

Crisis in the Emergency Department

*Removing Barriers to Timely and
Appropriate Mental Health Treatment*

**A report prepared by the
Sierra Sacramento Valley Medical Society
July 28, 2015**



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Date Published: July 28, 2015

**Approved by the: Board of Directors, Sierra Sacramento Valley
Medical Society**

The Sierra Sacramento Valley Medical Society is dedicated to bringing together physicians from all modes of practice to promote the art and science of quality medical care and to enhance the physical and mental health of our entire community.

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Introduction

The system of mental health care is fundamentally broken in Sacramento County. Every month over 1,600 children and adults experiencing a mental health crisis end up in one of the Sacramento region’s hospital emergency departments (ED) – a number that continues to rise. These patients are frequently “boarded” in the ED, oftentimes for days, until inpatient psychiatric beds become available and the transfer process is completed. This influx of patients has strained the region’s EDs, resulting in extended wait times for patients experiencing medical and/or psychiatric emergencies. This process results in the delivery of suboptimal quality of care for patients, ED overcrowding, as well as increased lengths of stay and higher risks of adverse outcomes for all ED patients.

Bearing witness to these worsening trends, the Sierra Sacramento Valley Medical Society (SSVMS) has developed this white paper, **Crisis in the Emergency Department: Removing Barriers to Timely and Appropriate Mental Health Treatment**, with the goal of assessing the historical events leading up to this mental healthcare delivery crisis. Additionally, SSVMS proposes three elements of a broader collaborative strategy among regional stakeholders with the goal of increasing care coordination for individuals experiencing a mental health crisis.

The Sierra Sacramento Valley Medical Society (SSVMS) is dedicated to bringing together physicians from all modes of practice to promote the art and science of quality medical care and to enhance the physical and mental health of our entire community. In continuous operation since 1868, SSVMS represents over 3,200 physicians and their patients in El Dorado, Sacramento and Yolo counties. Since 1960, SSVMS has convened an Emergency Care Committee (ECC) that includes the medical directors of the EDs from all 12 hospitals in the Sacramento region. The ECC meets bi-monthly and studies issues related to emergency care services and facilities, trauma, patient transport and triage, disaster preparedness and on-call issues within the region.

In recent years, ECC members have reported a significant increase in the number of patients presenting to the region’s EDs with mental health issues. The influx of patients has strained EDs, resulting in extended wait times for patients experiencing both medical and psychiatric emergencies. In 2013, the average length of stay for individuals seeking mental health evaluations in Sacramento EDs was 19.5 hours from admission to discharge. Patients requiring more intensive psychiatric care are often “boarded” in the ED for additional hours to days as they wait for the transfer process to complete or for beds to become available.⁽¹⁾ This process frequently results in ED overcrowding, which lowers the quality of care for mental health patients and results in higher risks of adverse outcomes for all ED patients.^(2, 3, 4)

“The ED is not the right setting for patients experiencing a mental health crisis. Patients need the right care in the right place at the right time,” *Seth Thomas, MD, Vice Chair SSVMS Emergency Care Committee*

“The ED is not the right setting for patients experiencing a mental health crisis. Patients need the right care in the right place at the right time,” according to Seth Thomas, MD, ECC Vice Chair,

Member of the SSVMS Board of Directors, and Medical Director of the Mercy San Juan Medical Center Emergency Department.

This white paper proposes three overarching recommendations to improve the quality of care for patients experiencing mental crises, aimed at providing better access to the right care at the right time. These three recommendations are to:

- **Implement an electronic Health Information Exchange (HIE) in the Sacramento region to help coordinate care of patients seeking emergency psychiatric services.**
- **Standardize the medical clearance process across all EDs and inpatient psychiatric treatment programs to facilitate the timely transfer of patients to appropriate treatment centers.**
- **Establish dedicated psychiatric emergency services (PES) to ensure that patients experiencing a mental health crisis receive the right care at the right time.**

A Historical Context to Today's Fragmented Mental Healthcare

It is important to consider the historical context of mental health policies in California. With the advent of antipsychotic pharmacotherapy in the early 1950s, the movement toward deinstitutionalization took shape as patients increasingly began treatment on an outpatient basis. Many states saw an opportunity to move patients out of expensive, inpatient state facilities and into either outpatient care or community-based treatment centers. This was pushed forward in California in 1967 with the enactment of the Lanterman-Petris-Short (LPS) Act, which regulates the involuntary hospitalization of individuals by requiring a judicial hearing procedure, and provides the current standards that guide California's 72-hour involuntary hold process, also known as the "5150" hold.

By 1971, California had shut down three state psychiatric hospitals as the patient population was declining.⁽⁵⁾ However, this shift toward outpatient care occurred without community programs, crisis residential units, or other forms of step-down care to transition patients away from the intensive treatment environment they just left. Without this transition, the trend towards deinstitutionalization created negative unintended consequences. By the following year, in 1972, studies were being published on the increasing criminalization of mentally ill persons. This was essentially a reversal of the positive trend from the mid to late 1800s to move mentally ill patients out of jails and prisons and into state treatment facilities.⁽⁶⁾

The decades since the early 1970s have seen frequent funding cuts to mental health services from the State's general fund, while legislative actions have been aimed at mitigating and preserving some semblance of this important safety net. A mix of pilot projects, realignment of mental health funding to alternative revenue sources, and shifting responsibility of care delivery to counties has since occurred. A detailed timeline of relevant events during this time period can be found in the California Healthcare Foundation's: *A Complex Case: Public Mental Health Delivery and Financing in California* in Appendix B.⁽⁷⁾

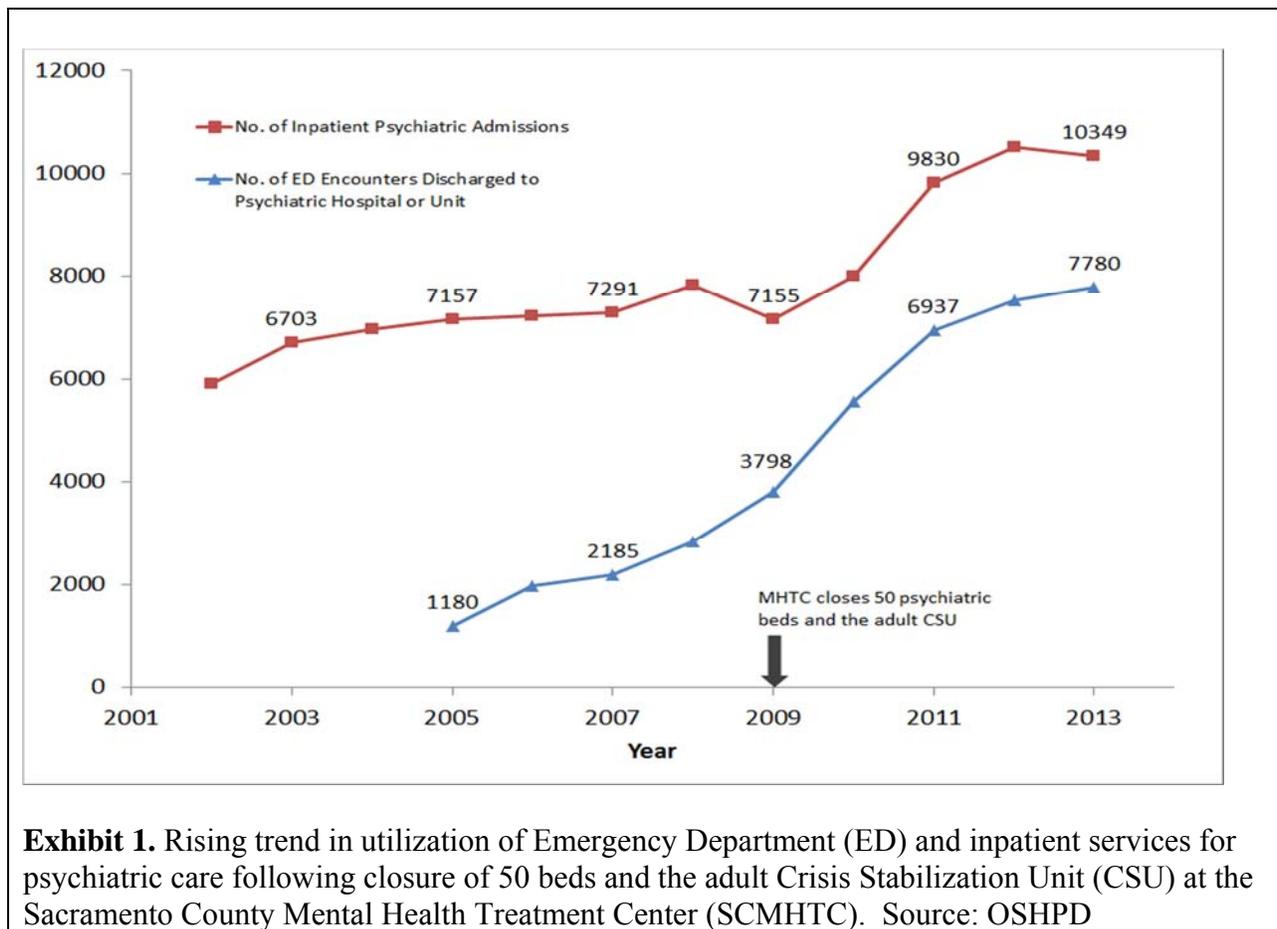
Behind the Increased ED Utilization for Mental Health Crises in Sacramento County

Sacramento County has seen increased utilization of the ED and inpatient services for psychiatric care as evidenced by data gathered from the California Office of Statewide Health Planning and Development (See Exhibit 1).^(8, 9) This trend is troublesome given that ED overcrowding lowers the quality of care for mental health patients, lessens resources available for other patients in critical conditions, increases treatment times and lengths of stays, and is associated with higher mortality and adverse outcomes, particularly for those with life-threatening critical conditions.^(2, 3, 4)

The reasons for ED overcrowding in Sacramento by individuals experiencing a mental health crisis are multifactorial. A significant driver of higher ED utilization was the closure of half of the inpatient psychiatric beds at the Sacramento County Mental Health Treatment Center (SCMHTC), and the county's only Crisis Stabilization Unit (CSU) in 2009.⁽¹⁰⁾ At that time, SCMHTC was averaging over 100 hospitalized patients a day, and the CSU was experiencing over 6,800 adult crisis visits a year.⁽¹¹⁾ The county's CSU served as a 23-hour observation unit to determine whether patients needed hospitalization and intensive care. Due to the loss of this

intermediate facility, the county had less capacity to prevent unnecessary admissions. As a result of these closures, patients would board longer in the EDs while waiting for beds that were in high demand, leading to the delay of needed specialized psychiatric care.

When the county’s CSU closed in 2009, the region’s EDs were flooded with individuals in crisis that had nowhere else to go. With few options for psychiatric patients to turn to for emergency mental healthcare, they increasingly relied upon EDs to provide this care for them. Data collected by the California Office of Statewide Health Planning and Development highlight the effect of these closures, showing a doubling of the number of ED encounters discharged to inpatient psychiatric care facilities between 2009 and 2013.



The impact of these events on the healthcare delivery system in Sacramento is staggering. It is estimated that more than 1,600 visits per month to hospital EDs are by individuals seeking mental health treatment. The influx of patients has strained EDs, resulting in extended wait times for patients experiencing both medical emergencies and psychiatric emergencies. Furthermore, a 2012 study reported that the average wait time for adult patients with a primary psychiatric diagnosis in the ED, from the decision to admit until placement into an inpatient psychiatric bed, was over 10 hours.⁽¹²⁾ In 2013, the average length of stay, from admission to discharge, for individuals seeking mental health evaluations in the region’s EDs was 19.5 hours.

Psychiatric boarding can have a significant impact on ED resources, and prevent ED beds from being used for new patients.⁽²⁾ Additionally, there are increased costs associated with ED boarding, including costs for law enforcement, for the extra time spent in the EDs waiting on patients placed on 5150 holds to be assessed; increased nursing and security staffing; and costs associated with unnecessary diagnostic and laboratory tests required by inpatient psychiatric treatment programs prior to accepting a patient from the ED for admission and transfer. The average cost to board a psychiatric patient has been estimated at \$2,264.⁽²⁾ Significantly, the ED is not conducive to the healing of patients with mental health needs.

In March of 2010, the county contracted with Crestwood Center for a 12-bed psychiatric facility, and in 2012, expanded the contract to 32 beds.^(13,14) In September of 2012, the county's Department of Health and Human Services essentially reopened the CSU under a new name, the Intake Stabilization Unit (ISU).⁽¹⁰⁾ In 2013, the County also applied and received two grants under California's Investment in Mental Health Wellness Act of 2013, (SB 82). The first was used to implement a crisis Triage Navigator Program consisting of 21 contracted triage navigators at the county jail, hospital EDs, the ISU, and a homeless shelter. The second involved two pilot programs that develop mobile crisis teams, coupling law enforcement with counselors and peers.⁽¹⁵⁾ In March 2015, Sacramento County applied for \$5.7 million in state funding for three new 15-bed crisis residential units geographically dispersed throughout the region.

In October 2014, a regional Mental Health Improvement Coalition was convened by Valley Vision, a local not-for-profit. The coalition includes leaders from each of the region's health systems, SSVMS, the Hospital Council of Northern & Central California, Sacramento Metro Fire, the Sierra Health Foundation and other stakeholders. Since late 2014, the coalition has worked collaboratively with Sacramento County leadership to support a framework for rebalancing the continuum of behavioral health services. Areas of agreement include the step-wise re-opening of the crisis stabilization unit (CSU), the opening of an urgent care center to deliver behavioral health services, implementing medical clearance protocol, transparency and cooperation on the application of SB 82 funds, and an open discussion of geographically dispersed crisis stabilization services, including placement of psychiatric health facilities or PHFs, crisis residential beds, urgent care and other services.

“The system of behavioral health care is fundamentally broken. People in crisis have little option other than to access services through hospital emergency room departments, which are the least conducive environments for behavioral health patients to become well and receive appropriate services.”
Mental Health Improvement Coalition –
March 24, 2015

In a letter to the Sacramento County Board of Supervisors dated March 24, 2015, members of the Mental Health Improvement Coalition stated, “The system of behavioral health care is fundamentally broken. People in crisis have little option other than to access services through hospital emergency room departments, which are the least conducive environments for behavioral health patients to become well and receive appropriate services.”

With the coalition's support, the Sacramento County Board of Supervisors at its June 16, 2015, budget hearing, unanimously approved spending \$13.7 million for three, 15-bed crisis residential facilities, 20 subacute beds, an expansion of the county crisis-stabilization unit, and pharmaceutical supplies. The total includes the \$5.7 million anticipated from the State.

The coalition stakeholders continue to work with Sacramento County to rebalance the mental health system toward greater access to appropriate crisis stabilization services, and to reduce the use of hospital EDs for psychiatric emergencies. The proposed solutions set forth in this paper are not intended to replace or usurp the good work and recommendations of the coalition. Rather, the solutions discussed herein are thoughtfully offered as compliment to the County's strategy, and as part of a broader strategy to ensure that patients have access to quality medical care in the most appropriate setting.

RECOMMENDATION 1: *Implement an electronic Health Information Exchange (HIE) in the Sacramento region to help coordinate care of patients seeking emergency psychiatric services.*

As discussed in this white paper, the root causes behind the swell of patients experiencing a mental health crisis in the region's EDs are incredibly complex. To name a few, they include both historical and current policies, unpredictable funding sources, inappropriate transitions in care, and a host of other factors. However, one clear issue that we can act upon at this time is the lack of effective coordination and communication between healthcare providers of mental health patients. To this end, a regional Health Information Exchange (HIE) platform is recommended to facilitate improved provider communication, improved access to mental healthcare services, and reduced ED overcrowding.

Background

The National Push Towards Health Information Exchange

The concept of HIE is gaining momentum throughout the United States to allow for the transfer of electronic health data across different healthcare systems. The goal is to strengthen the network of health care connectivity so the patient health data can seamlessly transfer across a number of regional hospitals from which patients may seek care. These newly established networks rely on regulated, third-party entities to collect and distribute regional health data across all hospitals collaborating within a shared data agreement.

In 2012, nearly six in ten hospitals exchanged information with providers outside their institution, representing a 41 percent increase from four years prior.⁽¹⁾ These efforts have, in part, been driven by the need to improve patient safety and cost-effectiveness, as well as to ultimately serve patient populations in real time. As the Institute of Medicine's 2001, *Crossing the Quality Chasm*, report highlighted, redesigning the U.S. healthcare system to ensure reliable exchange of information will be essential to improving the quality of healthcare delivery in the United States.⁽²⁾

Indeed, healthcare organizations have come a long way since the transition from paper charts to electronic health record (EHR) systems. Despite these advances, patients seen by multiple providers lack timely access to their own medical records. This perpetuates inefficiencies in healthcare delivery, such as redundant laboratory testing and decision making based on incomplete medical information. The resulting discontinuity in care is exacerbated in high ED utilizers, of whom an estimated 80 percent have a history of mental illness.⁽³⁾ These patients, in particular, would benefit from a healthcare system that provides continuity across all providers from whom they seek care. Thus, the goal of HIE should be to enhance the interoperability of EHR systems, and in doing so, improve coordination and quality of healthcare delivery.

At the federal level, the Office of the National Coordinator for Health Information Technology (ONC) sees HIE development as a top priority.⁽⁴⁾ As a result, federal agencies have provided financial incentives for hospitals to push through HIE implementation. The Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 authorized the Centers for Medicare and Medicaid Services to create financial incentive programs. These programs target hospitals that incorporate specific EHR technologies within defined “meaningful use” criteria.⁽⁵⁾ The HITECH Act also created the State Health Information Exchange Cooperative Agreement Program. This program financed close to \$600 million for state initiatives designed to facilitate the transfer of clinical EHR information between providers.⁽⁶⁾

HIE technology eliminates constraints in accessing patient health information. While the benefits have been widely anticipated and studied in local contexts, the broader, long term effects have yet to be fully assessed. Some proposed benefits of HIE technology include more efficient hospital workflows with readily available patient health data, increased cost-effectiveness, overall improved quality of healthcare delivery, patient safety, and better informed clinical decision making.

While federal agencies see HIE development as a top priority at the national level, states have also taken it upon themselves to push the boundaries of health information technology with great success; the following Washington State case study is evidence of this.

Washington State – A Case Study

In 2009, Washington State became increasingly concerned about the growing costs of avoidable ED visits. In parallel to these concerns, Washington State Medicaid established a policy that would restrict hospital reimbursements for ED visits deemed medically unnecessary beginning in April 2012. In response, a coalition emerged between the Washington State Hospital Association, Washington State Medical Association, Washington State Health Care Authority, and Washington Chapter of the American College of Emergency Physicians with the goal of defining seven “best practice” standards to reduce avoidable ED visits.⁽⁷⁾ At the cornerstone of their reform agenda was the need for more accurate identification of frequent ED visitors and increased access by clinicians to comprehensive patient health information. With these objectives in mind, Washington State officials turned to HIE as a means to promote these changes. One study supporting their efforts suggests that HIE implementation increases the identification of frequent ED users by approximately 20 percent.⁽⁸⁾ Identification of such

patients could be used to notify hospital case managers and physicians of opportunities for enhanced patient care coordination and prospective cost savings.

In March 2014, the Washington State Health Care Authority released a report on the efficacy of their reform efforts reflecting the 2013 fiscal year. Notably, the report showed that their best practice standards led to a 9.9 percent decline in overall emergency department visits, and a 10.7 percent decline of “frequent ED visitors” (defined as five or more visits within a year), with an estimated annual savings of \$34 million.⁽⁹⁾ While the report recognized that these results could not be attributed to any single reform strategy, Washington State highlights the potential for increased care coordination through the use of health information technology.

Around the same time that the seven best practices were being developed, the Washington State Department of Health became aware of another concerning trend: the elevated rate of deaths from drug overdose in the state, which in 2008 had ranked 14th in the nation.⁽¹⁰⁾ In response, the ED Opioid Abuse Workgroup was formed, consisting of over 50 ED physicians within Washington State. This coalition met monthly to create uniform opioid prescription guidelines and encouraged use of HIE technology.⁽¹¹⁾ The idea was to create a strengthened system for communication among statewide ED facilities that would monitor patients’ patterns of multiple ED visits, diagnoses at each medical encounter, ED care plans with a list of patients’ medical providers, and link in a patient’s opioid prescription data. The aim in creating this network of health information was to diminish drug-seeking behavior. As the HIE program became more mainstream in EDs, patients would begin to recognize that their drug-seeking pursuit would be ineffective.

In order to facilitate the transition towards HIE, Washington State looked towards a software program known as the Emergency Department Information Exchange (EDIE). EDIE is the product of Collective Medical Technologies, a company that collaborates directly with ED physicians to establish a user-friendly EHR data exchange network. EDIE gathers ED patient information from all participating facilities, which at present captures 100 percent of Washington State EDs. It then cumulates this data into 12-month patient summaries, and notifies ED clinicians of high utilization patients. EDIE transmits alerts via email, phone, fax, text, or directly within the EHR interface, depending on the facility’s preference. The alerts allow clinicians to review a patient’s past ED visits from other hospitals for better informed and timely clinical decision-making.

Some proposed benefits of HIE technology include more efficient hospital workflows with readily available patient health data, increased cost-effectiveness, overall improved quality of healthcare delivery, patient safety, and better informed clinical decision making.

In addition, EDIE enables patient case managers and outpatient providers to upload care plans that are shared across all participating health systems. After EDIE was first implemented in Spokane and Olympia, Washington, insurance claims for pain patients that were high ED utilizers were assessed during the four months before and after implementation of HIE.⁽¹²⁾ Results showed a 37 percent decrease of overall healthcare expenditures, amounting to \$2,328

per patient. Dr. Stephen Anderson, the past president of Washington’s American College of Emergency Physicians, and an integral player in the statewide HIE initiative, noted that, “the startup cost for each emergency department to jump on board ranged from \$500 to \$25,000, but hospitals ended up saving that much money in a week, and costs keep going down as more hospitals join EDIE.” Eventually, the Washington State Hospital Association agreed to subsidize most of the associated costs if the majority of hospitals across the State endorsed EDIE.

Benefits of Health Information Exchange

Strengthened Healthcare Workflow and Accessibility to Health Information

Perhaps the most obvious benefit of HIE is the ability for physicians to quickly access patient data from hospitals outside their own networks. For clinicians that see patients outside their hospital network, the current system of healthcare delivery depends on well-informed patients who either have their medical information on-hand or can give their clinician enough information that enables them to then seek out the necessary documents. More often than not, physicians who wish to gather relevant details of their patients’ past medical history are forced to fax paperwork and place multiple phone calls to request these documents. Even then, it may take hours to days before the medical charts are received. This fragmentation of healthcare is especially prominent in psychiatric and emergency departments – settings in which patients may not have the capacity to provide a complete and accurate account of their own medical history.

One academic institution found that 81 percent of surveyed ED physicians felt that valuable time was saved after HIE implementation, with a mean time saved of 120.8 minutes.⁽¹³⁾ HIEs help to bypass workflow inefficiencies by creating a streamlined process of data gathering that saves both patients and physicians valuable time. Fortunately, the Sacramento region’s not-for-profit health systems, Dignity Health, Sutter Health, Kaiser Permanente and UC Davis Health System, are all at Level 2 meaningful use. Three out of the four systems utilize EPIC while one system utilizes Cerner for managing their EHR networks. EDIE is compatible with both EPIC and Cerner EHR programs.

Improved Cost-Savings and Resource Utilization

The nature of psychiatric wards and emergency departments often necessitates immediate decision making with limited information provided from patients. Physicians under these circumstances may be forced to order unnecessary diagnostic workups that are costly to the patient and deplete valuable time. Preliminary data supports the notion that HIEs can decrease healthcare costs through reducing unnecessary workups. A 2014 study, published in *Annals of Internal Medicine*, reviewed eight independent emergency department research studies, all of which focused on the effect of HIE on hospital resource utilization and efficiency. The researchers found that seven of these studies showed “modest to moderate” reductions in ED costs after HIE implementation that were secondary to decreased use of unnecessary laboratory tests and radiologic imaging.⁽¹⁴⁾ A separate study focusing on cost savings in an urban academic medical center found that patients who had prior medical information in the HIE system saved an average of \$2,699.77 per ED visit.⁽¹³⁾ These savings were also attributed to avoided radiologic studies and laboratory tests.

Enhanced Patient Safety

Another potential advantage of HIE is increased patient safety by way of improved medical information processing. The Institute of Medicine's seminal report, *To Err is Human*, revealed that approximately 44,000 – 98,000 deaths occur annually from medical errors.⁽¹⁵⁾ The sources of these errors are multifactorial and the focus of much quality improvement research. As the Institute of Medicine's follow-up study, *Bridging the Quality Chasm*, concluded, the quality of healthcare delivery in the United States cannot improve within the constraints of the current model. Reflecting on this, HIE technology offers healthcare systems a novel approach towards information processing by helping to close information gaps that contribute to sources of preventable patient injury or death. For instance, one study noted that approximately 18 percent of patient safety errors occur because of an absence of information at the time a medication decision was made.⁽¹⁶⁾ HIE would enable multiple EHR networks to fill in these knowledge gaps by creating a robust list of patient drug-allergy and drug-dose information, with the hope that this would reduce the frequency of adverse drug events.⁽¹⁷⁾

Other Considerations to Address

The potential for HIE technology to positively impact the quality of healthcare delivery in the United States is promising considering the preliminary data that is available at this time. However, regional and statewide efforts towards successful HIE implementation must address legal considerations, as well as hospital and physician buy-in of sharing sensitive patient health information.

Legal Considerations

The legal framework by which healthcare systems examine patient information privacy issues is through the Health Insurance Portability and Accountability Act (HIPAA) of 1996. Under the HIPAA Privacy Rule, federal protections are afforded to individually identifiable patient health information that is held by healthcare entities and their business associates. However, the law also affords protections to health systems by allowing them to transfer patient data without the consent of patients when this information is used for treatment and patient care.⁽¹⁸⁾ Provided that healthcare systems enter into a "Business Associate Contract" with the HIE program they wish to affiliate with, the HIE systems are in essence considered business associates of the health system. These contracts, in part, help ensure that appropriate safeguards are in place with the handling and transfer of patient health information. Thus, the legal consensus regarding HIEs is such that this form of communication through third party business associates is protected under HIPAA rules, and allows for the transfer of identifiable health information without the explicit consent of patients.

Some hesitation exists with HIEs, however, because they introduce new avenues of potential health data breaches. In response to these concerns, both independent and state-run initiatives have begun to assemble with the hope that they may establish regional standards for HIE policy and implementation. One notable example is the California Association of Health Information Exchange (CAHIE), which was established in 2013 and represents over one dozen HIEs throughout the state. Through its efforts, CAHIE has formed a multi-party trust agreement that defines policies surrounding HIE communication within California hospital networks. While

established HIE policy and interoperability standards will take time to develop as more organizations advance HIE technology, associations similar to CAHIE will be essential in catalyzing these initiatives.

Stakeholder Buy-In

Healthcare communities will also need to address the level of buy-in from both physicians and hospitals regarding HIE implementation. Despite encouraging data suggesting the concrete benefits of HIE, the hesitation to adopt this technology may be multifaceted. Hospitals may feel that sharing their patient data across multiple hospital networks will weaken their leverage to keep patients within their own institution. At the same time, hospitals may hesitate to be the first in their community to invest in HIE if other hospitals are unwilling to do the same, since the benefits of open-data exchange only materialize when multiple hospital networks engage in the process. Additionally, physicians may be reluctant to use HIE with the assumption that it would disrupt their workflow, create extra work, or fail to provide the needed information. Barriers may also arise for physicians due to additional login requirements when accessing the HIE, difficulties in navigating through the system, or poor technical support and training.⁽¹⁹⁾ These barriers should not be seen as absolute, and in fact, highlight the need for more concerted efforts to establish state and national standards for HIE implementation, similar to the efforts being made by CAHIE and other HIE associations throughout the U.S.

Proposing a Sacramento HIE Pilot Program

The Sacramento County region stands to benefit greatly from implementation of a pilot HIE that tackles the issue of ED overcrowding due to patients with mental health crises. The previously mentioned coalition of major health systems that provide ED or inpatient psychiatric services in Sacramento County indicates high motivation from providers to push forward with effective solutions. The region's health systems would see this as an opportunity to make more beds available for life-threatening, medical emergencies while simultaneously facilitating more timely care for mental health patients. Inpatient psychiatric providers may see this as an opportunity to improve coordination and quality of care for their patients, and potentially improve patient retention in the process. Sacramento County is also an operator of inpatient psychiatric services and crisis stabilization through the Mental Health Treatment Center, and would significantly improve care for the vulnerable population they serve if care plans were uploaded to a regional ED-based HIE.

Following is an example of the projected workflow: Suppose we have a patient with schizophrenia previously treated at SCMHTC who presents to a local ED in acute psychosis. Once registered, the patient's record number is automatically sent from the EHR using HIPAA-compliant, secured connections to a third party operating the HIE. If certain criteria are met, an alert is sent back directly into the ED physician's EHR interface. When the physician clicks the alert, a one-page report appears with brief information on dates, locations and reasons for previous ED visits in the last year. It also contains a link with single sign-on capability to see narcotic prescription history. Most importantly, a mental healthcare plan is available from SCMHTC with details on the patient's psychiatric condition, potential medical comorbidities, treatment history, current psychotropic medications, contact information of the patient's

outpatient providers, and guidance on next steps should the patient need more intensive treatment. The ED physician determines the patient is medically cleared, and armed with information from the HIE and care plan, decides the patient needs further inpatient services. The facility listed in the care plan is contacted and a more timely transfer process ensues.

Summary

It is recommended that Sacramento region hospitals, health systems, and ancillary psychiatric care providers implement a regional Health Information Exchange network that actively encourages case management of patients at high risk of presenting to the ED with a mental health crisis.

An extensive literature review suggests incorporating the following best Health Information Exchange-practices:

- **Seamless integration of HIE with EHR programs currently in use (e.g. Epic, Cerner).** Ideally, HIE databases would avoid additional login requirements in order to minimize further barriers to access and usability.
- **Patient information and care coordination plans delivered through HIE are concise.** The benefits of HIE are maximally appreciated if the information that healthcare providers receive is clearly summarized, pertinent to patient care, and facilitates efficient decision-making. This will also help avoid unnecessary information overload.
- **User-friendly HIE interfaces that are flexible to the needs of each health system.** Patient care summaries provided through HIEs should be individualized to the context of the healthcare setting for which this information is being received.
- **HIE integration into ED workflow.** As compared to other healthcare sectors, emergency departments have the potential to benefit the most from HIE implementation with respect to care coordination and cost savings. As such, high ED utilizers should be automatically identified and flagged through regional HIEs upon hospital presentation in order to increase utility of HIE information. Incorporation of HIE into ED workflow should involve input from both clinical and administrative leadership.
- **Shared data agreements should be considered when facilitating the exchange of patient information between health providers of different EHR networks.** As more health systems begin introducing HIE technology, it becomes increasingly important to delineate the parameters of patient data use (e.g. restricting use of data to patient care and not to research purposes). Numerous statewide organizations have taken on this responsibility of advancing reliable, secure HIEs throughout their region, and have facilitated the use of shared data agreements in the process.
- **Interconnectivity across the continuum of patient healthcare settings.** Interoperability of patient data exchange should include outpatient providers, hospitals, skilled nursing facilities, and residential care facilities, among others. Incorporation of HIE throughout a broad spectrum of care facilities will strengthen the health safety net of the most vulnerable populations, including patients with mental health illness.

RECOMMENDATION 2: *Standardize the medical clearance process across all EDs and inpatient psychiatric treatment programs to facilitate the timely transfer of patients to appropriate treatment centers.*

In the Sacramento region, patients are frequently brought in or present at one of the area's EDs for mental health reasons without presenting problems requiring medical evaluation and treatment. To facilitate the medical clearance, SSVMS brought together specialists in the fields of emergency medicine and psychiatry to develop a standardized medical clearance form, which includes a series of questions under the acronym SMART. A score of '0' on the form indicates no further workup is necessary, and would allow for prompt transfer of patients from the ED to a more appropriate inpatient setting. Adoption of the SMART Medical Clearance Form (Appendix A) by each of the Sacramento region's EDs, as well as by all inpatient psychiatric facilities, would vastly expedite the transfer process of mental health patients to an appropriate inpatient treatment program, reduce costly and unnecessary diagnostic tests, and ensure that patients receive timely treatment.

Background

In an effort to streamline the admission and transfer of patients requiring inpatient psychiatric treatment from the ED, SSVMS' Emergency Care Committee (ECC) in 2009, convened a series of meetings with the region's inpatient psychiatric hospitals to obtain each facility's admission criteria. A Comparative Psychiatric Inpatient Admission Criteria matrix was subsequently developed. The document, which includes facility-specific admission criteria for each psychiatric hospital, has for several years assisted emergency department physicians in identifying admission criteria specific to each inpatient psychiatric facility.

With the increasing number of individuals presenting to the region's EDs, it became clear that a new approach to identifying patients that are appropriate for transfer to an inpatient psychiatric facility was needed. Unfortunately, the acceptable admission criteria was utilized and interpreted to be a form of medical clearance, which it was not. Furthermore, when it came to medical clearance, each physician was taking a different approach and felt obligated to order numerous tests that were unnecessary, costly, time consuming and labor intensive to obtain.

When an individual in mental health crisis presents to the ED, current practice is to perform a focused history and physical exam to ensure that there are no urgent medical needs. Once the patient is deemed to have no acute medical need and the presentation is thought to be purely psychiatric, barriers frequently prevent timely transfer to an inpatient psychiatric treatment program. Prior to accepting a patient, many inpatient psychiatric programs require laboratory screening such as a CBC, Chem7, TSH, urine analysis, urine toxicology, alcohol level, acetaminophen level, beta HCG, and salicylate levels. Some of the receiving institutions will require that a repeat alcohol level be drawn to 'prove' that the patient has metabolized.

Many studies have shown that routine laboratory testing of all patients is of very low yield and results in prolonged lengths of stay in the ED, increased costs to the healthcare system, and increased stress for patients who are already in crisis. Instead of routine laboratory screening

testing in the ED, the data support more selective testing for patients with co-existing medical need.

In 2014, SSVMS' ECC developed and endorsed an alternative medical clearance protocol, the SMART Medical Clearance Form. The form was developed using an evidence-based approach through review of peer-reviewed articles and studies, as well as consultation with experts in the fields of psychiatry and emergency medicine, both locally and nationally.

The ED medical directors reached consensus that regional adoption of the SMART Medical Clearance Form will:

- Assist the ED physician with ruling out organic causes for patients presenting with perceived behavioral health symptoms.
- Insure medical stability of patients and appropriateness for transfer to an inpatient psychiatric facility.
- Facilitate the timely transfer of patients requiring inpatient psychiatric treatment.
- Promote patient safety by standardizing the medical clearance process among the region's ED physicians.
- Reduce costs by eliminating unnecessary diagnostic tests.

Regional Collaboration

The success of the SMART medical clearance protocol is dependent on regional adoption of the SMART Medical Clearance Form. Standardization of the medical clearance process helps promote patient safety by ensuring that all ED physicians in the region are performing the same evaluation that is thoughtful, patient specific and evidence-based.

Feedback on the SMART Medical Clearance Form and its utility was sought from the SSVMS Mental Health Task Force, which consists of psychiatrists practicing in both inpatient and outpatient settings throughout the Sacramento region. There was unanimous agreement that the SMART Medical Clearance Form included evidence-based best practices and was patient centered.

As a stakeholder participating in the Sacramento County Mental Health Improvement Coalition, SSVMS had the opportunity to introduce the SMART medical clearance protocol to the coalition's Workgroup on Medical Clearance, a workgroup comprised of physicians from the specialties of emergency medicine and psychiatry, as well as leadership from SSVMS, the Sacramento County Mental Health Treatment Center, Sacramento Metro Fire, Sacramento County Emergency Medical Services (EMS), and a patient-rights advocate.

Standardization of the medical clearance process helps promote patient safety by ensuring that all ED physicians in the region are performing the same evaluation that is thoughtful, patient specific and evidence-based.

Members of the workgroup agreed that the protocol developed by SSVMS represents evidence-based best practices and recommended that the Mental Health Improvement Coalition endorse the SMART Medical Clearance Form to facilitate the transfer of patients experiencing a mental health crisis from the ED to the Sacramento County Mental Health Treatment Center. Pending review of the proposed protocol by each health system's respective legal counsel, regional implementation of the SMART Medical Clearance Form is anticipated during the 4th Quarter of 2015.

The evidence-based best practices used to develop the SMART medical clearance protocol were also utilized by the workgroup to develop a tool for non-clinical personnel to use in the field as part of the Sacramento County Mobile Crisis Team program. The "Assessment of Medical Appropriateness for ISU Transport" medical clearance form enables non-clinician members of the mobile teams to determine if an individual is appropriate for direct transport to the Sacramento County Inpatient Stabilization Unit. Navigators, working with the Sacramento County Mobile Crisis Team, are currently using this assessment tool.

To further facilitate regional adoption of the SMART Medical Clearance Form, SSVMS and the Hospital Council of Northern and Central California convened the medical directors and administrators from each of the region's inpatient private psychiatric hospitals. There was agreement that the medical clearance process proposed would be a valuable tool and would ensure accountability of both the transferring facility and the receiving facility.

Summary

To facilitate the safe and timely transfer of individuals experiencing a behavioral health crisis from the Emergency Departments to appropriate inpatient treatment, it is recommended that the Sacramento region's EDs and inpatient psychiatric treatment programs endorse a standardized medical clearance process.

Significant progress has been made in this regard, and it is anticipated that the SMART Medical Clearance Form will be implemented on a region-wide basis in 2015.

RECOMMENDATION 3: *Establish dedicated psychiatric emergency services (PES) to ensure that patients experiencing a mental health crisis receive the right care at the right time.*

SSVMS applauds the Sacramento County Board of Supervisors for the unanimous vote at its June 16, 2015, budget hearing to allocate \$13.7 million to expand the county's crisis stabilization services, and to open three, 15-bed crisis residential units. Although the approval of this funding is an important first-step to rebalancing the system, alternative treatment designs, such as dedicated psychiatric emergency services (PES) should be considered to ensure that patients experiencing a behavioral health crisis receive care in an environment that is conducive to healing.

Many proposed solutions have focused solely on increasing available inpatient psychiatric beds, rather than considering alternative designs that provide access to care and may reduce the need for hospitalization. Best practices and evidence-based programs may provide an option to

reducing the cost of services and lessening the need for costly inpatient hospitalizations. An example of this type of a system is a dedicated PES.

Background

PES is a stand-alone ED specifically for patients experiencing a behavioral health crisis. It aims to provide timely, specialized care to patients with mental health emergencies. As a dedicated psychiatric ED, a PES accepts patients who are either transferred from a regular ED, taken there directly by ambulance or law enforcement or who walk in. Unlike Sacramento County's current form of a crisis stabilization unit, a PES essentially accepts all patients.

Regular EDs are not conducive to healing. Additionally, the ED is not secure, presents special risks for suicidal patients, and increases the risk for elopements. The PES, on the other hand, provides a comfortable, calm environment for patients as they are evaluated. It is a less restrictive care option that, in addition to crisis stabilization, provides case management programs, medication evaluation and management, and referral to community services. Rather than immediate admission to an inpatient psychiatric facility, patients are under treatment for up to 24 hours in a PES, and only then is a decision made for discharge or transfer to an appropriate setting. This extended period provides enough time for the unit's prompt interventions to effect patient improvement and healing, which can result in far less need for hospitalizations in the majority of individuals.

By providing immediate assessment and treatment, a PES can dramatically alleviate the demand for inpatient psychiatric beds. A study by the California Hospital Association estimates that a minimum of 300,000 individuals placed on 5150 holds spend time in hospital emergency departments annually. It is further estimated that at least 210,000 (70 percent) of these individuals did not meet the criteria for inpatient admission under the LPS 5152, 72-hour involuntary hold criteria.⁽¹⁾ An additional study revealed that transferring patients to a psychiatric emergency services program from EDs, rather than to inpatient psychiatric hospitals, led to a 50 percent reduction in psychiatric hospitalizations.⁽³⁾

By providing immediate assessment and treatment, a PES can dramatically alleviate the demand for inpatient psychiatric beds.

In addition to being an alternative to inpatient hospitalization, the PES model has reduced boarding of psychiatric patients in the ED.⁽²⁾ One study found that by transferring patients from general hospital EDs to a PES, the length of boarding times for patients awaiting psychiatric care was reduced by over 80 percent versus comparable state ED averages.⁽³⁾

There are several PES models operating in California. The John George Psychiatric Hospital in Oakland is a stand-alone psychiatric emergency department that is part of the Alameda County Health System. Since its implementation, the Alameda PES has decreased boarding times in Alameda County's EDs and decreased psychiatric hospitalization rates.⁽⁴⁾ The program has dramatically reduced the amount of time that mental health patients are held in EDs in Alameda to less than two hours, and has also been able to refer over 76 percent of the 5150 patients to community resources rather than hospitalization.⁽⁴⁾

Benefits of a Regional Dedicated Emergency Psychiatric Program

- Patient receives immediate crisis intervention and observation.
- By getting the patient to the appropriate level of care, inpatient psychiatric hospitalizations are reduced. Discharge rates within first 23 hours of 70 percent or higher very common, meaning less than 30 percent admitted to inpatient beds – better for patients, preserves inpatient bed availability, and reduces costly inpatient hospitalizations.
- Accepts self-presentations and ambulance/police drop-offs directly, allowing medically stable patients to avoid the ED completely.
- Reduces ED overcrowding and boarding by accepting both direct admissions and transfers from the ED.
- By reducing ED boarding, allows EDs to more timely attend to patients with medical issues.

Improved, timely access to care, along with the savings from reduced boarding times and hospitalization costs, make the PES model worth exploring as part of the mental health delivery system in the Sacramento region.

Summary

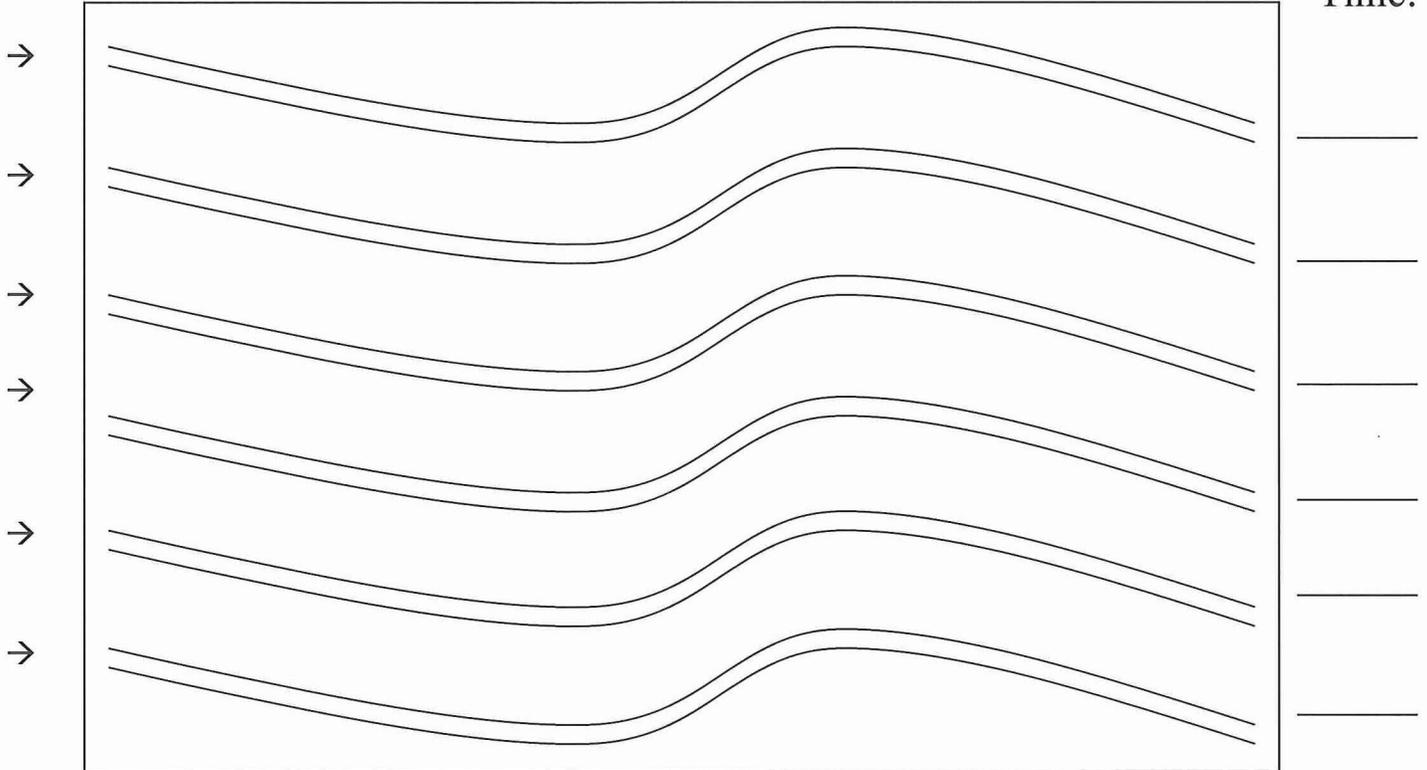
To provide timely, specialized care to patients with mental health emergencies and alleviate the demand for inpatient psychiatric beds, it is recommended that dedicated psychiatric emergency services (PES) be established in the Sacramento region.

H Intoxication Index (HII)

Time →	1)	2)	3)	4)	5)
Vital Signs →	BP: _____				
	Pulse: _____				
	Temp: _____				
Time Admitted _____	O ₂ Sat: _____	O ₂ Sat: _____	O ₂ Sat: _____	O ₂ Sat: _____	O ₂ Sat: _____
Time Discharged _____	Glucose: _____	Glucose: _____	Glucose: _____	Glucose: _____	Glucose: _____
If obtained:	[EtOH]: _____				
	breath serum				
Method (circle one):					
Gross Motor Function:					
Unable to cooperate; cannot sit up	4	4	4	4	4
Can sit up, but unsteady	3	3	3	3	3
Can sit up steadily	2	2	2	2	2
Can stand and walk, but unsteady	1	1	1	1	1
Can stand and walk steadily	0	0	0	0	0
Mentation and Speech:					
Unable to cooperate; unintelligible speech/moans	4	4	4	4	4
Slurred speech; does not make sense	3	3	3	3	3
Slurred speech; answers some questions	2	2	2	2	2
Imperfect speech; answers most questions	1	1	1	1	1
Baseline speech; lucid and appropriate	0	0	0	0	0
Tracing Curve:					
Unable to participate	4	4	4	4	4
Makes mark on paper	3	3	3	3	3
Traces mostly out side of line	2	2	2	2	2
Traces mostly inside lines	1	1	1	1	1
Traces curve perfectly	0	0	0	0	0
Nystagmus:					
Unable to participate	4	4	4	4	4
Profound nystagmus / can't follow finger with eyes	3	3	3	3	3
Moderate nystagmus/ follows finger for short distance only	2	2	2	2	2
Minimal nystagmus/follows finger with eyes whole time	1	1	1	1	1
No nystagmus/ follows finger with eyes whole time	0	0	0	0	0
Finger to Nose Testing:					
Unable to participate	4	4	4	4	4
Grossly unsteady/misses targets	3	3	3	3	3
Unsteady and inaccurate/barely touches targets	2	2	2	2	2
Steady/ touches targets , but inaccurate	1	1	1	1	1
Steady/ accurately touches targets	0	0	0	0	0
Total Score→					
Overall: How intoxicated does the patient appear?	Extremely Very Moderately Minimally None	Extremely Very Moderately Minimally None	Extremely Very Moderately Minimally None	Extremely Very Moderately Minimally None	Extremely Very Moderately Minimally None
Heath Care Provider initials					

Tracing:

Time:



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