ZUCKERBERG
SAN FRANCISCO GENERAL
Hospital and Trauma Center

ENVIRONMENT OF CARE

ANNUAL REPORT

FY 2015-2016

Approvals

Environment of Care Committee: August 31, 2016
Nursing Executive Committee: September 6, 2016
Medical Executive Committee: September 15, 2016
Hospital Quality Council: September 20, 2016
Hospital Executive Staff Committee: September 6, 2016
Joint Conference Committee (Scheduled October 25, 2016)
San Francisco Health Commission (Scheduled November 15, 2016)

SF HEALTH NETWORK
SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH

INTRODUCTION

The goal of the Environment of Care (EOC) Program is to provide a safe, functional and effective environment for patients, staff and visitors. The EOC Program encompasses the following seven programs/areas:

- Safety Management (Ed Ochi, Safety Officer)
- Security Management (Basil Price, Director of Security, Department of Public Health)
- Hazardous Materials and Waste Management (Mike Harris, Senior Industrial Hygienist)
- Emergency Management (Lann Wilder, Director of Emergency Management)
- Medical Equipment Management (Jose Sanchez, Manager, Biomedical Engineering)
- Life Safety Management (Greg Chase, Facilities Services Director)
- Utilities Management (Greg Chase, Facilities Services Director)

The EOC Program is managed by the EOC Committee. The EOC Committee:

- Identifies risks and implements systems that support safe environments
- Works to ensure that hospital staff are trained to identify, report and take action on environmental risks and hazards
- Sets and prioritizes the hospital's EOC goals and performance standards and assesses whether they are being met
- Works to ensure the hospital is compliant with the EOC-related requirements of all applicable regulatory bodies

Membership of the EOC Committee is comprised of:

- Program managers for each of the seven EOC Management Programs (as listed above)
- Representatives from Nursing (Andrea Chon), Infection Control (Elaine Dekker), Clinical Laboratory (Barbara Haller, M.D.), Pharmacy (Julie Russell), Environmental Services (Francisco Saenz), Department of Education (Kala Garner), and Quality Management (Tom Holton, Patient Safety and Cheryl Kalson, Regulatory Affairs)

EOC projects and initiatives include opportunities for improvement identified during ongoing hazard surveillance, risk assessment and other EOC activities to promote a culture of safety awareness.

As of January 2016, Ed Ochi and Greg Chase serve as Co-Chairs of the Environment of Care Committee

The EOC Annual Report highlights the activities of the EOC Program in Fiscal Year 2015-2016. For each of the major areas, it is organized as follows:

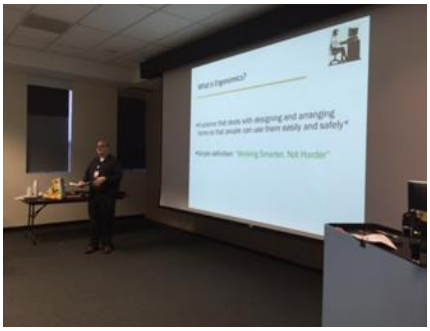
- Scope
- Accomplishments
- Program Objectives
- Performance Metrics
- Goals and Opportunities for Improvement

SAFETY MANAGEMENT

SCOPE

Safety Management is designed to identify and address potential safety risks in the ZSFG environment. The Environmental Health and Safety (EH&S) Department provides consultation, resources and training to create, maintain and improve the hospital's working environment in order to reduce or eliminate staff injuries and illnesses, and provide a safe environment for staff, patients, and visitors. The Safety Management Program's scope encompasses all departments and areas of the ZSFG campus, except for UCSF research activities, which fall under the purview of the UCSF Environmental Health & Safety program.

ACCOMPLISHMENTS



- Hired:
  - A Safety Officer,
  - A new Senior Industrial Hygienist, and
  - An Ergonomics Program Coordinator.
- Reorganized the Environmental Health & Safety Department, placing staff under the direction of the Safety Officer, and moving EH&S from Facilities to Quality Management, to allow for greater synergies with Regulatory Affairs, Risk Management, and other Quality Management activities.
- Using the A3 management process, initiated a systematic evaluation of employee injuries and illnesses at ZSFG using industry-standard metrics. Use of the A3 process has identified what is believed to be some of the root causes of employee injuries at ZSFG and establishing direction for EH&S to further the ZSFG True North Metric of Safety for staff, patients, and visitors in FY 2016-2017.
- Completed a total of 152 computer (computer) workstation evaluations, completely eliminating the backlog of requests. Established a workstation evaluation request process and streamlined the documentation of evaluations. With the support of Hospital Administration established a budget and funded workstation retrofits with standardized equipment. Started preparing and distributing monthly "Ergonomic Tips" bulletins; bulletins are extremely popular with staff and managers with the February bulletin being incorporated into the DPH "The Bridge" newsletter.
- Worked with Managers, Departmental "Superusers", Rebuild, Infection Control, and Environmental Services in preparation for the opening and occupancy of Building 25.
- Working in close coordination with Human Resources, Labor Relations, and Employee Health Services, revised the ZSFG Respiratory Protection Program to address a previously identified weakness with regards to respirator users with facial hair.

PROGRAM OBJECTIVES FOR FY 2015-2016

Objectives	Met / Not Met	Comments and Action Plans
Hire and orient a new Safety Officer.	**Met**	Hospital's Senior Industrial Hygienist, who also has credentials and past experience as a Safety Officer, agreed to transfer to the Safety Officer position and oversee the transition of the Department from Facilities to Quality Management. Safety Officer successfully recruited and hired a replacement Senior Industrial Hygienist for the Department, which with the new Ergonomics Program Coordinator significantly strengthened the Department.
Purchase and implement an electronic tracking system for Environment of Care Rounds findings and related issues.	**Partially Met**	Transition to Building 25 and reorganization of Environment of Care Committee now co-chaired by the Director of Facilities and the Safety Officer delayed the identification and implementation of a tracking system. During FY 2016 new Committee Co-Chairs to work with the Environment of Care Committee to determine whether use of a dedicated-purpose electronic tracking system is a cost effective solution.
Implement a comprehensive ergonomics program at ZSFG.	**Met**	Ergonomics Program Coordinator hired to oversee office (workstation) program. Coordinator has developed a streamlined standardized process for requesting and performing evaluations and has completely eliminated the backlog for workstation evaluation requests. Cost estimate and projection prepared and presented to Hospital Administration to fund retrofits to outdated, poorly designed, and broken computer workstations; Administration has approved retrofit funding for FY 2015-2016 & 2016-2017. Coordinator actively participating in Hospital's Safe Patient Handling Committee and is starting to work with individual units on materials handling activities which increase employee's risk of both acute and chronic musculoskeletal injuries.

Update safety training, reference materials, and monitoring tools to integrate Building 25.	**Met**	Ergonomics Program Coordinator developed first-of-kind quick reference guides for properly configuring new computer workstations in Building 25. Interim Emergency & Safety Response Resources ("Rainbow Chart") prepared and issued, with new sitewide Rainbow Chart targeted for issue in FY2016-2017. (Material) Safety Data Sheet (SDS) management for B25 converted to "all electronic" format, see Hazardous Materials/Hazardous Waste Chapter for additional details.
Partner with Security to continue to improve staff awareness and training to recognize potentially violent situations and more effectively use de-escalation techniques to prevent injuries resulting from aggressive patient and visitor behavior.	**Partially Met**	Co-Chaired Violence Prevention Committee with DPH Security and Nursing, focusing on deployment of the Crisis Prevention Institute's (CPI) Nonviolent Crisis Intervention Module. See Safety and Security Chapter for additional details. With move to Building 25 completed anticipate more time to focus on staff awareness and training in FY2016-2017.
Continue efforts to further reduce outpatient, visitor and staff falls resulting from environmental causes.	**Partially Met**	Efforts to improve deployment of wet floor signs by EVS staff continued during Fiscal Year. Reorganization of Environmental Health & Safety into Quality Management better allows EH&S to collaborate with Risk Management on patient and visitor falls in FY2016-2017 while improving Staff Safety A3 allows for better analysis of staff falls for targeted prevention activities.
An annual evaluation of the scope, objectives, key performance indicators, and the effectiveness of the Safety Management plan and programs is conducted.	**Met**	Completed via this document.

The Environment of Care Committee has evaluated these objectives for the Safety Management Program and determined that they have either been met or that adequate corrections or modifications to program elements are in place.

PERFORMANCE METRICS

The following metrics provide the Environment of Care Committee with information needed to evaluate performance of the Safety Management Program activities and to identify further opportunities for improvement:

Objectives & Performance Indicators	Results
AIM: Complete updates of Environment of Care training modules, policies and procedures, Rainbow Charts, Rounds schedules and staff questioning focus areas to integrate Building 25 by 4/30/16.	**Partially Met:** 100% of training modules, policies and procedures were updated to address Building 25. Interim Rainbow Chart prepared and issued; full campus-wide update to be issued in FY 2016-2017. Because of delay of Building 25 move-in until May 2016, rounds and staff questioning did not meet the 4/30/16 deadline and is still in progress.
AIM: Improve Staff knowledge of their key roles and responsibilities relative to the Environment of Care by 10% by 6/30/16.	**Not Met:** Delay in move to Building 25, combined with staff still getting accustomed to new work flows in the building at the end of the FY resulted in staff knowledge not improving. Remedial education, based on initial EOC rounds and observations being planned for FY2016-2017.
AIM: Provide departmental ergonomics awareness training and workstation evaluations for 90% of departments implementing eClinicalWorks or with high levels of data entry tasks by 6/30/16.	**Met:** Backlog of workstation evaluation requests retired, with individual users receiving training as part of workstation evaluations, and departmental training being conducted in locations where systematic issues are identified. Ergonomic "Quick Guides" prepared and distributed for new workstation equipment in Building 25, and monthly Ergonomics Bulletins being distributed to all staff via Management forum emailings.
AIM: Reduce the number of staff injuries and total lost work days due to repetitive motion injuries by 10% by 6/30/16. **AIM: Reduce the number of staff injuries and total lost work days due to patient handling injuries by 10% by 6/30/16.** **AIM: To prevent violence and decrease injuries resulting from aggressive behavior & assaults by 10% from prior year results by 6/30/16.** • Minor Injuries - Patients: **Goal < 16** • Major Injuries - Patients: **Goal 0** • Minor Injuries - Staff: **Goal < 28** • Major Injuries - Staff: **Goal 0**	**Standardized Metrics and New Goals Established for FY2016-2017** As part of the "Reducing Staff Injuries" A3 management process it was identified that injuries and illnesses were not being identified in a uniform and reproducible fashion. During FY 2015-2016 standardized measurements, using Cal/OSHA definitions for injuries was implemented. Use of such measurements (a) allows for comparisons to other hospitals, and (b) prepares ZSFG for compliance with forthcoming Cal/OSHA regulations such as the Workplace

AIM: To reduce outpatient, visitor & staff injuries resulting from environmentally caused falls by 10% from prior year results by 6/30/16.	Violence in Healthcare standards which are expected to be finalized in FY 2016-2017.

EFFECTIVENESS

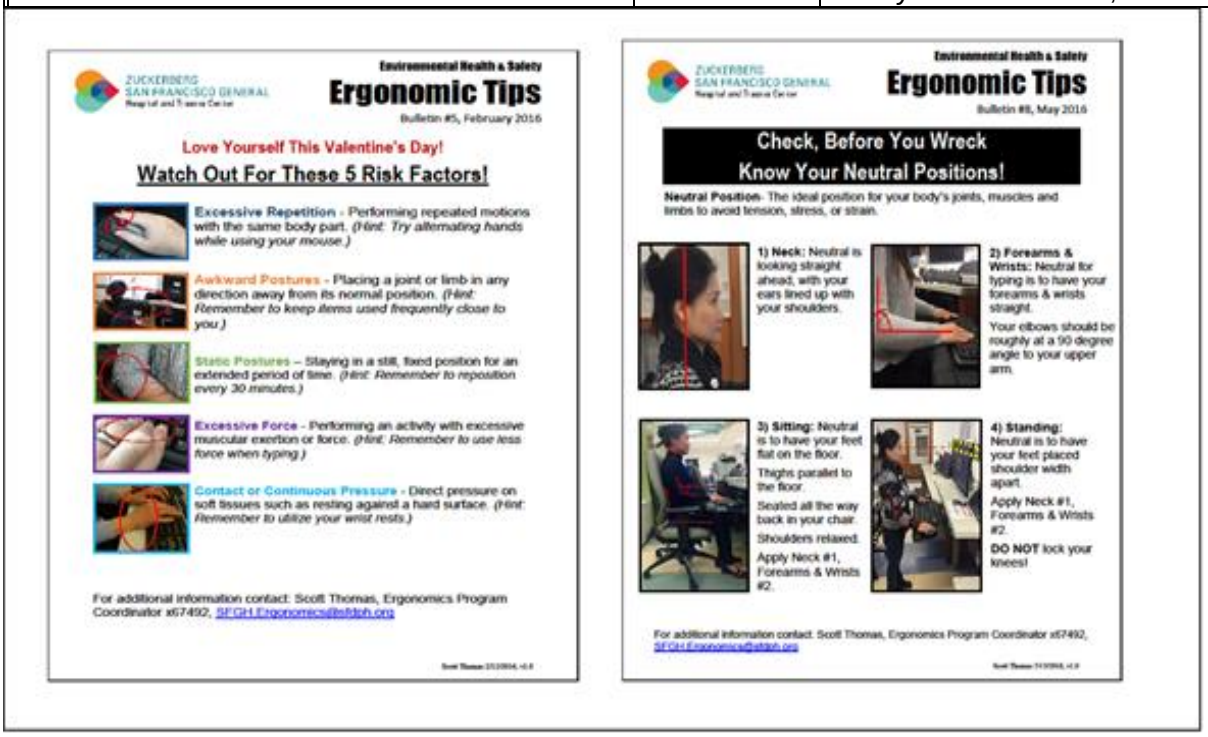
Effectiveness is based on how well the goals are met and how well the scope of the performance metrics fit current organizational needs. Recognizing the significant changes and challenges presented by the opening of Building 25, and the reorganization of Environmental Health and Safety, the Environment of Care Committee has reviewed the Safety Management Program and found it to be effective.

GOALS AND OPPORTUNITIES FOR IMPROVEMENT IN 2015-2016:

- Safety: Reduce the number of staff injuries. See Proposed Performance Metrics for 2016-2017 for additional details.
- Safety: Overhaul the hospitals Injury and Illness Prevention Program with the goal of creating an environment where safety reviews are included in all work activity planning.
- Safety: Partner with Security and Nursing to respond to forthcoming Cal/OSHA regulation addressing violence prevention in healthcare. Draft regulations require the preparation of a workplace violence prevention program, as well as reporting of workplace violence related injuries to Cal/OSHA at the time of the incidents.
- Safety: Systematically assess workflows and processes in Building 25, and update training, reference materials and monitoring tools to match workflows and processes.
- Safety: Update tools used by subject area experts on Environment of Care rounds.
- Financial Stewardship: Prepare tools for unit managers to incorporate the funding of ergonomic equipment into their FY 2017-2018 budgets. Following the model used for task chairs, develop standardized lists of equipment, purchased through a single vendor, to allow for economy of scale in equipment purchases.
- Developing People: Expand the skills and knowledge of the Ergonomics Program Coordinator to address a broader spectrum of injury prevention and safety activities. Complete orientation and handoff of hazardous materials and hazardous waste duties to the new Senior Industrial Hygienist.

The proposed performance metrics for these goals are:

Safety Management Proposed Performance Metrics for 2015-2016	Target	Comments & Action Plan
AIM: By 6/30/17 reduce staff "Cal/OSHA recordable injuries" from the current average of 21 injuries per month, to an average of 18 injuries per month.	**14% reduction.**	Goals and Targets from Reducing Staff Injury include: • The reduction in recordable injuries from 21 to 18 in 1 year. • The reduction in recordable injuries to 15/month in 3 years, and • Bring injury (incidence) rates concurrent with the US Dept of Labor, Bureau of Labor Statistics mean for similar hospitals in 5 years.
AIM: Overhaul hospital's Injury and Illness Program (Environment of Care Policy 15.01) to better embrace the ZSFG True North metric of Staff Safety.	**Complete Revision**	Revision to be completed, reviewed, and approved by the Environment of Care Committee by 06/30/2017.
AIM: Prepare budgeting tool for unit managers to budget ergonomic equipment into their annual budgets.	**Complete Tool in Time for Preparation of FY 2017-2018 Budgets.**	Tool to be reviewed and approved for use by hospital administration.
AIM: Overhaul EOC Rounds Tools Used by Subject Area Experts during EOC Rounds.	**100% Completed**	Tools to be updated by all subject area experts, tested, and placed in use by December 31st, 2016.



Environmental Health & Safety

Ergonomic Tips

Bulletin #5, February 2016

Love Yourself This Valentine's Day!

Watch Out For These 5 Risk Factors!

Excessive Repetition - Performing repeated motions with the same body part. *(Hint: Try alternating hands while using your mouse.)*

Awkward Postures - Placing a joint or limb in any direction away from its normal position. *(Hint: Remember to keep items used frequently close to you.)*

Static Postures – Staying in a still, fixed position for an extended period of time. *(Hint: Remember to reposition every 30 minutes.)*

Excessive Force - Performing an activity with excessive muscular exertion or force. *(Hint: Remember to use less force when typing.)*

Contact or Continuous Pressure - Direct pressure on soft tissues such as resting against a hard surface. *(Hint: Remember to utilize your wrist rests.)*

For additional information contact: Scott Thomas, Ergonomics Program Coordinator x67492, SFGH.Ergonomics@sfdph.org

Environmental Health & Safety

Ergonomic Tips

Bulletin #8, May 2016

Check, Before You Wreck
Know Your Neutral Positions!

Neutral Position- The ideal position for your body's joints, muscles and limbs to avoid tension, stress, or strain.

1) Neck: Neutral is looking straight ahead, with your ears lined up with your shoulders.

2) Forearms & Wrists: Neutral for typing is to have your forearms & wrists straight.

Your elbows should be roughly at a 90 degree angle to your upper arm.

3) Sitting: Neutral is to have your feet flat on the floor.

Thighs parallel to the floor.

Seated all the way back in your chair.

Shoulders relaxed.

Apply Neck #1, Forearms & Wrists #2.

4) Standing: Neutral is to have your feet placed shoulder width apart.

Apply Neck #1, Forearms & Wrists #2.

DO NOT lock your knees!

For additional information contact: Scott Thomas, Ergonomics Program Coordinator x67492, SFGH.Ergonomics@sfdph.org

SECURITY MANAGEMENT PLAN ASSESSMENT

References:
Joint Commission Accreditation Manual for Hospitals, Environment of Care Standards, EC.02.01.01
California Code of Regulations, Title 8, Sections 8 CCR 3203 *et seq.*
California Code of Regulations, Title 22, Sections 22 CCR 70738
Health & Safety Code, Section 1257.1, 1257.8

I. SCOPE:

The scope of the Security Management Plan is to assure the ongoing provision of a safe, accessible, and secure environment for staff, patients, and visitors at Zuckerberg San Francisco General Hospital and Trauma Center, and the outlying medical office buildings. To that end, it is the overall intent of this plan to establish the framework, organization and processes for the development, implementation, maintenance, and continuous improvement of a comprehensive Security Management Program. This program is designed to provide protection through appropriate staffing, security technology, and physical barriers.

The scope of the Security Management program includes:

- Continuous review of physical conditions, processes, operations, and applicable statistical data to anticipate, discern, assess, and control security risks, and vulnerabilities
- Ensure timely and effective response to security emergencies
- Ensure effective responses to service requests.
- Report and investigate incidents of theft, vehicle accidents, threats, and property damage
- Promote security awareness and education
- Enforce various hospital rules and policies
- Establish and implement critical program elements to include measures to safeguard people, equipment, supplies, medications, and traffic control in and around the hospital and the outlying medical offices.

Each management objective is listed in the table below, and is marked as met or not met. If an objective is not met, the DPH Director of Security will review the objective, and develop a corrective action plan.

II. ACCOMPLISHMENTS:

- Revision and implementation of a Security Management Plan that addresses campus wide security vulnerabilities, and establishes the framework, implements critical program elements to safeguard people, and facility property.

- Developed a Threat of Violence in the Workplace: Prevention and Management program to address threats and aggressive behavior at the earliest stage; define inappropriate and unacceptable workplace behavior; and establish an effective process for responding to, managing, and reporting acts or threats of violence or aggressive behavior.

- The approval of 19 Security Standard Operation Procedures, which describe in detail ZSFG's expectations of the contract security provider (San Francisco Sheriff's Department) in all security related incidents impacting the hospital campus.

- Development of an Employee Security Awareness program that provides security training and education, including monthly security alerts, service rounding, and measuring employee's security awareness knowledge.

- Successful opening of the Building 25 hospital with zero incidents of onsite criminal activity or property lost during the Owner Fit-up Phase.

- Coordinating with Federal, Local, and Facebook Executive Protection Teams, executed the ZSFG Ribbon Cutting, Security Operations Plan with zero incidents.

- Coordinating with Federal, Local, Executive Protection Teams, executed the National Day of Action: Family Sit-In to Disarm Hate with Congresswoman Nancy Pelosi, Security Operations Plan with zero incidents.

- Achieve 100% compliance in all elements of the SFDPH and SFSD MOU. In each of the monthly security provider performance survey (SPS), the San Francisco Sheriff's Department exceeded the overall performance target.

- Exceeded the performance target in effectively preventing/returning "At Risk" patients. During actual Code Green events or quarterly Code Green drills, 100% of "At Risk" patients/decoys were prevented from leaving/returned to the hospital.

- Exceeded the performance target in effectively preventing infant and pediatric abductions. During quarterly Code Red drills, 100% of the decoys were prevented from leaving the hospital.

- During 2015-2016, a total of 400 customers, representing hospital employees, patients, and visitors were surveyed regarding Security Services. Eighty-six percent of the surveys rated their experience with Security, satisfactory.

- Reported serious incident crimes decreased 17% from 2014-2015.
- Use-of-force incidents trended downward by 32% during the second half on 2015-2016.

III. PROGRAM OBJECTIVES:

Objectives	Met / Not Met	Comments and Action Plans
An annual review of the physical conditions, processes, operations, and applicable statistical data is conducted to anticipate, discern, assess, and control security risks, and vulnerabilities. A security management plan is developed, and monitored, quarterly to address security vulnerabilities, and minimize risk.	Met	A 2015-2016 security risk assessments was completed, and the security risks, vulnerabilities, and sensitive areas were identified and assessed through an ongoing facility-wide processes, coordinated by the DPH Director of Security, and hospital leadership. These processes were designed to proactively evaluate facility grounds, periphery, behaviors, statistics, and physical systems.
Ensure timely and effective response to security emergencies, and service request, including the enforcement of hospital rules and policies.	Met	The daily AOD reporting documents, and crime statistic reports support the effectiveness of security response to security emergencies, and service request.
Report and investigate incidents of theft, vehicle accidents, threats, and property damage.	Met	Through quarterly law enforcement (SFSD) reports, and Unusual Occurrence reports, investigations are initiated for all crimes against persons and property.
Promote security awareness and education	Met	Through Environment of Care rounds, employees are provided security awareness training. Other security awareness, and education programs include, Non-violent Crisis Intervention, and Security Alert publications.
Establish and implement critical program elements to include measures to safeguard people, equipment, supplies, medications, and traffic control in and around the hospital and the outlying medical offices.	Met	The Director of Security in partnership with the contract security provider, San Francisco Sheriff's Department, collaboratively establishes, and maintains communication and mutual ownership for outcomes, identification and troubleshooting of emergent safety concerns. In 2015-2016 a Patient and Employee Safety and Security Committee, and a Threat Management Team was developed to prevent and manage all threats, and acts of violence on the hospital campus.

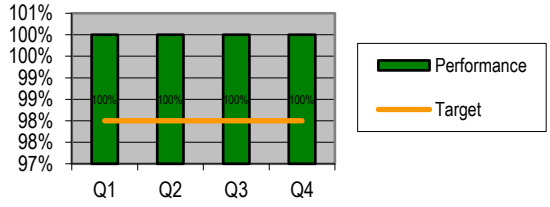
These objectives were reviewed and evaluated. They were found to be effective and will remain unchanged in 2016-2017.

IV. PERFORMANCE:

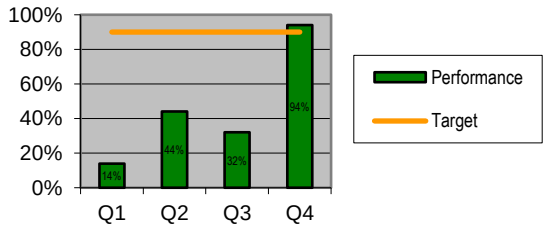
Three performance metrics were selected for San Francisco General Hospital in 2015-2016: Code Green "At Risk" Patient Alert Response Drills, Customer Satisfaction, and Electronic Security System Functionality. The performance measures were as follows:

Code Green, "At Risk" Patient Alert Response Drills	Q1	Q2	Q3	Q4
Performance Metric:				
The hospital will be measured on its ability to prevent/return an "At Risk" patient: **Prevent/Return-rate Threshold –90%** **Prevent/Return-rate Target – 98%** **Prevent/Return-rate Stretch – 100%**	**100%**	**100%**	**100%**	**100%**
The hospital will be measured on its ability to respond to a hospital-wide activation and search. Hospital personnel should respond according to the Code Green Policy. **Response-rate Threshold – 80%** **Response-rate Target – 90%** **Response-rate Stretch – 100%**	**14%**	**44%**	**32%**	**94%**

Code Green Prevent/Rate-return Performance

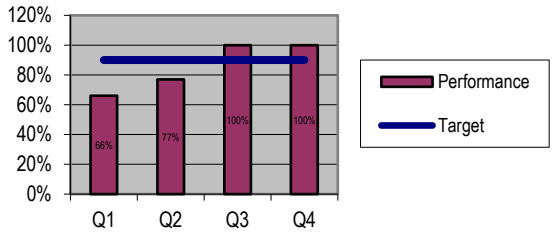


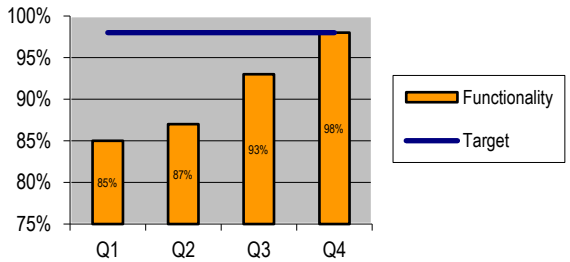
Code Green Facility Response Performance



Prevent/Return Results – Exceeded the target in each quarter, achieving an overall 100% for the year.

Hospital-wide Response Results – Achieved a 94% in the 4th quarter. The overall response rate for the year was 46%.

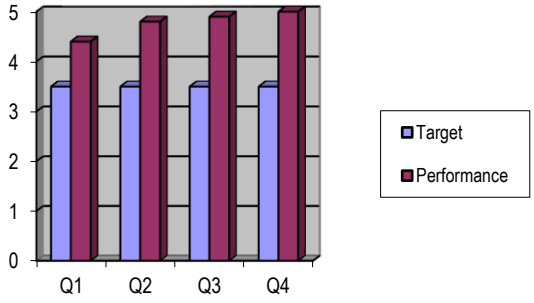
Customer Satisfaction	Q1	Q2	Q3	Q4
Performance Metric: On a monthly basis, a sample size of 100 customers, consisting of patients, visitors, employees, and physicians that had a recent contact with Security, will be surveyed on their experience. The Security Department will be measured on its ability to achieve a rating of Satisfied - Very Satisfied: **Threshold - 80%** **Target - 90%** **Stretch – 98%** Customer Satisfaction Performance  **Customer Satisfaction Results** – Achieved 100% in the 3rd and 4th quarter. The overall satisfaction rate for the year was 86%.	**66%**	**77%**	**100%**	**100%**

Electronic Security System Functionality	Q1	Q2	Q3	Q4
Performance Metric: On a monthly basis the SOC will inspect every element of the electronic security system for functionality. **Target**: 100% Electronic Security will be inspected, and will be 98% functional. Security System Functionality  **Electronic Security System Results** – Achieved 98% in the 4th quarter. The overall functionality of the system for the year was 91%.	**85%**	**87%**	**93%**	**98%**

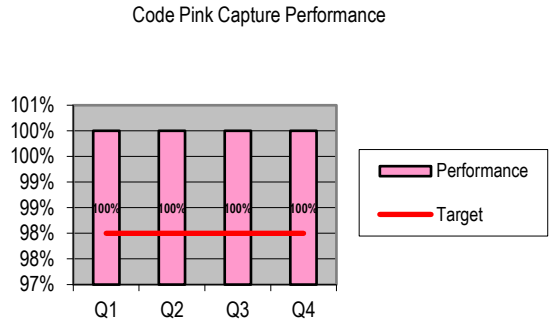
V. EFFECTIVENESS:

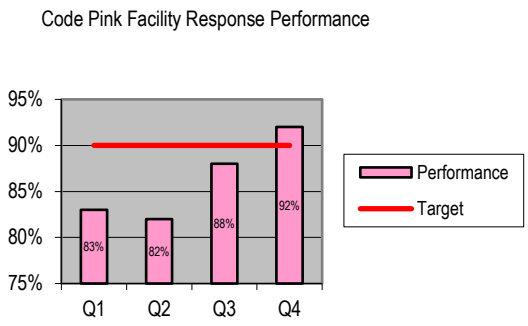
The functional effectiveness of the 2015-2016 Security Management Plan was reviewed and found to be moderately successful, showing progressive improvement, and meeting performance targets by the Quarter-4. In addition to the performance metrics, the Security Management Plan achieve the following significant reporting results:

SIGNFICANT REPORTING:

DPH and SFSD, MOU Performance Metrics	Q1	Q2	Q3	Q4
Performance Metric: A monthly security provider performance survey (SPS). The purpose for the assessment is intended to validate the security provider's compliance with MOU obligations, operational performance, management responsibilities and finance provisions. The provider is expected to maintain scores in the 3-5 range. A score of 1 to 2 indicates that a problem or issue exists that needs to be immediately addressed, and a score of 0 indicates a substantive problem or issue that requires immediate correction or resolution. DPH-SFSD MOU Performance Metrics  Each line item in the MOU was given a value, which ranged from "1 to 5." SFSD was measured on their ability to maintain scores in the 3-5 range. The overall MOU compliance for the year was 4.8.	**4.4**	**4.8**	**4.9**	**5.0**

Infant Abduction Drills (Code Pink)	Q1	Q2	Q3	Q4
Performance Metric: The hospital will be measured on its ability to prevent an abductor from leaving the facility: **Capture-rate Threshold –90%** **Capture-rate Target – 98%** **Capture-rate Stretch – 100%**	**100%**	**100%**	**100%**	**100%**
The facility will be measured on its ability to respond to a Code Pink. Hospital personnel should be posted at the designated areas, as described in the Code Pink Policy. **Response-rate Threshold – 80%** **Response-rate Target – 90%** **Response-rate Stretch – 100%**	**83%**	**82%**	**88%**	**92%**

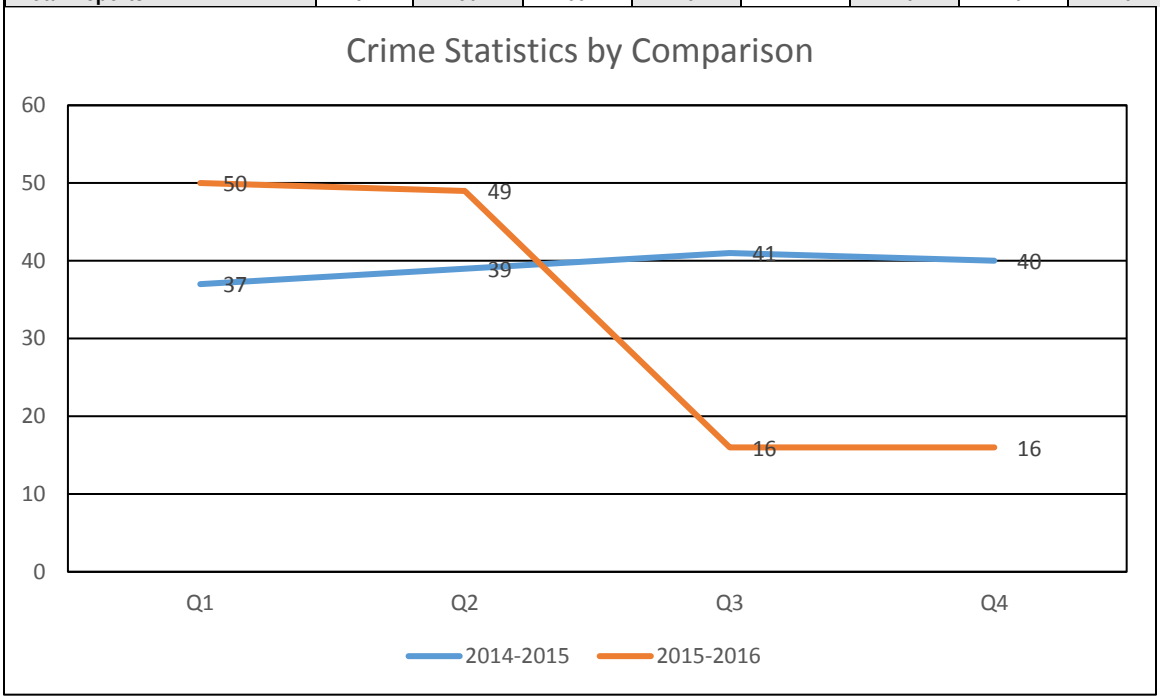




Infant Abduction Drills (Code Pink) – Based on the quarterly drills, the overall abductor capture rate for the year was 100%. The overall facility response rate for the year was 86%. The target for facility response is 90%, which was accomplished in the 4th quarter drill.

Employee Security Awareness	Q1	Q2	Q3	Q4
Performance Metric: During EOC rounds, hospital staff be tested on 10 question regarding security awareness. (Sample size: 300 employees per quarter) **Target**: 90% or higher (Knowledgeable rating) on the total questions answered correctly by the total employees surveyed.  **Employee Security Awareness** - The target for Employee Security Awareness was 90%, which in the 2nd and 4th quarter employees exceeded the target. The overall employee security knowledge for the year was 83%.	**75%**	**91%**	**70%**	**94%**

Serious Incident Reporting Yearly Comparison	Q1 2014-2015	Q1 2015-2016	Q2 2014-2015	Q2 2015-2016	Q3 2014-2015	Q3 2015-2016	Q4 2014-2015	Q4 2015-2016
SFSD - Facility Theft Reports	16	28	15	20	18	5	20	13
SFSD - Burglary Reports	2	2	2	2	2	0	4	1
SFSD - Battery Reports	15	16	17	25	17	10	11	1
SFSD - Sexual Offense Reports	0	1	2	0	2	0	0	0
SFSD – Assault Reports	4	3	3	1	2	0	4	1
SFSD - Robbery Reports	0	0	0	1	0	1	1	0
SFSD - Homicide Reports	0	0	0	0	0	0	0	0
Total Reports	**37**	**50**	**39**	**49**	**41**	**16**	**40**	**16**

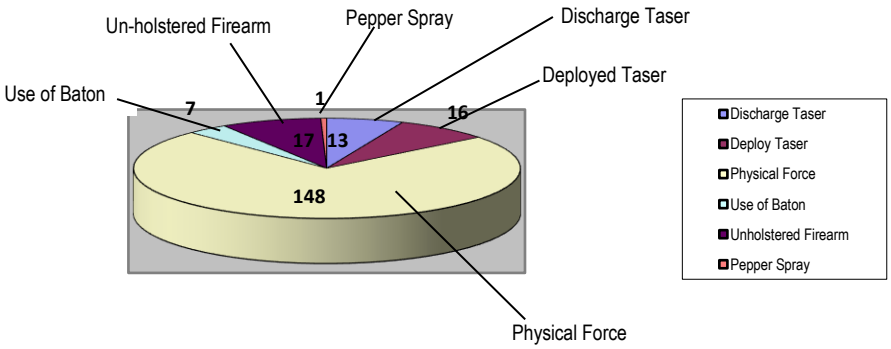


Comparing the 2014-2015 to 2015-2016, serious incidents decreased by 17% (26 incidents). The absence of electronic security systems, including the activation of an existing intruder alarm system, and effective patrols was the driver of facility property thefts, which is the most frequent incident reported.

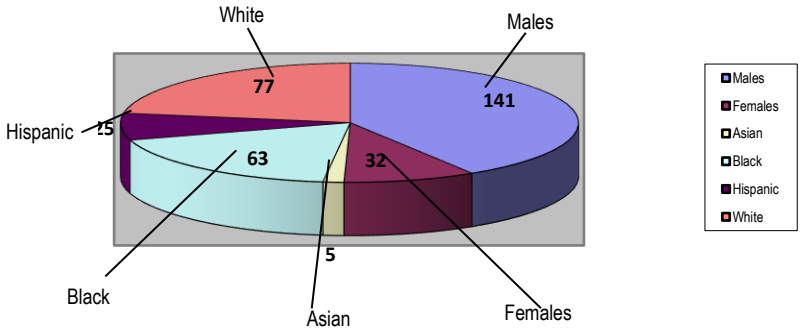
Battery incidents was the second most frequently reported due to combative patients in Patient Emergency Services, and the Emergency Department.

2015-2016, Use of Force Statistics	Q1	Q2	Q3	Q4
Monthly use-of-force data is tracked of all SFSD incidents occurring on ZSFG campus. In 2015-2016, there were 191 incidents involving use-of-force, which is broken down under the following categories: 1. Type of Force 2. Number of incidents 3. Cases 4. Location 5. Demographics	57	57	35	42

Types of Force



Demographics



*

Type of Force	Cases	Demographics	Locations
Physical Force – 148	Patients – 77	Males – 141	Emergency – 38
Un-holstered Firearm - 17	Non Patients – 96	Females – 32	PES – 27
Discharge Taser - 13	Felonies – 16	Asian/Pacific Islander – 5	Psych Wards – 1
Deploy Taser - 16	Misdemeanors – 48	Black – 63	Inpatient Units – 9
Use of Baton – 7	Mental Health Incidents – 5	Hispanic – 25	Campus Buildings – 5
Pepper Spray - 1		White - 77	Public Streets – 18

* *The numbers do not equal by category. There are incidents where more than one type of force was used on an individual at a given location.*

Comparing the 1st and 2nd quarter results with the 3rd and 4th quarter results, there was a decline in use of force incidents by 32%. The significant reporting objectives will remain unchanged in 2016-2017.

HAZARDOUS MATERIALS & WASTE MANAGEMENT

The Hazardous Materials and Waste Management Program is designed to minimize the risk of injury and exposure to hazardous materials through proper selection, use, handling, storage and disposal. The program also works to control the risk of exposures to hazardous components such as asbestos and lead in existing building materials which may be disturbed during construction and renovation activities. The program assures compliance with all applicable local, state, and federal codes and regulations.

SCOPE

The Hazardous Materials and Waste Management Program applies to the entire campus of Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG), with the exception of UCSF research activities. The Hazardous Materials and Waste Program also works to ensure that construction activities do not result in patient, staff, or visitor exposures to potentially hazardous materials or processes.

ACCOMPLISHMENTS

- Collaborated with Materials Management, Infection Control, and patient care subject area experts to screen proposed products and verify that they can be used in a safe fashion within the ZSFG environment. Screened chemicals used in new equipment and processes deployed in Building 25 to identify and specify lowest possible risk materials whenever possible.
- Using a commercial safety data sheet (SDS) management system, assembled and deployed “electronic” copies of SDSs for chemical products used in Building 25, eliminating the need for B25 units to maintain paper copies of SDSs.
- Continued to work with the Hospital Rebuild Team, ZSFG Facilities, and Infection Control to allow construction within operating hospital buildings as well as in very close proximity to staff, patients, and visitors without significant incidents or exposure concerns.
- Leveraged previous work on chemotherapy personal protective equipment and improved spill kits and procedures. Collaborated with Pharmacy and Nursing to foster the safe handling of chemotherapy agents and potentially hazardous drugs. Actively participated in the Cal/OSHA regulatory development process to assist Cal/OSHA in meeting their legislative mandate to promulgate a regulation addressing the safe handling of antineoplastic agents.
- Collaborated with Infection Control and Materials Management on the creative redeployment of specialty personal protective equipment and other supplies purchased for Ebola Viral Disease (EVD) preparedness, preventing waste of the materials, many of which have finite shelf lives.
- Collaborated with Pharmacy and Nursing to roll out alternate methods of managing pharmaceutical waste with the goal of enhancing regulatory compliance and preparing for changes to federal and state regulations for pharmaceutical waste.
- Maintained ZSFG Environmental Permits, and acted as liaison between regulatory agencies, including SF PUC, DPH Hazardous Materials Unified Program Agency, and Cal/OSHA and ZSFG. Continued to work with ZSFG management and staff regarding Cal/OSHA regulations, policies, and practices and assisted in responding to inquiries from Cal/OSHA regarding concerns about working conditions.

PROGRAM OBJECTIVES FOR 2015-2016

Objectives	Met / Not Met	Comments and Action Plans
Identify, review, overhaul, and standardize potentially hazardous cleaning and disinfecting practices.	**Met**	Continued to work with infection control and nursing unit subject area experts on deploying alternatives to the use of enzymatic cleaners in patient care units. Worked with Infection Control and Environmental Services to reevaluate cleaning/disinfecting agents used by EVS with particular focus on new surfaces and finishes in Building 25. Worked with Infection Control and Materials Management to identify optimum handwash products for deployment in Building 25.
Enhance (chemical) hazard communication at the ZSFG site by preparing and deploying an advanced hazard communication training module in Halogen.	**Not Met**	Intensive staff training associated with new equipment, processes, and workflow within Building 25 made effective deployment of advanced hazard communication module unworkable. Objective to be carried to next reporting year.

PERFORMANCE METRICS

The following metrics provide the Environment of Care Committee with information needed to evaluate performance of the Hazardous Materials and Waste Management Program activities and to identify further opportunities for improvement:

Objectives	Met / Not Met	Comments and Action Plans
Continue to work with Infection Control to identify at least one additional potentially hazardous cleaning and disinfection practice used in patient care units.	**Met**	Worked with Infection Control and Environmental Services to reevaluate cleaning/disinfecting agents used by EVS campus wide. Worked with Infection Control and subject area experts in patient care areas regarding specialty cleaning/disinfecting practices in Building 25, including the NICU and Operating Rooms.

Enhance Hazard Communication. • Prepare and deploy advanced Hazard Communication Training via Halogen for staff who have completed initial Hazard Communication Module. • Convert 3 units to "Electronic" M/SDS management.	**Partially Met**	• Intensive staff training associated with new equipment, processes, and workflow within Building 25 made effective deployment of advanced hazard communication module unworkable. Goal to be carried to next reporting year • Using Materials Management stocking lists plus input from managers in specialty areas (ORs, SPD), deployed "Electronic" M/SDSs for all units in Building 25 using ZSFG's commercial M/SDS management system.

The Environment of Care Committee has evaluated the objectives and determined that objectives have been met. The Program continues to direct hazardous materials and waste management in a positive proactive manner.

PERFORMANCE METRICS

The following metrics provide the Environment of Care Committee with information needed to evaluate performance of the Hazardous Materials and Waste Management Program activities and to identify further opportunities for improvement:

EFFECTIVENESS

Effectiveness is based on how well the scope fits current organizational needs and the degree to which current performance metrics results meet stated performance goals. The Environment of Care Committee has evaluated the Hazardous Materials and Waste Management Program and considers it to be effective.

GOALS AND OPPORTUNITIES FOR IMPROVEMENT IN 2016-2017

- ***(Carried forward from previous reporting year)*** **Enhance (chemical) hazard communication.**
  Changes to the Cal/OSHA Hazard Communication Standard 8 CCR 5194 are now fully in effect and a majority of the chemical product manufacturers have now issued Safety Data Sheets (SDSs, the improved Material Safety Data Sheets required under the revised Hazard Communication Standards) for their products. With staff now settling into Building 25, during 2016-2017 EH&S will work to expand employee knowledge of the content and use of the new SDSs as well as interpreting the new, improved product labeling required in the Standard.

- **Reevaluate hazardous gas and vapor exposures.** Moving to Building 25 resulted in the wholesale replacement of equipment such as anesthesia machines and sterilization equipment; Building 25 has completely different ventilation criteria and performance standards from Building 5. This necessitates a complete re-evaluation of employee exposures to potentially hazardous gases and vapors, and a revision of the current Environment of Care Policy addressing such exposures based on this re-evaluation. During 2016-2017 EH&S will conduct this re-evaluation and update EOC Policies to reflect conditions in the new building.

- **Improve storage of potentially hazardous chemicals.** Moving to Building 25; receiving, warehousing, and distributing chemicals for the reconfigured ZSFG site in addition to reallocation of spaces in other buildings have all changed chemical storage practices. During 2016-2017 EH&S will reassess storage practices, work with end-users to optimize storage while minimizing potential risks, and update EOC Policies to reflect changes.

- **Reassessing types and locations of chemical spill kits.** In addition to changed chemical storage practices, new chemicals, uses, and use locations requires the reassessment of the types and locations of chemical spill kits. During 2016-2017 EH&S will reassess chemical spill kit contents and locations, and update EOC Policies to reflect changes.

The proposed performance metrics for these goals will include:

Hazardous Materials & Waste Management Proposed Performance Metrics for 2015-2016	**Target**
AIM: Enhance Hazard Communication. Work with Education and Training to develop a method for delivering additional hazard communication information to employees who have already completed the initial Halogen Hazard Communication Module.	• Prepare and deploy additional / advanced hazard communication course.
AIM: Reevaluate hazardous gas and vapor exposures.	• Conduct new "baseline" monitoring in areas where potentially hazardous gases and vapors are used including the Operating Rooms and Morgue. • Revise EOC Policy 5.03 to reflect findings of baseline monitoring.
AIM: Improve storage of potentially hazardous chemicals.	• Work with at least one unit or group with high-volume usage of potentially hazardous materials to assess and if necessary improve hazardous materials storage practices.
AIM: Reassessing types and locations of chemical spill kits.	• Work with at least one unit or group with high-volume usage of potentially hazardous materials to assess adequacy of chemical spill kits. If necessary assist with the selection of improved spill kit. • Revise EOC Policy 5.04 to reflect findings of assessment.

EMERGENCY MANAGEMENT

SCOPE

The Emergency Management Program provides information, planning, consultation, training, resources, and exercises for hospital staff and leadership to ensure that Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG) effectively mitigates the impact of, prepares for, responds to, and recovers from emergencies and disasters and therefore is able to sustain its Mission of providing quality healthcare and trauma services with compassion and respect. These efforts support ZSFG's core value of patient and staff safety as well as the accountability goal of complying with regulatory standards. The Director of Emergency Management develops and implements policies, procedures, protocols, standard work and other job aids in accordance with:

- California Administrative Code Disaster and Mass Casualty Program (Title 22)
- The National Incident Management System (NIMS) and the California Standardized Emergency Management System (SEMS)
- The Joint Commission Standards and Elements of Performance.

The Emergency Management Program applies to and encompasses all departments and areas of the ZSFG campus.

ACCOMPLISHMENTS

- Updated and revised the ZSFG Emergency Operations Plan and related procedures to incorporate the move to the new Acute Care Hospital Building 25, with its expanded capacity and capabilities for disaster response.
- Worked closely with managers to conduct evacuation training and drills for all departments in Building 25, and update departmental plans for Active Shooter incidents.
- Continued to provide Hospital Incident Command System Basics training for ZSFG managers and supervisors.
- Participated in the 2015 Statewide Health and Medical Exercise, including testing and validating plans needed to sustain extended operations under the duress of a regional influenza pandemic such as resource management, staffing contingencies and adjustments, handling the media, and continuity of operations.
- Continued to share lessons learned and best practices from ZSFG's response to the Asiana crash, with a presentation to hospital, state and county Emergency Managers at the National Transportation Safety Board Training Academy in Virginia.
- Also conducted hospital-wide multi-casualty incident response and earthquake preparedness departmental drills to ensure the ongoing preparedness of all ZSFG staff for emergencies and disasters.

PROGRAM OBJECTIVES FOR FY 2015-2016

Objectives	Met/ Not Met	Comments and Action Plans
The hospital conducts an annual hazard vulnerability analysis (HVA) to identify potential emergencies that could affect demand for the hospital's services or its ability to provide those services, the likelihood of those events occurring, and the potential impact and consequences of those events. The HVA is updated when significant changes occur in the hospital's services, infrastructure, or environment.	**Met**	Updated 2/11/16 and shared with SFSD, SFFD, SFPD, DPH, the SF Department of Emergency Management and other SF hospitals on 3/09/16.
The hospital develops and maintains a written all-hazards Emergency Operations Plan that describes the response procedures to follow when emergencies occur. The plan and associated tools facilitate management of the following critical functions to ensure effective response regardless of the cause or nature of an emergency: • Communications • Resources and Assets • Safety and Security • Staff Responsibilities and Support • Utilities and Critical Systems • Patient Clinical and Support Activities	**Met**	Updated ZSFG's Emergency Operations Plan to incorporate new Hospital Incident Command System guidelines, and reorganized and added additional detail and contingencies for more robust and resilient management of essential services and critical functions.
The hospital implements its Emergency Operations Plan when an actual emergency occurs.	**Met**	01/27/16 Gas Leak Response
ZSFG's emergency response plan and incident command system facilitate an effective and scalable response to a wide variety of emergencies and are integrated into and consistent with the Department of Public Health Disaster Plan and the City and County of San Francisco Emergency Operations Plan, and are compliant with the California State Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS).	**Met**	Demonstrated plan effectiveness and scalability during the Statewide Health and Medical Exercise and internal emergency activation for gas leak.
The hospital trains staff for their assigned emergency response roles.	**Met**	• New Employee Orientation • Annual Halogen Emergency Preparedness & Disaster Response Training • HICS Basics Training
The hospital conducts exercises and reviews its response to actual emergencies to assess the appropriateness, adequacy and effectiveness of the Emergency Operations Plan, as well as staff knowledge and team performance.	**Met**	Completed After Action Reports and performance evaluations for two actual emergencies and two multi-functional exercises.
Annual evaluations are conducted on the scope, and objectives of this plan, the effectiveness of the program, and key performance indicators.	**Met**	Annual Evaluation by Disaster Committee completed on 9/08/16.

The Disaster Committee and the Environment of Care Committee have evaluated these objectives and determined that they have been met. The program continues to direct emergency management preparedness and response in a positive and proactive manner.

PERFORMANCE METRICS

An analysis of the program objectives and key performance indicators is used to identify opportunities to improve performance and evaluate the effectiveness of the program. This analysis provides the Disaster and Environment of Care Committees with information that can be used to update the Emergency Management program activities. The following are current performance metrics:

Performance Metrics	2015-2016 Goal	2015-2016 Results	Comments & Action Plan
AIM: During Exercises and Actual Incidents, Staff will Complete Appropriate Documentation. • HICS Job Action Sheets • HICS Forms	**95%** **95%**	**96%** **96%**	**Met.** Continuing HICS trainings for staff to reinforce improvements made. Develop and implement standard work for each function to ensure improvements are sustained.
AIM: Update Emergency Plans and HICS Tools. • Emergency Operations Plan • Hazard Specific Plans • Job Action Sheets • HICS Forms	**100%** **100%** **100%** **100%**	**100%** **100%** **100%** **100%**	**Met.** Emergency Operations Plan, Hazard Specific Plans, HICS Job Action Sheets and other HICS Forms have been updated to meet the HICS guidelines and all Joint Commission standards and elements of performance, as well as the move to the new Acute Care Hospital Building 25.
AIM: Staff Will Complete ICS Training. Total Current Staff who have completed: • ICS 100 – 200 – 700 • HICS Basics	**240** **240**	**201 (84%)** **247 (103%)**	**Partially Met**. Continue providing HICS Basics and other trainings for all new Supervisory and Management staff. Follow up with to ensure completion of required FEMA ICS courses. Adjusted completed numbers to remove staff who have retired or left ZSFG. Will continue into 2016-2017.
AIM: Develop and Conduct Code Silver Exercises to Ensure Hospital Staff are as Prepared as Possible for Active Shooter Incidents. • Departmental Training & Drills • Table Top Exercise – Community Incident (Not at ZSFG) • Table Top Exercise – Campus Incident • Table Top Exercise – Main Hospital Incident	**18** **1** **1** **1**	**18** **1** **0** **0**	**Partially Met**. Departmental training and basic drills completed. Continuing to work with Security and SFSD to conduct more extensive training as well as tabletop exercises. Will continue into 2016-2017.
AIM: Complete at Least 90% of Corrective Actions Identified in FY 2014-2015 Exercises and Actual Incidents by 6/30/16.	**90%**	**100%**	**Met.** Eighteen (18) issues were identified, with fourteen (14) completely resolved and four additional issues primarily resolved but still requiring ongoing monitoring to ensure effectiveness of solutions. Most challenging issues include staffing for prolonged surge incidents, patient tracking, and distribution of a written Incident Action Plan to staff during activations.

EFFECTIVENESS

The Emergency Management program has been evaluated and is considered to be effective by both the Disaster Committee and the Environment of Care Committee. The program continues to direct and promote emergency and disaster preparedness and response capabilities in a proactive manner.

GOALS AND OPPORTUNITIES FOR IMPROVEMENT IN 2016-2017

- Continue providing training on the Hospital Incident Command System (HICS) for all Incident Management Team members, department supervisors and management level staff.
- Improve overall documentation of incident and completion of HICS Job Action Sheets and appropriate HICS forms.
- Complete updates of Emergency Operations Plan and all related HICS tools and forms to incorporate Building 25 and the new Hospital Command Center location and phone numbers.
- Partner with Security to develop departmental training and implement a progressive exercise program for Code Silver Active Shooter response.

The proposed performance metrics for these goals include:

Emergency Management Proposed Performance Metrics for 2015-2016	Target	Comments & Action Plan
AIM: Staff Will Complete Training in ICS. Total Current Staff who have completed: • ICS 100 – 200 – 700 • HICS Basics	**240** **240**	Continued from Prior Year due to Management Staff Turnover. Target includes all Supervisory and Management staff as well as assigned HICS Incident Management Team members and back-ups.
AIM: During Exercises and Actual Incidents, Staff will Complete Appropriate Documentation. • HICS Job Action Sheets • HICS Forms • Communication of Incident Action Plan	**95%** **95%** **95%**	Implementation standard work, repeated prompts during drills and activations, and required check-out procedures should help to ensure more thorough communication and appropriate documentation.
AIM: Develop and Implement Standard Work for Critical Tasks including HICS Activation and Staff Notification.	**100%**	Standard work for critical tasks will help reduce the variability in notification and communication of critical information to staff.
Implement a Mass Notification System for ZSFG Emergencies.	**100%**	Needed to ensure rapid and consistent notification of staff in outer buildings as well as informational updates and directives for critical actions.
AIM: Develop and Implement a Hazard Specific Plan for Response to Natural Gas Leaks around the ZSFG Campus.	**100%**	Draft Hazard Specific Plan for Natural Gas Leaks; Review and approval by Disaster Committee; Train Incident Management Team and Staff and Implement Plan.
AIM: Develop and Conduct Code Silver Exercises to Ensure Hospital Staff are as Prepared as Possible for Active Shooter Incidents. • Table Top Exercise – Campus Incident • Table Top Exercise – Main Hospital Incident • Departmental Response Functional Exercises – Key Areas: ED, ICUs, Labor & Delivery, Nursery	**1** **1** **4**	Coordinate with Director of Security and SFSD to update plan and provide safe, controlled exercises to further develop and test critical staff actions for initial response and management of an incident after the shooter is neutralized.

MEDICAL EQUIPMENT MANAGEMENT

The Medical Equipment Management Program is intended to promote the safe and effective use of medical equipment in support of patient care. The program is designed to minimize risk associated with the use of medical devices through the careful selection, acquisition and maintenance of all medical equipment used for patient care.

SCOPE

The Medical Equipment Management Program applies to all medical devices and related services provided on the ZSFG campus.

ACCOMPLISHMENTS

Program activities highlights for 2015-2016 include:

- **Actives:**
  - The Biomedical Department collaborated and managed the installation and implementation of 6,000 new pieces of equipment for building 25.

Developing People:

- One Biomed Technician was hired in June 2016.
- Philips provided on-site in service for all the technicians.
- One Biomed Technician was trained on Draeger Anesthesia machines.
- One Biomed Technician was trained on Carefusion Ventilators.

- **Financial Stewardship:**
  - Eliminated $298K from Draeger anesthesia machines service agreement by training the biomed staff and allowing the in-house staff to perform the maintenance.
  - Eliminated $26K from Alcon cataract extract unit service agreement.
- **Safety:**
  - Monitored Medical Device Hazard Alerts and Recalls through the ECRI Institute Alert Tracking System and ongoing follow up with end user departments to ensure that medical equipment in use at ZSFG is safe.
  - Developed plan for certifying all medical equipment going into Building 25.

PROGRAM OBJECTIVES

Objectives	Met/ Not Met	Comments and Action Plan
The hospital maintains either a written inventory of all medical equipment or a written inventory of selected equipment categorized by physical risk associated with use (including all life support equipment) and equipment incident history. The hospital evaluates new types of equipment before initial use to determine whether they should be included in the inventory.	**Met**	Inventory is kept in the Computerized Maintenance Management System (CMMS) Database, all related historical records, including but not limited to Initial Inspection (II), Preventive Maintenance (PM), Corrective Maintenance (CM), and medical equipment alert are kept in the Biomed department database.
The hospital identifies, in writing, frequencies for inspecting, testing, and maintaining medical equipment on the inventory based on criteria such as manufacturers' recommendations, risk levels, or current hospital experience.	**Met**	Currently ZSFG has no equipment under an Alternative Equipment Maintenance Plan (AEM). Equipment is currently classified as Life Support and Non-Life Support. Our department follows manufacture's recommendation for equipment maintenance.
The hospital monitors and reports all incidents in which medical equipment is suspected in or attributed to the death, serious injury, or serious illness of any individual, as required by the Safe Medical Devices Act of 1990.	**Met**	All medical equipment-related Unusual Occurrence reports are reviewed, investigated, and tracked in accordance with EOC Policy 12.03 Reporting of Medical Device Incidents. The Biomed department works closely with the Risk Management department investigating UO reports related but not limited to medical equipment.
The hospital has written procedures to follow when medical equipment fails, including using emergency clinical interventions and backup equipment.	**Met**	EOC Policy 12.03 Reporting of Medical Device Incidents delineates the procedures for staff to follow when equipment failures occur.
Before initial use of medical equipment on the medical equipment inventory, the hospital performs safety, operational, and functional checks.	**Met**	Biomedical Engineering performed these checks on all new equipment in accordance with EOC Policy 11.01 Non-Medical and Medical Equipment Management.
The hospital inspects, tests, and maintains all life-support and non-life support equipment identified on the medical equipment inventory. These activities are documented.	**Met**	These activities are governed by ZSFG Biomed departmental policies and documented in the Biomed CMMS Database.
Annual evaluations are conducted of the scope, objectives of this plan, the effectiveness of the programs defined, and the performance monitors	**Met**	The medical equipment management plan performance is presented to the EOC on quarterly bases. The effectiveness of the program is presented to the EOC committee on the annual bases.

PERFORMANCE METRICS

PARAMETER	1st QTR		2nd QTR		3rd QTR		4th QTR		ANNUAL TOTAL NUMBER OF SERVICE REQUEST
TOTAL WORK REQUESTS	1276		955		1011		1113		**4355**
PREVENTATIVE MAINTANCE REQUIRED	2424		966		1215		1429		**6034**
PREVENTATIVE MAINTANCE COMPLETED	2424	100%	955	99%	1172	96.5 %	1401	98%	**7377**

Preventive Maintenance work orders remain opened when a device cannot be immediately located or the device is retired from the system after receiving clinical staff approval. PM work orders for devices not available during PM remain opened until the PM is completed. The Biomed department ensures that 100% of all equipment scheduled for maintenance is managed.

Objectives & Performance Indicators	Met / Not Met	Results
AIM: 100% of all medical equipment managed by the Biomedical Engineering Department is accounted for and properly maintained. • Preventative Maintenance (PM) completed by due date: **Target ≥ 90%** • Devices that could not be located: **Target ≤ 5%** • Device unavailable for PM: **Target ≤ 5%** • Devices with PM not done: **Target = 0%**	**Met** **Met** **Met** **Met** **Met**	**All 7377 devices at ZSFG managed by Biomedical Engineering were accounted for and properly maintained. 100%** • **PM completed by due date: 96%** • **Devices not located: 3%** • **Devices unavailable / in use: 1%** • **Devices with PM not done: 0%**
AIM: Reduce the number of work orders for unexpected equipment repairs to less than 1,000 per quarter (total of 4,000 per year) in order to minimize the amount of equipment downtime. • Devices identified during EOC Rounds as needing repair: **Target ≤ 60**	**Not Met** **Not Met**	**There were 4,335 work order repairs required in 2015-2016. The amount of repairs for infusion pumps, SCDs and thermometers account for 25% of all service request. However, the amount of 202 repairs for dialysis machines was higher than expected due to issues with the new dialysis machines model 2008K.** • **Needed actions identified during EOC Rounds: 103** • **The number of findings went up after moving to building 25 due to the amount of equipment that was brought to the new building without notifying Biomed.**

EFFECTIVENESS

The Medical Equipment Management Program has been evaluated by the multi-disciplinary Environment of Care Committee and is considered to be effective.

GOALS AND OPPORTUNITIES FOR IMPROVEMENT FOR 2015-2016

- **Safety:** Revise of Medical Equipment Management plan to meet new TJC elements of performance.
- **Safety:** Implement standard work to prioritize the repair of mission critical equipment.
- **Performance:** Review and develop service delivery plans for all medical devices managed by the Biomed department with the goal to reduce the cost of ownership of the equipment.
- **Performance:** Collaborate with the clinical departments to identify potential risks and mission critical devices that must be priority in the event of a failure.

- **Optimization of CMMS Database to:**
    - Categorize work requests to help identify trends (e.g., use error, broken probes, preventable failures, non-preventable failure);
    - Categorize preventive maintenance: Could Not Locate (CL), Un-Available (UN), or Completed (PM) and automatically calculate performance levels, which is currently done manually;
    - Standardization of database documentation and nomenclature to ECRI standards.
    - Review of the risk assessment for all medical devices.

The proposed performance metrics for these goals are:

Medical Equipment Management Proposed Performance Metrics for 2016-2017	Target	Comments & Action Plan
AIM: Revise of Medical Equipment Management plan to meet new TJC elements of performance.	**100%**	Develop a working group with the imaging department to ensure complaints with the new Eps.
AIM: Implement standard work to prioritize the repair of mission critical equipment.	**100%**	Develop standard work to prioritize mission critical equipment.
AIM: Reduce cost of ownership for medical equipment.	**100%**	With the collaboration of the clinical staff and supply chain develop master list of service agreements and identify opportunities for cost savings.
AIM: Develop a list of mission critical and create strategy handle the repairs.	**100%**	Create a list of mission critical equipment and develop plan to mitigate the risk.

LIFE SAFETY MANAGEMENT

The Life Safety Management Plan demonstrates comprehensive understanding, application, and adherence to the latest life safety codes of the National Fire Protection Association (NFPA), state and local standards, and as required by various regulatory bodies (e.g., CMS, The Joint Commission, et al.). The plan is designed to ensure an appropriate, effective response to fire emergencies that could endanger the safety of patients, staff and visitors, and the Zuckerberg San Francisco General Hospital and Trauma Center environment (ZSFG).

SCOPE

The Life Safety Management Program applies to multiple buildings on the ZSFG campus, including all construction projects. Notification and response to any event includes the ZSFG Fire Marshal, Facility Services staff, and Leadership.

ACCOMPLISHMENTS

- Completed annual test, inspection, and repairs to fire and smoke dampers on the first and second floors in Bldg. 5 per NFPA standards (required every four years). The intent is to test and inspect two floors per year to maintain compliance at a minimal and predictable financially responsible cost. Annual damper testing also offers the opportunity to provide a safe HVAC environment.
- Annual HVAC smoke control testing and repairs completed in February. Smoke control testing, in addition to being a requirement, demonstrates a safe and reliable smoke control system.
- Assessed risk and implemented Interim Life Safety Measures (ILSM) as necessary for ADA bathroom projects, and enabling projects to connect Bldg. 5 to Bldg. 25. Continuous project monitoring enhances the care experience in addition to a quality and safe environment.
- Managed false fire alarms on campus (2 for the year) by maintaining cleanliness of smoke detectors, and managing project work. All engineering Watch teams assist in managing the fire alarm system.

- Integrated campus wide fire alarm system with fire alarm system in Bldg 25. The quality care experience at ZSFG begins with a safe and reliable fire alarm system.
- Recertified 15 Engineers in Fire Pump testing and operations for Bldg 25.
- Trained Bldg 25 staff on Life Safety features in the New Hospital.

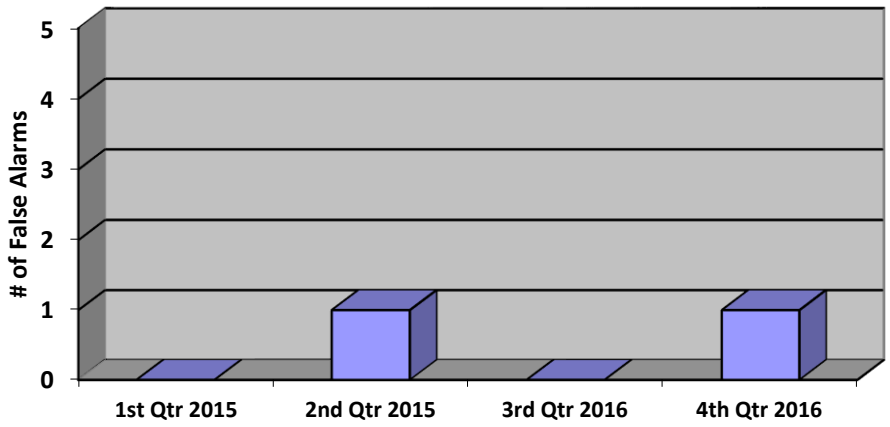
PROGRAM OBJECTIVES

Objectives	Met/ Not Met	Notes/Action Plan(s)
The Fire Plan defines the hospital's method of protecting patients, visitors, and staff from the hazards of fire, smoke, and other products of combustion and is reviewed and evaluated at least annually.	Met	At a minimum, annually review the ZSFG Fire Plan. Problems are assessed, and addressed for impact to the hospital's core values of safety, responsibility.
The fire detection and response systems are tested as scheduled, and the results forwarded to the EOC Committee quarterly.	Met	The Campus Fire Alarm system serving ZSFG is routinely tested and repaired as necessary.
Summaries of identified problems with fire detection, NFPA code compliance, fire response plans, drills and operations in aggregate, are reported to the EOC Committee quarterly.	Met	Any problems or deficiencies of the fire alarm system are reported in the quarterly Environment of care (EOC) report.
Fire Prevention and Response training includes the response to fire alarms at the scene of the fire alarm, critical locations of the facility, the use of the fire alarm system, processes for relocation and evacuation of patients if necessary, and the functions of the building in protection of staff and patients.	Met	All fire drills required for the facility have been conducted per schedule. Staff training in response and system devices are covered as part of the drill.
Fire extinguishers are inspected monthly, and maintained annually, are placed in visible, intuitive locations, and are selected based on the hazards of the area in which they are installed.	Met	Fire extinguishers are inspected regularly, and as required. All extinguishers are appropriate to their use and location.
Annual evaluations are conducted of the scope, and objectives of this plan, the effectiveness of the programs defined, and the performance monitors.	Met	Items monitored in the annual report and fire drills are assessed for effectiveness and improvement.

PERFORMANCE METRICS

Life Safety Management Performance Metrics	2015 3rd Qtr.	2015 4th Qtr.	2016 1st Qtr.	2016 2nd Qtr.	Target	Comments and Action Plan
Quarterly Fire Drills; a minimum of 6 per quarter - one fire drill per shift, w/ completed department evaluation forms.	13	8	7	7	Minimum of 6 drills per quarter; 2 per shift	Target achieved; extra drills due to interim life safety measures. Discussed issues uncovered during drills and took corrective actions.
False fire alarms	2	0	0	0	5 or less false alarms per year	Monitor for trends. Maintain false fire alarms goal at less than 3 for the year.
Post Drill knowledge test score	99%	99%	99%	99%	95%	Test scores exceed target expectations for emergency response procedures. Reflect that staff understand proper emergency response procedures.

Aim: For FY 2016-17, false fire alarms on campuses maintained at or below three per year.



Target of three or less false fire alarms for FY 2015-16 has been met.
The causes of both false fire alarms in the BHC were due to dirty smoke detectors.

EFFECTIVENESS

The Life Safety Management Program is considered to be effective based on the objectives and performance metrics indicated in the Plan.

GOALS AND OPPORTUNITIES FOR IMPROVEMENT IN 2015-16

- Monitor and manage false fire alarms for a quality and safe care experience in Bldg 25.
- Monitor ILSM for on-going construction projects within Bldg 5 and integration with Bldg 25. File the appropriate Risk Assessments for a quality, and safe care experience.
- The fire alarm system upgrade will be done as a part of the Proposition A bond measure.
- Train Hospital staff on safety equipment, fire plan, and fire life safety systems for the new hospital.
- Engage facilities staff to review upcoming Proposition A bond measure projects.

Proposed Performance Metrics for 2016-17	Target	Comments and Action Plan
AIM: Train hospital staff on the safety equipment, fire plan and Fire Life safety systems for Bldg. 25	**100%**	Develop and implement staff trainings on revised policies and new life safety equipment; monitor knowledge in annual skills assessments
AIM: Engage Facilities staff to review and implement Proposition A bond measure projects on the ZSFG Campus.	**100%**	Involve stake holders in project implementation.

UTILITY SYSTEMS MANAGEMENT

SCOPE

The Zuckerberg San Francisco General Hospital and Trauma Center Facility Services Department implements and maintains the Utility Management chapter of the Environment of Care. The Utility Management Program ensures the operational reliability and assesses the special risks and responses to failures of the utility systems which support the facility's patient care environment. The major utility systems include but are not limited to: electrical distribution, domestic water and waste systems, vertical transportation, communication systems, HVAC, and medical gases.

ACCOMPLISHMENTS

- Successfully completed a review of our facility's Green House Gas emissions by California State Air Resource Board with no comments or discrepancies. Recent power plant upgrades significantly reduced our greenhouse emissions footprint.
- Completed construction and commissioned new liquid oxygen and Nitrous Oxide tank plants serving Buildings 5 and 25.
- Commence seismic upgrade to Bldg 2 (Service Building). This project is scheduled for completion in November 2016.

PROGRAM OBJECTIVES FOR FY 2014-2015

Objectives	Met / Not Met	Comments and Action Plans
The hospital maintains a written inventory of all operating components of utility systems or maintains a written inventory of selected operating components of utility systems based on risks for infection, occupant needs, and systems critical to patient care (including all life support systems.)	Met	Inventory of equipment for major utility systems maintained in equipment database.
The hospital identifies, in writing, inspection and maintenance activities for all operating components of HVAC systems on the inventory	Met	Documentation of activities is entered into TMS, the automated work order system.
The hospital labels utility system controls to facilitate partial or complete emergency shutdowns.	Met	Utility isolation information located at the Engineering Watch Desk.
The hospital inspects, tests, and maintains emergency power systems as per NFPA 110, 2005 edition, Standard for Emergency & Standby Power Systems.	Met	Testing and inspection of this new system per NFPA 110, 2005 edition
The hospital inspects, tests, and maintains critical components of piped medical gas systems, including master signal panels, area alarms, automatic pressure switches, shutoff valves, flexible connectors, and outlets. These activities are documented.	Met	The medical gas system is certified annually. Area alarm panels are checked monthly. Documentation is entered into TMS and separate report.
Annual evaluations are conducted of the scope, and objectives of this plan, the effectiveness of the programs defined, and the performance monitors	Met	Scope and objectives derived from quarterly report data.

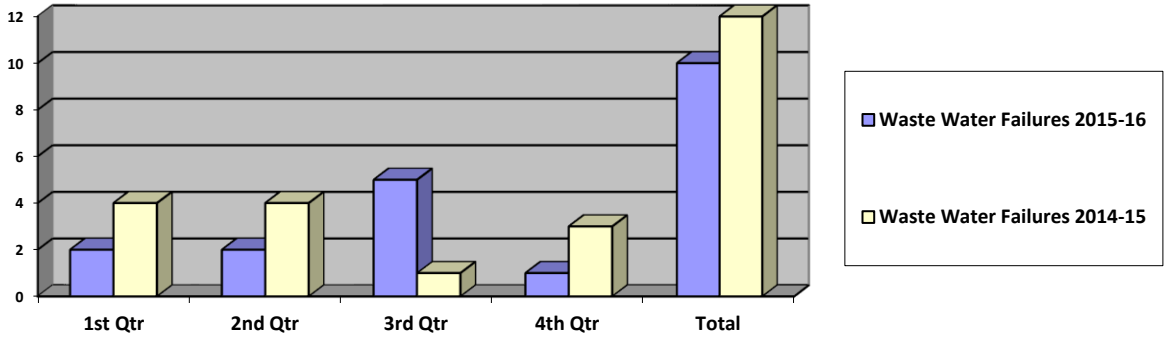
Report Indicator	FY 2015-2016 Totals						
	BHC	5	25	80	90	100	SB
Emergency Power Failures	0	0	0	0	0	0	0
Commercial Power Failures	0	1	0	0	0	0	1
Water System Failures							
Domestic	0	0	0	0	0	0	0
Waste	0	10	1	0	0	0	0
Communication Failures	0	0	0	0	0	0	0
HVAC Failures	0	1	0	0	0	0	0
Med Gas Failures	0	0	0	0	0	0	1
Elevator Failures	0	33	0	0	1	0	0
High Voltage Electric Switchgear	0	0	0	0	0	0	0

The Environment of Care Committee has evaluated the objectives and determined that they have been met. The Program continues to direct utilities management awareness in a positive proactive manner.

PERFORMANCE METRICS

Waste Water Failures

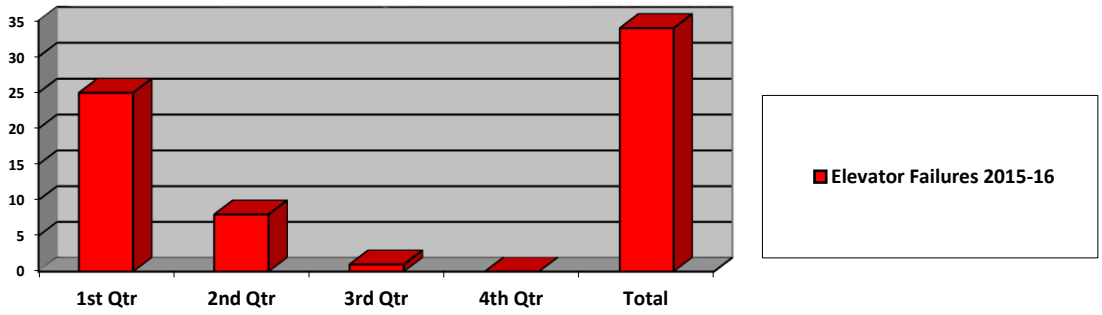
AIM: For FY 2015-16, to reduce by 25% the number of waste water utility system failures. Waste water failures at the hospital continue to be a vexing problem. The overall improvement in the past year reflect quicker response (by Facilities Services & EVS) to trouble areas before a major flood occurs.



100% of waste water failures in 2015-16 were due to vandalism

Elevator Failures

Elevator outages of 4-hours plus in duration, or passenger entrapment of any duration, (25 total cars)	25	8	1	0	Monitor for trends	Elevator failures reflect new reporting metric.



AIM: For FY 2015-16 improvements in the 3rd & 4th quarter are largely due to having a dedicated elevator mechanic on campus during business hours Monday-Friday.

EFFECTIVENESS

The Utility Management Program is considered to be effective.

Proposed Performance Metrics for 2015-16	Target	Comments and Action Plan
AIM: Train Hospital staff on the new Bldg. 25 Utility systems, including elevators, electrical distribution, water/waste, and medical gas systems	**100%**	Develop and implement staff trainings addressing revised policies and new utility equipment; monitor knowledge in annual skills assessments
AIM: Ensure that all Utility Systems policies and procedures are tailored to the new hospital (Bldg. 25)	**100%**	Review and revise policies in preparation for oversight of Bldg. 25 in 2016-17.

GOALS AND OPPORTUNITIES FOR IMPROVEMENT IN 2016-17

- Continue monitoring for unscheduled Waste Water Utility System failures. The target of less than 4 per quarter was met for 2014-15. All waste water failures were due to vandalism. Managing waste water failures improves the safety and quality of the care experience, while managing costs of cleanup and repair.

- The existing high voltage electrical distribution equipment serving Bldg. 5 is at the end of normal service life. The system requires a high level of maintenance and repair to provide a quality and safe electrical distribution system. This equipment has been identified for inclusion in the Proposition A bond funded projects.

- Train Hospital staff on utility systems, including elevators, electrical distribution, water/waste, and medical gas systems for Bldg 25.