LEGISLATIVE REPORT TO THE GENERAL ASSEMBLY
Adverse Event Reporting

General Statutes of Connecticut
Section 19a-127l-n

QUALITY IN HEALTH CARE PROGRAM

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Department of Public Health

Legislative Report to the General Assembly
Adverse Event Reporting

Quality in Health Care Program

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INTRODUCTION

Connecticut was among the earliest adopters of the National Quality Forum's (NQF) *Serious Reportable Events in Healthcare*, a consensus list of harmful events that healthcare stakeholders agree should never happen. Such adverse events are clearly identifiable, measurable, and usually preventable. A defined list puts Connecticut in a position to provide more effective oversight to make healthcare safer. It provides common ground for a growing number of states that publically report adverse events. This report includes data from 2013, the first year in which Connecticut incorporated NQF revisions which included an expanded definition of reportable pressure ulcers. Concurrently, reporting facilities were invited to submit comments about their patient safety and quality improvement efforts. Please use the adverse event data and the facility responses in this document's appendix to spark conversations about how we can partner to make healthcare safer.

Jewel Mullen, MD, MPH, MPA

Commissioner, Connecticut Department of Public Health

EXECUTIVE SUMMARY

In January 2013 Connecticut's list of reportable events was modified to reflect changes to the National Quality Forum (NQF) list of Serious Reportable Events, including 4 new categories: (1) Death or serious injury of a neonate associated with labor or delivery in a low-risk pregnancy; (2) patient death or serious injury resulting from the irretrievable loss of an irreplaceable biological specimen; (3) patient death or serious injury from failure to follow up or communicate laboratory, pathology, or radiology test results; (4) death or serious injury of a patient associated with the introduction of a metallic object into the MRI area. The NQF revised definitions, specifications, and sometimes the numbering for the remaining 25 items. The most substantial change in definition made unstageable pressure ulcers reportable in addition to stages three and four.

For 2013 the number of adverse events reports (n=534) was more than twice as high as in any of the previous eight years, driven mostly by new reporting of unstageable pressure ulcers. The most common adverse events among reports were: (1) stage 3-4 or unstageable pressure ulcers acquired after admission to a healthcare facility, (2) falls resulting in serious disability or death, (3) perforations during open, laparoscopic, and/or endoscopic procedures, and (4) retention of foreign objects in patients after surgery. These four categories accounted for 88% of events reported in 2013.

After examining an adverse event report, which includes a Corrective Action Plan, the Department of Public Health (DPH) determines whether to initiate an investigation. In addition to adverse event monitoring by DPH, Patient Safety Organizations disseminate information to improve patient care.

BACKGROUND

Connecticut General Statutes §19a-127l required the Department of Public Health (DPH) to establish a Quality in Health Care program for health care facilities. The program is operated through general DPH resources. An Advisory Committee, chaired by the DPH Commissioner or designee, advises the program. Mandatory adverse event[1] reporting began October 1, 2002. After evaluating the program for more than a year, the Advisory Committee recommended adoption of the National Quality Forum (NQF) list of Serious Reportable Events, plus five or six Connecticut-specific events.

Adverse events are reported to DPH by telephone and fax machine. Reporting forms and definitions are located at the DPH website under "Forms."[2] After the department has decided whether to open an investigation, paper-based data are entered into an electronic database.

[1] As discussed in Connecticut's March 2004 Adverse Events report, adverse events are not the same as medical errors. While there is overlap between the categories, some adverse events do not result from medical errors, and some medical errors do not result in adverse events. Adverse Events Reports are available at www.ct.gov/dph under Statistics & Research, then choose "Health Care Quality."

[2] http://www.ct.gov/dph/cwp/view.asp?a=3115&q=390100&dphNav_GID=1601

The Adverse Event reporting requirements were amended when CGS 19a-127n became effective July 1, 2004. The statute replaced the previous adverse event classification system with a list of reportable events identified by the NQF. Additionally, DPH added six Connecticut-specific adverse event definitions to supplement the NQF list, as allowed by the law. (The list appears in Appendix B.) Items on the list are of concern to both the public and healthcare professionals, are clearly identifiable and measurable, and are often preventable.[3] DPH completed development of the mandated regulations for reporting of adverse events, and these became effective November 1, 2007.

In May 2007, hospitals and ambulatory surgical centers were provided with the updated NQF List of Serious Reportable Events and the revised list compiled by the Commissioner of Public Health. A new category was included in the NQF list related to fertility clinics.[4] The NQF category "patient death associated with a fall" was expanded to include "serious injury associated with a fall." Reporting for this expanded category replaced the Connecticut-specific category that previously existed. The numbering for these and several other events changed with the NQF *Serious Reportable Events in Healthcare-2011 Update* described below.

On January 1, 2010, an additional adverse event category entitled "Patient death or serious disability associated with surgery" specific to Connecticut was added to the list of reportable adverse events. This category includes significant hemorrhage and/or unanticipated death in an American Society of Anesthesiologists (ASA) Class 2 patient.

Public Act 10-122 required that for all annual reports submitted after July 1, 2011:

> the commissioner shall include hospital and outpatient surgical facility adverse event information for each facility identified (1) by the National Quality Forum's List of Serious Reportable Events category, and (2) in accordance with any list compiled by the commissioner and adopted as regulations pursuant to subsection (c) of this section. Such reports shall be prepared in a format that uses relevant contextual information. For purposes of this subsection "contextual information" includes, but is not limited to, (A) the relationship between the number of adverse events and a hospital's total number of patient days or an outpatient surgical facility's total number of surgical encounters expressed as a fraction in which the numerator is the aggregate number of adverse events reported by each hospital or outpatient surgical facility by category as specified in this subsection and the denominator is the total of the hospital's patient days or the outpatient surgical facility's total number of surgical encounters, and (B) information concerning the patient population served by the hospital or outpatient surgical facility, including such hospital's or outpatient surgical facility's payor or case mix. In addition, a hospital or outpatient surgical facility may provide informational comments relating to any adverse event reported to the commissioner pursuant to this section.

[3] More fully explained in Kenneth W. Kizer, "Clearing the Confusion about Connecticut's New Adverse Event Reporting Law," which appears as appendix B of Connecticut's October 2004 Adverse Events report.
[4] Prior to *Serious Reportable Events in Healthcare-2011 Update*, category 4H was "Artificial insemination with the wrong donor sperm or wrong egg." In 2013 the Connecticut category label changed to NQF 4G.

The NQF document *Serious Reportable Events in Healthcare-2011 Update*[5] added four items, retired three items, and revised definitions, specifications, and sometimes the numbering for the remaining 25 items. The most substantial change in definition made unstageable pressure ulcers reportable in addition to stages three and four. The updated NQF list includes 29 serious reportable events. The new items are: (1) Death or serious injury of a neonate associated with labor or delivery in a low-risk pregnancy; (2) patient death or serious injury resulting from the irretrievable loss of an irreplaceable biological specimen; (3) patient death or serious injury from failure to follow up or communicate laboratory, pathology, or radiology test results; (4) death or serious injury of a patient associated with the introduction of a metallic object into the MRI area. Some of these new NQF items closely resemble items on the then-concurrent Connecticut-specific list of adverse events. A summary of NQF changes appeared in Appendix J of the October 2012 DPH report, and the revised Connecticut adverse event list in Appendix K there. DPH promulgated guidance related to these changes during 2012 and implemented the revised list in January 2013.

CGS Section 19a-127o identifies the primary activity of a Patient Safety Organization (PSO), which is to improve patient safety and the quality of care delivered to patients through the collection, aggregation, analysis, or processing of medical or health-related information submitted to the PSO by the health care provider. This "patient work product" may include reports, records, analyses, policies, procedures or root cause analyses prepared exclusively for the purpose of disclosure to the PSO. The patient safety work product is confidential and not subject to use or access except to the PSO and the health care provider. PSOs disseminate appropriate information or recommendations on best clinical practices or potential system changes to improve patient care to the health care providers, DPH, the Quality of Care Advisory Committee and the public. DPH has designated three PSOs: Qualidigm, the Connecticut Healthcare Research & Education Foundation (CHREF) and the Ambulatory Surgical Center Patient Safety Organization (ASC PSO) (see the June 30, 2014 DPH report on Connecticut's Quality of Care Program[6]).

Adverse event data were obtained from the electronic database at DPH. Inpatient days and primary payer information for acute care hospitals was obtained from hospital discharge data routinely gathered by the Office of Healthcare Access (OHCA) at DPH. Similar information for outpatient childbirth centers, hospice, chronic disease hospitals, and hospitals for the mentally ill, and outpatient surgical centers was obtained by DPH from those facilities.[7]

ADVERSE EVENT DATA

As of May 19, 2014, the DPH electronic database contained 534 reports of adverse events reported in 2013. Demographic information is shown in Appendix A. This reported information

[5] http://www.qualityforum.org/Topics/SREs/Serious_Reportable_Events.aspx
[6] Quality of Health Care reports are available at www.ct.gov/dph under Statistics & Research, then choose "Health Care Quality."
[7] The Department thanks the Ambulatory Surgical Care Patient Safety Organization for assistance in gathering information from outpatient surgical centers.

is influenced by several factors: varying rates of adverse events across facilities, patient case mix, quality of care, number of patients served, knowledge or interpretation of event definitions and reporting requirements, changes made to event definitions, additions to or deletions from the list of reportable events, willingness to report events, as well as the effectiveness of the institutional system to convey information from event participants to the designated reporter, and other factors.[8] Consequently, clear conclusions about the causes of observed event fluctuations and differences across facilities cannot be derived simply from the number of reports or fluctuations in the number of reports.[9]

Acute care or children's hospitals submitted 487 (91%) of the 534 adverse event reports; chronic disease hospitals, 21; hospitals for the mentally ill, 6; and outpatient surgical facilities (if not owned by a hospital), 20. Fifty percent of reported adverse events occurred in males and 50% in females. The majority of reports concerned patients over the age of 65 years. The most common location of occurrence was reported to be the adult medical ward (Appendix A).

Appendix B presents the number of adverse events reported by year for 2012 and 2013, according to the list of NQF events (1A-7D) and Connecticut-specific events (CT1 & CT2), and compares the definitions used in 2012 with those used in 2013.

As shown in the chart below and Appendix C, the most commonly reported events in 2013 were pressure ulcers. Two hundred seventy-seven pressure ulcers comprised 52% of all 534 adverse events reported. The second most commonly reported events were falls resulting in death or serious injury, with 90 reports (17%). Perforations during open, laparoscopic, and/or endoscopic procedures, followed with 79 reports (15%).[10] The next most commonly reported, 25 events, were retention of foreign objects in patients after surgery or other procedures (5%).

Between 2012 and 2013 the category of reportable pressure ulcers expanded to include unstageable ulcers in addition to stage 3 and 4, if acquired in the healthcare facility. As a result of this expansion, total counts in 2013 should not be compared directly with counts in prior years. Based on a review of the narrative descriptions submitted with the 277 pressure ulcer reports, we were able to make a good but not perfect determination of each ulcer's stage. Two hundred thirty-three mentioned unstageable ulcers (with or without deep tissue injury), while 44 mentioned a stage, deep tissue injury only, or something else. This count of 44 is less than the 51 stage 3-4 ulcers reported in 2012. Consequently, the increase in pressure ulcer reports from 2012 to 2013 appears to be entirely due to the change in reporting requirements. For

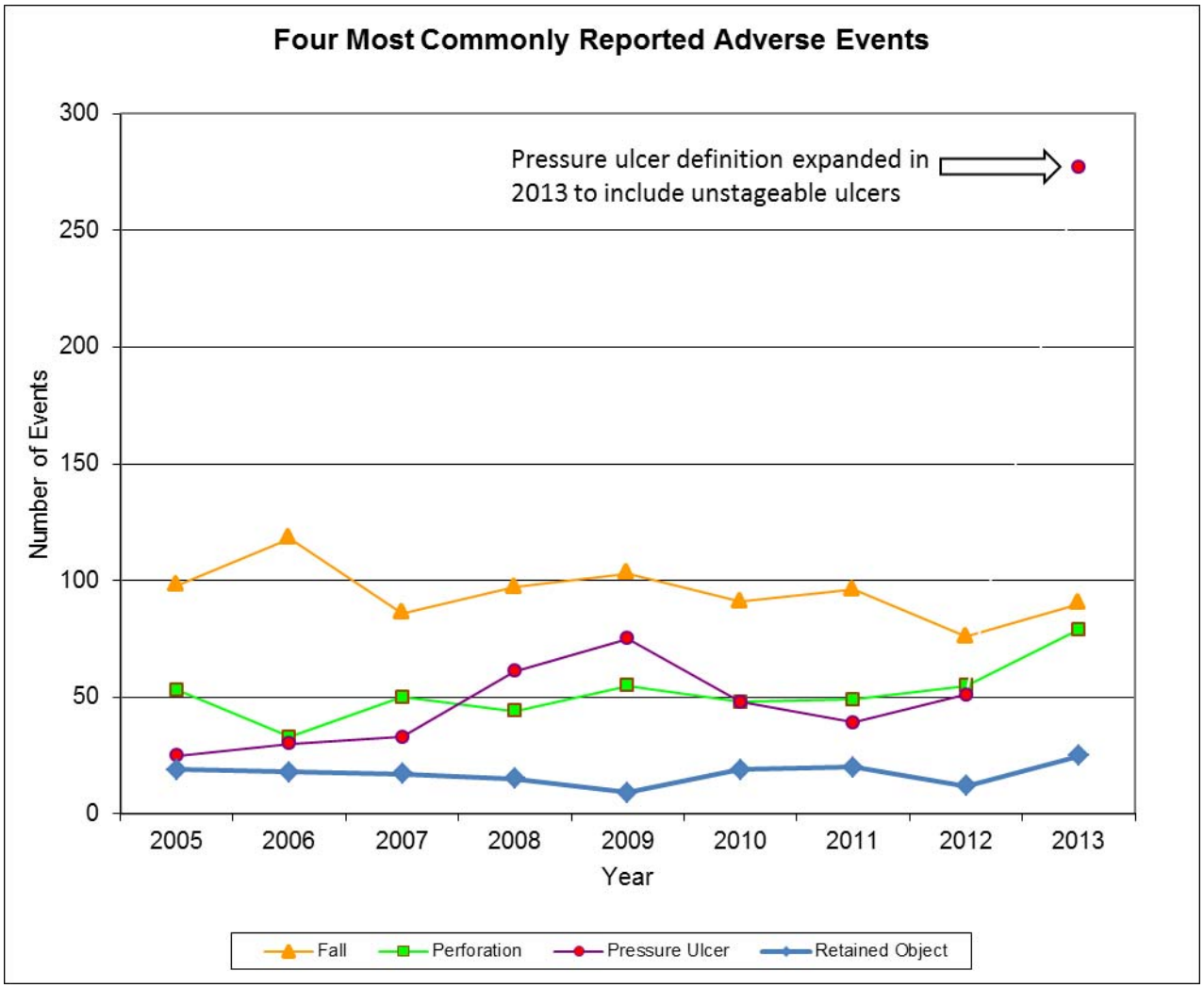
[8] Marieke Zegers et al, "Variation in the Rates of Adverse Events between Hospitals and Hospital Departments," *International Journal for Quality in Health Care* 2011:1-8, identified during a study of 21 Dutch hospitals and 300 hospital departments that increased risk of suffering a preventable adverse event was associated with surgical admission, more co-morbidity, higher age, longer length of hospital stay, elective admission, and complication of a surgical or medical procedure. The clustering of preventable adverse events in hospital departments was more than twice that found in hospitals, implying that "there is more room for improvement in patient safety at the hospital department level than at the hospital level."

[9] For additional discussion of the limitations of passive incident reporting, see the Patient Safety section of the September 2011 issue of the Agency for Healthcare Research and Quality (AHRQ), Morbidity and Mortality Rounds at http://webmm.ahrq.gov/; Kaveh G. Shojania, "The Elephant of Patient Safety: What You See Depends Upon How You Look," *Joint Commission Journal on Quality and Patient Safety, 36(9);* September 2010, 399.

[10] For more details about these adverse events, see the "Six Month Summary of Adverse Event Reports" (Appendix A of the June 30, 2005 DPH report on the Quality in Health Care Program).

comparison, when Massachusetts and Minnesota expanded their definitions of reportable pressure ulcers to include unstageable ulcers, the number of reports tripled, and the increase in Connecticut was five-fold.[11]

The inclusion of unstageable pressure ulcers beginning in 2013 is an important enhancement to adverse event reporting. The benefits of this expanded definition are discussed in the "Pressure Ulcers" section on pages 11-12.



[11] M. Biondolillo, "Public Health Council Presentation on Serious Reportable Events in Massachusetts Hospitals 2011-2013," August 2014. http://www.mass.gov/eohhs/gov/departments/dph/programs/hcq/serious-reportable-event-sres.html. Massachusetts also implemented a secure electronic reporting system from 2011-2013. Minnesota Department of Health, "Adverse Health Events: 10 Year Program Evaluation," January 2014, 7-8. http://www.health.state.mn.us/patientsafety/ae/2014ahetenyearreview.pdf. Since 2009, Minnesota hospitals have been collecting patient risk factors for pressure ulcers (diabetes, malnutrition, kidney failure, respiratory failure, vascular disease). The average number of risk factors per patient increased 12% over five years.

The number of reports increased between 2012 and 2013 for perforations and retained objects to the highest levels since the NQF list was adopted in mid-2004; reports of falls also increased.

The number of adverse event reports submitted by an acute care hospital is highly correlated with the number of patients seen at the hospital. For the same reason, the number of pressure ulcer reports is highly correlated with the number of all other types of adverse events reported by that hospital. The Pearson correlation across acute care hospitals between pressure ulcer reports and all other reports was 0.59 in 2011 ($P<0.001$) and 0.67 in 2012 ($P<0.0001$). Changes between 2011 and 2012 in the number of events for these two event groups were not correlated. In 2013 the Pearson correlation between pressure ulcers and all other events was 0.83 ($P<0.0001$), but there was no association between the two groups for the changes between 2012 and 2013. These results suggest that, although the record numbers of perforation and retained object reports in 2013 may be due to heightened attention to reporting (or other causes), increase in pressure ulcer identification was not coupled to identification of other adverse events. Nor did reporting more pressure ulcers demonstrably inhibit reporting other adverse events.

The distributions and frequencies of perforations during surgery at various anatomic sites are logically related to the frequencies and difficulties of surgeries at those sites. However, DPH does not collect data about adverse event-free surgeries. Among the 79 perforation reports in 2013, the sites or procedures mentioned were: colonoscopy (31), endoscopy (10), other or unspecified colon procedure (8), female reproductive system (7), gall bladder (6), stomach (5), hernia repair (5), urinary system (2), and five procedures with one event each.

Twenty-five reports of retained objects after surgery from 2010-2011 were compared with 24 such reports from 2013.[12] In the earlier period the most common objects were guide wire (9), sponge (6), catheter (2) and drain (2). In the latter period the most common objects were sponge (4), drain tip (3), guide wire (3), clamp or clip (3), screw (2), glove tip (2), and lap band (2). Possibly the increase in reports for 2013 reflects in part the increased use of certain devices or procedures (e.g. lap band, bariatric surgery).

Adverse event counts, patient days, and rate by facility and event type are shown in appendices D-G. These represent, respectively, acute care hospitals (D), chronic care hospitals and hospices (E), hospitals for the mentally ill (F), and ambulatory surgical centers, pain medicine centers, fertility centers, and outpatient childbirth centers (G). Not all adverse event categories are relevant to all facilities. For example, surgical adverse events are not applicable in a facility that performs no surgery. Also, patient populations differ considerably between types of facilities.

For acute care hospitals, the calculated rates are based on adverse events that occurred in the emergency department, inpatient, or an outpatient setting (in the numerator), but only inpatient days contribute to the denominator of the rate. There are several reasons for this presentation. First, it defines Connecticut acute care hospital rates in the same way as some other states, making some state-to-state comparisons possible. Second, we found that outpatient days could not be reliably obtained from the database. Many of the choices for "Location of Event" (appendix A) could be either inpatient or outpatient. October 2012 to September 2013 data were

[12] See the 2011 DPH Adverse Event report, appendix P, "Retained Foreign Object in a Patient after Surgery or other Procedure."

used in the rate denominator and payer mix calculation because calendar year 2013 data were unavailable to DPH.

Significant variation in facility reporting patterns are a common characteristic of passive surveillance systems (where the responsibility for reporting falls upon the health care provider) and this is not unique to Connecticut's adverse events reporting system. A passive surveillance system "has the advantage of being simple and not burdensome" to administer, "it is limited by variability and incompleteness in reporting."[13] Typically, data validation is a function of an active surveillance strategy that can be used to increase the completeness of reporting, as is being done in the separate Connecticut Healthcare Associated Infections program. However, data validation is often labor intensive and expensive, requiring dedicated resources. Nevertheless, without such validation we cannot determine how complete facility reporting is.

Based on these adverse event data alone we cannot derive certain conclusions. We cannot say whether a high reporting rate reflects highly complete reporting in a facility with good quality of care, or perhaps modestly complete reporting in a facility with poor care, or neither better nor worse quality care, as noted earlier.

Appendix H, based on billing data, shows the primary payer for patients seen at each facility. This contextual information is required by PA 10-122. Since Medicare pays for most care in patients 65 years and older, there is a positive correlation between the proportion of patients covered by Medicare and the average age of patients seen at a facility. Some studies (Zegers et al, above) have found an association between older age and greater risk of experiencing an adverse event, perhaps because multiple chronic conditions and frailty are more common among the elderly, and because the intensity of interventions is greater among the elderly or those with multiple co-morbidities.[14] We tested this hypothesis for Connecticut. Using the Connecticut data for acute care hospitals but excluding the children's hospital, the Pearson correlation coefficient between percentage of Medicare payers in FY 2010 at a facility and reported rate of adverse events for 2004-2010 was only 0.26, and for percentage Medicare payers in 2010 and event rate in 2010 the correlation was opposite what we expected (r= -0.06). Due to the poor single year correlation in 2010, no calculation was made for later years. No attempt was made here to risk adjust the rates based upon the average age of the population served or other contextual factors.

Appendix I contains facility comments about safety efforts, as allowed for by PA 10-122.

[13] Steven M. Teutsch, "Considerations in Planning a Surveillance System," in Steven M. Teutsch and R. Elliott Churchill, eds., *Principles and Practice of Public Health Surveillance*, 2nd ed. (New York: Oxford University Press, 2000), 22.

[14] Aranaz-Andres J, et al., "What makes hospitalized patients more vulnerable and increases their risk of experiencing an adverse event?" *International Journal for Quality in Health Care* 2011; Sept 6, 1-8 [Epub ahead of print]

CURRENT ACTIVITIES AND FUTURE PLANS

DPH regularly screens death records for cause of death codes that might be related to an adverse event. (For a description of the system, see the 2011 Adverse Event report, appendix Q.) Selected records are reviewed further. The department gathers additional information to determine if reportable fatal adverse events occurred, and whether such events were reported to DPH. In 2013 no additional fatal adverse events were identified through this supplemental screening process.

Investigation of Adverse Events

The first responsibility for investigation of an adverse event lies with the facility in which the event occurred. Under Connecticut's Adverse Event reporting law, facilities are required to submit a Corrective Action Plan to DPH for each reported Adverse Event.

An external investigation at a healthcare facility due to an adverse event may begin in several ways: (1) as a result of a complaint to DPH made by any person; (2) following a sentinel event report by the facility to the Joint Commission, a complaint to the Joint Commission by any person (see www.jointcommission.org), or an unannounced, onsite visit to a facility by the Joint Commission during which an adverse event becomes known; or (3) as a consequence of an adverse event report sent by the healthcare facility to DPH. The last of these routes is discussed here.

After examining an adverse event report, which includes a Corrective Action Plan, the DPH Healthcare Quality and Safety Branch determines whether to initiate an investigation. Screening to rule out medical error is based on clinical judgment and/or objective medical criteria. The screening team consists of healthcare clinicians at DPH.

DPH conducts investigations regarding adverse event reports that may indicate a systems issue or issues related to inadequate standards of care. These investigations determine regulatory compliance versus noncompliance and provide additional information that may allow one to distinguish between events that have been due to a medical error or system failure and those that have not. Investigations involving adverse events follow the same process as issues received through the public complaint process. Information is gathered through onsite inspection and observation, review of clinical records, interviews with institutional staff and vested parties as appropriate. The results of completed investigations are public, and may be obtained upon request, under the Freedom of Information (FOI) Act.

Pressure Ulcers

The goal of tracking ulcers—also known as bed sores— is to improve care in facilities that report serious pressure ulcers in their patients. Pressure ulcers may cause pain and lead to infection. The most serious pressure ulcers (stages 3 and 4) are classed according to their depth. Unstageable ulcers are covered by dead skin, which initially prevents evaluation of their stage. When the dead material is removed, they are almost always found to be either stage 3 or 4, both of which have been reportable to DPH since the adverse event program began. Unstageable

ulcers became reportable in 2013, thereby providing a more accurate assessment of how many patients have the most serious pressure ulcers.

Information about pressure ulcers is used to determine appropriate quality improvement activities. Typically, Corrective Action Plans for stage 3-4 pressure ulcers include many or all of the following components:

- Inspect skin daily
- Manage moisture on skin
- Conduct a pressure ulcer admission assessment for all patients
- Minimize pressure
- Optimize nutrition and hydration
- Reassess risk for all patients daily

Definitions from the National Library of Medicine and the National Institutes of Health:[15]

A **pressure ulcer** is an area of skin that breaks down when something keeps rubbing or pressing against the skin. Pressure on the skin reduces blood flow to the area. Without enough blood, the skin can die. An ulcer may form. Pressure sores can cause serious infections, some of which are life-threatening.

Pressure sores are grouped by their severity. Stage I is the earliest stage. Stage IV is the worst.

- **Stage I:** A reddened area on the skin that, when pressed, does not turn white. This is a sign that a pressure ulcer is starting to develop.
- **Stage II:** The skin blisters or forms an open sore. The area around the sore may be red and irritated.
- **Stage III:** The skin now develops an open, sunken hole called a crater. There is damage to the tissue below the skin.
- **Stage IV:** The pressure ulcer has become so deep that there is damage to the muscle and bone, and sometimes to tendons and joints.

Pressure sores are unstageable when the tissue at the base of the ulcer is covered by dead skin that is yellow, tan, green, or brown.

Patient Safety Organizations

Connecticut General Statutes section 19a-127o allowed DPH to designate "Patient Safety Organizations" (PSOs) and 19a-127p required hospitals to contract with a PSO. The primary activity of a PSO is to improve patient safety and the quality of care delivered to patients through the collection, aggregation, analysis or processing of medical or health care related information submitted to the PSO by the health care provider. This "patient safety work product" may include reports, records, analyses, policies, procedures, or root cause analyses prepared exclusively for the purpose of disclosure to the PSO. The patient safety work product is confidential and not subject to use or access except to the PSO and the health care provider. The

[15] http://www.nlm.nih.gov/medlineplus/ency/article/007071.htm

PSO will disseminate appropriate information or recommendations on best medical practices or potential system changes to improve patient care to the health care providers, DPH, the Quality of Health Care Advisory Committee, and the public. DPH has designated three PSOs, including the Qualidigm Patient Safety Organization, the Connecticut Hospital Association Patient Safety Organization, and the Ambulatory Surgical Center Patient Safety Organization. PSO activities during the previous year appear in the annual June 30 report concerning the Quality in Health Care program, found on the DPH website.

Healthcare Associated Infections

The Healthcare Associated Infections (HAI) Committee, established by legislation, is separate from the Quality in Health Care Advisory Committee. Reports can be found on the DPH website (http://www.ct.gov/dph/cwp/view.asp?a=3136&q=417318). The HAI Committee makes recommendations to the department on HAI public reporting, and has advised DPH to in general follow the CMS pay for reporting/annual payment update expectations.

Activity areas include:

- Planning/partnering - program planning and stakeholder training and engagement expanded beyond hospitals to the full range of healthcare settings, state advisory groups, and policy partnerships and committee work with national organizations.
- Surveillance – continuing and expanding the checking (validation) of Connecticut publicly reported HAI data to ensure that HAI data reported in Connecticut are complete and accurate.
- Emerging Infections Program – participates in the HAI EIP network; projects included the first national prevalence study of HAIs in decades and antimicrobial use ever in US hospitals,[16] and other studies (including a pilot survey to characterize the nature and scope of HAIs in nursing homes).
- Prevention – partnering with patient safety and quality organizations; education of professionals and the public (via website); training of health professionals, and the development of *It's good for you Connecticut,* a statewide public information campaign for the public and health providers.
- Quality improvement/accreditation – use of quality improvement tools in long term care and Antimicrobial Stewardship; HAIs (especially C. difficile) are priorities in the State Health Improvement Plan.
- Antimicrobial resistance surveillance and prevention – especially Carbapenim-resistant Enterobacteriacea.

Additional details about HAI prevention are in the June 30 report on the Quality in Health Care program at http://www.ct.gov/dph/cwp/view.asp?a=3132&q=388090&dphNav_GID=1601&dphPNavCtr=|#Gen.

[16] Shelly S Magill, et al. "Prevalence of Antimicrobial Use in US Acute Care Hospitals, May-September 2011," *JAMA* 2014; 312(14):1438-46.

Hospital Acquired Conditions (including infections)

The CMS Partnership for Patients (http://partnershipforpatients.cms.gov/) set a goal of reducing preventable harm by 40% in US hospitals by the end of 2013. The Partnership targeted all forms of harm to patients but started by asking hospitals to focus on types of medical errors and complications where the potential for dramatic reductions in harm rates has been demonstrated by pioneering hospitals and systems across the country. Unintended consequences were also of concern. For example, a Partnership goal was to prevent falls *and* immobility. Immobility is an unintended consequence of some efforts to prevent falls.

The Partnership for Patients announced a 9% decrease in hospital acquired conditions in 2012 compared with 2010. http://innovation.cms.gov/Files/reports/patient-safety-results.pdf (May 7, 2014). During 2014 the Department of Health and Human Services will continue working with its nationwide partners to improve patient safety.

Adaptive Challenges in Making Healthcare Safer

The adverse event reporting program has two objectives: to hold health care facilities accountable for the care they provide, and to facilitate improvements in patient safety. Sometimes these objectives are perceived to conflict with one another.[17]

In 2011, the annual report moved to a new level of transparency with facility-specific disclosure of the numbers, rates, and types of events. As part of this transparency, DPH strives to put data in context, and to explain what conclusions can or cannot be drawn from the data. At the same time, reporting facilities are invited to participate by submitting comments about their patient safety and quality improvement efforts for the annual report.[18] Some of our colleagues in other states, who, like Connecticut, use the National Quality Forum list of Serious Reportable Events, have spotlighted facility patient safety improvement stories. The Department views that as a worthwhile effort, and also encourages patient safety organizations to submit improvement stories for the June 30 report on the state Quality in Health Care program, of which adverse event reporting is a part.

Based on our review of the patient safety literature, several challenges to improving patient safety are evident.

Doctors, nurses, pharmacists, and other health professionals want to help, not harm, patients. Yet many patient safety efforts fail to achieve their goals completely. Dr. Peter Pronovost, an anesthesiologist and patient safety leader from Johns Hopkins University, notes that a common mistake is to treat an issue involving hospital safety culture as a technical problem.

[17] See Connecticut's March 2004 Adverse Event report, p. 13, "Improving the Patient Safety Culture in Hospitals."
[18] Quality Improvement webcasts from the Intermountain Institute for Healthcare Delivery Research are at http://intermountainhealthcare.org/qualityandresearch/institute/alumniresources/Pages/Webcasts.aspx.

Clearly, quality and safety interventions require sound evidence, and work on machine functions and interfaces are important. But it is equally necessary that health professionals become motivated, even inspired, to patient safety work. If they do not engage in a project, they may have a justified or perceived reason, which needs to be understood. Not infrequently, if the proposed change takes longer than the current practice, it is resisted.

For example, in one study a daily goals checklist involved physicians rounding with nurses on a medical-surgical floor to establish a clear plan of care for each patient. Many surgeons resisted, thinking that rounds with nurses would take too much time. In reply, the study director said that he doubted time would be lost because doctors are paged so often to clarify questions that could be more efficiently addressed on rounds. The unit clerk was asked to monitor and log every page to see what happened. Pages went from 64 a day before rounding with nurses began to two afterwards. The doctors became champions for this work, helped spread it to other units, and refused to round without nurses.[19]

[19] Peter J. Pronovost, "Navigating adaptive challenges in quality improvement," *BMJ Quality and Safety*, 20(7), July 2011: 560-63.

APPENDICES

Appendix A:
Demographic Data from Adverse Event Reports

Appendix B:
Counts and Crosswalk of Adverse Events Codes 2012-2013

Appendix C:
Adverse Event Reports by Frequency of Occurrence

Appendix D:
Acute Care Hospital
Adverse Event Reports and Rates by Facility and Event Type

Appendix E:
Chronic Disease Hospital and Hospice
Adverse Event Reports and Rates by Facility and Event Type

Appendix F:
Hospital for the Mentally Ill
Adverse Event Reports and Rates by Facility and Event Type

Appendix G:
Ambulatory Surgical Center, Pain Medicine Center,
Fertility Center, and Outpatient Childbirth Center
Adverse Event Reports and Rates by Facility and Event Type

Appendix H:
Primary Payer Source, by Facility

Appendix I:
Comments Submitted by Facilities

Appendix A.
Demographic Data from Adverse Event Reports in the Electronic Database, Connecticut 2013

Measure	Frequency	Percent
Facility Type (n=534)		
Acute Care or Children's Hospital	487	91.2%
Chronic Disease Hospital	21	3.9%
Hospital for Mentally Ill Persons	6	1.1%
Outpatient Surgical Facility	20	3.7%
Patient Gender (n=534)		
Male	268	50.2%
Female	266	49.8%
Patient Age (n=536)		
0-14	9	1.7%
15-44	68	12.7%
45-64	152	28.4%
65 and older	307	57.3%
Location of Event (n=534)		
Adult Medical	127	23.7%
Adult Surgical	64	11.9%
Ambulatory Surgical	11	2.1%
Cardiac Care	19	3.5%
Cardiac Cath Lab	0	0.0%
Diagnostic Services	7	1.3%
Emergency Department	18	3.4%
Medical ICU	62	11.6%
Neonatal ICU	0	0.0%
Obstetrical/Gynecological	9	1.7%
Operating Room	61	11.4%
Other	36	6.7%
Outpatient Services	29	5.4%
Pediatrics	5	0.9%
Psychiatric	30	5.6%
Rehabilitative Services	9	1.7%
Surgical ICU	46	8.6%
Two events involved 2 patients each.		

Appendix B. Counts and Crosswalk of Adverse Event Codes 2012-2013

Old Event Code 2012	Old Description 2012	New Event Code 2013	New Description 2013	Reports 2012	Reports 2013
1A	Surgery performed on the wrong body part	NQF 1A	Surgery performed on the wrong site	9	13
1B	Surgery performed on the wrong patient	NQF 1B	Surgery performed on the wrong patient	0	1
1C	Wrong surgical procedure performed on a patient	NQF 1C	Wrong surgical procedure performed on a patient	2	1
1D	Retention of a foreign object in a patient after surgery or other procedure	NQF 1D	Retention of a foreign object in a patient after surgery or other procedure	12	25
1E	Intraoperative or immediate post-operative death in an ASA class I patient	NQF 1E	Intraoperative or immediate postoperative/ postprocedure death in an ASA class I patient	0	0
2A	Patient death or serious disability associated with the use of contaminated drugs, devices, or biologics provided by the healthcare facility	NQF 2A	Patient death or serious injury associated with the use of contaminated drugs, devices, or biologics provided by the healthcare setting	0	0
2B	Patient death or serious disability associated with the use or function of a device in patient care in which the device is used or functions other than as intended	NQF 2B	Patient death or serious injury associated with the use or function of a device in patient care in which the device is used or functions other than as intended	2	3
2C	Patient death or serious disability associated with intravascular air embolism that occurs while being cared for in a healthcare facility	NQF 2C	Patient death or serious injury associated with intravascular air embolism that occurs while being cared for in a healthcare setting	1	0
3A	Infant discharged to the wrong person	NQF 3A	Discharge or release of a patient/resident of any age, who is unable to make decisions, to other than an authorized person	0	0
3B	Patient death or serious disability associated with patient elopement (disappearance) for more than four hours	NQF 3B	Patient death or serious injury associated with patient elopement (disappearance)	0	1
3C	Patient suicide, or attempted suicide resulting in serious disability, while being cared for in a healthcare facility	NQF 3C	Patient suicide, attempted suicide, or self-harm that results in serious injury, while being cared for in a healthcare setting	1	5
4A	Patient death or serious disability associated with a medication error (e.g., errors involving the wrong drug, wrong dose, wrong patient, wrong time, wrong rate, wrong preparation or wrong route of administration)	NQF 4A	Patient death or serious injury associated with a medication error (e.g., errors involving the wrong drug, wrong dose, wrong patient, wrong time, wrong rate, wrong preparation or wrong route of administration)	3	6
4B	Patient death or serious disability associated with a hemolytic reaction due to the administration of ABO-incompatible blood or blood products	NQF 4B	Patient death or serious injury associated with unsafe administration of blood products	0	0
4C	Maternal death or serious disability associated with labor or delivery in a low-risk pregnancy while being cared for in a healthcare facility	NQF 4C	Maternal death or serious injury associated with labor or delivery in a low-risk pregnancy while being cared for in a healthcare setting	0	2
4D	Patient death or serious disability associated with hypoglycemia, the onset of which occurs while the patient is being cared for in a healthcare facility	see NQF 4A	Included in medication error, NQF 4A	0	
4E	Death or serious disability (kernicterus) associated with failure to identify and treat hyperbilirubinemia in neonates	NQF 4I	Included in additional specifications of a new event, failure to follow up or communicate clinical information, NQF 4I	0	2
4F	Stage 3 or 4 pressure ulcers acquired after admission to a healthcare facility	NQF 4F	Any Stage 3, Stage 4, or unstageable pressure ulcer acquired after admission/ presentation to a healthcare setting	51	277
4G	Patient death or serious disability due to spinal manipulative therapy		Retired		
4H	Artificial insemination with the wrong donor sperm or wrong egg	NQF 4G	Artificial insemination with the wrong donor sperm or wrong egg	0	0
		NQF 4H	Death or serious injury resulting from irretrievable loss of an irreplaceable biological specimen		3

Appendix B (cont.). Counts and Crosswalk of Adverse Event Codes 2012-2013

Old Event Code	Old Description 2012	New Event Code	New Description 2013	Reports 2012	Reports 2013
5A	Patient death or serious disability associated with an electric shock while being cared for in a healthcare facility	NQF 5A	Patient or staff death or serious injury associated with an electric shock in the course of a patient care process in a healthcare setting	0	0
5B	Any incident in which a line designated for oxygen or other gas to be delivered to a patient contains the wrong gas or is contaminated by toxic substances	NQF 5B	Any incident in which systems designated for oxygen or other gas to be delivered to a patient contains no gas, the wrong gas, or are contaminated by toxic substances	0	1
5C	Patient death or serious disability associated with a burn incurred from any source while being cared for in a healthcare facility	NQF 5C	Patient death or serious injury associated with a burn incurred from any source in the course of a patient care process in a healthcare setting	1	0
5D & 7B	Patient death or serious injury associated with a fall while being cared for in a healthcare facility	NQF 4E	Patient death or serious injury associated with a fall while being cared for in a healthcare setting	76	90
5E	Patient death or serious disability associated with the use of restraints or bedrails while being cared for in a healthcare facility	NQF 5D	Patient death or serious injury associated with the use of physical restraints or bedrails while being cared for in a healthcare setting	1	1
		NQF 6A	Death or serious injury of a patient or staff associated with the introduction of a metallic object into the MRI area.		0
6A	Any instance of care ordered by or provided by someone impersonating a physician, nurse, pharmacist, or other licensed healthcare provider	NQF 7A	Any instance of care ordered by or provided by someone impersonating a physician, nurse, pharmacist, or other licensed healthcare provider	0	2
6B	Abduction of a patient of any age	NQF 7B	Abduction of a patient/resident of any age	0	1
6C	Sexual assault on a patient within or on the grounds of a healthcare facility	NQF 7C	Sexual abuse/assault on a patient or staff member within or on the grounds of a healthcare setting	7	4
6D	Death or significant injury of a patient or staff member resulting from a physical assault (i.e.battery) that occurs within or on the grounds of a healthcare facility	NQF 7D	Death or serious injury of a patient or staff member resulting from a physical assault (i.e.battery) that occurs within or on the grounds of a healthcare setting	2	3
7A	Perforations during open, laparoscopic and/or endoscopic procedures resulting in death or serious disability	CT 1	Perforations during open, laparoscopic and/or endoscopic procedures resulting in death or serious injury.	55	79
7B	See event code 5D & 7B*	see NQF 4E			
7C	Obstetrical events resulting in death or serious disability to the neonate	NQF 4D	Death or serious injury of a neonate associated with labor or delivery in a low-risk pregnancy	4	1
7D	Significant medication reactions resulting in death or serious disability		Retired	0	
7E	Laboratory or radiologic test results not reported to the treating practitioner or reported incorrectly which result in death or serious disability due to incorrect or missed diagnosis in the emergency department	see NQF 4I	Included in additional specifications of a new event, failure to follow up or communicate clinical information, NQF 4I	0	
7F	Nosocomial infections resulting in death or serious injury		Retired. Many of these are reportable to the HAI program.	3	
7G	Patient death or serious disability as a result of surgery	CT 2	Patient death or serious injury as a result of surgery	14	13
			Total Reports	**244**	**534**

Appendix C. Connecticut Adverse Events in 2013
Most Frequently Reported Events
NQF List (1A-7D) and Connecticut-Specific List (CT1 & CT2)

Event	Description	Frequency	Percent of All Events
4F	Unstageable, stage 3 or 4 pressure ulcers acquired after admission to a healthcare facility	277	51.9%
4E	Patient death or serious injury associated with a fall while being cared for in a healthcare facility	90	16.9%
CT1	Perforations during open, laparoscopic and/or endoscopic procedures resulting in death or serious disability	79	14.8%
1D	Retention of a foreign object in a patient after surgery or other procedure	25	4.7%
CT2	Death or serious injury associated with surgery	13	2.4%
1A	Surgery performed on the wrong body part	13	2.4%
All other reported adverse events		37	6.9%
Total		**534**	**100.0%**

Category definitions and numbering changed between 2012 and 2013

Appendix D. Adverse Event Reports by Event Type
Acute Care Hospitals. Connecticut, 2013.

	Adverse Event Reports by Event Type																														
Hospital	1A	1B	1C	1D	1E	2A	2B	2C	3A	3B	3C	4A	4B	4C	4D	4E	4F	4G	4H	4I	5A	5B	5C	5D	6A	7A	7B	7C	7D	CT1	CT2
Backus																1	2														
Bridgeport				3								2				6	8													3	1
Bristol				1												2	3													3	
CCMC	1																													1	1
Danbury				2								1		1		5	39											1		5	
Day Kimball	1			1										1																4	
Dempsey				1							2					3	3									1					
Greenwich																1	1													1	
Griffin																1	1													6	
Hartford				4						1						8	48													7	
Hungerford				1																											
HOCC	1		1	1												7	10													7	1
Johnson																2	1									1					
L & M	1															2			1	1									1	2	1
Manchester											1	1				2	5														
Middlesex																3	4													2	
Milford																	1														
MidState	1											1				5														4	2
New Milford																1	4														
Norwalk				1												1	5		1											3	
Rockville																1	1			1											
St Francis	1			3			1									5	31													6	1
St Mary's	1															2														2	1
St Vincent's				2												5	18							1			1	2	1	1	2
Sharon																1															
Stamford				1												3	4														
Waterbury																1	5					1								2	1
Windham				2												3	1														
Yale-NH	3	1		1			2				1	1				5	70		1									1		8	
All Acute Care	10	1	1	24	0	0	3	0	0	1	4	6	0	2	0	76	265	0	3	2	0	1	0	1	0	2	1	4	2	67	11

Notes: Event categories changed between 2012 and 2013, e.g old 5D is new 4E (falls); old 7A is new CT1 (perforations during surgery).
St Raphael merged with Yale-New Haven and appears under Yale

Appendix D (continued).
Adverse Event Reports and Rates
Acute Care Hospitals. Connecticut, 2013.

Hospital	Reports Total	Patient Days* FY 2013	Rate per 100,000 Pt Days*
William W. Backus Hospital	3	47,194	6.4
Bridgeport Hospital	23	97,310	23.6
Bristol Hospital	9	29,383	30.6
Connecticut Children's Medical Center	3	45,080	6.7
Danbury Hospital	54	86,010	62.8
Day Kimball Healthcare	7	17,174	40.8
John Dempsey Hospital	10	40,133	24.9
Greenwich Hospital	3	26,441	11.3
Griffin Hospital	8	30,303	26.4
Hartford Hospital	68	230,121	29.5
Charlotte Hungerford Hospital	1	26,163	3.8
Hospital of Central Connecticut	28	75,320	37.2
Johnson Memoral Hospital	4	15,485	25.8
Lawrence and Memorial Hospital	9	64,383	14.0
Manchester Memorial Hospital	9	46,216	19.5
Middlesex Hospital	9	59,170	15.2
Milford Hospital	1	13,203	7.6
MidState Medical Center	13	41,652	31.2
New Milford Hospital	5	6,359	78.6
Norwalk Hospital	11	57,970	19.0
Rockville General Hospital	3	12,234	24.5
Saint Francis Hospital	48	157,862	30.4
Saint Mary's Hospital	6	51,252	11.7
Saint Vincent's Medical Center	33	120,121	27.5
Sharon Hospital	1	6,640	15.1
Stamford Hospital	8	68,373	11.7
Waterbury Hospital	10	55,011	18.2
Windham Community Memorial Hospital	6	17,128	35.0
Yale-New Haven Hospital	94	410,352	22.9
All Acute Care Hospitals	487	1,954,043	24.9

* Inpatient patient days are used as rate denominators

Appendix E. Adverse Event Reports by Event Type and Rates per 100,000 Inpatient Days, Chronic Disease Hospitals and Hospice. Connecticut, 2013.

	Adverse Event Reports by Event Type																														
Facility	1A	1B	1C	1D	1E	2A	2B	2C	3A	3B	3C	4A	4B	4C	4D	4E	4F	4G	4H	4I	5A	5B	5C	5D	6A	7A	7B	7C	7D	CT1	CT2
Ct Hospice																															
Gaylord																2	2														
Hsp Special Care																	7														
Masonicare																															
Mount Sinai																	2														
Veterans																	1														
Hebrew Home																6													1		
Chronic Disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	12	0	0	0	0	0	0	0	0	0	0	0	1	0	0

Note: Event definitions and categories changed between 2012 and 2013; old 5D is new 4E (falls); old 7A is new CT1 (perforations during surgery).

Facility	Reports Total	Patient Days 2013	Rate per 100,000 Pt Days
The Connecticut Hospice	0	12,080	0.0
Gaylord Hospital	4	41,438	9.7
The Hospital for Special Care	7	71,957	9.7
Masonicare Health Center	0	3,788	0.0
Mount Sinai Rehabilitation Hospital*	2	9,378	21.3
Levitow Veterans Health Center	1	40,880	2.4
Hebrew Home and Hospital	7	8,830	79.3
All Chronic Disease Hospitals	21	188,351	11.1
*denominator data are FY 2013			

Appendix F. Adverse Event Reports by Event Type and Rates per 100,000 Inpatient Days
Hospitals for Mentally Ill Persons. Connecticut, 2013.

	Adverse Event Reports by Event Type																														
Facility	1A	1B	1C	1D	1E	2A	2B	2C	3A	3B	3C	4A	4B	4C	4D	4E	4F	4G	4H	4I	5A	5B	5C	5D	6A	7A	7B	7C	7D	CT1	CT2
Natchaug											1																				
Silver Hill																															
Masonicare																5															
Mental Health	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: Event definitions and categories changed between 2012 and 2013; old 5D is new 4E (falls); old 7A is new CT1 (perforations during surgery).

		Patient	Rate per
	Reports	Days	100,000
Facility	Total	2013	Pt Days
Natchaug Hospital*	1	19,148	5.2
Silver Hill Hospital**	0	13,154	0.0
Masonicare Behavioral Health	5	10,190	49.1
All Hospitals for Mentally Ill Persons	6	42,492	14.1
*denominator data are FY 2013			
** FY is March 2013-February 2014			

Appendix G. Adverse Event Reports by Event Type for Ambulatory Surgical Centers, Pain Medicine Centers, Fertility Centers, and Childbirth Centers. Connecticut, 2013.

	Adverse Event Reports by Event Type																															
Facility	1A	1B	1C	1D	1E	2A	2B	2C	3A	3B	3C	4A	4B	4C	4D	4E	4F	4G	4H	4I	5A	5B	5C	5D	6A	7A	7B	7C	7D	CT1	CT2
Ct Childbirth & Women																															
Aesthetic Surg Center																															
Brucato Plastic Surgery																															
Center for Adv Reprod																1															
Center for Ambul Surg																															
Central Ct Endoscopy																														1	
Coastal Digestive Care																														1	
Ct Center for Plast Surg																															
Ct Eye, South																															
Connecticut Fertility																															
Connecticut Foot																															
Ct Surgery																															
Ct Surgical Arts																															
Constitution Surg, East	1																														
Ct GI Endoscopy																															
Ct Orthopaedic																															
Danbury Surgical																														1	
Darien Medical Arts																															
Diagnostic Endoscopy				1											1															2	
Digestive Dis Endosc																														1	
Dr. Felice Youth Images																															
Eastern Ct Endoscopy																															
Endoscopy Center of Ct																														1	
Endoscopy, Fairfield																															
Endoscopy, Northwest																														1	
Evergreen Endoscopy																															
Eye Surgery Center																															
Fairfield Endoscopy																															
Fairfield Surgery																															
Gary J. Price, M.D.																															
Glastonbury Endoscopy																															
Glastonbury Surgery																															
Hand Center of West Ct																															
Hartford Surgical																															1
John J. Borkowski, M.D.																															
Laser and Vision Surg																															
Leif O. Nordberg, M.D.																															
Litchfield Hills Surgery	2																														
Middlesex Orthopedic																															
Middlesex Endoscopy																														1	
Naugatuck Endoscopy																															
New England Fertility																															
New Vision Cataract																															
North Haven Surgery																															
Norwalk Surgery																															
Orthopaedic Neurosurg																															
Orthopedic Associates																															
Plast Surg of South Ct																															
Reproductive Medicine																															
Robbins Eye																															
St Francis GI Endosc																														2	
Shoreline Colonoscopy																															
Shoreline Surgery																														1	
Split Rock Surgical																															
SSC II																															
Summer St Ambulatory																															
Surg Center Fairfield																															1
Surg Center-Ct Hand																															
Waterbury Outpatient																															
Wilton Surgery																															
Yale Health Services																															
All Ambulatory Facilities	3	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	12	2

Notes: Event definitions and categories changed between 2012 and 2013, e.g old 5D is new 4E (falls); old 7A is new CT 1 (perforations during surgery).

Appendix G (continued). Adverse Event Reports and Rates, Outpatient Visits for Ambulatory Surgical Centers, Pain Medicine Centers, Fertility Centers, and Childbirth Centers, Connecticut, 2013.

Facility	Location	Reports Total	Patient Visits 2013	per 100,000 Pt visits Rate 2013
Connecticut Childbirth & Women's Center[1]	Danbury	0	130	0.0
Aesthetic Surgery Center[1]	New Haven	0	29	0.0
Center for Advanced Reproductive Services	Farmington	1	16,474	6.1
Central Connecticut Endoscopy Center	Plainville	1	6,577	15.2
Coastal Digestive Care Center	New London	1	6,527	15.3
Connecticut Center for Plastic Surgery	Guilford	0	53	0.0
Connecticut Eye Surgery Center South	Milford	0	7,059	0.0
Connecticut Fertility	Bridgeport	0	215	0.0
Connecticut Foot Surgery Center[1]	Milford	0	471	0.0
Connecticut Orthopaedic Specialist	Hamden	0	3,910	0.0
Connecticut Surgery Center LP	Hartford	0	4,231	0.0
Constitution Eye Surgery Center East	Waterford	1	5,763	17.4
CT GI Endoscopy Center	Bloomfield	0	5,262	0.0
Danbury Surgical Center	Danbury	1	8,470	11.8
Diagnostic Endoscopy	Stamford	4	6,570	60.9
Digestive Disease Associates Endoscopy Suite	Branford	1	2,199	45.5
Dr. Felice's Youthful Images	Bloomfield	0	112	0.0
Eastern Connecticut Endoscopy Center	Norwich	0	4,489	0.0
Endoscopy Center of Connecticut	Guilford/Hamden	1	7,568	13.2
Endoscopy Center of Fairfield, The	Fairfield	0	8,004	0.0
Endoscopy Center of Northwest Connecticut	Torrington	1	3,467	28.8
Evergreen Endoscopy Center	South Windsor	0	5,137	0.0
Eye Surgery Center, The	Bloomfield	0	1,579	0.0
Fairfield County Endoscopy Center	Trumbull	0	5,069	0.0
Fairfield Surgery Center	Fairfield	0	1,228	0.0
Gary J. Price, M.D., Center for Aesthetic Surgery	Guilford	0	214	0.0
Glastonbury Endoscopy Center, LLC	Glastonbury	0	4,832	0.0
Glastonbury Surgery Center	Glastonbury	0	3,822	0.0
Gregory Brucato, M.D./Brucato Plastic Surgery	Ridgefield	0	65	0.0
Hartford Surgical Center	Hartford	1	1,380	72.5
John J. Borkowski, M.D.	Middletown	0	40	0.0
Laser and Vision Surgery Center	Manchester	0	1,507	0.0
Leif O. Nordberg, M.D.	Stamford	0	46	0.0
Litchfield Hills Surgery Center	Torrington	2	2,024	98.8
Middlesex Center for Advanced Orthopedic Surgery	Middletown	0	3,836	0.0
Middlesex Endoscopy Center	Middletown	1	6,163	16.2
Naugatuck Valley Endoscopy Center	Waterbury	0	2,879	0.0
New England Fertility Institute	Stamford	0	341	0.0
New Vision Cataract Center	Norwalk	0	2,078	0.0
North Haven Surgery/Pain Medicine Center	North Haven	0	2,963	0.0
Norwalk Surgery Center	Norwalk	0	2,716	0.0
Orthopaedic & Neurosurgery Center of Greenwich	Greenwich	0	1,035	0.0
Orthopedic Associates Surgery Center	Rocky Hill	0	7,611	0.0
Plastic Surgery of Southern Connecticut	Westport	0	33	0.0
Reproductive Medicine Associates of Connecticut	Norwalk	0	758	0.0
River Valley Ambul Surg (Conn Surg Arts)	Norwich	0	336	0.0
Robbins Eye Center	Bridgeport	0	1,148	0.0
Saint Francis GI Endoscopy	Windsor	2	5,437	36.8
Shoreline Colonoscopy Suites	Old Saybrook	0	750	0.0
Shoreline Surgery Center	Guilford	1	6,295	15.9
Split Rock Surgical Associates	Wilton	0	176	0.0
SSC II	Guilford	0	4,004	0.0
Summer Street Ambulatory Surgery Center	Stamford	0	58	0.0
Surgery Center of Fairfield County	Bridgeport	1	4,022	24.9
Surgical Center of CT-CT Hand	Bridgeport	0	750	0.0
Waterbury Outpatient Surgical Center	Waterbury	0	2,244	0.0
Western CT Ortho Surgical Ctr (formerly Hand Ctr)	Danbury	0	656	0.0
Wilton Surgery Center	Wilton	0	6,745	0.0
Yale University Health Services ASC	New Haven	0	1,086	0.0
All Facilities		20		

[1] CY 2012 visits data

Appendix H.
Primary Payer (%) of Inpatient Hospital Bills
Acute Care Hospitals. Connecticut, FY 2013.

Hospital	Self Pay	Medicare	Medicaid	Blue Cross and Commercial	No Charge	HMO	PPO	Other
William W. Backus Hospital	1.5	45.9	20.5	16.1	0.0	11.9	0.0	4.2
Bridgeport Hospital	1.2	39.0	31.0	15.4	0.0	10.5	1.9	1.0
Bristol Hospital	1.9	48.1	21.6	19.1	0.0	8.7	0.0	0.7
Connecticut Children's Medical Center	0.7	0.3	52.6	13.4	0.2	26.5	5.2	1.1
Danbury Hospital	0.7	41.0	19.1	36.2	0.0	2.2	0.0	0.7
Day Kimball Healthcare	1.1	42.5	27.7	15.7	0.0	7.2	0.0	5.9
John Dempsey Hospital	0.8	44.6	24.6	17.5	0.0	10.0	0.2	2.3
Greenwich Hospital	2.1	41.5	6.2	20.3	0.0	25.3	4.2	0.4
Griffin Hospital	2.5	49.9	18.8	13.6	0.0	14.5	0.0	0.8
Hartford Hospital	2.0	41.3	21.1	11.6	0.0	18.4	3.6	2.0
Charlotte Hungerford Hospital	2.8	53.8	18.3	15.0	0.0	8.5	0.7	1.0
Hospital of Central Connecticut	1.4	46.9	25.6	13.2	0.0	12.0	0.1	0.8
Johnson Memoral Hospital	2.1	52.9	17.8	15.7	0.0	7.1	3.5	1.0
Lawrence and Memorial Hospital	0.5	45.3	21.6	24.2	0.0	0.1	0.0	8.3
Manchester Memorial Hospital	2.9	40.9	21.7	6.9	0.0	17.8	8.7	1.1
Middlesex Hospital	0.0	50.9	17.0	17.7	0.0	9.9	3.3	1.2
Milford Hospital	2.1	61.1	7.5	14.9	0.0	11.6	1.4	1.4
MidState Medical Center	2.9	49.9	20.9	8.9	0.0	13.9	2.6	1.0
New Milford Hospital	2.1	60.1	11.5	9.9	0.0	12.4	2.2	1.8
Norwalk Hospital	3.9	40.4	19.4	24.8	0.0	11.0	0.1	0.5
Rockville General Hospital	2.2	66.8	10.9	4.4	0.0	9.8	4.7	1.3
Saint Francis Hospital	0.7	44.2	24.2	13.6	0.0	13.6	2.7	1.1
Saint Mary's Hospital	3.7	44.3	26.4	16.7	0.0	6.3	0.2	2.4
Saint Vincent's Medical Center	5.3	45.5	21.5	14.0	0.0	9.9	3.1	0.8
Sharon Hospital	4.6	60.5	13.3	8.0	0.0	13.0	0.0	0.5
Stamford Hospital	1.0	34.5	26.6	20.0	0.0	17.5	0.0	0.4
Waterbury Hospital	1.4	44.6	27.7	13.8	0.0	9.2	2.4	0.9
Windham Community Memorial Hospital	1.6	51.5	22.8	17.5	0.0	2.4	0.0	4.3
Yale-New Haven Hospital	0.6	35.6	27.9	20.0	0.1	10.7	3.6	1.5
Total	1.6	42.1	23.7	17.1	0.0	11.6	2.3	1.6

Data Source: DPH Office of Health Care Access.

Appendix H (continued).
Primary Payer (%) of Bills,
Hospices, Chronic Disease Hospitals, and Hospitals for Mentally Ill Persons.
Connecticut, 2013.

Facility	Self Pay	Medicare	Medicaid	Blue Cross and Commercial	Other
The Connecticut Hospice		100.0			
Gaylord Hospital		53.9	15.8	27.8	2.5
The Hospital for Special Care		11.0	76.0	13.0	
Masonicare Health Center, Chronic Disease Hospital		95.2		4.8	
Mount Sinai Rehabilitation Hospital*	0.6	37.6	17.6	18.3	25.9
Levitow Veterans Health Center	2.7	16.1	69.6		11.6
Hebrew Home and Hospital		85.0	5.3		9.7
Natchaug Hospital*	0.5	14.5	36.6	39.4	9.0
Silver Hill Hospital**	3.0	7.0		90.0	
Masonicare Behavioral Health		85.4		14.6	

VA Medicaid includes 63.3% with Medicare and Medicaid, 6.3% Medicaid only

* FY 2013

** March 2013-February 2014

Appendix H (continued). Case Mix or Primary Payer (%) of Bills
Ambulatory Surgical Centers, Pain Medicine Centers, Fertility Centers, and Outpatient Childbirth Centers.
Connecticut, 2013.

Facility	Case Mix	Self Pay	Medicare	Medicaid	Blue Cross and Commercial	Other
Connecticut Childbirth & Women's Center[4]		7.0		10.0	83.0	
Aesthetic Surgery Center[4]		50.0			50.0	
Center for Advanced Reproductive Services					99.0	1.0
Central Connecticut Endoscopy Center			31.3	2.0	66.7	
Coastal Digestive Care Center		6.0	19.0	10.0	63.0	2.0
Connecticut Center for Plastic Surgery		100.0				
Connecticut Eye Surgery Center South		1.0	48.0	2.0		48.0
Connecticut Fertility	100% fertility					
Connecticut Foot		1.0	20.0	4.0	70.0	1.0
Connecticut GI Endoscopy[4]			21.6		78.1	
Connecticut Orthopaedic		1.0	15.0	1.0	58.0	25.0
Connecticut Surgery		1.0	17.0	9.0	56.0	17.0
Connecticut Surgical Arts/River Valley		30.0	5.0		65.0	
Constitution Surg, East		1.0	31.0	2.0	49.0	18.0
Danbury Surgical	40% GI/32% Ortho/20% ophtham/8% Pain					
Diagnostic Endoscopy	5544 colon/2662 EGD/66 sig					
Digestive Dis Endosc			>50		<50	
Dr. Felice Youth Images		100.0				
Eastern Connecticut Endoscopy Center[1]		17.0	18.0		81.0	
Endoscopy Center of Ct			30.0	10.0	35.0	25.0
Endoscopy, Fairfield			20.0		75.0	5.0
Endoscopy, Northwest	100% gastroenterology					
Evergreen Endoscopy			18.7	3.6	77.7	
Eye Surgery Center		12.0	49.0	3.0	35.0	1.0
Fairfield Endoscopy[4]			17.0	2.0		81.0
Fairfield Surgery[4]			0.0		0.7	0.3
Gary J. Price, M.D.		100.0				
Glastonbury Endoscopy[4]			17.5	1.1	81.3	
Glastonbury Surgery[3 5]			12.0		45.0	43.0
Gregory Brucato, M.D./Brucato Plastic Surgery	100% cosmetic					
Hartford Surgical		2.0	8.0	6.0	84.0	
John J. Borkowski, M.D.		100.0				
Laser and Vision Surg	100% ophthamology					
Leif O. Nordberg, M.D.		100.0				
Litchfield Hills Surgery			29.5		40.0	30.0
Middlesex Orthopedic			19.0	6.0	59.0	16.0
Middlesex Endoscopy		1.0	22.0	6.0	72.0	
Naugatuck Valley Endoscopy Center[1]			26.0	2.0	72.0	
New England Fertility Institute		90.0				10.0
New Vision Cataract[4]			47.0	5.0	47.0	
North Haven Surgery			24.0	25.0	47.0	2.0
Norwalk Surgery		1.0	24.0	1.0	71.0	2.0
Orchard Medical Center		25.0			75.0	
Orthopaedic Neurosurg		1.0	31.0		58.0	10.0
Orthopedic Associates Surgery Center[2 5]		4.0	16.0			81.0
Plastic Surg of South Ct[4]		0.9			0.1	
Reproductive Medicine		20.0			80.0	
Robbins Eye		25.0	22.0	25.0	28.0	
Saint Francis GI Endosc[4]			0.2	0.0		0.8
Shoreline Colonoscopy	100% endoscopy					
Shoreline Surgery		0.5	17.5	3.8	76.3	2.5
Split Rock Surgical		100.0				
SSC II		5.3	25.5	2.3	56.0	11.0
Summer St Ambulatory[4]		99.0				1.0
Surgical Center Fairfield		1.0	10.0	3.0	75.0	11.0
Surgical Center of CT-CT Hand[4]		0.0	0.2	0.0	0.3	51.3
Waterbury Outpatient		1.0	71.0	11.0	15.0	2.0
Western CT Ortho Surgical Ctr (was Hand Center)[4]			22.0			78.0
Wilton Surgery			48.0		50.0	2.0
Yale Health Services						100.0

[1] CY 2011 data [2] FY 2012 data [3] combines Medicare/Medicaid [4] CY 2012 data [5] combines self pay/commercial

Appendix I: Comments Submitted by Facilities

In accordance with legislation, facilities that are required to report adverse events to the Connecticut DPH may submit comments to DPH for inclusion in the annual report to the legislature. Submitting comments is OPTIONAL, not required. DPH encourages comments describing how a facility used data to measure or track adverse events or quality of care and measurably improve care or decrease adverse events. Do not list awards.

Facilities providing comments:

Charlotte Hungerford Hospital
Middlesex Hospital
Saint Mary's Hospital
Yale-New Haven Hospital, Bridgeport Hospital, and Greenwich Hospital
Griffin Hospital
Day Kimball Healthcare
Sharon Hospital
Diagnostic Endoscopy
Saint Vincent's Health Services
Danbury Hospital, New Milford Hospital, and Norwalk Hospital
Saint Francis Hospital and Medical Center
Connecticut Eye Surgery Center South
Connecticut Foot Surgery Center

Comments Submitted by Facilities, continued

Charlotte Hungerford Hospital

At Charlotte Hungerford Hospital we strive to fulfill our mission by providing care that can be characterized as:

1) **Safe** – avoiding injuries to patients from the care that is intended to help them;

2) **Effective** – providing services based on scientific knowledge to those who would benefit, and refraining from providing services to those not likely to benefit;

3) **Patient centered** – providing care that is respectful of, and responsive to, individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions;

4) **Timely** – reducing waits and potentially harmful delays;

5) **Efficient** – avoiding waste, including waste of equipment, supplies, ideas and energy;

6) **Equitable** – providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

In reviewing our most recent Adverse Event data, our areas of concern are limited to two main subject areas: Patient Falls and Wound Care. In an effort to address these challenges, and focus on the standards set above, CHH utilized several strategies, including:

1) In CY 13, CHH staff and physicians continued their work with the Partnership for Patients initiative coordinated by the Center for Medicare and Medicaid Services. This effort shows our continued commitment to the program and to working to decrease adverse events and never events.

2) In CY 13, CHH continued multiple projects with its Hospital Engagement Network through the Voluntary Hospital Association, which is effectively reducing patient falls with injury.

3) In CY 13, CHH continued its active Falls Prevention Task Force which is led by nursing. The task force reviews all falls, collects and analyzes data, and provides feedback and improvement recommendations to management and clinical staff.

4) In CY 13, CHH continued its ongoing focus on wound prevention. The hospital has a full-time, board certified Wound and Ostomy Nurse who has effectively been integrated as part of our healthcare team.

5) In CY 13, CHH purchased state of the art preventative dressings based on evidence-based practice and research to aid in the prevention of pressure ulcers.

6) In CY 13, CHH replaced all beds and mattresses, and instituted air mattress pumps on every bed.

7) In CY 13, CHH staff participated in a quarterly pressure ulcer incidence and prevalence study by an outside firm. This study resulted in a finding that CHH has decreased the number of wounds developed within our facility, including a decrease in hospital acquired pressure ulcers (CY 13 = 1.9% HAPU rate, well below national benchmarks)

Comments Submitted by Facilities, continued

In addition to the above strategies, the CHH staff have been engaged in Culture of Caring initiative that has become in essence our practice model. Nurses, physicians and staff are working together as a care team to revamp our performance improvement and quality program and to create a patient safety award program. Internal and external dashboards of quality have been created to increase transparency of information, not only with our staff and physicians, but also with the communities we serve.

Middlesex Hospital

First and foremost, to the people who have been affected by an adverse event at Middlesex Hospital, and to their family members and loved ones, we are deeply sorry for the negative impact such an event may have had on your lives or well being.

The leadership, employees, and medical staff of Middlesex Hospital recognize that our purpose is to provide the members of our community and the people we serve with the highest quality and safest health care possible, while also providing an excellent experience. Therefore, we take any event that does or could result in harm to a patient or staff member very seriously. We strive to eliminate any such events that are preventable from happening.

While there are no perfect health care systems, our goal is to eliminate all preventable harm. Thus, any time an adverse event does occur, we investigate very carefully to understand why it occurred and what we need to do to prevent any such similar event from happening again in the future. In addition, we are continuously evaluating our systems of providing care to determine if there are any inherent issues that could result in a possible adverse event, so that we can make changes that will reduce, and ultimately eliminate, the possibility of an adverse event occurring.

We also recognize that the culture of an organization has as much to do with how safe it is as any specific strategy, so we regularly evaluate our safety culture and use that information to devise strategies and plans to improve that culture.

Through leadership directed toward safety, quality, and a great experience for our patients and their families, we continually focus on our vision of being the clear choice for health care. By increasing transparency, fostering strong teamwork and communication, and intelligently harnessing the power of technology, data, and information, we work every day toward not only providing the best care possible to our community, but to the elimination of all preventable harm to our staff, visitors, and of course, our patients.

Saint Mary’s Hospital

Saint Mary’s Hospital is committed to providing safe and high quality care. In the fall of 2013 Saint Mary’s Hospital expanded our involvement with the Connecticut Hospital Association’s patient safety and reliability culture improvement collaborative by becoming a level three participant. One of the items we are currently in the process of doing is educating our entire staff on the tools and techniques that will continue to help us along our journey to eliminate preventable harm.

Comments Submitted by Facilities, continued

Yale-New Haven Hospital, Bridgeport Hospital, and Greenwich Hospital

Yale-New Haven Health System, which consists of Yale-New Haven Hospital (York Street and Saint Raphael's campuses), Bridgeport Hospital and Greenwich Hospital fully supports the transparency this report represents. We continually strive to deliver the highest quality patient care; safety of our patients is our number one priority. To that end, we participate actively in the Connecticut Hospital Association's statewide initiative to eliminate harm based on the principles of high reliability and applaud the efforts of our hospital association to tackle some of the most difficult patient safety issues facing healthcare institutions. We believe that our culture of safety, which encourages and standardizes the reporting, analysis, and implementation of requisite improvements in response to all unexpected or adverse outcomes has created a safer and more transparent healthcare environment. We actively share the information in this report throughout the System and utilize the data to guide performance improvement efforts. This is evident by the recent work at Yale-New Haven Hospital to reduce pressure ulcer prevalence. We are pleased with improvements that have been made with regard to harm reduction in Connecticut's healthcare institutions. The public can be confident that we will continually strive to improve, and in so doing, reduce the number of adverse events and increase patient safety.

Griffin Hospital

Griffin Hospital is committed to implementing a culture of safety through the implementation of the Connecticut Hospital Association's CHA's state wide initiative "Safety Starts with Me" program. This initiative teaches the science of how humans make mistakes and how with implementation of low risk behaviors, medical errors can be significantly reduced. The program emphasizes a series of error prevention tools related to five safety habits which include: Clear Communication, Effective Hand-Offs, Attention to Detail, Mentoring for 200% Accountability and Practicing and Accepting a Questioning Attitude.

Our performance improvement efforts are centered on the Institute of Medicine's six dimensions for provision of excellent care. Care must be safe, patient centered, effective, equitable, timely and efficient. To that end, our four Patient Safety Councils oversee delivery of care to our patients. The Patient Safety Council spearheads our high reliability journey as well as focuses on safety indicators such as reduction of falls, pressure ulcers, and infections. The Evidence Based Care Council ensures effective care by reviewing all protocols and clinical pathways as well as compliance with core measures. The Patient Centered Care Council continuously strives to improve our patients' experience, increase awareness of cultural diversity and equitable care as well as initiatives that enhance our Planetree Model of Care. Lastly, the Care Management Council works to improve timeliness and efficiency from admission through discharge and across transitions of care.

Our Councils consist of representation from the front line staff up through and including the medical staff and Board of Directors. The council chairpersons report to the multidisciplinary Clinical Performance Improvement Committee and the Quality Committee of the Board. The Clinical Performance Improvement co-chairs report also to the Medical Executive Committee. At Griffin, we practice transparency and disclosure with apology for adverse events and encourage our staff to report all potential safety concerns as well as untoward outcomes of care.

Our focus has been on identifying issues with the potential to cause harm as well as system based errors through the application of multiple tools. In addition to our on-line safety reporting system, clinical debriefs, system reviews, proactive risk assessments are completed to identify and correct process problems and reduce the

likelihood of experiencing adverse events. Through the review and investigation of adverse events, opportunities for improvement in processes and protocols are identified. The lessons learned are shared with all staff and all findings and the corrective action plans are reviewed and approved by the executive staff.

Day Kimball Healthcare

Day Kimball Healthcare is committed to patient safety and employs a multitude of processes to prevent adverse events. We are also steadfast and transparent in addressing events when they do occur. We take every event seriously and work to identify practices and protocols necessary to prevent similar issues in the future. Most importantly, we work diligently to provide the highest level of patient safety possible.

- Day Kimball employees regularly participate in numerous quality improvement/ patient safety committees and collaborate with external organizations to ensure best practices are instituted to prevent adverse events.
- Our quality department proactively educates our staff on patient safety topics, consistently performs reviews of operations and policies, and institutes case reviews as needed.
- Day Kimball Healthcare immediately addresses each adverse event, conducts root cause analysis and provide feedback to staff.
- Day Kimball is a Community of Care partner working on a safe and comprehensive transition of care in collaboration with Qualidigm, our skilled nursing facilities and homecare agencies.
- Day Kimball Hospital implemented the Modified Lace Tool to assist in identification of patients who may be at high risk for readmissions.
- Some patient safety initiatives include medication safety with the use of barcoding, surgical safety, computerized physician order entry and electronic medical records.
- Day Kimball conducts a thorough review of each Sentinel Event Alert from The Joint Commission in order to identify additional strategies and other opportunities for quality improvement initiatives for injuries that seem to be trending across the country.
- Day Kimball participates in Journey to High Reliability with Connecticut Hospital Association.
- In December 2013, Day Kimball achieved Primary Stroke Certification from The Joint Commission.
- In October 2013, Day Kimball Hospital had their licensure survey with The Joint Commission with no major findings.

Day Kimball Healthcare continues to be proactive in integrating best practices learned through our own experiences and comprehensive analyses as well as through collaborations with Connecticut Hospital Association, VHA, The Joint Commission, and CMS Partnership for Patients. We take very seriously the trust our community places in us, and commit to continuously improving patient-centered quality and safety.

Comments Submitted by Facilities, continued

Sharon Hospital

At Sharon Hospital, our mission is to provide high quality, compassionate, patient-focused care in a positive healing environment. Sharon Hospital collaborates with Qualidigm, a patient safety organization on many initiatives to improve patient safety and quality of care to develop a culture of safety. Our organization is committed to a culture of safety for our patients, our employees, and our community. Sharon participates with the Hospital Engagement Network (HEN) to reduce adverse events and readmission rates.

In 2013, Sharon Hospital partnered with Healthcare Performance Institute (HPI) to provide the framework for improving and sustaining results in safety and performance as Sharon embarks on becoming a High Reliability Organization (HRO). High Reliability Organizations focus on patient safety, take a proactive approach to eliminate potential problems and make patient safety a top priority. The goal of becoming a HRO is to eliminate system weaknesses, deliver safe, quality care and cause zero patient harm. Employees are encouraged to report events that have the potential to cause harm and be involved in prevention solutions by reviewing incidents for systematic failures. Sharon is in the process of scheduling HRO safety training for all hospital employees including providers.

Annual interdepartmental patient safety surveys and the Agency for Healthcare Research and Quality (AHRQ) patient safety surveys are used to assess the safety environment within Sharon Hospital, provide a baseline of staff perceptions, and allow for continued measurement in developing and sustaining a culture of safety.

Some of the patient safety initiatives implemented since 2012 include:

- Weekday leadership patient safety huddles to review any safety event that has occurred in the past 24 hours
- Daily leadership rounding throughout the organization to identify safety concerns
- Implemented various methods for employees to report safety concerns, including an anonymous route
- Multidisciplinary Fall Prevention team; overall fall rate has had a reduction of 39% since the HEN Partnership for Patients kicked off in 2012 and in the last six months the HEN Partnership for Patients reported a 100% reduction
- Track and trend adverse events, complete root cause analysis in a non-punitive environment, correct system processes to eliminate reoccurrences
- CPOE (computerized physician order entry) to eliminate transcription errors and verbal orders, improve throughput times
- Embraces a self-governance and patient centered care model with the inclusion of a community patient advocate participating on a hospital committee
- Implementing Bedside Medication Verification using barcoding
- Implementing Patient Portal system to allow patients online access to their healthcare

Sharon will continue to take a team approach through the collaboration of leadership, staff, medical staff, and board members to continue on improving the safety and quality of care provided to our community.

Comments Submitted by Facilities, continued

Diagnostic Endoscopy

Updated medication reconciliation form to include blood thinner products and directions for resuming. Also included use of Endoclip. The form update pleased physicians and reduced post-procedure patient calls related to bleeding, as recognized in the newsletter of pharmacist consultant Sheldon Sones.

St. Vincent's Health Services

As a pioneer in bringing the processes of high reliability and culture of safety to Connecticut hospitals, St. Vincent's continues on the journey it began in 2010 with renewed efforts to measure and evaluate data that can help improve patient outcomes. We have implemented initiatives that demand analysis, review and transformation of clinical practices. We have maintained our commitment to mandating a "high reliability" safety training program for every employee regardless of position, and for morning safety huddles as a way to communicate, and prevent possible harm.

We have empowered staff to "speak up for safety" if they see something that has the potential to be unsafe in any situation, and have encouraged a culture of "200% accountability," in which they are not only responsible for their own behaviors, but also for validating that their colleagues are practicing safe behaviors. We believe this is necessary to remain at the forefront in patient safety and quality, and to allow us to focus on our mission of creating a safe, holistic and compassionate environment in which we can deliver person-centered care.

Additionally, on May 1, 2014, St. Vincent's transitioned to a comprehensive electronic health record (EHR), called OneChart. OneChart places many safety features at the fingertips of our providers and staff, including medication administration bar coding and fully integrated patient data. This further supports our integrated approach to patient care, along with our hospitalist service, and intensive care unit fully staffed with critical care physicians.

In introducing our trans-aortic valve replacement (TAVR) procedure in February of 2013, we engaged an airline pilot and safety expert to serve as project manager. He incorporated evidenced-based practices from the high risk industry of aviation into the clinical team's protocol, so that patients are in a safe environment throughout this highly complex procedure. As a result, in one year, more than 50 patients were given a chance to improve their health.

St. Vincent's also recently initiated an electronic patient portal. The patient portal will help our patients participate more fully in their care, by providing access to their records and educational materials. St. Vincent's welcomes the participation of our patients and their representatives in all aspects of care. The successful "Care Partner" program encourages the patient to designate an individual who is included as a member of the care team, and enhances communication and patient and family well-being.

Patient safety improvements this year have focused on items identified nationally as well as locally. The risk for alarm fatigue has been addressed by conducting a house wide assessment, with modifications to our alert signals. Attention to infection prevention continues as a priority. A surgical site infection team is conducting observation and education to reduce the incidence of infection. St. Vincent's is piloting for Ascension Health a sepsis (blood infection) protocol with checklist criteria and verbal communication alert to prompt quick identification and action when sepsis is suspected, and improve outcomes. We have made significant

reductions in the risk for infection with the implementation of daily chlorhexidine baths for our critical care patients, and prompt urinary catheter discontinuation.

Fall prevention remains a high priority. A fall prevention "tool kit" has been established to assist our staff in implementing best practices for the avoidance of patient falls in the hospital.

In 2013, the state reporting requirements were revised to include the reporting of "unstageable" pressure ulcers. We remain vigilant in reducing the incidence of pressure ulcers. A dedicated certified wound and ostomy nurse consults on our patients and educates our staff and patients on pressure ulcer prevention. St. Vincent's is a member of the Ascension Health Pressure Ulcer Initiative, sharing best practices for pressure ulcer prevention with other health systems.

As St. Vincent's Medical Center led an initiative to bring high reliability organization training to Connecticut hospitals, we will now begin implementation of an advanced phase of high reliability training, with further focus on communication and simulated scenarios to strengthen teamwork, and hope to share the process with other Connecticut hospitals in the future.

Danbury Hospital, New Milford Hospital, and Norwalk Hospital

Danbury Hospital, New Milford Hospital, and Norwalk Hospital, members of Western Connecticut Health Network (WCHN), have long been focused on providing high quality, safe care to the patients in our communities. This is driven by a strong culture of accountability, best practice adoption, transparency, and accurate reporting to external agencies. With our colleagues in the state, we are engaged in the adoption of High Reliability Organization (HRO) principles, in pursuit of the elimination of all-cause preventable harm. Our hospitals have actively participated in HRO training programs at the state and national level, are completing mandatory in-house training for all staff, and are incorporating HRO principles into the daily work of the organization.

Our quality and safety goals are Board-driven and tied to performance targets that represent top 10^{th} to 25^{th} percentile national performance. Through participation in multiple voluntary national quality improvement data sharing programs in specialties such as surgery, cardiology, and nursing, to name a few, we ensure that our outcomes are comparable to the best in the country. We use these national data to judge our performance, identify opportunities for increased attention, and measure our improvement. For example, through participation in the Nursing Database of National Quality Indictors (NDNQI), we have been able to validate fall and pressure ulcer rates that compare favorably to national performance. We have certified specialists in skin care, who oversee our programs and train in-house teams to have enhanced expertise in this area. We also have dedicated fall prevention specialists and teams. Through our National Surgical Quality Improvement Program (NSQIP) database, we have been able to use patient outcome data, compared to national performance, to target those areas where we are not achieving "exemplary" surgical ratings, and then use the same database to verify that changes in practice have moved us in the right direction. Additionally, we are participating in a multi-year, national cohort program, focused on enhancing teamwork and patient safety in our operative and procedural areas.

Our internal reporting processes not only focus on capturing patient harm events, but on detecting precursor and near miss events, allowing us to make changes before something unintended occurs. Thankfully, the vast

majority of our events do not involve harm. In the unfortunate case when a patient harm event occurs, we work with the patient and their family to quickly determine what happened and take appropriate actions to meet their needs. With the recognition that healthcare has become increasingly complex, and our patients often have multiple medical conditions, we know that we must focus more than ever on system-level as well as known patient-specific factors that contribute to the risk of undesired outcomes. Lean Six Sigma methodology is utilized organization-wide, with a number of certified employees present in key areas. We take very seriously the trust our community places in us, and commit to continuously partnering with our patients and families in the pursuit of patient-centered quality and safety excellence.

Saint Francis Hospital and Medical Center

Saint Francis Hospital and Medical Center is committed to the high reliability safety culture collaborative sponsored by The Connecticut Hospital Association (CHA) in partnership with Healthcare Performance Improvement (HPI) to eliminate all cause preventable harm. Saint Francis Hospital and Medical Center is committed to becoming a High Reliability Organization (HRO) by setting the tone of safety as a core value. The hospital has worked to develop the five principals of a HRO by developing a preoccupation with failure, ongoing attention to what's happening on the front-line with interaction and information sharing; reluctance to simplify interpretations; commitment to resilience, and deference to expertise. We have worked to create consistently reliable processes, making the system as safe as possible. Over the past year, we have provided staff education that will improve and sustain safe behavior practices to deliver the best care to patients. Ongoing safety training continues with the goal of reaching all clinical and non-clinical staff beginning on the first day of orientation. Leadership safety huddles and robust patient care rounding have also been incorporated in the institution as methods to deliver the highest quality of care to our patients.

The number of Adverse Reports reported by Saint Francis Hospital in 2013 has increased due to better awareness and thereby better reporting through our patient safety education as well as the change in the reporting requirements beginning January of 2013 of unstageable pressure ulcers. Greater than 90% of our reportable events with regard to pressure ulcers are as a result of the new reporting requirement. Our focus is on the prevention of pressure ulcers. We are currently engaged in training staff members through the IHI initiative entitled, Preventing Pressure Ulcers, by looking at new strategies, tools and methods. We continue to look at all aspects of care provided to our patients to prevent and reduce the incidence of pressure ulcers.

Connecticut Eye Surgery Center South

Instituted a variety of initiatives, including time outs, pause before surgery and high reliability training.

Connecticut Foot Surgery Center

We have a debriefing before the end of surgery and identify our patients by DOB, Name and Address and mark ID band with colors for right, left or bilateral.