaluation sheet for progress of 5S-KAIZEN activities
(with Point to be observed)
- II. KAIZEN Process Checklist
- III. KAIZEN Supportive Supervision Sheet
- IV. KAIZEN Record Sheet (*Microsoft EXCEL*)

I. Monitoring and Evaluation sheet for progress of 5S-KAIZEN activities

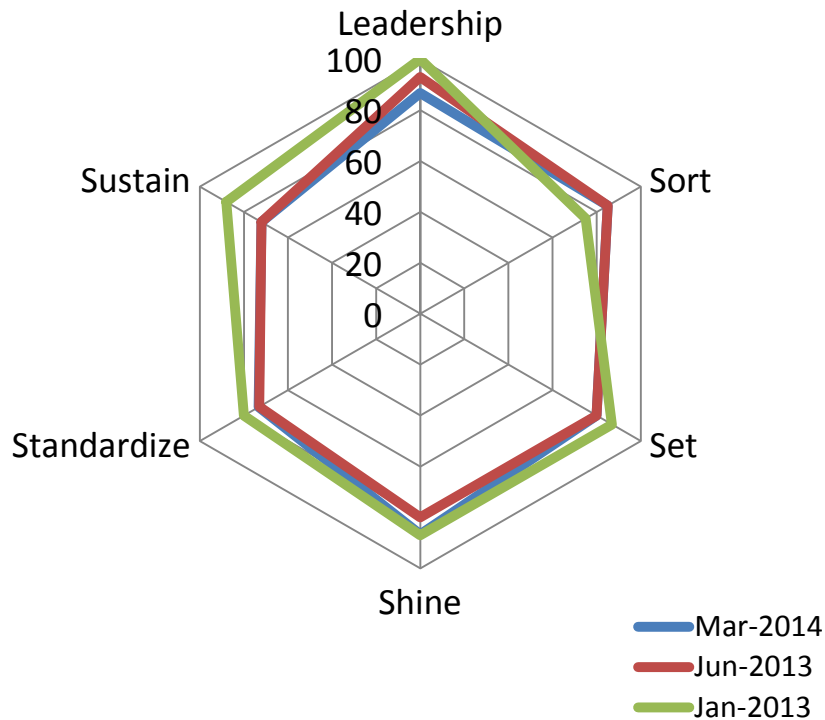
- Monitor and evaluate progress of 5S activities
 - Section 1 – 6: 5S activities
 - Section 7 – 14: KAIZEN activities
- Use point to be observed (Criteria)

5S-KAIZEN M&E Sheet

MONITORING AND EVALUATION SHEET FOR THE PROGRESS OF 5-S ACTIVITIES

Ver. 2012-September		Date: / /				
HOSPITAL:		DEPARTMENT:				
DESCRIPTION		Very Poorly	Poorly	Fairly	Well	AWARD MARKS
		1	2	3	4	
1 LEADERSHIP Role & Commitment of Management, Sustainability of 5-S activity, Training Program for Middle Mgt., Setting up 5-S Committees, 5-S Campaigns.						
1.1	Commitment, knowledge, Awareness on 5S among Managers and health workers	1	2	3	4	5
1.2	5S progress meeting, monitoring evaluation conducted by WIT and recorded in minutes	1	2	3	4	5
1.3	Evidence of trainings conducted for Managers and health workers	1	2	3	4	5
TOTAL						Full mark 15
						Acquired marks / 15 x 100 =
2 SEIRI - (SORTING) "Sasambua" Clutter free Environment in Premises, Inside Offices, Work Place, etc. Evidence of removal of unwanted items should be evident all around.						
2.1	Unwanted items removed from Premises, Offices, Work Places including drawers, cabinets and shelves	1	2	3	4	5
2.2	Walls are free of old posters, calendars, pictures	1	2	3	4	5
2.3	Notice Boards - Current Notices with removal instructions	1	2	3	4	5
2.4	Color coding for waste disposal maintained and standards followed	1	2	3	4	5
TOTAL						Full mark 20
						Acquired marks / 20 x 100 =
3 SEITON - (SETTING / ORGANISATION) "Seti" Ability to find whatever is required with the least possible delay, evidence of eliminating the waste of time throughout the Institute/Organization.						
3.1	Photographic evidence of Pre 5-S Implementation and afterwards	1	2	3	4	5
3.2	Visual Control methods adopted to prevent mix-up of items (files, equipment, tools etc.)	1	2	3	4	5
3.3	Directional Boards from hospital entrance to all facilities under your section/ departments (office, wards, Laboratory etc.) and corridors are clearly marked	1	2	3	4	5
3.4	All machines/ Rooms/ Toilets/ Switches/ fans regulators etc. have identification labels	1	2	3	4	5
3.5	All items are arranged according to 'Can See', 'Can Take Out' & 'Can Return' principle	1	2	3	4	5
3.6	X-axis, Y-axis alignment is evident everywhere	1	2	3	4	5
TOTAL						Full mark 30
						Acquired marks / 30 x 100 =
4 SEISO - (SHINING / CLEANLINESS) "Safisha" The Cleanliness all round the Institution should have been carried out according to the 5-S Concepts.						

Ward 14



Strength

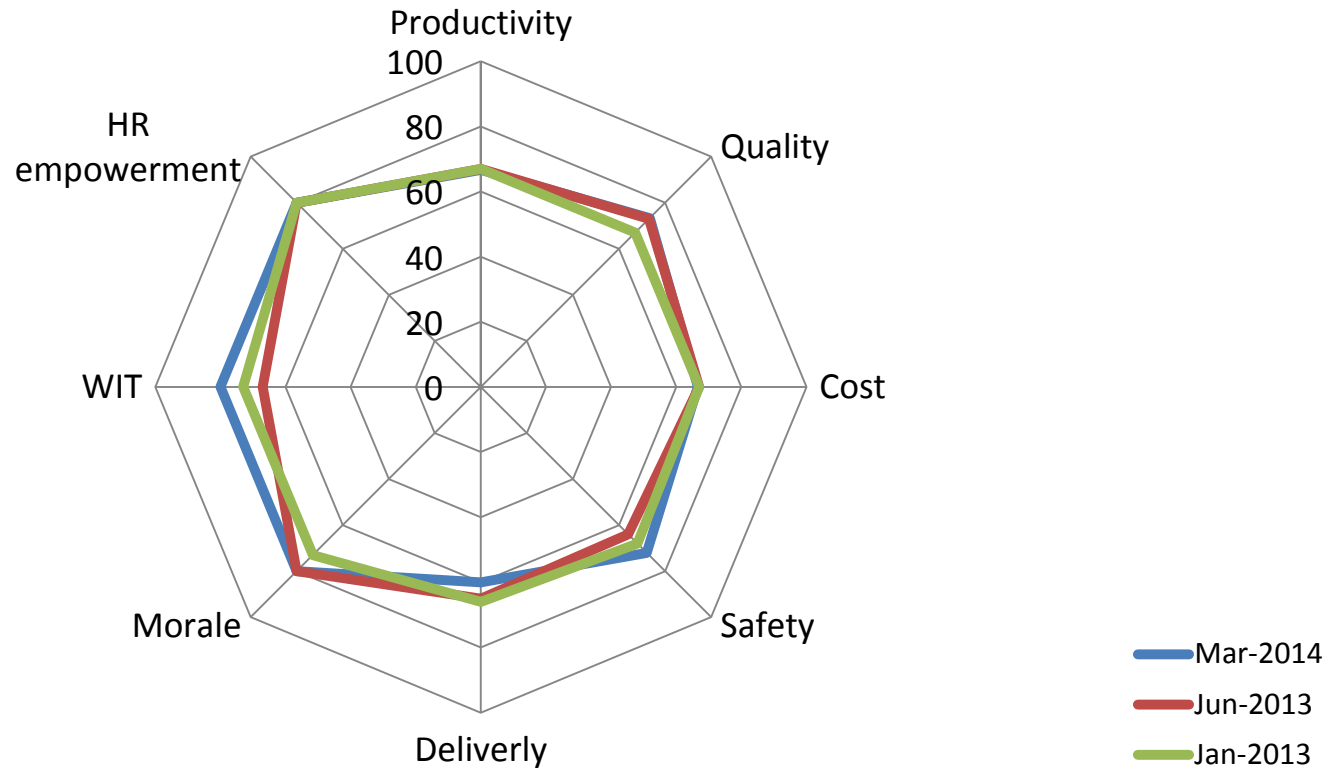
- Active participation in 5S-KAIZEN

Challenges

- Photographic evidence are not well utilized and displayed

<i>Ward 14</i>	<i>Leadership</i>	<i>Sort</i>	<i>Set</i>	<i>Shine</i>	<i>Standardize</i>	<i>Sustain</i>	<i>Average</i>
Mar-2014	87	85	80	87	73	72	80.6
Jun-2013	93	85	80	80	73	72	80.5
Jan-2013	100	75	87	87	80	88	86.2

Ward 14 - KAIZEN



<i>Ward 14</i>	<i>Productivity</i>	<i>Quality</i>	<i>Cost</i>	<i>Safety</i>	<i>Deliverly</i>	<i>Morale</i>	<i>WIT</i>	<i>HR empowerment</i>	<i>Average</i>
Mar-2014	67	73	67	72	60	80	80	80	72.3
Jun-2013	67	73	67	64	65	80	67	80	70.4
Jan-2013	67	67	67	68	66	73	73	80	70.1

II. KAIZEN Process Checklist

- Evaluate each KAIZEN process
- Check proper usage of QC tools

KAIZEN Process Checklist				
Hospital ↓	↓			
Department/Section/Unit/Ward ↓	↓			
Date of Monitoring ↓	↓			
When KAIZEN started? ↓	↓	↓	↓	↓
Number of KAIZEN team members ↓	↓			
Last date of meeting with QIT for consultation ↓	↓			
Problem statement of the section ↓	↓			
KAIZEN Theme _____ ↓				
1. Theme of KAIZEN ↓	0 ↓	1 ↓	2 ↓	↓
KAIZEN Theme ↓	Matrix not used and difficult to implement within department ↓	Matrix used but difficult to implement within department ↓	Matrix used and possible to implement within department ↓	↓
2. Situation analysis ↓	0 ↓	1 ↓	2 ↓	↓
Information collection ↓	No information collected ↓	Wrong information collected ↓	Right information collected ↓	↓
Current data table ↓	Not made ↓	Made but wrongly ↓	Made correctly ↓	↓
Pareto chart development ↓	Not made ↓	Made but wrongly ↓	Made correctly ↓	↓
Pareto chart scale ↓	No scale written ↓	Scale of Pareto chart is not correct ↓	Scale of Pareto chart is correct ↓	↓
3. Root cause analysis ↓	0 ↓	1 ↓	2 ↓	↓
Fishbone diagram development ↓	Not done ↓	Developed wrongly and root causes are not well identified ↓	Developed correctly and root causes are identified ↓	↓
Description/Sentence completeness ↓	Difficult to understand ↓	Sentences are not completed ↓	Complete and clear ↓	↓
Depth of Why-Because analysis ↓	WHY-BECAUSE is not asked ↓	WHY-BECAUSE asked not enough ↓	WHY-BECAUSE asked enough ↓	↓
4. Countermeasure identification ↓	0 ↓	1 ↓	2 ↓	↓
Tree diagram ↓	Not made ↓	Made but wrongly ↓	Made correctly ↓	↓
Matrix diagram ↓	Not made ↓	Made but wrongly ↓	Made correctly ↓	↓
Feasibility check ↓	Not done ↓	Done but wrongly ↓	Done correctly ↓	↓
5. Implementation of counter measure ↓	0 ↓	1 ↓	2 ↓	↓
Action Plan development ↓	5W1H action plan not developed ↓	5W1H action plan developed wrongly ↓	5W1H action plan developed correctly ↓	↓
Counter measures implementation ↓	Not implemented ↓	Identified measures partially implemented ↓	All identified measures implemented ↓	↓
Monitoring of implementation ↓	Monitoring not done ↓	Checklist developed but not used ↓	Checklist developed and used ↓	↓

Ward 14

Section Name	WD 14
Date of monitoring	17.3.2014
KAIZEN Theme	Readmission of patients with post catheterization is reduced

1. Theme of KAIZEN		2	Good understanding and skills observed
KAIZEN Theme	2	1	Weak knowledge and skills observed
2. Situation analysis		0	NOT YET DONE OR POOR UNDERSTANDING AND SKILL FOR KAIZEN
Information collection	2		
Current data table	2	Number of KAIZEN team members	3 members
Pareto chart development	1	When this KAIZEN case started ?	The beginning of October 2013
Pareto chart scale	1		
3. Root cause analysis			Good to start KAIZEN practice
Fishbone diagram development	2		However,
Discription/Sentence completeness	1		- weak knowledhe on use of QC tools was observed, especially in
Depth of Why-Because analysis	1		Step 2 and Step 3
4. Countermeasure identification			- Not completing all steps (Step 7)
Tree diagram	2		- Target is not set
Matrix diagram	2		It is suggested to develop monitoring checklist for implementation
Feasibility check	1		of countermeasures.
5. Implementation of counter measure			Accelerate to practice Step 7 as soon as possible and complete
Action Plan development	2		whole steps by the end of March 2014
Counter measuers implementation	2		
Monitoring of implementation	2		
6. Effectiveness check			
Comparison data table	2		
Comparison Pareto chart	2		
Pareto chart scale	1		
7. Standardization of effective measures			
Identification of effective measures	0		
Standardization procedure	0		
Standardization Plan development	0	Total score	Total %
Monitoring of implementation of effective meas	0	28	63.6
Target achievement	0		

III. KAIZEN Supportive Supervision Sheet

- To check whether KAIZEN activity is practicing in right track or not
- Important points to be checked are clarified in each KAIZEN step

		KAIZEN Supportive Supervision Checklist		Date: _____			
		Points to check		Unit			
		Yes	No	Date of check	Check by		
Before KAIZEN	1	Ask number of KAIZEN team members					
	2	Check problem statement of the section/unit					
	3	Check the date of the KAIZEN case started					
Step 1	4	Check whether they have selected the theme which can be solved within the section/unit or not					
	5	Check whether the KAIZEN theme was selected with Ishikawa Diagram					
	6	Check whether the scale of feasibility is clarified or not					
	7	The KAIZEN theme is written in "positive manner"					
	8	Check whether appropriate quantitative data are collected related with the KAIZEN theme or not					
Step 2	9	Check whether KAIZEN members well understood relation between the KAIZEN theme and contributing factors or not.					
	10	Check whether data source is appropriate or not					
	11	Check whether data collection method is appropriate or not					
	12	Ask the period of data collection and check it is appropriate or not					
	13	Check whether all the records were kept for data collection or not					
	14	Check whether completion of the data, calculation of cumulative frequency and ratio was done properly by using table or not					
	15	Check whether Pareto Chart is properly developed based on the table or not; Need to check the scale, Plotting point of cumulative ratio, Description of contributing factors					
	16	Check whether the target setting is done or not					
Step 3	17	Check whether contributing factors identified in Step 2 is used as a head of Fishbone or not					
	18	Check whether contributing factor in the head of Fishbone Diagram is stated in sentence, Why (the contributing factor) happened?					
	19	Check whether "Cause-Effect (Why-Because)" relation is clarified or not					
	20	Check whether "Why-Because" is asked enough to find root causes or not					
	21	Check whether sentence used in the Fishbone Diagram are clearly stated or not					
	22	Check whether "No money", "No human resources" and "No material" are not identified as a root cause					
Step 4	23	Check whether all the identified in Step 3 is reflected in Tree Diagram or not					
	24	Check whether detailed countermeasures are identified or not, breakdown of countermeasures by the level of countermeasures					
	25	Check conflict of activities among identified countermeasures					
	26	Check whether feasibility is appropriate or not, Check the relation among the identified countermeasures required or not cause					
	27	Check whether the scale and cutoff point of feasibility check are clarified or not					
	28	Check whether all countermeasures identified are possible to carried out within the section/unit or not					
	29	Check whether all feasible countermeasures are reflected in the action plan					
Step 5	30	Check whether the action plan are developed based on "SMART"					
	31	Check whether monitoring checklist is developed or not					
	32	Check whether appropriate timing is given to implement all countermeasures or not					
	33	Check whether all necessary data is collected for effectiveness check or not, same methodology and period applied in Step 2					
Step 6	34	Check whether comparison table for effectiveness check is developed or not, Frequency before and after KAIZEN, cumulative number frequency before and after KAIZEN, Cumulative ratio before and after are appropriately calculated or not in the comparison table					
	35	Pareto Charts for before and after KAIZEN are developed based on the comparison table or not, Scale of frequency, Cumulative ratio, Plotting points of cumulative ratio					
	36	Check whether Pareto Chart is properly developed based on the table or not; Need to check the scale and scale adjustment between before and after the KAIZEN, Plotting point of cumulative ratio, Description of contributing factors					
	37	Check whether effective countermeasures are identified and listed or not					
	38	Check whether ineffective countermeasures are identified and listed or not					
Step 7	39	Check whether all effective countermeasures are reflected on standardization plan or not					
	40	Check whether standardization is developed based on "SMART"					
	41	Check whether a monitoring checklist for standardized activities is developed and used or not					
	42	Check whether standardization plan is shared with all staff working in the section/unit					
	43	After completion of one KAIZEN case, check whether discussion and action are taken for next KAIZEN case or not					
	44	Check whether all records of KAIZEN process are kept properly or not					
Common Issues	45	Check whether starting and completing period of each KAIZEN step is clearly recorded or not					
	46	Check whether All KAIZEN process is planned to complete within 6 months or not, check a setting of implementation schedule					
	47	Observe knowledge and skills of using QC tools among staff					
	48	Check whether staff are understanding purpose of each KAIZEN step or not					
	49	Check frequency communication between QIT and KAIZEN members on the KAIZEN case					
	50	Check the effectiveness of countermeasures of the KAIZEN case, for example: Training manuals, SOPs, Training report and so on					

IV. KAIZEN Record Sheet (Microsoft Excel)

- It helps you to record KAIZEN activities
- Also, it has a function to develop Pareto Chart, calculate formula etc.

KAIZEN Case Record Sheet

KAIZEN Theme		KAIZEN Team members	
Headline			
Section			

Problem Statement
(Please describe current situation and problem statement at your section)

Step 1. KAIZEN Theme Selection

Date of starting implementation of Step 1		Date of completion	
Possible KAIZEN Theme	Immediate effect	Urgency	Realization
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

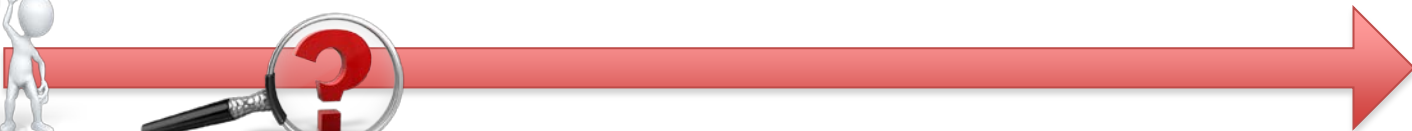
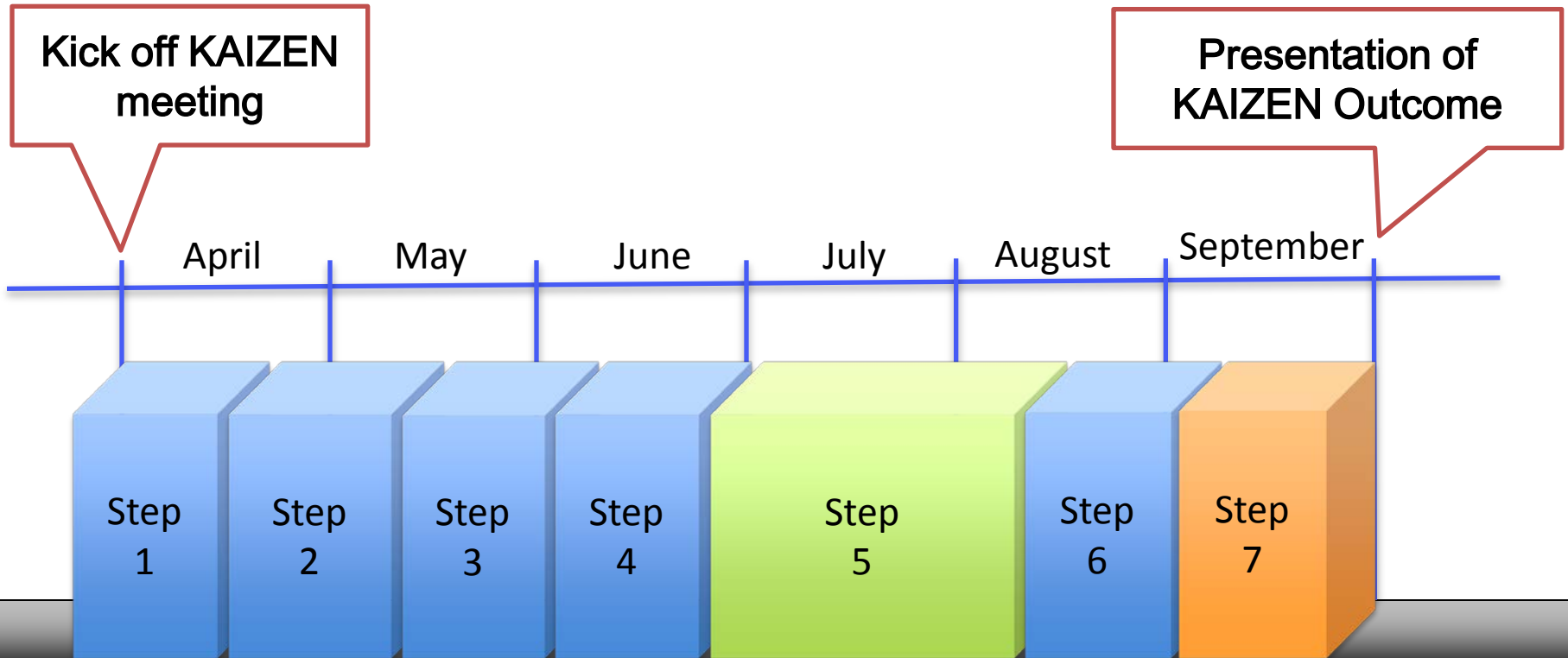
Scoring scale: 0-100 effect, 0-100 urgency, 0-100 realization, 0-100 burden to services users/sections

Step 2. Situation analysis

Date of starting implementation of Step 2		Date of completion	
KAIZEN Theme	Before KAIZEN	After KAIZEN	Accumulation
Contributing factors	Before KAIZEN Frequency	Cumulative Frequency	Accumulation
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Total			

Period of data collection (Date / Month / Year) From: dd/mm/yyyy to: dd/mm/yyyy
 Data source: _____
 Method of data collection (e.g. interview, review documents, questionnaire etc.): _____

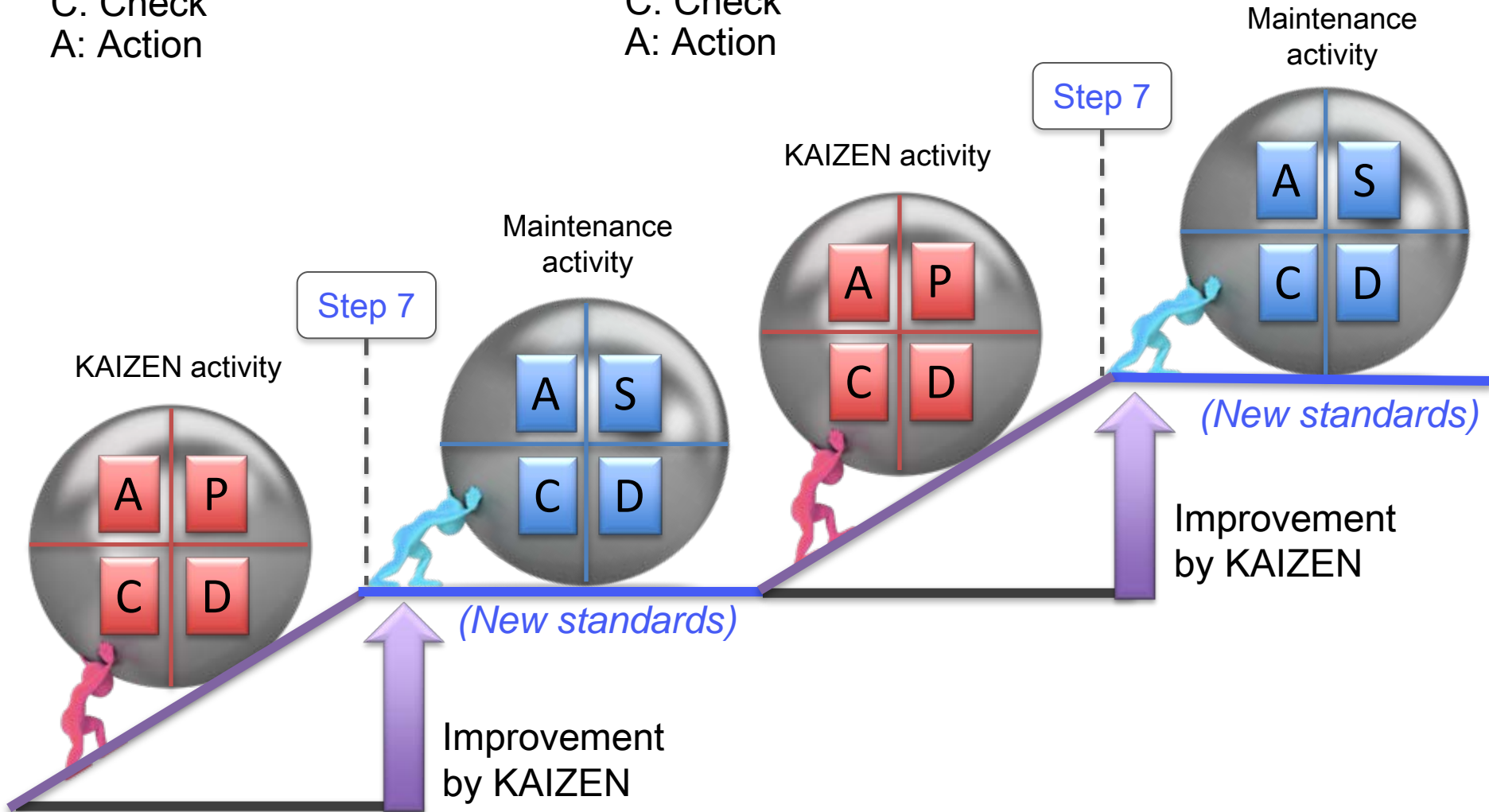
Schedule of KAIZEN event



SDCA cycle and PDCA cycle

S: Standard
D: Do
C: Check
A: Action

P: Plan
D: Do
C: Check
A: Action



Thank you very much for listening