Emergency Management Performance Metrics	2022-2023 Goal	2022-2023 Results	Comments & Action Plan
Specific Staff Will Complete Required Training in HICS. Current designated Staff who have completed HICS Basics – Baseline 88% in 2019.	**90%**	**94%**	**Met.** 235 Managers and Supervisors have completed HICS Basics Training.
Ensure that Staff, Patient and Visitor Communication is Distributed During Drills and Actual Incidents.	**95%**	**100%**	**Met.** Signage and ongoing messaging during Statewide Exercise and Covid-19 Response.
During Disaster Exercises and Actual Incidents, the Incident Management Team will Complete Critical Functions.	**95%**	**100%**	**Met.** Extreme weather and Covid-19 Response.
Decrease Everbridge Undeliverables.	**< 0.10%**	**0.01%**	**Met.** Regularly updated contact information.
Assess Frontline Staff Knowledge of Emergency Procedures.	**95%**	**96%**	**Met.**
During Disaster Exercises and Actual Incidents, HICS Staff will Complete Appropriate Documentation on HICS Job Action Sheets & Tools.	**95%**	**100%**	**Met. Covid-19 Response.**
Implement at Least 90% of Corrective Actions Identified in FY 2013-2023 Exercises and Actual Incidents by 6/30/24.	**90%**	**94%**	**Met. Most issues have been completed or are implemented and ongoing.**

Life Safety Management Performance Metrics	2022 1st Qtr.	2022 2nd Qtr.	2023 3rd Qtr.	2023 4th Qtr.	Target	Comments and Action Plan
Quarterly Fire Drills: a minimum of 9 per quarter - one fire drill per shift, w/ completed department evaluation forms.	10	10	12	10	Minimum of 9 drills per quarter. 2 per shift	Target achieved, extra drills due to interim life safety measures, or for training purposes. Discussed issues uncovered during drills and took corrective actions.
False fire alarms	29	21	25	23	25 or less false alarms per year	Target not met – False fire alarm goal at less than 50 for the year. 62 of 98 FAs were smoking related.
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.

Hazardous Materials and Waste Management Performance Metrics

Objectives	Met / Not Met	Comments and Action Plans
Establish new pharmaceutical and RCRA waste disposal practices. The current pharmaceutical and RCRA waste practices have put ZSFG in a RCRA LQG hazardous waste generator category which requires all staff who manage and handle hazardous wastes to be DOT trained and other additional regulatory requirements.	**Partially Met**	Met with Stericyle to discuss the comingle program (Sharps & Non-Haz), RCRA, & controlled subs. In progress Stericycle provided DOT and Haz waste Training.
Update each department specific SDS's	**Partially Met**	Working with unit managers to update SDS's binders to reflect each unit's current hazardous materials inventory.

Objectives	Met / Not Met	Comments and Action Plans

Restarted the hazardous materials EOC rounds which was vacant for almost 2 years	**Met**	Performed EOC rounds in the following building/units: 1. March – B80 & 90, B3, 5 & 100 2. April – B25 7th & 6th floor, b25 5th & 4th floor 3. May – B25 3rd, 2nd, Medical Room, 1st floor, 3D, Rehab 4. June – B25 Ground floor, basement, PFT lab, Pharm, Kitchen. 5. July – B5: 6M, 6G, 5M, 4M, 3M, clinics, B4 & B9
Reduce number of hazardous materials & hazardous waste spill or incident.	**Met**	Continue to work with staff to avoid hazardous materials and hazardous waste incidents. The number of hazardous materials from 2021 to 2022 reduced from 4 to 3 incidents.

Medical Equipment Management Performance Metrics	Met/ Not Met	Results
Medical device repairs	**Not Met** **Current Goal: 90%** **Current status: 88.6%**	The Biomedical Engineering Department receives an average of 300-plus medical device service requests per month, the majority of which are repair requests. As service requests are received via phone or online ticket submission, they are logged into a database, assigned to a biomedical technician, who then will provide a solution. Requests for life support (LS) devices are prioritized for repair. Meet with Biomedical team bi-weekly to troubleshoot and discuss unresolved device repairs and work with vendors to become compliant with DPH.
Revive risk assessment of medical equipment in Biomedical Engineering's CMMS database and update the Biomedical Engineering Medical Equipment Management Plan (MEMP)	**Met**	The plan is to follow TMS (Biomedical Engineering CMMS) database embedded clinical equipment risk classification formula which is E+A+[(P+F+U)/3]. Once all medical devices in the database have an assigned risk

		score then the MEMP will be updated and presented at an EOC committee meeting.

Security Management Performance Metrics FY22-23

Performance Metrics #1	Performance Metrics #2	Performance Metrics #3	Significant Reporting Performance	Significant Reporting Performance
Code Green/At Risk (Patient Elopement)	**Customer Satisfaction**	**Electronic Security System Functionality**	**DPH and SFSO, MOU Performance**	**Employee Security Awareness**
Standard: The security provider will be measured on their performance during Patient Elopements, Patient "At Risk" and Missing Person incidents, including: • Initial Perimeter and Search • Notification of SFPD, BART, and MUNI • Documentation of Search Activity • Locate/Not Located Procedure	**Standard:** A monthly basis survey of 100 customers consisting of patients, visitors, employees, and physicians will be surveyed regarding their overall experience with Security Service/Sheriff's Office.	**Standard:** All electronic security equipment will be inspected monthly for functionality. Facilities, Security Services and the Sheriff's Operations Center will develop security plans to address vulnerabilities resulting from malfunctioning equipment.	**Standard:** A monthly security provider performance survey will be completed to assess the Sheriff's Office compliance with MOU obligations in the areas of operational performance, issue resolution, management responsibilities and finance provisions.	**Standard:** During Environment of Care Rounds, hospital staff be tested on 6 questions regarding security awareness (See Appendix B.) (Sample size: 300 employees per quarter)
Threshold – 80% **Target – 90%** **Stretch – 100%**	**Threshold - 80%** **Target - 90%** **Stretch – 98%**	**Target: 98%**	**Threshold – 3.0** **Target – 3.5** **Stretch – 4.5**	**Threshold - 80%** **Target - 90%** **Stretch – 98%**
Analysis of Performance Metrics Results and Corrective Action Plan				

FY 2022-2023, Annual Performance Metrics		
	Target	**Overall Performance**
Code Green Response (Patient Elopement)	90%	100%

Customer Satisfaction	90%	75%
Electronic Security Systems	98%	96%
San Francisco Sheriff Office MOU Compliance	3.5	2.9
Employee Security Awareness	90%	100%

Utility Systems Management Performance Metrics

AIM: For FY 2022-2023, there was an increase in elevator failures on Campus.

FY 2020-2021: 34 elevator outages

FY 2021-2022: 22 elevator outages

FY 2022-2023: 28 elevator outages

Elevator Failures

Elevator Failures	1st	2nd	3rd	4th	Action
Elevator outages of 4-hours plus in duration, or passenger entrapment of any duration, (22 total cars)	7	3	8	10	Monitor for trends

Safety Management 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: Show continued progress in reducing staff injuries and injury rates, measured by no increase in Recordable Injury Counts or Injury Rates from FY2018-2022	**Met:** Injury counts and the standardized injury rate ("Incidence Rate") decreased from FY20/21- FY21/22.

INTRODUCTION

The goal of the Zuckerberg San Francisco General Hospital & Trauma Center (ZSFG) Environment of Care (EOC) Program is to provide a safe, functional, and effective environment for the care of patients, as well as for staff and visitor use. The EOC Program encompasses the following seven programs/areas:

I. Emergency Management (Lann Wilder – Director of Emergency Management)
II. Fire & Life Safety Management (David Woodland – Director of Facilities Services)
III. Hazardous Materials and Waste Management (Jewel Ko– Industrial Hygiene)
IV. Medical Equipment Management (Elkin Lara-Mejia – Manager of Biomedical Engineering)
V. Safety Management- (Jewel Ko– Industrial Hygiene)
VI. Security Management (Basil Price – SF DPH Director of Security)
VII. Utility Systems Management (David Woodland–Director of Facilities Services)
VIII. EOC Committee Leaders- (Additional Members)

The EOC Program is managed by the EOC Committee. The EOC Committee is a multi -disciplinary group which is focused on the continuous improvement of all aspects of the Environment of Care.

Activities of the EOC Committee include:

- Identifying risks and implementing systems that support safe environments,
- Working to ensure that hospital staff are trained to identify, report, and take action on environmental risks and hazards,
- Setting and prioritizing the hospital's EOC goals and performance standards and assessing whether they are being met, and
- Working 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:
  - Clinical Laboratories (Andy Yeh),
  - Dept. of Education & Training (Justin Dauterman),
  - Environmental Services (Francisco Saenz),
  - Infection Prevention & Control (Elaine Dekker),
  - Nursing (Andrea Chon),
  - Quality Department (Emma Moore for Regulatory),
  - Pharmaceutical Services (Julie Russell),
  - Materials Management (David Lawler)
  - Linen and Messenger Department (Olivia Johnson), and
  - Food Nutrition Services (Katherine Jackson)

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 2023, Chauncey Jackson and David Woodland serve as co-chairs of the EOC Committee.

The EOC Annual Report highlights the activities of the EOC Program during Fiscal Year 2022-2023. For each of the seven EOC chapters, it is organized as follows:

- Scope,
- Accomplishments,
- Program Objects,
- Performance Metrics, and
- Goals and Opportunities for Improvement

This year's additional chapter ("Unsung Heroes of the Environment of Care Committee") details contributions, accomplishments, and challenges from Departments (Education & Training, Environmental Services, Infection Prevention & Control, and Pharmaceutical Services) who devote time and resources to ZSFG EOC activities, but do not have traditional Joint Commission mandated chapters in the report.

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 can 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; and
- The Centers for Medicare and Medicaid Services (CMS) Conditions of Participation.

The Emergency Management Program encompasses all departments and areas of the ZSFG campus, including those at the Behavioral Health Center.

ACCOMPLISHMENTS

- Provided HICS Basics and FEMA ICS preparatory training for ZSFG managers and supervisors.
- Prepared for implementation of complete revision of The Joint Commission's Emergency Management Standards and Elements of Performance.
- Worked with Nursing Administration, Clinical Informatics and Convergent Technologies to test business continuity policies and procedures for planned downtime for Epic and network maintenance.
- Clinical and HICS Incident Management Teams effectively and successfully managed departmental earthquake preparedness drills for the 2022 Great California ShakeOut, five scheduled computer system downtime server patch events, three extreme weather events, one brief commercial power failure, two lockdown drills, functional mass casualty incident exercises with both San Mateo and San Francisco Counties, an internal water main rupture with resultant flooding, the Pride Parade and related events, as well as the ongoing COVID-19 Response with multiple patient surges.

PROGRAM OBJECTIVES FOR FY 2022-2023

Objectives	Met/ Not Met	Comments and Action Plans
ZSFG 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 in April, 2023 and shared with SFSD, SFFD, SFPD, DPH, the SF Department of Emergency Management and other SF hospitals in August, 2023.
ZSFG 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**	ZSFG's Emergency Operations Plan and Hazard Specific Plans were significantly revised to address updated CMS and TJC Standards and Elements of Performance.
ZSFG implements its Emergency Operations Plan when an actual emergency occurs.	**Met**	Ongoing Covid-19 Response and minor power failure.

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 scalability and effectiveness during ongoing Covid-19 Response with multiple patient surges and activations for preplanned events.
ZSFG trains staff for their assigned emergency response roles.	**Met**	• New Employee Orientation • Annual Emergency & Disaster Response Training • HICS Basics Training
ZSFG 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 on all actual emergencies, scheduled information system downtime and other preplanned events.
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 9/10/23.

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:

Emergency Management Performance Metrics	2022-2023 Goal	2022-2023 Results	Comments & Action Plan
Specific Staff Will Complete Required Training in HICS. Current designated Staff who have completed HICS Basics – Baseline 88% in 2019.	**90%**	**94%**	**Met.** 235 Managers and Supervisors have completed HICS Basics Training.
Ensure that Staff, Patient and Visitor Communication is Distributed During Drills and Actual Incidents.	**95%**	**100%**	**Met.** Signage and ongoing messaging during Statewide Exercise and Covid-19 Response.
During Disaster Exercises and Actual Incidents, the Incident Management Team will Complete Critical Functions.	**95%**	**100%**	**Met.** Extreme weather and Covid-19 Response.
Decrease Everbridge Undeliverables.	**< 0.10%**	**0.01%**	**Met.** Regularly updated contact information.
Assess Frontline Staff Knowledge of Emergency Procedures.	**95%**	**96%**	**Met.**

During Disaster Exercises and Actual Incidents, HICS Staff will Complete Appropriate Documentation on HICS Job Action Sheets & Tools.	**95%**	**100%**	**Met.** Covid-19 Response.
Implement at Least 90% of Corrective Actions Identified in FY 2013-2023 Exercises and Actual Incidents by 6/30/24.	**90%**	**94%**	**Met.** Most issues have been completed or are implemented and ongoing.

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 2023-2024

- Update Hazard Specific Plans and procedures to ensure alignment with new City and County of San Francisco multi -casualty incident response plans.
- Continue to develop and implement progressive Drills and Exercises for Security Emergencies Response, including Lockdown, Shelter in Place, and Active Assailant. (Continuing from prior year.)
- Continue providing training on the Hospital Incident Command System (HICS) for Incident Management Team members, supervisors and managers.
- Update the Emergency Management IntraNet site to provide easily accessible information for all ZSFG staff.
- Continue to ensure effective and efficient incident management and documentation.

The proposed performance metrics for these goals include:

Emergency Management Proposed Performance Metrics for 2023-2024	Target	Comments & Action Plan
Develop and implement updated Hazard Specific Plans, procedures and HICS Tools to align with new CCSF Multi-Casualty Incident Plan in 2024.	**95%**	**Driver Metric.**
Develop and implement progressive Drills and Exercises for	**90%**	**Driver Metric. Quarterly Activities and Specific**

Security Emergencies Response, including Lockdown, Shelter in Place & Active Assailant Exercise Program.		**Exercise Objectives**
Regain control of EM IntraNet Site and ensure that all links and documents are up to date.	**95%**	**Driver Metric.** Site has been off-line and needs re-design and updates to all links.
Specific Staff Will Complete Required Training in HICS Basics.	**95%**	**Watch Metric.**
During Disaster Exercises and Actual Incidents, the Incident Management Team will Complete Critical Functions.	**95%**	**Watch Metric. Continuing focus on standard work and documentation.**
Follow Up on Issues Identified for Improvement During HICS Activations during prior years.	**95%**	**Watch Metric. Ensuring accountability for Corrective Actions.**
Assess Frontline Staff Knowledge of Critical Response Actions for our Most Likely and Highest Impact Emergencies.	**95%**	**Watch Metric.**
Maintain Everbridge Alert System Undeliverable Messages to ≤ 0.10%.	**≤ 0.10%**	**Watch Metric. Ensuring safety for staff with critical messaging.**

II. LIFE SAFETY MANAGEMENT

The The Life Safety Management Plan demonstrates comprehensive understanding, application, and adherence to the latest life safety codes of the National Fire Protection Association (NFPA), Federal, State & local authorities, and as required by vario us other regulatory bodies. The Life Safety Management plan is designed to ensure an effective response to emergencies that could endanger the safety of patients, staff & visitors, and affect the Zuckerberg San Francisco General environment of care (ZSFG).

SCOPE

The Life Safety Management Program applies to all 16 buildings on the ZSFG campus (approximately 1.8m sqft of floor space), including all bond funded construction projects. Notification and response to any event includes the ZSFG Fire Marshal, Facil ity Services staff, and Hospital Leadership.

ACCOMPLISHMENTS

- Completed annual test, inspection, and repairs to fire and smoke dampers on the 6th & 7th 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 care impact and predictable financial cost. The ZSFG HVAC crew has made repairs per the inspection report and provided damper access to previously inaccessible dampers. As of this report, all FDs & FSDs are accessible.
- Completed annual test, inspection, and repairs to fire and smoke dampers on the Basement floor in Bldg 25 per NFPA standards: required every six years. The intent is to test and inspect one to two floors per year to maintain compliance at a minimal care impact and predictable financial cost. The ZSFG HVAC crew has made repairs per the inspection report.
- Annual HVAC smoke control testing and repairs were completed in February. Smoke control testing, in addition to being an LS requirement, maintains a safe and reliable smoke control system.

- Assessed risks at and around various construction projects and assisted the project team in implementing Interim Life Safety Measures (ILSM) as necessary. Continuous project monitoring enhances the care experience in addition to providing a quality, and safe patient care environment.
- Maintained Covid-19 social distancing requirements, testing sites, and vaccination sites.
- Utilized False Fire Alarms on the ZSFG Campus, especially in Bldg 25 as an opportunity to train staff on fire life safety features of the Campus, inform the patient population that ZSFG is a no smoking campus, and familiarize responding crews with SFFD to our 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 SFGH Fire Plan. Problems are assessed and addressed for impact to the hospital's core values of safety, and 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 SFGH is routinely maintained, 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 repaired in a timely fashion or is 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 device functionality 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	All 940 fire extinguishers on Campus are inspected and maintained as required. All extinguisher types 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	2022 1st Qtr.	2022 2nd Qtr.	2023 3rd Qtr.	2023 4th Qtr.	Target	Comments and Action Plan
Quarterly Fire Drills: a minimum of 9 per quarter - one fire drill per shift, w/ completed department evaluation forms.	10	10	12	10	Minimum of 9 drills per quarter. 2 per shift	Target achieved, extra drills due to interim life safety measures, or for training purposes. Discussed issues uncovered during drills and took corrective actions.

False fire alarms	29	21	25	23	25 or less false alarms per year	Target not met – False fire alarm goal at less than 50 for the year. 62 of 98 FAs were smoking related.
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 2022-2023, false fire alarm goal on campus was adjusted to 50 per year or fewer.

Target of 50 or fewer false fire alarms for FY 2022-2023 has not been met.

The rise in false fire alarms is directly related to smoking in Bldg 25 patient care bathrooms.

EFFECTIVENESS

The Life Safety Management Program is effective; however, the number of false fire alarms needs constant management.

GOALS AND OPPORTUNITIES FOR IMPROVEMENT IN 2023-2024

- Manage false fire alarms for a quality and safe care experience in Bldg 25.

- Continue engagement with projects on the ZSFG Campus. Ensure that the appropriate Risk Assessments for a quality, and safe care experience are followed.

- Continue implementing fire alarm upgrade funded by the 2016 bond.

- Engage staff and contractors to implement projects funded by the 2016 bond measure.

Proposed Performance Metrics for 2022-23	Target	Comments and Action Plan
AIM: manage and reduce false fire alarms in Bldg 25 to a more acceptable level through staff training.	**50 or fewer false fire alarms per year.**	Continue staff training and engagement on the fire alarm system in Bldg 25.
AIM: Engage staff and contractors to review & implement the 2016 bond measure projects pertaining to the fire alarm system.	**Provide ZSFG staff oversight for all projects.**	Involve stake holders in project implementation.

III. 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 exposu res 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) apart from 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

- Continued to work with Capital Projects, 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 conce rns.
- Maintained ZSFG Environmental Permits and acted as liaison between regulatory agencies including the 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.
- Reviewed and updated Hazardous Materials & Waste Management (5.01), Hazcom (5.02), Hazardous Materials Exposure Monitoring (5.03), Hazmat Spills (5.04), Hazardous Waste Disposal (5.06), Construction Safety (10.01), IIPP (15.01), Respirat ory Protection Program (16.01).
- Worked with Stericycle to provide Department of Transportation (DOT) and Hazardous Waste training to staff handling hazardous materials and hazardous waste.
- Trained Oncology Nurses on the proper use of chemotherapy agent and hazardous drug spill kit.

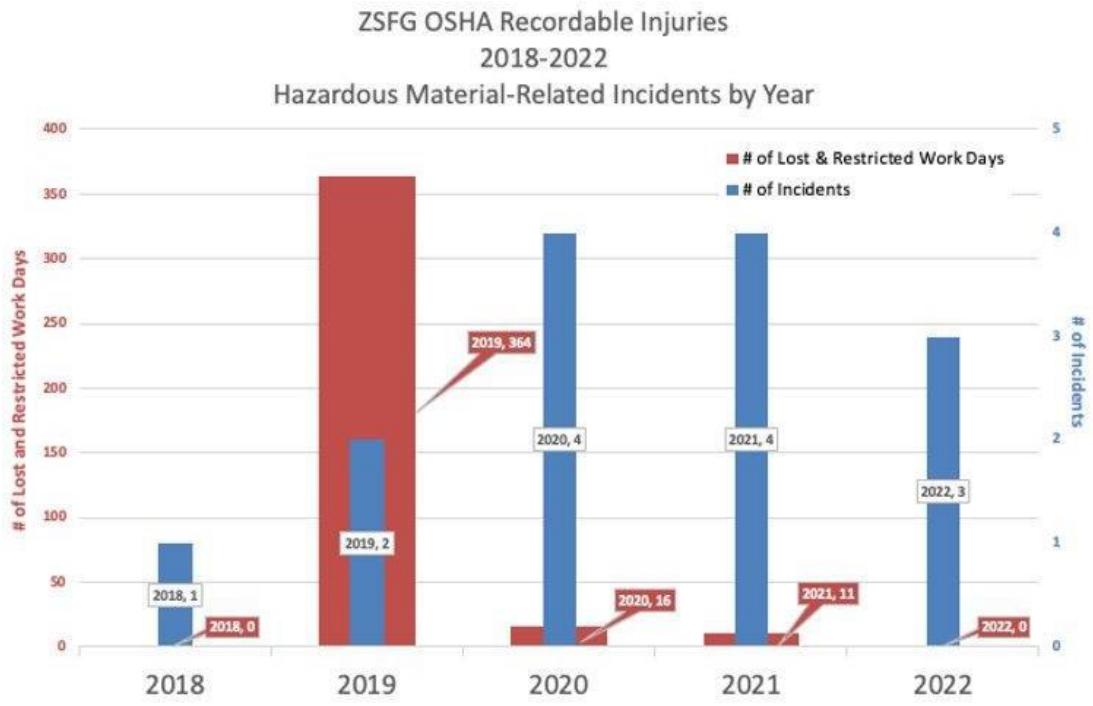
PROGRAM OBJECTIVES/PERFORMANCE METRICS FOR 2022-2023

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
Establish new pharmaceutical and RCRA waste disposal practices. The current pharmaceutical and RCRA waste practices have put ZSFG in a RCRA LQG hazardous waste generator category which requires all staff who manage and handle hazardous wastes to be DOT trained and other additional regulatory requirements.	**Partially Met**	Met with Stericyle to discuss the comingle program (Sharps & Non-Haz), RCRA, & controlled subs. In progress Stericycle provided DOT and Haz waste Training.
Update each department specific SDS's	**Partially Met**	Working with unit managers to update SDS's binders to reflect each unit's current hazardous materials inventory.

Objectives	Met / Not Met	Comments and Action Plans

Restarted the hazardous materials EOC rounds which was vacant for almost 2 years	**Met**	Performed EOC rounds in the following building/units: 6. March – B80 & 90, B3, 5 & 100 7. April – B25 7th & 6th floor, b25 5th & 4th floor 8. May – B25 3rd, 2nd, Medical Room, 1st floor, 3D, Rehab 9. June – B25 Ground floor, basement, PFT lab, Pharm, Kitchen. 10. July – B5: 6M, 6G, 5M, 4M, 3M, clinics, B4 & B9
Reduce number of hazardous materials & hazardous waste spill or incident.	**Met**	Continue to work with staff to avoid hazardous materials and hazardous waste incidents. The number of hazardous materials from 2021 to 2022 reduced from 4 to 3 incidents.



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.

EFFECTIVENESS

Effectiveness is based on how well the scope fits current organizational needs and the degree to which current performance me trics result 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 2023-2024

- **Reduce costs for pharmaceutical waste disposal.** Changes in waste disposal requirements necessitated a change in our pharmaceutical waste disposal process. During 2023-2024, EH&S will work with stakeholders to obtain Stericycle commingle program.
- **Conduct exposure monitoring of chemicals.** During 2023-2024, EH&S will conduct exposure monitoring to ensure that the work practices and control measure at ZSFG will maintain exposures to employees, patients, and visitors at acceptable levels. Surveys should be conducted during normal work activities.
- **Conduct employee training about the hazards of chemical products present or used in the department.** During 2023-2024, EH&S will work with each department or group and appoint an individual or group of individuals to be responsible for updating the inventory of all hazardous materials and corresponding SDSs used in the Department. Inventories shall be submitted to EH&S annually.
- **Enhance hazardous materials spill response procedures.** Work with the DPH Municipal Hazardous Waste Management Program to develop a procedure to address hazmat spills on campus and update Hazardous Materials Spill (5.04) policy to reflect current hazmat spill procedures.

IV. MEDICAL EQUIPMENT MANAGEMENT

The purpose of the Medical Equipment Management Program is to support a safe patient care and treatment environment at Zuckerberg San Francisco General Hospital (ZSFG) by managing risks associated with the use of medical equipment and clinical engineering technology. The program includes processes for selection and maintenance of equipment that are based on the risks associated with the equipment.

SCOPE

The program applies to all personnel, patients, and occupants of ZSFG that includes its main campus. The Biomedical Engineering Department will collaborate with the clinical staff to promote a culture of safety, identify medical equipment located on the main campus, and assign a maintenance strategy.

ACCOMPLISHMENTS

Activities:

- Biomedical Technicians were sent to training on vital medical device to support services in-house
- Baxter Sigma Spectrum software upgrade on all 700-plus infusion pumps was completed
- Continue success with Biomedical Equipment Planning Committee in making key medical equipment purchases

Developing People (Completed Training):

- Baxter Prismaflex (LS/Hemodialysis Units, Renal, Continuous Replacement Therapy)
- Hamilton MR1 (LS/Ventilators, Intensive Care)
- Hamilton T1 (LS/Ventilators, Transport)
- Philips Healthcare MX 400-800 (Monitors, Physiologic, Multipurpose, Bedside, Modular)
- Welch Allyn Connex 6000 Series (Monitors, Physiologic, Vital Signs)
- Vyaire Medical (CareFusion) LTV1200 (LS/Ventilators, Intensive Care)

Safety:

Baxter Sigma Spectrum V8: Potential reduced or non-delivery of medication, in some cases without alerting the user via pump alarm. This may occur because of incorrect administration set setup and/or incomplete resolution of upstream occlusion alarms. Baxter proposed a software update that will provide user prompts to support correct trou bleshooting of the upstream occlusion alarm.

Baxter field service technicians came onsite to complete software version V8.01.00 updates on all our Spectrum V8 Infusion Pumps.

PROGRAM OBJECTIVES

The Objectives for the Medical Equipment Management Program are developed from information gathered during routine and special risk assessment activities, annual evaluation of the previous year's program activities, performance measures, information collection and environmental tours.

Objectives	Met/Not Met	Comments and Action Plan
Revive risk assessment of medical equipment in Biomedical Engineering's CMMS database and update the Biomedical Engineering Medical Equipment Management Plan (MEMP)	Met	100% of the medical devices in the CMMS (Biomed's database) have been assigned a risk score.
Medical device repair turnaround time: 90% completing within 30 days	Not met	Biomed completed 88.66% of repairs completed within 30 days during FY22-23 which is up from 87% in FY21-22. The end goal for the department is 90% or more.

PERFORMANCE METRICS

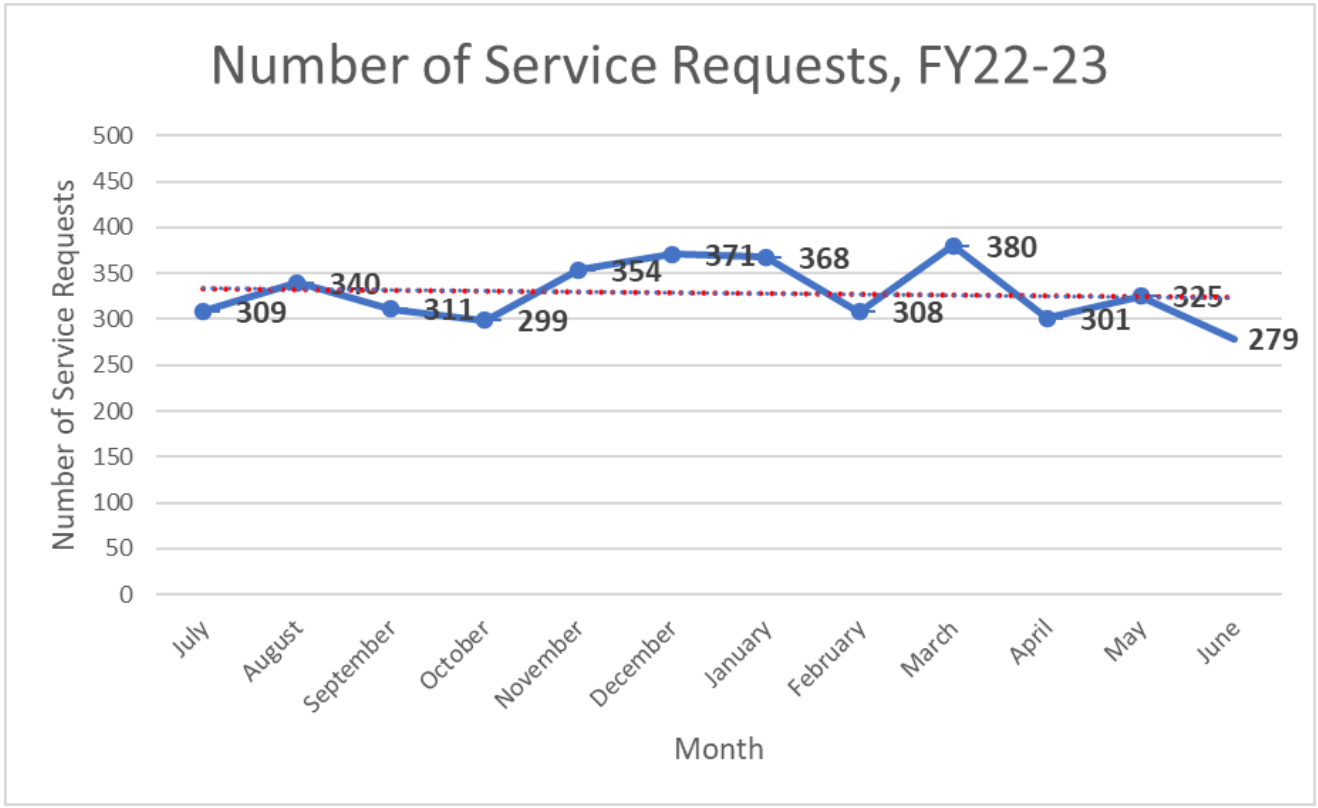
Preventative Maintenance:

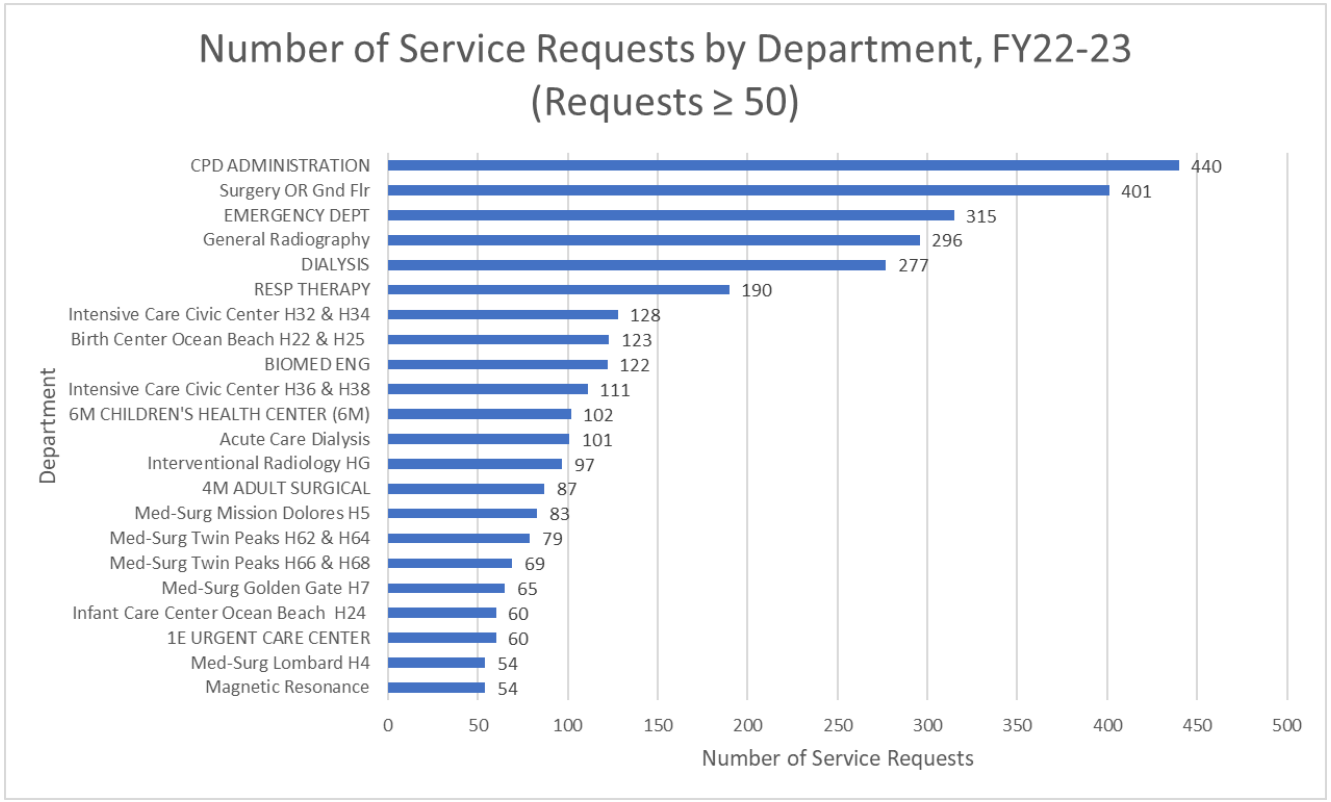
	July	August	September	October	November	December	January	February	March	April	May	June
High Risk (Life Support)												
Number of PMs	123	33	71	64	133	211	72	34	17	18	40	65
Completion Percentage	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	90%	100%
Number of Devices Not Located	0	0	0	0	0	0	0	0	0	0	0	0
Number of Devices Pending Service	0	0	0	0	0	0	0	0	0	0	4	0
Number of Devices Unavailable	0	0	0	0	0	0	0	0	0	0	0	0
Percentage Managed (Goal: 100%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Non-High Risk												
Number of PMs	566	639	543	654	1041	653	632	587	2317	634	499	474

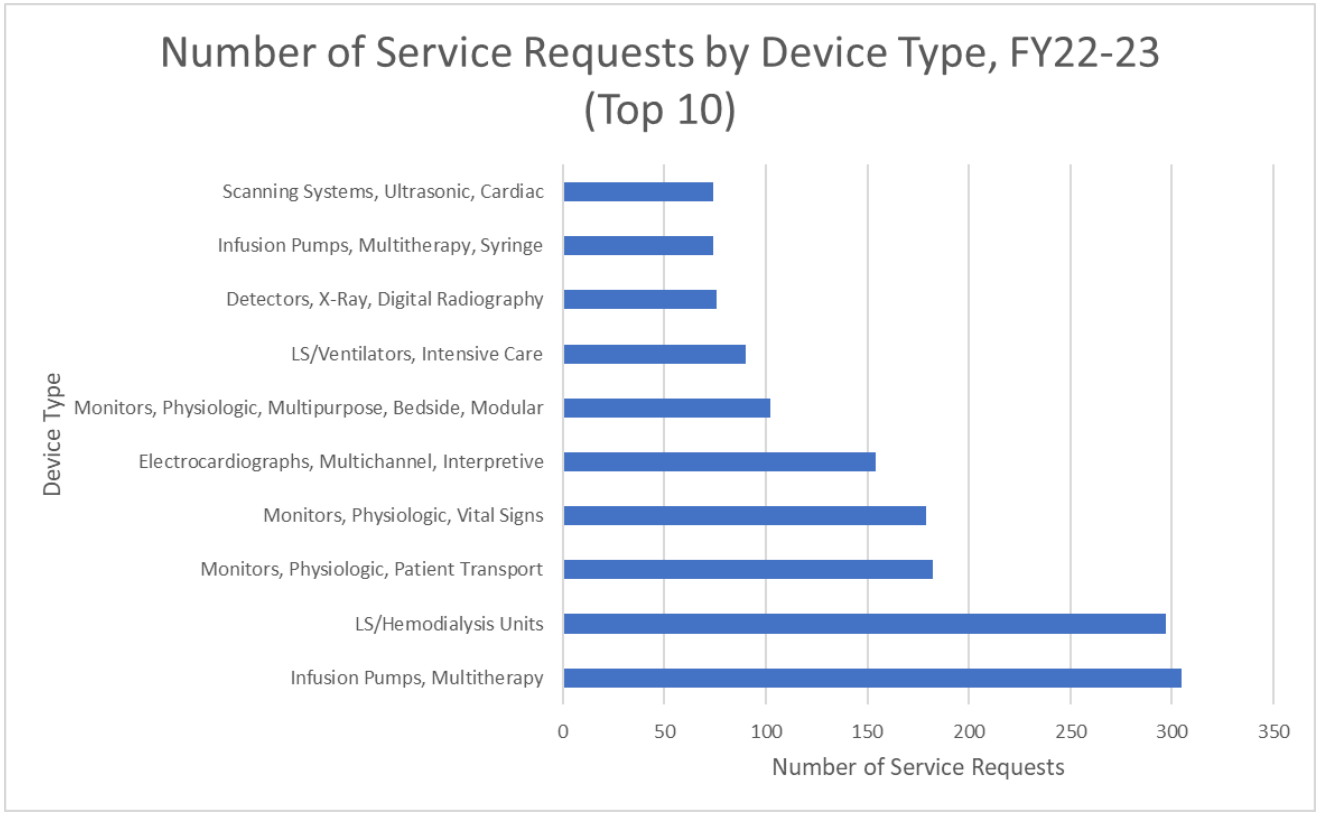
Completion Percentage	100%	100%	100%	100%	100%	100%	100%	100%	99.78%	100%	100%	100%
Number of Devices Not Located	0	0	0	0	0	0	0	0	0	0	0	0
Number of Devices Pending Service	0	0	0	0	0	0	0	0	5	0	0	0
Number of Devices Unavailable	0	0	0	0	0	0	0	0	0	0	0	0
Percentage Managed (Goal: 100%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Service Request Activities:

Categories	July	August	September	October	November	December	January	February	March	April	May	June
Number of Service Request	309	340	311	299	354	371	368	308	380	301	325	279
Number of devices retired	49	100	64	51	62	32	54	18	43	23	25	34
Number of initial inspections performed	46	51	19	40	31	26	37	35	31	58	89	65
Number of UO reports	4	1	4	1	3	15	4	9	4	2	3	2
EOC rounds survey	0	1	0	0	0	0	1	0	1	0	2	1


Number of Service Requests, FY22-23
Number of Service Requests
500
450
400
350
300
250
200
150
100
50
0
309
340
311
299
354
371
368
308
380
301
325
279
July
August
September
October
November
December
January
February
March
April
May
June
Month


Number of Service Requests by Department, FY22-23
(Requests ≥ 50)
Department
CPD ADMINISTRATION 440
Surgery OR Gnd Flr 401
EMERGENCY DEPT 315
General Radiography 296
DIALYSIS 277
RESP THERAPY 190
Intensive Care Civic Center H32 & H34 128
Birth Center Ocean Beach H22 & H25 123
BIOMED ENG 122
Intensive Care Civic Center H36 & H38 111
6M CHILDREN'S HEALTH CENTER (6M) 102
Acute Care Dialysis 101
Interventional Radiology HG 97
4M ADULT SURGICAL 87
Med-Surg Mission Dolores H5 83
Med-Surg Twin Peaks H62 & H64 79
Med-Surg Twin Peaks H66 & H68 69
Med-Surg Golden Gate H7 65
Infant Care Center Ocean Beach H24 60
1E URGENT CARE CENTER 60
Med-Surg Lombard H4 54
Magnetic Resonance 54
0 50 100 150 200 250 300 350 400 450 500
Number of Service Requests


Number of Service Requests by Device Type, FY22-23 (Top 10)
Device Type
Scanning Systems, Ultrasonic, Cardiac
Infusion Pumps, Multitherapy, Syringe
Detectors, X-Ray, Digital Radiography
LS/Ventilators, Intensive Care
Monitors, Physiologic, Multipurpose, Bedside, Modular
Electrocardiographs, Multichannel, Interpretive
Monitors, Physiologic, Vital Signs
Monitors, Physiologic, Patient Transport
LS/Hemodialysis Units
Infusion Pumps, Multitherapy
0
50
100
150
200
250
300
350
Number of Service Requests

Medical Device Recalls/Hazard Alerts:

Manufacturer and Model	Device type, Issue, Solution
Medtronic Spinal and Biologics Div Medtronic Inc.; StealthStation S7; Stereotactic Systems, Image-Guided, Surgical, Intracranial	Software update to address Biopsy Depth Gauge Cycle View Inaccuracy issue. Medtronic representative will be performing software update on impacted StealthStation S7 system in the coming months. Medtronic representative will remove the warning and instructional placard currently attached to system when update is complete. The correction for StealthStation S7 system running Synergy Cranial model (9733763) version 2.2.8 to version 2.2.9.
Siemens Healthcare; ADVIA Chemistry XPT; Analyzers, Laboratory, Blood, Glycated Hemoglobin	Siemens recommends install on the above referenced update on the Advia Chemistry XPT PN#10723034 SN:CA1275001870187 FL#400-525066 Notification#400501510382
Fresenius Medical Care North America; 2008T; LS/Hemodialysis Units	Fresenius T model machines will be updated to software v.2.74. Functional Board/ v.2.32 Actuator Board/ v.1.17 UI Board.
Getinge USA Inc; Vent305; LS/Ventilators, Intensive Care	Maquet Critical Care AB/Getinge is initiating an update to the voluntary Medical Device Correction for the Servo-u, Servo-n, Servo-u MR, and Servo-air due to a combination of alarms being generated which may result in loss of communication and technical alarms being triggered to include serial numbers that were missed in the July 20, 2022 notification. Actions to be taken by Getinge: Maquet Critical Care AB/Getinge has updated the software platform for the Servo-u, Servo-n, Servo-u MR, and Servo-air to version 4.4 which contains bug fixes to address the technical alarms

GE Healthcare; Giraffe OmniBed; Incubator/Radiant Warming Units, Infant, Mobile	GE Healthcare has updated the design of the two bedside panel latches on the north end of the bed, as well as the design of the porthole latches. This is a mandatory field action, and all affected beds will need new latches installed. You will be receiving these new latches at no cost.
Smiths Medical; H-1200; Warming Units, Blood/Intravenous Solution	Smiths Medical implemented a design change (since 2015) to widen the hinge/latch assembly on the Level 1 H-2 Pressure Chambers used with the Level 1 Fast Flow Fluid Warmers (Models H-1025 or H-1200) or added to the H-1000 model. Smiths Medical has become aware that Level 1 H-2 Pressure Chambers with the wider hinge/latch assembly can potentially impact the amount of pressure exerted onto the IV fluid bag while contained within the pressure chamber. This may result in decreased flow rate, stopped flow, or residual fluid left within the IV bag. Smiths Medical will be providing a replacement kit to modify any affected Level 1 H-2 Pressure Chambers with a narrower hinge assembly. Smiths Medical will contact customers when replacement kits are available. In the meantime, Smiths Medical will be providing customers with a printable placard which may be secured to or displayed near the product with required key actions for users.
Draeger Medical Inc; Evita Infinity V500; LS/Ventilators, Intensive Care	A restart is a designed system recovery function to restore the proper function of the ventilator. In the rare reported cases, however, an error in the data processing of the activated CO2 measurement caused the restart of the ventilation unit. Devices without integrated or with disabled CO2 measurement function are not affected. The behavior can be effectively prevented by not activating the integrated CO2 measurement. If necessary, external CO2 monitoring can be used. If the information from this safety notice is considered, the devices can remain in operation. During the restart, ventilation is temporarily interrupted, and an audible alarm is activated by the auxiliary acoustic alarm system. The breathing system is opened to ambient air during the restart to potentially allow the patient to breathe spontaneously. Opening the breathing system to ambient causes a loss of ventilation support from the ventilator including PEEP. The ventilation unit is restarted and after approximately 8 seconds automatically resumes

	ventilation at the identical settings prior to the restart. The restart of the display unit is complete after approximately one minute. During the display unit restart period, the resumed ventilation can be observed on the OLEO display of the ventilation unit. Key parameters such as Fi02 concentration, expiratory minute volume and airway pressure are displayed there.
GE Healthcare; Vivid I; Scanning Systems, Ultrasonic, Cardiac	GE Healthcare has become aware that if batteries in certain legacy Vivid systems are not replaced at 2 years, as recommended in the Service Manual, they can fail and in rare occasions, they can emit smoke, or catch fire. There have been no injuries reported as a result of this issue. You can continue to use your device. Please follow the safety instructions provided in the appendix to this letter and place the appendix with your product labeling. Please replace the battery: 1. every 2 years, or 2. if the battery is not capable of powering the system for more than 30 minutes (instead of the expected 60 minutes).
Siemens Healthcare; ATELLICA CH930M; Analyzers, Laboratory, Immunoassay, Photometric	Siemens Healthcare Diagnostics Inc. has confirmed customer complaints indicating the potential for falsely elevated LITH_2 and Li results on the Atellica CH 930 Analyzer. Actions to be Taken by the Customer Please review this letter with your Medical Director: Letter will be sent to Shannon Kastner Discontinue use of and discard the kit lots listed in Table 1: Clinical Lab will determine if they will discontinue kit lots Complete and return the Field Correction Effectiveness Check Form attached to this letter within 30 days: Shannon Kastner or Clinical Lab representative will complete and return the field correction effectiveness check form If you have received any complaints of illness or adverse events associated with the products listed in Table 1, immediately contact your local Siemens Healthineers

	Customer Care Center or your local Siemens Healthineers technical support representative.

Getinge; Cardiosave Hybrid Draeger; LS/Circulatory Assist Units, Cardiac, Intra-Aortic Balloon	Datascope/Getinge has received complaints reporting unexpected shutdown of the Cardiosave IABP while providing therapy in very rare instances. An internal investigation of the complaints determined an unexpected shutdown may be due to blood entering into the Cardiosave IABP when therapy is provided with a perforated intra-aortic balloon catheter. Datascope/Getinge is in the process of developing an addendum to the Cardiosave IABP and IAB Instructions. For Use to the document new warning(s)/action(s) to be taken by the User to minimize the risk of harm caused by blood entering the system. 1. Input into Requestor Remarks – An unexpected shutdown of the IABP may occur due to a failure of the connection between the Coiled Cord cable (part number 012-00-1801) and the Cable Assembly backplane (part number 001200-1796) to the Coiled Cord cable which provides communication between the display head and base unit. • A Datascope/Getinge service representative will contact you to schedule the installation of the correction if your unit is affected as the correction kit becomes available. 2. Input into Requestor Remarks – An unexpected shutdown of the IABP may occur due to the loss of communication between the Executive Processor PCBA and the Video Generator PCBA. • Datascope/Getinge is developing a software correction to address this issue. Once available, a Datascope/Getinge service representative will contact you to schedule the installation of the updated software.

	3. There have been reported failures of the high-pressure helium regulator which may cause a helium leak in the Cardiosave Hospital Cart. The high-pressure helium regulator is located in the Cardiosave Hospital Cart and regulates the helium pressure of the external helium supply. In instance of helium regulator failure, a Pump Console's internal reservoir of helium will not be replenished when docked into an impacted Hospital Cart. This may result in an insufficient amount of helium within the internal reservoir. • Datascope/Getinge is currently investigating this issue to determine root cause and will notify customers if additional action is to be taken to correct the issue. 4. Input into Requestor Remarks – There have been reports of damaged, work, or torn O-rings on the Cardiosave Pump Console quick disconnect fitting resulting in helium tank leaks. The quick disconnect fitting is the point of connection that permits the refilling of the Pump Console's internal helium reservoir when the Pump Console is docked in the Hospital Cart. • Datascope/Getinge is currently updating the annual Preventative Maintenance instruction to include replacement of the quick disconnect fitting O-ring.
Philips Respironics; Trilogy EV300; LS/Ventilators, Noninvasive Positive Pressure	Philips Respironics has discovered, through internal testing, that accuracy of delivered oxygen may deviate below the required tolerance of 5% from setpoint when providing high concentration oxygen therapy. Additionally, if equipped, the internal FiO2 sensor may indicate a value higher than the device is actually delivering. This may vary based on the patient's lung capacity, lung resistance, use of a particulate filter, or circuit configuration. In the worst case, this may lead to under delivery of oxygen. Philips Respironics will release a software update that will address the issue. This software will be available free of charge to all Trilogy EV300, Trilogy Evo O2, and Trilogy Evo Universal users. Additional details will be provided when the update is available.

Proposed Performance Improvements, FY22-23	Met/ Not Met	Results
Medical device repairs	**Not Met** **Current Goal: 90%** **Current status: 88.6%**	The Biomedical Engineering Department receives an average of 300-plus medical device service requests per month, the majority of which are repair requests. As service requests are received via phone or online ticket submission, they are logged into a database, assigned to a biomedical technician, who then will provide a solution. Requests for life support (LS) devices are prioritized for repair. Meet with Biomedical team bi-weekly to troubleshoot and discuss unresolved device repairs and work with vendors to become compliant with DPH.
Revive risk assessment of medical equipment in Biomedical Engineering's CMMS database and update the Biomedical Engineering Medical Equipment Management Plan (MEMP)	**Met**	The plan is to follow TMS (Biomedical Engineering CMMS) database embedded clinical equipment risk classification formula which is E+A+[(P+F+U)/3]. Once all medical devices in the

		database have an assigned risk score then the MEMP will be updated and presented at an EOC committee meeting.

Proposed Performance Metrics for FY23-24	Target	Comments and Action Plan
Reduce the number and cost of DPH non-compliant vendors. ▪ The Biomedical Engineering Department currently cannot do business directly with over 30 vendors.	≤$40,000/annual	The additional cost to do business with non-compliant vendors in FY22-23 was $45,000.
Manage high risk (life support) medical equipment	100%	On a month-to-month basis ensure that all high-risk PMs are managed even if they are not completed within the assigned month.
Address medical device recalls/hazard alerts	90%-100%	The plan is to address each device recall as long as the manufacturer provides a solution.

EFFECTIVENESS

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

GOALS AND OPPORTUNITIES FOR IMPROVEMENT IN FY23-24

- Provide further training for all Biomedical Technicians to increase the number of PM and repair services in-house.
  - Reduce the total cost of ownership of medical devices.
  - Reduce the service turnaround time.

- Hire a female Biomedical Technician that would provide support in the new Outpatient Dialysis (Ward 17) in building 5 since it plans to expand its patient stations from 13 to 30.
  - The new area is expected to open at the end of 2024/early 2025.

- Continue working with clinical department leaders to plan the replacement of their medical devices.
  - Define a capital strategy that would involve communication with ZSFG senior/executive leadership as to when a device(s) will need to be replaced. Having a proper plan in place would help leadership in determining what device(s) should be included in their annual budget and if any requests need to be submitted to the capital equipment committee.
  - Met with department leaders to prepare for their capital equipment submission.

V. SAFETY MANAGEMENT

SCOPE

Safety Management is designed to identify and address potential safety risks in the ZSFG environment. At ZSFG, Safety Management is shared by two complementary programs, Patient Safety and Environmental Health and Safety:

- Patient Safety is a function of Quality Management and oversees the organization's patient safety plan and national patient safety goals. Patient Safety reports via Process Improvement and Patient Safety Committee (PIPS).
- Environmental Health & Safety (EH&S) focuses on staff health, safety, and well-being. The Environmental Health and Safety Department provides consultation, resources and training to create, maintain and improve the hospital's working environment. The goals of EH&S are to reduce or eliminate staff injuries and illnesses and create a safe environ ment for all persons including staff, patients, clients, and visitors at the ZSFG site. EH&S reports their activities through the Environment of Care Committee in both this chapter and the Hazardous Materials and Hazardous Waste Chapter.

The Safety Management Program's scope encompasses all departments and areas of the ZSFG campus, except for UCSF research activities, which fall under UCSF management.

ACCOMPLISHMENTS

- Continue to work with Infection Control, Facilities, and Capital Projects to define standard procedures and work to prevent releases of hazardous materials (asbestos and lead) during construction and renovation activities and to ensure that health and safety and infection controls were incorporated into projects during the planning phase.

- Update Respirator Protection Program Update (RPP) Appendix E to include 1N Oral Surgery clinic to the annual respirator fit testing.

- Completed a total of 10 individual ergonomic evaluations for chair fitting and workstation evaluation.

PROGRAM OBJECTIVES/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: Show continued progress in reducing staff injuries and injury rates, measured by no increase in Recordable Injury Counts or Injury Rates from FY2018-2022	**Met:** Injury counts and the standardized injury rate ("Incidence Rate") decreased from FY20/21- FY21/22.

EFFECTIVENESS

Effectiveness is based on how well the goals are met and how well the scope of the performance metrics fit current organizati onal needs. Recognizing the significant challenge of reducing staff injuries and given the very limited resources available, the E nvironment of Care Committee has reviewed the Safety Management Program and found it to be effective, but needs improvement based on the objectives and performance metrics indicated in the Plan.

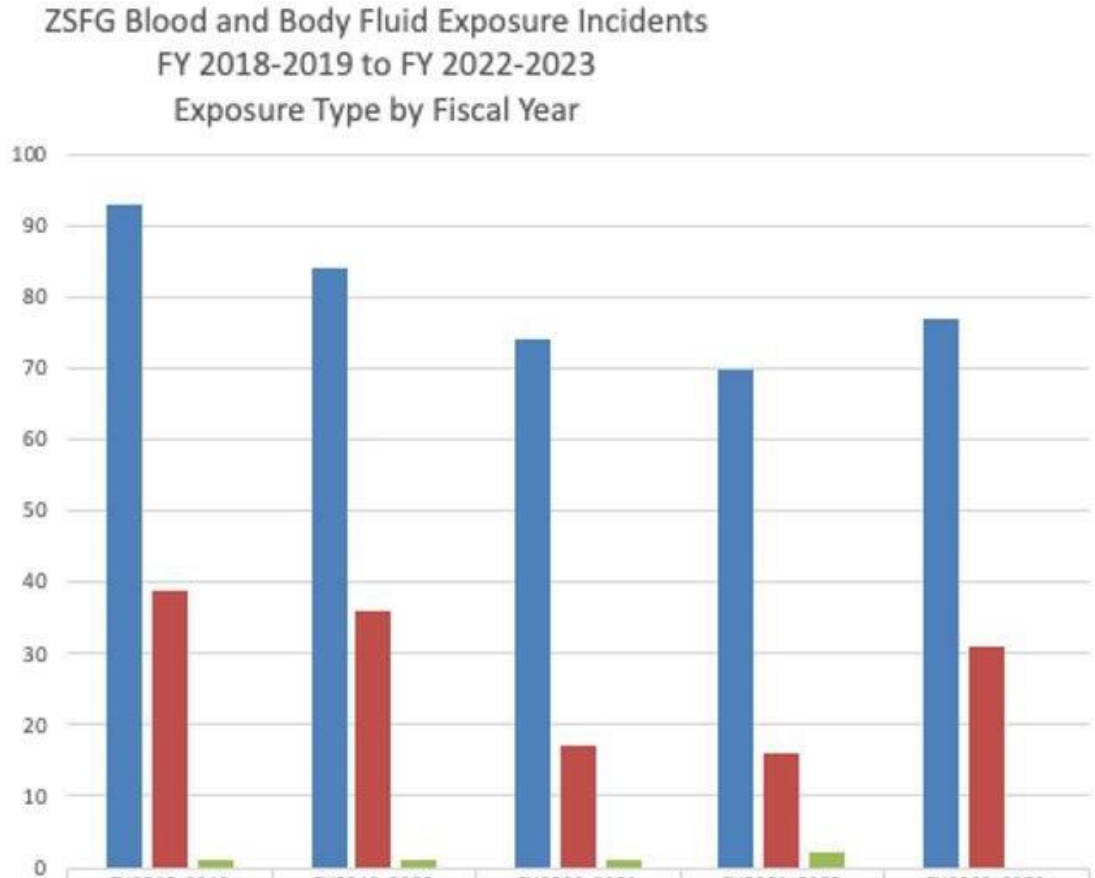
GOALS AND OPPORTUNITIES FOR IMPROVEMENT IN 2023-2024:

- Safety: Continue efforts to reduce the number of staff injuries. See proposed Performance Metrics for 2023-2024 for additional details.
- Safety: Continue to identify and develop countermeasures for activities and areas where significant numbers of staff injuries occur.

- Safety: Create a log of EH&S concerns they are reported as well as how these were resolved.
- Safety: There's an increase in splash and cut/puncture injuries compared to FY 2021 -2022. Work with the DPH Safe Device/Bloodborne Pathogen Committee to provide refresher training to managers, supervisors, and employee or to discuss splash/cut injuries during staff huddles and to remind employee to wear proper PPE to prevent splash exposures and cuts.

The proposed performance metrics for these goals are:

Safety Management Proposed Performance Metrics for 2023-2024	**Target**	**Comments & Action Plan**
AIM: Show continued progress in reducing staff injuries and injury rates.	**Keep recordable injury counts and injury rates at/or below FY2021-2022 levels.**	Provide refresher training and education to all staff or to departments with the most high injury rate activities and workgroups
AIM: Develop no less than two new initiatives specifically targeted at reducing staff injuries.	**Two initiatives by end of FY2023-2024**	Focus on high injury rate activities and workgroups.
AIM: Create database of EH&S concerns and departmental actions.	**Create database and track 2019-2020 data**	EH&S needs a formalized way of tracking complaints and our responses to them. Resulting data may be a helpful leading indicator. .
AIM: Provide education or refresher training to managers, supervisors, and employees.	**Reduce splash and cut/puncture injuries by end of FY 2023-2024**	Work with the DPH Safe Device/Bloodborne Pathogen Committee with training/education during huddles or staff meetings.



	FY2018-2019	FY2019-2020	FY2020-2021	FY2021-2022	FY2022-2023
Cut, Puncture, Laceration	93	84	74	70	77
Splash	39	36	17	16	31
Other/Unspecified	1	1	1	2	

VI. SECURITY MANAGEMENT

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 Campus. 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.

ACCOMPLISHMENTS

- In response to 7,070 patient related service calls,
- 1% resulted in use-of-force.
- Confiscated 3,050 weapons and contraband through Emergency Department Security Weapons Screening.

- Investigated 26-moderate/high risk workplace violence threat incidents and developed security plans to address the threat and protect the individuals involved.
- Implementation of the Behavioral Emergency Response Team.
- Reduction of use-of-force incidents by 21%

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	2022-2023 security risk assessments were 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	Security emergency response times are monitored weekly, and the outcomes are reported to the Security Leadership Committee. Service requests are responded to in accordance with the Security Response Standard Operating Procedures.

Report and investigate incidents of theft, vehicle accidents, threats, and property damage.	Met	SFSO quarterly call-for-service data, incident reports: Threat Management and SFSO Crime Report data supports that investigations are initiated for all crimes against persons and facility property.
Promote security awareness and education.	Met	Through Environment of Care Rounds, employees are provided security awareness training. Additionally, security awareness and education programs include Non-violent Crisis Intervention, Active Shooter Training 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 San Francisco Sheriff's Office collaboratively establishes, and maintains communication and mutual ownership for outcomes, identification and troubleshooting of emergent safety concerns.

PERFORMANCE

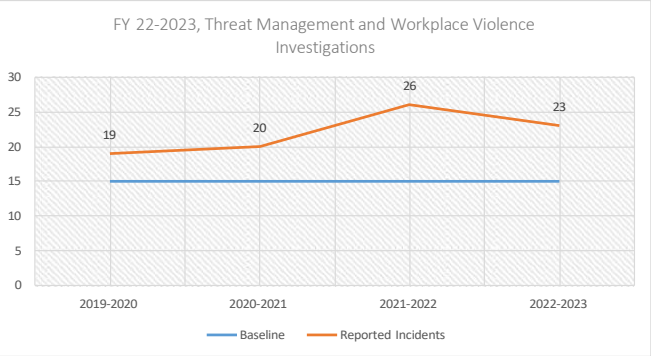
Performance Metrics #1	Performance Metrics #2	Performance Metrics #3	Significant Reporting Performance	Significant Reporting Performance
Code Green/At Risk (Patient Elopement)	**Customer Satisfaction**	**Electronic Security System Functionality**	**DPH and SFSO, MOU Performance**	**Employee Security Awareness**
Standard: The security provider will be measured on their performance during Patient Elopements, Patient "At Risk" and Missing Person incidents, including: • Initial Perimeter and Search • Notification of SFPD, BART, and MUNI • Documentation of Search Activity • Locate/Not Located Procedure	**Standard:** A monthly basis survey of 100 customers consisting of patients, visitors, employees, and physicians will be surveyed regarding their overall experience with Security Service/Sheriff's Office.	**Standard:** All electronic security equipment will be inspected monthly for functionality. Facilities, Security Services and the Sheriff's Operations Center will develop security plans to address vulnerabilities resulting from malfunctioning equipment.	**Standard:** A monthly security provider performance survey will be completed to assess the Sheriff's Office compliance with MOU obligations in the areas of operational performance, issue resolution, management responsibilities and finance provisions.	**Standard:** During Environment of Care Rounds, hospital staff be tested on 6 questions regarding security awareness (See Appendix B.) (Sample size: 300 employees per quarter)
Threshold – 80% **Target – 90%** **Stretch – 100%**	**Threshold - 80%** **Target - 90%** **Stretch – 98%**	**Target: 98%**	**Threshold – 3.0** **Target – 3.5** **Stretch – 4.5**	**Threshold - 80%** **Target - 90%** **Stretch – 98%**
Analysis of Performance Metrics Results and Corrective Action Plan				

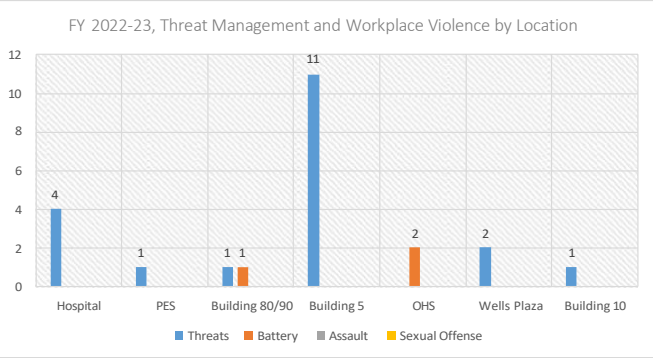
FY 2022-2023, Annual Performance Metrics		
	Target	**Overall Performance**
Code Green Response (Patient Elopement)	90%	100%
Customer Satisfaction	90%	75%
Electronic Security Systems	98%	96%
San Francisco Sheriff Office MOU Compliance	3.5	2.9
Employee Security Awareness	90%	100%

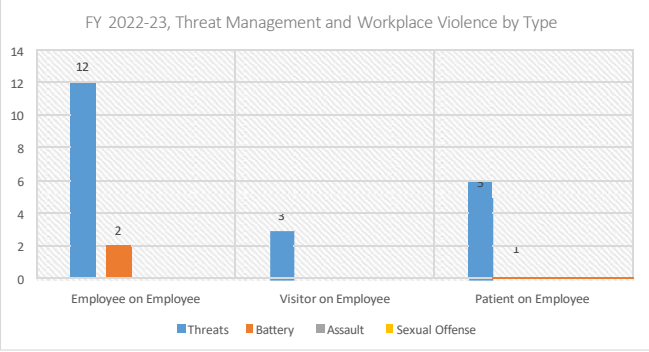
EFFECTIVENESS

The 2022-2023 significant reporting metrics were developed to further demonstrate the security program's effectiveness. The metrics include Threat and Workplace Violence Investigations, Crimes against Persons and Property, Use-of-Force, and Campus Tunnel and Stairwell Patrols.

Threats Management and Workplace Violence Prevention Investigations
Standard: Security will investigate reported moderate and high-risk threats where there is reasonable cause to believe that the personal safety of an individual or group of individuals may be at risk. Moderate and High-Risk threats are incidents that required management and security intervention, where it is determined that without specific remedial action, the potential for escalating behavior or the imminent danger of injury or death to one or more individuals is highly probable.







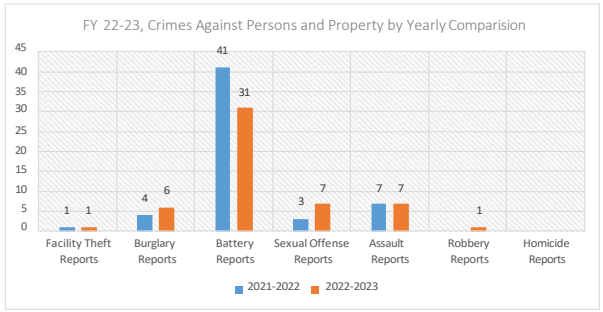
- Over a 4-year period, moderate and high-risk investigations increased 1%. There was a 11% decrease (3 reports) in investigations from the previous year.
- Building 5 lobby accounted for 47% of investigations, and 55% (11 of 20) involving reports of threats.
- Employee-on-employee reports accounted for 60% of moderate and high-risk investigations.
- Security-plans to address threats and acts of violence, included:

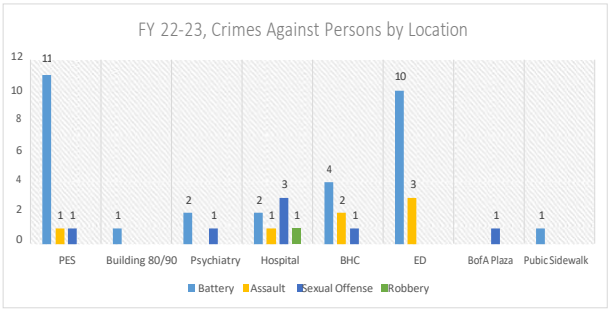
Remedial Action Taken	
Behavioral Plan	2
Restraining Order	2
Arrest	1
Employee Disciplinary Action	2
SFSO Standby/Escort	3
HR Investigation	9

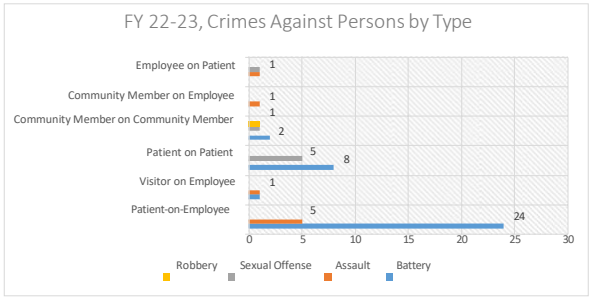
Crimes Against Persons and Property

Yearly Comparison	2021-2022	2022-2023
SFSO - Facility Property Thefts Reports (>$900)	1	1
SFSO - Burglary Reports	4	6
SFSO - Battery Reports	41	31
SFSO - Sexual Offense Reports	3	7
SFSO - Assault Reports	7	7
SFSO - Robbery Reports		1
SFSO - Homicide Reports		
Total	**56**	**53**

FY 22-2023, Crimes Against Persons and Property Action Taken	
Deputy Arrest	5
Private Person Arrest	12
Citations Issued	5
Detention	5







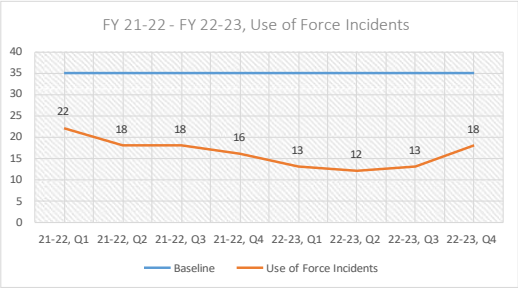
- Reported crimes decreased 5% (3 reports) from the previous year.
- Battery reports decreased 24% from FY 20-2021.
- Battery reports accounted for 58% of crimes against persons (31 of 53 reports)
- * Sex Offence reports increased 133%.
- Reports from the PES and ED accounted for 57% of person-crimes (26 of 46 reports)
- Patient-on-Employee reports accounted for 63% of crimes against person incidents (29 of 46 reports.)
- 26% of victims of physical attack, pressed charges against their assailant (12 of 46.)

2022-2023 Crimes Against Property by Location

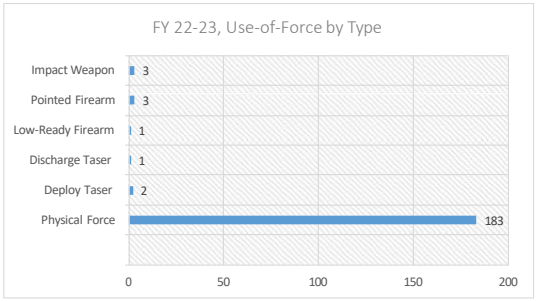
	Theft	Burglary
Building 5	1	1
UCSF Construction Site		1
BHC (Hummingbird)		1
Building 90		1
Building 80		2

2022-2023 Use of Force Statistics

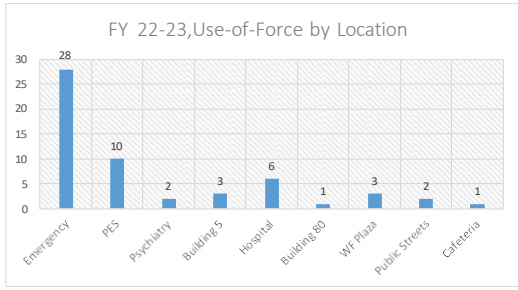
Use-of-force data is tracked of all SFSO incidents occurring on ZSFG campus. In 2022-2023, there were 56 incidents of use-of-force. The data was stratified by the types of force, type of incidents, location, demographics, diagnosis, and reported acts by demographics.



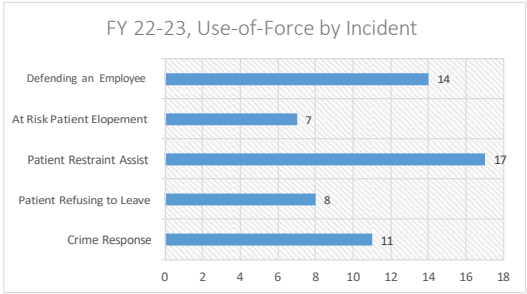
Use-of-force incidents continues to remain under the quarterly baseline and decreased 24% (18 incidents) from FY 21-22.



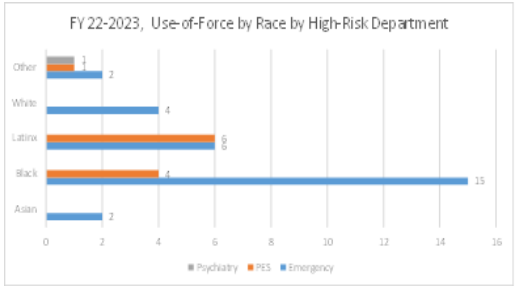
Of the 56 use-of-force incidents, there were 193 types of force used. Physical force accounted for 95% of the force used (183 of 193 types.)

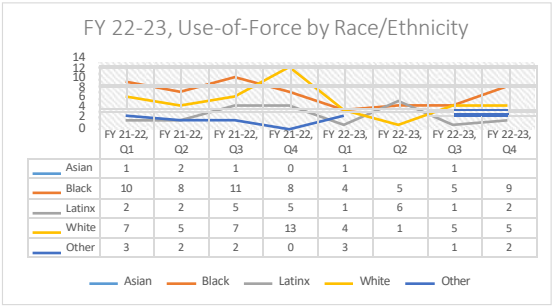


50% of use-of-force incidents occurred in the Emergency Department (28 of 56)



Deputies assisting with patient restraints accounted for 30% of use-of-force incidents (17 of 57 incidents.)





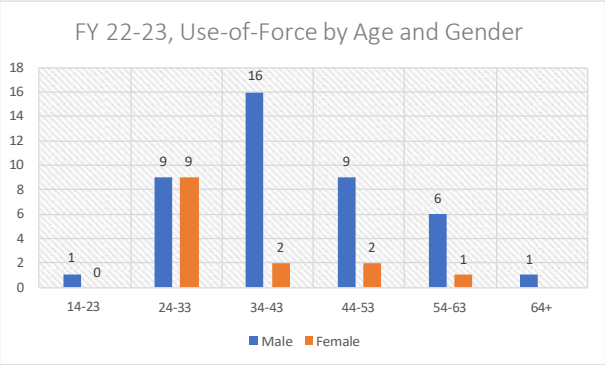
	FY 21-22, Q1	FY 21-22, Q2	FY 21-22, Q3	FY 21-22, Q4	FY 22-23, Q1	FY 22-23, Q2	FY 22-23, Q3	FY 22-23, Q4
Asian	1	2	1	0	1		1	
Black	10	8	11	8	4	5	5	9
Latinx	2	2	5	5	1	6	1	2
White	7	5	7	13	4	1	5	5
Other	3	2	2	0	3		1	2

71% of force in high-risk departments occurred in the ED where Black/ African Americans were the subjects in 46% of the incidents.

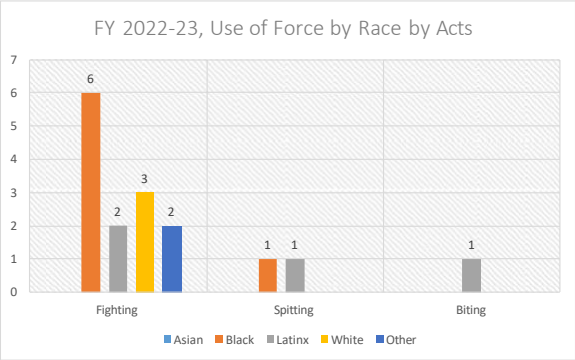
From FY 21-22, use-of-force decreased in all race/ethnicities. Use-of-force against Black/ African Americans continues to be the highest of all other race/ethnicities, being the subject of 41% of incidents (23 of 56 incidents.)

Use-of-Force by Patient Related Service calls and Clinical Data	
Per 1K Patient Related Service Calls	8
Per 1K ED Registrations	0
Per 1K PES Intakes	2
Per 100 Psychiatry Admissions	0

Use-of-Force (cont.)

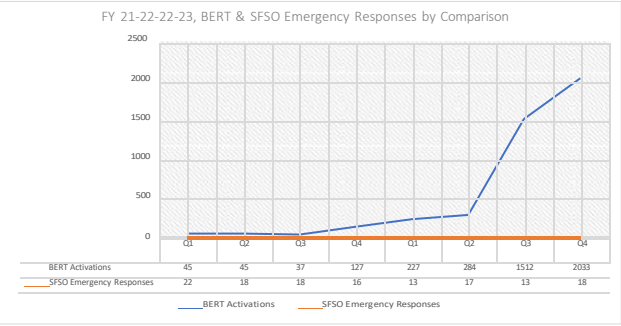


75% of use-of-force was against males and 64% against patients ages 24-33 and 34-43.

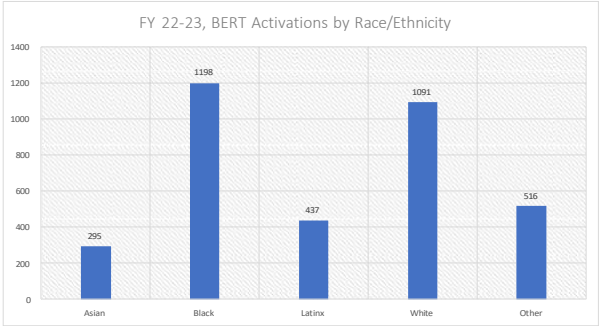


- 81% of use-of-force was in response to reports of fighting.
- 44% of acts reported to the Sheriff's Office were committed by Black/African Americans.

SECURITY EQUITY COUNTERMEASURES



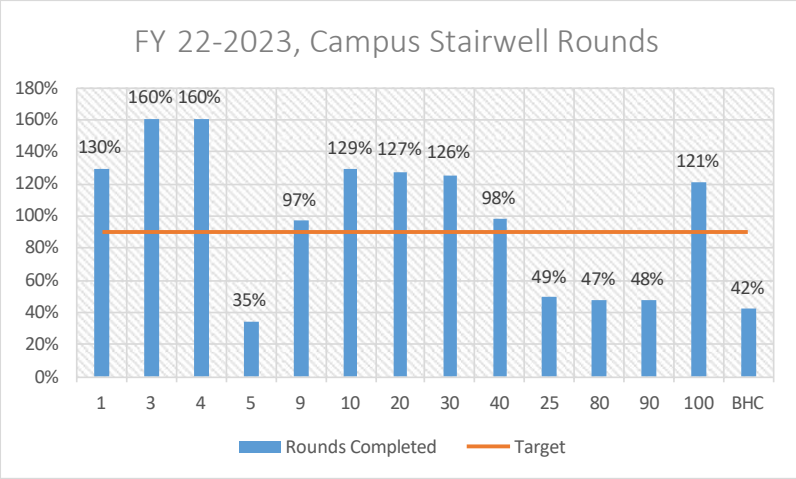
- The implementation of BERT has resulted in a shift in culture.
- Since 21-22, BERT was called to 3,995 more events of risk-behavior than SFSO.
- 81% of BERT activations were without law enforcement presence.
- In Febuary 2023, dedicated BERT staff were assigned 24/7 to the ED, which accounted for 73% (2,961) proactive ED activations and 89% were without law enforcement presence.



- BERT is transforming the way ZSFG delivers care to their patients.
- BERT conducted 2,799 rounding consultations that prevented escalating behavior through verbal de-escalation, staff support, patient assistance, patient safety escorts and safety planning.
- Proactive BERT activations to support patients experiencing distress were higher for Black/ African Americans, which accounted for 34% of BERT activations (1,198 out of 3537 activations.)

Standard:

To demonstrate the effectiveness of the crime prevention through frequent patrols of campus tunnels and stairwells, there were 5,128 rounds conducted in 2022-2023



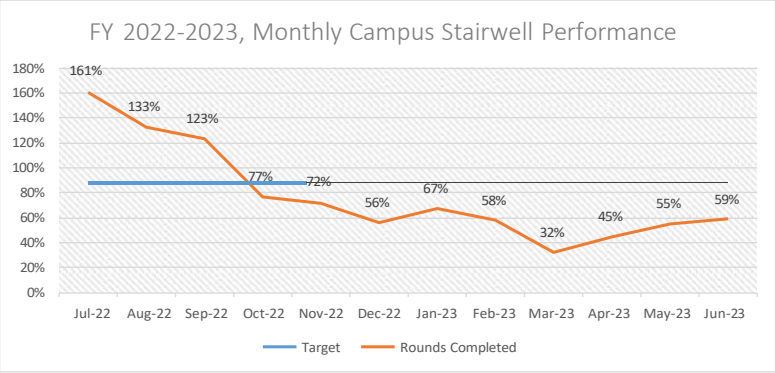
**Numbers are based on supporting documentation provided by SFSO.*

Other Campus and Tunnel Rounding Activity:

- Since October 2022, stairwell patrols have decreased 61%.
- There was no tunnel related activity.

Stairwell Rounding Analysis

- Through FY 22-23, an overall 77% of the campus building stairwells were patrolled. Patrols in five buildings did not meet the patrol target of 90%.
- Based on SFSO Stairwell Reports, the primary driver for the lack of patrols were staffing shortages.



VII. UTILITY SYSTEMS MANAGEMENT

SCOPE

The Zuckerberg San Francisco General Hospital 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 speci al risks and responses to failures of the utility systems which support the facility's patient care environment. The major utility sys tems include but are not limited to electrical distribution, domestic water and wastewater systems, vertical transportation, commu nication systems, HVAC, and medical gases.

ACCOMPLISHMENTS

- Effectively responded to historic winter storms including a 20 hour power outage in March.
- Reduced emergency generator testing, and therefor emissions, while keeping with NFPA requirements.
- Supported Bldg 5 projects including, Seismic upgrade, Dialysis center, Public Health Lab, Psych Emergency, Electrical distribution upgrade, and Fire Alarm system upgrade as part of ongoing projects work.
- Supported the many projects associated with the ongoing response to the Covid-19 pandemic.

PROGRAM OBJECTIVES FOR FY 2022-2023

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 the automated work order system (TMS).
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 latest edition of NFPA 110, Standard for Emergency & Standby Power Systems.	Met	Testing and inspection per NFPA 110.
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 provided by 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 2022-2023 Totals**						
Systems	**5**	**25**	**BHC**	**80**	**90**	**100**	**SB**
Emergency Power Failures	0	0	0	0	0	0	0
Commercial Power Failures	1	1	0	1	1	1	1
Water System Failures							
Domestic	0	1	0	0	0	0	0
Waste	2	0	0	0	0	1	0
Communication Failures	1	0	0	0	0	0	0
HVAC Failures	0	0	0	0	0	0	0

Med Gas Failures	0	0	0	0	0	0	0
Elevator Failures	18	5	1	2	1	1	0
High Voltage Electric Switchgear	1	1	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 actively direct utilities management awareness.

PERFORMANCE METRICS

AIM: For FY 2022-2023, there was an increase in elevator failures on Campus.

FY 2020-2021: 34 elevator outages

FY 2021-2022: 22 elevator outages

FY 2022-2023: 28 elevator outages

Elevator Failures

Elevator Failures	1st	2nd	3rd	4th	Action
Elevator outages of 4-hours plus in duration, or passenger entrapment of any duration, (22 total cars)	7	3	8	10	Monitor for trends

AIM: For or FY 2023-24 continue to manage and monitor outage trends with an overall goal to manage overall elevator outages. Note: the most common cause of elevator outage was damaged doors to the Bldg 5 cargo elevators (19 & 20). These elevator car doors are often hit by material moved in and out of the elevator (8 of 28 outages).

EFFECTIVENESS

The Utility Management Program is considered effective.

Proposed Performance Metrics for 2022-2023	Target	Comments and Action Plan
AIM: manage elevator failures at ZSFG to a minimum through contract unification	**Reduce outages from 2021-22 level.**	Manage and monitor elevator outage trends.
AIM: Engage staff and contractors to review & implement the 2016 bond measure projects pertaining to the utility system.	**ZSFG staff engaged in all project work.**	Involve stake holders in project implementation.

GOALS AND OPPORTUNITIES FOR IMPROVEMENT IN 2022-23

- Support the chiller and cooling tower replacement projects in Bldg 2.
- Support the main switchgear, and electrical distribution replacement projects in Bldg 5.

- Support IT infrastructure project in Bldg 5.

VIII. Additional EOC LEADERS OF THE ENVIRONMENT OF CARE COMMITTEE

Traditionally, the Environment of Care (EOC) Annual Report consists of seven chapters which align with Joint Commission requirements for management of a hospital's EOC. Reflecting ZSFG's strong emphasis on collaboration and a shared mission and vision, EOC activities at ZSFG include far more than these seven -chapter heads and their programs, with other program participants working hard behind the scenes, without getting recognition for their valuable contributions. This section identifies some of these participating groups, their EOC activities in the past year, their accomplishments, and challenges:

ACCOMPLISHMENTS

- Increased EOC meeting & rounding participation by 120% & 200%
  -In 2023 the committee was committed to having a robust team in meetings and rounds. The participation not only increased tremendously but there were additional departments such as privacy, radiology, and nursing leadership that joined several EOC rounds. The participation from the committee has led to many important discussions and projects being completed.

Challenges

- Lack of storage space

The EOC committee has been committed to working with departments and units to determine how to best utilize storage space. Since the beginning of the pandemic, space has been a hot topic for the hospital. The members of the committee continue to engage our staff on proper storing techniques that impact Life and Fire Safety. When the committee comes across these issues, real time education and discussion is the best way to solve longstanding issues.