5S-KAIZEN-TQM
Ten Years in the Application of 5S-KAIZEN-TQM QI Approach in African Health Services

Minako Kuramitsu
Human Development Department
Japan International Cooperation Agency (JICA)
3 pathways for the achievement of UHC
(World Health Report 2010)

1. Raising sufficient resources for health
2. Removing financial risks and barriers to access
3. Promoting efficiency and eliminating waste

5S-KAIZEN-TQM

The third path has often been overlooked in the global/local discourse on UHC.
What is 5S-KAIZEN-TQM?

Health System Strengthening

Improved Service  Employee Satisfaction  Patient Satisfaction

Change Management

Value Co-creation
- Productivity
- Quality
- Cost
- Delivery
- Safety
- Morale

Resource Optimization

Problem Solving
- Continuous participatory Plan→Do→Check→Action Cycle

Highly Motivated Team

Work Environment Improvement
- Sort
- Set
- Shine
- Standardize
- Sustain

Habit Formulation
- Success Experience
- Positive Attitude
- Team Building

Bottom-up

Strong Leadership

JICA

What is 5S-KAIZEN-TQM?
Why 5S-KAIZEN-TQM?

• More resources are needed, but what is really needed is:
  – “Positive mind-set” and “Leadership”
  • sources of “change” and “innovation” for improvement to hospital services

Change Management
Implementation of 5S

Everyone participate in 5S activities
S1: Sorting

Remove unnecessary items
S2: Setting

Organize, set place for each item

Labeling

Numbering & taping

zoning
S4: Standardizing

Color coding

Checklist

(SOPs)

Symbols
S5: Sustain
Medical records department

Before

After
laundry

Before

After
Example of KAIZEN

“Improving waste management in the hospital”

- The frequency of the improper waste management was reduced from 155 to 22. (85.8% reduction)
- The cost for procuring waste bin liners were also reduced

<table>
<thead>
<tr>
<th>#</th>
<th>Contributing factors</th>
<th>Frequency</th>
<th>Reduction rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Case of bin liners in a wrong containers</td>
<td>Before 42</td>
<td>After 4</td>
</tr>
<tr>
<td>2</td>
<td>Case of one type of bin liner missing (out of stock) at the point of waste collection</td>
<td>Before 38</td>
<td>After 2</td>
</tr>
<tr>
<td>3</td>
<td>Case of mixing up of waste at point of collection (i.e. an item gets into wrong containers)</td>
<td>Before 29</td>
<td>After 14</td>
</tr>
<tr>
<td>4</td>
<td>Case of waste container without a bin liner</td>
<td>Before 25</td>
<td>After 1</td>
</tr>
<tr>
<td>5</td>
<td>Case of unauthorized waste containers/bin liners found at disposal point (incinerator)</td>
<td>Before 11</td>
<td>After 0</td>
</tr>
<tr>
<td>6</td>
<td>Case of container found in a wrong area (areas which where does not generate waste that match with container)</td>
<td>Before 7</td>
<td>After 0</td>
</tr>
<tr>
<td>7</td>
<td>Case of mixing waste bags at the waste storage area</td>
<td>Before 3</td>
<td>After 1</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>Before 155</td>
<td>After 22</td>
</tr>
</tbody>
</table>
KAIZEN has achieved... 

- Service Improvement
  - Reduction of patient waiting time (43%)
  - Reduction of incidence of phlebitis (52%)
  - Reduction of rejected laboratory samples (63%)

- Administrative Improvement
  - Reduction of re-sterilization (89%)
  - Reduction of expired medicines (37%)
Results of Operational Research in Tanzania

- Health worker experience
  - Job satisfaction score (p<0.01)
  - Experience of success (p<0.05)

- Patient experience
  - Cleanliness (p<0.01)
  - Waiting time (p<0.01)
  - Overall rating of hospital (p<0.01)
JICA’s Support on 5S-KAIZEN-TQM in the health sector

To Sri Lanka

From Japan

As of 2017, implemented in at least **2000** public health facilities in **28** countries.

2007~ To Africa

Japan International Cooperation Agency
Key Factors

- Applicable in resource limited settings
- Benefits the health workers
- Strong leadership of top management
- Making show-case hospital/department
- Embed in policy
To conclude..

• 5S-KAIZEN-TQM approach is effective in motivating and increasing the productivity of health workers

Way forward

• Promote 5S-KAIZEN-TQM as an effective tool to improve efficiency and quality

• Strengthen Centers of Excellence for mutual learning amongst and within countries
Thank you!

For more information, please visit: https://www.jica.go.jp/english/our_work/thematic_issues/health/case_materials.html