

Country-level Implementation of Infection Control Program:

*Report of an
Implementation
Workshop held in
Mbabane,
Swaziland,
January 29-31,
2007*

Management Sciences for Health
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March 2007

Country-level Implementation of Infection Control Program: Report of an Implementation Workshop held in Mbabane, Swaziland, January 29-31, 2007

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Strategic Objective 5

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About RPM Plus

RPM Plus works in more than 20 developing and transitional countries to provide technical assistance to strengthen drug and health commodity management systems. The program offers technical guidance and assists in strategy development and program implementation both in improving the availability of health commodities—pharmaceuticals, vaccines, supplies, and basic medical equipment—of assured quality for maternal and child health, HIV/AIDS, infectious diseases, and family planning and in promoting the appropriate use of health commodities in the public and private sectors.

Abstract

With USAID support, MSH/RPM Plus has collaborated with Harvard University to develop an infection control self-assessment and quality improvement approach that is suitable for district and provincial level hospitals in resource-constrained countries. The approach combines assessment of existing hospital infection control practices using an infection control assessment tool and application of rapid cycle quality improvement methods. RPM Plus collaborated with the Swaziland Ministry of Health and Social welfare to conduct an ICAT implementation workshop in Mbabane, Swaziland in January 2007. Workshop participants embraced the ICAT as a comprehensive, simple and user-friendly tool that can be implemented in-country.

Recommended Citation

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Key Words

Antimicrobial resistance. Infection control assessment tool. Rapid cycle quality improvement.

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ACRONYMS

AMR	antimicrobial resistance
DHC	Dvokolwako Health Center
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
IC	infection control
ID	infectious disease
ICAT	infection control assessment tool
ICC	infection control committee
ICQI	infection control quality improvement
MGH	Mbabane Government Hospital
MOH&SW	Ministry of Health and Social Welfare
MSH	Management Sciences for Health
NCI	nosocomial infection
RCQI	rapid cycle quality improvement
RFCC	request for country clearance
RFMH	Raleigh Fitkin Memorial Hospital
RPM Plus	Rational Pharmaceutical Management Plus
SHC	Sithobela Health Center
SNA	Swaziland Nurses Association
SNAP	Swaziland National AIDS Program
TB	tuberculosis
USAID	United States Agency for International Development
USG	United States Government
WHO	World Health Organization

BACKGROUND

The growing problem of antimicrobial resistance (AMR) is now threatening our ability to effectively treat some of the major causes of morbidity and mortality in resource-limited countries, thereby reversing the gains that have been achieved by control programs for major infectious diseases (ID), including acute respiratory infections, diarrhea diseases, tuberculosis and malaria. The WHO Global Strategy for Containment of AMR¹ recommends multiple interventions to slow the emergence and spread of antimicrobial resistance, including improving infection control (IC) in hospitals. The implementation of appropriate, locally feasible infection control quality improvement (ICQI) interventions in hospitals slows the spread of infections, including resistant infections.

With the support of the United States Agency for International Development (USAID), the Rational Pharmaceutical Management Plus (RPM Plus) Program of Management Sciences for Health (MSH) has collaborated with Harvard Medical School to develop an infection control self-assessment and quality improvement approach that is suitable for district and provincial level hospitals in resource-constrained countries. The approach combines assessment of existing hospital infection control practices using an infection control assessment tool (ICAT) and application of rapid cycle quality improvement (RCQI) methods.

The standardized approach was initially developed and field-tested in tertiary hospitals in the Philippines². The ICAT was then adapted for use in low-resource hospitals and field-tested again in Uganda³. Finally twenty-one ICAT modules, an accompanying manual, five checklists for monitoring adherence to interventions and various ICQI materials and resources from reputable international organizations were assembled on a CD-ROM for use in initial implementation of the tool in hospitals in a few interested countries. The goal in each country is to provide technical assistance and support for implementing initial ICQI activities, including an in-country ICAT implementation workshop and a review workshop. Feedback from these countries on experiences, lessons learnt and recommendations will be used to further review the implementation materials and finalize and make the CD-ROM available for wider dissemination.

With 33.4% of adults aged 15-49 and about a fifth of the estimated 1.03 million inhabitants living with HIV/AIDS in 2005⁴, Swaziland has a high burden of HIV/AIDS and related infections, including tuberculosis (TB). Hospital infection control has been identified as an area that needs to be strengthened. Top problem areas include hand hygiene and waste management.

¹ WHO. World Health Organization. 2001. *Global Strategy for Containment of Antimicrobial Resistance*. Geneva. WHO

² Pearson S. *Trip Report: Infection Control final Assessment*. 2004. Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.

³ Ross-Degnan D. C., Huskins. D. Goldmann. A. Payson. *Implementing Hospital Infection Control Guidelines: A Standardized Approach Involving the Infection Control Assessment Tool (ICAT) and Rapid Cycle Quality Improvement. Uganda Field Test Final Report, June 2006*. Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.

⁴ WHO/UNAIDS. 2006 Report on the Global Aids Epidemic. Geneva. UNAIDS.

In July-August 2006, RPM Plus technical staff traveled to South Africa⁵ to explore opportunities for implementing the ICAT to strengthen on-going IC activities in the region. Subsequently MSH/RPM Plus received formal communication from the Swaziland Ministry of Health and Social Welfare (MOH&SW) to collaborate in strengthening their infection control program. By January 2007 preparations had been finalized for implementing the ICAT and standardized approach at four pilot hospitals in Swaziland, starting with an implementation workshop.

Purpose of Trip

Dr. Goredema traveled to Swaziland to work with RPM Plus Senior Program Associate Mr. Mupela Ntengu in providing technical support and facilitating an ICAT implementation workshop in Mbabane, January 29-31, 2007.

Scope of Work

The scope of work for Wonder Goredema and Mupela Ntengu included—

- Finalize preparations and logistics for the workshop
- Facilitate sessions of the workshop
- Coordinate and provide technical assistance during a one-day field visit to practice conducting ICAT assessments at a local hospital.
- Assist participating teams in developing ICQI plans for their hospitals.
- Debrief USAID officials, if requested
- Participate in preparing a trip report

The request for country clearance (RFCC) for Wonder Goredema's travel to Swaziland can be found in annex 1. Mr. Ntengu obtained concurrence for his travel to Swaziland from the activity manager for Swaziland at the USAID Mission in Pretoria.

⁵ Goredema, W. 2006. *Country-level Implementation of Infection Control Tools: Trip Report of an Initial Exploratory Visit to South Africa in July-August 2006*. Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health

ACTIVITIES

Prepare for the ICAT Implementation Workshop

All pre-workshop activities were coordinated jointly by representatives of the Swaziland MOH&SW, participating hospitals, RPM Plus Pretoria and RPM Plus Washington through a series of e-mails, telephone calls, Skype sessions, fax messages and face-to-face meetings. From August 2006-January 2007 the following preparatory activities were conducted—

- RPM Plus South Africa technical staff visited the pilot sites-Mbabane Government Hospital (MGH), Raleigh Fitkin Memorial Hospital (RFMH), Sithobela Health Center (SHC) and Dvokolwako Health Center (DHC) to brief hospital management, administrators and IC team members on the ICAT approach, obtain their buy-in and initiate the formation or activation of ICQI teams.
- The ICAT was distributed to the MOH&SW and other relevant stakeholders
- RPM Plus staff visited the pilot sites and distributed a binder containing various pre-workshop materials, including guidelines for implementing the standardized approach, the 21 ICAT modules, 5 checklists, a manual and templates for collecting pre-workshop data. Backing information about the tool, the proposed implementation strategy and guidelines on pre-workshop preparations was communicated verbally to hospital managers and key representatives of the hospital ICQI teams.
- The dates and preparations for the implementation workshop were finalized.
- Final preparations for the workshop, including workshop programs and facilitating strategies, binders and other workshop materials, workshop venue and logistics such as participants' travel, accommodation and field visit logistics, were done January 24-28.

Provide Technical Assistance and Facilitate the ICAT Implementation Workshop

Introduction

The workshop was held at the Mountain Inn Hotel, Mbabane from January 29-31, 2007. It was funded by RPM Plus. Wonder Goredema, Mupela Ntengu and the IC Coordinator for Swaziland, Ms Thabsile Dlamini, co-facilitated the workshop. The workshop program can be seen in annex 2.

The purpose of the workshop was to—

- Provide hospital ICQI teams with tools and resources to utilize in assessing and improving their IC practices
- Train the teams on how to implement the tools
- Provide a platform for collaboration and networking in ICQI
- Get the process going

The objectives of the workshop were to—

- Discuss participating hospitals' infection control problems
- Familiarize participants with the ICAT and QI principles and tools
- Apply QI principles and tools to prioritize problems and develop plans for implementing appropriate, locally feasible solutions at participating hospitals
- Determine a timeline for implementing the approach

The workshop covered 5 sessions over 3 days. Workshop activities included group sessions to discuss AMR, the ICAT approach and IC; skill-based sessions to learn about QI; fieldwork in a local hospital to practice applying the ICAT, and ICQI plan development. The first three sessions were covered on the first day. Session 1 started with facilitators making presentations on background information about AMR and the standardized assessment approach, followed by short presentations by participating hospitals teams on characteristics of their hospitals, including AMR, nosocomial infections and infection control activities. During the second session PowerPoints were presented on principles and methods of QI and on preventing transmission of nosocomial infections (NCIs), some QI tools were discussed and an interactive exercise on applying QI principles and tools was conducted. At the end of the session participating teams were tasked to apply the acquired QI principles and tools in developing ICQI plans for their hospitals. The teams started working on their plans here and continued on the second and third days of the workshop. Participants learnt about the ICAT and how to conduct ICAT assessments during the third session. During session 4 (on day 2) participants practiced conducting ICAT surveys at MGH. After the assessments they first reported the results to hospital managers and then presented the results to other workshop participants. During session 5 (on day 3) the participants were first introduced to the contents of the infection control CD-ROM, then the hospital teams finalized and presented their ICQI plans, followed by a group discussion. The workshop ended with the local MOH&SW facilitator leading the group in collectively developing a country plan for implementing the ICAT. Detailed guidance on the sessions of the workshop is provided in the *Introduction to the Infection Control CD-ROM* that can be found in the introduction folder of the Infection Control CD-ROM. All other workshop materials can be found in the implementation folder of the Infection Control CD-ROM.

Participants

A total of 21 participants including doctors, nurses, pharmacists, laboratory technicians and support staff from MGH, RFMH, SHC, DHC, the Swaziland Nursing Association (SNA) and the MOH&SW headquarters attended the entire workshop. The Chief Pharmacist from the MOH&SW, the Chief Pharmacist-in-Charge of the Central Medical Stores, a representative of the USG HIV/AIDS Coordinator's Office and a nurse from the US Government Health Unit, attended the first day. The list of participants can be seen in annex 3.

Inauguration

The Deputy Chief Nursing Officer from the MOH&SW officially opened the workshop on behalf of the Principal Secretary. Additional opening remarks were made by Ms Thabsile Dlamini and Dr. Peter Ranken, the representative of the USG HIV/AIDS Coordinator's Office

Workshop Proceedings

The workshop proceeded as described above.

Wonder Goredema facilitated—

- Introduction to the workshop
- AMR overview
- Principles and methods of QI
- Preventing transmission of NCIs
- Introduction to the infection control CD-ROM

Mupela Ntengu facilitated—

- Overview of standardized assessment approach
- Improving Hospital IC Practices: A standardized approach—review the ICAT

Wonder Goredema and Mupela Ntengu co-facilitated—

- Presentations of hospital characteristics by participating teams
- Notes on applying QI principles and tools
- Exercise on applying QI principles and tools
- Introduction to the QI homework/ ICQI plan development
- Recap of key points from previous day
- ICAT field work and report back
- Presentations of ICQI plans by participating teams

Thabsile Dlamini facilitated—

- Conducting an ICAT survey—prepare for ICAT fieldwork
- ICAT field work and report back
- Way forward

The key characteristics of the participating hospitals are summarized in annex 4. Common problem areas reported included—

- Hand hygiene
- Waste management

On the second day three hours were spent conducting ICAT assessments at MGH. Four mixed teams of participants used the hand hygiene and other modules to assess IC practices in allocated wards (annex 5) at the hospital. The team leader of each group briefed the unit manager at the beginning and at the end of the assessment. The RPM Plus and local facilitators met the hospital matrons to brief them on the approach and ensure their continued support in implementing the ICAT at MGH. Key findings from the assessments included—

- Recommended hand hygiene practices were generally followed (86% ICAT score) in the male surgical ward. Recommended hand hygiene practices were usually followed in the female medical ward (63.3% ICAT score). However, there was poor adherence to recommended hand hygiene practices in the isolation ward (40% ICAT score). The teams were unable to complete all three observation checklists for hand hygiene. In general, there were hand washing stations with running water, but availability of liquid soap and towels was a problem.

Implementing in-service education to improve awareness on the importance of hand hygiene was highlighted as a priority area.

- Poor (47%) adherence to recommended practices during preparation of I.V. fluids and medications on the male surgical ward
- Poor (37.8%) adherence to recommended isolation and standard precautions in the isolation ward. Development of policies and guidelines for infection control was identified as a possible priority problem for initial improvement (annex 6).
- Poor (33.3%) adherence to recommended labor and delivery practices. Non-availability of sterile delivery packs was identified as a priority area for improvement.

ICQI Planning

By the end of the workshop the participating hospital teams had drafted and presented plans for implementing interventions to improve waste management (RFMH), hand hygiene (SHC, DHC) and hand hygiene and universal precautions (MGH).

Way Forward

At the end of the workshop Thabsile Dlamini led a discussion on the way forward for implementing the ICAT in Swaziland. Agreed steps included—

- IC Coordinator to provide feedback to the Swaziland National AIDS Program (SNAP) and to MOH&SW on the workshop and put in place mechanisms for follow-up of IC programs
- Participants to provide feedback about the workshop and way forward to management and other staff members at their institutions by February 14, 2007
- Pilot sites to identify focal persons to coordinate ICQI activities. The pre-workshop focal persons to continue for now- Dr. Motuma Demisse at RFMH, Thulile Dlamini at MGH, Dr. Shili Kundhunda at DHC and Sifiso Mumba at SHC.
- Set up or revive infection control committees (ICCs) officially at all hospitals.
- Pilot hospitals to finalize their ICQI plans by end February and submit to Thabsile Dlamini and Mupela Ntengu.
- MSH (Mupela Ntengu) and MOH&SW (Thabsile Dlamini) to provide follow up support to pilot sites
- Conduct a review workshop by end July 2007

The workshop was officially closed by the deputy chief nursing officer who expressed her gratitude to MSH/RPM Plus, facilitators and participants for the hard work. She urged all the participants to take the opportunity to implement the ICAT and improve the IC practices at their facilities. She hoped that improved hospital IC practices would contribute towards achieving one of Swaziland's millennium goals—a reduction of child and maternal mortality rates and an improvement in the wellbeing of the people of Swaziland. She noted that the MOH&SW was committed to support implementation of the tool and concluded by saying that her remarks did not signal the closing of the

implementation workshop, but rather the opening of new roads that lead to better IC practices in Swaziland. She hoped that next time participants meet to review progress they would share the fruits of the seeds planted at the implementation workshop.

Materials Distributed—

- A binder containing workshop materials—handouts on workshop overview and program, session materials (ICAT guidelines, PowerPoint presentations, notes, exercises, QI homework, templates), workshop evaluation forms, the ICAT (21 modules, 5 checklists and manual). A list of workshop binder contents can be found in annex 7.
- The Infection Control CD-ROM, containing electronic versions of the ICAT implementation materials—introduction to the infection control CD-ROM; implementation workshop materials; the ICAT modules, checklists and manual and technical resources on IC and QI. A list of CD-ROM contents can be found in annex 8.
- WHO Global Strategy for Containment of Antimicrobial Resistance CD-ROM
- WHO Global Strategy for Containment of Antimicrobial Resistance executive Summary
- The MOH&SW handed out a copy of the Swaziland Manual on Infection Prevention and Control Policies: Policies and Guidelines of March 2004 to RFMH and promised to distribute more copies to the other hospitals later.

Facilitators' Meetings

The RPM Plus and local facilitators met at the end of the first and second days of the workshop to review the progress of the day and plan for the next day. At the end of the third day they reviewed the whole workshop and finalized the plan for next steps that had been developed collectively with the workshop participants.

Post-workshop activities

- On February 1st, the RPM Plus technical staff visited RFMH and met the hospital management to brief them on the workshop and request their continued support. The hospital Administrator and Chief Medical Officer thanked RPM Plus for the tool and noted that they hoped implementation of the ICAT would help the hospital address waste management, hand hygiene and other key IC problems at the hospital. They expressed their commitment to continue to support implementation of ICQI activities at the hospital and requested RPM Plus to continue to support the hospital to the extent possible.
- Visited the MOH&SW headquarters—met and briefed the Chief Pharmacist and left the workshop binder and CD-ROM for the attention of the Principal Secretary.
- Paid a courtesy visit to the Under Secretary's office.
- Briefed the USG HIV/AIDS coordinator on the workshop and other matters in the afternoon.
- Telecommunicated with the IC coordinator and ICQI focal persons and visited all the pilot sites in February-March to follow up progress. During that period the workshop participants finalized and presented their ICQI plans to hospital management and staff, obtained buy-in and started to implement the plans. As of end of March 2007, RFMH had finalized and implemented initial activities on its

ICQI plan (annex 9). Key accomplishments included debriefing hospital management about the ICAT workshop and next steps, developing a detailed budget for the planned ICQI activities, training staff from all hospital departments on hospital acquired infection and improving hospital IC practices, conducting a baseline survey on waste management practices, developing waste management guidelines, and purchasing bin liners. The ICQI team meets every week and has acquired limited funding from an external donor to support implementation of some of the activities in their plan. However, the hospital is still looking for outside funding support to replace an old incinerator. The SNA has pledged to supply the hospital with additional plastic bins and bin liners. SHC has finalized its ICQI plan (annex 10) and conducted five ICQI meetings since the ICAT implementation workshop. After being made aware of proper waste management practices, hospital staff now incinerate instead of burying waste. Water supply, which was highlighted by the hospital ICQI team as a major problem at the ICAT implementation workshop, has improved significantly as a result of discussions which the hospital management has held with the local water board to make them aware of the importance of water for hospital IC and the hazards associated with water shortage. DHC has finalized and is about to start implementing its ICQI plan (annex 11). MGH has also finalized its plan (annex 12).

- The results of the ICAT assessments done as part of the field work at MGH have been presented to the management of the hospital.

Evaluation and Key Observations

At the end of the workshop participants completed and submitted overall workshop evaluations. They used a scale ranging from 1 (for strongly disagree) to 9 (for strongly agree) to rate the content of the workshop, quality of facilitation and overall satisfaction of participants with the pace, length, style and format of the workshop, and with the workshop materials. Participants were also asked to provide recommendations for improving the workshop and any relevant additional comments. The evaluation and recommendations are summarized in annex 13. All 19 participants who responded thought that the workshop was valuable and worth recommending to their colleagues. Most thought that the workshop was important, informative and well presented. The high average scores suggest that participants were satisfied with the content, facilitation and overall proceedings of the workshop. However, most participants agreed that 3 days was too short for the workshop and recommended that future workshops should last 4-5 days. Key observations from the workshop include—

- It appears nothing has been done before in the area of ICQI in Swaziland and the participating hospitals seem to be very excited about the ICAT. However, the health infrastructure appears to be in need of strengthening in various areas, as there are gaps such as poor facility structures and inadequate IC facilities such as hand washing sinks, hand hygiene materials and water. Lack of financial, human and other material resources such as computers, access to the internet, telecommunication facilities, photocopying facilities and stationery was highlighted in discussion as a hurdle that is likely to negatively impact on the implementation of the ICQI activities in health centers. The health infrastructure needs to be strengthened.
- Need to collectively visit some pilot sites during the planned review meeting

- Need for continued follow-up support to pilot sites by the MOH&SW and RPM Plus
- Need to allocate enough time for the ICAT assessment (face-to-face interviews and observations)
- Need to allocate enough time for pre-workshop preparations
- The implementation workshop to last at least four days
- Positive feedback about the workshop and the ICAT was obtained during discussions and from analysis of participants' evaluations of the workshop. Participants noted that the ICAT is a comprehensive, simple, not time-consuming, user-friendly and motivating tool that can easily be implemented by in-country infection control programs. However hospital teams feared that progress in implementing the tools would be hampered by lack of information and telecommunication technology, stationery and other resources.

Some pictures taken at the workshop can be seen in annex 14.

Collaborators and Partners

- The Chief pharmacist at the MOH&SW is MSH/RPM Plus' main counterpart in Swaziland. MSH/RPM Plus has provided technical assistance to the ministry in various aspects of pharmaceutical management, including training in procurement, distribution, adherence and HIV/AIDS pharmaceutical management. A baseline survey of health facilities rendering pharmaceutical services was conducted. MSH/RPM Plus is currently working on the legislation and regulation of pharmaceuticals. The ICAT implementation workshop was conducted following official communication submitted to MSH/RPM Plus by the ministry. As a show of the ministry's commitment, the national IC coordinator and the Deputy Chief Nursing Officer attended the entire workshop. In her closing remarks, the latter noted the ministry's commitment to implementing the tool and monitoring progress. It will be important to continue to support and collaborate with the MOH&SW in that regard.
- SNAP is an important collaborator. The IC program in Swaziland falls under this organization.
- The SNA has a significant influence over practicing nurses. It is therefore well positioned to lend a hand in ensuring the tools are implemented.
- Ms Thabsile Dlamini, the national IC coordinator, is an important link person for coordinating the roles of key in-country partners, as she is also the secretary of the SNA and a member of the QA department at MGH.
- Coordination with in-country USG partners, such as those in the HIV/AIDS Coordinator's office, will be important in synergizing roles. A representative of the office attended the first day of the workshop.

NEXT STEPS

Immediate Follow-up Activities

- RPM Plus technical staff will continue to coordinate with the MOH&SW in providing follow-up technical support for implementation of ICQI plans at the pilot sites.
- All materials developed by participants before, during and immediately after the workshop-completed templates, PowerPoint presentations and Word documents-will be compiled on a CD and distributed to participating sites as an information-sharing tool.

Recommendations

- The Swaziland MOH&SW, hospitals and various stakeholders appear to be committed to strengthen hospital infection control and are moving forward with implementation of concrete next steps. It is recommended that MSH/RPM Plus continues to collaborate and provide technical assistance to the extent possible in implementing these activities using the tools and approaches discussed at the implementation workshop.
- Mechanisms should be explored for providing support to pilot sites for ensuring availability of resources like IC training and awareness materials such as posters.
- MSH/RPM Plus to collaborate with the MOH&SW in providing support for the implementation of functional and effective ICCs at the pilot sites and at other hospitals in the country.

Important Upcoming Activities or Benchmarks in Program

- The Swazi MOH&SW is planning to conduct a review workshop in collaboration with RPM Plus and the pilot hospitals in July 2007.

ANNEX 1: WONDER GOREDEMA'S RFCC FOR SWAZILAND

Request for Country Clearance

To: Stephanie Posner, USAID/South Africa, Activity Manager for Swaziland

From: Management Sciences for Health (MSH)/Rational Pharmaceutical Management Plus (RPM Plus) Program, Cooperative Agreement # HRN-A-00-00-00016-00

Subject: Request for Country Clearance for travel for Wonder Goredema to Mbabane, Swaziland from January 29 to 31, 2007.

Copy: Anthony Boni, USAID/GH/HIDN/HSD, CTO RPM Plus
Jennifer Murphy, Pharmaceutical Management Advisor, USAID/GH
Douglas Keene, Director, RPM Plus
Maria Miralles, Deputy Director, RPM Plus
Jean-Pierre Sallet, Regional Technical Adviser, RPM Plus-South Africa
Mupela Ntengu, Senior Program Associate, RPM Plus-South Africa
Sameh Saleeb, Program Manager-West/South Africa, RPM Plus
Mohan Joshi, Program Manager-AMR, RPM Plus

1. The RPM Plus Program wishes to request country clearance for proposed travel to Swaziland by Wonder Goredema, Senior Program Associate for Antimicrobial Resistance, RPM Plus Program for the period January 29 to 31, 2007.

2. Background

The WHO Global Strategy for Containment of AMR recommends multiple interventions to slow the emergence and spread of antimicrobial resistance, including promoting infection prevention and control in hospitals. Simple interventions like adequate hand hygiene, barrier practices, improved injection practices, effective disinfection and sterilization, good housekeeping and good waste management will prevent and control the spread of most infections in hospitals.

With USAID support, the Rational Pharmaceutical Management Plus (RPM Plus) Program of Management Sciences for Health (MSH) has collaborated with Harvard Medical School to develop a standardized approach to implementing hospital infection control guidelines at hospitals in low-resource countries. The infection control quality improvement (ICQI) approach combines an infection control self-assessment tool (ICAT) and implementation of rapid team problem solving methods to improve infection control practices.

In October 2006, the Ministry of Health and Social Welfare of Swaziland asked RPM Plus/MSH to provide support in implementing infection control activities in Swaziland. RPM Plus has since coordinated with in-country officials in planning next steps for

implementing the tools, starting with a group training workshop for infection control teams from four identified hospitals as well as representatives from the Swaziland Nursing Association. The workshop is planned to be held in Mbabane from January 29 to 31, 2007.

3. Purpose of Proposed Visit

Dr. Goredema will travel to Swaziland along with RPM Plus/South Africa technical staff to provide technical support and facilitate the infection control training workshop planned for January 29–31, 2007.

4. Scope of Work

During the proposed visit, Dr. Goredema will:

- i. Work with RPM Plus/South Africa Senior Program Associate, Mr. Mupela Ntengu, to finalize preparations for the workshop.
- ii. Facilitate sessions of the workshop
- iii. Coordinate and provide technical assistance during a one-day field visit to practice conducting ICAT assessments at a local hospital
- iv. Assist hospital infection control teams in developing plans for implementing ICQI interventions back at their hospitals
- v. Debrief USAID officials, if requested
- vi. Prepare a trip report

5. Anticipated Contacts in Country:

- i. Sister Thabsile Dlamini at Mbabane Government Hospital – person-in-charge of infection control activities in Swaziland
- ii. Mupela Ntengu, Senior Program Associate, MSH/RPM Plus-South Africa.
- iii. Participating hospital infection control teams and representatives of stakeholder organizations.

6. Logistics: Dr. Goredema will arrive in Swaziland on or about January 28, 2007 and depart on or about February 1, 2007. Accommodation will be at the Mountain Inn Hotel in Mbabane.

7. Funding: The visit will be supported by MSH/RPM Plus SO5 AMR core funding.

Action: Please inform the RPM Plus Program whether country clearance is granted for the activity to proceed as proposed. Please reply via e-mail to the attention of Anthony Boni, USAID/G/PHN/HN/HPSR, e-mail address: aboni@usaid.gov, tel. (202) 712-4789, fax (202) 216-3702. Please send carbon copies to Jennifer Murphy at jmurphy@usaid.gov, Douglas Keene at dkeene@msh.org, Maria Miralles at mmiralles@msh.org, Jean-Pierre Sallet at jpsallet@msh.org, Sameh Saleeb at ssaleeb@msh.org, Mohan Joshi at mjoshi@msh.org, Wonder Goredema at wgoredema@msh.org, and Lindsay Gibbs at lgibbs@msh.org. We appreciate your cooperation. Thank you.

ANNEX 2: SWAZILAND ICAT IMPLEMENTATION WORKSHOP PROGRAM

Swaziland Ministry of Health and Social Welfare
In Collaboration with RPM Plus/MSH (A Project Funded by the US Government)

Improving Hospital Infection Control Practices
A Standardized Approach Using the Infection Control Assessment Tool (ICAT) and
Rapid Cycle Quality Improvement

Agenda

Implementation Workshop, Mountain Inn Hotel, Mbabane, Swaziland
January 29 – 31, 2007

Day	Time	Presenter	Topic
Mon. 29/01			
Session 1: Background			
	8:30 – 9:00	<ul style="list-style-type: none">• MOH & SW• Thabsile Dlamini (TD)• USG/CDC• Mupela Ntengu (MN)• Wonder Goredema (WG)	<ul style="list-style-type: none">• Official opening• Additional remarks• Additional remarks• House rules• Workshop objectives
	9:00- 10:00	<ul style="list-style-type: none">• WG• MN	<ul style="list-style-type: none">• Antimicrobial resistance (AMR) overview and containment• Overview of standardized assessment approach
	10:00- 10:15		Tea
	10:15- 11:00	<ul style="list-style-type: none">• RFM• Mbabane• Dvokolwako	<ul style="list-style-type: none">• Presentations by participating hospital teams (5 minutes each) on overview of hospital setting, AMR and nosocomial

- Sithobela infections, infection control activities
-

Session 2: Principles and Methods of Quality Improvement (QI)

- | | | |
|-------------|---|---|
| 11:00-12:30 | <ul style="list-style-type: none"> • WG • MN/WG • WG | <ul style="list-style-type: none"> • Principles and methods of QI • Notes on applying QI principles and tools • Preventing transmission of nosocomial infections |
|-------------|---|---|

12:30-13:15 Lunch

- | | | |
|--------------------|--|--|
| 13:15-15:15 | <ul style="list-style-type: none"> • WG/MN • WG/MN | <p>Exercise on applying QI principles and tools—</p> <ul style="list-style-type: none"> • Preventing nosocomial infections after C-section <p>QI homework</p> <ul style="list-style-type: none"> • Facilitators introduce homework on developing an ICQI Plan • Tea |
| 15:15-15:30 | | |
-

Session 3: Infection Control Assessment Tool (ICAT)

- | | | |
|-------------|--|--|
| 15:30-16:30 | <ul style="list-style-type: none"> • MN • TD | <ul style="list-style-type: none"> • Improving Hospital IC Practices: A standardized approach—review the ICAT • Conducting an ICAT survey—prepare for ICAT fieldwork |
| 16:30-17:30 | Participating hospital teams/facilitators | <ul style="list-style-type: none"> • Participating teams continue developing their ICQI plans |
-

**Tue.
30/01**

- | | | |
|-----------|---|--|
| 8:00-8:30 | <ul style="list-style-type: none"> • MN • WG/MN • TD | <ul style="list-style-type: none"> • Overview of day two program • Recap key points of day one—principles and methods of QI, preventing transmission of nosocomial pathogens, decision-making tools • Fieldwork logistics |
|-----------|---|--|
-

Session 4: Conducting ICAT Assessments

- | | | |
|------------|--|--|
| 8:30-13:00 | <ul style="list-style-type: none"> • Field teams/MN/WG/TD | <ul style="list-style-type: none"> • Fieldwork to conduct ICAT assessments • Preparation of group reports of ICAT survey results |
|------------|--|--|

13:00- Lunch

14:00		
14:00-15:00	<ul style="list-style-type: none"> Field teams 	<ul style="list-style-type: none"> Preparation of group reports of ICAT survey results
15:00-16:00	<ul style="list-style-type: none"> Field teams 	<p>Field teams present their reports on ICAT survey results (5 minutes each)—</p> <ul style="list-style-type: none"> Key findings Possible priority problem for initial improvement Suggested initial quality improvement cycle Problems encountered using the ICAT and suggested improvements
16:00-16:15		Tea
16:15-17:30	<ul style="list-style-type: none"> Participating hospital teams/all facilitators 	<ul style="list-style-type: none"> Participating teams continue developing their ICQI plans Facilitators available to provide guidance
Wedn. 31/01		
8:30-9:00	<ul style="list-style-type: none"> MN WG/MN 	<ul style="list-style-type: none"> Overview of day three program Recap ICAT key points
Session 5: ICQI Planning		
9:00-9:30	WG	<ul style="list-style-type: none"> Introduction to the infection control CD-ROM
9:30-10:30	Participating hospital teams/all facilitators	<p>Participating teams finalize their ICQI plans, including overall plans for implementation, follow-up, and review—</p> <ul style="list-style-type: none"> Obtaining buy-in for QI activities Conducting self-learning activities Performing baseline ICAT assessments in their hospitals Conducting initial QI cycles
10:30-10:45		Tea
10:45-13:00		Participating teams continue finalizing their ICQI plans

13:00- 14:00	Participating hospital teams/all facilitators	Lunch
14:00- 15:00	Participating hospital teams/all facilitators <ul style="list-style-type: none">• RFM• Mbabane• Dvokolwako• Sithobela	<ul style="list-style-type: none">• Participating teams present their final plans (5 minutes each) and get feedback from the group
15:00- 16:00	MN/TD	<ul style="list-style-type: none">• Wrap up, evaluation, and way forward—collectively determine a timeline for implementation

ANNEX 3: SWAZILAND ICAT IMPLEMENTATION WORKSHOP-LIST OF PARTICIPANTS

Participant Name	Profession/Designation	Institution
M Demisse	MD	RFM Hospital
J Mavundla	MD	RFM Hospital
P Khumalo	Nurse	RFM Hospital
K Shabangu	Pharmacist	RFM Hospital
M Magagula	Laboratory Technician	RFM Hospital
S Malaza	Nurse	RFM Hospital
M Maziya	Nurse	RFM Hospital
D Dlamini	Nurse	RFM Hospital
T Dlamini	Nurse	Mbabane Government Hospital
S Dlamini	Nurse	Mbabane Government Hospital
D Mkhize	Nurse	Mbabane Government Hospital
C Chimwanza	Nurse	Sithobela Health Center
S Mamba	Nurse	Sithobela Health Center
D Hlope	Nurse	Dvokolwako Health Center
S Simelane	Nurse	Dvokolwako Health Center
S Kundhunda	MD	Dvokolwako Health Center
M Chambers	Catering Officer	Dvokolwako Health Center
T Dlamini	Nurse	Swaziland Nurses Association
M Mhlanga	Nurse	Swaziland Nurses Association
B Cindzi	Nurse	Swaziland Nurses Association
M Nxumalo	Deputy Chief Nursing Officer	MOH&SW
T Sibiya	Pharmacist	MOH&SW
Fortunate Fakudze	Pharmacist	Central Medical Store
P Ranken	Epidemiologist	USG/CDC
A Schouten	Nurse	USG Health Unit

ANNEX 4: KEY CHARACTERISTICS OF PARTICIPATING HOSPITALS

Hospital Characteristic	RFM Hospital	Sithobela Health Center	Dvokolwako Health Center	Mbabane Health Center
Level of care	Provincial hospital	Rural health center	Rural health center	Referral
Number of beds	350	21	30	500
IC nurse position • Available • filled	<ul style="list-style-type: none"> • no • n/a 	<ul style="list-style-type: none"> • no • n/a 	<ul style="list-style-type: none"> • no • n/a 	<ul style="list-style-type: none"> • yes • yes
ICC • exists • functioning	<ul style="list-style-type: none"> • yes • yes 	<ul style="list-style-type: none"> • no • n/a 	<ul style="list-style-type: none"> • yes • yes 	<ul style="list-style-type: none"> • yes • yes
Top 5 infectious causes of admission over the past 12 months	<ul style="list-style-type: none"> • gastroenteritis • respiratory tract infections • TB • meningitis • skin infections 	<ul style="list-style-type: none"> • PTB • diarrhea • skin conditions • hepatitis • severe bacterial pneumonia 	<ul style="list-style-type: none"> • PTB • Other respiratory tract infections • gastroenteritis • HIV/AIDS • Skin conditions 	<ul style="list-style-type: none"> • TB • Hepatitis B • HIV/AIDS
Resistant infections reported over the past 12 months?	<ul style="list-style-type: none"> • Yes, <i>E-coli</i>, <i>Pseudomonas spp</i>, <i>Klebsiella spp</i>, <i>N. Meningitides</i> 	<ul style="list-style-type: none"> • yes, <i>M. tuberculosis</i> 	<ul style="list-style-type: none"> • yes, MDR-TB, resistant diarrhea 	<ul style="list-style-type: none"> • yes, <i>M. tuberculosis</i>
NCIs reported over the past 12 months?	<ul style="list-style-type: none"> • Not formally, no records 	<ul style="list-style-type: none"> • no 	<ul style="list-style-type: none"> • yes, but not recorded 	
Top 5 IC problems	<ul style="list-style-type: none"> • waste management • isolation and barrier precautions • hand hygiene • environmental sanitation • microbiology laboratory surveillance 	<ul style="list-style-type: none"> • hand hygiene • injection practices • dressings • poor waste management 	<ul style="list-style-type: none"> • poor hand hygiene • lack of isolation space for TB cases • lack of knowledge on IC among staff • poor disinfection and sterilization 	<ul style="list-style-type: none"> • Waste management • Lack of water • Lack of protective devices • Lack of disinfecting agents

ANNEX 5: SWAZILAND ICAT IMPLEMENTATION WORKSHOP; FIELD VISIT LOGISTICS

Team	Members	ICAT module	ICAT Checklists	Hospital/ Assessment Area	Transportation
4	<ul style="list-style-type: none"> ▪ Samkelo Simelane ▪ Masitsela Mhlanga ▪ Sifiso Mamba ▪ Phindile Khumalo 	<ul style="list-style-type: none"> • HH • IVF 	All 3 checklists for HH	MGH/Male surgical ward	Hotel minibus
1	<ul style="list-style-type: none"> ▪ Dumisile Mkhize ▪ Charles Chimwanzana ▪ Dr. Shili. Kundhunda ▪ Kholiwe Shabangu ▪ Dudu Dlamini 	<ul style="list-style-type: none"> • HH • ISP 	All 3 checklists for HH	MGH/ Isolation ward	Hotel minibus
2	<ul style="list-style-type: none"> ▪ Thulile Dlamini ▪ Magdeline Maziya ▪ Maurice Magagula ▪ Dr. Jabu Mavundla ▪ Dorothy Hlope 	<ul style="list-style-type: none"> • HH • LD 	All 3 checklists for HH	MGH/Labor and Delivery ward	Hotel minibus
3	<ul style="list-style-type: none"> ▪ Brian Cindzi ▪ Sandile Malaza ▪ Motuma 	<ul style="list-style-type: none"> • HH • WM 	All 3 checklists for HH	MGH/Female medical ward	Hotel minibus

	Demisse ▪ Maria Chamber s				
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HH-Hand Hygiene

ISP-Isolation and Standard Precautions

IVF-IV fluids and meds

LD-Labor and Delivery Ward

WM-Waste Management

MGH-Mbabane Government Hospital

ANNEX 6: ICAT SURVEY RESULTS- ISOLATION WARD, MBABANE GOVERNMENT HOSPITAL

GROUP1 PRESENTATION

Team Members:

Dr. Kundhunda - Team Leader
 Kholiwe Shabangu - Reporter
 Charles Chimwaza -Data Collector
 Mavis Nxumalo - Interviewer
 Dumsile Mkhize - Interviewer
 Dudu Dlamini - Interviewer

Name of Facility: Mbabane Government Hospital Isolation Ward (7)

Name Of Module: Isolation & Standard Precautions

Date Completed: 30th January 2007

Module Section	Assessment Total	Possible Total	Percent Score	Rating based on % Score
Isolation Policies& precautions	10	25	40%	C
Supplies for Isolation Precautions	6	11	54.5%	B
Precautions for TB	3	13	23%	C
TB and Isolation Areas	3	13	23%	C
Precautions for other air born Infection	3	4	75%	A
Total for module	25	66	37%	C

Rating Scale:

More than 75% =A

50-75% =B

Less than 50% =C

Key Findings

- Isolation policies and precautions-need improvement <50%
- Precautions for TB -Needs improvement <50%
- TB isolation Areas -need improvement <50%

- Supplies for isolation -recommended practices used >50%
- Precaution for other airborne diseases-are followed (good) 75%

Describe a possible priority problem for initial improvements

None availability of infection control policies and guidelines

Suggest an initial quality Improvement/ Plan-do- Survey-Act (PDSA) cycle to address the problem

Specific Goal for improvement

To ensure that all policies and guidelines for infection control are developed, used and adhered to by all health workers.

Proposed Interventions

Develop, Communicate and distribute the policies and guidelines in isolation ward.

Proposed Activities.

- Conduct a debriefing meeting with management including the ward sister.
- Establish an Infection Control Committee (ICC)
- Hold a meeting to develop guidelines.
- Hold a consensus building meeting with relevant stakeholders to adapt guidelines for local.
- Print guidelines and distribute them to ward 7
- Train health workers in isolation ward
- Develop a checklist to monitoring adherence in the use of guidelines.

Possible Indicators

- Report on the meeting held with management
- Availability of the ICC committee members and minutes of the committee
- Report on the meeting of the ICC.
- Report on the consensus-building meeting.
- Availability and number of printed guidelines.
- Training report that will indicate the number and carder of health workers trained.
- Availability of check list monitoring tool in the isolation ward.
- Monitoring report

Specific Goal for Improvement

To ensure that all policies and guidelines for infection control are developed, used and adhered to by all health workers.

Proposed Intervention

Develop, Communicate and distribute the policies and guidelines in isolation ward

Description of planned activities

- Conduct a debriefing meeting with management including the ward sister. – 1 week
- Establish an Infection Control Committee (ICC)- 2 weeks
- Hold a meeting to develop guidelines. 2 months
- Train health workers in isolation ward and distribute, display guidelines - 1 week after guidelines were developed.

Indicators

What will you measure	How will you measure	Who will measure	When will you measure
Debriefing meeting	Report review on the meeting held with management	Infection Control coordinator	Monthly
Availability of ICC	Availability of the ICC committee members and review of minutes	Infection Control coordinator	Monthly
Infection Control Guidelines	Availability and number of printed guidelines	ICC	Monthly
Number & cadre of health workers trained	Review of training report	ICC	Quarterly
Monitoring on adherence to guidelines	Review of the monitoring report	Ward sister& ICC	Quarterly

ANNEX 7: ICAT WORKSHOP BINDER CONTENTS

Location	Material	File Type	Page Count
Before first tab			
Overview	Three-day Workshop Schedule	Word	2
Overview	Training Workshop Introduction	PowerPoint	3
Tab 1: Session 1			
Session 1	AMR Overview and Containment	PowerPoint	8
Session 1	Overview of Standardized Assessment Approach	PowerPoint	6
Tab 2: Session 2			
Session 2	Principles and Methods of QI	PowerPoint	7
Session 2	Preventing Transmission of Nosocomial Pathogens	PowerPoint	9
Session 2	Decision-Making Tools	PowerPoint	2
Session 2	Notes on Applying QI Principles and Tools I	PDF	2
Session 2	Notes on Applying QI Principles and Tools II	PDF	2
Session 2	Exercise on Applying QI Principles and Tools I	PDF	16
Session 2	Exercise on Applying QI Principles and Tools II	PDF	10
Session 2	QI Homework	PowerPoint	2
Session 2	A Modern Paradigm for Improving Healthcare Quality (Massoud, R., et al.): Chapters 2, 3, 4, 6, 9	PDF	70
Session 2	Template for Applying QI Principles and Tools	Word	8
Session 2	Template for ICQI Plan	Word	6
Tab 3: Session 3			
Session 3	Hospital IC Guidelines: A Standardized Approach	PowerPoint	7
Session 3	Conducting an ICAT Survey	PowerPoint	4
Session 3	Template for Collecting Data on Hospital Characteristics	Word	8
Session 3	Some Examples of AMR Magnitude and Trends	PowerPoint	10
Session 3	WHO Global Strategy	PowerPoint	5
Session 3	AMR and QI Methods	PowerPoint	2
Session 3	Bloodstream Infections	PowerPoint	10
Session 3	Surgical Site Infections	PowerPoint	8
Session 3	Urinary Tract Infections	PowerPoint	8
Session 3	Lower Respiratory Tract Infections	PowerPoint	9
Session 3	References on Nosocomial Infections	PDF	4

Location	Material	File Type	Page Count
Tab 4: Session 4			
Session 4	Template for Reporting ICAT Survey Results	Word	12
Tab 5: Session 5			
Session 5	Introduction to the Infection Control CD-ROM	PowerPoint	4
Session 5	Introduction to the Infection Control CD-ROM	PDF	42
Session 5	Guidelines for Implementing the Standardized Approach	PDF	6
Session 5	Template for ICQI Report	Word	6
Session 5	Workshop Evaluation Form	Word	6
Tab 6: ICAT			
ICAT	ICAT User Manual	PDF	30
ICAT	ICAT Modules and Checklists: Complete file	Word	248
			582

ANNEX 8: INFECTION CONTROL CD-ROM: TABLE OF CONTENTS

Infection Control CD-ROM Table of Contents

00_Introduction Folder

- Introduction to the Infection Control CD-ROM (PDF)

01_Assessment Tools Folder

- ICAT Manual folder
 - Assessment Tool Manual (PDF)
- ICAT Modules and Checklists folder
 - 21 modules and 5 checklists (word document and PDF-files)

02_Implementation Folder

- 00 Sample schedule for 3 day ICAT workshop (word document)
- 00 Training workshop introduction (PowerPoint)
- 01 AMR overview and containment (PowerPoint)
- 01 Overview of standardized approach (PowerPoint)
- 02 Decision-making tools (PowerPoint)
- 02 Exercise on applying QI principles and tools_I (PDF)
- 02 Exercise on applying QI principles and tools_II (PDF)
- 02 Notes on applying QI principles and tools_I (PDF)
- 02 Notes on applying QI principles and tools_II (PDF)
- 02 Preventing transmission of nosocomial pathogens (PowerPoint)
- 02 Principles and methods of QI (PowerPoint)
- 02 QI homework (PowerPoint)
- 02 Template for applying QI principles and tools (word document)
- 02 Template for ICQI plan (word document)
- 03 Conducting an ICAT survey (PowerPoint)
- 03 Hospital IC guidelines: a standardized approach (PowerPoint)
- 03 Template for collecting data on hospital characteristics (word document)
- 04 Template for reporting ICAT survey results (word document)
- 05 Guidelines for implementing an ICQI plan (word document)
- 05 ICAT workshop evaluation (word document)
- 05 ICAT workshop session evaluation (word document)
- 05 Introduction to the infection control CD-ROM (PowerPoint)
- 05 Template for ICQI report (word document)
- Review workshop detailed (PowerPoint)
- Review workshop introduction (PowerPoint)

03_Resources Folder

Additional Resources folder
IC Resources folder
QI Resources folder

DRAFT

ANNEX 9: ICQI PLAN-RFM HOSPITAL

RFM Hospital

Date: 31, Jan, 2007

Proper Waste Management Proposal

Back ground

Infectious disease is a leading cause of morbidity and mortality in the third world. The problem is increasing from time to time. Because of the existing facts, nowadays emphasis is being given to the infection prevention and control programmers.

The problem of infection is compounded by the crop up of antimicrobial resistant organisms and emergence of new infectious agents. Therefore the infection prevention and control is a big challenge for the world.

Swaziland, in particular RFM hospital is facing the same problem as it is a part of the third world.

The ICC has done preliminary assessment and found the major perceived infection prevention and control problems in RFM hospital. The top five are listed below according to the magnitude of the problem:

- Waste Management /Disposal.
- Isolation and Precaution.
- Hand Hygiene.
- Environmental Sanitation.
- Microbiology Laboratory and Surveillance.

ICC tries to address the waste management in RFM hospital as the perceived priority problem leading to increased Hospital Acquired Infection.

By the same token the hospital has the duty and obligation to make certain that proper identification and disposal of potentially infectious waste is essential to prevent infection and injury to the patients, hospital staffs and the community at large.

The objective of this proposal is to ensure clean and safe environment for the patients and hospital staffs.

Methodology:

To achieve the objective, the committee will start by debriefing the hospital management about the workshop and the assessment findings.

Then committee will do a base line assessment survey to find out:

- Percentage of people who are aware of the waste disposal process. This will be carried out within a month timeframe.

Explore if there is any guidelines on waste disposal. Will be accomplished within a week.

Look in to the situation as to how Manzini city Council can help us to dispose the waste materials generated in the hospital. May be settled in two weeks time.

Following the preliminary assessment survey the ICC will further plan to take the following intervention:

The ICC will explore national and international waste management guide lines and come up with the one which fits to our circumstances. The ICC will develop, communicate and implement the guide line within two months timeframe. The expected out come is fifty percent improvement in waste disposal process in six month time.

In-service education and training will be initiated for the stakeholders within a month time frame. The expected out come will be sixty percent of the hospital staff will get training in six months time.

Communication with Manzini City Council on how to help us in taking over the waste disposals in two weeks timeframe. The expected out come is 100 percent compliance to take over the waste disposal process in six months timeframe.

Indicators

The variables that we measure will be:

- Percentage of trained personnel on waste management in RFM hospital.
- Availability of waste management guideline.
- Availability of educational material on waste management.
- ICAT score on waste management.
- Compliance rate of Manzini City Council in collecting the waste disposal.

The measurement of the indicators will be by counting people in case of the trained man power and other activities will be by using check lists.

The measurement will be done by members of the ICC.

The ICC expects clean and safe environment to be achieved in 50 percent in six months timeframe.

We are grateful to the RFM hospital administrative council for the inspiration to establish ICC and arrange for the members to participate in this important eye opening workshop.

We are optimistic that the administrative council will continue to give us full support in implementing the plan of action.

ANNEX 10: ICQI PLAN-SITHOBELA HEALTH CENTER

SITHOBELA RURAL HEALTH CENTRE PROPOSAL INFECTION CONTROL

BACKGROUND INFORMATION

Sithobela Rural Health Centre is a Government Health facility situated in Lubombo Region. It serves a rural population of about 50000. The facility provides, promotive, preventive and curative services to the surrounding community average outpatient consultation is about 100 to 120 patients per day. Bed capacity is 35. Total strength (medical paramedical and support staff) is 50. In addition to the clinical services being provided the facility acts as a co-ordinating centre for some community based programmes such as:

1. HIV/AIDS prevention and care activities including VCT.
2. TB control activities
3. Home based care activities
4. Malaria control activities

It also stands as a referral centre for about 9 other Government clinics in the Southern part of Lubombo region.

INTRODUCTION

As far as infection control is concerned the facility has recently realised that poor hand hygiene practices has been identified as a critical area for improvement. None availability of clear water, detergents, appropriate hand dryers and poor knowledge of hand hygiene practices amongst the staff are some of the contributing factors to poor hand hygiene practices in the facility.

SPECIFIC GOAL FOR IMPROVEMENT

Reduce to the barest minimum infections related to poor hand hygiene practices.

METHODOLOGIES

Proposed Intervention

- ❖ Constitution of a facility based infection control committee charged with the responsibility of developing and infection control strategy plan in line with the national strategic plan.
- ❖ Involvement / collaboration with the water board authority.
- ❖ Create awareness among staff on the need to improve hand hygiene practices and emphasize the need for their involvement and cooperation.
- ❖ Develop I.E.C training material / posters.
- ❖ Training and orienting staff on hand hygiene practices.
- ❖ Ensure availability of the necessary requirements for improving hand hygiene practices such as:
 - water
 - storage tanks / improvise mobile tanks
 - alcohol gel / detergents
 - appropriate hand dryers

Development of an Infection Control Assessment Tool (checklist)

DESCRIPTION OF PLANNED ACTIVITIES FOR PROPOSED INTERVENTION / TIME FRAME.

- ❖ Constitution of a facility based infection control committee in (two weeks) 14 days
- ❖ Involving and collaborating with water board authority in 7 days
- ❖ Creating awareness among staff on the need to improve hand hygiene practices in one day.
- ❖ Developing IEC and training material in 7 days.
- ❖ Training and orienting staff on hand hygiene practices in 14 days.
- ❖ Ensure availability of the necessary requirements for improving hand hygiene practices such as improvised mobile tanks or alcohol gel before implementation in 3 months.
- ❖ Development of (ICAT) Infection Control Assessment Tool and check baseline score before implementation in 3 days.

INDICATORS

- ❖ Percentage / number of staff or health personal trained on hand hygiene practises, using attendants list after a month by a focal person / training officer.
- ❖ Availability of guidelines and policies on hand hygiene practices.
- ❖ Availability of IEC and training material.
- ❖ Availability of detergents, appropriate hand dryers and mobile tanks.
- ❖ Checking on availability of running water daily using a checklist by a total person expected outcome is running water every day.
- ❖ Availability of a developed and functional (I.C.A.T) Infection Control Assessment Tool(e.g. checklist).
- ❖ Checking on improvement in (I.C.A.T) Infection Control Assessment Tool score on hand hygiene practices before intervention then after implementation by a focal person, expected outcome increased (I.C.A.T) Infection Control Assessment Tool score every month.
- ❖ Checking on proportion / number of managers involved by a focal person after a month, expected outcome is % of managers involved basing on baseline number before implementation.

- Checking Improvement using Infection Control Assessment tool score before intervention and after implementation.
- This to be assessed by the focal person. Expected Outcome would be an increased I.C.A.T Score done on monthly basis.

ANNEX 11: ICQI PLAN-DVOKOLWAKO HEALTH CENTER

INFECTION CONTROL QUALITY IMPROVEMENT PROPOSAL DVOKOLWAKO HEALTH CENTER

Introduction

The quality of care provided in health care facilities is facing problems with the emergence of nosocomial infections. According to the WHO guidelines infectious agents frequently contaminate the hands of clinicians and other health care personnel and can easily be transmitted to others through contact. Therefore good hand hygiene practices are one of the most important and simplest methods of preventing nosocomial infections (NCIs).

Dvokolwako Health Center (DHC), which was opened in 1989, is situated in the northern part of Hhohho Region-between Mliba and Madlangempisi. It lies about 58km from Manzini City and about 61km from the Piggs Peak. It is a 33-bedded facility with a catchment population of 31,000. It provides preventative, promotive, curative, rehabilitative, dental and maternity services. It is a referral point for three minor clinics in the catchment area.

In DHC, poor hand hygiene practices seem to be one of the major problems leading to NCIs. According to our baseline assessment of hand hygiene practices using the infection control assessment tool (ICAT), the institution (DHC) scored 33%, indicating a need for improvement. Most of the problems found were associated with lack of awareness on the importance of hand hygiene practices amongst staff members and with lack of recommended equipment and supplies. Adherence to recommended hand hygiene practices can contribute to reduce the transmission of NCIs, thereby improving the quality of care for patients at DHC. However, this requires the availability of proper equipment and materials. It is therefore important to create awareness about hand hygiene among staff members, and to provide regular and continuous supply of the equipment and materials recommended for hand hygiene.

Methods

Our planned activities will include—

- Debrief all staff members on the findings of the baseline ICAT assessment within 1-2 weeks
- Form a multidisciplinary infection control quality improvement (ICQI) team to strengthen and better coordinate infection control activities in the facility.
- Implementation of policies and guidelines on hand hygiene practices within 2-6 weeks
- Conducting on-going in-service training on hand hygiene for health care providers within 8 weeks

Results

Our indicators for follow-up will be—

- ICAT score determined in quarterly assessments done by the ICQI team
- Availability of marker hand hygiene materials measured monthly

ANNEX 12: ICQI PLAN-MBABANE GOVERNMENT HOSPITAL

MBABANE GOVERNMENT HOSPITAL INFECTION PREVENTION AND CONTROL PROPOSAL- MARCH 2007.

BACKGROUND INFORMATION:

Mbabane Government Hospital is the largest and oldest health facility in the country. It is situated in the Hhohho region and is the only national referral hospital in the country. It has bed occupancy of 500 including the I.C.U. Services provided are: preventive, promotive, curative and rehabilitative. It has established a fully functional V.C.T. centre which provides counseling ,testing and anti-retroviral therapy.

INTRODUCTION:

Infection prevention and control is one of the most vital programmes in the health sector which should be fully functional with full support from both the hospital management and the ministry. This activity should be in place in all health facilities so as to reduce the risks of acquiring and transmitting infections amongst patients, hospital staff, lodgers, visitors etc to the institution.

However, it has been observed that poor hand hygiene practices are contributing immensely to some of the nosocomial infections. Nevertheless, area for improvement has been identified. Lack of proper hand washing sinks with elbow taps, alcohol based antiseptics, lack of proper hand dryers, poor knowledge on hand hygiene practices amongst all health staff are some of the contributing factors to poor hand hygiene

SPECIFIC GOAL FOR IMPROVEMENT:

To reduce risk of infection through proper hand hygiene.

PROPOSED INTERVENTION:

1. Involvement of management to support the programme.
2. Formulation of committed and responsible I.P.C. committee.
3. Conducting of awareness campaign on proper hand hygiene amongst staff members, patients, lodgers and visitors and the importance of their involvement in the exercise.
4. Installation of posters in all strategic places printed in both languages(English and Siswati) for everyone to read and understand.
5. Placement of the written 3 steps on hand hygiene above every sink within the institution even in the public toilets

6. Training all staff through in-service education sessions.
7. Conducting health talks in all departments with patients
8. Convening monthly meetings for feedback , evaluation and way forward planning.
9. Availability of I.E.C. material .
10. Inclusion of I.P.C. programme in orientation manual for all new employees.
11. Ensure adequate supply of all required material in proper hand hygiene.
12. Development of Policies and Guidelines on I.P.C.

OBSTACLES:

1. Lack of cooperation and commitment from staff.
2. Resource constraints.
3. Absence of policies.

POSSIBLE SOLUTIONS:

- Embarking on awareness campaign about the exercise.
- Motivation through highlighting on benefit of proper hand hygiene.
- To try working using available resources until procurement of the rest of the required resources.
- Collaboration with management for funding and support.
- Submission of action plan.

PROPOSED INTERVENTION AND TIME FRAME:

1. To develop policies and guidelines – by the end of June, 2007
2. To conduct awareness campaign on hand hygiene for all staff patients and lodgers by the end of June 2007.
3. ICAT development and check baseline score.
4. Procurement of necessary material by the end of June.

INDICATORS:

1. Percentage of people trained on hand hygiene using training attendants list/records after 3 months by the I.P.C. team/focal person and management.
2. Availability of policies and guidelines on hand hygiene by the I.P.C. committee.
3. Functionality of the policies through checklist on hand hygiene awareness by the end of May, 2007.
4. Availability of alcohol based antiseptics, appropriate hand dryers.
5. Availability of I.E.C. material.
6. Check on improvement using ICAT score prior intervention and after implementation by the I.P.C team. Expected results would be an increase in ICAT.

CONCLUSION:

1. Involvement of management and their full support in the IPC programme will be of great impact in achieving the desired results.
2. Involvement of relevant stakeholders in the budget system within the facility also highly commendable.
3. Training of all staff and conducting health talks for patients , lodgers and visitors within the facility so that they are knowledgeable and perform the correct hand hygiene practices.
4. Development of policies and guidelines and compliance by all staff members.
5. Convening of periodic meetings by the I.P.C. team and all minutes to be recorded and compiled..
6. Submission of monthly progress reports for evaluation and planning by the team.

ANNEX 13: SWAZILAND ICAT IMPLEMENTATION WORKSHOP-OVERALL EVALUATION

(Number of respondents=20; Scale: 1=strongly agree, 9=strongly disagree)

Content

- The objectives were clearly defined at the beginning of the workshop 8.1
- The defined objectives were achieved by the end of the workshop 8.0
- The amount of material covered during the workshop was appropriate 8.2
- The depth of coverage of material was appropriate 7.8
- I find the knowledge and skills obtained in the workshop very useful to my work 8.3

Facilitators

- The quality of facilitation was excellent 8.3

Overall Satisfaction with the Following:

- The pace of the workshop 7.0
- The style and format of the sessions 7.7
- The instructional materials 8.1
- The length of the workshop 5.1

Level of Difficulty of the Workshop

- Too easy 0
- Just right 19
- Too hard 1
- No response 0

Overall Opinion

- This workshop was valuable and I will recommend it to my colleagues
 - Yes 19
 - No 0
 - No response 1

Additional comments

Usefulness

- Very good workshop (3)
- It was a good workshop, very informative for our infection control committees
- Excellent workshop (2)
- Very important and pertinent workshop
- Need to invite hospital kitchen staff to the workshop
-

Facilitators

- The instructors were very helpful, respectful and energetic. I appreciate their effort. I thank them on behalf of the group.
- Facilitators very knowledgeable, clear and well organized. They really have a strong will to improve the present status quo in our hospitals. Thank you!
- The channeling of the presentation was too much; it should be an open discussion.
- Continue with the mode of presentation and passion for the subject
-
-

Workshop Logistics

- There should be more time next time as the material is too much
- The time was too short
- The workload was too much in a short period of time
- Extend days for workshop
- I recommend that the workshop be more than three days
- Increase the number of days to four
- The time frame for the workshop was too short, and the pace was a little bit too fast
- More days needed
- Extend the time to one week
- The work to be covered did not match the available time
- The daily workload was too much for a day; it needed to be distributed to at least one day more.
- The amount of time allocated to the workshop was limited, compared to the materials covered.
- The number of sessions needed to be covered in more days than three (maybe five)
- Very little time for proposal writing
- Make after lunch activities shorter and easier

- Provide workshop materials to all participants (2)
- Hand out workshop materials on or before the 1st day of the workshop (5)

- Make sure practical aspects are also covered

- Visit other hospitals, rather than using MGH only

Administrative

- Provide hotel accommodation to all participants-enables group work after hours (2)

- Give incentives as motivation for the group
- Give participants incentives (money), because some use public transport to and from the workshop
- Give incentives like certificate of successful completion of workshop, pens, T-shirts with IC messages (2)

ANNEX 14: PICTURES TAKEN DURING THE SWAZILAND ICAT IMPLEMENTATION WORKSHOP



The Deputy Chief Nursing Officer inaugurating the Swaziland workshop



Group work on applying quality improvement tools



Group work on applying quality improvement tools



The National IC Coordinator Introducing the ICAT Field Survey



The Dvokolwako Health Center team developing their ICQI plan



The RFM Hospital team developing their ICQI plan

