

## AGENDA

### Quality, Patient Care and Patient Experience Committee Meeting of the El Camino Hospital Board

Wednesday, November 2<sup>nd</sup>, 2016, **5:30 p.m.**  
El Camino Hospital, Conference Room A & B  
2500 Grant Road, Mountain View, California

**Purpose:** The purpose of the Quality, Patient Care and Patient Experience Committee (“Quality Committee”) is to advise and assist the El Camino Hospital (ECH) Board of Directors (“Board”) in constantly enhancing and enabling a culture of quality and safety at ECH, and to ensure delivery of effective, evidence-based care for all patients. The Quality Committee helps to assure that excellent patient care and exceptional patient experience are attained through monitoring organizational quality and safety measures, leadership development in quality and safety methods and assuring appropriate resource allocation to achieve this purpose.

AGENDA ITEM	PRESENTED BY		
<b>1. CALL TO ORDER</b>	David Reeder, Chair Quality Committee		5:30 – 5:31 p.m.
<b>2. ROLL CALL</b>	David Reeder, Chair Quality Committee		5:31 – 5:32
<b>3. POTENTIAL CONFLICT OF INTEREST DISCLOSURES</b>	David Reeder, Chair Quality Committee		5:32 – 5:33
<b>4. CONSENT CALENDAR ITEMS:</b> Any Committee Member may pull an item for discussion before a motion is made. <b>Approval:</b> a. <a href="#">Minutes of Quality Committee Meeting</a> - <a href="#">October 3, 2016</a> <b>Information:</b> b. <a href="#">Pacing Plan</a> c. <a href="#">Patient Story</a> d. <a href="#">Research Article</a> e. <a href="#">Annual Safety Report (Environment of Care Evaluation)</a> <b>ATTACHMENT 4</b>	David Reeder, Chair Quality Committee	<i>public comment</i>	<b>Motion Required</b> 5:33 – 5:36
<b>5. REPORT ON BOARD ACTIONS</b> <a href="#">ATTACHMENT 5</a>	David Reeder, Chair Quality Committee		<b>Discussion</b> 5:36 – 5:39
<b>6. QUALITY PROGRAM UPDATE: CANCER CENTER</b> <a href="#">ATTACHMENT 6</a>	Shyamali Singhal, MD		<b>Discussion</b> 5:39 – 5:59
<b>7. FY17 QUALITY DASHBOARD</b> <a href="#">ATTACHMENT 7</a>	Dan Shin, MD, Medical Director of Quality and Patient Safety		<b>Discussion</b> 5:59 – 6:09

A copy of the agenda for the Regular Committee Meeting will be posted and distributed at least seventy-two (72) hours prior to the meeting. In observance of the Americans with Disabilities Act, please notify us at 650-988-7504 prior to the meeting so that we may provide the agenda in alternative formats or make disability-related modifications and accommodations.

Agenda: El Camino Hospital Quality, Patient Care, and Patient Experience Committee Meeting  
November 2, 2016

AGENDA ITEM	PRESENTED BY		
8. <b>PATIENT AND FAMILY CENTERED CARE</b> <a href="#">ATTACHMENT 8</a>	RJ Salas, Director of Patient Experience		<b>Discussion</b> 6:09 – 6:29
9. <b>PUBLIC COMMUNICATION</b>	David Reeder, Chair Quality Committee		<b>Information</b> 6:29– 6:32
10. <b>ADJOURN TO CLOSED SESSION</b>			6:32– 6:33
11. <b>POTENTIAL CONFLICT OF INTEREST DISCLOSURES</b>	David Reeder, Chair Quality Committee		6:33 – 6:34
12. <b>CONSENT CALENDAR</b> Any Committee Member may pull an item for discussion before a motion is made. <b>Approval:</b> Meeting Minutes of the Closed Session <i>Gov't Code Section 54957.2.</i> - October 3, 2016 <b>Information:</b> Report related to the Medical Staff quality assurance matters, <i>Health and Safety Code Section 32155.</i> Meeting Minutes of Quality Council - September 7, 2016	David Reeder, Chair Quality Committee		<b>Motion Required</b> 6:34 – 6:37
13. Report related to the Medical Staff quality assurance matters, <i>Health and Safety Code Section 32155.</i> CMO Report	William Faber, MD Chief Medical Officer		<b>Discussion</b> 6:37 – 6:47
14. Report related to the Medical Staff quality assurance matters, <i>Health and Safety Code Section 32155.</i> Red and Orange Alert	Shreyas Mallur, MD Associate Chief Medical Officer		<b>Discussion</b> 6:47 – 7:07
15. <b>RECONVENE OPEN SESSION/REPORT OUT</b>	David Reeder, Chair Quality Committee		7:07 – 7:09
To report any required disclosures regarding permissible actions taken during Closed Session.			
16. <b>ADJOURNMENT</b>	David Reeder, Chair Quality Committee		7:10 p.m.

**Upcoming FY 17 Quality Committee Meetings**

- **December 5, 2016**
- **January 30, 2017**
- **February 27, 2017**
- **April 3, 2017**

**a. Minutes of Quality Committee Meeting - October 3,  
2016**

**Minutes of the Open Session of the**  
**Quality, Patient Care and Patient Experience Committee Meeting of the**  
**El Camino Hospital Board**  
**Monday, October 3<sup>rd</sup>, 2016**  
**El Camino Hospital, Conference Rooms A&B**  
**2500 Grant Road, Mountain View, California**

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**Members Present**

Dave Reeder; Robert Pinsker, MD;  
 Diana Russell, RN; Nancy Carragee,  
 Katie Anderson, Alex Tsao, Melora  
 Simon and Wendy Ron.

**Members Absent**

Peter Fung, MD;  
 Mikele Bunce

**Members Excused**

None

A quorum was present at the El Camino Hospital Quality, Patient Care, and Patient Experience Committee on the 3<sup>rd</sup> day of October, 2016 meeting.

<b>Agenda Item</b>	<b>Comments/Discussion</b>	<b>Approvals/Action</b>
<b>1. CALL TO ORDER</b>	The meeting of the Quality, Patient Care, and Patient Experience Committee of El Camino Hospital (the “Committee”) was called to order by Committee Chair Dave Reeder at 5:35 p.m.	<i>None</i>
<b>2. ROLL CALL</b>	Chair Reeder asked Stephanie Iljin to take a silent roll call.	<i>None</i>
<b>3. POTENTIAL CONFLICT OF INTEREST DISCLOSURES</b>	Chair Reeder asked if any Committee member or anyone in the audience believes that a Committee member may have a conflict of interest on any of the items on the agenda. No conflict of interest was reported.	<i>None</i>
<b>4. CONSENT CALENDAR ITEMS</b>	<p>Chair Reeder asked if any Committee member wished to remove any items from the consent calendar for discussion. None were noted.</p> <p><b><u>Motion:</u></b> To approve the consent calendar (Open Minutes of the August 29, 2016 meeting were approved).</p> <p><b><u>Movant:</u></b> Simon</p> <p><b><u>Second:</u></b> Anderson</p> <p><b><u>Ayes:</u></b> Reeder, Pinsker, Carragee, Anderson, Russell, Ron, Simon, and Tsao.</p> <p><b><u>Noes:</u></b> None</p> <p><b><u>Abstentions:</u></b> None</p> <p><b><u>Absent:</u></b> Fung, and Bunce.</p> <p><b><u>Excused:</u></b> None</p> <p><b><u>Recused:</u></b> None</p>	<i>The Open Minutes of the August 29, 2016 meeting were approved.</i>

Agenda Item	Comments/Discussion	Approvals/Action
<b>5. REPORT ON BOARD ACTIONS</b>	Chair Reeder briefly reviewed the Board Report included in the packet with the Committee and reported on the Board decision to assign an interim CEO named Mr. Don Sibery. Mr. Sibery is scheduled to begin October 31 and will only fulfill the role of interim CEO. He will not be considered for the permanent CEO position. Chair Reeder further reported the anticipated timeline for the permanent CEO search.	<i>None</i>
<b>6. QUALITY PROGRAM UPDATE: CONTINUUM OF CARE – BPCI</b>	Margaret Wilmer, Senior Director of Integrated Care briefly updated the Committee on the Continuum of Care Program and introduced Dr. Mike Goran from Optum. Dr. Goran gave a detailed overview of the program to include: <ul style="list-style-type: none"> <li>– Why Participate in the Bundled Payment Program?</li> <li>– ECH's Participation in BPCI</li> <li>– Governance and Physician Leadership</li> <li>– Case Management</li> <li>– Quality Measures</li> <li>– BPCI Results to Date</li> <li>– Dashboard of Key Metrics</li> <li>– Challenges and Priorities, and Priority Action Plans</li> </ul> Dr. Goran addressed the Committee's questions and a brief discussion ensued.	<i>None</i>
<b>7. FY17 EXCEPTION REPORT</b>	Dr. Dan Shin, MD, Medical Director of Patient Safety and Quality Assurance presented the FY17 Exception Report to the Committee. He reported that seven metrics are stable, but highlighted that Falls continue to be monitored. Dr. Shin noted that there has been an improvement in Communications with Nurses. Dr. Shin asked for feedback from the Committee and discussion ensued.	<i>None</i>
<b>8. NEW METRIC SELECTION FOR FY17 EXCEPTION REPORT</b>	Dr. Shreyas Mallur, MD, Associate Chief Medical Officer reviewed with the committee the addition of a new sepsis metric for the FY 17 Exception Report since the specimen labeling error metric has been removed. He further detailed the proposed measurement and asked the Committee for questions needing addressed. The committee generally agreed with the addition of the metric, which would measure minutes from Time of Presentation to IV crystalloid fluid order with the goal will be less than or equal to 120 minutes.	

Agenda Item	Comments/Discussion	Approvals/Action
<b>9. FY16 ORGANIZATIONAL GOALS ACHIEVEMENTS</b>	<p>Mick Zdeblick, Chief Operating Officer, explained that ECH achieved both threshold goals for FY16 – Budgeted Operating Margin and Joint Commission Accreditation.</p> <p>He outlined the results for the Patient Safety and iCare Goals:</p> <ul style="list-style-type: none"> <li>– Medication Reconciliation at Discharge: exceeded goal</li> <li>– Achieve Medicare Length of Stay and Maintain Current Readmission Rates: exceeded goal; also an FY17 goal</li> </ul> <p>Mr. Zdeblick reported that the organization did not meet its Smart Growth goal, partially due to physician retirements and split times with other organizations that were not foreseen when the goal metrics were established.</p> <p>Mr. Zdeblick explained that the weighted average organizational score is 67%.</p>	
<b>10. FY17 ORGANIZATIONAL GOALS – PAIN MANAGEMENT DISCUSSION</b>	<p>Cheryl Reinking, Chief Nursing Officer review the new metrics for the pain reassessment minimum, target, and maximum goals with the Committee and asked for feedback. The Committee generally agreed with these new goal definitions for the pain reassessment goal.</p>	
<b>11. PUBLIC COMMUNICATION</b>	<p>None</p>	<p><i>None</i></p>
<b>12. ADJOURN TO CLOSED SESSION</b>	<p><b><u>Motion:</u></b> To adjourn to closed session at 6:37 p.m.  <b><u>Movant:</u></b> Russell  <b><u>Second:</u></b> Simon  <b><u>Ayes:</u></b> Reeder, Pinsker, Carragee, Anderson, Russell, Ron, Simon, and Tsao.  <b><u>Noes:</u></b> None  <b><u>Abstentions:</u></b> None  <b><u>Absent:</u></b> Fung, and Bunce.  <b><u>Excused:</u></b> None  <b><u>Recused:</u></b> None</p>	<p><i>A motion to adjourn to closed session at 6:37 p.m. was approved.</i></p>
<b>13. AGENDA ITEM 19 RECONVENE OPEN SESSION/ REPORT OUT</b>	<p><i>Agenda Items 13– 18 were reported in closed session.</i></p> <p>Chair Reeder reported that Closed minutes of the August 29, 2016 Quality Committee Meeting were approved.</p> <p>Chair Reeder also noted the upcoming Quality Committee Meeting dates.</p>	<p><i>None</i></p>
<b>14. AGENDA ITEM 20 ADJOURNMENT</b>	<p>There being no further business to come before the Committee, the meeting was adjourned at 7:19p.m.</p>	<p><i>None</i></p>

**Attest as to the approval of the Foregoing minutes by the Quality Committee and by the Board of Directors of El Camino Hospital:**

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Dave Reeder  
Chair, ECH Quality, Patient Care and  
Patient Experience Committee

DRAFT

Pacing Plan



**QUALITY, PATIENT CARE AND PATIENT EXPERIENCE COMMITTEE  
PROPOSED FY2017 PACING PLAN**

<b>FY2017: Q1</b>		
<b>JULY - No Meeting</b>	<b>AUGUST 1, 2016</b>	<b>AUGUST 29, 2016 (In place of Sept Meeting)</b>
<b>Routine Consent Calendar Items:</b> <ul style="list-style-type: none"> <li>▪ Approval of Minutes</li> <li>▪ FY 2017 Committee Goal Completion Status</li> <li>▪ Pacing Plan</li> <li>▪ Quality Council Minutes</li> <li>▪ Patient Story</li> <li>▪ Research Article</li> </ul>	<ul style="list-style-type: none"> <li>▪ Review and discuss quality summary with attention to risks and overall performance</li> <li>▪ Committee Recruitment</li> <li>▪ Review FY17 Committee Goals</li> </ul> <b>Standing Agenda Items:</b> <ul style="list-style-type: none"> <li>▪ Consent Calendar</li> <li>▪ Exception Report</li> <li>▪ Patient Centered Care Plan</li> <li>▪ Drilldown on Quality Program</li> <li>▪ Red and Orange Alert as Needed</li> </ul> <b>Info: Research Article &amp; Patient Story</b>	<ul style="list-style-type: none"> <li>▪ APPROVE FY 2017 Organizational Goals (Metrics)</li> <li>▪ Update on PFCC</li> </ul> <b>Standing Agenda Items:</b> <ul style="list-style-type: none"> <li>▪ Consent Calendar</li> <li>▪ Exception Report</li> <li>▪ Patient Centered Care Plan</li> <li>▪ Drilldown on Quality Program</li> <li>▪ Red and Orange Alert as Needed</li> </ul> <b>Info: Research Article &amp; Patient Story</b>
<b>FY2017: Q2</b>		
<b>OCTOBER 3, 2016</b>	<b>NOVEMBER 2, 2016</b>	<b>DECEMBER 5, 2016</b>
<ul style="list-style-type: none"> <li>▪ Approve FY 16 Organizational Goal Achievements</li> <li>▪ Year-end review of RCA</li> </ul> <b>Standing Agenda Items:</b> <ul style="list-style-type: none"> <li>▪ Consent Calendar</li> <li>▪ Exception Report</li> <li>▪ Patient Centered Care Plan</li> <li>▪ Drilldown on Quality Program</li> <li>▪ Red and Orange Alert as Needed</li> </ul> <b>Info: Research Article &amp; Patient Story</b>	<ul style="list-style-type: none"> <li>▪ iCare Update</li> <li>▪ Safety Report for the Environment of Care (consent calendar)</li> </ul> <b>Standing Agenda Items:</b> <ul style="list-style-type: none"> <li>▪ Consent Calendar</li> <li>▪ Exception Report</li> <li>▪ Patient Centered Care Plan</li> <li>▪ Drilldown on Quality Program</li> <li>▪ Red and Orange Alert as Needed</li> </ul> <b>Info: Research Article &amp; Patient Story</b>	<ul style="list-style-type: none"> <li>▪ iCare Update</li> <li>▪ <b>Committee Goals for FY17 Update</b></li> </ul> <b>Standing Agenda Items:</b> <ul style="list-style-type: none"> <li>▪ Consent Calendar</li> <li>▪ Exception Report</li> <li>▪ Patient Centered Care Plan</li> <li>▪ Drilldown on Quality Program</li> <li>▪ Red and Orange Alert as Needed</li> </ul> <b>Info: Research Article &amp; Patient Story</b>

**QUALITY, PATIENT CARE AND PATIENT EXPERIENCE COMMITTEE  
PROPOSED FY2017 PACING PLAN**

<b>FY2017: Q3</b>		
<b>JANUARY 30, 2017</b>	<b>FEBRUARY 27, 2017</b>	<b>MARCH – No Meeting</b>
<ul style="list-style-type: none"> <li>▪ Patient and Family Centered Care</li> <li>▪ Service Line Update</li> <li>▪ Top Risk Case Review</li> </ul> <p><i>*Committee Members to complete on-line self-assessment tool.</i></p> <p><b>Standing Agenda Items:</b></p> <ul style="list-style-type: none"> <li>▪ Consent Calendar</li> <li>▪ Exception Report</li> <li>▪ Patient Centered Care Plan</li> <li>▪ Drilldown on Quality Program</li> <li>▪ Red and Orange Alert as Needed</li> </ul> <p><b>Info: Research Article &amp; Patient Story</b></p>	<ul style="list-style-type: none"> <li>▪ Begin Development of FY 2018 Committee Goals (3-4 goals)</li> <li>▪ Peer Review/Care Review Process</li> <li>▪ Top Risk Case Review</li> </ul> <p><b>Standing Agenda Items:</b></p> <ul style="list-style-type: none"> <li>▪ Consent Calendar</li> <li>▪ Exception Report</li> <li>▪ Patient Centered Care Plan</li> <li>▪ Drilldown on Quality Program</li> <li>▪ Red and Orange Alert as Needed</li> </ul> <p><b>Info: Research Article &amp; Patient Story</b></p>	
<b>FY2017: Q4</b>		
<b>APRIL 3, 2017</b>	<b>MAY 1, 2017</b>	<b>JUNE 5, 2017</b>
<ul style="list-style-type: none"> <li>▪ Finalize FY 2018 Committee Goals</li> <li>▪ Proposed Committee meeting dates for FY2017</li> <li>▪ Review DRAFT FY2018 Organizational Goals</li> <li>▪ Annual Review of Committee Charter</li> <li>▪ Top Risk Case Review</li> </ul> <p><b>Standing Agenda Items:</b></p> <ul style="list-style-type: none"> <li>▪ Consent Calendar</li> <li>▪ Exception Report</li> <li>▪ Patient Centered Care Plan</li> <li>▪ Drilldown on Quality Program</li> <li>▪ Red and Orange Alert as Needed</li> </ul> <p><b>Info: Research Article &amp; Patient Story</b></p>	<ul style="list-style-type: none"> <li>▪ Review DRAFT FY18 Organizational Goals (as needed)</li> <li>▪ Set proposed committee meeting calendar for FY 2018</li> <li>▪ Review Committee Assessment Results</li> <li>▪ Top Risk Case Review</li> </ul> <p><b>Standing Agenda Items:</b></p> <ul style="list-style-type: none"> <li>▪ Consent Calendar</li> <li>▪ Exception Report</li> <li>▪ Patient Centered Care Plan</li> <li>▪ Drilldown on Quality Program</li> <li>▪ Red and Orange Alert as Needed</li> </ul> <p><b>Info: Research Article &amp; Patient Story</b></p>	<ul style="list-style-type: none"> <li>▪ PFAC Update (6 months since Jan)</li> <li>▪ Review and Discuss Self-Assessment Results</li> <li>▪ Develop Pacing Calendar for FY18</li> <li>▪ Top Risk Case Review</li> </ul> <p><b>Standing Agenda Items:</b></p> <ul style="list-style-type: none"> <li>▪ Consent Calendar</li> <li>▪ Exception Report</li> <li>▪ Patient Centered Care Plan</li> <li>▪ Drilldown on Quality Program</li> <li>▪ Red and Orange Alert as Needed</li> </ul> <p><b>Info: Research Article &amp; Patient Story</b></p>

# Patient Story

## Patient Story

### Full Circle

Once a month Random Acts of Flowers delivers around 80-90, reprocessed floral bouquets to patients between Mountain View and Los Gatos. Their mission is to spread compassion and care through deliveries of recycled flowers. They deliver personal moments of joy to health care facilities such as hospitals, assisted living, nursing homes, memory care facilities, and hospices.

A former patient at Mountain View received flowers while in the hospital and the family was so grateful for the generosity when he passed away the family called Random Acts of Flowers to come pick up the flowers from the funeral. As a result, some of our patients received bouquets from his flowers.



# Research Article

# Healthy Lifestyle and Risk of Cancer in the European Prospective Investigation Into Cancer and Nutrition Cohort Study

*Fiona McKenzie, PhD, Carine Biessy, MSc, Pietro Ferrari, PhD, Heinz Freisling, PhD, Sabina Rinaldi, PhD, Veronique Chajès, PhD, Christina C. Dahm, PhD, Kim Overvad, PhD, Laure Dossus, PhD, Pagona Lagiou, MD, PhD, Dimitrios Trichopoulos, MD, PhD\*, Antonia Trichopoulou, PhD, H. Bas Bueno-de-Mesquita, MD, PhD, Anne May, PhD, Petra H. Peeters, MD, PhD, Elisabete Weiderpass, MD, PhD, Maria-Jose Sanchez, MD, PhD, Carmen Navarro, MD, PhD, Eva Ardanaz, MD, PhD, Ulrika Ericson, PhD, Elisabet Wirfält, PhD, Ruth C. Travis, PhD, and Isabelle Romieu, MD, ScD*

**Abstract:** It has been estimated that at least a third of the most common cancers are related to lifestyle and as such are preventable. Key modifiable lifestyle factors have been individually associated with cancer risk; however, less is known about the combined effects of these factors.

This study generated a healthy lifestyle index score (HLIS) to investigate the joint effect of modifiable factors on the risk of overall cancers, alcohol-related cancers, tobacco-related cancers, obesity-related cancers, and reproductive-related cancers. The study included 391,608 men and women from the multinational European Prospective Investigation into Cancer and Nutrition (EPIC) cohort. The HLIS was constructed from 5 factors assessed at baseline (diet, physical activity, smoking, alcohol consumption, and anthropometry) by assigning scores of 0 to 4 to categories of each factor, for which higher values indicate healthier behaviors. Hazard ratios (HR) were estimated by Cox proportional regression and population attributable fractions (PAFs) estimated from the adjusted models.

There was a 5% lower risk (adjusted HR 0.952, 95% confidence interval (CI): 0.946, 0.958) of all cancers per point score of the index for men and 4% (adjusted HR 0.961, 95% CI: 0.956, 0.966) for women. The fourth versus the second category of the HLIS was associated with a 28% and 24% lower risk for men and women respectively across all cancers, 41% and 33% for alcohol-related, 49% and 46% for tobacco-related, 41% and 26% for obesity-related, and 21% for female reproductive cancers.

Findings suggest simple behavior modifications could have a sizeable impact on cancer prevention, especially for men.

(*Medicine* 95(16):e2850)

**Abbreviations:** AICR = American Institute for Cancer Research, BMI = body mass index, CI = confidence interval, EPIC = European Prospective Investigation into Cancer and Nutrition, HLIS = healthy lifestyle index score, HR = hazard ratio, PAF = population attributable fraction, WCRF = World Cancer Research Fund.

Editor: Feng Yang.

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From the International Agency for Research on Cancer (IARC), Lyon (FM, CB, PF, HF, SR, VC, IR), INSERM, Centre for Research in Epidemiology and Population Health (CESP) (LD), Paris South University, UMRs 1018 (LD), Department of Public Health, Aarhus University, Aarhus, Denmark (CCD, KO), Institute Gustave Roussy (LD), INSERM, Centre for Research in Epidemiology and Population Health (CESP), Villejuif, France (LD), Department of Hygiene, Epidemiology and Medical Statistics, University of Athens Medical School (PL), Bureau of Epidemiologic Research, Academy of Athens (PL, DT), Hellenic Health Foundation, Athens, Greece (DT, AT), Department of Epidemiology, Harvard School of Public Health, Boston, MA (PL, DT), National Institute for Public Health and the Environment (RIVM), Bilthoven (HBBM), Department of Gastroenterology and Hepatology, University Medical Centre (HBBM), Julius Center, University Medical Center Utrecht, Utrecht, The Netherlands (AM, PHP), School of Public Health, Imperial College, London (HBBM, PHP), Cancer Epidemiology Unit, University of Oxford, Oxford, United Kingdom (RCT), Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia (HBBM), Department of Community Medicine, Faculty of Health Sciences, UiT, The Arctic University of Norway, Tromsø (EW), Department of Research, Cancer Registry of Norway, Oslo, Norway (EW), Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm (EW), Department of Clinical Sciences in Malmö, Lund University, Lund, Sweden (UE, EW), Samfundet Folkhälsan, Helsinki, Finland (EW), CIBER Epidemiology and Public Health (CIBERESP), España (M-JS, CN, EA), Andalusian School of Public Health, University of Granada, Granada (M-JS), Department of Epidemiology, Murcia Regional Health Council (CN), Department of Health and Social Sciences, Universidad de Murcia, Murcia (CN), Navarra Public Health Institute (EA), and Navarra Institute for Health Research (IdiSNA), Pamplona, Spain (EA).

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\* Coauthor deceased.

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The authors have no conflicts of interest to disclose.

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## INTRODUCTION

There were over 14 million new cancer cases, and more than 30 million people living with cancer (within 5 years of diagnosis) worldwide in 2012.<sup>1</sup> The overall age standardized cancer incidence rate was almost 25% higher in men than in women, with rates of 205 and 165 per 100,000, respectively.<sup>1</sup> Male incidence rates varied approximately 5-fold across the different regions of the world, while those for females varied 3-fold.<sup>1</sup>

It has been estimated that at least a third of the most common cancers are related to lifestyle and as such are preventable.<sup>2</sup> Individual modifiable lifestyle factors have been shown to be associated with cancer risk such as smoking,<sup>3</sup> alcohol consumption,<sup>3</sup> diet,<sup>2</sup> physical activity,<sup>2</sup> and anthropometry.<sup>4</sup> People have a propensity to follow common behavioral patterns,<sup>5</sup> and such lifestyle factors are often clustered, therefore, it seems logical to examine these lifestyle factors jointly.

There is evidence mounting on the association of patterns of behavior, or combined lifestyle factors, to cardiovascular disease<sup>5,6</sup> and diabetes,<sup>7</sup> and more recently, to cancer types.<sup>8,9</sup> Benefits of adhering to healthy lifestyles have been quantified specifically in relation to cancer risk in a prior study which assessed the association between concordance with World Cancer Research Fund (WCRF)/American Institute for Cancer Research (AICR) overall cancer prevention guidelines and subsequent cancer risk in the European Prospective Investigation into Cancer and Nutrition (EPIC) cohort and reported a protective effect of adhering to the guidelines; nevertheless the effect varied among cancer types, showing the score worked well in some cancers but not for all cancers.<sup>10</sup> Further investigations within the EPIC cohort include various health index associations with specific cancer sites (e.g., breast,<sup>11</sup> colorectal,<sup>12</sup> gastric<sup>13</sup>). In order to examine specific risk-related cancer subgroupings (i.e., alcohol-related cancers, tobacco-related cancers, obesity-related cancers, and, among women, reproductive-related cancers) within EPIC, an *a priori* healthy lifestyle index was created based on posited dietary components as previously proposed.<sup>5,7,11,14</sup> Fiber, carbohydrates, fruits and vegetables, red and processed meats, and different fatty acids have all been posited to affect cancer risks.<sup>2,15,16</sup> The healthy lifestyle index and its 5 components: smoking status, physical activity, alcohol consumption, diet, and body mass index (BMI), were used to assess associations with all cancer, and the alcohol-, tobacco-, obesity-, and reproductive-related cancer groupings.

## METHODS

### Study Population

EPIC is a prospective cohort study conducted in 23 centers across 10 European countries (Denmark, France, Germany, Greece, Italy, the Netherlands, Norway, Spain, Sweden, and the United Kingdom).<sup>17</sup> The cohort of 521,330 healthy men and women were recruited from 1992 to 2000, to investigate the relationship between nutrition, dietary habits and lifestyle, and cancer incidence. Participants were aged between 25 and 70 years and enrolled from the general population, with exceptions for France (national health insurance scheme members), Utrecht and Florence (breast cancer screening participants), Oxford (health conscious, mainly vegetarian, volunteers), and some centers from Italy and Spain (blood donor participants). The rationale, study design, and methods for EPIC have been described in detail elsewhere.<sup>17</sup> Ethical approval was obtained

from participating centers and IARC ethics committees. All study participants gave informed consent.

### Data Collection and Follow-Up

Participants completed validated country-specific questionnaires at baseline, including interviewer-administered diet histories or self-administered semi-quantitative food frequency questionnaires to measure usual intakes.<sup>18</sup> The harmonized EPIC nutrient database was used to estimate energy intake.<sup>19</sup> Sociodemographic data, smoking history, alcohol consumption, and physical activity were obtained from lifestyle questionnaires, and anthropometric measurements taken, except for Oxford and France where measurements were self-reported.<sup>17</sup>

In Denmark, Italy, the Netherlands, Norway, Spain, Sweden, and the UK follow-up was performed through cancer registries. In France, Germany, and Greece, follow-up was performed through health insurance records, cancer/pathology registrations, and via participants and their next-of-kin. Follow-up commenced at date of enrolment and finished at date of cancer diagnosis, death, or at last complete follow-up (December 2004 to June 2010, depending on each center), whichever came first. Cancer incident cases were defined as first primary invasive tumors (coded using the 10th Revision of International Statistical Classification of Diseases).

### Cancer Subgroupings

#### Alcohol-Related Cancers

Colorectal cancer [C18–C20], female breast cancer [C50], upper aero-digestive (UADT) cancers (including cancer of the mouth [C01–C10 without C08 = salivary gland], larynx [C32], pharynx [C11–C14], esophagus [C15]), and liver cancer [C22–C24].<sup>2,3</sup>

#### Tobacco-Related Cancers

Upper aero-digestive cancers (including cancer of the mouth [C01–C10 without C08 = salivary gland], larynx [C32], pharynx [C11–C14], esophagus [C15]), liver [C22–C24], pancreas [C25], bladder [C67], kidney [C64, C65], cervix [C53], stomach [C16], trachea [C33], lung [C34], acute myeloid leukemia [C92], and colorectum [C18–C20].<sup>3</sup>

#### Obesity-Related Cancers

Esophagus [C15], pancreas [C25], colorectum [C18–C20], breast (after menopause) [C50], endometrium (lining of the uterus) [C54], kidney [C64, C65], thyroid [C73], and gallbladder [C23].<sup>2</sup>

#### Female Breast and Reproductive-Related Cancers

Breast (after menopause) [C50], vulva [C51], vagina [C52], cervix [C53], uterine [C54–C55], ovary [C56] and other female genital organs [C57–C58].

The original EPIC cohort comprised 521,330 men and women; 477,312 after the exclusion of participants with prevalent cancers (23,785) or missing follow-up information (4380), missing dietary or lifestyle questionnaires (6253), and those in the top or bottom 1% of the ratio of energy intake to energy requirement (9600). The present study was based on data from 391,608 men and women, following exclusions of those that were not primary malignant cancers (10,392), and those with missing data for the components of the lifestyle index (75,312), including all participants from Umea in Sweden, and Norway, where information on physical activity was not collected.

## Index Construction

### Score for Diet

Intakes of 6 dietary factors were combined for the diet score: cereal fiber, red and processed meat, the ratio of polyunsaturated to saturated fat, margarine (as a marker for industrially produced trans-fats), glycemic load, and fruits and vegetables. The linear regression residuals of each dietary component on total energy intake were grouped into country-specific deciles and scored from 0 to 9 (inverse for red/processed meat, trans-fat, and glycemic load), with 0 being least healthy consumption (for margarine there was a non-consumers category). The individual scores were summed to a total diet score, and then categorized into quintiles.<sup>11</sup>

### Score for Health Index

The overall healthy lifestyle index was determined by assigning scores of 0 to 4 to each individual variable category, for which a higher point value indicates a healthier behavior.<sup>11</sup> The healthy lifestyle index ranged from 0 to 20. Healthiest behavior was defined as never smoking (never smoked = 4, ex-smokers quit > 10 years = 3, ex-smokers quit ≤ 10-years = 2, current smoking ≤ 15 cigarettes/day = 1, current smoking > 15 cigarettes/day = 0), low consumption of alcohol (<6.0 g/day = 4, 6.0–11.9 g/day = 3, 12.0–24.9 g/day = 2, 24.0–59.9 g/day = 1, 60+ g/day = 0), top quintile of physical activity based on recreational and household metabolic equivalent tasks (5th quintile = 4, 4th quintile = 3, 3rd quintile = 2, 2nd quintile = 1, 1st quintile = 0), a healthy BMI (<22 = 4, 22–23.9 = 3, 24–25.9 = 2, 26–29.9 = 1, 30+ = 0), and a healthy diet, that is, high in cereal fiber, with a high ratio of polyunsaturated to saturated fat, high intake of fruits and vegetables, and low in red/processed meat, margarine/trans-fat and glycemic load (5th quintile = 4, 4th quintile = 3, 3rd quintile = 2, 2nd quintile = 1, 1st quintile = 0).

### Statistical Analysis

All analyses are sex-specific. Descriptive statistics are provided by cross tabulations with medians and interquartile ranges for continuous variables, and percentages for categorical variables. Cox proportional hazard regression models were used to estimate associations between the healthy lifestyle index and risk factor related cancer groupings. Age was used as the primary time variable, with entry time defined as age at study entry, and exit time as age at diagnosis of first primary cancer or censoring (which ever occurred first).

Hazard ratios (HR) and 95% confidence intervals (CI) were stratified by center, to control for center-specific effects, and 1-year age bands (age at study entry). Models were adjusted by height (continuous), education (none/primary, secondary/technical, university, unknown), and total energy intake excluding alcohol (continuous). The healthy index was modeled as a continuous and categorical variable (≤5, 6–10, 11–15, ≥16), using the second lowest score group as the reference category as some strata contained low numbers of healthiest group. The test for trend was performed by assigning median values of each of the four categories of the index, which was then modeled as a continuous variable. Two-sided *P*-values are provided with statistical significance set at *P* < 0.05. All models were tested for and satisfied the proportional hazards assumption.

The population attributable fractions (PAFs) of cancer cases that might be associated with the lifestyle index score were estimated, with the assumption of a causal relationship,

using the following equation:  $p(RR - 1)/p(RR - 1) + 1$ , where *p* is the proportion of the cohort without cancer in the lowest three categories of the index (<16 on the index score) and *RR* is the association between the exposure and cancer, estimated by the adjusted HR comparing risk in the lowest categories to the highest of lifestyle index score.

Sensitivity analyses were performed to assess the robustness of the findings. Models were run separately for Northern, Central, and Southern European based centers. The healthy lifestyle index was recalculated with the highest/healthiest score assigned to the second BMI category (22–23.9). Models were run separately for tobacco-related cancers among never smokers. Reverse causality was tested through the exclusion of those whose cancer diagnosis was within their first 2 years of follow-up.

Analyses were performed using Stata version 11.2 and SAS version 9.3.

## RESULTS

The overall cohort of 391,608 comprised 121,200 men and 270,408 women. Among men there were 10,950 first primary incident cancer cases recorded during a median follow-up time of 11.6 years and 1,339,718 accumulated person-years. Among women there were 17,564 first primary incident cancer cases recorded during a median follow-up time of 11.8 years and 3,006,119 accumulated person-years.

Table 1 shows medians, or percentages, for each component of the healthy lifestyle index, and for each covariate characteristic. Across categories of the index score, patterns are similar for both men and women, with healthy behavior being more frequent among the higher point scoring categories. Height and education are both increased among men in the higher point scoring groups; however, these patterns were not seen among women.

Table 2 shows the scoring system used for the individual components of the healthy lifestyle index, and the corresponding hazard ratios (HR) and 95% confidence intervals (CI) for each component score and cancer, adjusted for the other covariates, separately for men and women. Healthy behaviors were inversely associated to cancer risk; although not all components and score levels reached statistical significance. Specifically, among women physical activity and BMI were not associated with tobacco-related cancers. Among men, physical activity was not associated with all cancers combined, or any of the risk factor related cancer groups.

Modeled as a continuous variable, there was a 5% lower risk (adjusted HR 0.95, 95% CI: 0.95, 0.96) of all cancers per point score of the index for men and 4% lower risk (adjusted HR 0.96, 95% CI: 0.96, 0.97) for women. Table 3 shows the adjusted HRs and 95% CIs for the associations between the healthy lifestyle index and cancer groupings for men and women. For men, there was a 28% lower risk of all cancer (HR 0.72, 95% CI: 0.65, 0.80); 41% lower risk of alcohol-related cancer (HR 0.59, 95% CI: 0.47, 0.75); 49% lower risk of tobacco-related cancer (HR 0.51, 95% CI: 0.43, 0.60); and 41% lower risk of obesity-related cancer (HR 0.59, 95% CI: 0.47, 0.73) in the fourth category of the index (most healthy) compared to the second (reference) category of the index score. For women, there was a 24% lower risk of all cancer (HR 0.76, 95% CI: 0.73, 0.8); 23% lower risk of alcohol-related cancer (HR 0.77, 95% CI: 0.72, 0.82); 46% lower risk of tobacco-related cancer (HR 0.54, 95% CI: 0.50, 0.61); 26% lower risk of obesity-related cancer (HR 0.74, 95% CI: 0.70, 0.80); and



**TABLE 1.** Characteristics of the European Prospective Investigation Into Cancer and Nutrition Cohort Study According to Healthy Lifestyle Index Category, 1992–2000

	1 ( $\leq 5$ Points)	2 (6–10 Points)	3 (11–15 Points)	4 ( $\geq 16$ Points)	All
<b>Men</b>					
Index component					
Diet score (units)	21 (18–25)	25 (21–30)	29 (25–34)	34 (31–37)	27 (22–32)
Alcohol (g/d)	37.0 (21.6–61.6)	19.9 (8.5–38.1)	9.9 (2.9–21.3)	3.7 (0.8–8.9)	14.5 (5.0–31.7)
Physical activity (mets/wk)	26.1 (16.1–40.5)	44.8 (27.6–67.6)	72.0 (49.5–101.7)	99.7 (75.1–127.8)	56.5 (33.8–86.6)
BMI ( $\text{kg}/\text{m}^2$ )	28.4 (26.4–31.0)	27.1 (25.1–29.5)	25.5 (23.6–27.7)	22.9 (21.4–24.4)	26.3 (24.2–28.7)
Smoking (% ever)	98.8	83.3	55.5	24.7	69.1
Covariate					
Age at entry (y)	52.1 (46.2–57.4)	53.4 (47.3–59.3)	53.8 (46.6–60.5)	49.7 (40.1–58.9)	53.3 (46.6–59.6)
Height (cm)	173.5 (168.5–178.0)	174.0 (169.0–179.0)	175.0 (170.0–179.6)	176.5 (171.4–181.0)	174.2 (169.4–179.0)
Energy intake (kcal/d)	2490 (2091–2958)	2400 (1996–2865)	2321 (1932–2773)	2270 (1875–2719)	2367 (1968–2826)
Education (% below secondary)	47.9	40.0	29.5	13.7	34.7
<b>Women</b>					
Index component					
Diet score (units)	21 (18–24)	24 (20–28)	28 (24–32)	33 (30–36)	27 (23–32)
Alcohol (g/d)	24.9 (12.2–38.5)	9.8 (2.0–20.8)	3.5 (0.5–10.4)	1.6 (0.2–5.2)	4.2 (0.6–12.0)
Physical activity (mets/wk)	39.0 (27.0–53.0)	55.7 (36.8–82.9)	87.8 (57.5–125.5)	130.5 (97.3–161.0)	83.3 (51.8–124.1)
BMI ( $\text{kg}/\text{m}^2$ )	28.3 (25.9–31.5)	25.7 (23.1–28.8)	24.1 (21.9–27.3)	22.2 (20.8–24.3)	24.2 (21.9–27.4)
Smoking (% ever)	98.6	79.5	42.1	16.0	48.5
Covariate					
Age at entry (y)	52.7 (48.2–57.9)	52.0 (46.4–58.1)	51.8 (45.3–58.7)	50.5 (42.4–57.9)	51.7 (45.3–58.4)
Height (cm)	162.5 (158.5–167.0)	162.0 (158.0–166.0)	161.2 (157.0–166.0)	162.0 (157.1–166.5)	161.6 (157.0–166.0)
Energy intake (kcal/d)	1980 (1649–2391)	1945 (1614–2338)	1905 (1581–2284)	1916 (1589–2295)	1917 (1591–2300)
Education (% below secondary)	29.7	27.5	30.9	28.8	29.7

Values are medians (25th–75th percentiles) unless otherwise specified.  
BMI = body mass index.

21% lower risk of breast and reproductive cancers (HR 0.79, 95% CI: 0.73, 0.85) in the fourth category of the index (most healthy) compared to the second (reference) category of the index score.

PAFs were calculated for men and women to estimate the proportions of cancers that hypothetically would not have occurred if everyone had a healthy lifestyle score within the highest category of the study cohort. Figure 1 shows cumulative PAFs for all cancers combined, and for the different risk-related cancer groupings. For men, 26% of overall cancer cases could be attributed to having a lower healthy lifestyle score (below 16 on the index); while for women the estimate was much lower, with 15% of cases that could be attributed to a lower healthy lifestyle score. Among both men and women, the greatest PAFs were seen for tobacco-related cancers (54% and 33%, respectively).

Sensitivity analyses were performed to assess the robustness of the findings. Models were run separately for Northern, Central, and Southern European based centers and no material difference in results (not shown) was observed. Reverse causality was tested through the exclusion of those whose cancer diagnosis was within their first 2 years of follow-up; these results (not shown) did not differ from those of the entire cohort. For tobacco-related cancers, the healthy lifestyle index still showed a protective effect among never smokers: there was a 2% lower risk (adjusted HR 0.98, 95% CI: 0.95, 1.01) per point score of the index for men and 3% (adjusted HR 0.97, 95% CI: 0.95, 0.99) for women. None of the sensitivity

analyses materially altered results or changed interpretation of findings.

## DISCUSSION

This study based on a large prospective cohort has found a lower risk of cancer in men and women with healthier lifestyles. The findings suggest modification of behavior resulting in a single point increase in the healthy lifestyle index score (HLIS) corresponds to a 5% and 4% lower overall cancer risk, for men and women, respectively, with even lower risks associated with alcohol- and tobacco-related cancers. If the associations were causal, 26% of the cancer cases in men, and 15% in women, would have been prevented if the entire cohort had been in the highest scoring category of the healthy lifestyle index.

All individual components of the healthy lifestyle index were associated with cancer risk for women; for men, all components except physical activity and BMI, which did not reach conventional significance. However, the physical activity component used in this study combines a measure of recreational activity with household activity, which is notably lower among men than women within the EPIC cohort.

Findings for the present study are consistent with previous reported studies, which found protective associations between cancer and healthy lifestyle indexes. One study based on the EPIC cohort found a lower cancer risk for men and women in the highest scoring category of a score based on adherence to WCRF/AICR recommendations<sup>2</sup> compared to the lowest

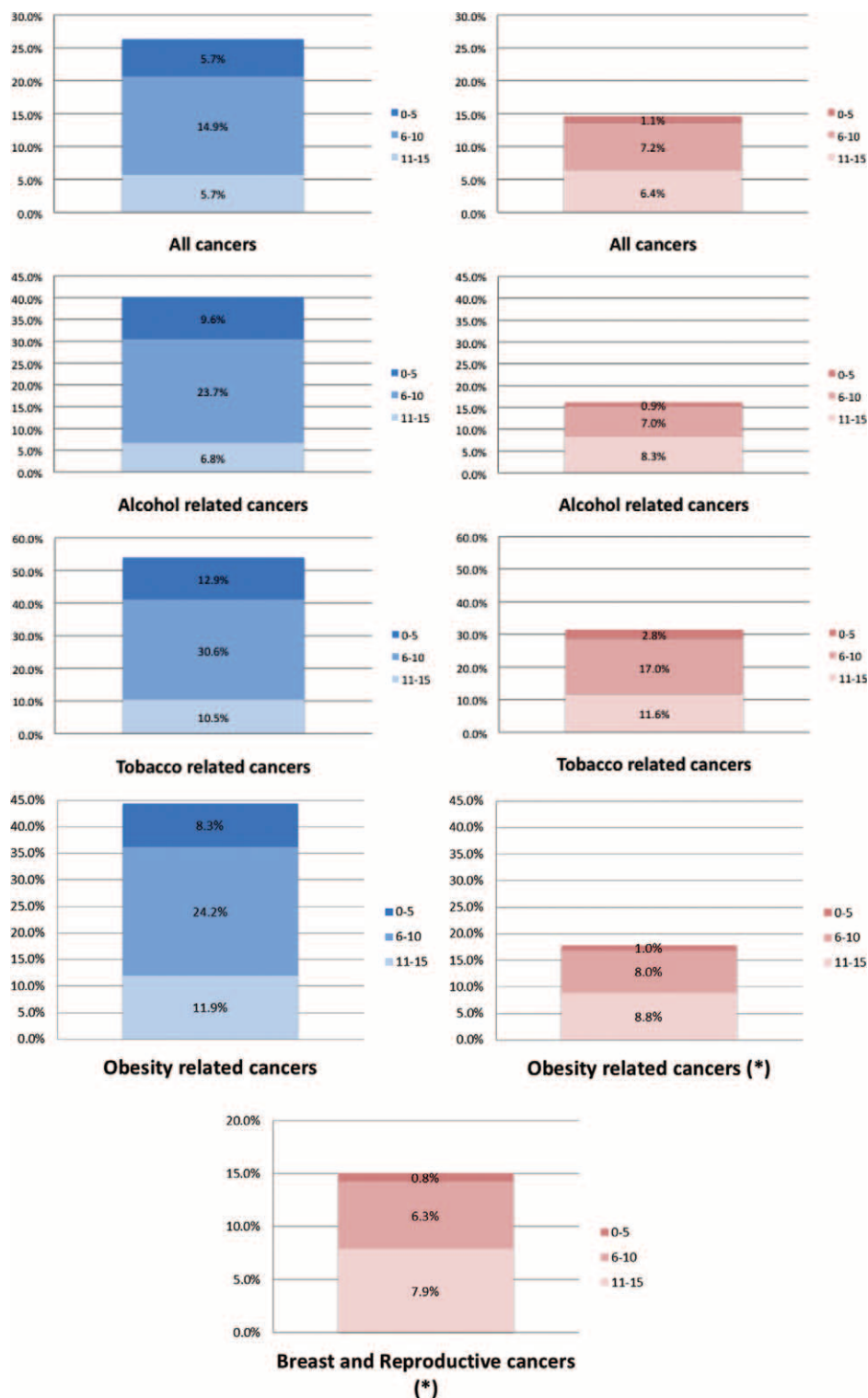
TABLE 2. Associations for Healthy Lifestyle Index Components and Cancer Risks in the European Prospective Investigation Into Cancer and Nutrition Cohort Study, 1992–2000

Index Component	All Cancers			Alcohol-Related Cancers			Tobacco-Related Cancers			Obesity-Related Cancers			Reproductive-Related Cancers		
	HR	P-Trend	HR	HR	P-Trend	HR	HR	P-Trend	HR	HR	P-Trend	HR	HR	P-Trend	P-Trend
Men															
Diet score	1.00	0.0009	1.00	1.00	0.0003	1.00	1.00	<0.0001	1.00	1.00	0.0066				
1st quintile															
2nd quintile	0.950 (0.897–1.006)			0.930 (0.829–1.044)			0.920 (0.852–0.993)			0.918 (0.818–1.029)					
3rd quintile	0.927 (0.875–0.982)			0.816 (0.724–0.920)			0.884 (0.818–0.956)			0.832 (0.740–0.936)					
4th quintile	0.975 (0.917–1.037)			0.871 (0.767–0.990)			0.892 (0.819–0.972)			0.943 (0.834–1.066)					
5th quintile	0.881 (0.826–0.941)			0.790 (0.691–0.903)			0.813 (0.743–0.890)			0.802 (0.704–0.915)					
Smoke															
Current > 15 cigarettes/d	1.00	<0.0001	1.00	1.00	<0.0001	1.00	1.00	<0.0001	1.00	1.00	<0.0001				
Current ≤ 15 cigarettes/d	0.740 (0.693–0.790)			0.723 (0.634–0.824)			0.619 (0.572–0.670)			0.910 (0.793–1.045)					
Ex-smokers quit ≤ 10 y	0.690 (0.642–0.742)			0.662 (0.571–0.766)			0.525 (0.479–0.575)			0.866 (0.745–1.007)					
Ex-smokers quit > 10 y	0.574 (0.538–0.613)			0.595 (0.522–0.677)			0.363 (0.334–0.394)			0.751 (0.655–0.860)					
Never	0.512 (0.479–0.546)			0.434 (0.379–0.497)			0.256 (0.234–0.280)			0.621 (0.541–0.714)					
Alcohol															
60+ (g/d)	1.00	0.0053	1.00	1.00	<0.0001	1.00	1.00	0.0002	1.00	1.00	0.0119				
24.0–59.9 (g/d)	0.823 (0.764–0.886)			0.635 (0.555–0.726)			0.739 (0.673–0.812)			0.804 (0.696–0.929)					
12.0–24.9 (g/d)	0.801 (0.741–0.865)			0.514 (0.444–0.596)			0.673 (0.609–0.744)			0.716 (0.615–0.834)					
6.0–11.9 (g/d)	0.785 (0.723–0.852)			0.528 (0.451–0.618)			0.675 (0.607–0.751)			0.722 (0.614–0.850)					
<6.0 (g/day)	0.821 (0.760–0.887)			0.617 (0.536–0.712)			0.751 (0.681–0.829)			0.768 (0.660–0.893)					
Physical activity															
1st quintile	1.00	0.4807	1.00	1.00	0.8144	1.00	1.00	0.881	1.00	1.00	0.7673				
2nd quintile	1.000 (0.942–1.062)			1.061 (0.937–1.201)			1.046 (0.964–1.136)			1.085 (0.962–1.225)					
3rd quintile	0.998 (0.939–1.061)			1.029 (0.906–1.168)			1.005 (0.923–1.093)			0.989 (0.873–1.121)					
4th quintile	0.993 (0.934–1.056)			1.070 (0.942–1.215)			1.018 (0.935–1.108)			1.053 (0.930–1.193)					
5th quintile	0.987 (0.926–1.051)			1.027 (0.901–1.171)			1.018 (0.934–1.111)			0.998 (0.877–1.134)					
BMI categories															
30+	1.00	0.4514	1.00	1.00	0.0002	1.00	1.00	0.126	1.00	1.00	<0.0001				
26–29.9	0.920 (0.870–0.972)			0.827 (0.743–0.922)			0.873 (0.810–0.940)			0.831 (0.747–0.924)					
24–25.9	0.914 (0.859–0.972)			0.688 (0.606–0.780)			0.844 (0.776–0.918)			0.741 (0.656–0.836)					
22–23.9	0.949 (0.885–1.016)			0.780 (0.678–0.898)			0.893 (0.812–0.981)			0.751 (0.654–0.863)					
<22	0.966 (0.886–1.052)			0.839 (0.704–1.000)			0.960 (0.856–1.077)			0.729 (0.609–0.872)					
Women															
Diet score	1.00	<0.0001	1.00	1.00	0.0005	1.00	1.00	<0.0001	1.00	1.00	0.0002	1.00	1.00	0.046	
1st quintile															
2nd quintile	0.907 (0.866–0.951)			0.903 (0.851–0.958)			0.948 (0.873–1.031)			0.902 (0.851–0.955)			0.921 (0.864–0.982)		
3rd quintile	0.935 (0.893–0.979)			0.931 (0.880–0.986)			0.895 (0.823–0.974)			0.948 (0.897–1.003)			0.960 (0.902–1.022)		
4th quintile	0.920 (0.876–0.966)			0.915 (0.861–0.973)			0.843 (0.768–0.925)			0.910 (0.857–0.966)			0.929 (0.870–0.993)		
5th quintile	0.882 (0.839–0.928)			0.880 (0.826–0.937)			0.782 (0.707–0.864)			0.877 (0.825–0.933)			0.922 (0.862–0.987)		

Index Component	All Cancers			Alcohol-Related Cancers			Tobacco-Related Cancers			Obesity-Related Cancers			Reproductive-Related Cancers		
	HR	P-Trend	HR	P-Trend	HR	P-Trend	HR	P-Trend	HR	P-Trend	HR	P-Trend	HR	P-Trend	P-Trend
Smoke															
Current > 15 cigarettes/d	1.00														
Current ≤ 15 cigarettes/d	0.752 (0.707–0.801)	<0.0001	1.00		0.825 (0.760–0.896)	<0.0001	1.00		0.536 (0.486–0.592)	<0.0001	1.00		0.914 (0.831–1.004)	<0.0001	0.2263
Ex-smokers quit ≤ 10 y	0.715 (0.663–0.770)				0.801 (0.726–0.885)				0.444 (0.391–0.504)				0.920 (0.823–1.028)		
Ex-smokers quit > 10 y	0.681 (0.637–0.727)				0.839 (0.770–0.915)				0.335 (0.299–0.375)				0.928 (0.841–1.023)		
Never	0.649 (0.612–0.689)				0.795 (0.735–0.859)				0.311 (0.283–0.341)				0.911 (0.833–0.996)		
Alcohol															
60+ (g/d)	1.00				1.00				1.00				1.00		<0.0001
24.0–59.9 (g/d)	0.896 (0.768–1.044)	<0.0001			0.906 (0.752–1.091)	<0.0001			0.718 (0.553–0.933)	0.033			0.912 (0.745–1.117)	<0.0001	
12.0–24.9 (g/d)	0.842 (0.723–0.980)				0.822 (0.684–0.989)				0.643 (0.496–0.833)				0.848 (0.694–1.036)		
6.0–11.9 (g/d)	0.768 (0.660–0.894)				0.758 (0.631–0.912)				0.551 (0.426–0.715)				0.803 (0.657–0.981)		
<6.0 (g/d)	0.803 (0.691–0.932)				0.743 (0.620–0.890)				0.644 (0.500–0.830)				0.775 (0.636–0.944)		
Physical activity															
1st quintile	1.00				1.00				1.00				1.00		<0.0001
2nd quintile	0.983 (0.938–1.029)	<0.0001			0.970 (0.917–1.026)	<0.0001			0.983 (0.895–1.080)	0.144			0.981 (0.924–1.042)	<0.0001	
3rd quintile	0.944 (0.899–0.990)				0.918 (0.865–0.974)				0.939 (0.854–1.032)				0.934 (0.876–0.995)		
4th quintile	0.932 (0.886–0.980)				0.881 (0.827–0.938)				0.982 (0.892–1.081)				0.904 (0.845–0.968)		
5th quintile	0.911 (0.863–0.961)				0.871 (0.814–0.931)				0.928 (0.838–1.026)				0.871 (0.809–0.937)		
BMI categories															
30+	1.00				1.00				1.00				1.00		<0.0001
26–29.9	0.925 (0.880–0.973)	<0.0001			0.955 (0.894–1.019)	0.0002			0.990 (0.903–1.085)	0.463			0.866 (0.809–0.926)	<0.0001	
24–25.9	0.904 (0.857–0.953)				0.951 (0.889–1.018)				0.967 (0.876–1.067)				0.824 (0.767–0.885)		
22–23.9	0.896 (0.850–0.945)				0.909 (0.850–0.973)				0.952 (0.862–1.053)				0.813 (0.757–0.872)		
<22	0.869 (0.823–0.918)				0.888 (0.829–0.951)				0.990 (0.894–1.097)				0.751 (0.698–0.807)		

Stratified by study center and age, and adjusted for height, education, nonalcohol energy intake, and other index components.  
BMI = body mass index, CI = confidence interval, HR = hazard ratio.

TABLE 3. Associations for the Healthy Lifestyle Index and Cancer Risks in the European Prospective Investigation into Cancer and Nutrition Cohort Study, 1992–2000						
	Categorical index score				Continuous	
	0–5	6–10	11–15	16–20	P-Trend	Adjusted HR (95% CI) per Unit Score
Men						
All cancer cases	8896	55,113	50,164	7027		
Adjusted HR (95% CI)	938	5300	4284	428		
Alcohol-related cancer cases	1.319 (1.229–1.415)	1.00	0.828 (0.795–0.863)	0.722 (0.652–0.799)	<0.0001	0.952 (0.946–0.958)
Adjusted HR (95% CI)	268	1323	885	84		
Tobacco-related cancer cases	1.457 (1.275–1.665)	1.00	0.698 (0.639–0.761)	0.594 (0.473–0.746)	<0.0001	0.922 (0.910–0.934)
Adjusted HR (95% CI)	656	3051	1883	164		
Obesity-related cancer cases	1.535 (1.409–1.673)	1.00	0.652 (0.615–0.691)	0.508 (0.432–0.597)	<0.0001	0.903 (0.895–0.911)
Adjusted HR (95% CI)	243	1343	1015	89		
Women						
All cancer cases	3693	67,940	159,936	38,839		
Adjusted HR (95% CI)	413	5248	9888	2015		
Alcohol-related cancer cases	1.364 (1.233–1.509)	1.00	0.852 (0.823–0.882)	0.764 (0.725–0.806)	<0.0001	0.961 (0.956–0.966)
Adjusted HR (95% CI)	241	3314	6445	1263		
Tobacco-related cancer cases	1.291 (1.132–1.472)	1.00	0.886 (0.849–0.925)	0.769 (0.719–0.822)	<0.0001	0.966 (0.960–0.972)
Adjusted HR (95% CI)	168	1643	2553	482		
Obesity-related cancer cases*	1.728 (1.472–2.029)	1.00	0.673 (0.631–0.718)	0.551 (0.496–0.612)	<0.0001	0.914 (0.905–0.923)
Adjusted HR (95% CI)	254	3516	6757	1296		
Breast and reproductive cancer cases*	1.283 (1.129–1.458)	1.00	0.866 (0.831–0.903)	0.744 (0.696–0.795)	<0.0001	0.963 (0.956–0.969)
Adjusted HR (95% CI)	206	2865	5561	1063		
	1.247 (1.082–1.438)	1.00	0.902 (0.861–0.945)	0.788 (0.732–0.848)	<0.0001	0.969 (0.962–0.976)
Stratified by study center and age, and adjusted for height, education, and nonalcohol energy intake.						
CI = confidence interval, HR = hazard ratio.						
* Postmenopausal women for breast cancer.						



**FIGURE 1.** Cumulative population attributable fractions (PAFs) for healthy lifestyle index categories and cancer risks in the European Prospective Investigation into Cancer and Nutrition cohort study, 1992–2000.

category (HR 0.84, 95% CI: 0.72–0.99; and HR 0.81, 95% CI: 0.72–0.91, respectively).<sup>10</sup> The components of this index for all cancer were: degree of adiposity, physical activity, foods that promote weight gain, plant foods, red and processed meat,

alcohol intake, and breastfeeding.<sup>10</sup> Similarly, a Women’s Health Initiative study used the American Cancer Society Nutrition and Physical Activity Cancer Prevention Guidelines to assess cancer risk in postmenopausal women and found

lowest to highest category of their score had lower risk of any cancer (HR 0.83, 95% CI: 0.75–0.92).<sup>20</sup> Whereas, a Framingham Offspring cohort study used a score based on seven components: body fatness, physical activity, foods that promote weight gain, plant foods, animal foods, alcohol, and food preservation/processing/preparation, to assess adherence to WCRF/AICR recommendations<sup>21</sup>; this study found no association with the overall score and obesity-related cancer risk. A simpler index was used in the women only E3N cohort in France, which used the five lifestyle factors: BMI, physical activity, smoking, alcohol consumption, and fruit and vegetable consumption, and found lower risk of all-site cancer for women associated with higher healthy lifestyle index categories (highest compared to lowest HR 0.81, 95% CI: 0.73–0.89).<sup>22</sup> A postmenopausal breast cancer specific healthy index previously used for the EPIC cohort included identical components to the present study, although the factors included within the diet component differed slightly; this combined seven dietary factors: cereal fiber, folate, the ratio of polyunsaturated to saturated fat, fatty fish (as a marker for omega-3 fatty acids), margarine (as a marker for industrially produced trans-fats), glycemic load, and fruits and vegetables.<sup>11</sup> This study found breast cancer risk was inversely associated with a high index score (fourth vs second categories HR = 0.74; 95% CI: 0.66–0.83).

The present study has several strengths, including the large size and prospective design of the cohort, and the long follow-up for EPIC participants. Detailed dietary and lifestyle information was collected before cancer diagnosis, thereby eliminating risk of recall bias, and ensuring any misclassification for these variables would most likely be nondifferential, underestimating the observed associations. Nevertheless, as information was not available for trans-fat in the dataset, margarine was used as an indicator; this food group has been described in the literature as the main source for industrially produced trans fatty acids.<sup>23</sup> Margarine has been related to plasma elaidic acid (a biomarker for trans-fat intake) within EPIC showing the strongest correlation among numerous food groups investigated.<sup>24</sup>

Even though the index components were equally weighted, there is likely to be unintentional weighting because some of the factors are “recommended” items or items perceived as positive such as physical activity; while others are “moderation” items, viewed as negative such as smoking. Index components which are recommended are those behaviors which are encouraged, and as such, they may be weighted unintentionally through their promotion more so than discouraged behaviors, like the negative moderation components.<sup>25</sup>

EPIC participants are volunteers, and as such this is not an ordinary population-based cohort. Participants are more likely to be healthier than the general population, and therefore the estimates may be attenuated, providing an underestimation of PAFs that could be expected in the general population. A further consideration in the interpretation of results is that all PAF estimates are based on an assumption that the relationship between exposure and cancer is actually a causal relationship.

In order to avoid high correlations within and between food groups, the number of indicator foods for an index should be restricted to as few as possible, while still capturing risk-related components. Many healthy lifestyle indices have been used in recent studies to assess cancer risk, and many of these studies have had similar results, further validating the use of scores and their underlying concept of combined lifestyle modifications. Nevertheless, prospective work should investigate and compare

these indices for a balance of simplicity and effectiveness to guide the future research in this area.

In conclusion, we evaluated the association between a healthy lifestyle index (including healthy diet, avoidance of smoking and alcohol consumption, moderate and vigorous-intensity physical activity, and low BMI) and the risk of cancer among men and women, and found a protective association of a healthy lifestyle among all cancer groupings. The combined healthy lifestyle index was overall more strongly associated with cancer risk for men. Cancer is a complex multifactorial disease; nevertheless, these findings add further weight to the suggestion that simple behavior modifications could have a major impact on cancer incidence. Cancer prevention policies should include strategies to engage men and women in lasting healthy diet and lifestyle habits.

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## **e. Annual Safety Report (Environment of Care Evaluation)**





**El Camino Hospital®**  
THE HOSPITAL OF SILICON VALLEY

# **FY-2016 Evaluation of the Environment of Care, Emergency Management & Life Safety Programs**

with  
**Goals for FY-17**

Prepared by:

**Steve Weirauch**

Manager, Environmental, Health & Safety

Created: August 31, 2016

**Table of Contents**

Executive Summary.....	1
Program Overview .....	2
The Joint Commission (TJC) Survey.....	3
EC 1.0 - Safety Management.....	4
EC 2.0 - Security Management.....	9
EC 3.0 - Hazardous Materials & Waste Management.....	13
EC 4.0 - Fire Safety Management .....	16
EC 5.0 - Medical Equipment Management .....	18
EC 6.0 - Utilities Management .....	20
EM - Emergency Management .....	22
Attachment 1 – Employee Health Services Definitions .....	25
Attachment 2a – Safety Trends.....	26
Attachment 2b - Safety Trends Definitions.....	27

## Executive Summary

The FY-2016 report of the Safety Program for Managing the Environment of Care is to inform the Hospital Board of Directors of the status of the key measurement criteria for the Hospital's safety program implementation that meets Injury and Illness Prevention Program OSHA requirements, and The Joint Commission (TJC) standards.

The safety program indicators showed a decrease in the rate of OSHA-recordable work related injuries and illnesses compared to previous years. The rates of patient handling injuries and blood borne pathogen exposures have gone up slightly. A continued emphasis on training and the addition of new safe patient handling equipment should help to reverse this trend.

In January, the hospital completed the tri-annual Joint Commission survey. There were several findings under the EOC and Life Safety chapters and none under Emergency Management. All findings were corrected, many before the survey was completed.

In FY 2016, there were:

- No citations from the Santa Clara County Environmental Resources Agency
- No waste water violations
- No reportable hazardous materials incidents
- Two reported fire incidents.
  - Burnt toaster causing excessive smoke (Human Resources break room)
  - Faulty fuse in HVAC unit causing excessive smoke (Park Pavilion – Foundation)
- Six reportable utility incidents
  - 3 chiller failures – two at Mountain View main campus and one at Willow Pavilion
  - 2 electrical failures in Los Gatos
  - 1 transfer switch failure in Mountain View
- Three events requiring the activation of the Hospital Incident Command System (HICS)
  - iCare implementation – command center opened at both campuses for several weeks during go-live
  - Joint Commission Survey – command center opened to coordinate survey response
  - Super Bowl 50 – command centers at both campuses on standby during the weekend of the super bowl. Mountain View command center opened on Super Bowl Sunday.

Emergency exercises were conducted during the year to test and improve our response capabilities in the event of a real emergency situation. The two major exercises for the year were:

- A functional mass casualty and decontamination exercise held in Mountain View
- A functional mass casualty exercise held in Los Gatos.

Both events were Code Triage situations with activation of HICS and opening of the Hospital Command Centers.

## Program Overview

The Joint Commission (TJC) standards provide the framework for the Safety Program for Managing the Environment of Care Program, Emergency Management and Life Safety at El Camino Hospital. These programs meet the State of California requirements for an Injury and Illness Prevention Program (IIPP). It is the goal of the organization to provide a safe and effective environment of care for all patients, employees, volunteers, visitors, contractors, students and physicians. This goal is achieved through a multi-disciplinary approach to the management of each of the environment of care disciplines and support from hospital leadership.

The Central Safety Committee and Hospital Safety Officer develop, implement and monitor the Safety Management Program for the Environment of Care, Emergency Management and Life Safety Management. Reporting is completed as required for Joint Commission compliance.

The Central Safety Committee membership consists of the chairperson of each Safety Work Group, and representatives from Infection Control, Clinical Effectiveness, Radiation Safety, the Clinical Laboratory, Employee Wellness and Health Services (EWHS), Nursing and Human Resources.

Work Groups are established for each of the Environment of Care, Emergency Management and Life Safety sections. They have the responsibility to develop, implement and monitor effectiveness of the management plan for their respective discipline. The status of each section is reviewed at the monthly Central Safety Committee meeting and reported on the Safety Trends (See [Attachment 2a](#)). The Safety Officer is accountable for the implementation of the responsibilities of the Central Safety Committee.

The Central Safety Committee chairperson is responsible for establishing performance improvement standards to objectively measure the effectiveness of the Safety Program for Environment of Care.

The following annual review analyzes the scope, performance, and effectiveness of the Safety Program and provides a balanced summary of the program performance during fiscal year 2016. Strengths are noted and deficiencies are evaluated to set goals for the next year or longer-term.

## The Joint Commission (TJC) Survey

In January, the hospital completed the tri-annual Joint Commission survey. There were a number of findings under the EOC and Life Safety chapters. There were no findings under the Emergency Management chapter. A summary of the types of issues found are listed below:

- **Medical gas storage** – These findings include having incomplete labeling of gas cylinder tanks and improper storage of cylinders. All issues were corrected.
- **Blocked electrical and gas panels** – Several panels were blocked by equipment or other items. As possible, these were corrected.
- **Inaccurate Life Safety drawings** – several spaces within the clinical areas have been repurposed since the building was occupied and the plans were never adjusted to note the new usage.
- **Quarterly / annual testing issues** (fire pumps, sprinklers) – several findings related to documentation and completion of required testing of Life Safety systems. In most cases the testing had been done, but were missing completed documentation from the contractor who performed the testing.
- **Temperature, Pressure and Humidity monitoring issues** – several instances where areas showed evidence of being out of range for temperature, pressure or humidity. Stricter controls were put on the spaces to ensure they are within specified ranges.
- **Fire drills** – when conducting fire drills during night shifts, the hospital would simulate the activation of the fire system to prevent disruption to patients. TJC requires that the pull stations be pulled during ALL drills. Investigated options of alarm activation that would minimize disturbance of patients and have a working plan in place.
- **Egress issues** – areas were noted where equipment or supplies were improperly stored in egress hallways. These were corrected immediately.
- **Fire penetrations** – surveyor found several instances of fire-rated wall and door penetrations. These were corrected immediately.
- **Door latching issues** – several instances where fire doors did not latch freely, either the doors needed adjustment or there were items that prevented the doors from closing. These were corrected immediately.
- **Pressure relationships** - There were several findings related to pressure relationships in areas. (e.g., the pressure relationship from the sterilizer mechanical room to the central services office tested positive with the requirement being negative). These have been addressed.
- **Dirty Equipment and Waste transport** – found instances where dirty instruments or waste were being transported in the wrong containers (colored bags). Corrective actions have been put into place.

All identified items were addressed and corrected. Many were completed prior to the departure of the surveyors. Some items required Measurements of Success to show evidence of compliance. These were tracked by the Central Safety Committee at the monthly meetings.

## EC 1.0 - Safety Management

(Work Group Chair: **Alyse Manglik**)

### 1. Scope

Safety Management is the responsibility of hospital leaders and every employee is responsible for the safe environment of care. Departments that have a specific role in the promotion and management of a safe environment may include, but are not limited to the following functional areas:

- Employee Wellness & Health Services
- Education Services
- Quality and Patient Safety
- Infection Control
- Security Management
- Environmental Services
- Facilities Services
- Patient Care Services
- Human Resources
- Radiation Safety

### 2. Performance

Performance indicators offer the opportunity to objectively assess areas of focus identifying potential risk. Indicators are reported on the Central Safety Committee Trend Report, and evaluated annually. The following performance criteria are the indicators used to monitor Safety Management in FY-16. This includes data from both the Mountain View and Los Gatos campuses.

[See [Attachment 1](#) for a definition of terms and formulas used to calculate in this report.]

#### OSHA Recordable Injury & Illness

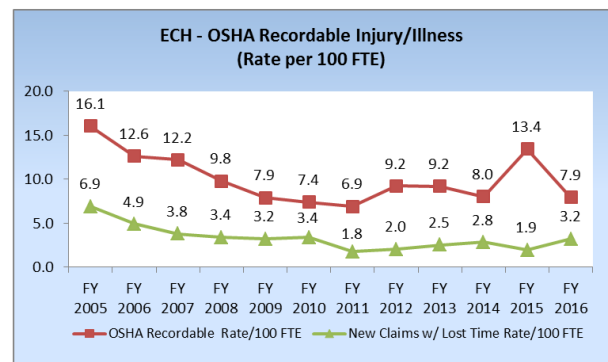
The rate of OSHA recordable incidents per 100 FTE decreased in FY-16 to 7.9 as compared to 13.4 in FY-15. The total *number* of recordable incidents decreased to 193 compared to 311 in FY-15.

The rate of injuries for lost work days for all open claim (per 100 FTEs) increased by 68% to 3.2 in FY-16 from 1.9 in FY-15.

**Analysis – Injury Rates:** The two largest factors contributing to the Cal/OSHA recordable injury and illness rate were strains/sprains (37.4%) and contusions (13.4%).

(Note: the bump in exposure rates for FY15 was due to one-time events involving possible staff Influenza-A and meningitis exposures.)

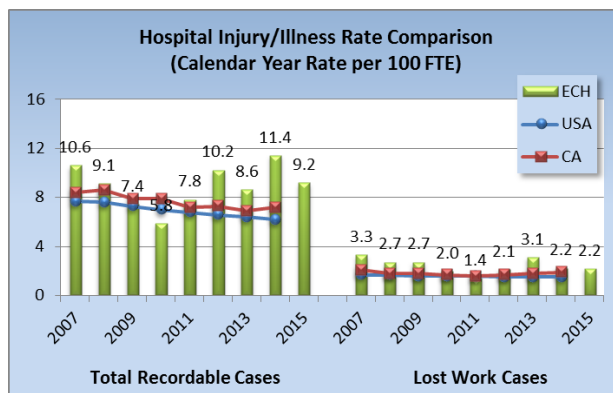
**Improvement Strategies:** Continue the process for early intervention when injuries occur by contacting each injured worker when the Accident/Injury/Exposure Report (AIER) is completed. Encourage the injured employee to be seen in Employee Wellness and Health for an immediate evaluation of the injury and any treatment needed. Continue informing new hires about safety measures/safety training to take to keep themselves safe at work and to report any injuries immediately to their manager and complete an AIER. Instruct managers to contact EWHS when any employee informs them of an injury in order to begin the early intervention process.



## A. OSHA Recordable Injury/Illness Rates as Compared to U.S. & California Hospitals

The Department of Labor, Bureau of Labor Statistics (BLS) calculates the recordable injury and illness rates for all hospitals in the USA and California.

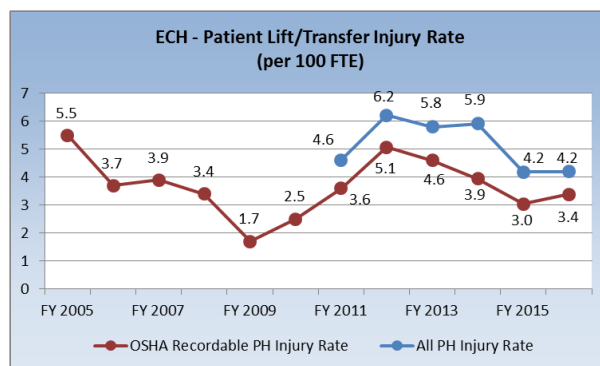
The injury/illness rate for the hospital exceeded the state and national averages in 2014 (the most recent year available from the BLS). However, the hospital actively utilizes the return to work (RTW) program, showing a commitment to getting people back to work as quickly as possible after an injury or illness.



## B. Patient Lift/Transfer Injuries

### Analysis

- Injury Rates:** The rate of OSHA recordable patient lift/transfer injuries per 100 FTEs continued increased to 3.4 in FY-16 compared with 3.0 in FY-15 while the overall rate of patient handling injuries remained unchanged at 4.2 which is less than the preceding four years.
- Injury Types:** The two most common causes of patient handling injuries for the year were repositioning patients in bed and vertical transfers. These are historically the most common, but the rate of both repositioning and lateral transfers has declined slightly as compared to the last several years.



	2015	2016
Repositioning Patients in Bed	32%	25%
Vertical Transfers (assist patient between sitting and standing)	24%	25%
Lateral Transfers (assisted patient between bed and gurney)	16%	13%
Combined Transfers (assist patients between lying and sitting)	14%	17%

- Injuries by Job Class:** Registered Nurses and Unit Support personnel (CNAs) once again incurred 85% of the total safe patient handling injuries, with RNs suffering almost double the rate: 56% as compared to 29% for CNA's.
- Injuries by Department:** Inpatient Rehab (n = 8) and the Mountain View Emergency Department (n = 5) had the most safe patient handling injuries this year with 27% of the total. The Mountain View departments Medical (2C), Telemetry (3B), and Telemetry / Stroke (3C) each reported 4 injuries (8% of total).

### Improvement strategies:

- Safe Patient Handling Committee:** Attendance and involvement in the Safe Patient Handling committee continues to be strong. Unit champions and Shift Peer Leaders have been identified on most units and are taking an active role in mobilizing education.

- **Rehab Services** was instrumental in their prevention efforts and adoption of use of lifting equipment and safe work practices since FY-15 when they had an unprecedented number of injuries. They reported one injury this year as compared to five in FY- 15.
- **Inpatient Rehab** rates of safe patient handling injuries, as well as the Emergency Department in Mountain View have risen significantly to previous rates. Both units have been targeted for prevention efforts and have received new equipment with additional devices on order.
- **Accident Investigations:** Prompt accident investigation by managers continues to need improvement. The rate of completed accident investigations within four days of completion of the employee Accident, Injury and Exposure Report (AIER) in FY-16 was 38%, down from 43% in FY-15. Prompt review with employees is encouraged for an accurate description of how an injury happened, to initiate corrective action and future prevention, and show engagement and employee concern. The HR Business Partners have been added to the electronic distribution of AIERs submitted so that managers may be supported in their effort for timely completion.
- **Equipment:** Recommendations for equipment standardization, modernization and improved access were submitted and capital was approved in FY-16. Resources were devoted to this comprehensive effort by the Performance Improvement department in concert with Employee Wellness and Health Services. Arrival of the equipment will begin in early FY-17 and includes:
  - 11 Sara Stedy sit/stand non-mechanical aids which have been identified to reduce injuries related to vertical transfers, combined transfers and preventing patient falls.
  - 8 Sara Plus mechanical sit/stand/ambulation lifts to support early ambulation/fall prevention and the needs of bariatric clients.
  - 6 Arjo MaxiMove and 2 Tenor floor lifts for units/rooms not equipped with overhead lifts. This will standardize hanger bar and sling models; eliminate older models and unsupported equipment at both campuses. This will also consolidate training requirements.
  - 2 Golvo 8008 floor lifts for Los Gatos with specific capability to perform car extractions and patient lifts from the floor.
  - 6 HandiCare RoWalkers identified to assist safe, early mobilization and fall prevention with application in critical care units.
  - El Camino qualified for 38 Variable Speed Hover pumps at no cost based on our use of Hover Matts for lateral transfers of dependent patients. All other brands and older models were removed from distribution in July, 2016 at both campuses to support standardization. It is likely that the promotion of Hover Matts has contributed to the reduction of lateral transfer injuries in general, and specifically those in the Imaging Department.
- **Collaboration:** The Safe Patient Handling Committee continues to collaborate with both the Falls Prevention and Pressure Injury Prevention and Skin Care (PIPSC) committees **because** of overlapping goals. Fall Prevention Chairs were introduced to every unit this year and newly ordered patient-handling equipment is designed for healthcare worker safety through patient fall prevention.



- **Training:** Staff training on new equipment and procedures has been and continues to be a major focus. The Education Department has partnered with the USF Clinical Nurse Leader program to design a to-be-validated Bedside Mobility Assessment Tool that is color coded and collaborated with equipment and weight recommendations. A quarterly Education Plan was initiated that will be instrumental in keeping awareness of safe patient handling present, interactive and timely.

### C. Bloodborne Pathogen Exposures

The rate of Blood borne pathogen exposures per 100 FTE increased to 2.2 in FY-16 compared to 1.9 in FY-15. The total number of exposures for both campuses was increased to 54 exposures in FY-16 compared to 45 in FY-15. Of these, 39 were percutaneous exposures and 14 were body fluid exposures due to splashes.

There have been no significant trends noted involving particular devices.

**Analysis:** Most exposures, both sharps, contact, and mucous membrane exposures were the result of end user practice failures:

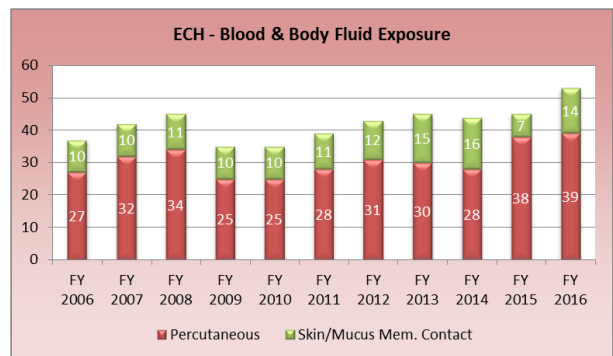
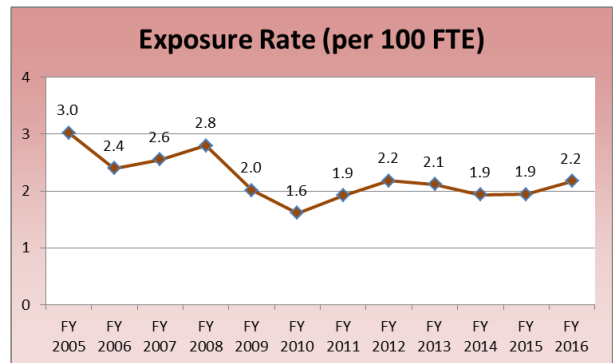
- Failure to engage safety devices immediately after use and to check to ensure the tip of the needles was indeed covered by the safety device
- Not wearing personal protective equipment (PPE) when indicated particularly face and eye protection when obviously in areas/units where splashes should be expected.
- Rushing when handling sharps
- Placing sharps on surfaces/in bedding instead of immediately into sharps containers

#### **Improvement Strategy:**

- Sharps Training is incorporated into Nursing Orientation
- Information included in clinical memos if an uptick is noted in any area
- In-services for new products or when there is continued/repeated misuse or misunderstanding of a product
- Continue to identify causes and how exposure or injury could have been prevented by asking exposed employee what action they will take in the future to prevent the exposure from occurring again should a similar situation arise
- Enterprise wide product in-servicing on a 'rounding' basis with the product representative

### D. TB Conversions

There were no known occupational exposure conversions at either campus during FY-16



## E. Safety Training Indicators

Ensuring staff receive the necessary and required training to safely perform their duties is a critical element of the safety program. A combination of classroom and computer-based training is required for all employees. The Life Safety courses required for all employees and provided as on-line modules on topics including fire, evacuation, hazardous materials, and other safety topics. These are:

- New employee orientation: 100% (Target: 100%)
- Life Safety - Non-Clinical: 99% (Target: 95%)
- Life Safety - Clinical: 98% (Target: 95%)

## F. Safety Inspections

Safety inspections (Environmental Tours) are conducted monthly. Clinical departments are inspected twice per year, once by the Safety Inspection team, and once by the unit. Nonclinical areas are inspected annually by the Safety Inspection team. Problems noted are documented and delegated to the department manager and remain open until corrected.

The five most noted problems in FY-16 involved:

- Damaged or stained ceiling tiles
- 18" vertical clearance to fire sprinkler heads
- Improper use of Power Strips
- Clear Egress in corridors
- Wastes not being segregated properly (trash, biohazard, pharmaceutical, sharps)

## G. Environmental Monitoring

All scheduled environmental monitoring was completed and results were below exposure limits as set by the appropriate regulatory agencies.

Monitor	Location	Results
<b>Anesthetic Gases</b>	OR, PACU, L&D	
○ Nitrous Oxide		Below Cal OSHA PEL
○ Sevoflurane		Below NIOSH REL <sup>1</sup>
<b>Formaldehyde</b>	Cytology, Histology	Below Cal OSHA PEL
<b>Glutaraldehyde</b>	Endoscopy (MV)	Below ACGIH Ceiling Limit <sup>2</sup>
<b>Lead/Cadmium</b>	Radiation Oncology (MV)	Wipe Samples in all areas except the lid of the molding pot and the counter beneath molding pot dispenser were below the recommended surface contamination levels <sup>3</sup>
<b>Noise</b>	Facilities Personal Monitoring (MV)	Below Cal OSHA Action Level
	Central Plant (MV)	Several locations exceed the action limit (85dBA). "Hearing Protection Required" signs are posted in these areas.
<b>Xylene</b>	Cytology, Histology	Below Cal OSHA PEL

<sup>1</sup> OSHA has not established a Permissible Exposure Limit (PEL) for Sevoflurane.

<sup>2</sup> OSHA has not established a Permissible Exposure Limit (PEL) for Glutaraldehyde.

<sup>3</sup> OSHA has not established regulatory quantitative surface limits for lead and cadmium. As a best management practice, the lead and cadmium surface sample results were compared to the Brookhaven National Laboratory's acceptable surface contamination level.

**EC 2.0 - Security Management***(Work Group Chair: Mitchell Perry)***1. Scope**

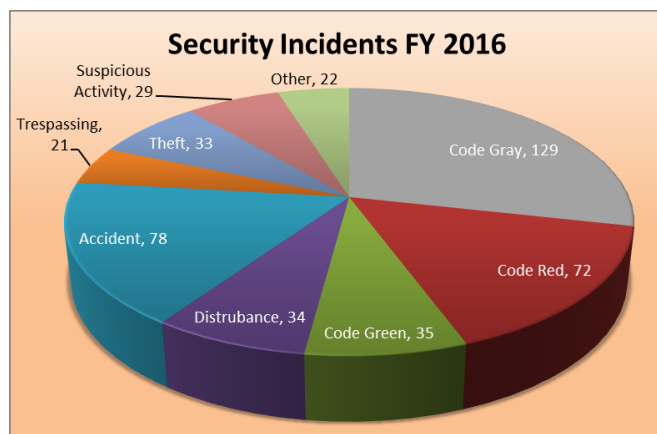
The Security Management Plan is designed to promote a safe and secure environment and to protect patients, visitors, physicians, volunteers, and staff from harm. Hospital security activities and incidents are managed by the Security Workgroup and are reported to the Central Safety Committee. This data includes, but is not limited to, the following:

- Accidents
- Audits/Inspections
- Assaults
- Burglary
- Code Gray
- Code Green
- Code Pink/Purple
- Disturbance
- Fire Drills
- Fire Drills
- Missing Property
- Parking Management
- Robbery
- Suspicious Activity
- Thefts
- Trespassing/Loitering
- Vandalism

**2. Performance**

Performance indicators for the Security Management program are reported and trended monthly and/or quarterly to the Central Safety Committee and are reflected in the “Trends Report”. The following performance criteria monitor Security Management for FY-16. The data includes activity from both campuses.

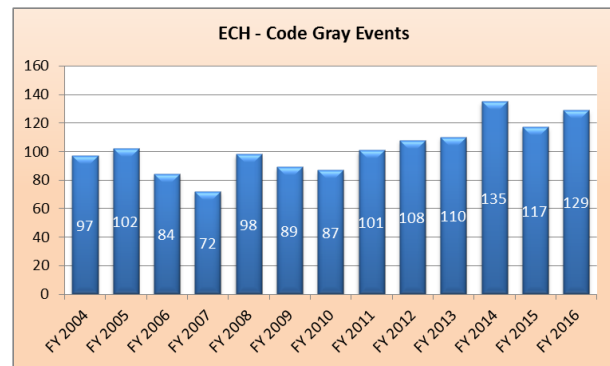
There were a total of 453 reported security incidents for FY-16 requiring immediate response. This is a marked increase from FY-15 total of 295. Review of the major FY-16 incidents showed that most incident categories including accidents, disturbances and thefts showed no discernible trends or patterns. Code Gray, Code Red, Code Green, and Accidents accounted for 293 (65%) of the total reported incidents.



**A. Code Gray Responses**

Code Gray responses increased by 10% over the previous year. The total number of incidents in FY-16 was 129 compared to 117 in FY-15.

Data shows Code Gray incidents and other urgent requests for Security assistance appear to occur with greater frequency in the Emergency Department, Behavioral Health and Medical Units. Responses are tracked and monitored to help identify possible improvements to the process.



The Hospital utilizes the **Non-violent Crisis Intervention® (NCI)** training program for all staff who deal with angry or agitated persons. NCI training is required for all Behavioral Health staff, ED staff, security officers, facilities engineers and clinical managers. Staff in other departments are also encouraged to attend the training.

**B. Bulletins, Alerts & Presentations**

Security Services issued 12 personal safety alerts, security prevention announcements, law enforcement advisories and awareness presentations and other hosted discussions.

**C. Patient Belongings**

Security Officers performed 3,420 chain-of-custody transactions involving patient's belongings.

**D. Patient Escorts, Watches, Stand-Bys & Restraints**

Security Officers performed 1,444 patient watches, standbys and restraints. Hospital Supervisors notify Security of these events which can last several hours. They primarily occur in the Emergency Department, Behavioral Health and on the Medical Units. Patient watches are also handled by the ED Technicians, Patient Safety Attendants (PSAs), and others which may not be included in these numbers.

**E. Fire Drills / Fire Watches**

Security Officers conducted 112 fire drills and are 100% up-to-date. Two fire watches were performed.

**F. General Assistance**

Security Officers performed 88,605 service requests including but not limited to main lobby greeter assistance, directional requests, door locks/unlocks, escorts, issuance of one-day passes.

**G. ID Badges**

Security Services issued 2,201 'Dual-sided' Photo ID Badges with access and barcoding technology to staff, physicians, auxiliary, contractors, and students. 1,734 temp badges were issued.

**H. Investigations & Audits**

Security Services performed 16 investigations and audits including but not limited to fact-finding, interviews, case follow-up documentation, intelligence gathering, and physical security assessments or systems review.

**I. Inspections**

Security Services performed a total of 15,406 inspections (weekly and monthly) including but not limited to fire extinguishers, eyewash stations, panic buttons, exterior campus lighting, emergency phones and delayed egress door checks.

**J. Loitering**

Security Officers responded to 168 incidents involving problematic individuals who required extra time and assistance leaving hospital property. Note: These incidents may be a subset of data from other sections in this report.

**K. Lost And Found**

Security Officers performed 695 chain-of-custody transactions involving Lost and Found items for patients, visitors and staff.

**L. Parking Compliance & Services**

In addition to daily parking control and 'space availability' counts, Security Officers performed 161 vehicle-related services including jump-starts, door unlocks and tows. 748 citations and 83 warnings were issued to vehicles on Mountain View and Los Gatos campus.

**M. Police Activity**

Law enforcement agencies were on-site 71 times in response to requests for assistance, urgent calls and for investigative activities. Note: actual number maybe higher, as Security Services may not be aware of all police activity on-campus.

**N. Statistics – Mountain View Police Department Crime Data (Source: 2014 MVPD Annual Report<sup>4</sup>)**City of Mountain View

Square Miles: ..... 12

Population:..... 76,582 (County of Santa Clara 1,918,044)

Personnel: ..... Total 135 (90 Sworn vs. 45 Non-Sworn)

Beat No.1: ..... 6,202 number of dispatched calls, includes El Camino Hospital

Statistics UCR data includes attempts and actual crimes

Part I UCR: ..... Total 1770 (1614 Property vs. 156 Violent)

Previous Year ..... Total 1867 (1714 Property vs. 153 Violent)

Part II UCR: ..... Total 2599

Previous Year ..... Total 2618

Arrests-Misdemeanor: .. Total 1598 (1397 Adult vs. 201 Juvenile)

Previous Year ..... Total 1556 (1349 Adult vs. 207 Juvenile)

Arrests-Felony: ..... Total 664 (610 Adult vs. 54 Juvenile)

Previous Year ..... Total 663 (598 Adult vs. 65 Juvenile)

Non-Crime Reports: ..... Total 1988

Previous Year ..... Total 2348

Traffic Collisions: ..... Total 235

Previous Year ..... Total 337

Moving Violations: ..... Total 5990

Previous Year ..... Total 8379

<sup>4</sup> The MV PD 2014 annual report has not yet been released.

Non-Moving Violations: Total 3992  
Previous Year ..... Total 10314

Parking Violations: ..... Total 5691  
Previous Year ..... Total 3951

Indexes Per 1,000 current year population

Violent:..... 2.02

Previous Year ..... 2.01

Violent Crime Index includes Criminal Homicide, Forcible Rape, Aggravated Assault, and Robbery

Property: ..... 23.93

Previous Year ..... 26.15

Property Crime Index includes Burglary, Larceny, Motor Vehicle Theft, and Arson

Note: Los Gatos Police Department data and crime statistics not available.

### 3. Effectiveness

Key indicators were identified to establish goals for FY-16 with opportunities to improve Security Management within the Environment of Care.

#### FY 16 Goals

- 1) Release (4) safety and security prevention, awareness and alert material.  
***This goal was accomplished.***
- 2) Develop web-based Security Officer training program.  
***This goal was accomplished.***

#### FY-17 Goals

- 1) > 90% non-medical emergency security response time less than 3 minutes.
- 2) 90% of assigned training modules are completed by officers with 1+ years of experience at El Camino Hospital.
- 3) Create at minimum 4 Security Awareness Pamphlets/Alert Bulletins

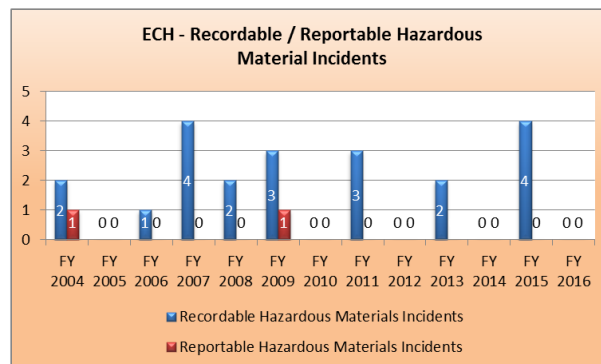
**EC 3.0 - Hazardous Materials & Waste Management***(Work Group Chair: Lorna Koep)***1. Scope**

The Hazardous Materials & Waste Management work group is comprised of a multi-disciplinary group from within El Camino Hospital. The work group chair serves as the central contact point for the reporting and documentation for the Hazardous Materials & Waste Management work group and provides regularly scheduled reports to the Central Safety Committee.

**2. Performance****A. Hazardous Material Incidents**

Facilities Services maintains an electronic Hazardous Materials Spill Log, which documents if proper reporting and clean up procedures were used.

- **Reportable Hazardous Material Incidents<sup>5</sup>** – No reportable spills.
- **Recordable Hazardous Material Incidents<sup>6</sup>** – No recordable spills.

**B. Waste Water Discharge Violations** – No waste water discharge violations in FY-16.**C. Monitoring and Inspecting**

- Joint Commission Survey, January 11-16 2016.
  - One opportunity for improvement regarding Environmental Services (EVS) was identified. Provide additional education for EVS staff on locating proper handling procedures for hazardous materials either on-line or on paper.
    - Training was conducted for all staff with a demonstration of accessing the online Safety Data Sheet (SDS) database. This training will be conducted annually.
- Santa Clara County annual medical waste inspection
  - Los Gatos: Inspection conducted on 04/27/16. Two minor issues were identified:
    - Recommended placing absorbent pads in Pharmaceutical waste containers to prevent free liquids in the container when wasting meds in Pharmacy
    - Replacement of one cracked container waste container.

Both items corrected. Documented changes sent and accepted by County of Santa Clara Department of Environmental Health on 05/26/16.
  - Mountain View: Inspection conducted on 10/09/2015. No issues were found.

<sup>5</sup> Reportable and recordable hazardous material incidents are defined by state and federal regulations and are determined based on the quantity and hazard of the spill.

- Continued monitoring and staff education to ensure compliance with waste segregation practices:
  - Annual Waste Management education for staff
  - Daily rounds by EVS supervisors
  - Monthly Safety Rounds that include observation of waste segregation practices
  - Quarterly Surveys of medical waste/sharps by Stericycle Compliance Coordinator with targeted education on nursing units addressed toward survey findings.

#### D. Radiation Safety Committee

The Radiation Safety Committee reports to Central Safety as part of the Hazardous Materials Management work group. Minutes of the Radiation Safety Committee meetings are reviewed quarterly.

### 3. Effectiveness

Staff training on hazardous materials is completed through computer-based training modules and is reported by the Safety Management Work Group.

Key indicators were targeted to establish goals for FY-16. The following goals presented opportunities to improve hazardous materials & waste management within the Environment of Care.

#### FY-16 Goals:

- 1) Implement recycling program for chemicals generated in the Pathology Lab of the Mountain View campus.

***This goal was not accomplished.*** Working with the waste hauler, Stericycle, we had a tentative agreement on recycling of Xylene waste generated in the lab. This required separation of the xylene from other waste streams in the histology area. However, after implementing the change, it was found that the separated wastes were being mixed by the hauler after collection and not recycled. Upon investigation it was found that Stericycle was not able to recycle the wastes, making this goal unachievable.

The lab is evaluating the purchase of new equipment that does not require the use of Xylene or alcohol. This is a new technology and if feasible, purchase and implementation could occur in late FY-17 or FY-18.

- 2) Re launching of a comprehensive recycling program in both campuses to target the reduction of regular waste.

***This goal was partially accomplished.*** The first phase of a composting program was launched at both campuses. Composting containers are currently in use in the kitchen areas only. This has increased the types of recycling being captured but as of yet has not resulted in a reduction of regular waste. The increase in construction activity and the increase in staff during FY-16 for the i-Care implementation also prevented a reduction in wastes.

Efforts are still underway with training and ongoing optimization to continue looking for opportunities to reduce overall waste. Plans are also in place to expand the composting to paper products in the restrooms in FY-17.



**FY-17 Goals:**

- 1) Expand composting program (Phase 2) to include cafeteria waste and restroom paper towels.
  - Measurement of success: increase the number of composting totes picked up at both campuses.
  - Current (as of 7/1/2016):
    - Los Gatos (96-gallon totes): 4/day
    - Mountain View (64-gallon totes: 6/day(4)
- 2) Develop a safe transportation process for Histology chemicals and wastes through the hospital. Evaluate the equipment used, process, pathways and secondary containment.

## EC 4.0 - Fire Safety Management

(Work Group Chair: **Pat DuBridge**)

### 1. Scope

The Fire Safety Management Plan is designed to assure appropriate, effective response to a fire emergency situation that could affect the safety of patients, staff, and visitors, or the environment of El Camino Hospital. The program is also designed to assure compliance with applicable codes, standards and regulations.

### 2. Performance

Performance indicators for the Fire Safety Management program are reported monthly and/or quarterly to the Central Safety Committee and reflected in the Trends Report. The following performance criteria are reflective of the indicators established in monitoring Fire Safety Management for FY-16.

- **Fire Incidents**

There were two reported fire incidents in FY-16.

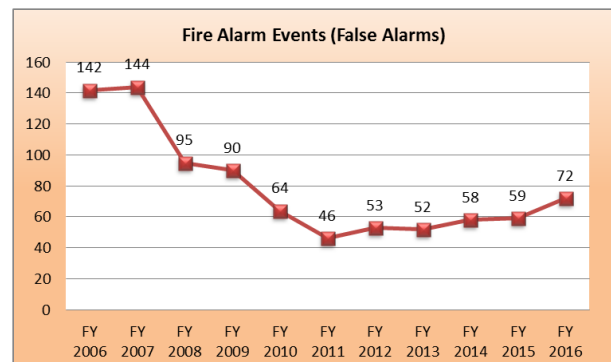
- A toaster in a break room burned baked goods resulting in flames in the toaster and smoke in the area. No injuries or property damage. Toaster was replaced with an approved unit.
- A faulty breaker on the HVAC system in Park Pavilion shorted causing significant smoke throughout the west end of the building. MV Fire Department was on scene and assisted in ensuring the building was safe. No damage or injuries reported.

- **Fire Alarm Events**

A fire alarm event is the activation of the fire alarm system determined not to be due to an actual fire incident. All cases are evaluated for potential opportunities for improvement.

The number of events in FY-16 (72) increased by 22% compared to FY-15 (59).

The increase in fire alarm events was due to construction and relocation of the data center. Demolition and activities related to construction activated the fire alarm system on multiple occasions due to welding and dust created by the construction process.



- **Fire Drills Completed / Scheduled**

100% of scheduled fire drills, a total of 112, were completed in FY-16. Tracking of the number of drills requiring corrective actions was begun during the year. Of the total, drills, 23 required actions by staff. All of these items were corrected.

### 3. Effectiveness

Key indicators were targeted to establish goals for FY-16. The following goals presented a number of opportunities to improve fire prevention management within the Environment of Care.

#### FY 16 Goals

- 1) Develop internal process for the testing of fire pumps. New regulations require a certification to perform this test. People need to be certified and a process needs to be developed to meet new standards for fire pump testing.

***This goal was accomplished.*** We now have certified staff to perform the fire pump testing; one Stationary Engineer has been certified with a second engineer in the process of becoming certified as well.

- 2) To test audible and visual alarms an improved process for system and device verification is needed to reduce the time that the alarms are activated. The current procedure ensures the devices are operational, but it takes far too long and negatively impacts the patient experience.

***This goal was accomplished.*** An inventory of all devices was developed to comply with CMS regulations. A process for testing was then developed using the inventory to assure every device is tested. The procedure also dedicates all available staff to assist with the testing to ensure the alarms are silenced as soon as possible. Testing in FY-16 resulted in less staff and patient complaints than previous years.

#### • FY 17 Goals

1. In preparation for the construction projects on the Mountain View campus, Interim Life Safety Measure (ILSM) rounds will be conducted at least weekly and tracked in the TMS database. Issues found during the rounds will be reported to the project manager and a work order will be generated in TMS to assure prompt attention. Unresolved safety issues will be reported to Central Safety Committee.
2. Maintain the FY-16 rate of fire alarm events (72) during FY-17. The number of major demolition and construction projects occurring in Mountain View makes this a challenge. However, combined with the regular ILSM rounds and follow up we are striving to maintain this current level of fire alarm events.

**EC 5.0 - Medical Equipment Management***(Work Group Chair: Lisa De La Rosa)***1. Scope**

The scope of the Medical Equipment Management Plan encompasses all medical equipment used in the diagnoses, monitoring and treatment of patients. The Medical Equipment Management Work Group supports the delivery of quality patient care in the safest possible manner through active management of medical equipment.

Clinical Engineering supports all medical equipment. This process is reported to, and overseen by, the Central Safety Committee.

**2. Performance**

Performance indicators offer the opportunity to objectively assess areas of focus identifying potential risk. Indicators are reassessed annually. Performance indicators are monitored monthly or quarterly and reflected in the Safety Trends Report. The following performance criteria are reflective of the indicators established in monitoring Medical Equipment Management for the FY-16.

- Reports to the FDA - There were nine reports through the Medwatch<sup>6</sup> system in FY-16. There were no patient deaths associated with any of the reports. The reports included:
  - 1) Robotic Trocar diaphragm broke from robotic arm and fell into abdominal cavity. No harm to patient.
  - 2) Vessel sealer for DaVinci Robot was loose and not opening; another was used and the same result occurred in addition to a bipolar cutting mechanism issue. No harm to patient.
  - 3) Endoscopy stapler failed to fire. No harm to patient.
  - 4) Tip of Misonix bone shaver broke off during case. No harm to patient.
  - 5) Pump leaking at the Cancer Center. No harm to patient.
  - 6) Stapler in OR robotic case not firing properly. No harm to patient.
  - 7) Zoll defibrillator did not discharge shock in Cardiac Cath Lab—alert to “check pads” appeared. No harm to patient.
  - 8) Zoll defibrillator pads had faulty ground wire. No harm to patient.
  - 9) Anesthesia breathing circuit failed as surgery started. Failed item was disposable plastic tubing that split at seam. Patient was bagged until new circuit was obtained. No harm to patient.

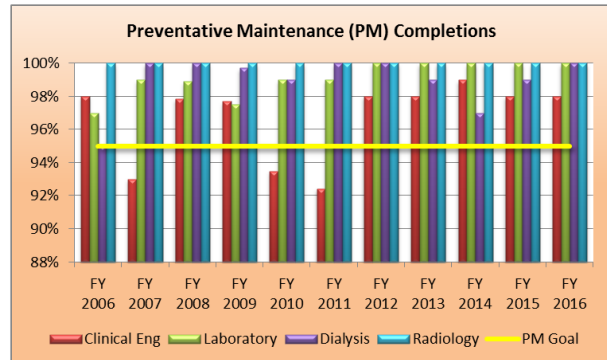
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<sup>6</sup> The FDA Medwatch System is used to report all incidents impacting patients and not only serious events resulting in patient deaths.

- Preventative Maintenance (PM) Completion Rate Percentage.

The PM completion rate exceeded the target of 95% in all areas.

- The completion rate for Clinical Engineering achieved 99% overall for FY-16.
- All high risk, life safety equipment was maintained at 100% completion rates



- Product Recalls Percentage Closed / Received.

For FY-16, there were 131 recorded product recalls; 124 have been closed. The 7 pending items require finalizing the paperwork.

### 3. Effectiveness

Key indicators were targeted to established goals for FY-16. The following goals presented a number of opportunities to improve Medical Equipment Management within the Environment of Care.

#### FY 16 Goals

- Develop a plan to maintain all medical devices that are connected to the network in ensuring proper processes are being followed. This was a joint project with Network Security.

***This goal was accomplished.*** Clinical Engineering performed an audit on all medical equipment that is connected both WLAN and LAN to the hospital network and self-contained network. All network information including operating systems was provided to InfoSec.

- Maintain Clinical Engineering Preventive Maintenance Completion Rate above 97%

***This goal was accomplished.*** Contributing factors were additional dedicated test equipment purchased to support both Mountain View and Los Gatos campuses.

Non-life support equipment requires a 97% or greater completion rate for all PMs. The minimum goal is 97% and the maximum is 99%.

#### FY 17 Goals

- Ensure Medical Equipment is being secured from vulnerability threats.
- Establish a process in procuring new equipment to ensure if networked connected it has proper processes in place.

## EC 6.0 - Utilities Management

(Work Group Chair: Jeff Drozen)

### 1. Scope

The scope of the Utilities Management Plan encompasses all utilities used to support the mission and objectives of El Camino Hospital. The Utilities Management Work Group is designed to support the delivery of quality patient care in the safest possible manner through active management of all utilities systems. This process is reported to and overseen by the Central Safety Committee.

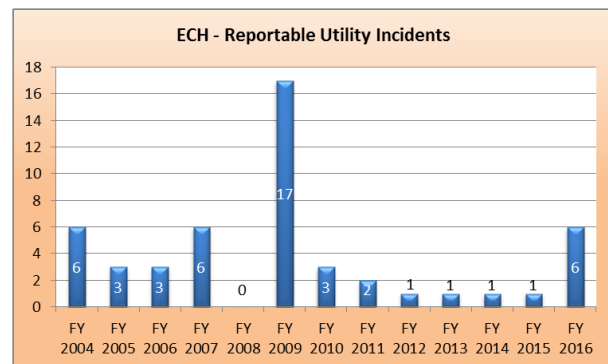
### 2. Performance

Performance indicators offer the opportunity to objectively assess areas of focus identifying potential risk. Indicators are reassessed annually as a function of the Central Safety Committee. Performance indicators are monitored quarterly and reflected in the Safety Trends Report. The following performance criteria are reflective of the indicators established in monitoring Utility Management for the FY-16.

- **Utility Reportable Incidents**

There were six reportable incidents in FY-16.

- **10/22/15 Chiller Failure** – The Mountain View campus lost Chiller #1 due to a catastrophic electrical control board failure. This unit provides 30% of the campus cooling capacity. No negative outcomes.
- **10/29/15 Chiller Failure** - The Mountain View campus lost a second chiller (Chiller #2). This unit also provides 30% of the campus cooling capacity. Negative outcomes were comfort complaints until temporary chillers were onsite and installed.
- **01/31/16 Electrical Outage** – Los Gatos had a momentary electrical outage. The Emergency Department was closed due to burning smell. Negative outcome- delay in reopening due to Fire Department monitoring of site.
- **02/4/16 Transfer Switch Failure** – A Mountain View transfer switch failed, causing loss of phones for approximately 20 minutes.
- **03/5/16 Electrical Outage** – Los Gatos electrical outage lasting 2 hours and 13 minutes. Negative outcomes- CT scanner went down, Emergency Department went on diversion for ambulance traffic and the batteries on the UPS systems were depleted.
- **06/03/16 Chiller Failure** – The Willow Pavilion in Mountain View lost the rooftop chiller. This is the sole supply for the buildings systems and occupants comfort cooling. Repairs took 1 week. Negative outcomes: The tenant surgery center on first floor had to close and reschedule cases and there were numerous negative patient and staff satisfaction scores for other departments in the building.



- **PM Completion Rate % completed/ scheduled**

The utility systems PM Completion Rate was 95.2%

- **Generator Test % completed/scheduled**

The percentage of the weekly generator tests completed was 100% with compliance in loads, times and transfer switch testing frequencies.

- **Egress Battery Light Testing % completed/scheduled**

The percentage of the monthly and annual tests completed was 100% with compliance for all buildings that utilize battery lighting for egress purposes.

### 3. Effectiveness

Key indicators were targeted to establish goals for FY-16. The following goals presented opportunities to improve utilities management within the Environment of Care.

#### FY 16 Goals

- 1) Develop an Enterprise wide tool for ensuring TJC compliance for significant Utilities Work Group related Elements of Performance (EP's).

***This goal was accomplished.*** However, it will continue into FY-17 to ensure all required items are tracked as an Enterprise going forward. With the creation and use of a spreadsheet called "Building Regulatory Spreadsheets", each building is tracked individually to ensure compliance and timeliness of each Element of Performance.

- 2) Ensure Preventative Maintenance completion rates to achieve annual goal of 95%.

***This goal was accomplished.***

#### FY 17 Goals

- 1) Continue to refine an Enterprise wide tool for ensuring TJC compliance for significant Utilities Work Group related Elements of Performance (EP's).
- 2) Ensure Preventative Maintenance completion rates to achieve annual goal of 95%.
- 3) *Through pre-planning and collaboration with contractors minimize the risk of unplanned system outages related to construction activities.*

**EM - Emergency Management***(Work Group Chair: Steve Weirauch)***1. Scope**

El Camino Hospital's Emergency Operations Plan addresses all non-fire related internal emergencies and mass casualty external emergencies. The Emergency Management Work Group ensures an effective response to disaster or emergencies affecting the Environment of Care. The hospital actively participates with state and local emergency management entities to coordinate community planning efforts and response. Emergency Management is a separate chapter under The Joint Commission; however it continues to report to the Central Safety Committee.

**2. Performance**

Performance indicators for the Emergency Management program are reported monthly to the Central Safety Committee in the Safety Trends Report. The following Emergency Management indicators were reported in FY-16.

**A. Events / Emergencies**

There were three recorded events and/or emergencies during FY-16 requiring activation of the Hospital Incident Command System (HICS).

1. **i-Care Go-Live** – the i-Care go live in November, 2015 was a major event for the hospital. A command center was opened and operational for two weeks. A modified form of HICS was used.
2. **The Joint Commission (TJC) Survey** – the tri-annual TJC survey occurred in January, 2016. During the survey, the Hospital Command Center (HCC) was opened and operational during daytime hours to coordinate and provide needed resources.
3. **Super Bowl 50** - Santa Clara County hosted the 2016 Super Bowl on February 7, 2016 at Levi Stadium. This event brought in a large number of visitors to the area. All local entities (hospitals, police, fire, EMS) worked together to plan for this event. At the hospital, the Hospital Command Centers (HCC) at both campuses were on standby the entire weekend should something have occurred. The Mountain View HCC was opened on Sunday from about noon until late in the evening. Fortunately, there were no emergencies related to the game.

The preplanning for the event prompted some major improvements to our Emergency Operations Plan (EOP). As a result of this effort a disaster bed surge plan was created to quickly identify and track additional beds that might be needed in a surge of patients related to a disaster.

**B. Exercises / Drills**

- **Campus Functional Exercises:** Each campus participated in a separate functional exercise in May, 2016. A number of improvement strategies were noted and implemented to improve future responses.
  - a. **Mountain View (May 20, 2016):** The exercise involved hospital staff and included participation of the Mountain View Fire Department. The scenario involved an accident on a nearby freeway involving a tanker truck and a commuter bus. There were multiple victims with injuries and contamination from a spilled hazardous chemical. The Hospital Command Center was opened and the Decontamination team was activated to operate a decon corridor. Registration and transport of disaster patients was also tested.



- b. **Los Gatos (May 25, 2016):** The exercise involved hospital staff including triage teams in the ED. The scenario involved an accident on a nearby freeway involving a tanker truck and a commuter bus. There were multiple victims with injuries. The Hospital Command Center was opened and the process for admitting disaster patients was tested.
- **Tabletop Exercises:** There is a continuous need for staff training on responding to emergency codes. Because of the wide variety of work environments and to reach the largest number of staff we continued with the series of tabletop exercises (TTX) based on each of our emergency codes. This series was begun in FY2015. They are designed to be conducted by the Safety Coordinator and/or manager of each department in a manner that best meets the unit's needs.

An exercise "kit" is distributed to the Safety Coordinators with the request to complete the exercise during the quarter. The scenarios tested during the past year are Code Pink (infant abduction) and Code Triage (internal or external disaster).

Note that while good learning and practice opportunities, tabletop exercises do not meet the Joint Commission standards for exercises so these are above and beyond the requirements.

### C. Emergency Management Training

- New hire orientation (100% for all employees)
- Safety coordinator meetings (41% attendance overall for the quarterly meetings). Safety Coordinators unable to attend the meetings are provided with detailed notes and information and are expected to complete all assignments.
- Decontamination training was conducted for Mountain View. This included new member and refresher training at both campuses.

### D. Community Involvement

The hospital continues to be an active participant in the Santa Clara County Hospital Emergency Preparedness Partnership (SCCHEPP) and the Hospital Safety Officers Work Group. The SCCHEPP group meets monthly with representatives of all Santa Clara County hospitals and the county EMS to establish a collaborative county-wide emergency response and disaster plan. The group also organizes and facilitates county-wide disaster exercises in which the hospital actively participates. The Safety Officer's Work Group meets quarterly to discuss and share safety and security issues affecting all hospitals in Santa Clara County.

### E. Los Gatos Hospital Command Center (HCC) Relocation

The HCC in Los Gatos had been in the Hospital Supervisor's office for several years. The location was very cramped and inefficient when HICS was activated. After evaluating other locations the decision was made to relocate the HCC to Conference Room 1. As in Mountain View, CR1 will continue to operate as a meeting room and will only become the HCC when needed. Emergency power, lighting and additional communications were added to meet the needs of the HCC. The new center was tested during the May, 2016 exercise and was successful. One remaining element needs to be completed; the relocation of the amateur radio equipment and antenna drop from the ED. This should be completed in early FY-17.

### F. Hazard Vulnerability Assessment (HVA)

The HVA is reviewed and revised annually. Separate HVA's are completed for the Los Gatos and Mountain View campuses to account for physical differences in the locations and facilities. Efforts are then focused on attempting to minimize the highest risks during the fiscal year.

- There were minor changes to the HVAs at both campuses in FY-16. The top five hazards by campus are:

Mountain View	Los Gatos
(1) Earthquake	(1) Earthquake
(2) Electrical Power Failure	(2) Epidemic/Pandemic
(3) Active Shooter	(3) Active Shooter
(4) Bomb Threat	(4) Mass Casualty Incident – Medical/Infectious
(5) Chemical Exposure, External	(5) Terrorism, Chemical

### 3. Effectiveness

Key indicators were targeted to establish goals for FY-15. The following goals presented opportunities to improve emergency management.

#### FY 16 Goals

- 1) Assign three to four key staff for command roles in HICS (Incident Command and Chief positions and provide training to familiarize each with their role. This is a combination and continuation of the FY-15 goals.

***This goal was accomplished.*** Key management staff at both campuses were assigned roles on the Hospital Incident Management Team (HIMT). Advanced HICS training was conducted for the team to learn and practice their roles in HICS. Staff were able to additional practice during the Super Bowl 50 activation and the May functional exercises. This will be an ongoing process to ensure we continue to have trained team members.

- 2) Increase participation in Emergency Preparedness to additional staff. This will include increasing the membership of our disaster preparedness (Decontamination) team to staff outside of the ED, and to increase participation of non-managerial staff in functional exercises.

***This goal was not accomplished.*** The recruitment and training of additional staff to be part of the disaster (decon) team did not occur. The barrier to this is a lack of funding to pay for staff to participate in the training and decon operations. Department budgets do not allow for staff to be away from the work area to participate, and there are currently no other funding sources available.

This is a serious concern. A minimum of 8 people are needed to even minimally staff a decon team. With this criterion, we do not have a decontamination team in Los Gatos due to lack of personnel. The team in Mountain View is too heavily dependent on the ED staff to fill the roles. In a real situation, we would have difficulty staffing the decon team as the ED staff would needed to treat patients. We will continue to try to find a solution.

#### FY 17 Goals

- 1) Develop and implement a hospital Workplace Violence Protection Plan. This will be a joint goal with the Security Management Work Group. Measurable objectives:
- 2) Develop a program to allow non-clinical staff to participate in disaster training (decon) at both campuses. Measurable objective. This goal is carried over from FY-16.

## Attachment 1 – Employee Health Services Definitions

1. OSHA Recordable Injuries / Illnesses per 100 FTEs	Number of injuries/illnesses multiplied by 200K divided by the number of Productive Hours* during the reported quarter. [# of OSHA recordable injuries * 200,000 / Productive Hrs.]
2. Lost Work Day NEW cases per 100 FTEs	Total number of new injuries occurring in this fiscal year quarter multiplied by 200K divided by the number of Productive Hours* during the reported quarter. [# new cases in qtr. w/ lost work days * 200,000 / Productive Hrs.]
3. Patient Lift / Transfer Injuries per 100 FTEs	Number of OSHA recordable injuries resulting from a specific event involving the lifting and transferring of patients and/or pulling up in bed multiplied by 200K and divided by Patient Lift Productive Hours†. Does not include pushing patients in beds, gurneys, wheelchairs, or other transport devices. [# patient lift injuries * 200,000 / Patient Lift Productive Hrs.]
4. Exposures to Blood and Body Fluids per 100 FTEs	Number of exposures to blood/body fluids during a quarter or year x 200K divided by Productive Hours*. [# BBPs * 200,000 / Productive Hrs.]

\* **Productive Hours** ..... Total number of hours worked for the quarter or year by all organizational employees. Includes overtime but does not include education, vacation, PTO, ESL, or other non-productive time. Does not include outside labor.

† **Patient Lift Productive Hours** ..... Total number of hours worked for the quarter or year by employees in Patient Care Services, Radiology, Unit Support cost centers, and excluding Dialysis. Includes overtime but does not include education, vacation, PTO, ESL or other non-productive time. Number does not include outside labor.

## Attachment 2a – Safety Trends

Indicators		FY 12	FY 13	FY 14	FY 15	FY 16
<b>E.C. 1.0 - SAFETY MANAGEMENT</b>						
<b>Employee Safety</b>						
1.	Total Injury/Illness Incident Reports	331	349	458	618	428
2.	OSHA Recordable Injury/Illness (Total)	137	173	171	306	193
	a. Lost Time	34	59	61	38	78
	b. No Lost Time	103	114	110	268	113
3.	Repetitive Motion Injury- Computer, keyboard, Mouse, Light Pen	10	12	14	5	19
4.	Repetitive Motion Injury (RMI) - Non-Computer	13	7	2	19	9
5.	Patient Lift/Transfer Injuries (OSHA Recordable)	44	33	36	27	37
6.	Patient Lift/Transfer Injuries	N/A	42	54	37	48
7.	Trip/Slip/Fall	48	43	50	41	58
8.	Staff Assaults by Patients	N/A	N/A	25	17	15
<b>Infection Control</b>						
1.	Blood & Body Fluid Exp.	41	45	44	45	53
	a. Percutaneous	27	30	28	38	39
	b. Skin/Mucus Membrane Contact	14	15	16	7	14
2.	TB Conversions (mo.)/qtr. %	0	0	0	0	0
<b>Safety Rounds Scoring</b>						
1.	Critical Area Score (# Compliant/total number) – <i>new in FY-16</i>	N/A	N/A	N/A	N/A	96%
<b>E.C. 2.0 - SECURITY MANAGEMENT</b>						
1.	Code Grey Incidents	108	110	135	117	129
2.	Other Security Incidents	153	127	158	178	324
<b>E.C. 3.0 - HAZARDOUS MATERIAL MANAGEMENT</b>						
1.	Reportable Hazardous Material Incidents	0	0	0	0	0
2.	Recordable Hazardous Material Incidents	0	2	0	4	0
3.	Waste Water Discharge Violations	0	0	0	0	0
4.	Eyewash Inspections – <i>new in FY-16</i>	N/A	N/A	N/A	N/A	100%
5.	Eyewash Corrective Actions comp/assigned – <i>new in FY-16</i>	N/A	N/A	N/A	N/A	86%
<b>E.C. 4.0 FIRE PREVENTION MANAGEMENT</b>						
1.	Fire Incidents -Actual	0	1	1	0	2
2.	Fire Alarm Events	53	52	58	59	72
3.	Fire Watches (New in FY-14)	N/A	N/A	4	2	8
4.	Fire Drills comp/scheduled	100%	100%	97%	100%	100%
5.	Interim Life Safety Measures (ILSM) Tracking	N/A	N/A	94%	100%	100%
<b>E.C. 5.0 - MEDICAL EQUIPMENT MANAGEMENT</b>						
1.	Reports to FDA	2	11	2	6	3
2.	PM Completion Rate %					
	a. ECH (Clinical Engineering/Bio Med)	98%	98%	98%	98%	98%
	b. Laboratory	100%	100%	100%	100%	100%
	c. Dialysis	100%	99%	99%	99%	100%
	d. Radiology	100%	100%	100%	100%	100%
3.	Product Recalls % (Closed/rec'd)	N/A	95%	98%	88%	78%
<b>E.C. 6.0 - UTILITIES MANAGEMENT</b>						
1.	Utility Reportable Incidents	1	0	1	1	6
2.	PM Completion Rate % completed/scheduled	97%	84%	92.7%	90.9%	97%
3.	Generator test % completed/scheduled	100%	100%	100%	100%	100
4.	Egress Lighting monthly test % completed	100%	100%	100%	100%	
<b>E.M. EMERGENCY MANAGEMENT</b>						
1.	Drills, Internal & External	22	56	14	75	35
2.	Natural Disaster/Actual Event	2	2	0	2	4

## Attachment 2b - Safety Trends Definitions

<b>E.C. 1.0 SAFETY MANAGEMENT</b>	
<b>Employee Safety</b>	
1. Total Injury/Illness Incident Reports	Total number of injuries/illnesses reported on Accident, Incident and Exposure Report (AIER) and followed up by Employee Wellness & Health Services. Includes first aid cases that do not meet the criteria as OSHA Recordable.
2. OSHA Recordable Injury / Illness (Total)	Total number of employee injuries and illnesses meeting the OSHA recordable definition and as recorded on the OSHA 300 log.
a. OSHA Recordable: Lost Time	Number of injuries/illnesses with days away from work.
b. OSHA Recordable: No Lost Time	Number of injuries/illnesses with no lost work time, includes cases with transitional work (modified work) when there is no lost work time.
3. Repetitive Motion Injury - Computer Keyboard, Mouse	Number of OSHA recordable cases related to use of computer keyboards/mouse use if that use is at least 3 hours of the total workday. Does not include injury/illness as a result of acute injuries or non-keyboard/mouse activities.
4. Repetitive Motion Injury – Non-Computer	OSHA recordable RMI associated with work activities such as using syringes, washing scopes, pushing/pulling equipment, not as result of a specific incident.
5. Patient Handling Injuries (OSHA Recordable)	Number of OSHA recordable injuries resulting from a specific event involving the lifting/transferring of patients. Includes injuries from pulling patient up in bed; does not include pushing patients in beds, gurneys or wheel chairs throughout the hospital. Does not include reported injuries with no specific lift/transfer incident.
6. All Patient Handling Injuries	Total number of injuries resulting from a specific event involving the lifting/transferring of patients. Includes injuries from pulling patient up in bed; does not include pushing patients in beds, gurneys or wheel chairs throughout the hospital.
7. Trip/Slip/Fall (all incidents reported)	Number of Trip/Slip/Fall incidents resulting from the unintended or unexpected change in contact between the feet or footwear and the walking or working surface.(All incidents)
8. Staff Assaults by Patients	Number of staff assaulted by patients – includes hitting, kicking, biting, thrown objects.
<b>Infection Control</b>	
1. Blood & Body Fluid Exposures a. Percutaneous b. Skin, Mucous Membrane Contact	A percutaneous injury (e.g., a needle stick or cut with a sharp object), contact of mucous membranes or non-intact skin (e.g., when the exposed skin is chapped, abraded, or non-intact due to dermatitis), or contact with intact skin when the duration of contact is prolonged, (i.e., several minutes or more) or involves an extensive area, with blood, tissue or other body fluids. Body fluids include: a) Semen, vaginal secretions or other body fluids contaminated with visible blood that have been implicated in the transmission of blood borne pathogens b) Cerebrospinal, synovial, pleural, peritoneal, pericardial and amniotic fluids which have an undetermined risk for transmitting HIV.
2. TB Conversion Rate (Monthly number / quarterly rate)	The number of work related* PPD converters by month and quarterly, total of conversions divided by the number of persons receiving PPDs.*Work related PPD conversion is a HCW PPD conversion after contact with a known TB + active case.
<b>Safety Rounds Scoring</b>	
1. Critical Area Score (# Compliant/total number)	Scoring of 25 critical areas, as defined during Joint Commission Inspection. Percentage of items in compliance for all areas inspected.
<b>E.C. 2.0 SECURITY MANAGEMENT</b>	
1. Code Gray Incidents	Code Grey is called when immediate assistance is required to respond to potential or actual violent situations involving visitors, patients, or family members.
2. Security Incidents	Number of security incidents includes reported motor vehicle accidents, patient/visitor disturbance, patient elopement, suspicious person, theft, vandalism and participation in emergency codes (other than Code Gray which is reported separately).

<b>E.C. 3.0 HAZARDOUS MATERIALS MANAGEMENT</b>	
1. Reportable Hazardous Materials Incidents	Any unauthorized discharge which is determined not to be recordable and must be reported to the City of Mountain View (subsection 24.5.0.a.1 (a) of Mountain View Health and Safety Code) or the Town of Los Gatos.
2. Recordable Hazardous Materials Incidents	An unauthorized discharge of hazardous or other regulated material defined as a discharge from a primary to a secondary container, cleanup of a discharge to a secondary container requiring greater than 8 hours, no increase of fire or explosion nor production of poisonous gas or flame, or no degradation of secondary container, the discharge does not exceed one (1) ounce by weight or can be cleaned up in 15 minutes following deterioration of the primary container.
3. Waste Water Discharge Violations	Monthly sampling analysis > than the Maximum Limit (mg/L): Zinc 2.0; Total Toxic Organic 1.0; Single Toxic Organic 0.75; Formaldehyde 5.0; Copper 0.25.
4. Eyewash Inspections	Number of eyewash inspection completed/number scheduled.
5. Eyewash Corrective Actions Completed/Assigned	Number of corrective actions identified in eyewash inspection completed/total number of corrective actions assigned.
<b>E.C. 4.0 FIRE PREVENTION MANAGEMENT</b>	
1. Fire Incidents	Number of actual fire incidents/month.
2. Fire Alarm Events	Number of fire/smoke alarms activated by an event not classified as an actual fire or false alarm (example: burnt toast, dust, steam, etc.)
3. Fire Watches	Number of fire watches initiated during the period. A fire watch is a temporary measure to ensure the continuous surveillance of a building or portion thereof for the purpose of identifying and controlling fire hazards, detecting early signs of fire, and raising an alarm of fire. Fire watches are implemented anytime the fire alarm system is disabled or out of service in an area.
4. Fire Drills Completed/Scheduled	Number of fire drills completed/number scheduled.
5. Fire Drill Corrective Actions (comp/assigned)	Percentage of action items assigned during fire drills that were completed during the month.
6. Interim Life Safety Measures (ILSM) Tracking (Q)	The percentage of ILSM's implemented that noted problems. (# of problems/total #ILSMs). ILSMs are health and safety measures put in place to protect the safety of patients, visitors, and staff during construction or maintenance activities that have an impact on the life safety systems in the hospital. Reported quarterly.
<b>E. C. 5.0 MEDICAL EQUIPMENT MANAGEMENT</b>	
1. Reports to FDA	Number of reports to FDA as defined by Safety Medical Device Act requirements. Reported quarterly.
2. PM % Completion	Scheduled preventive maintenance completed with 10% of the prescribed interval/items scheduled for maintenance. Reported quarterly.
a. Biomed	
b. Lab	
c. Radiology	
d. Dialysis	
3. Product Recalls % Closed	The percent of product recalls closed/completed compared to those received.
<b>E.C. 6.0 UTILITIES MANAGEMENT</b>	
1. Utility Reportable Incidents	Utility System incidents with actual or potential significant impact on safe patient care, staff health and safety or resource/property loss.
2. PM Completion rate % Completed	Scheduled preventive maintenance completed with 28 days of the prescribed interval/items scheduled for maintenance. Reported quarterly.
3. Generator Testing % Completed	Number of completed generator tests/number of scheduled generator tests. Reported quarterly.
4. Egress Lighting monthly test % completed/scheduled (Annual test in <b>BOLD</b> text)	Number of completed battery-powered egress lighting tests/number of scheduled tests. Testing required at Rose Garden & Evergreen Dialysis clinics. Reported monthly. Annual testing to be completed in November of each year.
<b>E.M EMERGENCY MANAGEMENT</b>	
1. Exercises, Internal and External	Planned internal/external emergency preparedness exercises completed. (Per The Joint Commission: 2 exercises implementing the hospital disaster plan; DHS Title 22: 1 drill per shift per quarter).
2. Natural Disaster/Actual Event	An internal or external emergency event that requires the activation of HICS.



# Code Purple Exercise – Los Gatos After Action Report / Improvement Plan

El Camino Hospital

August 31, 2016

## Table of Contents

<b>Executive Summary .....</b>	<b>3</b>
<b>Section 1: Exercise Overview .....</b>	<b>4</b>
Exercise Details .....	4
Number of Participants.....	4
<b>Section 2: Exercise Design Summary .....</b>	<b>5</b>
Exercise Objectives, Capabilities, and Activities .....	5
Scenario Summary .....	5
<b>Section 3: Analysis of Capabilities .....</b>	<b>6</b>
Capability 1: Communications .....	6
Capability 2: Response .....	6
<b>Section 4: Conclusion .....</b>	<b>7</b>
<b>Appendix A: Improvement Plan .....</b>	<b>8</b>



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## **EXECUTIVE SUMMARY**

The El Camino Hospital Code Purple Functional Exercise was developed to test the hospital's ability to respond to a missing/abducted child (ages 1-17) in the hospital. The capabilities evaluated included communications within the hospital and response to a Code Purple activation.

Staff are expected to provide a safe environment for all patients in the hospital and need to know what to do if a child is missing. Departments had been given the opportunity to participate in a tabletop scenario through their Safety Coordinators to review procedures in the event of a Code Pink or Purple activation. Building on this, the Emergency Management Work Group planned a functional exercise to test these capabilities. Based on these deliberations, the following objectives were developed:

- Objective 1: Communications – ability to alert Call Center and quickly notify staff of the situation utilizing all communications channels (overhead, Vocera)
- Objective 2: Staff response – did staff know what to do and did they cover all exits? Does staff know what to do when confronted by a suspect? Does staff search all rooms and public spaces?

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

### **Major Strengths**

The major strengths identified during this exercise are as follows:

- Notification of all staff was made quickly by the Call Center.
- Staff responded quickly and took up positions in hallways and at exits
- Staff were able to locate the missing child.

### **Primary Areas for Improvement**

During the exercise, several opportunities for improvement were identified. The primary areas for improvement, including recommendations, are as follows:

- Staff reluctant to search all rooms and public spaces, causing a delay in locating the missing child.
- Several rooms were searched multiple times, by different staff while others were missed.

The exercise was a success in evaluating staff response to a missing child scenario. Staff knew what to do and responded appropriately. The areas for improvement listed will be tracked to resolution by the Emergency Management Work Group.

## SECTION 1: EXERCISE OVERVIEW

### Exercise Details

<b>Exercise Name</b>	Code Purple Functional Exercise – Los Gatos	
<b>Type of Exercise</b>	<input type="checkbox"/>	Seminar
	<input type="checkbox"/>	Tabletop
	<input checked="" type="checkbox"/>	Functional Exercise
	<input type="checkbox"/>	Full-Scale Exercise
	<input type="checkbox"/>	Other
<b>Exercise Start Date</b>	08/31/2016	
<b>Exercise End Date</b>	08/31/2016	
<b>Duration:</b>	30 minutes	
<b>Location</b>	Med/Surg Area	
<b>Target Capabilities</b>	Communications – to/from staff	
	Response – procedures to deal with missing child	
<b>Scenario Type</b>	Code Purple – Missing or abducted child	

### Number of Participants

Players:	12*
Controllers	1
Evaluators	2
Observers	0
Role Players	1

*\*Additional staff participated in each unit, but did not sign in.*

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## SECTION 2: EXERCISE DESIGN SUMMARY

### Exercise Objectives, Capabilities, and Activities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items. The capabilities listed below form the foundation for the organization of all objectives and observations in this exercise. Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail.

Based upon the identified exercise objectives below, the exercise planning team decided to demonstrate the following capabilities during this exercise:

- **Objective 1:** Ability to communicate the status of the situation with staff.
  - **Outgoing:** 1) Notification of staff in timely manner using overhead and Vocera; 2) Notification of “All Clear” after the incident has concluded.
  - **Incoming:** 1) Staff notification to security of incident (alarm system activation); 2) Staff response to call center/security if/when child is located
- **Objective 2:** Ability of staff to respond to Code Purple activation.
  - **Staff Response:** 1) All staff responds to initial page – take up locations in hallways, exits, etc.; 2) Staff able to search facility for missing child; 3) Staff knowledge of what to do if child is found.

### Scenario Summary

A father and his young child are visiting his wife who is in the Med Surg unit. The child becomes distracted and wanders into an unoccupied patient room, closes the door and begins watching TV. When the father notices, he cannot locate the child and approaches the volunteer desk.

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## SECTION 3: ANALYSIS OF CAPABILITIES

This section of the report reviews the performance of the exercised capabilities, activities, and tasks. In this section, observations are organized by capability and associated activities. The capabilities linked to the exercise objectives are listed below, followed by corresponding activities. Each activity is followed by related observations, which include references, analysis, and recommendations.

### Capability 1: Communications

**Capability Summary:** Staff on the unit, once alerted of the situation (14:00), quickly contacted the Call Center to activate the Code Purple. The Call Center broadcast the alert. The activation was made via the Fire Alarm System and on Vocera.

- **Observation 1.1 (Strength):** Call Center activated the code.  
**Analysis:** Code Purple activation was sent out overhead and on Vocera.  
**Recommendations:** None.
- **Observation 1.2 (Strength):** Staff called the Call Center to clear the code once the child was found and reunited with family. The code was cleared at 14:20  
**Analysis:** Staff contacted the Call Center to clear the code. The announcement was made to all staff over FAS and Vocera.  
**Recommendations:** None.

### Capability 2: Response

**Capability Summary:** Upon activation of the code, staff quickly took up positions at exits.

- **Observation 2.1 (Strength):** Staff secured all exits and perimeter.  
**Analysis:** Immediately upon hearing the code activation staff were observed taking up positions in the hallways and at exits.  
**Recommendations:** None
- **Observation 2.2 (Area for Improvement):** Staff failed to search rooms and public spaces. Upon suggesting this be done, some staff responded that they could not leave the door. Other staff were congregating nearby.  
**Analysis:** Staff responded appropriately to secure exits, but did not search facility for missing child. Only the security officer and the hospital supervisor were initially observed searching rooms. Staff did not want to leave exits, even though there were several people in the immediate area that could have assisted.  
**Recommendations:** Review procedures for responding to Code Purple activations, paying particular attention to the emphasis on search all areas.
- **Observation 2.3 (Area for Improvement):** Staff who were searching rooms overlapped and several rooms were searched multiple times while other rooms were initially missed.  
**Analysis:** Staff did not have a way to denote rooms that had been searched.  
**Recommendations:** Develop procedure for denoting rooms that have been checked to ensure all areas are searched.

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## **SECTION 4: CONCLUSION**

The exercise was a success in evaluating key portions of the Emergency Management Plan related to a missing or abducted child (Code Purple). The child was located within approximately 20 minutes of the code being activated. Areas for improvement have been identified, and corrective actions will be put into place to address these opportunities for improvement. The major areas for improvement are as follows:

- Staff to review procedure to search rooms for missing child.
- Develop an organized method of noting rooms that have/have not been searched during a missing person event.

The next functional exercise will incorporate key elements from this exercise in order to determine if the corrective actions were successful in addressing areas for improvement.

## APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for El Camino Hospital as a result of the Code Purple Exercise in Los Gatos conducted on 08/31/2016. All action items will be tracked to completion through the El Camino Hospital Emergency Management Work Group under the Central Safety Committee

**Table A.1: Improvement Plan Matrix**

Observation Title	Recommendation	Corrective Action Description	Primary Responsible Party	Est. Completion Date	Status
Staff failed to search rooms.	Review procedures on Code Purple activations with emphasis on searching all spaces to look for missing child.		Steve Weirauch	11/01/16	
Rooms were missed or searched multiple times.	Devise a method to quickly tag each room as it is checked to ensure complete coverage in searching.	Add to procedures the use of tape or post-it notes to tag rooms.	Steve Weirauch	11/01/16	



# Code Pink Exercise – Mountain View After Action Report / Improvement Plan

El Camino Hospital

August 31, 2016

## Table of Contents

<b>Executive Summary .....</b>	<b>3</b>
<b>Section 1: Exercise Overview .....</b>	<b>4</b>
Exercise Details .....	4
Number of Participants.....	4
<b>Section 2: Exercise Design Summary .....</b>	<b>5</b>
Exercise Objectives, Capabilities, and Activities .....	5
Scenario Summary .....	5
<b>Section 3: Analysis of Capabilities .....</b>	<b>6</b>
Capability 1: Communications .....	6
Capability 2: Response .....	6
<b>Section 4: Conclusion .....</b>	<b>7</b>
<b>Appendix A: Improvement Plan .....</b>	<b>8</b>



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## **EXECUTIVE SUMMARY**

The El Camino Hospital Code Pink Functional Exercise was developed to test the hospital's ability to respond to a missing/abducted infant from the Women's Hospital. The capabilities evaluated included communications within the hospital and response to a Code Pink or Code Purple activation.

Staff are expected to provide a safe environment for all patients in the hospital and need to know what to do if an infant is missing. Departments had been given the opportunity to participate in a tabletop scenario through their Safety Coordinators to review procedures in the event of a Code Pink or Purple activation. Building on this, the Emergency Management Work Group planned a functional exercise to test these capabilities. Based on these deliberations, the following objectives were developed:

- Objective 1: Communications – ability to alert Call Center and quickly notify staff of the situation utilizing all communications channels (overhead, Vocera)
- Objective 2: Staff response – did staff know what to do and did they cover all exits? Does staff know what to do when confronted by a suspect?

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

### **Major Strengths**

The major strengths identified during this exercise are as follows:

- Notification of all staff was made appropriately by the Call Center.
- Staff responded quickly and took up positions in hallways and at exits

### **Primary Areas for Improvement**

During the exercise, several opportunities for improvement were identified. The primary areas for improvement, including recommendations, are as follows:

- Concerns about the security of the back exit door. Suspect was able to exit building quickly.
- Staff did not look outside of buildings to see if suspect was already out of the building
- Some staff did not know their role in a Code Pink.
- Lack of a badge did not impede suspect's entry to floor.

The exercise was a success in evaluating staff response. Most staff knew what to do and responded appropriately. The areas for improvement listed will be tracked to resolution by the Emergency Management Work Group.

## SECTION 1: EXERCISE OVERVIEW

### Exercise Details

<b>Exercise Name</b>	Code Pink Functional Exercise – Mountain View	
<b>Type of Exercise</b>	<input type="checkbox"/>	Seminar
	<input type="checkbox"/>	Tabletop
	<input checked="" type="checkbox"/>	Functional Exercise
	<input type="checkbox"/>	Full-Scale Exercise
	<input type="checkbox"/>	Other
<b>Exercise Start Date</b>	08/31/2016	
<b>Exercise End Date</b>	08/31/2016	
<b>Duration:</b>	15 minutes	
<b>Location</b>	El Camino Hospital Mountain View – Women’s Hospital	
<b>Target Capabilities</b>	Communications – to/from staff	
	Response – procedures to deal with abducted infant	
<b>Scenario Type</b>	Infant abduction	

### Number of Participants

Players:	80*
Controllers	1
Evaluators	2
Observers	0
Role Players	1

*\*Additional staff participated in each unit, but did not sign in.*

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## SECTION 2: EXERCISE DESIGN SUMMARY

### Exercise Objectives, Capabilities, and Activities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items. The capabilities listed below form the foundation for the organization of all objectives and observations in this exercise. Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail.

Based upon the identified exercise objectives below, the exercise planning team has decided to demonstrate the following capabilities during this exercise:

- **Objective 1:** Ability to communicate the status of the situation with staff.
  - **Outgoing:** 1) Notification of staff in timely manner using overhead and Vocera; 2) Notification of “All Clear” after the incident has concluded.
  - **Incoming:** 1) Staff notification to security of incident (alarm system activation); 2) Staff response to security if/when suspect is located/detained.
- **Objective 2:** Ability of staff to respond to Code Pink activation.
  - **Staff Response:** 1) All staff responds to initial page – take up locations in hallways, exits, etc.; 2) Staff able to control situation when confronted by a possible suspect.

### Scenario Summary

A baby and parents are awaiting discharge from the MBU. While waiting to leave, the mother goes to the restroom. A woman enters the room, puts the baby in a duffle bag. The baby is beginning to fuss, so the woman hurriedly exits the unit. The Infant Security Band is still attached. The kidnapper heads for the back hallway. She attempts to exit through the link between the Women’s and main hospitals and sets off the alarms. The perpetrator continues out the door and leaves the building through the north doors leading to Willow Pavilion. She heads down the walkway towards the YMCA parking lot.

## SECTION 3: ANALYSIS OF CAPABILITIES

This section of the report reviews the performance of the exercised capabilities, activities, and tasks. In this section, observations are organized by capability and associated activities. The capabilities linked to the exercise objectives are listed below, followed by corresponding activities. Each activity is followed by related observations, which include references, analysis, and recommendations.

### Capability 1: Communications

**Capability Summary:** Staff in the Mother/Baby unit, once alerted of the situation (11:30), quickly contacted the Call Center to activate the Code Pink. The Call Center broadcast the alert overhead and on Vocera.

- **Observation 1.1 (Strength):** Staff called the Call Center upon hearing the infant security alarm.  
**Analysis:** Immediately upon hearing the infant security alarm, staff followed procedures and called 55 to activate Code Pink.  
**Recommendations:** None.
- **Observation 1.2 (Strength):** Call Center broadcast the code overhead and through Vocera.  
**Analysis:** Alert was broadcast and heard throughout the building.  
**Recommendations:** None.
- **Observation 1.3 (Area for Improvement):** Possible delay in Code Pink activation.  
**Analysis:** Mother/Baby staff reported a 2-minute delay between the time the call was made and the activation of the code.  
**Recommendations:** Investigate if there are ways to minimize the time from call to activation with the Call Center staff.
- **Observation 1.4 (Area for Improvement):** Staff did not approach suspect as she entered the unit without proper identification.  
**Analysis:** Staff were busy and it appears no one noticed the suspect as she walked through the Mother/Baby unit.  
**Recommendations:** Review security protocols with all staff...

### Capability 2: Response

**Capability Summary:** The suspect exited the unit and building through the locked doors setting off the alarm from the infant security system.

- **Observation 2.1 (Strength):** Staff knew what to do when the infant security alarm activated.  
**Analysis:** Immediately upon hearing the alarm, Mother/Baby staff called in the alarm to via the emergency line (55).  
**Recommendations:** None
- **Observation 2.2 (Strength):** Upon activation of the code, staff throughout the hospital took up positions at exits and stairwells.  
**Analysis:** Immediately upon hearing the code activation staff were observed taking up positions in the hallways and at exits.  
**Recommendations:** None

- **Observation 2.3 (Area for Improvement):** Noted that the several doors in the back hallway do not have delayed egress.  
**Analysis:** It is unknown if delayed egress is supposed to be in place or if it is even possible for the door between the Women's Hospital and link to the main hospital. However, one of the exterior doors that is to be programmed with delayed egress was not functioning on the day of the drill.  
**Recommendations:** Review programming for the doors and have any problems corrected.
- **Observation 2.4 (Area for Improvement):** Staff were observed not looking outside the building to scan for suspect.  
**Analysis:** The security evaluator, who was stationed outside the building and observing the suspect, noted that he could see staff taking up position in hallways, but no one appeared to look outside for the suspect who walked along North Drive.  
**Recommendations:** Review procedures with staff on proper response during a Code Pink event.

---

## SECTION 4: CONCLUSION

The exercise evaluated key portions of the Emergency Management Plan related to an infant abduction (Code Pink). The suspect was not stopped before leaving the building with the infant. Areas for improvement have been identified, and corrective actions will be put into place to address these opportunities for improvement. The major areas for improvement are as follows:

- Review response procedures with all staff:
  - Approaching persons without proper ID (Women's Hospital).
  - Procedures for detaining persons with large bags or infants
  - When taking up position at exits, if possible, look outside of building for suspect.
- Evaluate egress doors to ensure security systems are functioning as designed.

The next functional exercise will incorporate key elements from this exercise in order to determine if the corrective actions were successful in addressing areas for improvement.

## APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for El Camino Hospital as a result of the Code Pink Exercise in Mountain View conducted on 08/31/2016. All action items will be tracked to completion through the El Camino Hospital Emergency Management Work Group under the Central Safety Committee

**Table A.1: Improvement Plan Matrix**

Observation Title	Recommendation	Corrective Action Description	Primary Responsible Party	Est. Completion Date	Status
Staff observed 2-minute delay in reporting Code Pink until activation.	Review procedures to see if opportunities for streamlining process.		Steve Weirauch	11/01/16	
Staff did not approach the suspect as she walked through MBU with no identification.	Review procedures with staff to look for ID on everyone in the area.		K. Forsberg	11/01/16	
Exits doors at back of building did not all have a 15-second egress delay	Review the programming for the doors and make corrections as needed.		Josh Robin JoAnn Cartoni-Cry	11/01/16	
Staff did not watch exterior of buildings when taking up security positions at exits.	Review procedures with staff on what to do during a code pink events		Steve Weirauch	11/01/16	

## ATTACHMENT 5

## ECH BOARD COMMITTEE MEETING AGENDA ITEM COVER SHEET

<b>Item:</b>	Report on Board Actions Quality, Patient Care and Patient Experience Committee Meeting Date: November 2, 2016
<b>Responsible party:</b>	Cindy Murphy, Board Liaison
<b>Action requested:</b>	For Information
<b>Background:</b> IN FY16 we added this item to each Board Committee agenda to keep Committee members informed about Board actions via a verbal report by the Committee Chair. Staff was asked to supplement the Chair's verbal report with the attached written report.	
<b>Other Board Advisory Committees that reviewed the issue and recommendation, if any:</b> None.	
<b>Summary and session objectives :</b> To inform the Committee about recent Board actions	
<b>Suggested discussion questions:</b> None.	
<b>Proposed Committee motion, if any:</b> None. This is an informational item	
<b>LIST OF ATTACHMENTS:</b> Report on September 27 and October 2016 Board Actions	



### **September 27, 2016 and October 2016 Board Actions\***

1. September 27, 2016 El Camino Hospital Board
  - a. Appointment of Donald C. Sibery as ECH's Interim CEO
  - b. Delegated Authority to Board Chair Cohen and ECC Chair Lanhee Chen to negotiate a final contract with interim CEO
  - c. Approved CEO's FY17 Incentive Compensation Bonus
2. October 12, 2016 El Camino Hospital Board
  - a. Approved 2016 Plan of Finance (Revenue Bonds) and related transactions for funding of MV Campus Projects, not to exceed \$325,000,000.
  - b. Approved Revised Budget to allow for interest related to Revenue Bonds
  - c. Approved FY16 Community Benefit Report
  - d. Approved CEO Separation Agreement
  - e. Authorized the CHRO to negotiate a contract with CEO Search Firm Russell Reynolds
  - f. Approved the FY 16 Financial Audit
3. October 18, 2016 District Board Meeting
  - a. Approved FY16 Community Benefit Report
  - b. Approved the FY 16 Financial Audit
  - c. Approved Revised Budget to allow for interest related to Revenue Bonds

\*This list is not meant to be exhaustive, but includes agenda items the Board s voted on that are most likely to be of interest to or pertinent to the work of El Camino Hospital's Board Advisory Committees.

## **ATTACHMENT 6**



**El Camino Hospital**

THE HOSPITAL OF SILICON VALLEY

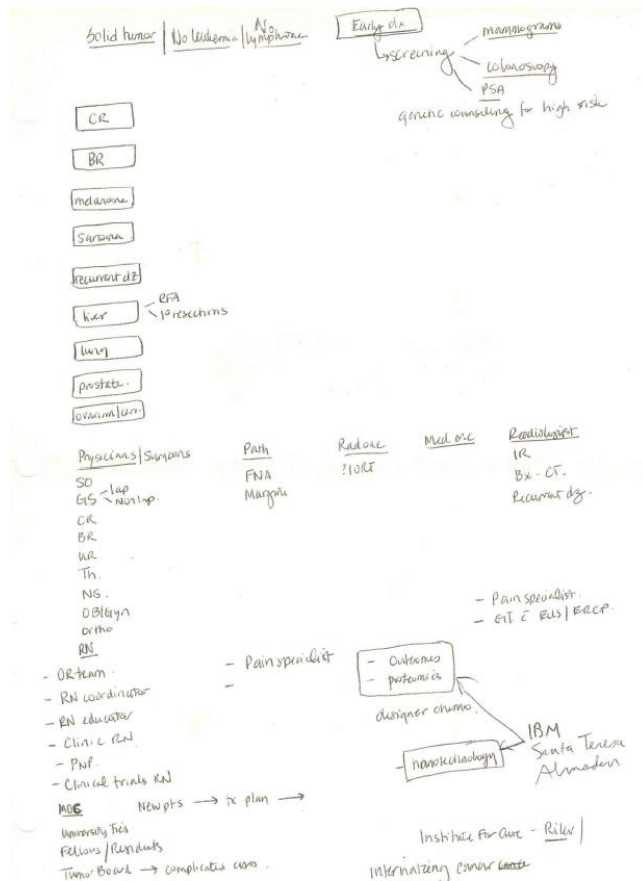
## Oncology Services

Presenter:

Shyamali Singhal, M.D., PhD

November 2, 2016

# Then 2007 and Now 2017

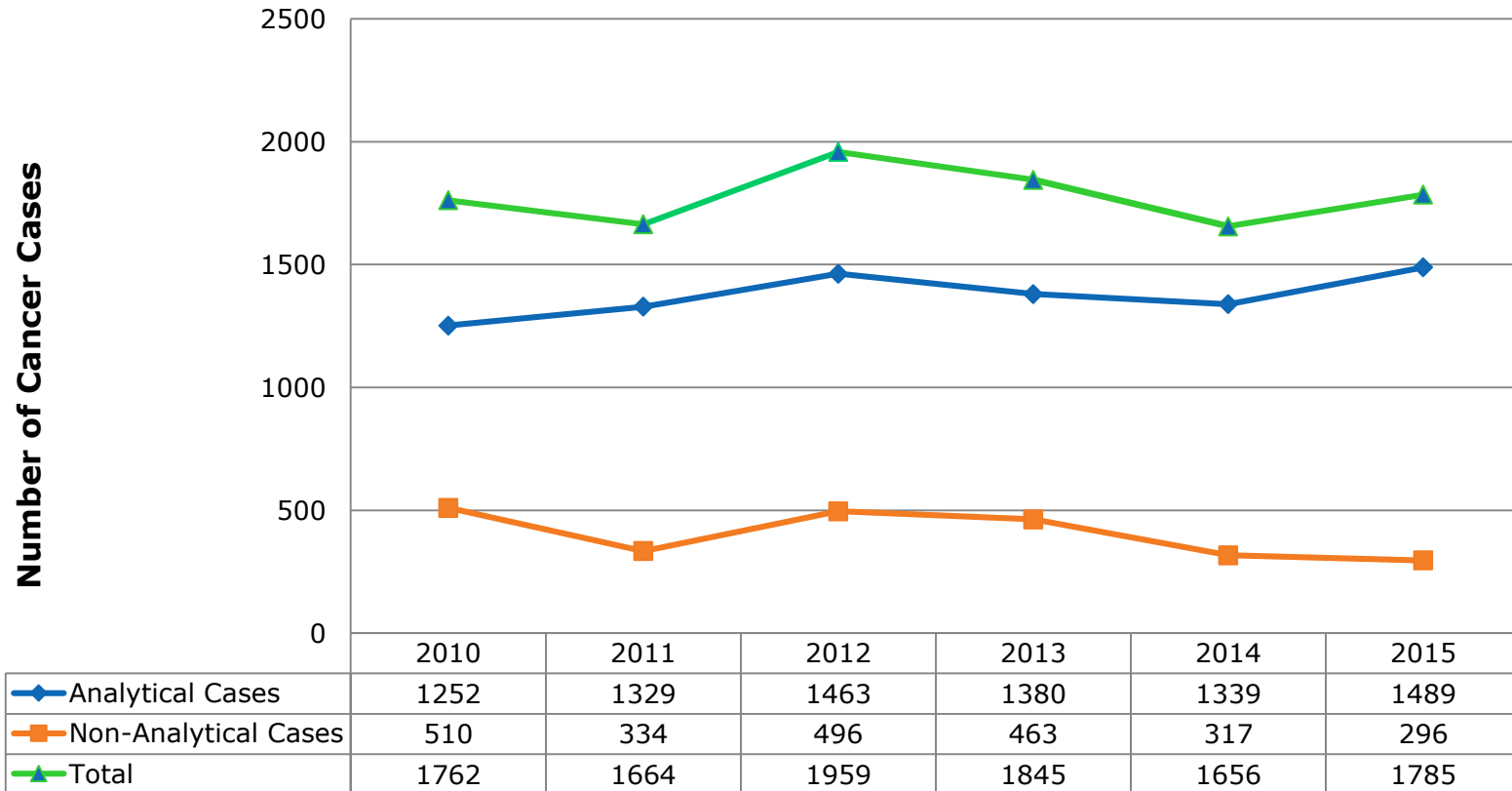


- Early Prevention and Detection
  - Cancer Healthy
  - Genetics
  - Early Detection
- Diagnosis and Treatment
- Palliative Care and Hospice

## 2010-2015 Cancer Caseload

Analytic= diagnosed and treated at ECH

Nonanalytic= Diagnosed elsewhere treated at ECH



# Commission on Cancer

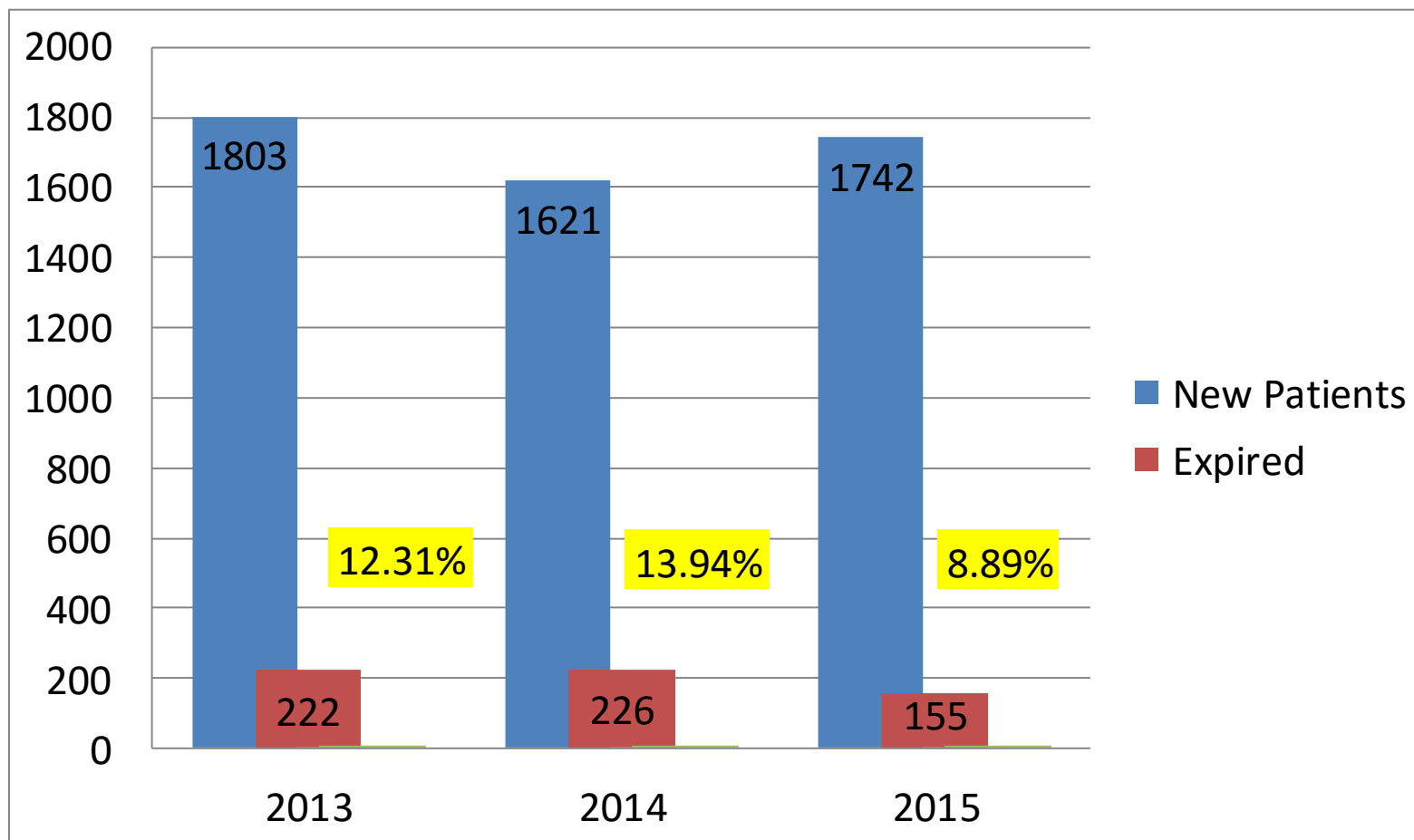


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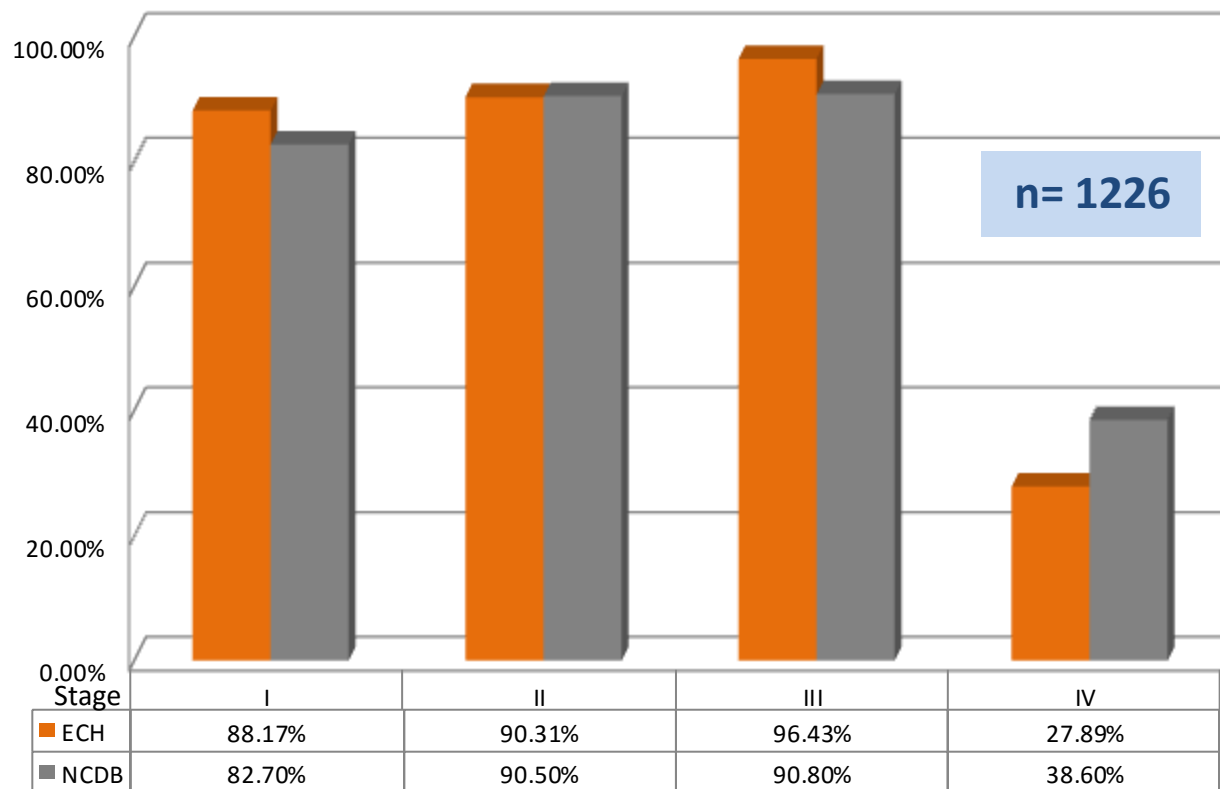
A **QUALITY PROGRAM**  
OF THE AMERICAN  
COLLEGE OF SURGEONS

- Silver Accreditation
- 6 Commendations
- 2016-2019

# ECH Mortality

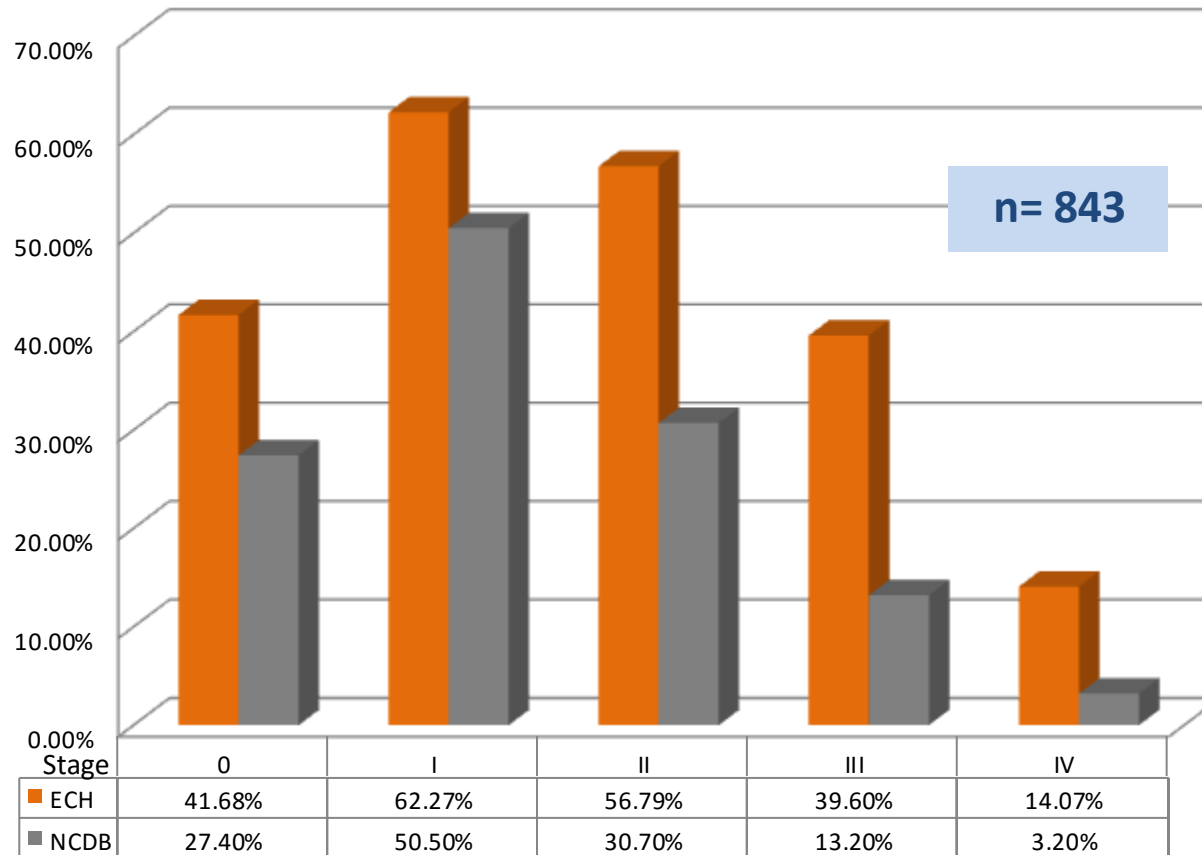


## 5 Year Survival Data 2010-2015 for El Camino Hospital Prostate Cancer

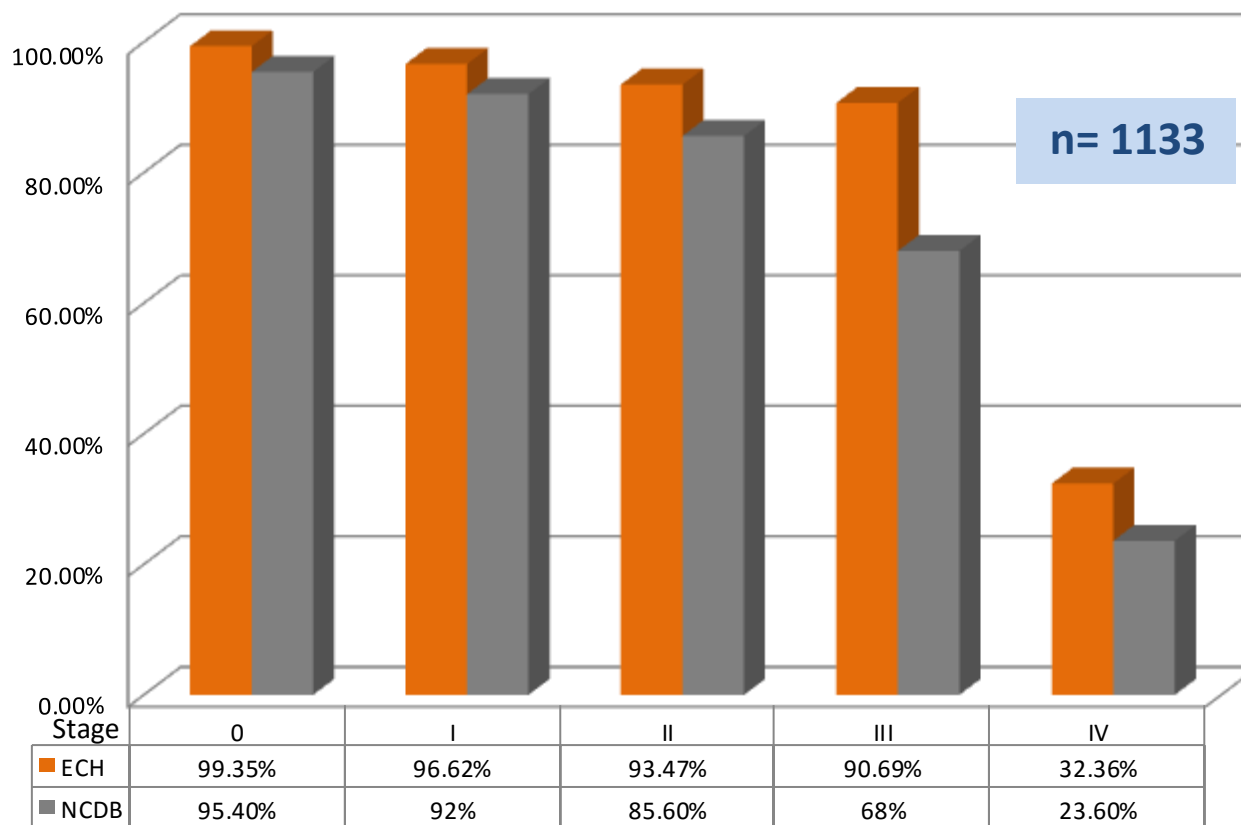




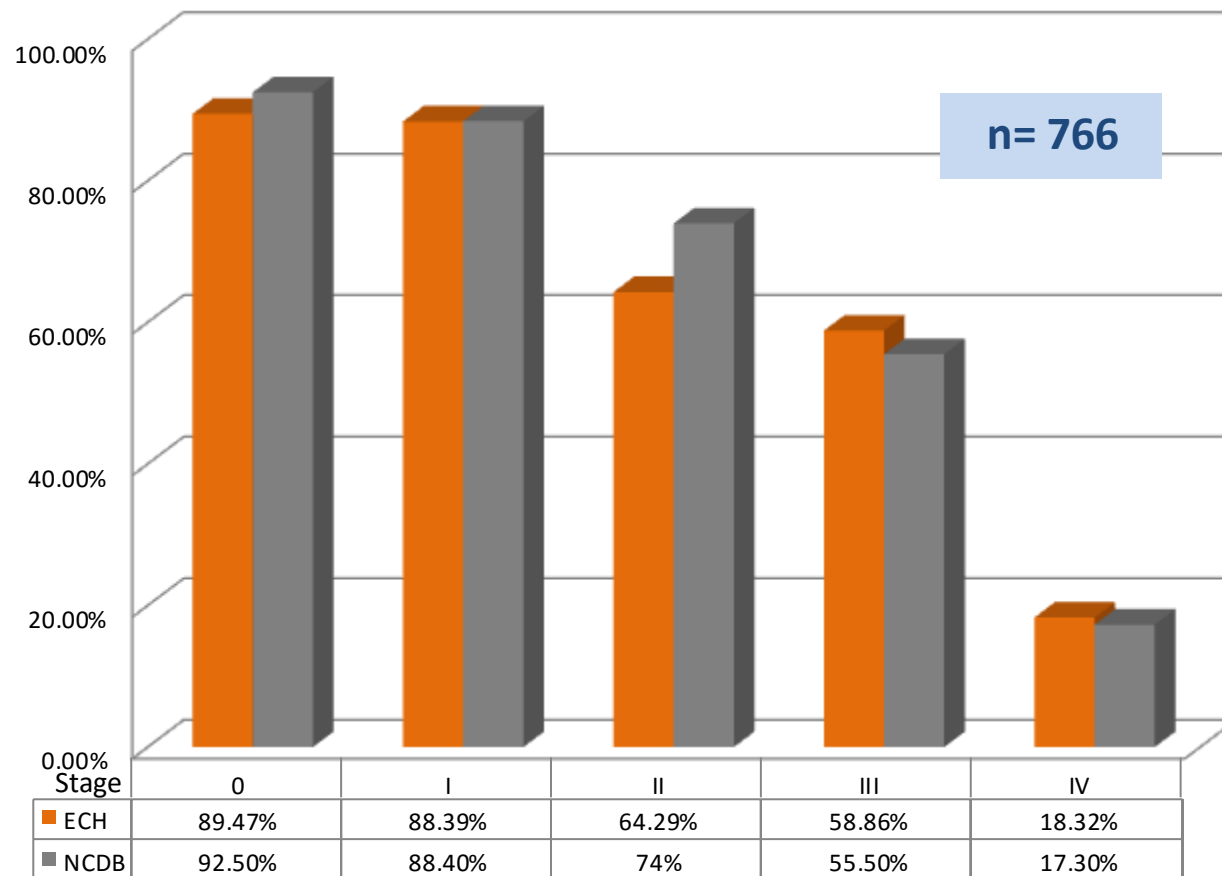
## 5 Year Survival Data 2010-2013 for El Camino Hospital Non Small Cell Lung Cancer



## 5 Year Survival Data 2010-2015 for El Camino Hospital Breast Cancer



## 5 Year Survival Data 2010-2015 For El Camino Hospital Uterine Cancer



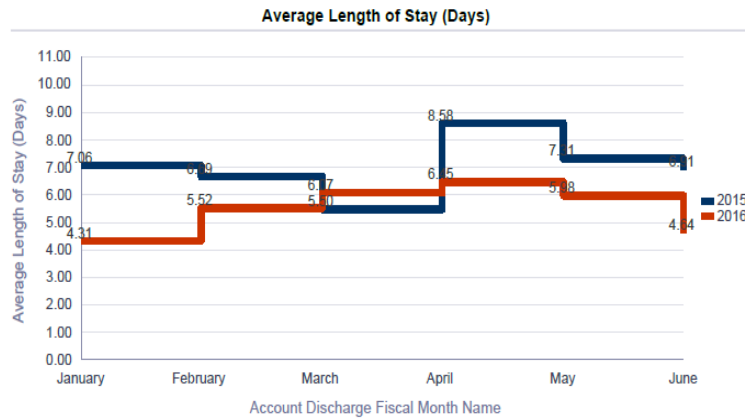
# Oncology Service Line Metrics

A	B	C	D	E	F	G	H	I	J	K	L	M	N
Oncology Service Line Metrics	Goal	Baseline	February	March	April	May	June	July	August	September	October	November	December
Radiation Oncology Treatment Plan Turn-Around-Time	90%	82%	Initiated Qrt 1 of FY 16-17			70%	74%	75%	73%	95%			
Clinic Rooming time w/in 5 minute of patient appointment	95%	90%				90%	90%	93%	* 100%	*100%			
IFC schedule independent from MD schedule	80%	65%				66%	65%	72%	73%	62%			
Survivorship Care Plans completed	25% of 400 eligible cases by 12/31/16	10%						40/100 10%	44/100 11%	50/100 12.5%			
4B Increase number of Chemotherapy competent nurses	1/Qtr	27 total	1			1			1	2			
Patient Satisfaction Overall													
Radiation Oncology (n)	Top Box					45.8 (3)	97.1 (6)	82.8 (9)	87.6 (14)	82.1 (10)			
Cancer Clinic (n)	Top Box					61.4 (22)	69.4 (35)	69.2 (7)	no data	no data			
Infusion (n)	Top Box					76.3 (16)	78.5 (36)	66.1 (6)	97.4 (2)	no data			
Coc study/QI based on calendar year													
*Rooming more than 15 minutes late difficult to determine cause: MA roomed patient late or MA unable to room because MD running late and all exam rooms full. Manual extraction of data; 1.) when patient arrives, 2.) when patient roomed, 3.) when MD logged into patient chart. 4.) NPs share 2-3 exam rooms													

\*October metric is 95% compliant

# Average Length of Stay

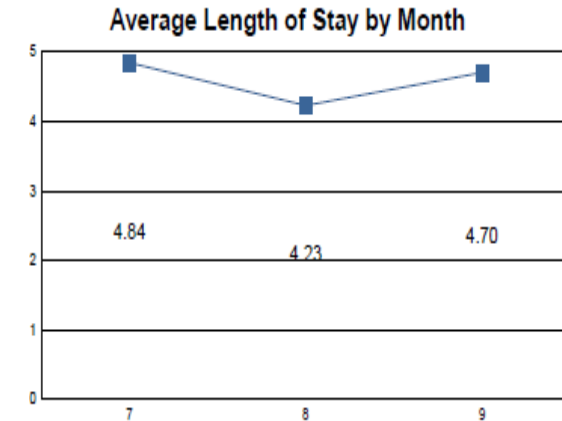
Account Discharge Nurse Station 4B Account Discharge Nurse Station Description MV Med Surg - Oncology



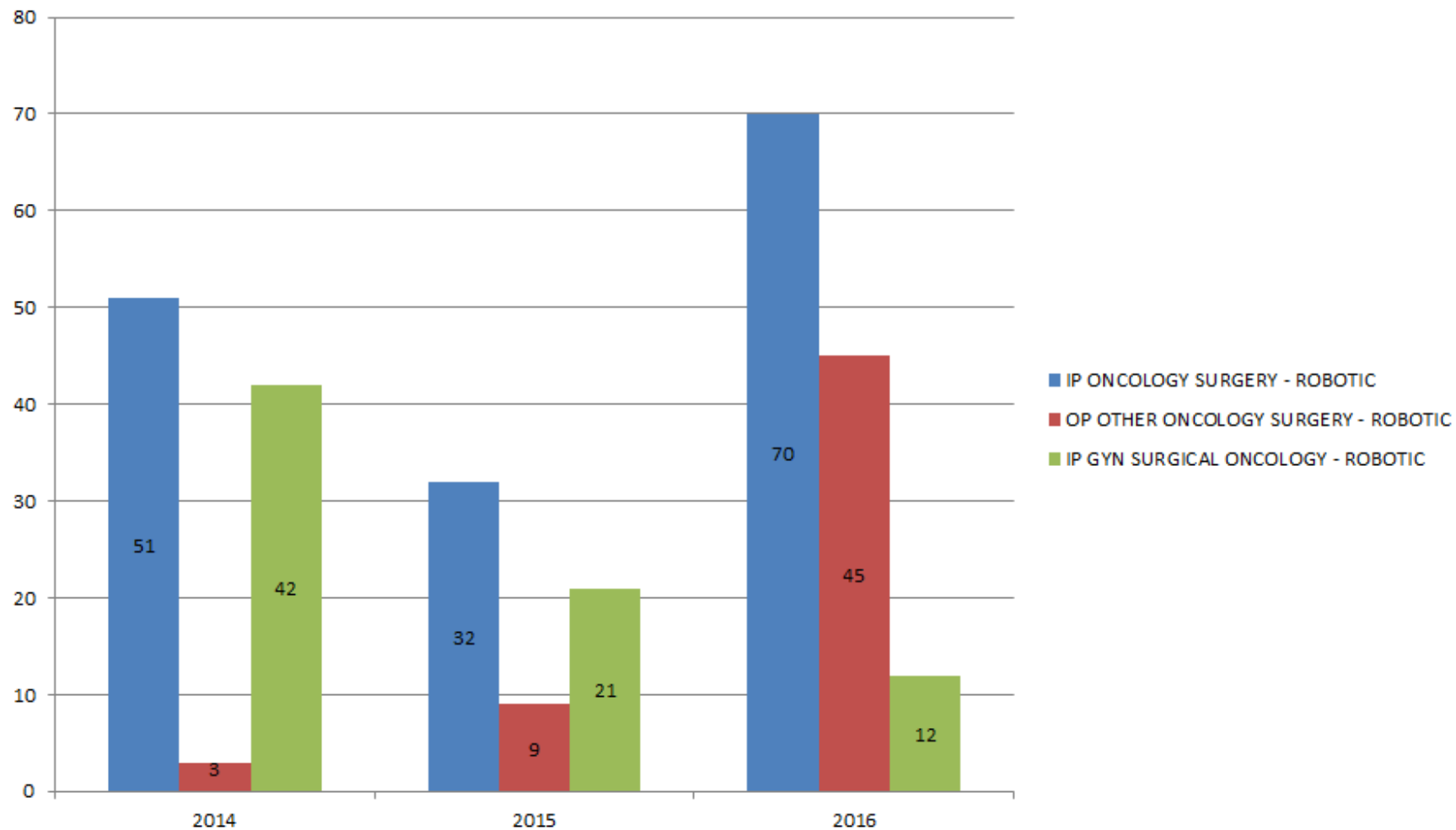
4B MV Med Surg - Oncology

	2015	2015	2015	2016	2016	2016
Account Discharge Fiscal Month Name	Average Length of Stay (Days)	Total Visits	CMI - Case Mix Index	Average Length of Stay (Days)	Total Visits	CMI - Case Mix Index
Grand Total	6.99	227	1.658	5.46	243	1.591
January	7.06	47	1.571	4.31	35	1.317
February	6.69	35	1.721	5.52	44	1.625
March	5.50	40	1.664	6.07	41	1.556
April	8.58	36	1.762	6.45	31	1.828
May	7.31	36	1.546	5.98	42	1.533
June	6.91	33	1.685	4.64	50	1.686

**2015 Baseline: 6.99 days**



## Oncology Robotic Cases for 2014-2016



# **Innovations/Changes on the Horizon**

## **Program Advances, New Technology, Patient/Client Outreach**

- Collaborating with Cancer CAREpoint to provide Survivorship Workshops and Guided Imagery program for ECH Cancer patients
- Contracting with Sunflower Wellness to provide specialized exercise program and counseling to ECH Cancer patients
- Collaborating with Smart Patient to provide peer support to ECH Cancer patients
- Reviewing potential for Ambry Genetics services for diagnostics and patient counseling

# Enhanced Recovery After Surgery

## What is Enhanced Recovery Pathway?

### Standardized Interventions to:

- Decrease stress responses
- Decrease organ dysfunction
- Improve post-op recovery

### Focus on:

- Patient education
- Optimal pain control
- Fluid balance
- Early nutrition
- Early ambulation

### Optimal Outcomes:

#### *INCREASED-*

- Cardiopulmonary, muscle, & gut function
- Patient Satisfaction

#### *DECREASED-*

- Fatigue
- Morbidity
- Length of stay
- Opioid use
- Hospital costs

An accelerated recovery program for colorectal surgical patients



# ERAS: Cooperation between Surgery, Anesthesia and Nursing

## Enhanced Recovery After Surgery Key Components

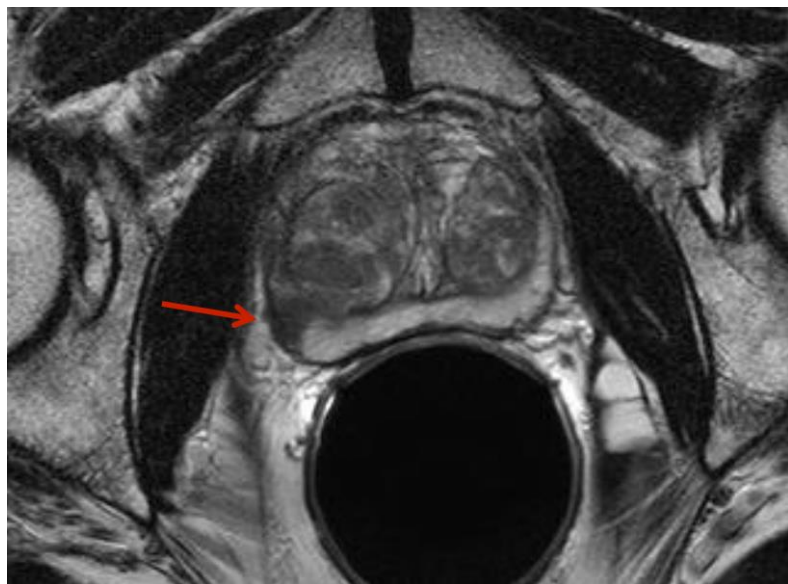
### Active Patient Involvement

Pre-operative	Intra-operative	Post-operative
•Pre-admission counselling	•Active warming	•Early oral nutrition
•Early discharge planning	•Use of multi-modal pain management	•Early ambulation
•Reduced fasting duration	•Surgical techniques	•Early catheter removal
•Carbohydrate loading	•Avoidance of prophylactic NG tubes & drains	•Use of chewing gum
•No/selective bowel prep		•Defined discharge criteria
•Venous thromboembolism prophylaxis	•Use of multi-modal anti-emetic prophylaxis	
•Antibiotic prophylaxis	•Use of goal directed peri-operative fluid therapy	
•Pre-warming		

### Audit of compliance & outcomes

### Whole Team Involvement

# Prostate: Better Detection and Treatment



## Calypso® 4G Localization System™



The Calypso System is a state-of-the-art imaging system that tracks real-time movement of the body during radiation therapy.

# Cancer Healthy

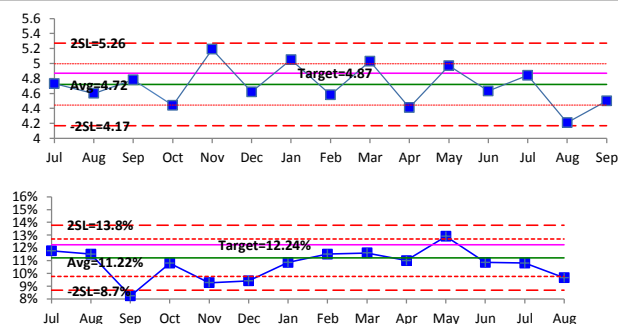
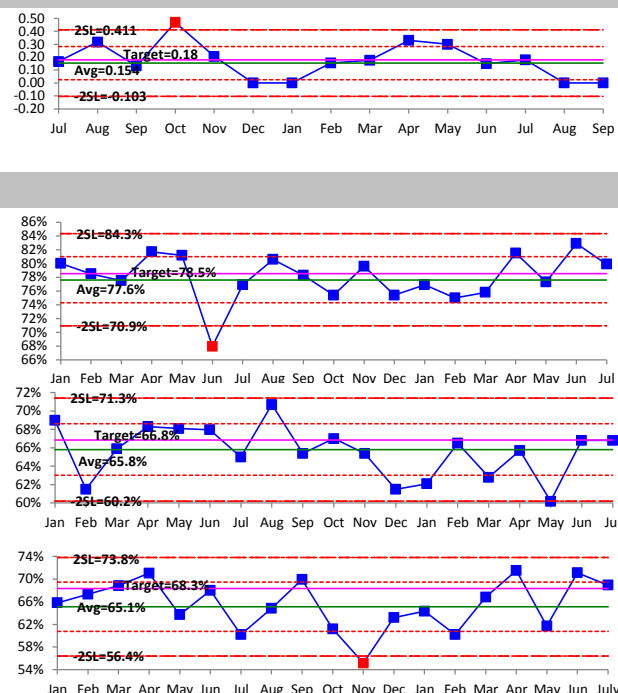
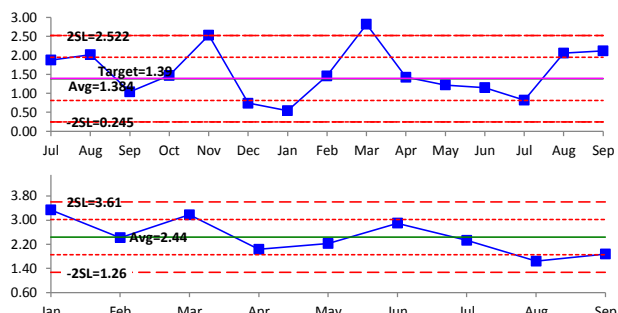
- 60% of cancer is preventable with lifestyle modification
- Genetics-Hereditary syndromes
- Environment- toxins, smoking, sun exposure
- Lifestyle-exercise, food choices,



# ATTACHMENT 7

## Quality and Safety Dashboard (Monthly)

Date Reports Run: 4/18/2016		Baseline		FY17 Goal	Trend
SAFETY EVENTS		Performance	FY2016	FY2017	
1	<b>Patient Falls</b> Med / Surg / CC Falls / 1,000 CALNOC Pt Days Date Period: September 2016	10/4717	2.12	1.51	1.39 (goal for FY 16)
	<b>Medication Errors</b> Errors / 1000 Adj Total Patient Days Date Period: September 2016	26/13445	1.93	2.68	0.00
COMPLICATIONS		Performance	FY 2016	FY 2017	
4	<b>Surgical Site Infection (SSI)</b> SSI per 100 Surgical Procedures Date Period: September 2016	0	0.00	0.20	0.18 (goal for FY 16)
SERVICE		Performance	FY 2016	FY 2017	
5	<b>Communication with Nurses</b> (HCAHPS Score) Date Period: Jul 2016	229/287	79.9%	78.0%	
6	<b>Responsiveness of Hospital Staff</b> (HCAHPS Score) Date Period: Jul 2016	117/265	66.8%	64.9%	
7	<b>Communication About Medicines</b> (HCAHPS Score) Date Period: Jul 2016	120/174	68.9%	64.7%	
EFFICIENCY		Performance	Jan-Jun 2016 (6-month ave)	FY 2017	
8	<b>★Organizational Goal</b> <b>Average Length of Stay (days)</b> (Medicare definition, MS-CC, ≥ 65, inpatient) Date Period: September 2016	FYTD <del>1190</del> 01-06/16 2509	FYTD <del>4.51</del> 01-06/16 4.78	4.78	4.87
9	<b>★Organizational Goal</b> <b>30-Day Readmission (Rate, LOS-Focused)</b> (ALOS-Linked, All-Cause, Unplanned) Date Period: August 2016	FYTD <del>82/803</del> 01-06/16 288/2497	FYTD <del>10.21</del> 01-06/16 11.53	11.53	At or below 12.24



## Definitions and Additional Information

Measure Name	Definition Owner	Work Group	FY 2015 Definition	FY 2016 Definition	Source
<b>Patient Falls</b>	Joy Pao; Cheryl Reinking	Falls Committee	All Med/Surg/CC falls reported to CALNOC per 1,000 CALNOC (Med/Surg/CC) patient days CALNOC Fall Definition: The rate per 1,000 patient days at which patients experience an unplanned descent to the floor (or extension of the floor, e.g., trash can or other equipment, including bedside mat). All falls are reported and described by level of injury or no injury, and circumstances (observed, assisted, restrained at the time of the fall). Include Assisted Falls (when staff attempts to minimize the impact of the fall, it is still a fall). <i>Excludes Intentional Falls: When a patient (age 5 or older) falls on purpose or falsely claims to have fallen, it is considered an Intentional Fall and is NOT included. It is NOT considered a fall according to the CALNOC definition.</i>		QRR Reporting and Staff Validation
<b>Medication Errors</b>	Joy Pao; Cheryl Reinking	Medication Safety Committee; P&T Committee	5 Rights Medication Errors: [# of Med Errors (includes: Duplicate Dose, Omitted Dose, Incorrect Patient, Incorrect Medication, and Incorrect Route.) divided by Adjusted Total Patient Days (includes L&D & Nursery)]* 1,000 <i>Excludes: Wrong Time, ADR, Contrast Reaction, Incorrect Dose, "Not Yet Rated" Med errors, No risk identified and near miss</i>		QRR Reporting and Staff Validation
<b>Surgical Site Infection</b>	Catherine Nalesnik; Joy Pao; Carol Kemper, MD	Infection Control Committee	(Number of Deep Organ Space infections divided by the # of all surgery cases)*100 counted by the month procedure under which infection was attributed to and not by the month it was discovered.  All Surgery Cases in the 29 Surgical Procedural Categories required by the California Department of Public Health.		IC Surveillance and NHSN Data Reporting
<b>Communication with Nurses</b>	RJ Salus; Meena Ramchandani; Cheryl Reinking	Patient Experience Committee	Percent of inpatients responding "Always" to the following 3 questions [% Top Box]: 1. During hospital stay, how often did the nurses treat you with courtesy and respect? 2. During hospital stay, how often did nurses listen carefully to you? 3. During hospital stay, how often did nurses explain things in a way you can understand? CMS Qualified values are pulled from the Avatar website. Note: A complete month's data is available on the first Monday following 45 days after the end of the month.		Press Ganey Tool
<b>Responsiveness of Hospital Staff</b>	RJ Salus; Eric Pifer	Patient Experience Committee	Percent of inpatients responding "Always" to the following 2 questions [% Top Box]: 1. During hospital stay, after you pressed the call button, how often did you get help as soon as you wanted it? 2. How often did you get help in getting to the bathroom or in using a bedpan as soon as you wanted (for patients who needed a bedpan)? CMS Qualified values are pulled from the Avatar website. Note: A complete month's data is available on the first Monday following 45 days after the end of the month.		Press Ganey Tool
<b>Communication About Medicines</b>	RJ Salus; Cheryl Reinking; Bob Blair	Patient Experience Committee	Percent of inpatients (who received meds) responding "Always" to the following 2 questions [% Top Box]: 1. Before giving you any new medicine, how often did hospital staff tell you what the medicine was for? 2. Before giving you any new medicine, how often did hospital staff describe possible side effects in a way you could understand? CMS Qualified values are pulled from the Avatar website. Note: A complete month's data is available on the first Monday following 45 days after the end of the month.		Press Ganey Tool
<b>Average Length of Stay</b>	Eric Pifer, MD; Mick Zdeblick; Joy Pao; Petrina Griesbach	LOS Steering Committee	Average LOS of Medicare FFS, Patients discharged from an Acute Care or Intensive Care unit. Excludes expired patients. Includes final coded patients aged 65 and older at the time of the encounter. The baseline period is from Jan-June 2015 and the performance period is from Jan-June 2016.		EDW Data Pull, Department of Clinical Effectiveness
<b>30-Day Readmission (LOS-Focused)</b>	Eric Pifer, MD; Margaret Wilmer; Joy Pao; Petrina Griesbach	Readmission Committee	Percent of Medicare inpatient discharges return for an unplanned IP stay for any reason within 30 days, aged ≥65. Excludes patients who die, leave AMA or are transferred to another acute care facility; excludes admits to ECH Rehab and Psych admissions and for medical treatment of cancer.		EDW Data Pull, Department of Clinical Effectiveness

## **ATTACHMENT 8**

# Patient & Family Centered Care Update

**Board Quality Committee  
November 2, 2016  
RJ Salus**



# HCAHPS Update



CAHPS	2015	2016	FY17 TD	FY17TD Percentile
Rate hospital 0-10	75.6	76.4 ▲	78.2▲	72 <sup>nd</sup>
Recommend hospital	82.3	82.3	83.0▲	84 <sup>th</sup>
Cleanliness of hospital	73.3	74.9 ▲	75.8▲	57 <sup>th</sup>
Quietness of hospital	60.1	58.6 ▼	61.4▲	50 <sup>th</sup>
Comm w/ Nurses	77.5	78.6 ▲	80.5▲	48 <sup>th</sup>
Response of Hosp Staff	66.1	65.4 ▼	68.4▲	56 <sup>th</sup>
Comm w/ Doctors	83.5	83.8 ▲	86.5▲	84 <sup>th</sup>
Hospital Environment	66.7	66.7	68.6▲	55 <sup>th</sup>
Pain Management	70.6	74.7 ▲	76.2▲	81 <sup>st</sup>
Comm About Medicines	63.1	66.8 ▲	68.5▲	77 <sup>th</sup>
Discharge Information	86.4	85.3 ▼	86.9▲	41 <sup>st</sup>
Care Transitions	55.9	55.6 ▼	58.1▲	74 <sup>th</sup>

# Value Based Purchasing

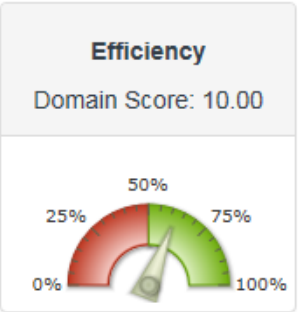
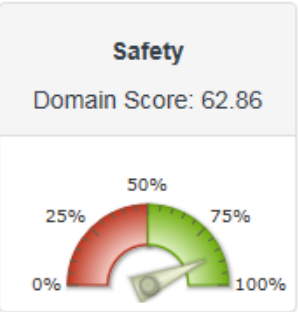
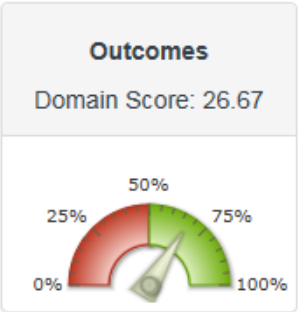
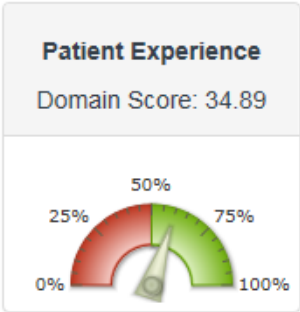
## Overview

**Actions** ▾

The data below reflects our latest estimate of your organization's VBP performance and projected financial impact, based on publically available quality data from Hospital Compare.

For details on data, timeframes, or any other questions, please click the action button (above right) for further information. If you'd like to model the impact of the program on your hospital using more recent internal data, please download our excel modeling tool and input the information directly.

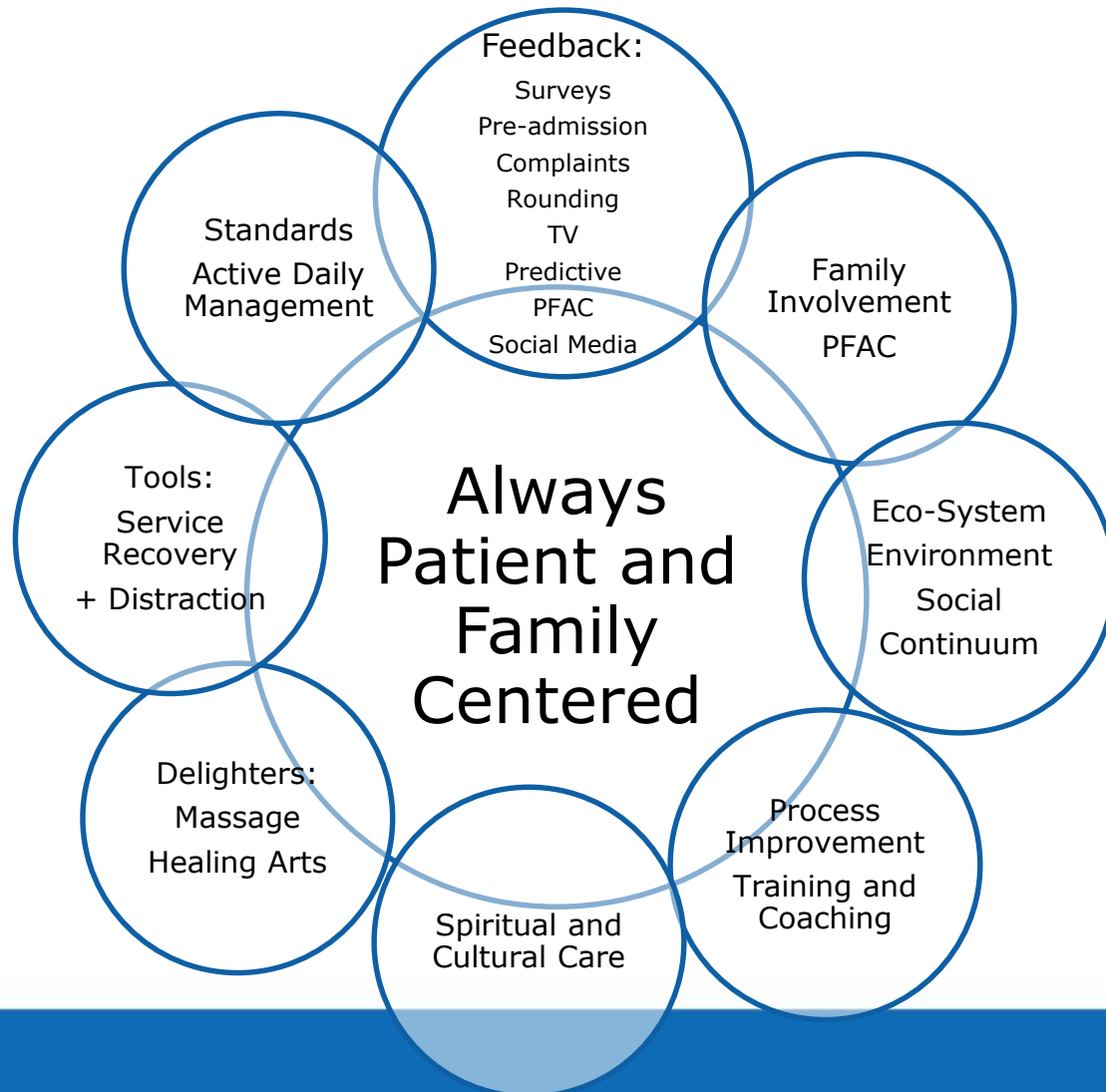
Financial Impact						
Base Operating DRG Amount	-	Withhold Amount	+	Bonus Amount	=	Net Impact
\$83,715,656		\$1,674,313 2.00%		\$2,221,863 2.65%		\$547,550 0.65%



# PFCC related Enhancements

Topic	Action
Nursing Communication	Nurse Manager Rounds via Vocera Care Experience Care Team Coaching
Physician Communication	Care Team Coaching Team Health
Pain Management	Pain Management Workgroup Comfort Menu including alternative modalities
Medication Communication	M3 initiative – name, purpose, side effects
Emergency Department	Lean / PI – ED check in process review and optimization

# So many things to do...



## Experience Innovation Network: Checklist for Intelligent Patient Experience

- ✓ **Capture patient voice to understand preferences**
- ✓ **Improve connectivity to navigate the system**
- ✓ **Recognize patients/families as members of the team**
- ✓ **Enable meaningful interactions with relevant data**
- ✓ **Provide tools to support patients' care decisions**

# Patient and Family Centered Frontier



Planetree Recommendations:	El Camino translation:
Policies and Practices Involving Family	Care Partner Program Development FY17
Incorporate Patient-Centered Care and Experience into New Employee Orientation	Complete – Continue to adjust
Mechanisms to Proactively Share the Medical Record with Patients.	FY18 – MyChart Bedside
Language and Spirituality Through Cultural Diversity Team	Enhance through Spiritual Care Office and ACPE program
Healing Modalities Offered Within Mountain View and Los Gatos Hospitals	Spotlight through Pain Management Workgroup
Establish Patient- Centered Care Metrics and Dashboard	Incremental roll out through Enterprise huddle and solidify at PFCC Governance level with quarterly report to Board Quality Committee

# Holistic Organizational Needs

- Cultural recovery
- Staff Engagement
- Leadership Development
- Decrease meetings and bureaucracy
- Mitigate construction
- Visibility and inspiration
- Housing affordability
- Acknowledgement beyond the 4 walls
- More PFAC!

# Don't overthink this...

The examining room had a computer in it, and I noticed that **the nurse hadn't logged out;** my medical records were still up on the screen. I know my way around computers, of course, but this required no hacking at all. **My whole chart was right there. "Shall we have a look-see?"** I said to Jai. I felt no qualms at all about what I was about to do. After all, these were my records. **I clicked around and found my blood-work report.** There were 30 obscure blood values, but I knew the one I was looking for: CA 19-9—the tumor marker. When I found it, the number was a horrifying 208. A normal value is under 37. I studied it for just a second. **"It's over," I said to Jai. "My goose is cooked."** "What do you mean?" she asked. I told her the CA 19-9 value. She had educated herself enough about cancer treatment to know that 208 indicated metastasis: a death sentence. "It's not funny," she said. "Stop joking around." I then pulled up my CT scans on the computer and started counting. "One, two, three, four, five, six..." I could hear the panic in Jai's voice. **"Don't tell me you're counting tumors,"** she said. I couldn't help myself. I kept counting aloud. **"Seven, eight, nine, ten..."** I saw it all. **The cancer had metastasized to my liver.** Jai walked over to the computer, saw everything clearly with her own eyes, and fell into my arms. **We cried together.** And that's when I realized there was no box of tissues in the room. I had just learned I would soon die, and in my inability to stop being rationally focused, I found myself thinking: **"Shouldn't a room like this, at a time like this, have a box of Kleenex?"** Wow, that's a glaring operational flaw."

## Randy Pausch – The Last Lecture

