Agenda

4:00 p.m.  1.  Introduction of Members and Guests

4:05   2.  Approval of Minutes of March 12, 2014

4:06   3.  Comments from the Public  
       Members of the public may speak up to 3 minutes each on matters either on or not on this agenda.

4:09   4.  Chair’s Report

4:12   5.  Members’ Reports

4:15   6.  Fire Chiefs’ Reports

4:18   7.  2014 Mission: Lifeline® EMS Bronze Level Recognition Award  
       Mick Smith, Regional Director, American Heart Association

4:28   8.  EMS System Plan Approval  
       Pat Frost, EMS Director

4:38   9.  Update on Doctor’s Medical Center Contingency Plan  
       Pat Frost, EMS Director

4:48  10.  Laura’s Law Presentation  
        Douglas Dunn & Lauren Rettagliata, County AOT Workgroup

5:00  11.  EMS Modernization Study and RFP Update  
        Pat Frost, EMS Director

5:10  12.  EMS Director’s Report  
        Pat Frost, EMS Director

5:20  13.  EMS Medical Director’s Report  
        Joseph Barger, MD, EMS Medical Director


5:30  15.  Adjournment
HEALTH INFORMATION EXCHANGE SERVICES IN SUPPORT OF DISASTER PREPAREDNESS AND EMERGENCY MEDICAL RESPONSE

Assessment of Opportunity in California and the Gulf Coast

April 21, 2014
Prepared for the Office of the National Coordinator for Health IT under Subcontract 76-01074-000-44 to A+ Government Solutions under Prime Contract GS35F0565T/N10PD18202

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This report was created by Audacious Inquiry, LLC under a contract with A + Government Solutions and the Office of the National Coordinator for Health Information Technology (ONC). The content, views, and opinions do not necessarily reflect those of the Department of Health and Human Services or ONC.
Executive Summary

Over the last decade, a number of significant disasters have struck the United States, including hurricanes, tornadoes, pandemic flu, and terrorist attacks. Each of these events has resulted in evacuations and/or the treatment of patients outside of where they traditionally seek medical treatment. Consequently, care is often provided with incomplete information, which may impact the quality of care or cause harm to patients. As the nation has moved towards the digitization of patient health information, many initiatives have focused on how electronic patient data can be used during a disaster or emergency to improve care. Additionally, many have considered how health information exchange (HIE) can support healthcare professionals not only during disasters, but also during day-to-day emergencies. While significant progress has been made since one of the U.S.’s worst disasters, Hurricane Katrina, the country as a whole was recently given a grade of “C-” for disaster preparedness and a “D-” for access to emergency care, suggesting that additional work is needed.1

The Office of the National Coordinator for Health Information Technology (ONC), the federal agency that oversees the nationwide effort to transition to and meaningfully use health information technology (HIT), has sought to capitalize on the emerging HIT infrastructure. To address the challenges associated with providing care during emergencies, ONC contracted with Audacious Inquiry (Ai) to develop a report on this topic. Ai focused its efforts on two geographic areas that are vulnerable to a high number of natural disasters: California and the Gulf Coast (Louisiana, Mississippi, and Texas). Officials in both of these areas have spent considerable time developing disaster preparedness and response plans. Additionally, hospitals and emergency medical services (EMS) providers in both California and Louisiana are developing use cases and pilots for sharing of EMS data with hospitals. By focusing on these two geographic areas, Ai developed two initial use cases: 1) sharing of patient data between EMS providers and hospital emergency departments (EDs) through a health information organization (HIO) and 2) deployment of a disaster response medical history web portal.

Ai held virtual and in-person meetings with critical stakeholders, including: EMS providers and organizations, public health agencies, state health information technology (HIT) coordinators, health information organizations (HIOs), health systems, and emergency preparedness officials in California and the Gulf Coast. In addition, Ai met with National EMS Information System (NEMSIS) staff.2 The meetings were used to solicit feedback on the two high level use cases, and used to further refine the use cases. Based on stakeholder input as well as the belief that incremental progress can and should be made, while working towards the ultimate goal of ubiquitous health information exchange (HIE), Ai recommends ONC pursue additional activities related to the following two use cases.

1) **EMS bidirectional data exchange with hospitals**: EMS personnel send data from their electronic patient care record (ePCR) to hospital EDs. The hospitals make patient data available to EMS personnel for query while in the field. Finally, patient outcome

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2 NEMSIS is a national effort to standardize data collected by EMS providers.
information to support EMS quality improvement objectives is sent from the hospitals to EMS providers. The use case would be accomplished with the support of an HIO that is responsible for mapping and routing the data among EMS providers and hospitals.

2) **Disaster response medical history portal**: Using Integrating the Healthcare Enterprise (IHE) standards, connect health systems and HIOs to an interoperability broker that can be accessed via a web portal user interface. During a disaster (the definition of which is agreed upon by participants in advance), the web portal is activated. Healthcare professionals employed by health systems or participating with HIOs would be able to access patient records through their existing systems, and other healthcare professionals, and possibly first responders, would be able to access the portal through a URL.
Introduction

The continuously evolving capacity of various health information organizations (HIOs) around the country presents new opportunities to leverage health information exchange (HIE) infrastructure to support natural and man-made disaster response, as well as day-to-day emergency medical services (EMS) operations. Motivated by past experiences with major disasters such as Hurricanes Katrina, Rita, and Sandy and the unfortunate eventuality of future disasters, developing HIE capacity aimed at supporting clinical data exchange during disaster response, should be a national priority. The past decade of activity to develop a national framework for data exchange among HIOs, and importantly, with Federal Agencies, has created a model which is applicable to pursuing an initiative to support clinical data exchange during disaster scenarios.

Each state’s emergency response plan includes local and federal components. Each state has a designated state-level official who is in charge of public health aspects of emergency response during declared emergencies. Local government agencies are involved with emergency response through mobilization of local assets and administration of particular components of state and federal emergency response plans. In addition to their role in disaster response, state and local officials and organizations have an important role to play in daily emergency operations. There are a number of opportunities for health information technology (HIT) and HIE to be used in support of emergency response. The opportunities for using HIT in support of emergency response range from daily emergency operations, through the phases of disaster preparedness, response, and recovery. The objective of the research effort leading to this report, was to assess the current state of both EMS agencies/providers’ and HIOs’ capacity and interest in collaborating to pursue EMS and disaster response oriented exchange services in California and the Gulf Coast.

As is the case with any HIE pursuit, there are significant complexities which must be grappled with in order to effectively enable this critical national use case. For example, our discussions found general consensus that a disaster response service used infrequently would be ineffective when actually needed. Those responsible for disaster preparedness and response, that the team interviewed, cautioned against a solution which would be rarely used and include foreign workflows and unfamiliar toolsets. Yet, the findings of this report suggest that the existing Integrating Healthcare Enterprise (IHE) standards associated with the eHealth Exchange and the collaborative willingness in key stakeholders in California and the Gulf Coast, create an environment in which a pilot is not only possible, but poised to become a successful demonstration.

While the initial focus of this effort was tilted towards exploring disaster response opportunities, it quickly became apparent that EMS agencies, HIOs, and hospital stakeholders see significant opportunities for HIE services focused on daily EMS operations. Indeed, a number of pilots and initiatives aimed at data exchange among EMS responders and hospitals already exist in California. The broad framing of these exchange efforts has been to extend the continuum of care into pre-hospital care, premised on the fact that information captured during EMS response is both relevant and valuable to subsequent hospital care. Holding that premise as true, if more effective interoperable exchange of pre-hospital information were possible, the transition to hospital care could be made in a more timely and effective manner.
The findings of this report suggest that the core ingredients are in place in certain areas of California and the Gulf Coast to support successful pilots on both the disaster response use case and EMS-to-hospital data exchange. Those core ingredients include a willingness among relevant stakeholders to jointly pursue the use cases, and the technical capacity to pursue pilot demonstrations. Ultimately the value associated with the HIE service must be great enough to justify financial support for and sustainability of the service. The remainder of the report will explore the details associated with the use cases, including the technical details on how the use cases could be accomplished as well as their application in areas of the Gulf Coast and California.

**Geographic Focus Areas**

The selection of the Gulf Coast and California as the focus of this assessment and report was based on the historic precedence of natural disasters, existing work on EMS-based use cases, and the array of HIE activities occurring in regions within each geography. The team engaged in discussions with leaders from state and local EMS, HIOs, state agencies, and other hospital and provider stakeholders throughout California and the Gulf Coast. These discussions, forums, interviews, and perspectives shared throughout the course of the effort are described below and organized into two separate overviews of how the work in each locality. While the team entered into the discussions with high-level use cases outlined, a free-flowing discussion was encouraged, this shaped both the discussion and the use case evolution that stemmed from those discussions.

**California Overview**

As the most populous U.S. state and one of the largest geographically, California has espoused an approach to HIE that is necessarily regional by nature. Both the role of the HIO and the HIE service offerings in each region vary greatly, with some HIOs acting in a coordinating capacity and others offering end-user HIE services. Importantly, there are significant enterprise HIE activities (i.e., those sponsored by a health system or integrated delivery network) throughout the state which enhance the overall opportunity by diversifying services beyond “public” or multi-stakeholder HIE efforts.

The assessment conducted in California included a series of phone calls and on-site visits with a number of stakeholders from the San Francisco Bay Area to San Diego. Organized through the State of California Emergency Medical Services Authority (Cal EMSA), four meetings were held over the course of four days, bringing together stakeholders in three geographic regions to discuss EMS related use cases and assess the viability of pursuing them as pilots in California. An overview of each session and key takeaways are outlined below.

**State Government Entities**

The team began the on-site visits by meeting in Sacramento with leadership from Cal EMSA, the Office of Health Information Integrity (OHII) within Health and Human Services, the Department of Health Care Services, and the Department of Public Health. Leadership from the Hospital Council of Northern and Central California also attended the meeting in Sacramento. Cal EMSA also currently serves as the coordinator of Emergency Function 8, Public Health and
Medical, as part of the State Disaster Response Plan, and works closely with Federal HHS partners in coordinating the ESF8 disaster preparedness component.

The level of coordination and interest in a collective pursuit of a collaborative EMS-related HIE use case was immediately apparent. Cal EMSA recently partnered with Lumetra to produce an HIE and EMS readiness assessment, which evaluated electronic patient care record (ePCR) adoption throughout the state and established a staged framework for ePCR adoption leading towards HIE participation. Cal EMSA, in particular, has quickly escalated ePCR adoption and HIE participation as a critical component of their strategy moving forward. More information on ePCR can be found in this document under Use Case Descriptions. Cal EMSA leadership participated directly in the subsequent meetings throughout the state, assisting in generating a highly collaborative series of multi-stakeholder sessions evaluating specific HIE opportunities.

Emergency Response

Day-to-Day EMS Operations Use Case

The diverse set of participants in each session led to a range of perspectives on what would be most valuable in terms of near-term opportunities for EMS to leverage HIE services. There are basic challenges that exist within daily EMS operations that were raised, but not necessarily problems that were readily addressable through enabling an HIE service. For example, there is general awareness that the delay for an EMS advanced life support team to receive the necessary documentation from the hospital (and in many cases to transfer a patient off the gurney he or she arrives on) causes inefficient use of a given county or region’s EMS capacity. It was determined that addressing this particular challenge may not be the best place to start in bringing HIE services to EMS.

In each session, the use case of transferring pre-hospital EMS data to the hospital emergency department (ED) was presented with a focus on enabling basic demographic, status, and chief complaint/observation information to the ED in a format consumable by hospital information systems. In fact, most participants in all of the sessions agreed that just transferring basic demographics to the hospital in advance or at the time of arrival could significantly improve the efficiency of the patient transition to ED care. An important point of agreement was that the notion of the continuum of care should be expanded to incorporate EMS. Furthermore, supporting the transition to ED care with electronic exchange of relevant information was universally agreed to be a high-impact aim.

The Contra Costa Emergency Medical Services Data Infrastructure Project, the Health Share Bay Area pilot in partnership with Kaiser Permanente and American Medical Response (AMR), the Inland Empire HIE coordination with the local EMS agency, and the San Diego Health Connect efforts each represent an opportunity to build reference implementations, and in the case of San Diego, to refine the business model, associated with pre-hospital to ED data exchange. Focusing

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on establishing basic data exchange by transferring patient identity information and core complaint (and STEMI, Stroke, or Trauma indicators) to the destination hospital could offer an important baseline from which to expand and improve on the interoperability between the NEMSIS and CCDA standards (described further below).

While much of the discussions focused on the pre-hospital to ED transfer of data, there was an overarching and loud chorus of EMS representatives (state and local levels) who, while supportive of pursuing this specific use case, emphasized the importance of receiving post-hospitalization outcome data to support quality improvement efforts. A further treatment of this issue is offered below.

**Disaster Preparedness and Response Use Case**

The disaster response use case discussion evolved in an important way over the course of the sessions. The initial use case presented focused on creating the lowest barrier opportunity to enable access across public and enterprise HIE organizations. As presented at the conceptual level in each session, by focusing on a basic single-sign on assertion (e.g., SAML 2.0), a basic website could establish pre-existing connectivity with participating HIOs to enable access under certain disaster declaration scenarios. The initial hypothesis was that avoiding the need to comply with IHE-based eHealth Exchange transactions could reduce the technical burden, costs, and overall barriers to participate. However, the following key points below, impacted the ultimate use case:

- Although simple access to other HIEs would be valuable, knowing how to navigate their technologies would be problematic in practice.
- The variety of formats in which data could be presented, could make it difficult for users, to effectively use the information, especially during the stress of disaster response.
- Many HIE efforts in California are already pursuing use of the eHealth Exchange transactions for broader exchange efforts.
- Most public and enterprise HIOs in California use an array of technologies including Mirth, Epic, and Orion; each of which have demonstrated effective use of the eHealth Exchange transactions.
- Use of a standardized format (Blue Button was referenced) could create uniformity of record structure when accessing data across various platforms.

A final key point from the discussion centered on the definition of a disaster. An important aspect of driving willingness to participate in the use case was the limited circumstances in which cross-HIE access would be enabled. While CaHIE and the HIOs throughout California coordinate to achieve the broader future objective of on-going exchange among HIOs, national experience suggests that smaller incremental steps can be valuable, while still working towards that goal. While this use case focuses on declared disasters, there is an opportunity to extend the use case to smaller emergencies, which still move patients outside of their normal system of care (e.g., trauma level care). The findings in this report suggest beginning with a focus on declared disasters in order to drive participation, expanding the scope to include the use of smaller, but still critical response situations, is a natural near-term evolution.
Organizations Represented in Regional Meetings

**Bay Area**
- California Association of Health Information Exchanges (CaHIE)
- Health Share Bay Area
- Contra Costa County Emergency Medical Services Agency
- Alameda County Emergency Medical Services Agency
- Kaiser Permanente
- California Hospital Association
- American Medical Response (AMR)

**Los Angeles**
- Inland Empire County Emergency Medical Services Agency (ICEMA)
- Orange County Emergency Medical Services Agency
- Los Angeles City Emergency Medical Services Agency
- Los Angeles County Fire Department
- LANES – Los Angeles HIE
- Orange County Partnership Regional Health (OCPRHIO)
- Inland Empire Health Information Exchange
- Hospital Association of Southern California

**San Diego**
- San Diego County Emergency Medical Services Agency
- San Diego City Fire-Rescue
- San Diego Health Connect
- San Diego Department of Health
- First Watch
- Riverside County Emergency Medical Services Agency
- American Medical Response (AMR)

**Gulf Coast Overview**

The U.S. Gulf Coast, home to millions of people, is subject to annual hurricane seasons that have the potential to bring damaging and deadly storms to highly populated urban areas like Houston, Texas and New Orleans, Louisiana. These storms cause significant injury and death and prompt large evacuations. All of these characteristics create an opportunity to leverage HIE to mobilize clinical data to new points of care and health care providers who may not have relationships with patients, enabling more effective treatment and improving continuity of care in adverse situations.

The team interviewed key stakeholders in Texas, Louisiana, and Mississippi. The stakeholders included representatives from state and local public health agencies, state health information technology departments, emergency preparedness representatives, private sector emergency service providers, and HIEs. The interviews were primarily conducted virtually.
Texas
The state-level HIE infrastructure in Texas includes a state-level HIE connectivity backbone (HIETexas) being developed by the Texas Health Services Authority (THSA) to connect HIOs throughout the state. In addition, the THSA has developed a state-level trust agreement, participation agreement, and business associate agreement to govern the legal aspects of exchanging clinical data between local HIOs and their participants. The local HIE infrastructure along the Texas Gulf Coast includes several local HIE operators, most significantly Greater Houston HealthConnect (GHH), which provides HIE services to health care providers in the Greater Houston area, including Galveston. Of additional note is the Health Information Network of Southeast Texas (HINSTX), which provides HIE services to providers in the Corpus Christi area. The local HIOs along the Gulf Coast (and throughout the state) are in the process of connecting to HIETexas.

Louisiana
The state-level HIE infrastructure in Louisiana includes the Louisiana Health Information Exchange (LaHIE), operated by the Louisiana Healthcare Quality Forum (LHQF), a state-level non-profit organization. LaHIE was the state-designated entity (SDE) for the state of Louisiana under the federally-funded ONC State HIE Program. As such, LaHIE received the federal State HIE Cooperative Agreement on behalf of the state and was responsible for developing and implementing a state-level plan for enabling HIE capacity throughout the state. LaHIE provides a number of HIE services across the state, including Direct secure messaging, a query portal, notifications for ambulatory providers, and public health reporting. Additionally, LaHIE is in the process of launching a patient portal in 2014. A second HIO in Louisiana, the Greater New Orleans HIE (GNOHIE) was developed under ONC’s “Beacon Community” program. GNOHIE was established by the Louisiana Public Health Institute to connect and serve health care organizations in the Greater New Orleans area. GNOHIE’s services include a query portal, notifications for ambulatory providers, and data analytics. Recently, GNOHIE and LaHIE began to evaluate ways to work together to provide valuable HIE services to the entire state, ensuring that patient records are available no matter where individuals receive care in the state.

Mississippi
Soon after Hurricane Katrina, Mississippi received federal funds that were used to establish the Mississippi Coastal HIE, which served the communities along the Gulf Coast. Under its State HIE Cooperative Agreement, the Mississippi Health Information Network (MS-HIN) was designated the statewide HIE and effectively absorbed the functions and operations of the Coastal HIE. MS-HIN is now connecting hospitals throughout the state and offers a query portal, Direct secure messaging, results delivery, and public health reporting services.

Emergency Response
Given their location on the U.S. Gulf Coast, Texas, Louisiana, and Mississippi must necessarily plan for hurricanes. The opportunities for using HIT in support of emergency response range from daily emergency operations, through the phases of disaster preparedness, response, and recovery. HIE can be used to transmit clinical data from EMS operators to EDs to improve the hand-off between EMS and the hospital and to provide ED providers with additional clinical information in support of better and more efficient care. In Louisiana, LaHIE and Acadian (a large EMS provider in the state) are currently working on this use case. Acadian is planning to
provide data from its electronic billing system to LaHIE, the data would then be available through the HIO’s query portal. The second phase of the project could move towards real-time sharing of data with hospitals from EMS personnel in the field.

HIE services can also be used to support disaster preparedness and response in a number of ways. Large-scale disasters often require regional evacuations, including the general population and hospitals. Evacuees may relocate to family and friends (outside the region), general shelters, special-needs/medical shelters, and hospitals in other states (typically no more than 500 miles away). HIE services can support all of these types of evacuations. Data from an HIO can be used to identify individuals in the general population who may have special-needs or are medically vulnerable and need assistance to evacuate. This data would allow healthcare professionals to pinpoint and assist these individuals with evacuating. Hospitals are primarily responsible for having evacuation plans in place but depending on the circumstances of the disaster, hospitals may require outside assistance to evacuate their patients to hospitals outside of the disaster area. Currently, hospitals print the patient’s care summary from their EHR and send it with the patient. HIE services can support record continuity, by providing electronic access to the patient’s summary of care, reducing the likelihood the data will be lost in transit. HIO data can also be utilized to help reunite patients and evacuees with their families, once they reach a safe location. Additionally, receiving hospitals, special-needs/medical shelters, points of dispensing, and other patient care facilities can utilize HIE services to obtain patient data to support the appropriate treatment of the patient.

An important consideration is that hospital patients may be evacuated by plane to hospitals well beyond the disaster zone. This requires a patient movement plan with tools for patient tracking, such as Joint Patient Assessment and Tracking System (JPATS) operated by the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response (ASPR). The actual evacuations are facilitated by EMS who transport patients to the airport. At that point, federal agency partners (e.g., Departments of Defense or Veterans Affairs) or National Guard medics, take over the care and transport patients to other hospitals. There is a significant opportunity to make the patient data available electronically to all appropriate clinical personnel through an HIE platform.

Organizations Represented in Regional Meetings

- Acadian Ambulance Service
- Louisiana Health Information Exchange
- Louisiana State HIT Coordinator
- Louisiana Public Health Institute and Greater New Orleans HIE (GNOHIE)
- Metropolitan Hospital Council of New Orleans
- New Orleans Health Department
- Mississippi State Department of Health, Health Protection
- Mississippi Health Information Network (MS-HIN)
- Mississippi State HIT Coordinator
- Greater Houston HealthConnect (Houston HIE)
- Texas Department of State Health Services, Public Health Preparedness
Use Case Descriptions

Exchanging Data among EMS and Hospital Emergency Departments

Much like hospitals and practices, EMS providers are increasingly moving towards the use of electronic health records, which in the industry are typically called electronic patient care records (ePCRs). NEMSIS creates data standards for ePCRs, with a focus on sharing data between EMS providers and county and state agencies for reporting purposes. NEMSIS certified ePCR software as compliant with its standards, with version two being the current standard used by the majority of ePCR vendors. NEMSIS has been developing version three of its data standard, and for version three has moved towards using HL7 clinical data architecture standards. As ePCR vendors move towards version three, the ability to share data with hospital emergency departments (EDs) and back to an ePCR will become more feasible.

There is a need for EMS personnel to share patient data with the hospital ED, prior to patient arrival. This allows the ED providers to appropriately prepare to receive the patient and adds to the patient’s record across the full continuum of care. Conversely, EMS providers have a need for the hospital ED to share the patient’s data back to their ePCR, once the encounter is closed. EMS providers and county/state agencies have a number of EMS Core quality measures they must meet, specifically for trauma, stroke, cardiac, and asthma events. Without data from the hospital on the final disposition of the patient, EMS providers find it difficult if not impossible to assess their performance on these quality measures.

The envisioned use case is for EMS personnel to create an ePCR during transport and send the data to an HIO in the NEMSIS version three standard. The HIO would extract the most relevant data (as identified by hospital ED providers), translate it into the consolidated clinical data architecture (CCDA) format, and send it to the hospital ED that will be receiving the patient. A hospital using a 2014 certified EHR could integrate the CCDA data into the patient’s record. Once the hospital ED provider closes the encounter with the patient or has a final disposition, they can create a CCDA summary of care and send it back to the HIO. The HIO would then translate the CCDA into the NEMSIS version three standard and send the summary to the EMS provider’s ePCR.

Technical Considerations
The HIO transforming or translating the data will need to map the NEMSIS version three data fields to a CCDA format. HIOs will need a technology vendor that is capable of creating CCDAs and will need to determine how to map NEMSIS data that may not easily translate to the CCDA standard. Of note, in version three, NEMSIS has made an effort to utilize CCDA specifications where it could. However, a number of data elements could not be represented in the CCDA format. For example, EMS personnel typically make a preliminary diagnosis in the field, which is not the final disposition. ICD-10 codes cannot be used for the preliminary diagnosis, so

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NEMSIS has worked with the Regenstrief Institute to develop Logical Observation Identifiers Names and Codes (LOINC) specific to NEMSIS. These codes are used throughout the version three data standard. An HIO will need to determine how to map these codes to the CCDA format.

Additionally, the HIO will most likely require a master patient index (MPI) that can match the incoming record from EMS personnel with a patient in their HIO, and ideally include the hospital’s medical record number (MRN) for the patient on the CCDA. The MPI would also be necessary for routing hospital ED CCDAs back to EMS providers. Potentially most challenging, the HIO will need a consistent and automated way to determine which hospital ED and the individual(s) within that hospital ED, to route the CCDA to. This data may be contained in the NEMSIS version three data sent from EMS personnel, but there may be situations where EMS personnel do not know which hospital ED the patient will be transported to, when data is sent to the HIO.

**Policy Considerations**

EMS providers, hospitals, and HIOs might work together to determine which information is most relevant for ED providers and what can be collected consistently in the field. This may be as simple as demographics so the ED can review the patient’s record prior to arrival, or as advanced as an electrocardiogram (ECG) readout. All parties will need to come to an agreement on the base data that should be shared with the ED. This may be compounded by variations in hospital ED or EMS provider workflows.

There are concerns and issues that need to be addressed regarding the Health Insurance Portability and Accountability Act (HIPAA). EMS providers are a covered entity, as are hospital EDs, with HIOs acting as business associates. Consequently, when EMS providers send data through the HIO to the hospital ED, it is a covered HIPAA transaction, and all that would be necessary is a data use and reciprocal services agreement (DURSA) between the parties. Such an agreement would allow EMS personnel to query the HIO for patient data. However, sharing data from the hospital ED back to EMS is a concern for many hospitals. Specifically, hospitals are concerned about whether or not it is a covered HIPAA transaction, since it will be used to report quality data to county and state agencies. Cal EMSA has done some research into this particular concern and has proposed that county and state EMS agencies are not covered entities under HIPAA. They do, however, have specific obligations to analyze health information for quality measurement purposes. Cal EMSA’s determination is that hospitals are legally allowed to share patient outcomes data with EMS providers and agencies.6 Further research around this issue is needed, particularly around state laws for sharing protected health information.

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Disaster Response Medical History Web Portal

Patient Unified Lookup System for Emergencies (PULSE)

Disasters and large scale emergencies over the past decade have demonstrated the need to have immediate access to patients’ medical histories when they are displaced from their communities. This was initially highlighted in the aftermath of Hurricane Katrina, as thousands of residents lost their medical histories in the flooding. Consequently, the industry created KatrinaHealth, a web portal that allowed physicians and pharmacists to search for a patient’s medication history. The site was available for a number of weeks, and was followed by the more permanent In Case of Emergency Prescription Database (ICERx). ICERx worked similarly to KatrinaHealth and was developed and run by the same organizations. It was used three times after Hurricane Katrina, but has since been shut down. However, the industry recognizes the need to have easy access to patients’ medical histories when they are displaced from their primary care physician and community hospitals.

For the purposes of this document, the disaster response medical history web portal has been named the Patient Unified Lookup System for Emergencies (PULSE). PULSE connects multiple data sources (HIOs and health systems) to an interoperability broker using IHE standards (XCPD/XCA or PDQ/XDS.b) that are currently supported by the eHealth Exchange. This allows each data source to create a single connection, rather than multiple, somewhat varied connections to each individual data source. Since healthcare professionals are unlikely to know which health system or HIO a patient’s record exists in, a broadcast query to all data sources from the interoperability broker is the most efficient method for querying. PULSE connects to the interoperability broker and allows users to query for patient medical histories in two ways: 1) through a standalone web portal that can be accessed by healthcare professionals that are not connected to a participating HIO or health system (including first responders); and 2) through a participating HIO or health system’s own web portal. PULSE would only be activated during a disaster or an emergency (the definition of which would be agreed upon by participants in advance). Since the user interface to PULSE is a URL, activating and deactivating PULSE could be accomplished by modifying the URL to point to either the login screen, or a message that indicates a disaster has not been declared and the page is currently unavailable. Likewise, HIOs and health systems participating in PULSE could create a hyperlink in their portal and use a Security Assertion Markup Language (SAML) assertion to allow their users to access the PULSE search screen through single sign on. The hyperlink could be modified to point to the currently unavailable page or the patient search screen as the situation dictates.

In addition to HIOs and health systems acting as data sources, organizations participating in the Blue Button+ project can also act as data sources. Blue Button+ builds on the original Blue Button concept by structuring the data file in the consolidated clinical data architecture (CCDA) format and using a RESTful API to “pull” data from the data source. These data sources can

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8 ICERx was limited to physicians and pharmacists. Based on interviews with organizations involved in running ICERx, it did not have high usage when activated. As noted by the Markle Foundation report, physicians typically did not have time to query the portal, while caring for patients, and participants believed that expanding the use of the portal to additional healthcare professionals would lead to higher usage.
connect to the interoperability broker via this API, rather than the IHE standards, and allow patient data to be queried by the healthcare professional providing treatment. Using Blue Button+ as a data source increases the likelihood that a healthcare professional will be able to obtain a patient’s medical history, particularly for Medicare recipients and patients receiving treatment from a Veterans Affairs (VA) medical facility. Of note, Blue Button is primarily meant to be consumer facing. Consequently, this use case would likely need to be addressed in the organization’s participation or privacy agreements. Figure A provides an overview of how PULSE could work, using California health systems and HIOs as an example.⁹

⁹ Appendix A contains wireframe mock-ups of a potential user interface for PULSE.
Figure A: Diagram of PULSE functionality (California is used as an example)
Technical Considerations

Returning a CCDA
Since PULSE will be used during emergencies to provide immediate treatment to patients, it’s believed that a summary of care in the CCDA format would be most helpful, particularly since for Stage 2, hospitals and providers will be producing these documents for their transitions of care, and the CCDA contains problems, medications, and allergies at a minimum. However, the IHE profiles suggested for PULSE, do not specify a specific type of document that should be returned to a user. To ensure a CCDA is returned, the data sources will need to build their systems in such a way, that when an XCPD or PDQ message is received from the interoperability broker, the document ID that is returned (when a document exists) is for a CCDA document in the data source’s registry. When the interoperability broker then sends an XCA or XDS.b request, it will contain the document ID for the CCDA, and the data source will return the correct document type to PULSE.

System Redundancy
A major technical consideration is the location where PULSE components, specifically the interoperability broker and the user web interface, are hosted. Both items will require a disaster recovery server or location that is in a separate geography from the main infrastructure. This ensures that in the event of a disaster in the location where the interoperability broker and web interface are hosted, PULSE will have a fail over server and continue to be available. Similarly, hospitals and HIOs have their own disaster recovery plans, which typically include a second fail over environment and servers. For PULSE to have access to their data during a disaster, hospitals and HIOs may need to build two connections to the interoperability broker, one for their primary servers and one for their disaster recovery servers.

Policy Considerations

Types of Emergency Declarations
Since PULSE is only activated during an emergency, a primary consideration is defining which types of emergency declarations trigger the activation of PULSE. State laws dictate the circumstances under which a state of emergency is declared, the types of emergencies, and the individuals who can make the determination that an emergency should be declared. In states where different types of emergencies can be declared and where individuals other than the governor can declare an emergency (e.g., state health officers), each declaration has a different set of resources that are activated. Additionally, each declaration need not cover the entire state, but could be limited to a zip code(s), city, or county. Typically, local officials will declare an emergency first, and when their resources are exhausted state officials or the governor will declare a state of emergency. When state resources become insufficient due to the magnitude of the disaster (e.g., flood, tornado, pandemic, earthquake), the governor will request that the president make an official disaster declaration. Once the president declares a disaster, federal resources from the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) become available based on the needs of the state. Some emergency declarations are easily identifiable as situations that should activate PULSE (e.g., Hurricane Sandy); other declarations may not be as easily identified. States will need to define an activation plan for PULSE in their disaster Memoranda of Understanding (MOUs), Emergency Management...
Assistance Compact (EMAC), local and state Emergency Operations Plans (EOPs) and other emergency policies and procedures.

**HIPAA/Security**

A major consideration for providing healthcare professionals with access to patient information is HIPAA compliance and the security of patient information. After Hurricane Katrina, Centers for Medicare and Medicaid Services (CMS) issued guidance for following HIPAA regulations during a declared disaster. Covered entities may always access patient data for treatment purposes, without requiring patient consent. Public health agencies and agencies, such as the Red Cross, may access limited patient data for treatment purposes and alerting next of kin. However, state laws may be stricter than HIPAA, particularly with regards to sensitive health data. A pilot project will need to explore the variance in state laws on access to patient health data. There may need to be limitations on the data shared in the summary of care, to abide by all state laws. In addition, providers may be concerned about liability associated with accessing or using clinical data obtained through a web portal that is outside of their normal experience. The liability context may be affected by any disaster declarations but should be analyzed and fully understood before establishing PULSE.

**Data Use and Reciprocal Support Agreements (DURSA)**

In order to provide PULSE with access to query data, HIOs and health systems will need to develop a DURSA that covers accessing data during an emergency or “break the glass” coverage. In 2012, the Southeast Regional HIT-HIE Collaboration (SERCH) recommended standard DURSA language that covers access between HIOs in the event of a disaster. This language can be used by HIOs and health systems. Alternately, CAHIE developed the CalDURSA, which would cover California organizations for sharing information during a disaster but may require revisions to support inter-state exchange. Finally, the eHealth Exchange DURSA does not currently contain “break the glass” language. Potentially, the eHealth Exchange DURSA could be modified to include appropriate language that would enable organizations to immediate share data via PULSE in the event of an emergency.

**Credentialing Users**

There are two key aspects to credentialing users: 1) providing usernames/passwords to authorized users; and 2) determining who should have access, particularly across states, since state laws differ on access to patient health information. One of the lessons learned from KatrinaHealth was more than physicians and pharmacists need to have access to the patient’s medical history. KatrinaHealth credentialed only licensed physicians and pharmacists to use the system, at that time these were the only two groups with a national database or registry that could be used to verify their licensure. Physicians, during Katrina, were rapidly triaging patients and they often did not have time to login to KatrinaHealth and find a patient. In fact physicians only represented 17 percent of the queries of KatrinaHealth. Additionally, technology that allows

individuals to use their credentials from one site to log in to another site (OpenID and OAuth), were in their infancy, requiring physicians and pharmacists to call toll-free numbers, be verified, and receive login credentials.

For PULSE to be successful and have a significant impact on patient care, access must be given to as many healthcare professionals as possible, including: first responders (including VA and National Guard medics, police officers, and firefighters), nurses, nurse practitioners, physician assistants, physicians, pharmacists, and other health professionals who would take part in the response. Additionally, credentials must be easily obtained or be reusable from other secure sites to make the login process as seamless as possible.

With the national registries available today, there are a number of avenues for credentialing healthcare professionals, including first responders, nurses, nurse practitioners, physician assistants, physicians, and pharmacists to provide easy access to PULSE in the event of an emergency.

- The National Registry of Emergency Medical Technicians (NREMT) provides certification for EMS personnel. Some states require that all EMS personnel working in their state be registered with the NREMT, including Mississippi. California, Louisiana, and Texas have separate registries for EMS personnel, but work closely with the NREMT. NREMT issues usernames and passwords to individuals who are certified in the registry.

- The Emergency Service Advance Registry for Volunteer Healthcare Professionals (ESAR-VHP) is a national registry for individuals who want to volunteer to serve during an emergency or disaster. ESAR-VHP verifies their credentials in advance, which allows them to immediately serve during a disaster, even across state lines. The registry issues usernames and passwords to individuals who are part of the registry. Of the states involved in the case study, Louisiana has the highest proportion of residents in ESAR-VHP, followed by California. Texas has very low registration, and Mississippi does not have any healthcare professionals registered.

- The National Council of State Boards of Nursing (NCSBN) maintains Nursys, an online registry for verifying nursing credentials and licenses. The registry includes both registered nurses (RNs) and certified nurse practitioners (CNPs). In addition to the registry, NCSBN runs the Nursys e-Notify service, which allows emergency response organizations to confirm a nurse’s license and any disciplinary actions. Fifty-two Boards of Nursing (including states and U.S. territories) provide data for the e-Notify service.

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13 http://www.nremt.org/
14 http://www.phe.gov/esarvhp/Pages/default.aspx
- The National Commission on Certification of Physician Assistants (NCCPA) maintains a national registry for certified physician assistants.\(^\text{17}\) All states and U.S. territories utilize NCCPA for certification of physician assistants, meaning that this is truly a national registry. Certified physician assistants are issued a username and password to access the registry.

- Emergency responders including National Guard medics, VA medics, and EMS personnel participate in annual disaster response exercises. These exercises could include the use of PULSE and be used to issue usernames/passwords to participants.

- The Council for Affordable Quality Healthcare (CAQH) maintains the Universal Provider Datasource.\(^\text{18}\) More than one million providers have registered with CAQH and provided documentation to support credentialing with health plans and hospitals. The database contains information that can be used to verify a provider’s credentials prior to providing access to PULSE.

In addition to these systems, states and localities may have additional systems developed to manage medical volunteers (e.g., Medical Reserve Corps). There are a number of different methods for verifying an individual’s credentials, licensure, or certification in order to provide access to PULSE. Ideally, a service such as OAuth could be used to allow individuals to utilize their registry’s username/password to access PULSE. This would reduce the need for a manual identity proofing process. In lieu of using a single sign-on process, a manual process can be used to verify individuals’ identities, including their credentials. The majority of the registries listed above provide access to search for and view records. The organization that maintains PULSE could request access to these registries and manually authenticate individuals, and then assign usernames/passwords. Finally, healthcare professionals who are already credentialed with a participating HIO or health system would use the same credentials to access PULSE and would not require any additional verification.

The second aspect relates to the legal issues of determining which healthcare professionals can access PULSE, particularly when they practice in a different state than where the emergency occurred. While ESAR-VHP alleviates some of the challenge, since all states recognize professionals registered with ESAR-VHP, the low registration rates, particularly in the Gulf Coast region, reduce its effectiveness. As noted earlier, state laws on who can access patient information vary. This challenge can be addressed several ways. If the governor declares an emergency, the EMAC can be activated. EMAC is an agreement between states to provide assistance after a state becomes overwhelmed to manage resources during an emergency.\(^\text{19}\) EMAC requires states to recognize the certification/license of healthcare professionals from other states. This may allow healthcare professionals located in another state, who are treating a patient from the state where the disaster was declared, to access PULSE for treatment purposes.

\(^{17}\) [http://www.nccpa.net/](http://www.nccpa.net/)

\(^{18}\) [http://www.caqh.org/](http://www.caqh.org/)

\(^{19}\) [http://assets.opencrs.com/rpts/RL34585_20080721.pdf](http://assets.opencrs.com/rpts/RL34585_20080721.pdf)
Training, Use, and Incorporation into Disaster Response Exercises

Tools or procedures that are not used by medical professionals in their daily operations are less likely to be used in cases of emergencies or disasters. Conversely, there are many elements of disaster response that are only activated in case of an emergency or disaster. To the degree possible, access to and use of HIE services should be incorporated into the regular clinical workflows of health care providers in areas targeted for PULSE. However, some aspects of PULSE may not be capable of being activated or used on a day-to-day basis, absent the regulatory flexibility that accompanies a formal disaster declaration. Whether PULSE is used on a daily basis or not, training of individuals involved in responding to a disaster should be explicitly incorporated into formal emergency policies, procedures, and training and exercise plans. Overall the user interface of PULSE should be such that minimal training of individuals would be necessary.

Recommendations and Next Steps

As the hospital and ambulatory healthcare system become increasingly electronic and increasingly connected, there is a risk that the EMS community is not included as a relevant component of the continuum of care. Further, the continuous advances of HIE efforts within health systems and public HIOs has laid the foundation from which a national disaster response use case could be developed. Both California and the Gulf Coast have organizations and stakeholders that have demonstrated the readiness and willingness necessary to pursue pilot initiatives.

Based on the background research and direct stakeholder input that contributed to the overall assessment stemming from this effort, Ai recommends that ONC pursue the next steps below for each use case.

Disaster Response Use Case

The most apparent and actionable recommendation it to coordinate a pilot effort among enterprise and public HIOs in California and the Gulf Coast, as well as at least one organization working with Blue Button+, to pursue the technical approach described in the PULSE use case. The willingness of HIOs to participate, the leadership of state and local government, the limited number of underlying technology platforms involved, and the alignment with the existing national eHealth Exchange strategy all suggest that pursuing a multi-participant pilot could be a low barrier approach for the federal government to explore an extremely valuable opportunity. The most valuable ingredient in pursuing this pilot is the obvious collaborative nature of the relationships observed at both the community and state levels. Specifically, ONC should:

- Pursue a pilot of the disaster response use case described above;
- Identify five to nine California HIOs (both public and enterprise) to participate in a pilot;
- Identify an organization currently working on Blue Button+ and the RESTful API to participate in a pilot;
- Pursue the pilot in alignment with the core technical approach outlined above; and
- Coordinate the pilot with other relevant Federal partners.
EMS Bidirectional Data Exchange with Hospitals

There is further opportunity to support pilots in the major population centers in California that have seen high-levels of ePCR adoption and are poised to make significant progress on EMS to ED data exchange. There are a range of models and underlying technologies and workflows to support this data exchange, but it represents a foot in the door to exploring deeper exchange relationships among EMS agencies, ambulance providers, and the hospital community. While it may not ultimately be the most valuable use case to EMS agencies, it promotes an on-going level of coordination that creates trust and a set of partnerships, from which further work can successfully be accomplished. Specifically, ONC should:

- Continue to encourage EMS leadership in major population centers to collaborate with HIE efforts;
- Generally encourage HIE efforts to pursue pilot activities with EMS agencies focused on practical service offerings, such as the pre-hospital to ED use case outlined above; and
- Identify two pilot locations to engage with more directly in establishing an ONC-sponsored pilot of pre-hospital to hospital data exchange.
Appendix A: PULSE Wireframes

Ai created the following wireframes as a tangible demonstration of how PULSE might look to end users. Every effort was made to make the interface easy to use, with minimal to no training.

Landing Page

Healthcare professionals with existing credentials can login or click create an account. Individuals also have the option to use credentials from nationally recognized organizations to login.
Patient Search Page

Users enter patient data for the required fields and click Search.
Response Page

An easy to interpret screen is returned. HIOs or health systems that have data for the patient are hyperlinked with a green check mark, and those without have a red “x” next to them. Users then click on each source to retrieve the summary of care.
Summary of Care

The summary of care is returned from the data source and an HTML style template is used to display the summary of care in human readable format in a new page.
## 2013-14 EMS System Plan

### SPECIFIC OBJECTIVES

**Progress From Last Reporting Period in 2013**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Meets State Standard</th>
<th>2013-2014 Objectives</th>
<th>Progress to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.04 Medical Director</td>
<td>Yes</td>
<td>Medical Director Succession Planning with 12-24 months</td>
<td>Progress to Date: In progress. Current Director continuing as retired annuitant until replacement selected</td>
</tr>
<tr>
<td>1.06 Annual system Plan Update</td>
<td>Yes</td>
<td>EMS System Update completed as of January 2014</td>
<td>Progress to Date: Met. Submitted January 2014 and approved by EMSA effective April 1, 2014</td>
</tr>
<tr>
<td>1.07 Trauma Planning</td>
<td>Yes</td>
<td>Submission of Annual Trauma System Status Report as of Jan 2014</td>
<td>Progress to Date: Met. Submitted December 2013 and approved by EMSA on January 6, 2014.</td>
</tr>
<tr>
<td>1.08 ALS Planning</td>
<td>Yes</td>
<td>EMS System Review and Modernization Study complete in preparation for development of RFP for ambulance procurement to be completed by June 30, 2015.</td>
<td>Progress to Date: Partially Met. Final study to be completed by June 2014 supporting timeline for completion of RFP process</td>
</tr>
<tr>
<td>1.14 Policy and Procedure Manual</td>
<td>Yes</td>
<td>Annually update of prehospital care policies and procedures based on evidence-based care. Implementation of new American Heart Association Guidelines for ALS. Annually evaluate all patient care protocols for activities that do not support a patient benefit, delay transfer to definitive care and do not support patient safety. Revise protocols to reduce cost while prioritizing patient safety.</td>
<td>Progress to Date: Met Updated policies and protocols posted on EMS website at <a href="http://www.cccems.org">www.cccems.org</a> Progress to Date: In progress. Implementing high performance CPR protocols and LifeNet cardiac arrest analysis to support field performance.</td>
</tr>
<tr>
<td>1.16 System Finances</td>
<td>Yes</td>
<td>Review of costs and fees to support sustainable EMS System and EMS Agency oversight and operations.</td>
<td>Progress to Date: In progress. Part of EMS system review</td>
</tr>
<tr>
<td>1.20 DNR</td>
<td>Yes</td>
<td>Participating on the Steering Committee for POLST with EMS System Stakeholders supporting the conversation project over 12-24 months</td>
<td>Progress to date: Met Active participant facilitating POLST within county</td>
</tr>
<tr>
<td>1.21 Determination of Death</td>
<td>Yes</td>
<td>Annual review and update policies, resources and training for unexpected deaths in pediatrics and adults.</td>
<td>Progress to date: Met</td>
</tr>
<tr>
<td>1.23</td>
<td>Interfacility Transfer</td>
<td>Yes</td>
<td>Annual evaluation and process improvement supporting rapid interfacility transfer in high-risk populations e.g. Trauma, STEMI, Stroke.</td>
</tr>
<tr>
<td>1.27</td>
<td>Pediatric Emergency Medical and Critical Care System</td>
<td>Yes</td>
<td>Pediatric EMSC System Plan regulation review and update within 1-5 years</td>
</tr>
<tr>
<td>1.28</td>
<td>Exclusive Operating Area</td>
<td>Yes</td>
<td>Review and Update of county ambulance ordinance within 24 months. Initiate RFP for ambulance services in 2014 based on population needs assessment from EMS System Study Modernization Project to be completed by June 30, 2015.</td>
</tr>
<tr>
<td>2.01</td>
<td>Local EMS Agency Staffing and Assessment of Needs</td>
<td>Yes</td>
<td>EMS System Study and Modernization Project review of EMS staffing needs and workflows to support statutory requirements within 1-2 years</td>
</tr>
<tr>
<td>2.04</td>
<td>Dispatch Training</td>
<td>Yes</td>
<td>Expand and support dispatcher training for Center of Excellence Accreditation within 1-3 years</td>
</tr>
<tr>
<td>2.06</td>
<td>Response</td>
<td>Yes</td>
<td>Annually evaluate and mitigate as possible system impacts of fire station closures as a result of reductions in EMS first responder funding and municipal funding.</td>
</tr>
<tr>
<td>2.12</td>
<td>Early Defibrillation</td>
<td>Yes</td>
<td>Annual expansion of public access AED and Law AED programs with integration into dispatch</td>
</tr>
<tr>
<td>4.17</td>
<td>ALS Equipment</td>
<td>Yes</td>
<td>Evaluate current equipment lists for cost savings and patient need based on patient care data.</td>
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<tr>
<td></td>
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<td></td>
<td>Ongoing evaluation of implementation program for county-wide 12 lead transmission-using LifeNet Technology System.</td>
</tr>
<tr>
<td>5.06</td>
<td>Hospital Evacuation Plan</td>
<td>Yes</td>
<td>Update medical surge and transportation plans for hospitals within 3 years</td>
</tr>
</tbody>
</table>
| 5.10 | Pediatric Emergency and Critical Care System | Yes | Continued networking with pediatric emergency care advocates throughout the local, regional and state EMS systems supporting pediatric emergency care best practices. | **Progress to date:** Ongoing  
CCEMS and ALCO EMS have collaborative program of active advocacy for emergency preparedness for children. |
|------|---------------------------------|------|-----------------------------------------------------------------|--------------------------------------------------|
| 5.13 | Specialty System Design        | Yes  | Annual Stroke, STEMI , Trauma and Cardiac Arrest System Evaluation | **Progress to date:** Met  
Ongoing program review and participation in California Stroke Registry, CARES, Trauma Registry and CEMSIS |
| 5.14 | Public Input                   | Yes  | EMS System Review and Modernization Project and Ambulance RFP      | **Progress to date:** In progress. See website at [http://cchealth.org/ems/system-review.php](http://cchealth.org/ems/system-review.php) |
| 6.01 | QA/QI Program                  | Yes  | Implement Cardiac Arrest Registry for Enhanced Survival (CARES) web-based hospital reporting. | **Progress to date:** Met  
Hospitals reporting |
|      |                                 |      | Exploring HIE with hospitals to support exchange of patient outcome information. Kaiser and AMR early exploration of ePCR data exchange | **Progress to date:** In progress  
Active participation of EMS agency, AMR, Kaiser, CALOHI and EMS Authority |
| 6.03 | Prehospital Care Audits        | Yes  | Exploration of linkages between prehospital and hospital data platforms to evaluate EMS patient care supporting evidence-based EMS system performance metrics supporting improved patient outcomes, e.g. CARES, STEMI, Stroke, Trauma. | **Progress to date:** Met  
Consultative report to be completed in 2013 |
| 7.01 | Public Education               | Yes  | Expansion of HeartSafe Communities to include support for CPR, PAD, Heart Attack, Stroke and Healthy Lifestyle. | **Progress to date:** Ongoing  
wide expansion of outreach in progress |
| 7.03 | Disaster Preparedness Promotion| Yes  | Continued advocacy and implementation of regional pediatric medical surge planning. | **Progress to date:** Ongoing  
CCEMS participating in National curriculum development and annual conferences |
| 8.13 | Disaster Medical Response      | Yes  | Annual Sustain development and recruitment of Contra Costa Medical Reserve Corp volunteers and effectively deploy MRC for medical health response as needed | **Progress to date:** Met  
full time MRC coordinator in place to support program with effective deployment of MRC |
| 8.15 | Interhospital Communications   | Yes  | Address ongoing gaps in emergency communications e.g. ReddiNet, switch to EBRECS hospital radio system | **Progress to date:** Ongoing |
| 8.18 | Enhanced Level: Specialty Care Systems | Yes | Evaluate pending new regulations for specialty care systems e.g. STEMI, Stroke, EMS for Children. | **Progress to date:** Met  
Actively involved in the development and public comment |
# 2014-2015 Timeline & Actions to Be Addressed

All State standards have been met. We plan to address or reassess the following objectives.

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<thead>
<tr>
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<td>Yes</td>
<td>Medical Director Succession Planning</td>
<td>1-2 years</td>
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<tr>
<td>1.06 Annual System Plan Update</td>
<td>Yes</td>
<td>Update to be completed</td>
<td>April 2015</td>
</tr>
<tr>
<td>1.08 ALS Planning</td>
<td>Yes</td>
<td>EMS System Review and Modernization Study integration into RFP with completion of Ambulance procurement selection</td>
<td>June 2015</td>
</tr>
<tr>
<td>1.10 Special Populations</td>
<td>Yes</td>
<td>Exploration of alternative delivery models to match patient need to resource.</td>
<td>1-5 years</td>
</tr>
<tr>
<td>1.11 System Participants</td>
<td>Yes</td>
<td>Stakeholder participation in EMS System Review and Study and RFP Process</td>
<td>1-2 years</td>
</tr>
<tr>
<td>1.13 Coordination</td>
<td>Yes</td>
<td>Enhancement of EMS dispatch services, exploration of coordination with Nurse Call centers and tiered fire and ambulance response</td>
<td>1-5 years</td>
</tr>
<tr>
<td>1.14 Policy and Procedure Manual</td>
<td>Yes</td>
<td>Update of prehospital care policies and procedures based on prehospital evidence-based care. Implementation of new American Heart Association Guidelines for ALS. Evaluate all patient care protocols for activities that do not support a patient benefit, delay transfer to definite care and do not support patient safety. Revise protocols to reduce cost while prioritizing patient safety.</td>
<td>Annually</td>
</tr>
<tr>
<td>1.16 System Finances</td>
<td>Yes</td>
<td>Review of fees, costs</td>
<td>Annually</td>
</tr>
<tr>
<td>1.20 DNR</td>
<td>Yes</td>
<td>Participation with “Conversation Project” in Bay Area</td>
<td>1-2 years</td>
</tr>
<tr>
<td>1.27 Pediatric Emergency Medical and Critical Care System</td>
<td>Yes</td>
<td>Pediatric System Plan New regulation review and update</td>
<td>1-5 years</td>
</tr>
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<td>1.28 Exclusive Operating Area</td>
<td>Yes</td>
<td>Review and Update of county ambulance ordinance. Initiate RFP for ambulance services in 2014 based on EMS System modernization study.</td>
<td>1-2 years</td>
</tr>
<tr>
<td>2.01 Local EMS Agency Staffing and Assessment of Needs</td>
<td>Yes</td>
<td>EMS System Study and Modernization Project: Review of EMS Staffing needs and workflows to support statutory requirements</td>
<td>1-2 years</td>
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<tr>
<td>2.04 Dispatch Training</td>
<td>Yes</td>
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<td>2.06 Response</td>
<td>Yes</td>
<td>Ongoing evaluation and when feasible mitigation associated with impacts of fire station closures as a result of reductions in EMS first responder funding and health care reimbursement.</td>
<td>Annually</td>
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<td>2.12 Early Defibrillation</td>
<td>Yes</td>
<td>Expand Public Access AED and Law AED programs with integration into dispatch</td>
<td>Annually</td>
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<td>5.06</td>
<td>Hospital Evacuation Plan</td>
<td>Yes</td>
<td>Update of medical surge and transportation plans for hospitals</td>
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<tr>
<td>5.08</td>
<td>Trauma Planning</td>
<td>Yes</td>
<td>Update of trauma plan</td>
</tr>
<tr>
<td>5.10</td>
<td>Pediatric Emergency and Critical Care System</td>
<td>Yes</td>
<td>Continued networking with pediatric emergency care advocates throughout the local, regional and state EMS systems supporting pediatric emergency care best practices.</td>
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<tr>
<td>5.13</td>
<td>Specialty System Design</td>
<td>Yes</td>
<td>Stroke, STEMI, Cardiac Arrest, Trauma, EMS for Children System Program Evaluation</td>
</tr>
<tr>
<td>5.14</td>
<td>Public Input</td>
<td>Yes</td>
<td>EMS System Review and Modernization Study, Ambulance Ordinance and Ambulance RFP</td>
</tr>
<tr>
<td>6.01</td>
<td>QA/QI Program</td>
<td>Yes</td>
<td>Evaluate EMS-Hospital data system integration supporting patient safety andprehospital care</td>
</tr>
<tr>
<td>7.01</td>
<td>Public Education</td>
<td>Yes</td>
<td>Expansion of HeartSafe Communities to include support for CPR, PAD, Heart Attack, Stroke andHealthy Lifestyle.</td>
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<td>7.03</td>
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<td>8.13</td>
<td>Disaster Medical Response</td>
<td>Yes</td>
<td>Sustain development and recruitment of Contra Costa Medical Reserve Corp volunteers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Effectively deploy MRC for medical health response as needed</td>
</tr>
<tr>
<td>8.15</td>
<td>Interhospital Communications</td>
<td>Yes</td>
<td>Address ongoing gaps and improvement opportunities for ReddiNet platform to support reliable use by hospitals. Replace old MEDARS radios when sunsets and implement new EBRECS hospital radio system</td>
</tr>
<tr>
<td>8.18</td>
<td>Enhanced Level: Specialty Care Systems</td>
<td>Yes</td>
<td>Evaluate pending new regulations for specialty care systems e.g. STEMI, Stroke, EMS for Children</td>
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2. Equipment for Ground Ambulances Revision Now Available
3. NASEMSO Joins EMS Organizations to Comment on FCC Proposed Rule Making

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4. New Information Available on Local Health Department Services and Resources
5. ASTHO Proposes Guiding Principles for Public Health Block Grants
6. New NSADAD Report Includes Naloxone Distribution Data
7. CDC NCHS Releases Health, United States 2013
8. TFAH and RWJF Release Annual Health Report

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10. 9-1-1 Text Availability Now Live
11. GETS Priority Calls Jeopardized by AT&T Plan

**DATA**
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UPCOMING EVENTS
***STATEWIDE EMS CONFERENCES***
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1. **NASEMSO Annual Meeting Update**
Important information is now available for the 2014 Annual Meeting! The preliminary program, hotel reservation information, and registration form have now been posted. We are excited about meeting in Cleveland (home of the Rock and Roll Hall of Fame) where our hosts promise an educational and fun-filled meeting. And don’t miss the opportunity to enter the inaugural **NASEMSO Poster Competition**. For those whose states restrict employees to staying at hotels charging the per diem rate, please note that the hotel is offering a limited number of “per diem” rate rooms on a first come, first serve basis. You will be required to show state ID card when checking in.  
**For more information...**

2. **Equipment for Ground Ambulances Revision Now Available**
The 2014 Joint Policy Statement (American Academy of Pediatrics, American College of Emergency Physicians, American College of Surgeons Committee on Trauma, Emergency Medical Services for Children, Emergency Nurses Association, the National Association of EMS Physicians, and the National Association of State EMS Officials) that informs and in some cases mandates equipment that must be available on ground ambulances has been published in final form and is now freely available in html and pdf versions on the publisher’s website. NASEMSO wishes to take this opportunity to thank Informa Healthcare and Prehospital Emergency Care for making this information available without a subscription or fee.

3. **NASEMSO Joins EMS Organizations to Comment on FCC Proposed Rule Making**
The National Association of State EMS Officials (NASEMSO), the National Association of EMS Physicians (NAEMSP), the National Association of EMTS (NAEMT), and the National EMS Management Association (NEMSMA) have collaboratively joined forces to support proposed rules by the Federal Communications Commission (FCC) to require indoor location accuracy as a means to enhance the E911 system. As part of the Federal Docket No. 07-114, the group submitted formal comment and continues to monitor the proposal.  
**For more information...**

4. **New Information Available on Local Health Department Services and Resources**
The National Association of County and City Health Officials (NACCHO) has launched a new website for the National Profile of Local Health Departments (Profile) study. The website contains information from the most comprehensive survey of local health departments, including data on workforce, programs and services and partnerships. Here are several ways to make the most of the website:
- The State Reports section contains two-page summaries for 44 states.
- Research Briefs look in-depth at cross-jurisdictional sharing of services among local health departments and their engagement with accreditation.
- In the Figures section, download figures from the report into Microsoft Word or Powerpoint.

5. **ASTHO Proposes Guiding Principles for Public Health Block Grants**
The Association for State and Territorial Health Officials (ASTHO) has released proposed principles to frame the Preventive Health and Health Services Block Grant (PHHSBG) guidance and will share these principles with CDC for review and consideration. In collaboration with the Affiliate Council, ASTHO developed five key guiding principles for the PHHSBG to ensure that it demonstrates its importance and impact as a high-performing program. The proposed guiding principles promote alignment of the PHHSBG and related prevention programs and introduce potential levels of measurement associated with national prevention initiatives. ASTHO believes the use of these guiding principles will ensure effective implementation of the PHHSBG and improve the health and safety of people in every state and territory.  
**For more information...**
6. New NSADAD Report Includes Naloxone Distribution Data
The National Association of State Alcohol and Drug Abuse Directors (NASADAD) has released a new report, *Heroin and Prescription Drug Abuse*, that provides "the results of a membership inquiry describing the scope of the prescription drug abuse and heroin problem along with actions State substance abuse agencies are taking to address these challenges." The report finds that, "State substance abuse agencies are implementing a number of initiatives and strategies related to opioid issues. In turn, the report may serve as a "States-helping-States" tool. Information includes expanding access to naloxone as an “overdose prevention” strategy. For more information...

On a related note, the CDC Public Health Law Program, in partnership with the CDC National Center for Injury Prevention and Control, has added a new item to its prescription drug menu library providing an inventory of various state laws aimed at inhibiting diversion of prescription drugs by establishing requirements for tamper-resistant prescription forms.

7. CDC NCHS Releases Health, United States 2013
The National Center for Health Statistics (NCHS) released *Health, United States 2013*. Each year the report focuses on a topic of importance to public health in the United States. A variety of resources can be found on the Health, United States webpage, including:
- The full report featuring a chartbook and trend tables.
- A special abridged edition, *Health, United States, 2013: In Brief*
- A power point with figures from the In Brief in available on the main webpage.
- Trend tables are available as downloadable spreadsheet files for data manipulation or graphical analysis.

8. TFAH and RWJF Release Annual Health Report
Trust for America’s Health (TFAH) and the Robert Wood Johnson Foundation (RWJF) released *Investing in America's Health: A State-by-State Look at Public Health Funding and Key Health Facts*. This is the ninth time the report has been released. In *Investing*, TFAH and RWJF examine public health funding and key health facts for each state, finding:
- Wide variations in health statistics by state
- Cuts in state and local funding
- Flat federal funding
Overall, the report concludes that the nation must shore up core ongoing funds for public health. For more information...

9. Frontier Emergency Phone Service Will Target Rural Areas
Frontier Communications has announced plans to offer a landline phone service designed for emergency use only, including a residential VoIP product to be launched in the second half of this year. Frontier believes there is a market for an emergency landline phone, which would be capable only of dialing Frontier or a 911 operator. The service will have “four nines” reliability (telecom jargon for a service that is available 99.99% of the time.) For more information...

10. 9-1-1 Text Availability Now Live
For those who are nonverbal, deaf or otherwise have difficulty communicating via traditional telephone calls, a new option to seek emergency help is on the way. Starting this month, the nation’s four main wireless networks now have the capability to support text messages sent to 911. The move is a significant step toward making the service available on a broader scale. Text-to-911 is expected to be particularly meaningful to individuals who may
have difficulty hearing or speaking. Currently, it is possible to text 911 in communities in 16 states where
emergency call centers are set up to receive and respond to the messages, according to the Federal
Communications Commission. Vermont recently became the first to deploy the service statewide with all four
major wireless carriers. For more information...

11. GETS Priority Calls Jeopardized by AT&T Plan
The Government Emergency Telecommunications Service (GETS) supports Federal, State, local, tribal and
territorial governments and other authorized national security and emergency preparedness (NS/EP) users during
large-scale disasters. GETS is intended to be used in an emergency or crisis situation when the landline network is
congested and the probability of completing a normal call is reduced. According to a recent article in the
Washington Post, “U.S. telecom operators are shifting away from their old, copper networks in favor of high-speed
fiber optic cables. This transition will effectively turn every phone call into a piece of data, enabling new
technologies, such as high-definition voice and video calls and enhanced 911 services. AT&T is conducting field
trials of the technology in two towns in Florida and Alabama, in part to help federal regulators determine what
rules to apply to telecom companies as the transition continues.” AT&T has expressed an interest to configure its
fiberoptic network to recognize priority calls but any strategy is reported to be far from operational.

12. My Own Network, Powered by AHRQ
MONAHRQ® is a desktop software tool that enables organizations - such as state and local data organizations,
regional reporting collaboratives, hospitals and hospital systems, and health plans - to quickly and easily generate a
health care reporting Website. MONAHRQ® analyzes, summarizes, and presents information in a format ready for
use by consumers and other decision makers on:
- Quality of care at the hospital level,
- Health care utilization at the hospital level,
- Preventable hospitalizations at the area level, and
- Rates of conditions and procedures at the area level.
- Estimated costs and cost-savings related to the quality of care
MONAHRQ® lets you create a Website using inpatient discharge data, pre-calculated AHRQ Quality Indicators
results, inpatient and outpatient measures from CMS Hospital Compare, and/or HCAHPS survey measures. For
more information... Register now for a free webinar about the new software, scheduled for June 4 from 3:30 to
4:30 p.m. ET.

13. Effective Communication for People with Disabilities Before, During, and After Emergencies Evaluated
A new report by the National Council on Disability (NCD), an independent federal agency, examines the
accessibility of communication before, during, and after emergencies for people with sensory disabilities (deaf,
hard of hearing, blind, low-vision, deaf-blind, and speech disabilities) as well as people with intellectual,
developmental, and/or psychiatric disabilities. In the report, NCD documented successful practices and barriers to
effective emergency communications. This study, released during National Hurricane Preparedness Week, was
conducted to help emergency planners and state and local officials provide effective communication to people
with disabilities before, during, and after emergencies. For more information...

14. Free Online Course Highlights Legal Aspects of Public Health Preparedness
Public health law, whether in an emergency or in routine situations, is a balancing act between keeping the public
healthy and protecting individual freedoms. Although we don’t always think about it ahead of time, emergencies
create unique legal circumstances for public health agencies and their staff. During emergencies, public health
agencies need to know what powers public health officials will have, when they can request assistance from other jurisdictions, and how they will handle volunteers. A new online course is intended as an overview and introduction to public health law in emergency preparedness. The content was developed in partnership with the Network for Public Health Law Western Region Office at the Sandra Day O’Connor College of Law, Arizona State University. It is part of a series of courses and resources funded by the Robert Wood Johnson Foundation to support public health law training. For more information...

15. EMI to Host HSEEP Basic Course
FEMA’s Emergency Management Institute has announced the upcoming schedule for the Homeland Security Exercise Evaluation Program (HSEEP). Participants will gain a better understanding of what constitutes an HSEEP consistent exercise. Anyone who will be a member of an exercise design team or fulfill a role in one of the following areas of the exercise design process: design, development, conduct, evaluation or improvement process for an exercise are encouraged to attend this online training. For more information...

16. Operation Dragon Fire to Roll This Summer
In a recent blog posted by Dr. Ali Khan, Office of Public Health Preparedness and Response at the CDC, Dr. Khan reveals an exciting new social media tool to assist with targeted messages, Code Name: Operation Dragon Fire (ODF). ODF aims to integrate strategies among federal agencies, NGOs, and community organizations to transform how public health information is gathered, analyzed, disseminated and used. ODF is a major agency-wide, multi-partner social media emergency management project, which is coordinated by the National Voluntary Organizations Active in Disaster (NVOAD). The purpose of ODF is to obtain and provide real-time public health information before, during, and after a public health emergency to responders and individuals from a wide range of sources. By empowering individuals to share on-the-scene information using whatever social network they prefer – Facebook, Twitter, Instagram, and others – and combining that with local news coverage and traditional surveillance data, we will create crowd-sourced data linking people with information – anywhere and anytime. NVOAD will have more information on their website by mid-summer for those interested in learning more.

17. NHC to Issue Potential Storm Surge Flooding Maps
Beginning with the 2014 Atlantic hurricane season, NOAA’s National Hurricane Center (NHC) will issue the Potential Storm Surge Flooding Map for those areas along the Gulf and Atlantic coasts of the United States at risk of storm surge from a tropical cyclone. Developed over the course of several years in consultation with emergency managers, broadcast meteorologists, and others, this new map will show:

- Geographical areas where inundation from storm surge could occur
- How high above ground the water could reach in those areas

The Potential Storm Surge Flooding Map is an experimental National Weather Service product that provides valuable new information on the storm surge hazard associated with tropical cyclones. For more information...

18. Changes in Submission Requirements for State Mitigation Plans
A recent final rule provided by the Federal Emergency Management Agency (FEMA) reduces the frequency by which States must submit updates to FEMA on their State Mitigation Plans. Previously, entities prepared and submitted updates with FEMA for review and approval every 3 years. Now, entities will prepare and submit updates with FEMA for review and approval every 5 years. For more information...

In related news, the Senate Subcommittee on Emergency Management, Intergovernmental Relations, and the District of Columbia recently held hearings to examine the potential relationship between investment in mitigation
and disaster response and recovery expenditures, discuss the potential impact of mitigation investments on the sustainability and success of the National Flood Insurance Program, highlight innovative examples of mitigation incentives (including public private partnerships) across the country, and offer suggestions for how to overcome barriers that may prevent or deter mitigation from being utilized across the Federal government. Tim Manning, FEMA’s Deputy Administrator for Protection and National Preparedness, testified that states spend a majority of grant funds on planning and therefore the agency’s budget for the coming year does not request any new funding for pre-disaster mitigation. Manning also noted that the National Protection Framework (focuses on addressing the challenges stemming from an imminent terrorist threat) is nearing final completion. The hearing was recorded and the entire proceedings can be viewed here.

19. CRS Issues Primer on Emergency Response
The Congressional Research Service (CRS) recently released a Congressional Primer on Responding to Major Disasters and Emergencies. The report provides an overview of disaster response and recovery responsibilities of the federal government and the requesting state or tribal government. The report also describe the roles for congressional offices to play in providing information to the federal response and recovery teams in their respective states and districts.

20. Update: CAAHEP Standards Revision Process
The draft of the proposed CAAHEP Standards and Guidelines for the Accreditation of Educational Programs in the Emergency Medical Services Professions has been approved by the CAAHEP Standards Committee and the CoAEMSP Board of Directors. The proposed Standards will be presented to the communities of interest. The CoAEMSP will hold listening sessions via web meeting and face-to-face sessions at EMS related meetings. In addition, comments will be accepted via an online comment tool. The CoAEMSP Board and Staff are finalizing the details of the schedule and online comment tool. When the details are confirmed, announcements will be made via www.coaemsp.org. Get the latest on the CAAHEP Standards revision process here. As of May 27, 2014, there are 12 programs “on hold” (awaiting fees, documents, etc), 276 possess a CoAEMSP Letter of Review, and 390 Accredited Paramedic Programs for a total of 678 in the CAAHEP process.

21. NIOSH Center for Motor Vehicle Safety: Strategic Plan for Research and Prevention, 2014-2018
This 5-year strategic plan for the NIOSH Center for Motor Vehicle Safety is being used to advance understanding of the risk factors that place workers at risk of work-related motor vehicle crashes, evaluate a range of interventions to reduce these risks, and develop and communicate research-based prevention information to employers, workers, and other stakeholders. As this plan is implemented, NIOSH will work with partners to respond to emerging issues and provide research-based guidance so that those who work in or near motor vehicles come home safely at the end of their work day. For more information...

22. Transportation Research Board Issues Call for Papers
The TRB Call for Papers for the 2015 TRB meeting opens on June 1st and closes on Aug 1st. To ensure that the important work that you or your colleagues are doing on highway safety workforce development, please consider submitting a paper and spreading the word about the call for papers. Authors interested in submitting papers are advised to visit www.TRB.org/AnnualMeeting and review the Information. Completed papers should be submitted via this website. Please show the sponsoring committee name or the title on the papers submission form. Papers will be peer-reviewed and the authors notified of the outcome.
23. **Fisher and Paykel Infant Nasal CPAP Prongs Recalled**
A recall has been issued for the Fisher and Paykel Healthcare, Ltd., Infant Nasal CPAP Prongs. Fisher and Paykel Healthcare received 24 reports in which the device has malfunctioned. There were zero injuries and zero deaths. The firm received reports of the affected prongs detaching from the nasal tubing during use, especially when mucous and/or moisture are present. When the affected prongs detach from the nasal tubing, therapy is likely to be interrupted. This may cause low blood oxygen (hypoxemia). The detached prongs may enter an infant’s mouth and present a potential risk of choking and airway obstruction. The use of the affected product may cause serious adverse health consequences, including death. [For more information...]

24. **FDA Approves Implantable Device to Remotely Measure PAP in CHF Patients**
The U.S. Food and Drug Administration recently approved the CardioMEMS HF System that measures the pulmonary artery (PA) pressures and heart rates of patients with New York Heart Association (NYHA) Class III heart failure who have been hospitalized for heart failure in the previous year. The device allows health care professionals to monitor the condition of their patients remotely. The FDA believes that there is reasonable assurance that the device is safe and effective for heart failure management with the goal of reducing the rate of heart failure-related hospitalizations in certain patients. The FDA is requiring a thorough Post-Approval Study to continue to learn about the device’s performance when used outside the context of a clinical study. [For more information...]

25. **FDA Approves Implantable Device to Treat OSA**
The Food and Drug Administration (FDA) has provided market approval for yet another device worthy of EMS awareness. The Inspire Upper Airway Stimulation (UAS) system is an implantable nerve stimulator used to treat moderate to severe obstructive sleep apnea (OSA). The Inspire UAS system consists of implanted components including the implantable pulse generator (IPG), stimulation lead, and sensing lead and external components including the physician programmer and the patient programmer (sleep remote). The IPG detects the patient’s breathing pattern and maintains an open airway with mild stimulation of the hypoglossal nerve, which controls tongue movement, during inhaled breathing. The physician adjusts the stimulation settings using the external physician programmer. The patient sleep remote allows the patient to turn therapy on before they go to sleep and to turn therapy off when they wake up. The Inspire UAS system is used to treat a subset of patients with moderate to severe OSA (apnea-hypopnea index [AHI] of greater or equal to 20 and less than or equal to 65). The Inspire UAS system is used in adult patients 22 years and older who have been confirmed to fail or cannot tolerate positive airway pressure (PAP) treatments (such as continuous positive airway pressure [CPAP] or bi-level positive airway pressure [BPAP] machines) and who do not have a complete concentric collapse (as seen during drug induced sleep endoscopy) at the soft palate level. [For more information...]

26. **Transitional Care Interventions To Prevent Readmissions for People With Heart Failure**
The Agency for Healthcare Research and Quality (AHRQ) Effective Health Care Program has posted meta-analyses related to preventing readmissions for patients with heart failure (HF). Components of interventions showing efficacy for reducing all-cause admissions or mortality include: HF education, emphasizing self-care, HF pharmacotherapy, emphasizing promotion and adherence of evidence-based pharmacotherapy, and a streamlined mechanism to contact care delivery personnel (e.g. patient hotline). In general, categories of interventions that reduced all-cause readmissions or mortality were more likely to be of higher intensity, to be delivered face-to-face, and to be provided by a multidisciplinary team. The study notes that neither telemonitoring nor nurse-led clinic interventions reduced readmissions or mortality. [For more information...]
27. New Policy Brief Examines Approaches & Benefits for CAHs
This brief informs the efforts of state Flex Programs to support Critical Access Hospitals (CAHs) in conducting collaborative CHNAs and provides insight into the leadership issues encountered by CAHs and other stakeholders as they conduct their collaborative assessments. The results of these assessments can be used by hospitals as well as state Flex Programs to inform their ongoing strategic initiatives. For more information...

28. Summary of NIOSH Childhood Agricultural Injury Prevention Extramural Research Now Available
This document was prepared in response to stakeholder requests identified in the Childhood Agricultural Injury Prevention: Progress Report and the Updated National Action Plan from the 2001 Summit. A compilation of a quindecennial (15 years) of completed research under the NIOSH CAIPI was prepared for researchers, stakeholders, and others with an interest in childhood agricultural injury prevention. This document provides background information about the CAIPI and summarizes results of extramural research funded by grants from the Initiative. For more information...

29. Telehealth Services Fact Sheet Now Available
The “Telehealth Services” Fact Sheet (ICN 901705) was revised and is now available in downloadable format. To assist rural providers who have limited internet access, the fact sheet is also available in text-only format. This fact sheet is designed to provide education on services furnished to eligible Medicare beneficiaries via a telecommunications system. It includes information about originating sites, distant site practitioners, telehealth services, billing and payment for professional services furnished via telehealth, billing and payment for the originating site facility fee, resources, and lists of helpful websites and Regional Office Rural Health Coordinators. For more information...

30. New Report Highlights Improved EMS Through Transportation Safety
Enhancing EMS to reduce mortality is one of the 22 goals identified in the American Association of State Highway and Transportation Officials (AASHTO) Strategic Highway Safety Plan (SHSP). A needs assessment was recently conducted by the Mountain-Plain Consortium at North Dakota State University for rural EMS in South Dakota to identify issues with respect to delivering quality EMS to rural residents. Although the EMS response time for fatal crashes is one of the most critical performance measures, the project targets a broader EMS 9-1-1 response with the attempt to address critical factors affecting the provision of EMS services. A new report, “Improving Rural Emergency Medical Services through Transportation System Enhancement,” highlights the findings of the research. For more information...

31. Federal Collaboration in EMS—The Four Priorities
The first webinar in a new, free series hosted by NHTSA’s Office of EMS (OEMS) took place on June 2. EMS FOCUS: A Collaborative Federal Webinar Series, will provide a unique opportunity for Federal agencies to provide more information about EMS efforts and programs at the Federal level. FICEMS Chair Kathryn Brinsfield, MD, MPH, FACEP, and OEMS Director Drew Dawson discussed Federal efforts toward:
- Veteran to Civilian EMS Credentialing
- Evidence-Based Guideline Development
- EMS System Preparedness
- EMS Data Standardization
The session was recorded and will be archived at www.ems.gov.
32. MERS Update—Simplified
To summarize an enormous amount of information circulating about the novel coronavirus causing Middle East Respiratory Syndrome (MERS-CoV)—

- The World Health Organization has released a statement on MERS-CoV that describes an increasing global concern but maintains there is no evidence of sustained human-to-human transmission. The WHO encourages organizations to enhance awareness and effective risk communication concerning MERS-CoV to the general public, health professionals, at-risk groups, and policy makers.

- While there is no need for panic, the MERS-CoV has been confirmed in the United States in at least two health care workers that recently traveled to Saudi Arabia and had close contact with infected persons. MERS-CoV is a virus that is new to humans and was first reported in Saudi Arabia in 2012. So far, including this U.S. importation, there have been 538 confirmed cases of MERS in 14 countries. Most of these people developed severe acute respiratory illness, with fever, cough, and shortness of breath; 145 people died. Officials do not know where the virus came from or exactly how it spreads. There is no available vaccine or specific treatment recommended for the virus.

- The spectrum of illness due to MERS-CoV infection is incompletely defined. Although most reported cases have had severe acute lower respiratory illness, mild and asymptomatic infections have been reported and in some cases, diarrhea preceded respiratory symptoms. Case definitions have been posted by the Centers for Disease Control and Prevention (CDC).

- Standard, contact, and airborne precautions are recommended for management of patients with known or suspected MERS-CoV infection, based on CDC’s case definition for patient under investigation.

33. NIOSH Provides Progress Report on “Prevention Through Design” Initiative
The National Institute for Occupational Safety and Health (NIOSH) has published the annual progress report on its national initiative to prevent occupational injuries, illnesses, and fatalities through the inclusion of prevention considerations in all designs that impact workers (including health and public safety workers.) The national initiative has five strategic goals, 35 intermediate goals, and 52 research related activities. Many issues that are raised at various sector levels apply to more than one industry. The ultimate objective is to achieve a cultural change so that designing out occupational hazards is considered the norm. For more information...

34. NIH Pain Consortium Promotes Course Module on Chronic Pain
An online training module designed for the evaluation and care of chronic pain greatly improved clinical skills, according to a report in the Journal of the American Geriatrics Society. The module, built by the University of Pittsburgh and using an elderly woman with chronic lower back pain as a case study, is the first curriculum resource created through the efforts of the National Institutes of Health Pain Consortium’s Centers of Excellence in Pain Education program (CoEPEs). The program was developed in response to the Affordable Care Act’s mandate to advance the science, research, care and education of pain. For more information...

35. CDC Vaccine Schedules App for Clinicians and Other Immunization Providers
Healthcare professionals who recommend or administer vaccines can immediately access all CDC recommended immunization schedules and footnotes using the CDC Vaccine Schedules app. Optimized for tablets and useful on smartphones, the app shows the child, adolescent, and adult vaccines recommended by the Advisory Committee
on Immunization Practices (ACIP). The app visually mimics the printed schedules, which are reviewed and published annually. Users can identify correct vaccine, dosage, and timing with 2 or 3 clicks. Any changes in the schedules will be released through app updates. This app is one of an expanding collection of applications from CDC on a variety of specific topics, each optimized for your mobile device. For more information...

36. CMS Announces Resources on Comparative Billing Report on Ambulance: Ground Transportation
CMS issued a national provider Comparative Billing Report (CBR) on Ambulance: Ground Transportation on May 23, 2014. The CBR, produced by CMS contractor, eGlobalTech, contains data-driven tables and graphs with an explanation of findings that compare providers’ billing and payment patterns to those of their peers in the state and across the nation. The goal of these reports is to offer a tool that helps providers better understand applicable Medicare billing rules. (These reports are only available to the providers who receive them.) Providers are advised to update their fax numbers in the Medicare Provider Enrollment, Chain, and Ownership System (PECOS) because fax is the default method of CBR dissemination. Providers should contact the CBR Support Help Desk at 800-771-4430 or CBRsupport@eglobaltech.com if they prefer to receive CBRs through the U.S. Postal Service. For more information, please contact the CBR Support Help Desk or visit the CBR website. Register here for an informational webinar on the billing report- CBR201405 Provider Webinar - Ambulance Ground Transportation to be held on Wednesday, June 04, 2014 at 3:00 PM - 4:30 PM (Eastern Time). The session will be recorded and archived at http://www.cbrinfo.net/cbr201405-webinar.html two days following the event. FAQ’s are available here.

37. Saline Shortage Likely to Stretch into 2015
Several news outlets are reporting that the shortages of IV saline solution may continue through early next year. Novation, a large, privately held group-purchasing organization based in Irving, TX recently convened a symposium for industry I.V. solution suppliers, hospital supply chain, clinical and pharmacy professionals, as well as representatives from the University of Utah Drug Information Service and the Food and Drug Administration (FDA). For more information...

38. Field EMS Bill Introduced in Senate
S. 2400, the Field EMS Innovation Act (Field EMS Bill) was recently introduced in the U.S. Senate by Sen. Michael Bennet (D-Colo.), Sen. Mike Crapo (R-Idaho) and Sen. Tim Johnson (D-S.D.). This Senate bill is the companion to the Field EMS Bill introduced in the U.S. House of Representatives on February 26, 2013, as H.R. 809 by Congressman Larry Bucshon (R-Ind.). The Field EMS Bill addresses many of the challenges EMS systems face while trying to fulfill public expectations that all who need EMS can depend upon the highest quality of care and transport to the most appropriate clinical setting. The first bill to seriously look at EMS issues since the 1960s, the act would improve access to essential and life-saving EMS services and better integrate EMS within the larger health care system. The National Association of Emergency Medical Technicians (NAEMT) has taken the lead within the EMS community to support passage of this important legislation.

39. Delayed Epinephrine Increases Mortality in In-Hospital Arrests
Delayed administration of epinephrine for patients with in-hospital cardiac arrest is associated with increased mortality, according to a retrospective study in BMJ. Using a resuscitation registry, researchers identified 25,000 inpatients who had a cardiac arrest with a nonshockable rhythm (e.g., asystole or pulseless electrical activity). Only 10% survived to discharge. Mortality increased in a stepwise fashion as the time to epinephrine administration increased. When epinephrine was administered 10 minutes or more after recognition of cardiac arrest, there was a reduced chance of survival to discharge (odds ratio, 0.63), compared with administration within 1 to 3 minutes. Quicker administration of epinephrine was also associated with increased chance of return of spontaneous
circulation, 24-hour survival, and neurologically intact survival. The authors conclude: "When a patient is not in a shockable rhythm, current standard of care focuses on cardiopulmonary resuscitation only... With such a large proportion of cardiac arrests being nonshockable rhythms, future quality metrics could conceivably focus on shortening the time to administration of epinephrine in these patients." For more information...

UPCOMING EVENTS

PLEASE NOTE: CALENDAR ITEMS ARE ALWAYS WELCOME!!! Send to robinson@nasemso.org

***STATEWIDE EMS CONFERENCES***

Pennsylvania 37th Annual Statewide EMS Conference, August 13-15, 2014, Lancaster Marriott at Penn Square, Lancaster, PA. For more information...

Pennsylvania 37th Annual Statewide EMS Conference, September 17-19, 2014. Blair County Convention Center, Altoona, PA. For more information...


***National Conferences and Special Meetings***

**NAEMSE Instructor Course Level 1**

June 13-15, 2014        Bridgeport, CT
June 27-29, 2014        Manheim, PA

**NAEMSE Instructor Course Level 2**

July 11-12, 2014        Mount Gay, WV

For more information...

Pinnacle EMS Leadership and Management Conference. July 21-25, 2014. Scottsdale, AZ. For more information...


ITS America World Congress. September 7-11, 2014. Detroit Marriott at the Renaissance Center. Detroit, MI. For more information...
Public Meeting of the National EMS Advisory Council. September 9-10, 2014

NAEMSE Symposium. September 16-21, 2014. Peppermill Resort Hotel. Reno, NV. For more information...


NASEMSO Annual Meeting. October 6-10, 2014. Westin Cleveland and Cleveland Public Auditorium, Cleveland, OH. For more information...

ENA Annual Meeting. October 7-11, 2014. Indiana Convention Center. Indianapolis, IN. For more information...

ACEP Annual Meeting. October 27-October 30, 2014. Chicago, IL. For more information...

EMS Expo. November 9-13, 2014. Nashville, TN. For more information...


Public Meeting of the National EMS Advisory Council. December 3-4, 2014

See more EMS Events on NASEMSO’s web site at http://www.nasemso.org/Resources/Calendar/index.asp

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San Pablo: County health officials announce plan for downsized hospital

By Robert Rogers Contra Costa Times Contra Costa Times

SAN PABLO -- Hoping to open new possibilities for saving at least a portion of Doctors Medical Center San Pablo, health care board officials announced Monday they would rescind their notice of closure to county health officials and instead pursue a plan to at least sustain the hospital's 25-bed emergency department, the largest in West Contra Costa County.

"This buys us some time," said county Supervisor John Gioia. "We are pursuing multiple tracks to find the best solution."

The plan, revealed Monday at a town hall meeting attended by more than 100 people, includes asking the county Board of Supervisors on June 17 to approve a $6 million loan against future property tax revenues to the health care district, Gioia said. That funding would sustain the hospital for about four months while health care district officials continue to appeal to other area hospitals and private foundations for funding for a "more sustainable model," Gioia said.

At the same time, the board has commissioned a poll gauging voter support for a countywide sales tax hike to fund public safety and public health-related services that could save the hospital, which runs an annual operating deficit of about $18 million due to a poor payer mix.

"DMC suffers as a direct result of the nature of the population it serves, the elderly and the indigent," said hospital CEO Dawn Gideon. Most of the 40,000 people who flock to DMC's emergency department each year are covered by MediCare and MediCal, which pay low reimbursement rates. Better paying commercially insured patients in the area go to Kaiser Richmond and other regional hospitals.

The Affordable Care Act, which includes deep cuts to MediCare reimbursement rates, has exacerbated the problem, Gideon said, costing the hospital another $2.8 million this year.

"Each year DMC falls further behind," Gideon said.

Hospital officials are hopeful that the new plan, which could include significant reductions in hospital capacity or maintaining only a free-standing emergency room, will bring new funding to the table, particularly from other area hospitals that would be inundated with thousands of low-paying patients if DMC closes.

"We have a high degree of confidence that we're going to have some success," with the new plan, said West County Healthcare Director Eric Zell.

But nurses and doctors at DMC, who have held their own town halls in recent weeks and suggested they will take pay cuts to help save the hospital, were quick to decry any plan that would include deep cuts in services offered by the hospital.

"It's unacceptable," said nurse Maria Sahagun. "Without the heart attack center and other services, people will still die."
While Gioia acknowledged that a smaller hospital or free-standing emergency room would include "significant cuts" in DMC's 900-person workforce, he said the possibility had to be explored.

"The most possible outcome is a scaled down version of the hospital," Gioia said.

Monday's meeting at San Pablo City Hall was held by the Contra Costa Health Services' Emergency Medical Services Division as part of the legally-mandated process initiated whenever changes to hospital emergency services are proposed. It follows the failure of Measure C last month, a parcel tax aimed at saving the hospital that failed to get the two-thirds majority of voters required by state law. Two smaller parcel taxes were approved by voters in recent years, but those only narrowed the yawning deficit.

Several residents and local political officials spoke out, urging the county to do more to sustain the hospital in its current form.

Many had their own stories of family and friends who suffered heart attacks and other life-threatening emergencies and were treated at DMC over the years. Another common refrain was that the hospital's struggles were typical of a county they said placed a low priority on the public health services to residents in West County, which is poorer and more ethnically diverse than other parts of the county.

The hospital is the lone provider of advanced cardiac care for heart attack victims in West County, and its closure would leave the area with only 15 of the county's 242 emergency room beds.

"I hate to say this, but I know that if this was going on in Orinda, this wouldn't be happening," said Richmond Vice Mayor Jovanka Beckles. "A solution would be found."