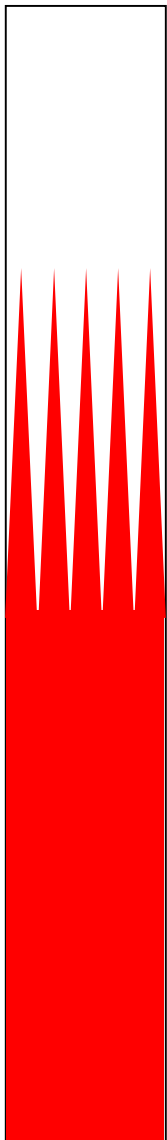




**THE WFHSS WORKSHOP  
MUSCAT, 1-2 NOVEMBER 2006**

**BAHRAIN EXPERIENCE ON  
EDUCATION AND TRAINING  
CSS PERSONNEL**

**JAFFAR MOHAMMED NIMA'H  
KINGDOM OF BAHRAIN – MINISTRY OF HEALTH  
SALMANIYA MEDICAL COMPLEX  
CENTRAL STERILE SERVICES GROUP**



## BAHRAIN



Type: Kingdom

Population: 707,160 (61.9% BRN/ 38.1% N BRN)

Space: 720 sq.kms

No of Islands: 33

The capital: Manama

No of hospitals: (Gov: 9 / Private: 6)

No of Health centres: 23

## SMC

Type: Teaching Hospital

Admissions: 46821 p.a

OPC visits: 199915 p.a

A&E Visits: 280629 p.a

DCU Visits: 7654 p.a

ORs: 18

Surgeries: 20072 p.a

Deliveries : 5854 p.a

## CSS OBJECTIVES

" The objectives of CSS is to improve patient care through a centralized systems that provides decontaminated supplies (CSS Logistics – 6Rs+ R) :

- *the right product,*
- *the right quality,*
- *the right quantity,*
- *the right place,*
- *the right time,*
- *the right cost,*
- + *the right information*

Q. Is this sounds familiar to you ?

Don't be surprised, it is the operating goal of CSS worldwide

# CSS BREIFING

## Staffing

1 x Chief
1 x Admin Technician
5 x Supervisors
47 x Technicians
9 x Medical Services Aids

## Supplies (Day)

128 x OR Trays
87 x M/S Procedure Sets
331 x Supplementary
797 x Soft/Dressing
884 x Utensil/Sundry
320 x Linen ( Total: 2547 )

## Machines

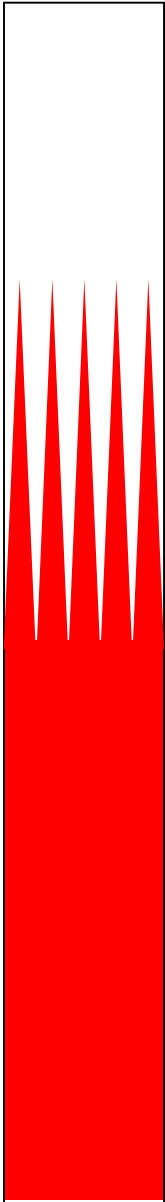
7 x Steam sterilizer
1 x EtO gas sterilizer
1 x Plasma sterilizer
1 x Washer Tunnel
5 x Washer/Disinfector
1 x Ultrasonic cleaning
3 x Drying cabinet

## Sterilization Cycles / D

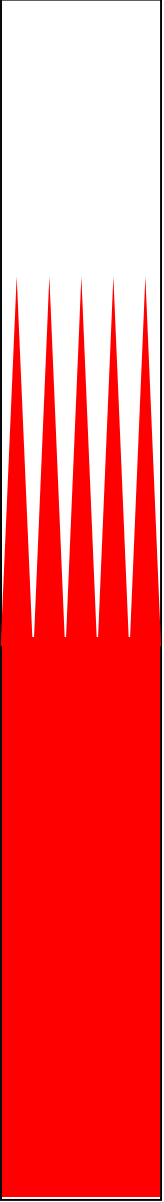
21 x Steam (CSSD)
8 x Plasma (CSSD)
18 x Steam (TSSU)
2 x EtO (TSSU)

## **STUDY KEY AREAS**

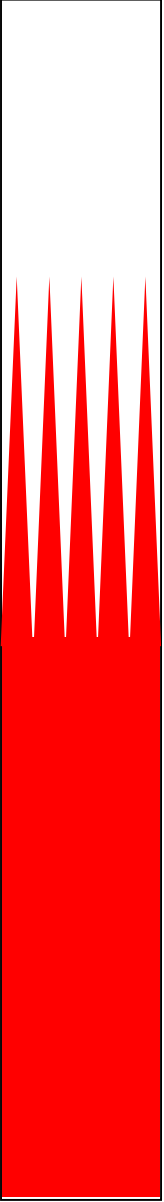
- **Organization** (Staffing)
- **Resources** (5Ms + I)
- **Premises** (Environment)
- **Techniques** (Practices/Methods)

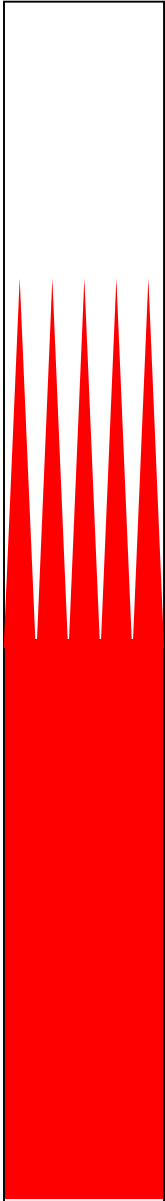


## **TRAINING NECESSITY**

- 
- **Low work practices**
  - **Dramatic increase in the sophistication of surgical procedures/instrumentation**
  - **Advancement in sterilization technologies**
  - **Legal issues for medical errors**
  - **Shortages of qualified skilled staff**
  - **Lack of structural education/training**
  - **Changes in professional organizations' regulations**
  - **More accountable responsibilities**
  - **Overseas training programmes are too costly**
  - **Lot of management pressures**

## **BACKGROUND**

- 
- **Up-to the 1990, there is no existence of organized training programmes**
  - **Med of 1989, MOH development plan was formalized and CSS is part of it**
  - **At the end of 1989, CSS workforce project was developed**
  - **In 1990, the sterilization technology programme (STP) was formed**
  - **In 1991, the STP was started in the College of Health Sciences**
  - **The programme is run alternatively till 2002**
  - **At 2003, STP was suspended**



## **ASSOCIATE DIFFICULTIES**

- **Lack of CSS recognition**
- **Budget cutbacks**
- **Staff shortages (Relief / replacement)**
- **Foreign language**
- **Types and levels of staff**
- **Constant pressures (Do more for less)**
- **Unavailability of educator**
- **No much time offer (in-service site training)**





## **EDUCATIONAL AND TRAINING PROGRAMMES**

- **General departmental induction & orientation**
- **Proportional on-job training**
- **In-Service training**
- **Formal training**
- **Local and overseas training**



## **IN-SERVICE TRAINING**

- **Operation of new machines**
- **Seminars on new introductions**
- **Clinical training attachments**
- **Refreshing short courses**
- **Relevant courses**
- **Circulating relatively articles**



## **STERILIZATION TECHNOLOGY PROGRAMME (STP) GOAL**

- " To upgrade the CSS staff knowledge, skills, and attitudes in all CSS concepts, aspects, and techniques . Also to prepare them for future needs. "**



## **STP OBJECTIVES**

- **Promote and upgrade the CSS within the MOH facilities**
- **Develop skilled manpower to meet the CSS future Staffing needs**
- **Cope with future technological changes**
- **Provide career ladder and acceptance of greater responsibilities**
- **Achieve economic, efficient and effective use of resources**
- **Bring scientific information of new technologies to CSS staff**
- **Hands-on demonstration of technology in the CSS**



## **STP REQUIREMENTS**

- **High secondary certificate (Science)**
- **Entrance Exams (English & Sciences)**
- **Experience in CSS or related Allied Health Services (2 years)**
- **Medically fit**
- **Personal interview**

# STP CURRICULUM

## FIRST SEMESTER

(Prerequisite courses)

- LFS-96 Basic microbiology
- LFS-99 Human biology  
(Anatomy & Physiology)
- ENG-111 English language for  
Allied Health
- Sciences (Physics & Chemistry)
- Clinical Nursing
- Occupational Health & Safety
- Fire & Safety

## SECOND SEMESTER

(Professional technology)

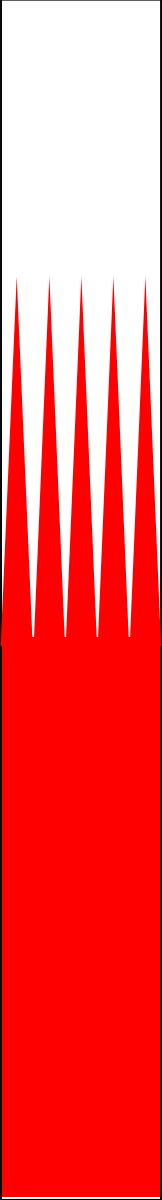
- STP-201 Sterilization  
Techniques
- STP-202 Sterilization  
Management
- STP-240 Practicum



## **MODULES DESIGN**

- **Instructional Goal**  
( The aim of the module )
- **Objectives**  
( Based on which questions for assignments, quizzes tests, and exams are prepared)
- **Assignments**  
( Students are expected to answer these questions as they appear in the module after each session )

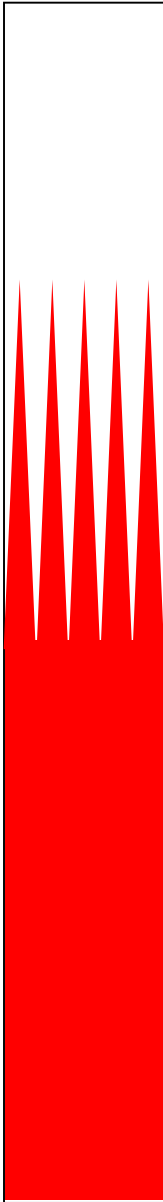
# EXAMINATION SYSTEM

- 
- **Quizzes** ( Questions given during each module contents )
  - **Post Tests** ( Taken after completion each course module )
  - **Theoretical Final Exam** ( Comprehensive exam that includes all materials taught in each course modules )
  - **Practical Presentations** ( Taken when finishing of all attachments )
  - **Exams Appointments**  
( Depend on the scheduled circular)
  - **Types of Questions** ( Multiple choices, fill blanks, true/False, listing & naming, matching, and short answers )



## STP GRADUATION

Year	Participations			Pass
	BRN	Non-BRN	Total	
1991	2	4	6	6
1993	6	6	12	11
1995	6	-	6	4
1997	9	-	9	8
1999	9	-	9	9
2002	9	-	9	9





## **OUTCOMES**

- **Upgrade staff knowledge, skills, and attitudes in CSS and improve their performance**
- **More recognition of CSS profession**
- **Raise the bar of work quality**
- **Improve work productivity**
- **Bahrainization of employment in CSS**
- **Promote staffs' satisfaction**
- **Promote users' satisfaction**
- **Provide a framework for staff career ladder development**



## **ACHIEVEMENT IN CSS ORGANISATION**

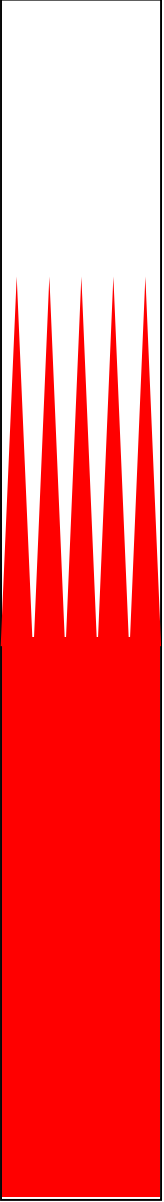
- **Reorganizing of CSS chart**
- **Establishing department teamwork**
- **Developing work policies and procedures**
- **Upgrading staff levels/grades**
- **Repositioning supervisory levels**
- **Establishing CQI programme**
- **Presenting in different ministerial & hospital committees**
- **Providing different training programmes**



## **ACHIEVEMENT IN PREMISES**

- **Renovating CSSD & TSSU**
- **Upgrading ventilation and air-condition systems**
- **Developing OH&S at work & maintaining control measures**
- **Providing emergency electrical power system**

# **ACHIEVEMENT IN RESOURCES**

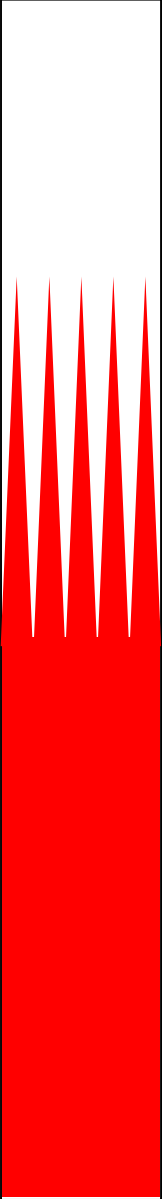
- 
- **Establishing STP**
  - **Replacing life-cycle ended machineries**
  - **Introducing new sterilization technologies**
  - **Standardizing instrument trays/sets**
  - **Hand-on CSS supplies & equipment**



## **ACHIEVEMENT IN PRACTICES & TECHNIQUES**

- **Developing sterilization lot control system**
- **Developing sterilizers' monitoring and testing systems**
- **Establishing "Quality Auditing"**  
(Zero-defects - Proactive & Reactive Audits)
- **Establishing product recall systems**

## **FUTURE CSS-CQI SYSTEM**



**" In 10 years time our methods of decontamination may will be very different from those which exist at present. Until they are, we feel that all hospitals who have already done so should undertake a systematic rechecking of all the existing methods and procedures of decontamination in their facilities."**

**( Nuffield Report – 1958 )**

**" Employment of CSS staff is expected to grow faster than the average for all occupations through the years 2015 as ;**

- the volume of surgery increases.**
- the number of surgical procedures is expected to rise as the population grows and ages.**
- technological advances, such as fiber-optics, laser technology, robotics and interventional radiology will also introduce new surgical procedures and sophisticated equipment . "**



## **ONGOING DEVELOPMENT**

- **Optimize human resource management**
- **Mentor, educate, develop, and evaluate CSS staffs' competencies**
- **Ensure work compliance with recommended standards and policies**
- **Review, revise, and evaluate CSS policies and procedures regularly**
- **Ensure the quality of products delivery and continue quality auditing system**
- **Update CSS supplies**





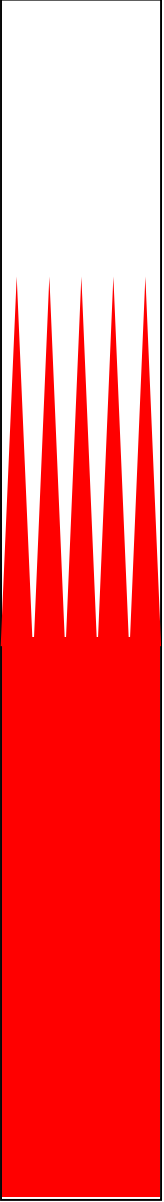
## **PROJECTS UNDER STUDY**

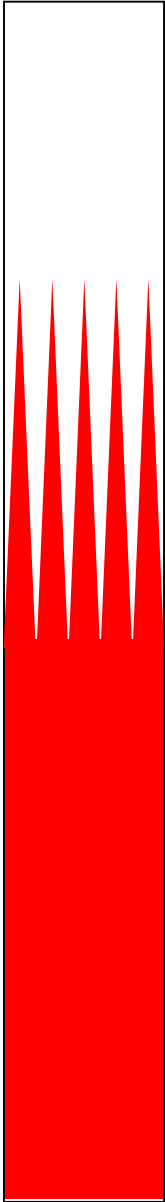
- **Upgrading the STP level to a Diploma**
- **Staff recertification**
- **Computerization of the CSS systems**
- **Expanding CS services**  
(To includes the whole MOH facilities)
- **Uniformity of CSS facilities, standards and policies within MOH**
- **Work for CSS accreditation (ISO)**

## **FUTURE NEEDS**

- 
- **Establishing/forming an association for either GCCs or Middle-east countries ;  
“ The Arab Sterile Services Association“**
    - **Improvement of training and development of CSS personnel**
    - **Legislate mandatory certification**
    - **CSS personnel recertification**
    - **CSS services accreditation**
    - **Obtaining fellowship**
  - **Establishing an education & training centre for CSS**
  - **Participation in professional organizations**
  - **Sponsorships for conferences, seminars, and workshops**

## **CONCLUSION**

- 
- **CSS must be well-recognized**
  - **Training of CSS personnel is critical, necessary and should be mandatory**
  - **CSS personnel should be on on-going training, certification, and recertification**
  - **Higher authorities are committed to educate and train CSS personnel**
  - **Training programmes and certification should be standardized worldwide**



**" Where  
there's a will  
there's a way "**



**Thank you  
for your attentiveness  
and  
good luck**