Freestanding ED Feasibility Assessment

Prepared for:
Contra Costa Health Services
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by:
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Martinez, CA

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Introduction

The Abaris Group was asked by Contra Costa Health Services to assess the feasibility of establishing a freestanding emergency department (FED) in the western area of the county due to the possible closure of Doctors Medical Center, San Pablo (DSP). The methodology included meetings with the county staff for input, identifying the regulatory environment surrounding FEDs in California, surveying a sample of FEDs around the country, analyzing data, and conducting a literature search.

Summary of Findings

The Abaris Group offers the following observations based on the research conducted.

- FEDs remain a viable and growing product in the US for providing emergent and urgent services that are distant from a hospital based ED.
- While there remain some barriers across the country, most FEDs do accept EMS traffic from the field.
- The review of the data suggests that a large percent of ED patients at DSP lend themselves to utilizing an FED.
- While it is possible that a patient requiring hospital admission would arrive at a FED, these numbers appear to be a small percent of the total FED volume (less than 9 percent). The practice of FEDs throughout the country is to move these patients to a hospital through 911 or a contract interfacility transport provider.
- There are challenges to establishing an FED in California from a statutory and regulatory standpoint, but the possibility exists with the further exploration of "program flexibility" and the waiver of regulations.

State Licensing and Regulation

Licensing and regulation of hospitals is conducted by the California Department of Public Health (DPH). Contact was made with Erica Eisenlauer, a Legislative Coordinator with the Office of Legislative & Governmental Affairs (erica.eisenlauer@cdph.ca.gov). Her office [1] sent a detailed email (see Attachment 1) pertaining to FEDs and statutory and regulatory parameters that exist in California.

While the California Code of Regulations (CCR) states that an emergency center must be housed in a hospital, the DPH does allow for some "program flexibility" based on special circumstances. This enables licensed health facilities to apply for and receive permission for new models of providing care. DPH also states in their correspondence that exceptions can be made to requirements defined in California regulation. However, if the proposed model does not meet California and Federal "law," a program exception cannot be granted.

[1] Cassie Dunham, Policy Section Chief, cassie.dunham@cdph.ca.gov, Chelsea Driscoll, Non-Long Term Care Policy Manager, chelsea.driscoll@cdph.ca.gov, Monica Wagoner, Deputy Director, monica.wagoner@cdph.ca.gov.

There are nine key requirements that are defined in California statute and regulation that pertain to the FED question.

1. Be staffed and equipped at all times to provide prompt care for any patient presenting urgent medical problems.
2. Have ready access to all necessary (hospital) services.
3. Be able to provide intensive care service with adequate monitoring and therapeutic equipment.
4. Have laboratory service with the capability of performing blood gas analysis and electrolyte determinations.
5. Have radiological service capable of providing necessary support for emergency services.
6. Have surgical services immediately available for life-threatening situations.
7. Have postanesthesia recovery service.
8. Have readily available the services of a blood bank with blood storage facilities in or adjacent to the emergency service.
9. Be overseen by a physician trained in emergency medical services 24 hours a day.

It is The Abaris Group's opinion that some of these requirements would be difficult to achieve, but not insurmountable, except number 6, which is: Have surgical services immediately available for life-threatening situations, which appears to be daunting if taken at face value. Items 4-8 are listed in 22 CCR § 70413 (http://weblinks.westlaw.com). Given the caveat provided in the email that exemptions can be made on the basis of California regulation, The Abaris Group believes there may be an alternative to this requirement (i.e., transfer agreement) in item 6. However, it is important to note that the State of California tends to be conservative in its actions on these matters.

The Abaris Group also identified a past California State Assembly Bill, AB1862, which was introduced by Assemblyman Dan Logue (District 3) in February 2012. The bill sought to amend Section 1250.9 of the California Health and Safety Code by expanding the number of miles to greater than 15 that general acute care hospitals could have physical plants maintained and operated under their license. It was stated by Assemblyman Logue's staff that the bill was requested by the California Hospital Association, specifically to address the impending closure of Martin Luther King Hospital in Los Angeles County.[2]

The previous correspondence from DPH to The Abaris Group stated that a similar section of the state statute covering this topic of hospital license (1250.8) is not applicable to the FED issue because EDs are not separately licensed health facilities, their services are provided under the hospital's license.

Of interest, the legislative aide who worked on this bill for Assemblyman Logue (Adrian Morales) explained that there were two main opponents to the bill: emergency department physicians and the California Medical Association. They had three concerns: 1. that the wrong patients would be transported to the FED, 2. misunderstanding by the public on how to use the FED, and 3. erosion of market share by neighboring hospitals. The bill was scheduled for its second hearing, when the hearing was canceled at the request of author in April 2012.

With respect to establishing an urgent care center (UCC) instead of an FED, the state does not regulate UCCs.

[2] The Abaris Group could not adjudicate this bills introduction date to the actual closure of Martin Luther King Hospital in 2008.

Federal Issues

Since 2006, The Centers for Medicare & Medicaid (CMS) have recognized some emergency departments that are not contiguous to the hospital as "Type B" emergency departments and thus pays separately for these services. Simply being an urgent care center does not necessarily meet the specific criteria outlined by the Centers for CMS for Type B emergency departments.

To qualify as a Type B emergency department, the facility must meet at least one of the following criteria:

- Licensing: The clinic is licensed by the state in which it is located under applicable state law as an emergency room or emergency department.

- Self-Designation: The clinic is held out to the public by name, posted signs, advertising, or other means as a place that provides care for emergency medical conditions on an urgent basis without requiring a previously scheduled appointment.

- Patient Visits: During the calendar year immediately preceding the calendar year in which a determination under this section is being made based on a representative sample of patient visits that occurred, at least one-third of all outpatient visits to the urgent care center are for the treatment of emergency medical conditions on an urgent basis without requiring a previously scheduled appointment.

After applying the specific criteria for a Type B emergency department, very few urgent care centers are appropriately classified as Type B emergency departments.

Some confusion may arise from application of the third criteria. There are three parts to this criteria, however, and in order to qualify as a Type B emergency department your urgent care center must meet the definition in all three parts (not just one or two parts). Are over 1/3 of the visits to your urgent care center:

1. on an urgent basis
2. without appointment
3. and for treating emergency medical conditions?

The criteria for qualifying as a Type B emergency department are essentially identical to the criteria that determine whether or not a facility is covered under EMTALA. Thus, if an urgent care center does not qualify as a type B emergency department, then that urgent care center will not be required to follow the EMTALA guidelines.

Case Studies

Five FEDs were initially identified for one-on-one telephone interviews. Three interviews have been completed and the remaining two never returned The Abaris Group's phone call after repeated attempts. Three other FEDs were identified and called. Again, those three have not returned The Abaris Group's phone calls.

The three completed are: Swedish Medical Center, Mill Creek Campus in Everett, CO; Henry Ford Health Center, Brownstown, in Brownstown, MI; and Shady Grove Adventist Emergency Center in Germantown, MD. While the three FEDs were similar, there were a couple themes that stood out in The Abaris Group's opinion.

- All three FEDs are part of a larger medical complex providing a myriad of different outpatient services ranging from laboratory, sleep to primary-care services.
- The staff at these FEDs are very independent and self sufficient because there is no other department to rely on. There is a lot of cross fertilization among the staff at the FEDs in terms of job descriptions/roles.
- The FEDs have difficulty treating mental health patients and transferring them to a psychiatric bed is a challenge. A mental health patient can cause the FED to go on diversion and also increase their turn-around-time.

The following chart provides a side-by-side comparison of the FEDs. Please see Attachment 2 for a summary on each of the case studies.

FED Survey, September 2012

Variable	Swedish Medical Center/ Mill Creek Campus Everett, WA	Henry Ford Health Center/ Brownstown Brownstown, MI	Shady Grove Adventist Emergency Center Germantown, MD
Contact	Melody Schlaman, RN, BSN Operations Manager melody.schlaman@swedish.org 425/357-3932	Amy Kaufman-Eddy Administrator of Business Unit Strategy akaufma1@hfhs.org 734/287-9088	Mike Oxenford, RN Nurse Manager moxenfor@ahm.com 301/444.8050
Opened	2011	2006	2006
Hours	24/7	24/7	24/7
Exam Rooms	18	20	21 + 2 Triage
Census for 2011	22,000	28,000	37,500 (never thought we'd get above 30,000, hitting 39,000 in 2012)
Estimated UCC Visits	50%	30%	30%
Payer Mix	Underserved	Mixed	Mixed
STEMI/Stroke Affiliation	We us our parent hospital there are no interventions available at our FED.	Our parent hospital has STEMI/Stroke, we stablize and transfer. If there's extreme weather we have a protocol to administer TPA.	Our parent hospital has STEMI/Stroke, we stablize and transfer. However, we do have thrombolitics.
Average Throughput	87 minutes	160 minutes	100-200 minutes, avg 150-160
Admission Rate	4-9%	8%	6.5% - 8.5%
Patient Admitting Delays	Very little except with psychiatric patients.	Only time there are delays is when the hospitals are on diversion.	We have preferrential status w/ our hospital even over the on site ED .
EMS	It's been tough. Only BLS can be brought to FED. ALS w/ failed airway is allowed for stabilization, but EMS must stay and transport ASAP. We are working on this.	We occassionally get priority 1 patients, but EMS follows the protocol. We contract for CCT.	Had a problem w/ local EMS, now contract for CCT.
Shared EMS Protocol	Yes	Yes	Yes
Diversion	Rarely, but we need to. Just implemented a new policy to divert when necessary.	We only divert because of a combative psychiatric patient, active labor or MI on scene. It's against the law to divert.	20 hours/month. Uses diversion because there is no other department to call on for help.
Key Advice	Only hire people who've worked in an ED.	Consider the impact of ACA.	Critical is getting ancillary staff, ie, security, maintenance, etc.

EMS Issues

What EMS resources can be used or reorganized to address the gap?

The resources that can have a substantial impact on addressing the gap of a loss of a full-fledged hospital-based ED includes an FED, urgent care facility or a community clinic with the capacity to accept and handle walk-in patients.

Does FED meet the basic ED ability to accept 911 ambulance traffic and what level would best serve the community?

The Abaris Group's research demonstrated that many of the FEDs in the country do accept ambulance traffic but generally with differential field EMS triage policies to limit the number of higher acuity patients arriving at the FED and thus being transported to the closest hospital-based ED.

Discuss what potential destination changes are likely to occur for 911 traffic and non-emergency ambulance.

The Abaris Group would recommend that field EMS destination protocols be modified to allow for direct 911 patient transport within the region of the FED to that FED using common field protocols in use throughout the country. Generally, FEDs would not be an acceptable choice for EMS patients who are transported through an interfacility transport agency (IFT) where it is contemplated that that patient would be admitted to a hospital.

What role if any should a FED play in accepting non-emergency ambulance traffic?

Consistent with the answer above, a very limited if not no role would be in place unless they are used to transporting patients out of the FED to an acute-care hospital.

Evaluate volume of total ambulance traffic IFT (BLS and Critical Care IFT, Non-Emergency Ambulance and 9-1-1 Ambulance).

Incoming ambulance traffic to the FED would be estimated by The Abaris Group to be approximately 50-60 percent of the current 9-1-1 traffic being sent to DSP today. Very little ILS and no CCT traffic would be permitted to be transported to the FED with rare exceptions. The Abaris Group does not have access to current ILS or CCT incoming traffic to the ED at DSP.

What about field triage with a treatment on site?

There is the potential for field triage of some EMS patients and their deferral away from transport through treatment on site (i.e., MedStar Program, Dallas, TX and others) or through transport to an alternative site (i.e., non-ambulance transport to physician's office, etc.) The range and scope of these potential options is outside of the scope of this project.

What transport options are available from a FED to a hospital?

The transport options are IFT, CCT or on rare occasions, air transport, if a helistop is available at the FED site. A contract between the FED and an IFT/CCT provider would be recommended by The Abaris Group.

Prospective volume of intrafacility transport to what inpatient facilities would be expected to manage?

The Abaris Group would estimate that approximately 80 percent of the current non-admitted DSP patients would utilize the FED, or 24,082. Of those, approximately 5-8 percent would likely move on to being transferred from the FED to an acute-care hospital. And of those patients, it would be expected that 95 percent (or 1,144 to 1,830) would be admitted to a med/surg unit and less than 5 percent (57 to 92) would be admitted to a critical care unit. In general, higher-acuity patients would not arrive or otherwise be transported to the FED.

What strategies would be needed to facilitate timely IFT since EMS Agency has little control over this area under current ambulance ordinance and statute?

Assurance of an IFT and CCT contractor with strict response performance standards by the FED should be required for such transport and this approach is now becoming the standard of practice in the hospital and ambulance environment.

Identify the EMS system risk and benefit for the patient safety perspective and strategies to manage high risk patient care groups e.g. cardiac arrest, trauma, heart attack, stroke, sepsis and pediatrics.

These patients should never be directly transported to the FED. However and on occasion such patients may arrive at an FED and due to the level of training and expertise of the staff and available equipment, these patient could be safely stabilized within the ability of an FED and secondarily transported to an acute-care hospital.

Evaluate ambulance ordinance to determine any barriers or factors that may impact these issues.

The Abaris Group reviewed Ordinance No. 83-23 (Ambulance Services) and did not identify any barriers or factors that would preclude the County from having an ambulance provider transport patients from the FED to a hospital.

What is the EMS agency role in assuring appropriate safe patient triage and flow (both 911 and IFT) between the FED and other hospitals.

The County should assure the basic ED standards are being met at the FED or an urgent care center "look-alike" as is consistent with other EMS agencies and their credentialing of EDs (i.e., Santa Clara, Orange and San Diego Counties). Assurance must be in place for immediate transfer of patients out of the FED is required. Finally, field protocols should be established to allow for medically-driven standards to drive which patients may be transported to the FED.

Evaluate how areas with FEDs address attracting critically ill patients both from EMS and from a walk-in standpoint that should go to facilities with inpatient care immediately accessible.

The Abaris Group did not find and is not aware of any FEDs in the country that attract "walk-in critically ill patients." Contrary, these definitely differentiate from these patients when they market and this appears to be successful and was not listed as a problem for any of the FEDs interviewed or previously surveyed.

How large is the patient population with severe chronic illnesses that now have care centered at DMC who shouldn't be coming to a freestanding ED.

Patient-level data from OSHPD was used to examine characteristics of chronic illnesses treated at DSP. The Chronic Condition Indicator (CCI) is a tool developed as part of the *Healthcare Cost and Utilization Project (HCUP),* a Federal-State-Industry partnership sponsored by the Agency for Healthcare Research and Quality. The CCI categorizes ICD-9-CM diagnosis codes into one of two categories: chronic or not chronic. Examples of chronic conditions include conditions such as malignancies, diabetes, most forms of mental illness, hypertension, many forms of heart disease, and congenital anomalies. Non-chronic conditions include conditions such as infections, pregnancy, many neonatal conditions, non-specific symptoms, and injuries. The entire listing of all conditions and their assignment to chronic or non-chronic is available here: http://www.hcup-us.ahrq.gov/toolssoftware/chronic/chronic.

The CCI identified 16,569 visits at DSP where a chronic condition was indicated in the first 10 listed ICD-9-CM codes. This represents 49.8 percent of all ED visits at DSP that were not admitted to the hospital. Many of these visits had multiple chronic conditions. A table of the most common chronic conditions is presented below.

Chronic Conditions Treated at Doctors Medical Center, San Pablo, 2011		
Description	**Total Count**	**% of ED visits**
Nondependent abuse of drugs	9,213	27.7%
Essential hypertension	5,624	16.9%
Diabetes mellitus	3,118	9.4%
Asthma	2,164	6.5%
Disorders of lipoid metabolism	1,035	3.1%
Anxiety, dissociative and somatoform disorders	825	2.5%
Heart failure	625	1.9%
Cardiac dysrhythmias	482	1.4%
Diseases of esophagus	470	1.4%
Depressive disorder	430	1.3%
Osteoarthrosis and allied disorders	394	1.2%

Source: OSHPD Emergency Department Database (EDD), 2010; AHRQ Chronic Condition Indicator (CCI) for ICD-9-CM

What strategies should be considered on how to manage this group to get them to "definitive care" vs. have them repeatedly present to the FED or EMS System.

Case management could be established for those that need more than the episodic are at a FED but not problems were noted by FEDs during interviews.

How would patients be triaged/managed when inpatient critical care or hospital bed availability in the EMS System is at low levels?

The methodology for admitting FED patients would be the same as any inpatient admission. The difference is that nearly all FED transfers to another acute care hospital are sent to the ED to be further evaluated and then positioned for admission like any other ED admission.

OSHPD Data Analysis

The sources for the following data analysis are from the Office of Statewide Health Planning Department (OSHPD) and from the Contra Costa EMS Agency (AMR transport data). Different OSHPD data sets were analyzed depending on the question.

Population

The 2010 population of the West County area most served by DSP is estimated to be approximately 198,839 and is expected to grow to 219,439 by 2020. Average annual growth is expected to be 0.9 percent from 2010 to 2015 and 1 percent from 2015 to 2010.

Population Projections, 2010-2020

City	2010	2015	Average Growth per Year, 2010-2015	2015	Average Growth per Year, 2015-2020
Richmond	103,701	108,680	0.9%	114,444	1.0%
San Pablo	29,139	30,538	0.9%	32,158	1.0%
Hercules	24,060	25,215	0.9%	26,553	1.0%
El Cerrito	23,549	24,680	0.9%	25,989	1.0%
Pinole	18,390	19,273	0.9%	20,295	1.0%
Total	**198,839**	**208,386**	**0.9%**	**219,439**	**1.0%**

Source: 2010 U.S. Census, California Department of Finance, Abaris Group projections

Note: Population projection based on California Department of Finance projected growth for Contra Costa County

ED Capacity

The region has two EDs that primarily serve the West County area with an additional seven hospitals within the county that partially serve the ED visit needs of the West County and an additional eight hospitals that serve the fringe population needs of the West County.

Comparison of Emergency Departments in Vicinity of Doctors Medical Center San Pablo							
Hospital	Hospital Licensed Beds	Intensive Care Beds[1]	Med/Surg Beds[2]	ED Visits	ED Treatment Stations	ED Visits/ Station	EMS Transports[3]
West County							
Doctors Medical Center, San Pablo	189	35	154	39,706	25	1,588	7,234
Kaiser Foundation Hospital, Richmond	50	8	42	34,474	15	2,298	4,414
West County Total	**239**	**43**	**196**	**74,180**	**40**	**1,855**	**11,648**
Doctors Medical Center, San Pablo Share of Total	79.1%	81.4%	78.6%	53.5%	62.5%	-	62.1%
Other Contra Costa County							
Contra Costa Regional Medical Center	166	8	99	67,150	20	3,358	8,693
John Muir Medical Center, Walnut Creek[4]	330	35	201	43,842	44	996	6,642
John Muir Medical Center, Concord Campus[5]	313	37	276	46,048	32	1,439	7,093
Kaiser Foundation Hospital, Walnut Creek	233	24	138	51,532	52	991	5,236
Kaiser Foundation Hospital, Antioch	150	20	96	38,400	35	1,097	4,055
San Ramon Regional Medical Center	123	12	99	16,494	12	1,375	45
Sutter Delta Medical Center	145	12	107	53,839	32	1,682	7,820
County Total	**1,699**	**191**	**1,212**	**391,485**	**267**	**1,466**	**51,232**
Outside Contra Costa County							
Alameda County Med Center - Highland Campus	316	20	191	81,761	52	1,572	60
Alta Bates Summit Medical Center - Alta Bates Campus	347	30	146	41,867	22	1,903	996
Alta Bates Summit Medical Center - Summit Campus-Hawthorne	337	36	301	42,348	31	1,366	185
Children's Hospital and Research Center at Oakland	190	23	111	46,903	37	1,268	279
Kaiser Foundation Hospital, Oakland	341	30	221	50,725	32	1,585	102
Kaiser Foundation Hospital-Rehabilitation Center, Vallejo	248	24	128	42,205	39	1,082	300
Marin General Hospital	235	10	164	34,518	18	1,918	28
Sutter Solano Medical Center	102	12	60	35,500	13	2,731	32

1 Intensive Care Beds include all types except neonatal

2 Children's Hospital pediatric beds are reported here under the Med/Surg category

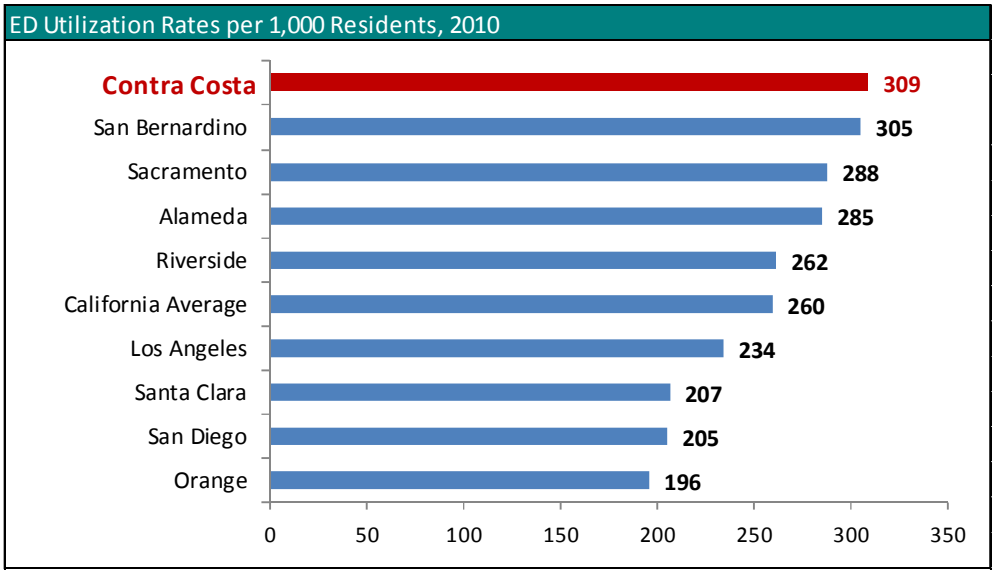
3 EMS transport data from Contra Costa EMS for 2011

Sources: OSHPD Annual Utilization Reports 2011; Contra Costa EMS

ED Utilization Rates

Residents of Contra Costa County visited the ED 322,531 times in 2010. Using 2010 Census figures, this equates to an ED utilization rate of 309 ED visits per 1,000 residents. Among California counties with a population of 1 million or more, this was the highest ED utilization rate in California and was well above the statewide average (260 per 1,000). Alameda also had a higher than average utilization rate (285 per 1,000).

The utilization figures only include patients that were treated and released from the ED and therefore do not include patients that were admitted to the hospital from the ED.



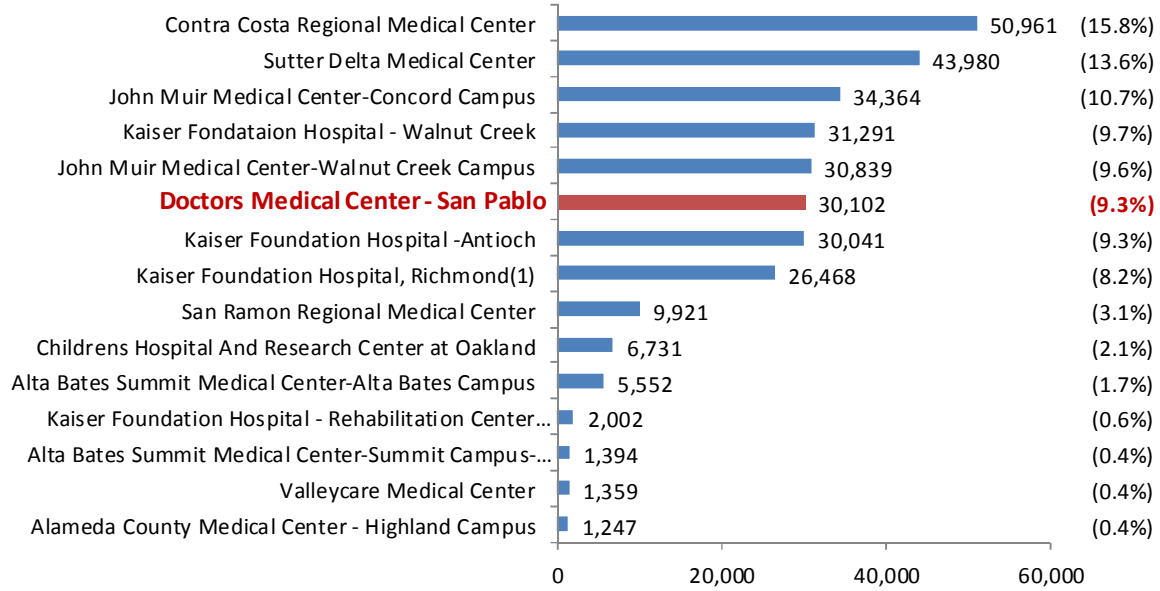
Note: ED discharges do not include ED visits that were subsequently admitted to the hospital

Sources: OSHPD Emergency Department Database (EDD), 2010; US Census 2010

Market Share

There were approximately 322,531 ED discharges in 2010 by residents of Contra Costa County. Approximately 9.3 percent of these (30,102) were treated at DSP.

Contra Costa County Residents, Facility of ED Discharge, 2010



1. Kaiser Foundation Hospital, Richmond may include some ED visits to the Kaiser Oakland campus

Note: ED discharges do not include ED visits that were subsequently admitted to the hospital

Source: OSHPD Emergency Department Database (EDD), 2010

Origin of Patients Treated at Doctors Medical Center, San Pablo

Patient-level data was obtained from OSHPD to examine the patient origin of patients treated at DSP. The vast majority of ED visits that were discharged (i.e., not admitted) were from residents of Contra Costa County (90.5 percent) and more specifically the West County area (88.8 percent).

Doctors Medical Center - San Pablo ED Discharges County of Residence, 2010		
County	**Total**	**% of Total**
Contra Costa	30,095	90.5%
Alameda	1,194	3.6%
Solano	549	1.7%
San Francisco	232	0.7%
Marin	230	0.7%
Sacramento	104	0.3%
San Joaquin	73	0.2%
Other Counties	777	2.3%
Total	**33,254**	**100%**

Source: OSHPD Emergency Department Database (EDD), 2010

Note: Discharges do not include ED admissions

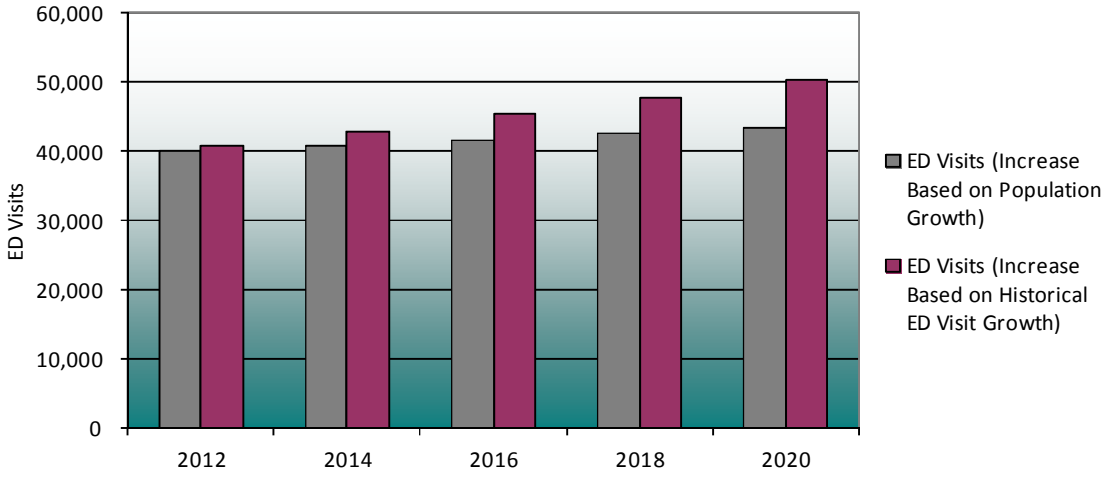
Doctors Medical Center - San Pablo ED Discharges City of Residence, 2010		
Top Cities	**Frequency**	**Percent**
Richmond	13,083	39.3%
San Pablo	9,789	29.4%
El Sobrante	2,276	6.8%
Pinole	1,537	4.6%
Hercules	1,134	3.4%
Rodeo	910	2.7%
El Cerrito	787	2.4%
West County Total	**29,516**	**88.8%**
Oakland	514	1.5%
Vallejo	314	0.9%
San Quentin	157	0.5%
Antioch	139	0.4%
Pittsburg	107	0.3%
Crockett	99	0.3%
Albany	78	0.2%
Other Cities	2,330	7.0%
Total	**33,254**	**100%**

Source: OSHPD Emergency Department Database (EDD), 2010

ED Volume Projections

The following graph shows DSP ED potential volume growth until the year 2020. The ED volume projection assumes either that ED visit growth occurs at the same pace as population (1.0 percent percent annually) or based on the past four years ED volume growth rate of 2.7 percent.

Doctors Medical Center, San Pablo ED Volume Projections, 2012-2020

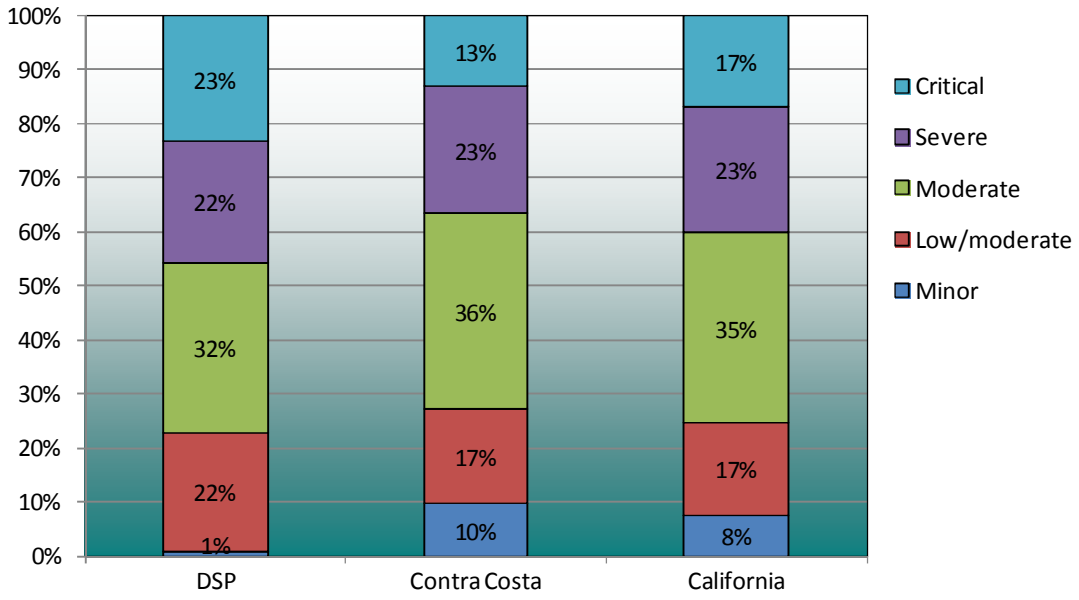


Source: Historical population data from the California Department of Finance Population Projections, May 2010.
Historical ED data from OSHPD Annual Hospital Utilization Reports, 2006-2010
Population projections (2011-2015) based off of California Department of Finance county-level population projection

ED Acuity

The following graph demonstrates that DSP reports a different acuity mix than the county and state average. A smaller percentage of patients were defined as minor and low/moderate (23 percent compared to 27 percent and 25 percent, respectively) and a larger percent were defined as critical (23 percent) when compared to the state and county average (13 percent and 17 percent, respectively).

Doctors Medical Center, San Pablo ED Acuity Mix, 2011

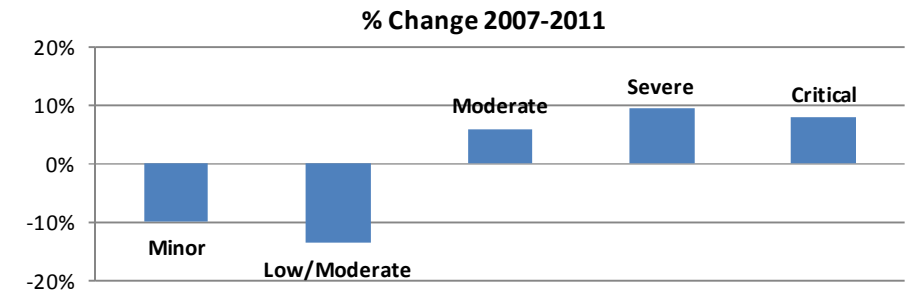


Source: OSHPD Annual Utilization Report, 2011

Trends in ED Acuity at Doctors Medical Center, San Pablo

The trend in the acuity data for DSP appears to be increasing over time. In 2007, 46 percent of ED visits were reported as either minor or low/moderate. By 2011, that percentage had dropped to 22.8 percent. Comparing the same time periods, the percentage of ED visits reported as severe or critical was 28.3 percent in 2007 and rose to 45.6 percent in 2011.

Doctors Medical Center - San Pablo, ED Visit Severity



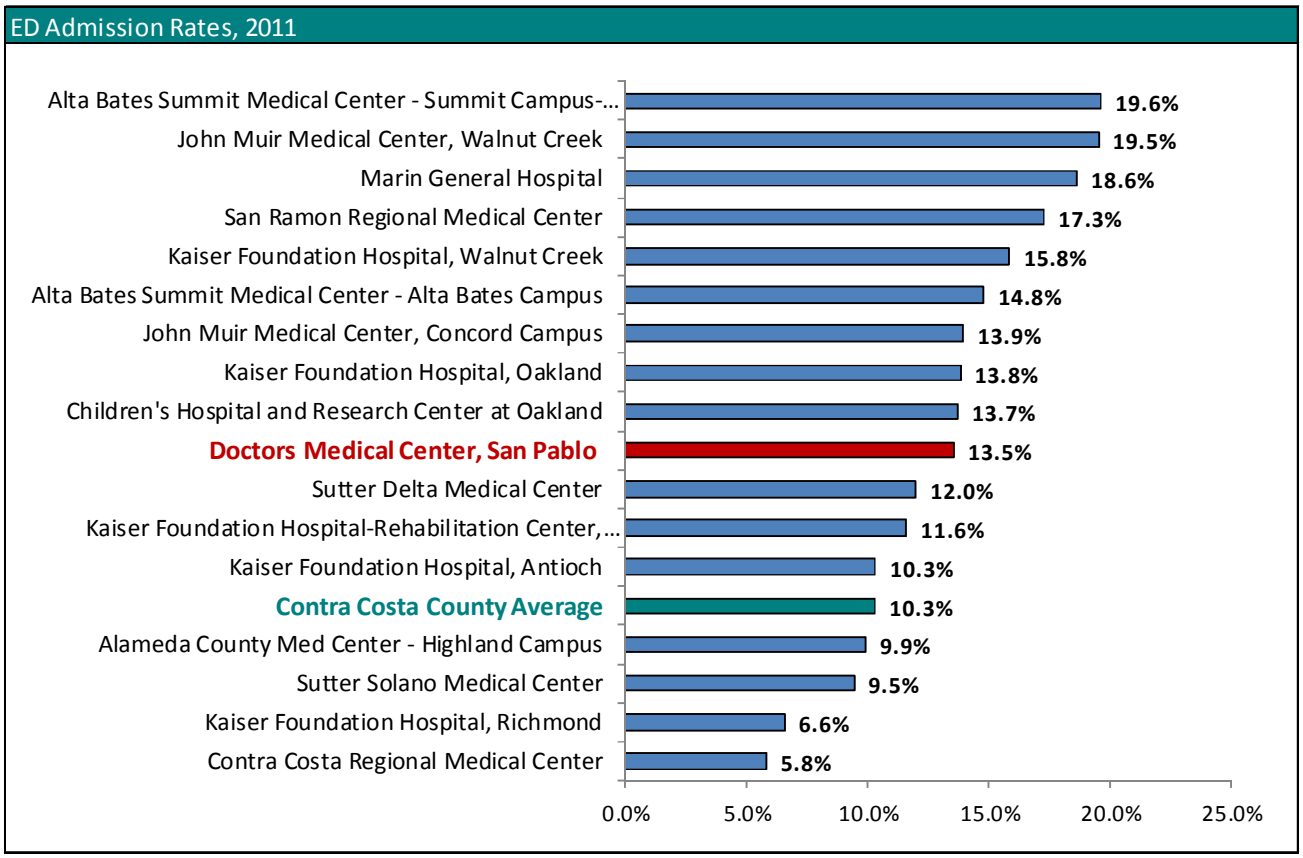
Acuity	2007	2008	2009	2010	2011	% Change 2007-2011
Minor	10.8%	5.1%	1.0%	1.3%	1.0%	-9.8%
Low/Moderate	35.2%	22.9%	21.7%	31.0%	21.8%	-13.4%
Moderate	25.6%	44.3%	49.7%	31.5%	31.5%	5.9%
Severe	12.9%	18.4%	22.1%	20.6%	22.3%	9.4%
Critical	15.4%	9.3%	5.4%	15.6%	23.3%	7.9%

Source: OSHPD Hospital Annual Utilization Data, 2011

Note: Acuity based on Evaluation and Management (E&M) CPT-4 codes 99281 – 99285

ED Admission Rates

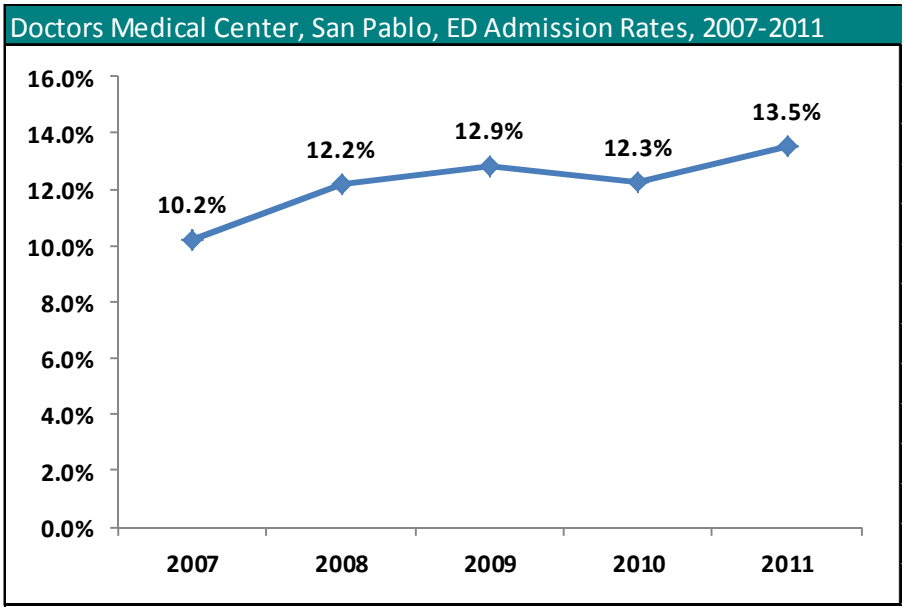
Another marker of acuity can be estimated by considering their rate of admission to the hospital following treatment in the ED. Doctors Medical Center, San Pablo admitted 13.5 percent of their ED visits in 2011. This is higher than the Contra Costa County average (10.3 percent), but lower than many of the hospitals in the surrounding area.



Source: OSHPD Annual Utilization Report, 2011

Trends in ED Admission Rates at Doctors Medical Center, San Pablo

The ED admission rate at DSP has increased over time. Since 2007, the percentage of ED visits that were admitted to the hospital climbed from 10.2 to 13.5 percent.

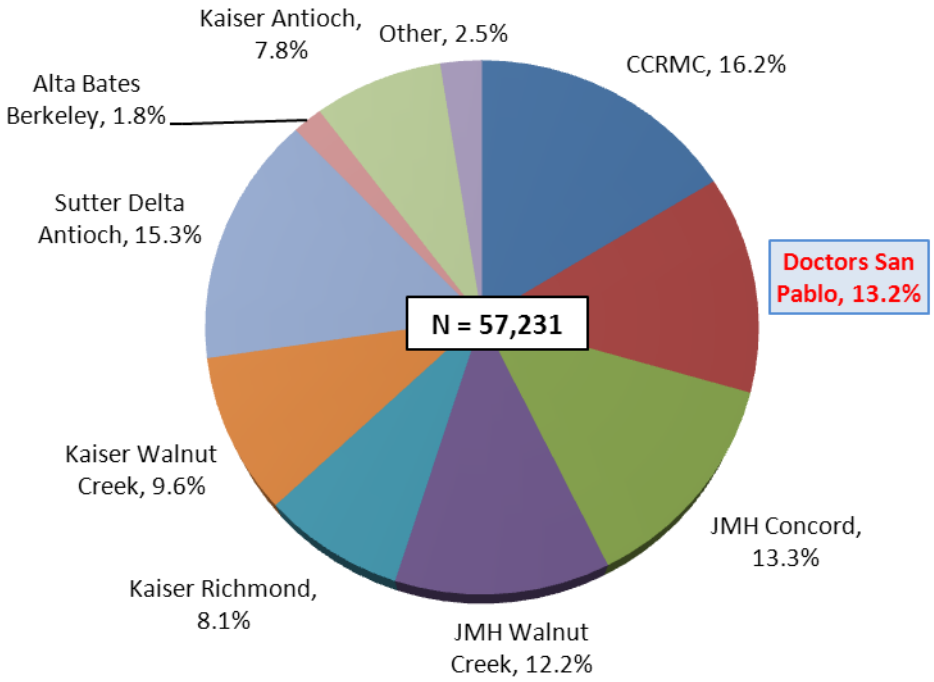


Source: OSHPD Annual Utilization Reports, 2007-2011

Ambulance Transports

In 2011, Contra Costa County EMS transported 57,231 patients to hospitals throughout the region. The vast majority (96 percent) of these transports went to hospitals in Contra Costa County. Using the population of Contra Costa County, the EMS utilization rate in 2011 was 54.6 per 1,000 residents.

Destinations of AMR Transports, 2011

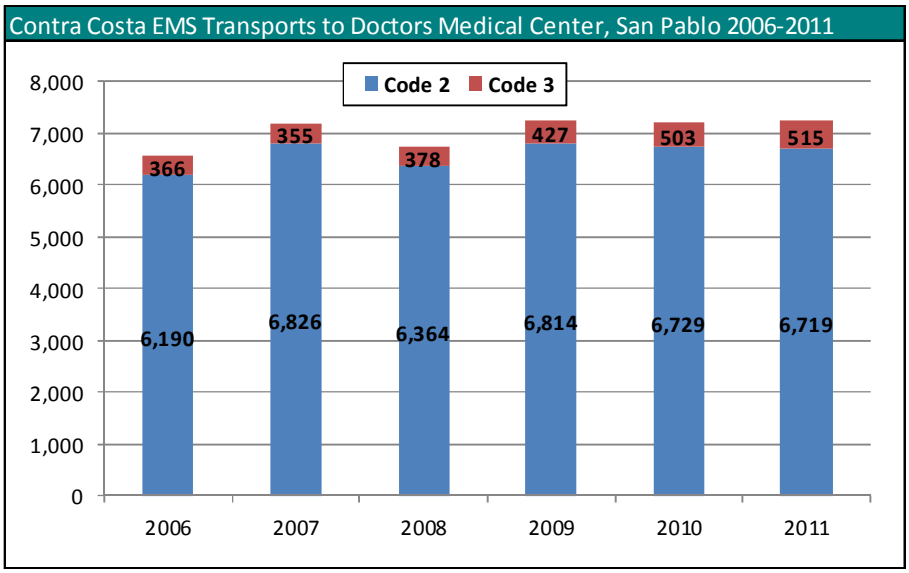


Note: Data does not include transports from Moraga-Orinda (2 percent of total transports) or San Ramon Fire (6 percent of total transports).

Source: Contra Costa County EMS Agency

Ambulance Transports to Doctors Medical Center, San Pablo

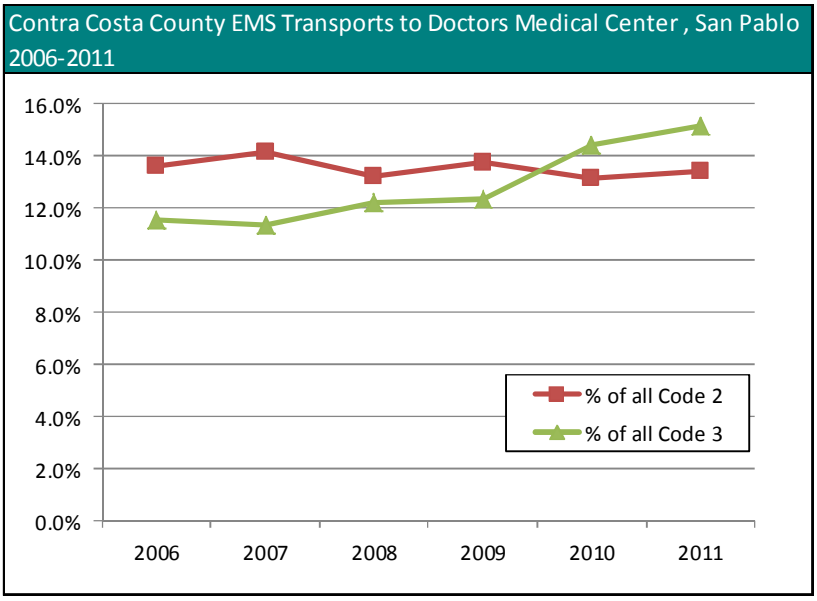
The chart below shows the number of Code 2 and Code 3 transports to DSP from 2007 to 2011. Both Code 2 and Code 3 transports have increased since 2007. Code 2 transports increased a modest 8.5 percent between 2006 and 2011 but Code 3 transports increased by 40.7 percent.



Note: Data does not include transports from Moraga-Orinda (2% of total transports) or San Ramon Fire (6% of total transports).

Source: Contra Costa EMS Agency

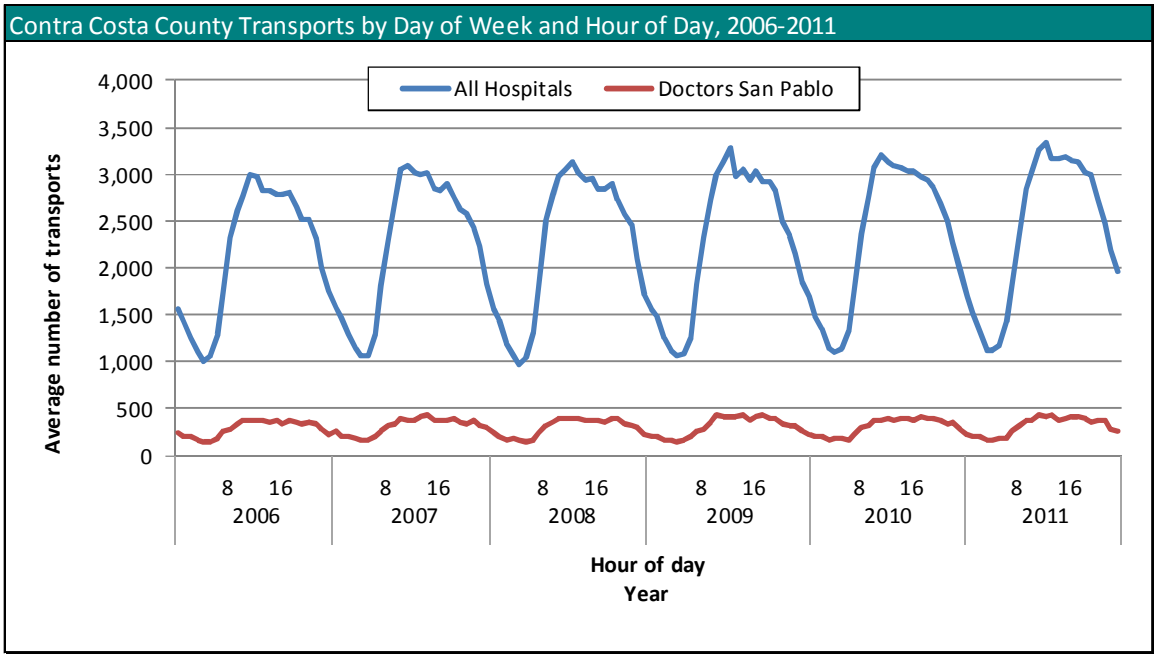
The increase in Code 3 transports to DSP can be seen in the chart below. As a percentage of all Contra Costa EMS transports, DSP saw their proportion of Code 3 transports rise steadily from 2006 to 2011. In 2006, 11.5 percent of all Contra Costa EMS Code 3 transports went to DSP. By 2011, over 15 percent went to DSP.



Note: Data does not include transports from Moraga-Orinda (2% of total transports) or San Ramon Fire (6% of total transports).

Source: Contra Costa County EMS Agency

The majority of ambulance transports occur between 8am and 4pm as demonstrated in the chart below.

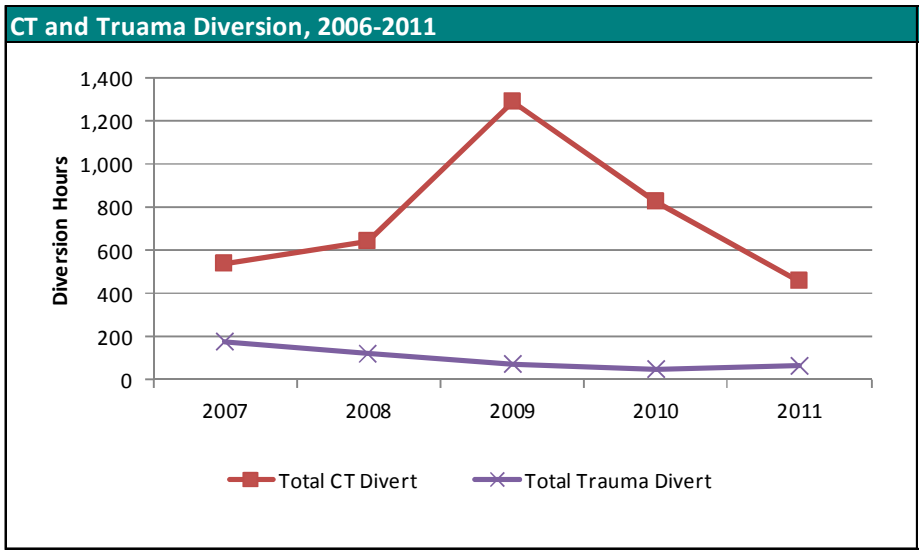


Note: Data does not include transports from Moraga-Orinda (2% of total transports) or San Ramon Fire (6% of total transports).

Source: The Abaris Group, 2012

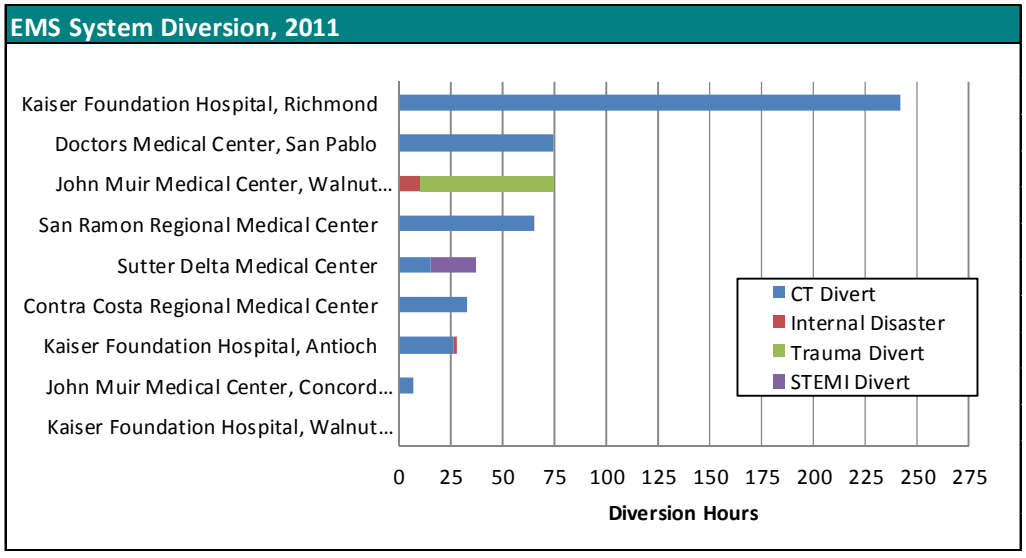
Ambulance Diversion

ED diversion was suspended in 2006 making CT and trauma diversion the most common types of diversion in Contra Costa County. Trauma diversion has been on a decline since 2007 and CT diversion has declined since 2009.



Source: Contra Costa County EMS Agency

In 2011, the county began STEMI diversion and Sutter Delta Medical Center had the majority of STEMI diversion hours. Kaiser Foundation Hospital, Richmond had the majority of the CT diversion hours, followed by DSP.



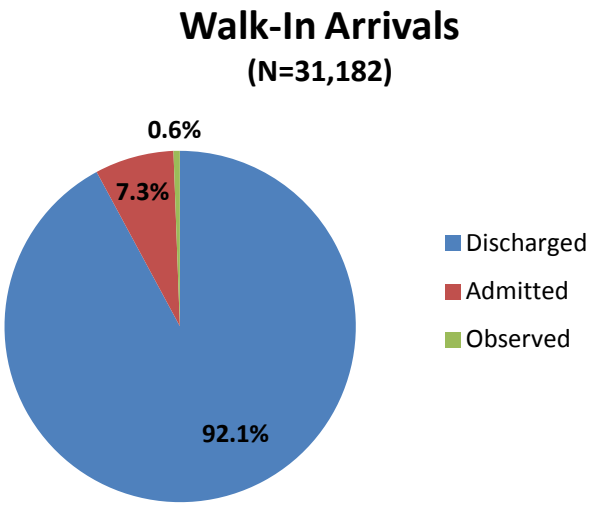
Source: Contra Costa County EMS Agency

Analysis of Doctors Medical Center, San Pablo

The 2011 dataset for Doctors Medical Center, San Pablo (DMC) was obtained from Contra Costa County Health Services and contains 40,664 emergency department records, which is slightly higher than the number DMC reported to OSHPD (39,706). The dataset from DMC contains additional variables not available through the OSHPD data such as time of arrival and mode of arrival (e.g. walk-in, ambulance). From this additional data, a more detailed analysis can be performed than what is available through OSHPD.

Walk-In patients

There were 31,182 ED visits that walked in or about 76.6% of all ED patients. The vast majority of all walk-in arrivals were discharged from the hospital (92.1%). Of the remainder, 7.3 percent were admitted (2,275) to the hospital and 0.6% were placed in observation (181).



Source: Contra Costa Health Service, 2012

The most recurrent diagnoses for walk-in visits are listed below (using a cut off of 250). Most of these frequent diagnoses have very low admission rates. However, some diagnoses (e.g. chest pain, pneumonia) have high admission rates. It is important to note that ICD-9 diagnoses are coded after discharge and do not always correspond with the presenting complaint.

Most Frequent Walk-in Diagnoses, 2011		
ICD-9 Diagnosis	**Total Walk-In**	**Percent Admitted or Observed**
465.9 acute uri nos	1,036	0.7%
789.00 abdmnal pain unspcf site	679	0.9%
599.0 urin tract infection nos	658	4.9%
382.9 otitis media nos	548	0.0%
786.50 chest pain nos	531	18.8%
784.0 headache	529	0.2%
729.5 pain in limb	437	0.0%
462 acute pharyngitis	433	0.7%
493.92 asthma nos w (ac) exac	385	15.1%
486 pneumonia, organism nos	383	23.2%
724.5 backache nos	382	0.0%
493.90 asthma nos	373	0.3%
799.9 unkn cause morb/mort nec	343	0.9%
535.50 gstr/ddnts nos w/o hmrhg	324	0.3%
883.0 open wound of finger	308	0.0%
564.00 constipation nos	305	1.6%
682.6 cellulitis of leg	284	8.5%
780.60 fever nos	260	2.7%
490 bronchitis nos	259	2.3%
786.59 chest pain nec	251	51.0%

Source: Contra Costa Health Services, 2012

The chart below shows the ICD-9 diagnoses that are *more likely* to be admitted after walk-in. These are not necessarily the most frequent walk-ins, but rather the diagnoses that have the highest admission rates.

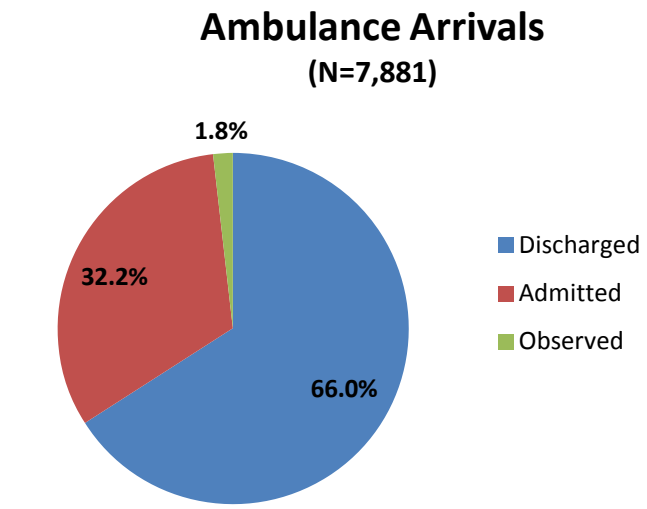
Walk-In Visits most Likley to be Admitted, 2011		
ICD-9 Diagnosis	**Total Walk-In***	**Percent Admitted or Observed**
540.9 acute appendicitis nos	50	88.0%
493.22 ch obst asth w (ac) exac	63	79.4%
577.0 acute pancreatitis	82	69.5%
491.21 obs chr bronc w(ac) exac	155	67.7%
427.31 atrial fibrillation	65	67.7%
428.0 chf nos	74	60.8%
786.59 chest pain nec	251	51.0%
250.60 dmii neuro nt st uncntrl	51	37.3%
780.2 syncope and collapse	94	33.0%
250.80 dmii oth nt st uncntrld	50	24.0%
486 pneumonia, organism nos	383	23.2%
786.50 chest pain nos	531	18.8%
493.92 asthma nos w (ac) exac	385	15.1%
558.9 noninf gastroenterit nec	218	12.4%
786.52 painful respiration	127	10.2%
682.7 cellulitis of foot	51	9.8%
401.9 hypertension nos	149	9.4%
592.1 calculus of ureter	55	9.1%
682.6 cellulitis of leg	284	8.5%
590.80 pyelonephritis nos	78	6.4%

Note: Diagnosis with a minimum of 50 walk-ins displayed

Source: Contra Costa Health Services, 2012

Ambulance Patients

There were 7,874 ED visits that arrived via ambulance. As expected, a higher percentage of these visits were admitted to the hospital than the walk-in visits (32.2% compared to 7.3%, respectively). Still, two-thirds of visits that arrived via ambulance were discharged without admission.



Source: Contra Costa Health Service, 2012

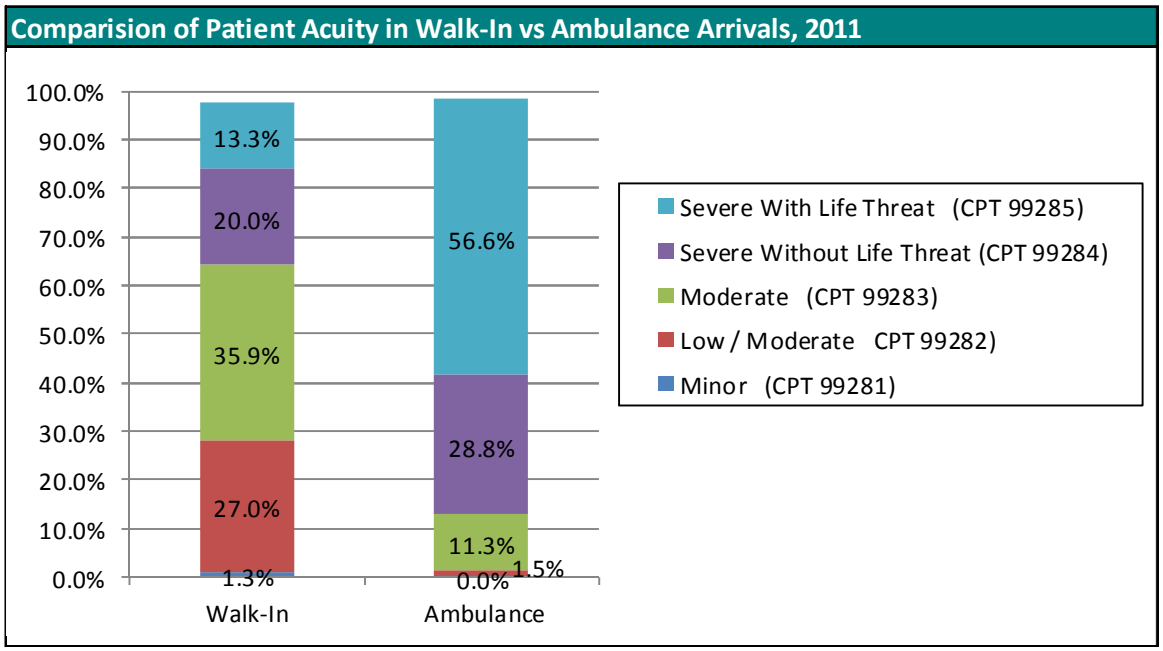
Some of the same walk-in arrival diagnoses are also found in the ambulance arrivals (e.g. chest pain, urinary tract infection, pneumonia, abdomen pain, etc.). However, many of those patients that arrive by ambulance have different diagnoses and are associated with high admission rates when compared walk-ins that are admitted.

Most Frequent Diagnoses for Ambulance Arrivals, 2011		
ICD-9 Diagnosis	**Total Ambulance Arrivals**	**Percent Admitted or Observed**
305.00 alcohol abuse-unspec	278	0.4%
786.50 chest pain nos	215	24.7%
780.2 syncope and collapse	178	35.4%
780.09 other alter consciousnes	173	15.0%
599.0 urin tract infection nos	151	52.3%
491.21 obs chr bronc w(ac) exac	134	72.4%
486 pneumonia, organism nos	132	74.2%
345.90 epilep nos w/o intr epil	129	13.2%
789.00 abdmnal pain unspcf site	120	4.2%
276.51 dehydration	112	10.7%
786.59 chest pain nec	106	75.5%
959.01 head injury nos	94	0.0%
300.00 anxiety state nos	91	1.1%
780.4 dizziness and giddiness	89	9.0%
518.81 acute respiratry failure	87	98.9%
389 hearing loss*	79	91.1%
V55.1 atten to gastrostomy	79	2.5%
434.91 crbl art ocl nos w infrc	75	81.3%
724.5 backache nos	70	2.9%
729.5 pain in limb	69	0.0%
428.0 chf nos	68	70.6%
920 contusion face/scalp/nck	68	1.5%
493.92 asthma nos w (ac) exac	64	28.1%
410.71 subendo infarct, initial	63	96.8%
564.00 constipation nos	62	12.9%
584.9 acute kidney failure nos	62	96.8%
780.79 malaise and fatigue nec	62	8.1%
250.80 dmii oth nt st uncntrld	60	56.7%
784.0 headache	58	3.4%
847.0 sprain of neck	55	0.0%
493.22 ch obst asth w (ac) exac	54	88.9%
873.42 open wound of forehead	50	4.0%

Source: Contra Costa Health Services, 2012

Acuity of Walk-In and Ambulance Arrivals

Using E/M codes (Evaluation/Management), the acuity of patients that arrived by ambulance can be compared to those who walked in. Over half (56.6%) of the ambulance arrivals were coded as the highest level of visit severity compared to 13.3% of those that walked-in. Conversely, only 12.8% of ambulance arrivals were coded as minor, low/moderate, or moderate severity compared to 64.2% of the walk-in arrivals.



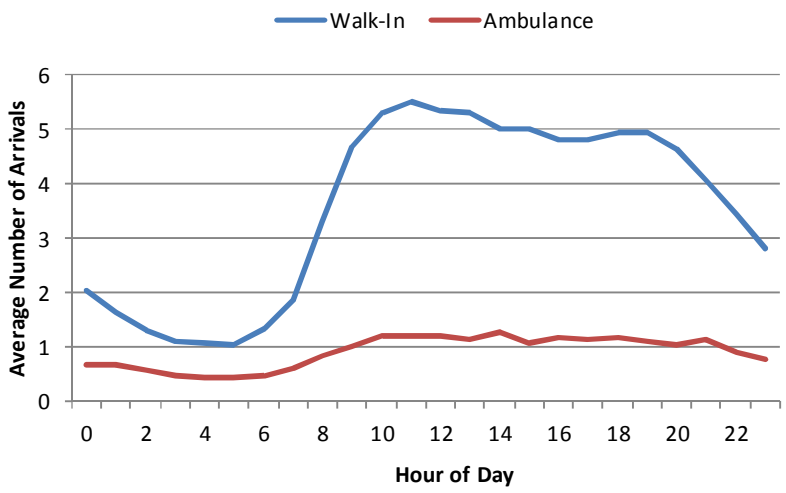
Note: A small number of cases (<2.5% had missing CPT codes)

Source: Contra Costa Health Services, 2012

Comparison of Time of Arrival

The time of arrival for walk-in and ambulance arrivals follows a similar trajectory, with peak arrivals occurring around 11am and reaching a low around 5am. Walk-in arrivals exceed ambulance arrivals every hour of the day. However, in the early morning hours (12am to 6am) the difference is much less.

Comparision of Average Walk-In and Ambulance Arrivals by Hour, 2011



Note: A small number of cases (<2.5% had missing CPT codes)

Source: Contra Costa Health Services, 2012

Attachment 1 – Department of Public Health Email

from: Eisenlauer, Erica (CDPH-EXE-LGA) Erica.Eisenlauer@cdph.ca.gov
to: jboyle@abarisgroup.com
"Wagoner, Monica (CDPH-LGA)" <Monica.Wagoner@cdph.ca.gov>,
cc: "Dunham, Cassie (CDPH-CHCQ-L&C-HQ)" <Cassie.Dunham@cdph.ca.gov>,
"Driscoll, Chelsea (CDPH-LNC-HQ)" <Chelsea.Driscoll@cdph.ca.gov>
date: Thu, Sep 20, 2012 at 2:18 PM
subject: Emergency Department Law

Dear Ms. Boyle:

For greater insight of the definition of "emergency" provided in Health and Safety Code (HSC) Section 1798.175, please contact the Emergency Medical Services Authority as they are the state entity that provides oversight for this portion of the Health and Safety Code.

Regarding your client's interest in forming a Freestanding Emergency Department (FED) - HSC Section 1255 specifies that only a licensed hospital can apply for a special permit to house an "emergency center." Title 22 of the California Code of Regulations (CCR) defines the three levels of emergency care services for which a hospital may obtain a permit and specify that they are located in the hospital. CCR Sections 70413 and 70453 define the general requirements for Basic and Comprehensive Emergency Medical Service permits, stating that "The emergency medical service shall be so located in the hospital as to have ready access to all necessary services." CCR 70649 defines the requirements for Standby Emergency Medical Service, Physician on Call and specifies that the "provision of emergency medical care" must be in "a specifically designated area of the hospital."

HSC Section 1250.8 defines the distance that health facilities operating under a consolidated license may be located apart from one another. This section is not applicable for your purposes because emergency departments are not separately licensed health facilities, they are services provided under a hospital's license.

"Program flexibility" allows licensed health facilities to apply for and receive permission from the California Department of Public Health for new models of providing care, if they are able to supply sufficient evidence that patient safety and quality of care will not be compromised by the proposed alternative, and provided implementation only requires an exception to requirements defined in California regulation. "Program flexibility" cannot be granted when it requires exemption to California law or federal regulation or law (unless expressly allowed in the statute). Nothing in California law, federal regulations or law explicitly requires an emergency department (ED) to be located on the main hospital campus. However, Title 42 of the Code of Federal Regulations, Section 482.55 does require that an ED must meet the emergency needs of patients in accordance with acceptable standards of practice and the services must be integrated with other departments of the hospital.

Further, before a request that an ED be located somewhere other than "in the hospital" could be approved, all of the other requirements of the ED that ensure patient safety and quality of care would

have to be met. Among the requirements for ensuring patient safety and quality of care, as defined in statute and regulation, are that an ED:

1. Be staffed and equipped at all times to provide prompt care for any patient presenting urgent medical problems.
2. Have ready access to all necessary (hospital) services.
3. Be able to provide intensive care service with adequate monitoring and therapeutic equipment.
4. Have Laboratory service with the capability of performing blood gas analysis and electrolyte determinations.
5. Have Radiological service capable of providing necessary support for emergency services.
6. Have Surgical services immediately available for life-threatening situations.
7. Have Postanesthesia recovery service.
8. Have readily available the services of a blood bank with blood storage facilities in or adjacent to the emergency service.
9. Be overseen by a physician trained in emergency medical services 24 hours a day.

Please review the requirements found both in Title 22 of the California Code of Regulations, and Title 42 of the Code of Federal Regulations for a comprehensive list of requirements ensuring patient safety and quality of health.

If your clients would like to pursue a request to obtain program flexibility to operate an ED I recommend that you contact the District Office for the county where this facility would be located [the list of District Offices can be found at: http://www.cdph.ca.gov/certlic/facilities/Pages/LCDistrictOffices.aspx] to discuss the specific circumstances of your client's plan, and to determine what would be required for the department.

If you have additional policy related questions please contact either the Policy Section Chief, Cassie Dunham at cassie.dunham@cdph.ca.gov or Chelsea Driscoll, the Non-Long Term Care Policy manager at chelsea.driscoll@cdph.ca.gov. Questions pertaining to past or future legislative action should be addressed to me.

Regards,

ERICA EISENLAUER DRURY
Legislative Coordinator
Office of Legislative & Governmental Affairs
California Department of Public Health
(916) 445-7279

Attachment 2 – Case Study Summaries

Swedish Medical Center, Mill Creek Campus
Treatment stations = 18
2011 volume = 22,000
Hours = 24/7
Everett, WA

Swedish currently has two FEDs in their system. One of these has an urgent care center (UCC) in the same building as the FED (Redmond, WA). A third FED has been converted into a hospital (Issaquah, WA). It may have plans to make the Redmond campus a hospital, but it would be due to a hospital closure. There are no plans to make Mill Creek a hospital. Swedish's goal is to expand services without building new hospitals. It also wants to provide emergent care in areas of need and the Mill Creek campus is located in an underserved area with a poor payer mix. If a patient wants to be admitted to a non-Swedish hospital the patient's preference is honored. The FED is not viewed as a feed for Swedish's hospitals.

The average patient turnaround time is 1 hour and 27 minutes. Patients are brought back to a treatment room immediately.

The Mill Creek FED does not provide any STEMI or stroke interventional therapies on site. If a patient needs catheterization they are transported by a 9-1-1 ambulance provider to nearest hospital catheter facility. The FED is staffed with physicians (Board certified), registered nurses, physician assistants, nurse practitioners, technicians and a secretary. It is very similar to managing a hospital ED. The FED to hospital admission rate is 4-9 percent.

Currently, EMS is allowed to bring BLS patients to the FED and ALS with failed airways (only for stabilization, EMS must stay with the patient and transport once stabilized). EMS did push back on transporting to the FED and continues to push back, but they are working to improve these conceptual concerns.

When transport is needed, Mill Creek uses critical care transport (CCT). The only time 9-1-1 is called is for a STEMI patient, otherwise, they use CCT. On occasion a trauma patient will arrive and they are stabilized and transferred. Transferring a patient to a hospital bed is usually easy with few delays. However, finding a bed for a mental health patient can be difficult due to lack of beds.

With respect to ambulance diversion, the culture at the FED is to not divert. However, if it is necessary, the FED goes on diversion but gets becomes available to ambulance traffic as soon as possible. The FED cannot accept combative patients because there is no back up to call to help. EMS believes they are "cherry picking" because of this.

Mill Creek's FED manager believes it is critical that the FED be staffed with persons who worked in an ED previously. There is no option to call for back up in an FED from another department, thus the staff needs to be self sufficient.

Henry Ford Health Center, Brownstown
Treatment stations = 20
2011 volume = 28,000
Hours = 24/7
Brownstown, MI

The Brownstown FED was built because Henry Ford Health Center wanted to increase their market share. It is one department in a very large outpatient center. It was described as a "maxi outpatient center." The FED has its own operating room, but trauma patients are not treated there. The FED serves as a feeder to the parent hospital. Michigan is a certificate of need (CON) state and the FED met the CON criteria. Henry Ford has three other FEDs several of which they have operated for in excess of 20 years.

Patients are brought directly to the treatment bed, thus there is virtually no waiting in the waiting room. Their turnaround time is on average two hours and they receive most of their patients from walk-in, they get one to three EMS transports daily.

A major hurdle was getting recognized in the community and by EMS. EMS did not want to bring patients and they had to work to educate EMS and the community on what an FED is. Marketing is a key tool in overcoming the hurdle. However, the public still sees the FED as a UCC. There were no legislative or political barriers outside of applying for the CON.

Approximately 30 percent of all patients could be treated at a UCC. One issue they have is with follow up care for patients with no health insurance or if the patient is underinsured. They have established partnerships with Federally Qualified Health Centers (FQHCs) to address this. The FED bills as a Type B emergency department for Medicare patients.

When a STEMI or stroke patient presents they stabilize and transfer to their parent hospital or another hospital. However, in inclement weather the FED does administer TPA and then transfers. They have a door to transfer time of 30 minutes and door to EKG (electrocardiogram) is 10 minutes.

The Brownstown FED would like add more treatment stations than the original 20 that were built. They are close to outgrowing their current space. They also employ a lean staffing model with only one ED physician on per shift. The management is very similar to a traditional ED, but there is less staff turnover because of the high employee engagement with the operation of the FED. The FED follows the same policies and procedures that their parent hospital ED follows.

The FED contracts with a CCT provider and also has access to an air ambulance provider. EMS brings priority one patients and they could treat a level II trauma. Brownstown never calls 9-1-1. Approximately 8 percent of their patients get transferred to a hospital. They are currently in the process of implementing a 23-hour observation unit. (When a patient spends the night [this happens a few times a month] they order food from the hospital and also have frozen meals in a freezer.) The only time they have a delay in getting a patient transferred is when the hospitals are full. This is a very rare event because they have so many hospitals in the area. However, mental health patients are the most difficult to find a bed for. The only reason the FED diverts is because of a combative psychiatric patient, active labor, and acute MI (myocardial infarction) on scene.

Shady Grove Adventist Emergency Center
Treatment stations = 21
2011 volume = 37,500
Hours = 24/7
Germantown, MD

Shady Grove Adventist has only one FED located in Germantown. The FED was established to meet market demand in August 2006. It is in a dense population area with no emergent care (45-miles between the two nearest hospitals) and it is an economically diverse population that ranges from upper middle class to the poor. The biggest hurdle for the FED was the legislative piece. They operate under a CMS exemption (there is one other FED in Maryland). In 2006, legislation was passed that effectively enabled Shady Grove Adventist Hospital to establish the FED in Germantown. Process and protocols regulate freestanding medical facilities and are administratively linked to the hospital.

In 2010 a law was passed that directs the state to set reimbursement rates for FEDs in Maryland to help cover staffing and equipment costs. This law brings FEDs under the authority of the Health Services Cost Review Commission, making them available for Medicare and Medicaid fee-for-services reimbursement. The law requires FEDs to be "rate-regulated" by the state, which sets how Medicare and other insurers reimburse for a specific treatment for hospital-based services. In addition, the legislation places a freeze on any new FEDs until 2015, when a Certificate of Need (CON) process will be used for consideration of new facilities of this kind.

The average turn-around-time ranges from 1 hour 40 minutes to 2 hours and 40 minutes. This mostly fluctuates due to changes in staffing and volume. The FED does divert due to volume issues – when they are inundated with walk-ins or EMS. In August 2012 they diverted for 20 hours.

The parent hospital has a both a STEMI and stroke program. The FED will begin the protocol needed and then transfer. Thrombolytics are available at the FED.

With respect to transporting patients from the FED, the original plan used the county EMS provider. However, EMS did not want to take patients to the FED because they would have to make a second trip back to transport the patient to hospital. Over time, EMS slowed the number of patients transported to the FED (2-3 per day). In August 2012, the FED contracted with a private CCT to transport its patients to the hospital. As a result, the EMS traffic to the FED has increased to about 4-6 patients a day, and is expected to continue growing. The only time the FED calls 9-1-1 is if it is a critical emergency and their contracted provider cannot get there in time.

Less than 10 percent of the FED's patients get transferred to the hospital. They also have preferential treatment for inpatient beds above the ED onsite at the hospital. This is enables the patient to be evaluated by the admitting physician more quickly. Also, the FED also has no dietary available, thus boarding or observation is not an option.

One issue that was pointed out as critical to setting up an FED is to make sure the ancillary staff, security, registration, tech support, maintenance, etc. are all in place. An FED is a unit of the hospital that is off campus with no one to call on for support.

Attachment 3 – Case Study Interview Script/Questions

Hello, my name is _____ and I am working with a governmental entity in California who is interested in building an FED. I am conducting a brief survey of FEDs across the country and hoped that you might be able to answer a few questions for me. To thank you for your time, I would like to give you a copy of my findings once I'm finished. Is now a good time?

1. Can you give me a brief overview of your FED? Treatment rooms, census, proportion that could be seen at UCC, TAT.
2. What were the top three reasons why you established an FED?
3. What were the major hurdles? What solutions did you use to overcome these hurdles?
4. If you could do it over again, would you make any changes?
5. What are your hours of operation?
6. Do you bill Medicare as Type B or Type A?
7. Do you have an agreement with a STEMI or stroke program? If not, what level of intervention is appropriate for such entities?
8. How is your FED staffed? Is there high turnover? Is managing the FED like managing a traditional ED?
9. What are the arrangements you have with EMS? Were they cooperative? Did you get pushback?
10. Would you be willing to share your EMS protocols and processes?
11. How many patients get admitted to a hospital? Do you use critical care transport? Are there delays in getting patients admitted to a hospital? What are the delays?
12. What affect, if any, does diversion have on your FED?
13. Is there anything I haven't covered today you think I should know?

Attachment 4 – EMS Protocols

Snohomish County EMS
County Operating Policy

Effective Date: 01-01-2012 **Revised: 08-30-11**

Affected Areas: All Snohomish County EMS Agencies

Approved by: Ron Brown, MD; Medical Control Committee; PDI Committee

Subject: Free Standing ED Transport

Number: 100.11.01 **Page 1 of 1**

Purpose:
To define and identify which patients are appropriate for transport to a Free Standing ED.

Procedure:
Selected patients may be transported to a free-standing emergency department by EMS providers if they meet the following criteria:

Criteria:

Inclusion:
1) BLS patients who have a non-emergency condition and are clinically stable.
2) ALS patients with a failed airway and the free-standing ED is the closest facility.

Exclusion:
1) ALS patients other than above.
2) Patients, in the provider's best estimation, may need admission.

Procedural:
1) Patient must be advised and willing to be transported to the free-standing emergency department.
2) For transport decision guidance; EMT's may consult with paramedics on scene or with Medical Control.
3) If the free standing emergency department destination is selected they must be notified with a short report.
4) If the patient meets inclusion criteria and the FSED does not accept this SHALL be documented as a DIVERT in the patient's medical record.

Health Emergency Medical Services Inc.
Wayne County Medical Control Authority

333.20918 Local medical control authority; designation; participating hospitals and freestanding surgical outpatient facilities; adherence to protocols; administration; appointment and membership of advisory body; medical director; operation of medical control authority; accountability of life support agencies and licensed individuals.

Sec. 20918. (1) Each hospital licensed under part 215 and each freestanding surgical outpatient facility licensed under part 208 that operates a service for treating emergency patients 24 hours a day, 7 days a week and meets standards established by medical control authority protocols shall be given the opportunity to participate in the ongoing planning and development activities of the local medical control authority designated by the department and shall adhere to protocols for providing services to a patient before care of the patient is transferred to hospital personnel, to the extent that those protocols apply to a hospital or freestanding surgical outpatient facility. The department shall designate a medical control authority for each Michigan county or part of a county, except that the department may designate a medical control authority to cover 2 or more counties if the department and affected medical control authorities determine that the available resources would be better utilized with a multiple county medical control authority. In designating a medical control authority, the department shall assure that there is a reasonable relationship between the existing emergency medical

services capacity in the geographical area to be served by the medical control authority and the estimated demand for emergency medical services in that area.

(2) A medical control authority shall be administered by the participating hospitals. A medical control authority shall accept participation in its administration by a freestanding surgical outpatient facility licensed under part 208 if the freestanding surgical outpatient facility operates a service for treating emergency patients 24 hours a day, 7 days a week determined by the medical control authority to meet the applicable standards established by medical control authority protocols. Subject to subsection (4), the participating hospitals shall appoint an advisory body for the medical control authority that shall include, at a minimum, a representative of each type of life support agency and each type of emergency medical services personnel functioning within the medical control authority's boundaries.

The Maryland Medical Protocols for Emergency Medical Services Providers
Effective July 1, 2012
Maryland Institute for Emergency Medical Services Systems

OPTIONAL SUPPLEMENTAL PROGRAM
TRANSPORT TO FREESTANDING MEDICAL FACILITY

W. TRANSPORT TO FREESTANDING MEDICAL FACILITY

1. PURPOSE

The purpose of this protocol is to define the type of patient an EMS service may transport to a MIEMSS-designated freestanding medical facility.

2. INDICATIONS

A jurisdiction may allow transport of a patient meeting one or more of the following indications to a freestanding medical facility.

a) A stable priority 3 or 4 patient as outlined in the Maryland Medical Protocols for EMS Providers who does not need a time-critical intervention.

b) A priority 1 patient with an unsecured airway or in extremis that requires stabilization beyond the capability of the EMS crew (e.g., cardiac or respiratory arrest).

3. CONTRAINDICATIONS

Except as provided in #2, the following patients shall not be transported to a freestanding medical facility.

a) Any patient meeting the criteria for transport to a trauma center or specialty referral center as defined in the Maryland Medical Protocols for EMS Providers.

b) A pregnant patient complaining of abdominal pain or a patient who is in active labor.

c) Any patient in need of time-critical intervention that can be provided only at a hospital-based Emergency Department.

4. PROCEDURE

The EMS provider when unclear of appropriate destination should consult with a

Base Station and the freestanding medical facility prior to arrival. The Base Station shall direct the provider to the appropriate destination for the patient.

5. SPECIAL CONSIDERATIONS

None

Attachment 5 – Literature Search

There are several common issues when considering the impact that a freestanding emergency department (FEDs) could have on a community. The growth in the number of FEDs over the past decade has peaked interest in the impact these facilities could have on relieving emergency department crowding.[3,4] From the literature, three main themes emerge: patient access, inter-facility transport, and utilization.

Patient Access

Hospital-based EDs are serving a growing number of people and FEDs represent one option to improve access for patients – especially in areas with high levels of ED crowding. FEDs represent an alternative to patients that face long waits in a hospital-based ED. FEDs distinguish themselves from traditional hospital-based EDs in a number of ways that are thought to improve patient satisfaction. FEDs are often described as having modern architecture, comfortable and inviting rooms with lots of sunlight, and a "concierge" approach to customer service (CITE).[5,6,7] Wait times are also cited as a distinguishing feature of FEDs. The 2009 data from the American Hospital Association shows that wait time (door-to-doctor) and total length of stay (door-to-discharge) at an FED is about half that of a traditional hospital-based ED.7 According to the same survey, 70 percent of FEDs are open 24-hours per day, increasing their accessibility to patients.[8]

Despite these cited advantages, there are no published peer-reviewed studies that have compared patient outcomes at FEDs to outcomes at hospital-based EDs. While the intent of an FED is to treat injuries and illness of low or moderately acuity, some experts have expressed concern that patients requiring a higher level of care will have worse outcomes if their care is delayed.[9] Because of this, the issue of transport between FEDs and hospitals is another theme that emerges in the FED literature.

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Inter-facility Transport

A common criticism of FEDs is that care is delayed for patients who need to be transferred in order to receive survey or be admitted to a hospital. Delay in care has been linked to many negative outcomes for certain injuries and illnesses. For this reason, EMS in some communities will not transport patients by ambulance to an FED. Current estimates are that FEDs transfer five percent of their patients for hospital admission – significantly lower than the average hospital-based ED admission rate of 12.8 percent.[10] Therefore, if the local EMS system becomes congested, patients requiring admission from FEDs can face long waits for ambulance transfer, decreasing customer satisfaction and potentially worsening patient outcomes.[11]

Utilization

According to the American Hospital Association, there were 241 FEDs in 2009, 65 percent more than there were in 2004. FEDs were originally conceived to serve rural populations that did not have a nearby hospital-based ED. However, recent trends show that the majority of new FEDs are being built in fast-growing and wealthier suburban areas and are located within ten miles of a hospital-based ED. [12] This trend has led to questions as to the impact of the FED has on the overall demand for emergency services in a community. [13] One retrospective analysis looked at the impact that two FEDs had on a local hospital-based ED located 9 and 12 miles from the two FEDs. The data showed that the opening two FEDs decreased the volume and admission rates for the hospital-based ED, but increased the overall ED volume for the health care system.[14]

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[9] Andrews M. A wait at the ER measured in minutes, not hours. A new type of freestanding emergency room promises good medicine plus customer service. *US News & World Report*. 2008;145(7):79–80.

[10] California Assembly Bill 1862 (Amended). An act to add and repeal Sections 1250.9 and 1797.134 of the Health and Safety Code, relating to health facilities. Introduced by Assembly Member Logue. Amended in Assembly April 17, 2012. Available at: http://leginfo.ca.gov/pub/11-12/bill/asm/ab_1851-1900/ab_1862_bill_20120417_amended_asm_v98.html. Accessed October 25, 2012.

[11] Gillespie GL, Yap TL, Singleton M, Elam M. A summative evaluation of an EMS partnership aimed at reducing ED length of stay. *J Emerg Nurs.* 2009;35(1):5–10.

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